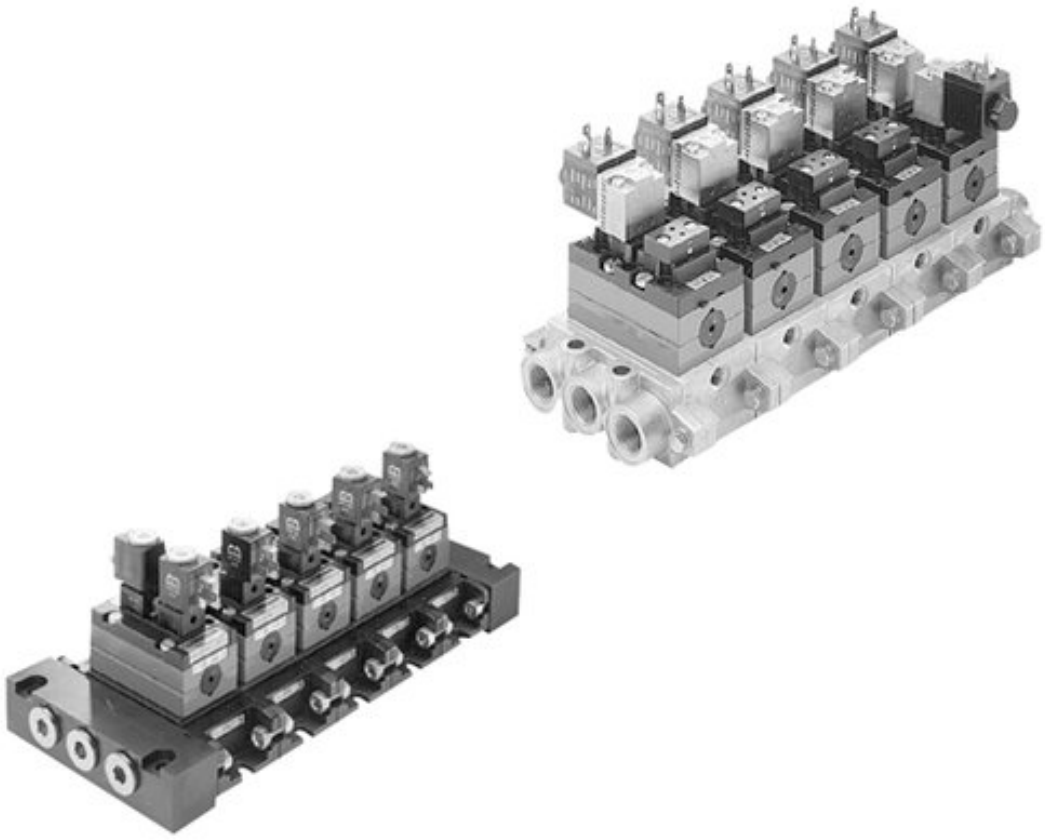
Series 581, size 3

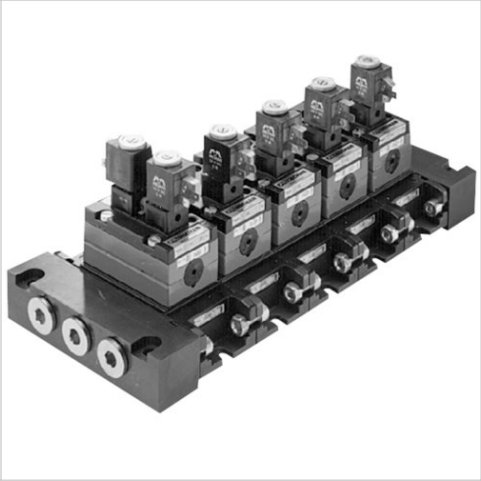


AVENTICS™ Series 581, size 3

EMERSON.

Valve system, Series 581, size 3

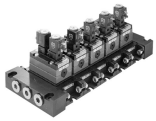
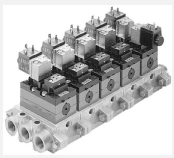
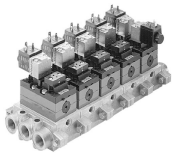
- Configurable valve systems



Blocking principle	Single base plate principle
Standards	ISO 5599-1, ISO 3
Working pressure min./max.	-0.95 ... 10 bar
Ambient temperature min./max.	-15 ... 50 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow Qn	4100 l/min
Voltage tolerance DC	-10% / +10%
Voltage tolerance AC 50 Hz	-10% / +10%

An example configuration is illustrated. The delivered product may thus deviate from the illustration.

Overview of variants

	Version	You have the following options:
	22 mm pilot valve width	Compressed air connection output Base plate ISO 5599-1 Electrical connection Single plug-in wiring Valve plug connector form B industry Manual override: with detent
	30 mm CNOMO pilot valve width	Compressed air connection output Base plate ISO 5599-1 Electrical connection Single plug-in wiring Manual override: with detent
	30 mm CNOMO pilot valve width	Compressed air connection output Base plate ISO 5599-1 manual override: without detent
	Pneumatically operated	Compressed air connection output Base plate ISO 5599-1

Technical information

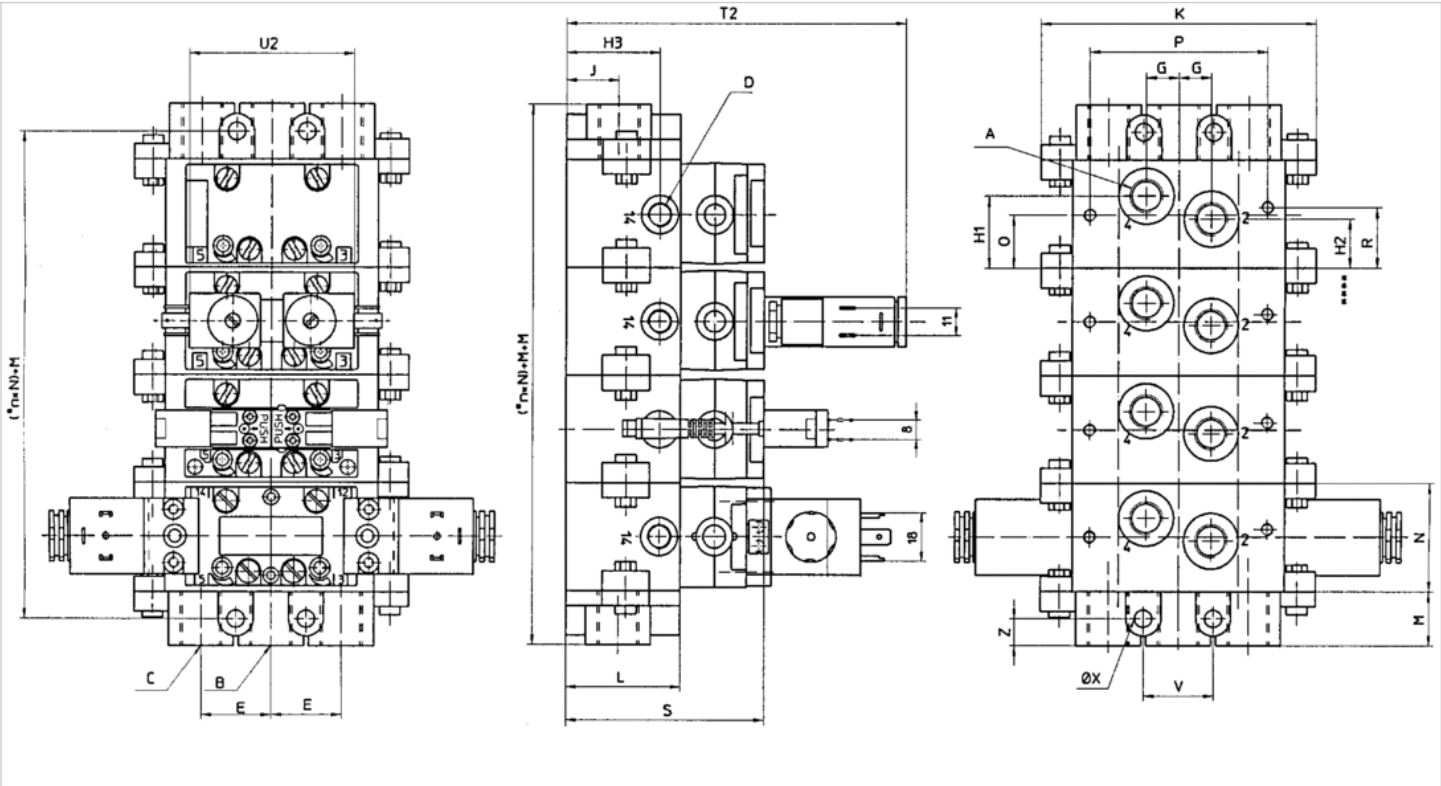
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Plug box	Polyamide fiber-glass reinforced

Dimensions

Dimensions, ports 2 and 4 on bottom, Ports 12 and 14 on side



* n = Number of subbases
An example configuration is illustrated. The delivered product may thus deviate from the illustration.

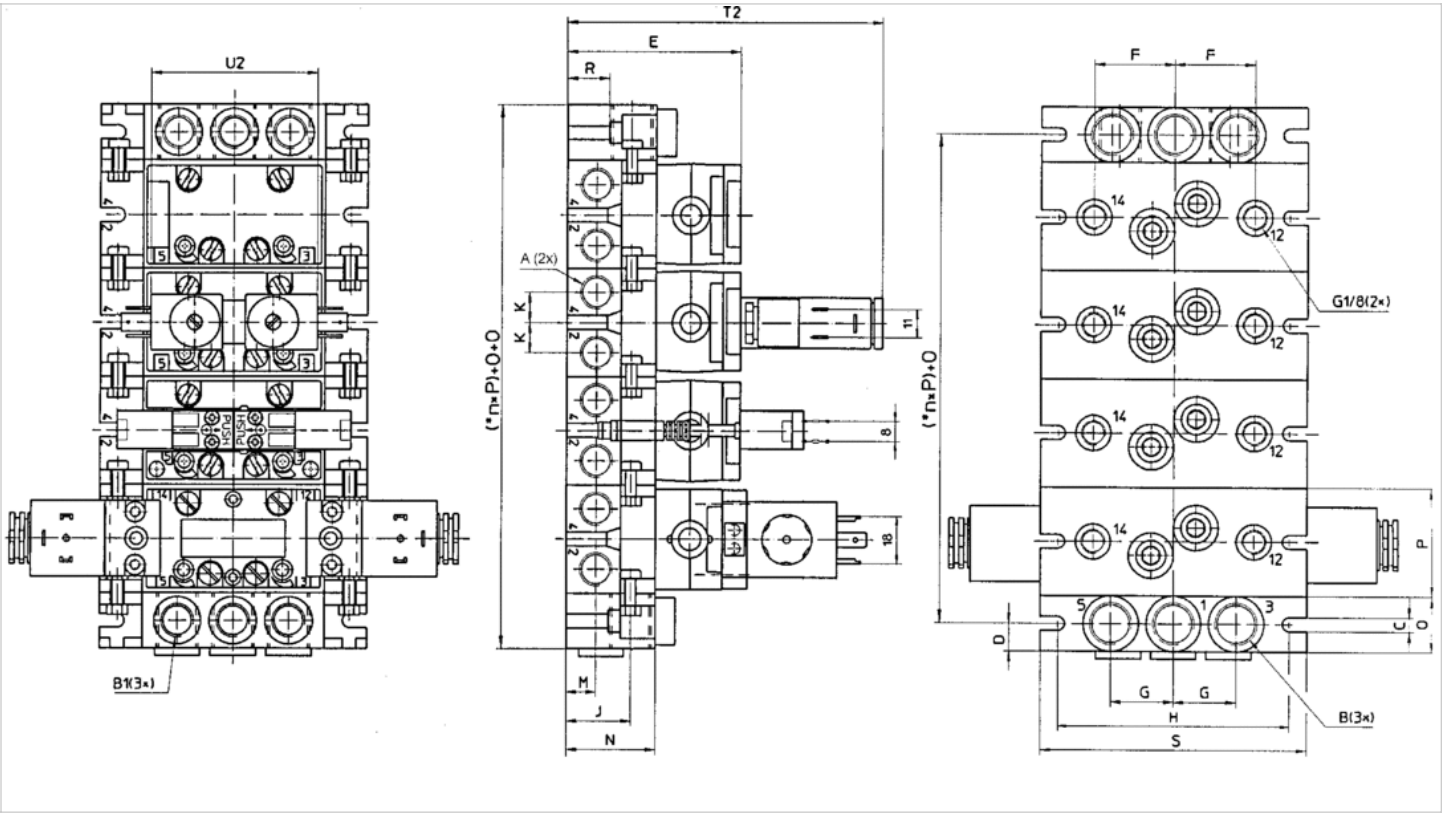
Dimensions

A	G 1/2
B	G 1
C	G 3/4
D	G 1
E	52
G	19
H1	43.5
H2	29.5
H3	46
J	22
K	190
L	56

N	71
Q	35.5
S	113
X	12
T2	164

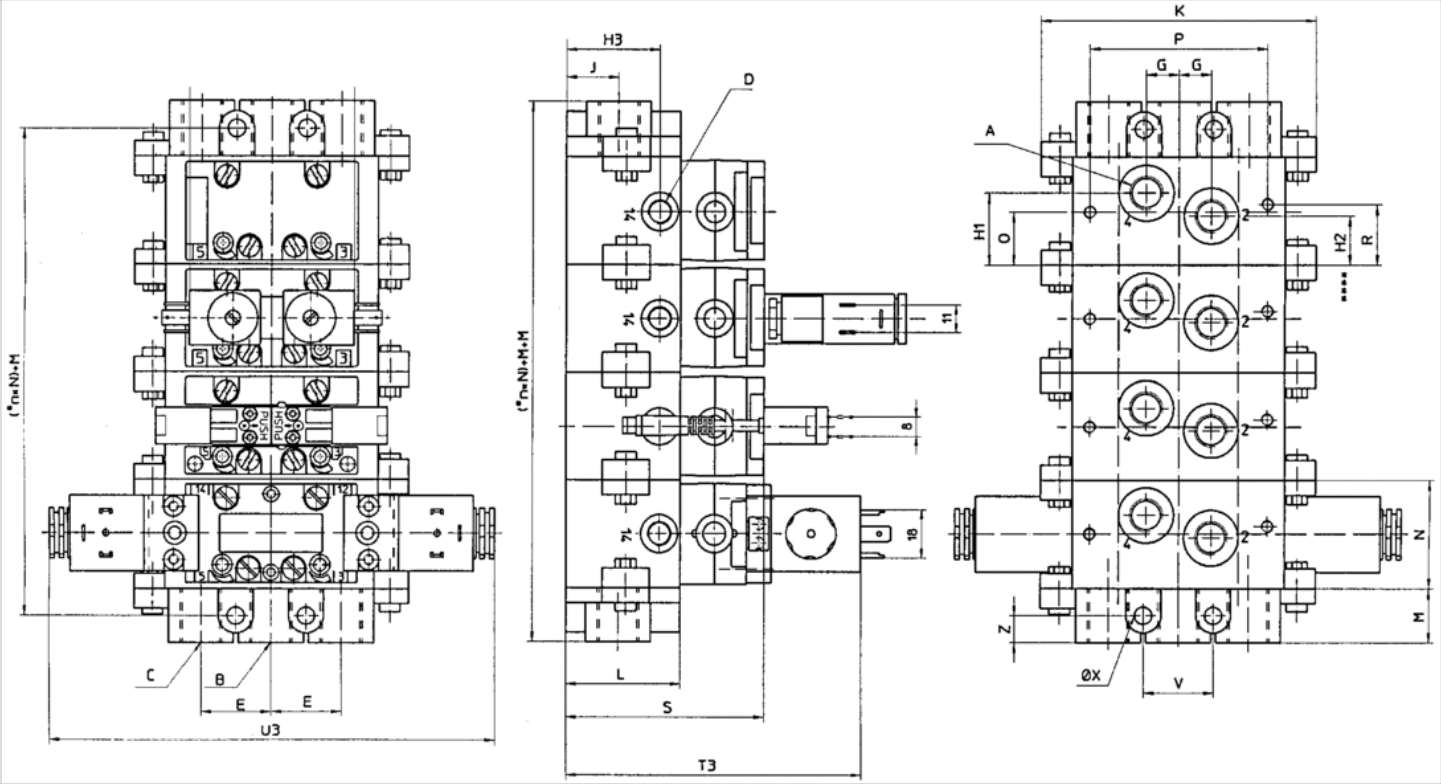
Dimensions

Dimensions, ports 2 and 4 on side, ports 12 and 14 on bottom



* n = Number of subbases
An example configuration is illustrated. The delivered product may thus deviate from the illustration.

Dimensions, ports 2 and 4 on bottom, Ports 12 and 14 on side



* n = Number of subbases
An example configuration is illustrated. The delivered product may thus deviate from the illustration.

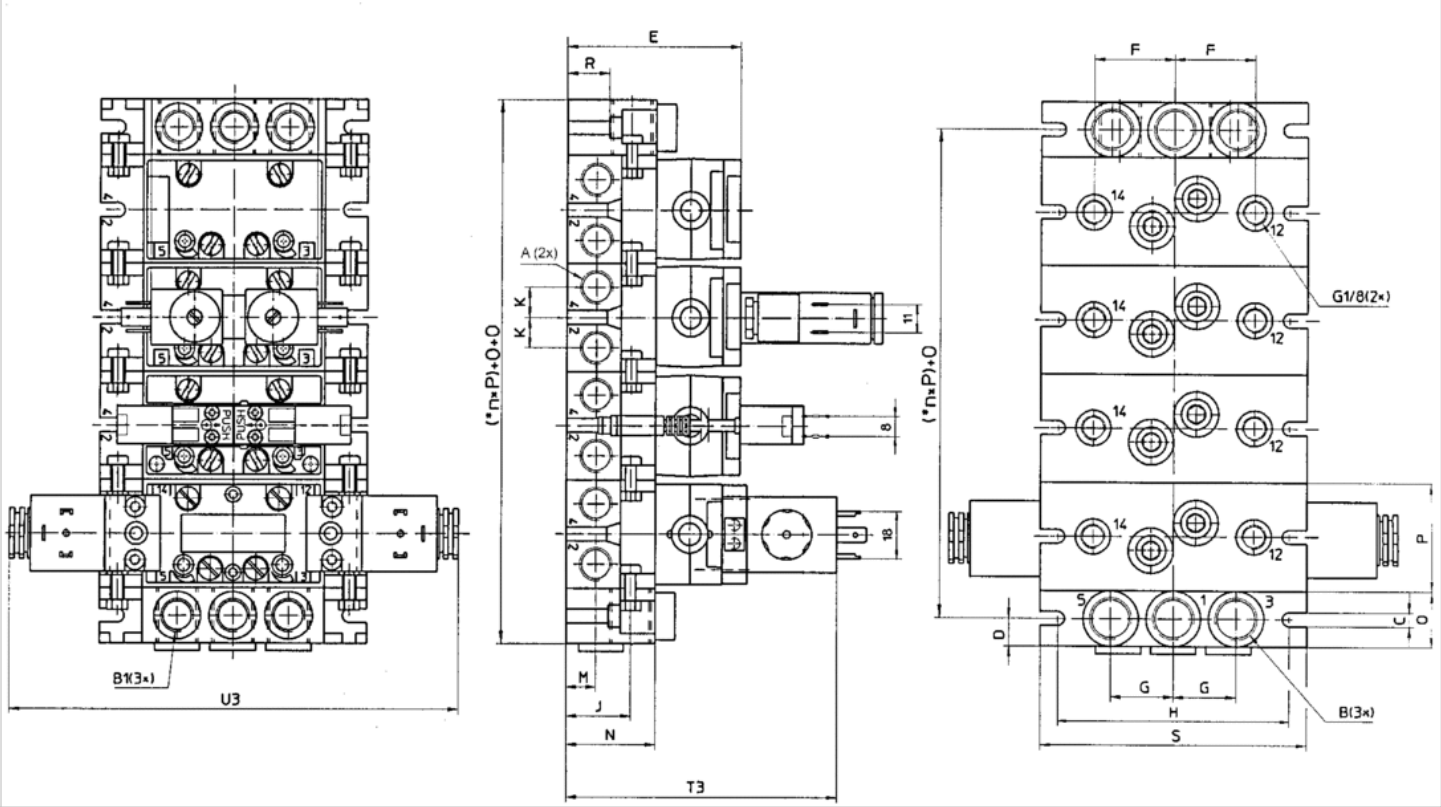
Dimensions

A	G 1/2
B	G 1
C	G 3/4
D	G 1
E	52
G	19
H1	43.5
H2	29.5
H3	46
J	22
K	190
L	56
M	30
N	71
P	130
Q	35.5
R	38.5
S	113
V	52
X	12
Z	15
T3	154

A	G 1/2
U3	131

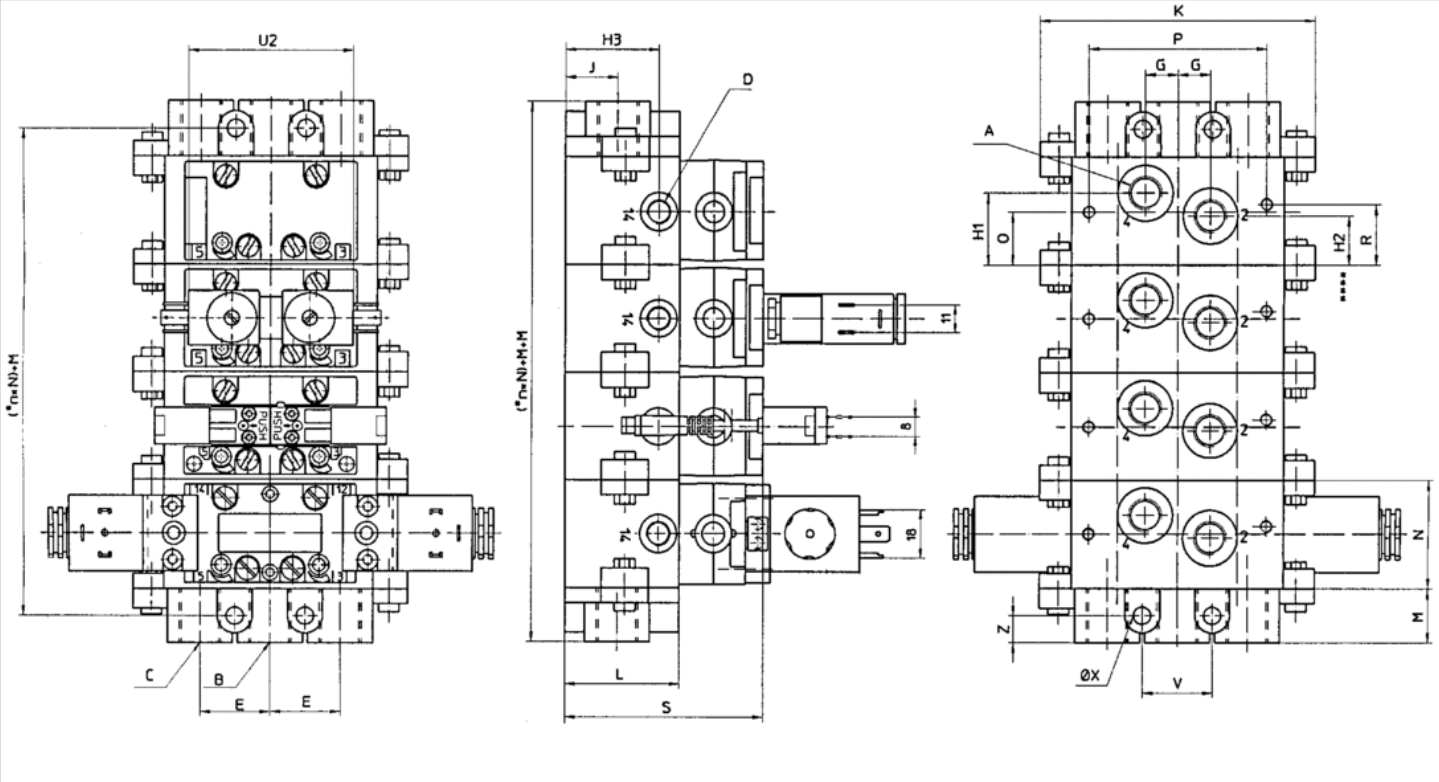
Dimensions

Dimensions, ports 2 and 4 on side, ports 12 and 14 on bottom



* n = Number of subbases
An example configuration is illustrated. The delivered product may thus deviate from the illustration.

Dimensions, ports 2 and 4 on bottom, Ports 12 and 14 on side



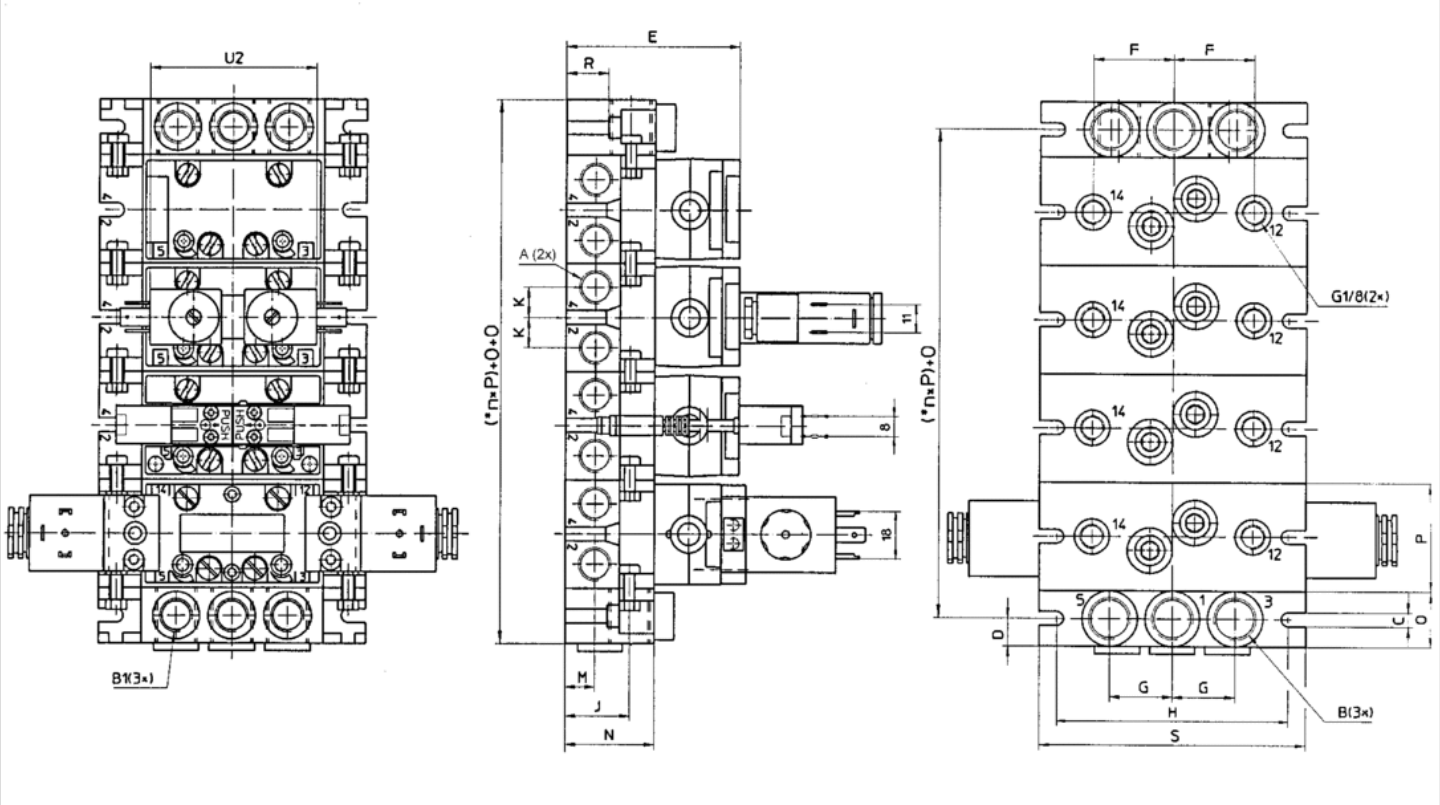
* n = Number of subbases
An example configuration is illustrated. The delivered product may thus deviate from the illustration.

Dimensions

A	G 1/2
B	G 1
C	G 1
D	G 1/8
E	52
G	19
H1	43.5
H2	29.5
H3	46
J	22
K	190
L	56
M	30
N	71
P	130
Q	35.5
R	38.5
S	111
V	52
X	12
Z	15
U2	118

Dimensions

Dimensions, ports 2 and 4 on side, ports 12 and 14 on bottom



* n = Number of subbases
An example configuration is illustrated. The delivered product may thus deviate from the illustration.

5/2-directional valve, Series 581, size 3

- ISO 5599-1
- ISO 3
- 5/2
- With spring return
- single solenoid
- Qn = 4800 l/min
- Compressed air connection output Base plate ISO 5599-1
- Electrical connection Plug, M12, 4-pin
- Manual override without detent with detent

Version	Spool valve
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Connection type	Plate connection
Standards	ISO 5599-1, ISO 3
Working pressure min./max.	See table below
Control pressure min./max.	2.8 ... 10 bar
Ambient temperature min./max.	-10 ... 60 °C
Medium temperature min./max.	-10 ... 60 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow Qn	4800 l/min
Flow conductance C	18.9 l/(s*bar)
Protection class with connection	IP65
Protective circuit	Z-diode
LED status display	Yellow
Duty cycle	100 %
Typ. switch-on time	22 ms
Typ. switch-off time	54 ms
Mounting screw	with hexagon socket
Mounting screw tightening torque	10 Nm
Weight	0.9 kg

Technical data

Part No.		MO	Operational voltage DC	Voltage tolerance DC
5813110720			24 V	-10% / +10%
5813111720			24 V	-10% / +10%
5813110710			24 V	-10% / +10%
5813111710			24 V	-10% / +10%
5813112720			24 V	-10% / +10%
5813112710			24 V	-10% / +10%
5813113710			24 V	-10% / +10%

5813110720	0.35 W	Internal	2.8 ... 10 bar
5813110710	0.35 W	Internal	2.8 ... 10 bar
5813112720	0.35 W	External	-0.95 ... 10 bar
5813113710	0.35 W	External	-0.95 ... 10 bar

5813110720	Plug M12 4-pin	-
5813110710	Plug M12 4-pin	-
5813112720	Plug M12 4-pin	-
5813113710	Plug M12 4-pin	with throttle

Connection 12 must be connected with atmospheres, Nominal flow Qn at 6 bar and Δp = 1 bar, MO = Manual override

Technical information

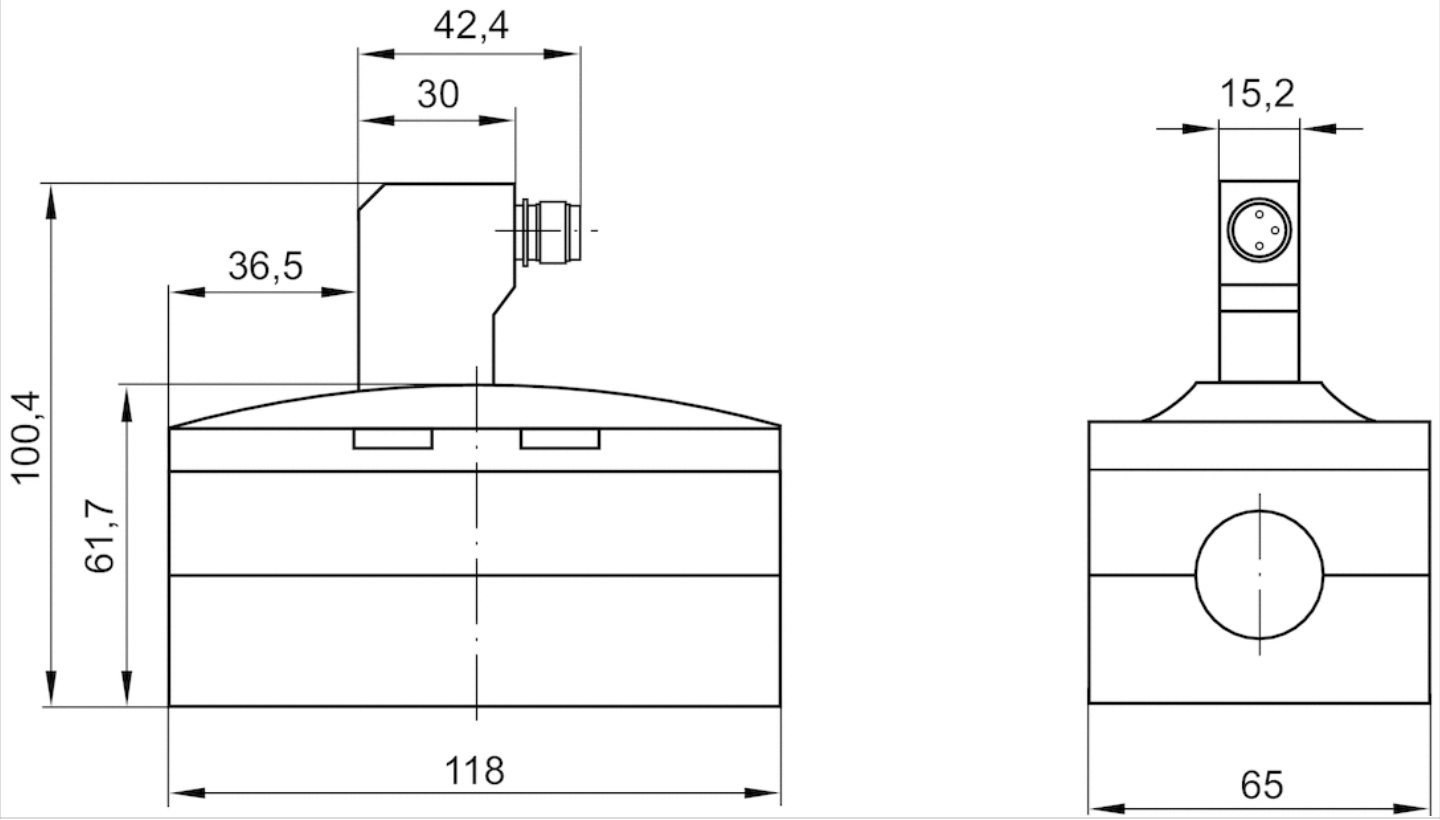
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Housing	Aluminum

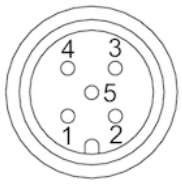
Dimensions

Dimensions



Pin assignments

Pin assignments



M12 contact assignment
contact 1: not assigned
contact 2: 24 V DC/coil 12
contact 3: 0 V
contact 4: 24 V DC/coil 14
contact 5: not assigned

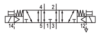
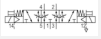
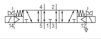
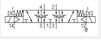
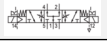
5/3-directional valve, Series 581, size 3

- ISO 5599-1
- ISO 3
- 5/3
- closed center pressurized center
- Qn = 4100 l/min
- Compressed air connection output Base plate ISO 5599-1
- Electrical connection Plug, M12, 4-pin
- Manual override without detent with detent

Version	Spool valve
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Connection type	Plate connection
Standards	ISO 5599-1, ISO 3
Working pressure min./max.	See table below
Control pressure min./max.	3.2 ... 10 bar
Ambient temperature min./max.	-10 ... 60 °C
Medium temperature min./max.	-10 ... 60 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow Qn	4100 l/min
Flow conductance C	14.1 l/(s*bar)
Protection class with connection	IP65
Protective circuit	Z-diode
LED status display	Yellow
Duty cycle	100 %
Typ. switch-on time	24 ms
Typ. switch-off time	48 ms
Mounting screw	with hexagon socket
Mounting screw tightening torque	10 Nm
Weight	0.9 kg

Technical data

Part No.			MO	Operational voltage DC
5813420720		closed center		24 V
5813421720		closed center		24 V
5813420710		closed center		24 V
5813421710		closed center		24 V
5813422720		closed center		24 V
5813423720		closed center		24 V
5813422710		closed center		24 V
5813423710		closed center		24 V
5813520720		closed center		24 V
5813521720		closed center		24 V

Part No.			MO	Operational voltage DC
5813520710		closed center		24 V
5813521710		closed center		24 V
5813522720		closed center		24 V
5813523720		closed center		24 V
5813522710		closed center		24 V
5813523710		closed center		24 V
5813720720		pressurized center		24 V
5813721720		pressurized center		24 V
5813720710		pressurized center		24 V
5813721710		pressurized center		24 V
5813722720		pressurized center		24 V
5813723720		pressurized center		24 V
5813722710		pressurized center		24 V
5813723710		pressurized center		24 V

Part No.	Voltage tolerance DC	Power consumption DC	Pilot	Working pressure min./max.
5813420720	-10% / +10%	0.35 W	Internal	3.2 ... 10 bar
5813421720	-10% / +10%	0.35 W	Internal	3.2 ... 10 bar
5813420710	-10% / +10%	0.35 W	Internal	3.2 ... 10 bar
5813421710	-10% / +10%	0.35 W	Internal	3.2 ... 10 bar
5813422720	-10% / +10%	0.35 W	External	-0.95 ... 10 bar
5813423720	-10% / +10%	0.35 W	External	-0.95 ... 10 bar
5813422710	-10% / +10%	0.35 W	External	-0.95 ... 10 bar
5813423710	-10% / +10%	0.35 W	External	-0.95 ... 10 bar
5813520720	-10% / +10%	0.35 W	Internal	3.2 ... 10 bar
5813521720	-10% / +10%	0.35 W	Internal	3.2 ... 10 bar
5813520710	-10% / +10%	0.35 W	Internal	3.2 ... 10 bar
5813521710	-10% / +10%	0.35 W	Internal	3.2 ... 10 bar
5813522720	-10% / +10%	0.35 W	External	-0.95 ... 10 bar
5813523720	-10% / +10%	0.35 W	External	-0.95 ... 10 bar
5813522710	-10% / +10%	0.35 W	External	-0.95 ... 10 bar
5813523710	-10% / +10%	0.35 W	External	-0.95 ... 10 bar
5813720720	-10% / +10%	0.35 W	Internal	3.2 ... 10 bar
5813721720	-10% / +10%	0.35 W	Internal	3.2 ... 10 bar
5813720710	-10% / +10%	0.35 W	Internal	3.2 ... 10 bar
5813721710	-10% / +10%	0.35 W	Internal	3.2 ... 10 bar
5813722720	-10% / +10%	0.35 W	External	-0.95 ... 10 bar
5813723720	-10% / +10%	0.35 W	External	-0.95 ... 10 bar
5813722710	-10% / +10%	0.35 W	External	-0.95 ... 10 bar
5813723710	-10% / +10%	0.35 W	External	-0.95 ... 10 bar

Part No.	Electrical connection Pilot valve	Throttle
5813420720	Plug M12 4-pin	-
5813421720	Plug M12 4-pin	with throttle

5813420710	Plug M12 4-pin	-
5813422720	Plug M12 4-pin	-
5813422710	Plug M12 4-pin	-
5813520720	Plug M12 4-pin	-
5813520710	Plug M12 4-pin	-
5813522720	Plug M12 4-pin	-
5813522710	Plug M12 4-pin	-
5813720720	Plug M12 4-pin	-
5813720710	Plug M12 4-pin	-
5813722720	Plug M12 4-pin	-
5813722710	Plug M12 4-pin	-

Connection 12 must be connected with atmospheres, Nominal flow Qn at 6 bar and Δp = 1 bar, MO = Manual override

Technical information

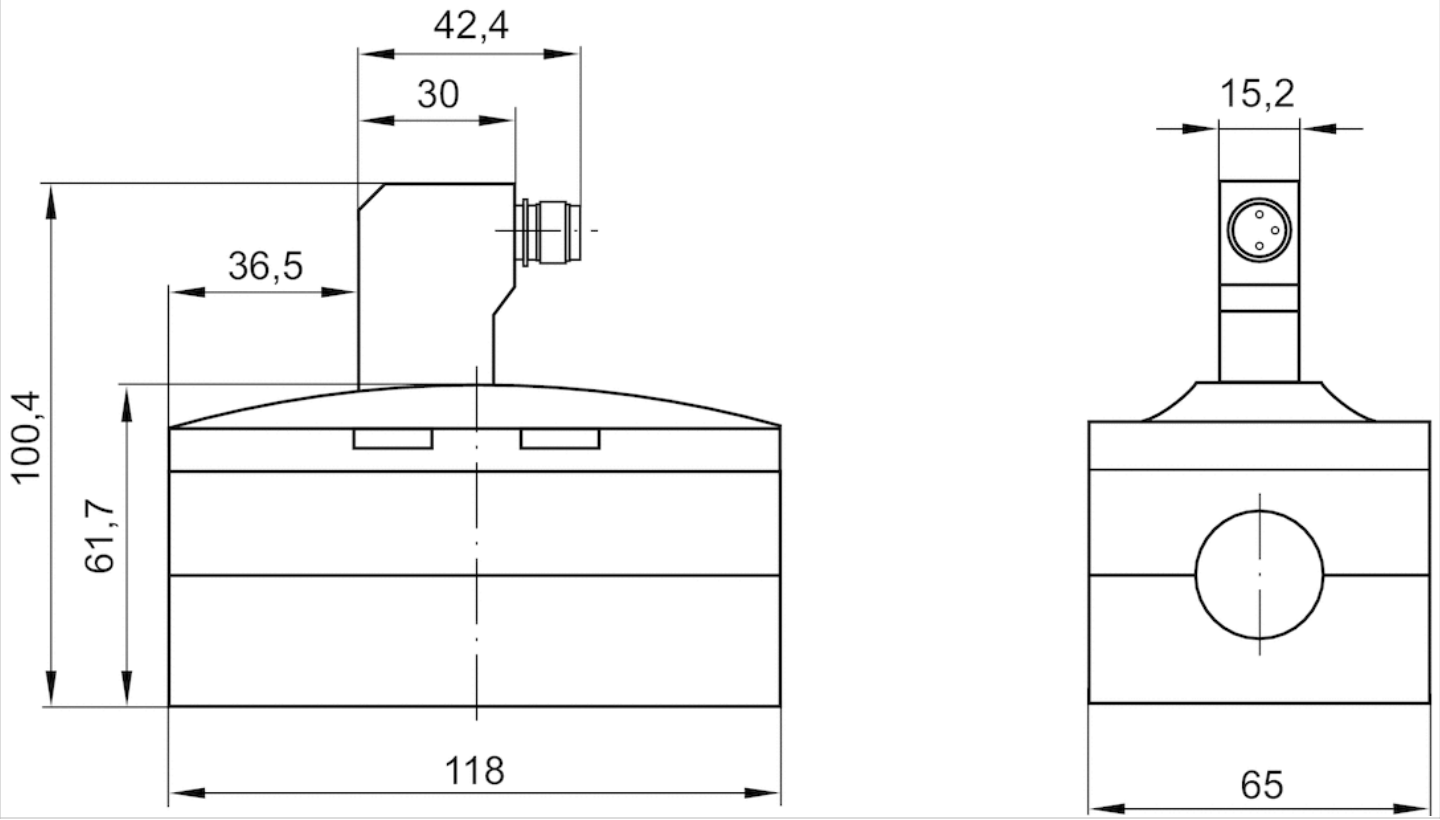
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Housing	Aluminum

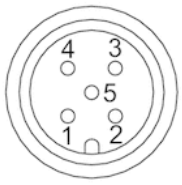
Dimensions

Dimensions



Pin assignments

Pin assignments



M12 contact assignment
contact 1: not assigned
contact 2: 24 V DC/coil 12
contact 3: 0 V
contact 4: 24 V DC/coil 14
contact 5: not assigned

5/2-directional valve, Series 581, size 3

- ISO 5599-1
- ISO 3
- 5/2
- double solenoid
- Qn = 4800 l/min
- Compressed air connection output Base plate ISO 5599-1
- Electrical connection Plug, M12, 4-pin
- Manual override without detent with detent

Version	Spool valve
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Connection type	Plate connection
Standards	ISO 5599-1, ISO 3
Working pressure min./max.	See table below
Control pressure min./max.	1.7 ... 10 bar
Ambient temperature min./max.	-10 ... 60 °C
Medium temperature min./max.	-10 ... 60 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow Qn	4800 l/min
Flow conductance C	18.9 l/(s*bar)
Protection class with connection	IP65
Protective circuit	Z-diode
LED status display	Yellow
Duty cycle	100 %
Typ. switch-on time	16 ms
Typ. switch-off time	16 ms
Mounting screw	with hexagon socket
Mounting screw tightening torque	10 Nm
Weight	0.9 kg

Technical data

Part No.		MO	Operational voltage DC	Voltage tolerance DC
5813220720			24 V	-10% / +10%
5813221720			24 V	-10% / +10%
5813220710			24 V	-10% / +10%
5813221710			24 V	-10% / +10%
5813222720			24 V	-10% / +10%
5813223720			24 V	-10% / +10%
5813222710			24 V	-10% / +10%
5813223710			24 V	-10% / +10%

5813220720	0.35 W	Internal	1.7 ... 10 bar
5813220710	0.35 W	Internal	1.7 ... 10 bar
5813222720	0.35 W	External	-0.95 ... 10 bar
5813222710	0.35 W	External	-0.95 ... 10 bar

5813220720	Plug M12 4-pin	-
5813220710	Plug M12 4-pin	-
5813222720	Plug M12 4-pin	-
5813222710	Plug M12 4-pin	-

Connection 12 must be connected with atmospheres, Nominal flow Qn at 6 bar and Δp = 1 bar, MO = Manual override

Technical information

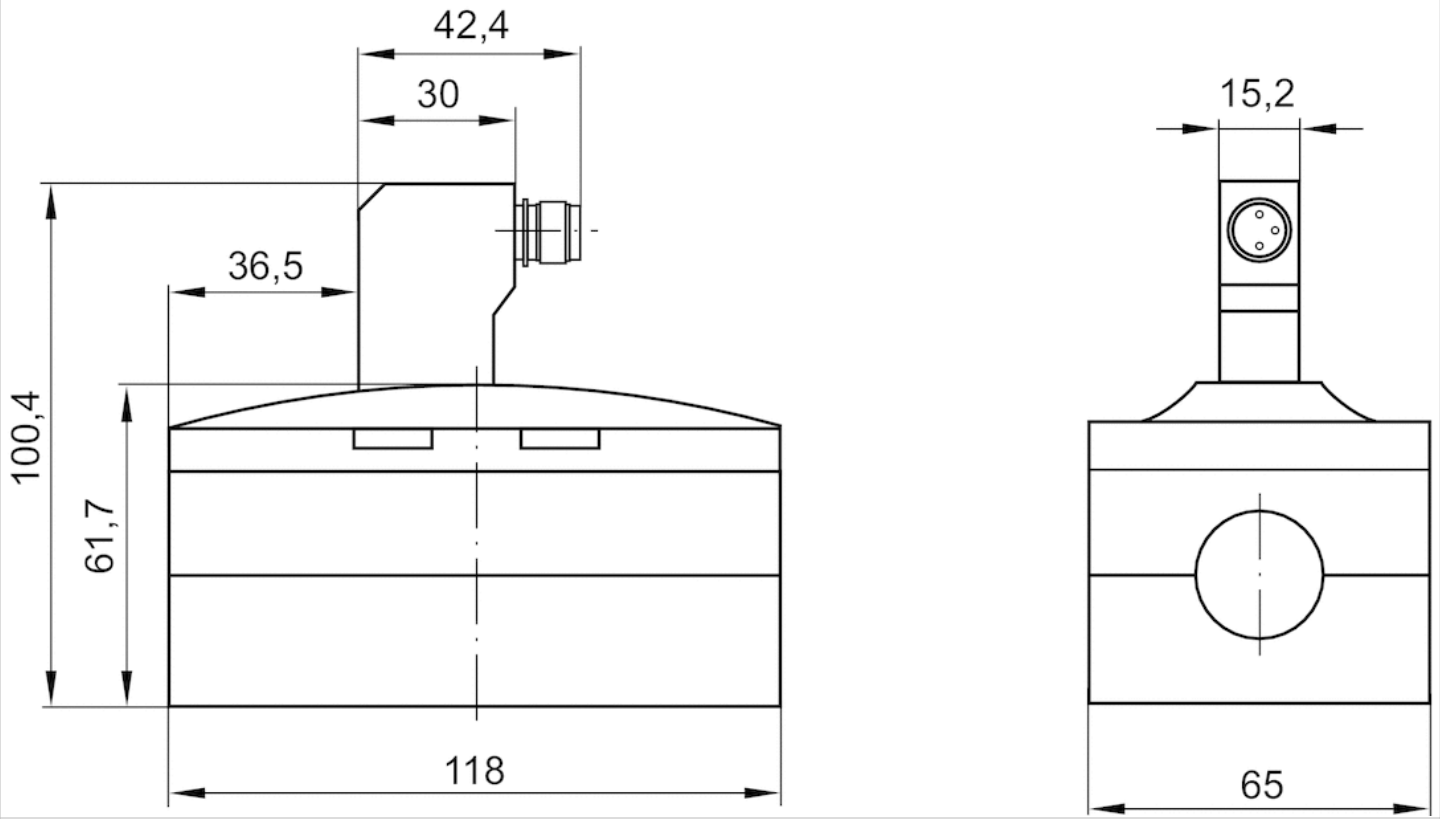
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Housing	Aluminum

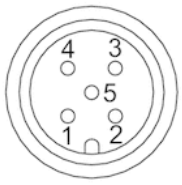
Dimensions

Dimensions



Pin assignments

Pin assignments



M12 contact assignment
contact 1: not assigned
contact 2: 24 V DC/coil 12
contact 3: 0 V
contact 4: 24 V DC/coil 14
contact 5: not assigned

5/2-directional valve, Series 581, size 3

- ISO 5599-1
- ISO 3
- 5/2
- With differential piston
- With air spring return
- Qn = 4800 l/min
- Compressed air connection output Base plate ISO 5599-1
- Electrical connection Plug, M12, 4-pin
- Manual override without detent with detent

Version	Spool valve
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Connection type	Plate connection
Standards	ISO 5599-1, ISO 3
Working pressure min./max.	See table below
Control pressure min./max.	2.3 ... 10 bar
Ambient temperature min./max.	-10 ... 60 °C
Medium temperature min./max.	-10 ... 60 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow Qn	4800 l/min
Flow conductance C	18.9 l/(s*bar)
Protection class with connection	IP65
Protective circuit	Z-diode
LED status display	Yellow
Duty cycle	100 %
Typ. switch-on time	22 ms
Typ. switch-off time	54 ms
Mounting screw	with hexagon socket
Mounting screw tightening torque	10 Nm
Weight	0.9 kg

Technical data

Part No.		MO	Operational voltage DC	Voltage tolerance DC
5813610720			24 V	-10% / +10%
5813611720			24 V	-10% / +10%
5813610710			24 V	-10% / +10%
5813611710			24 V	-10% / +10%
5813612720			24 V	-10% / +10%
5813613720			24 V	-10% / +10%
5813612710			24 V	-10% / +10%
5813613710			24 V	-10% / +10%

5813610720	0.35 W	Internal	2.3 ... 10 bar
5813610710	0.35 W	Internal	2.3 ... 10 bar
5813612720	0.35 W	External	-0.95 ... 10 bar
5813612710	0.35 W	External	-0.95 ... 10 bar

5813610720	Plug M12 4-pin	-
5813610710	Plug M12 4-pin	-
5813612720	Plug M12 4-pin	-
5813612710	Plug M12 4-pin	-

Differential piston, signal 14 has priority, Connection 12 must be connected with atmospheres, Nominal flow Qn at 6 bar and Δp = 1 bar, MO = Manual override

Technical information

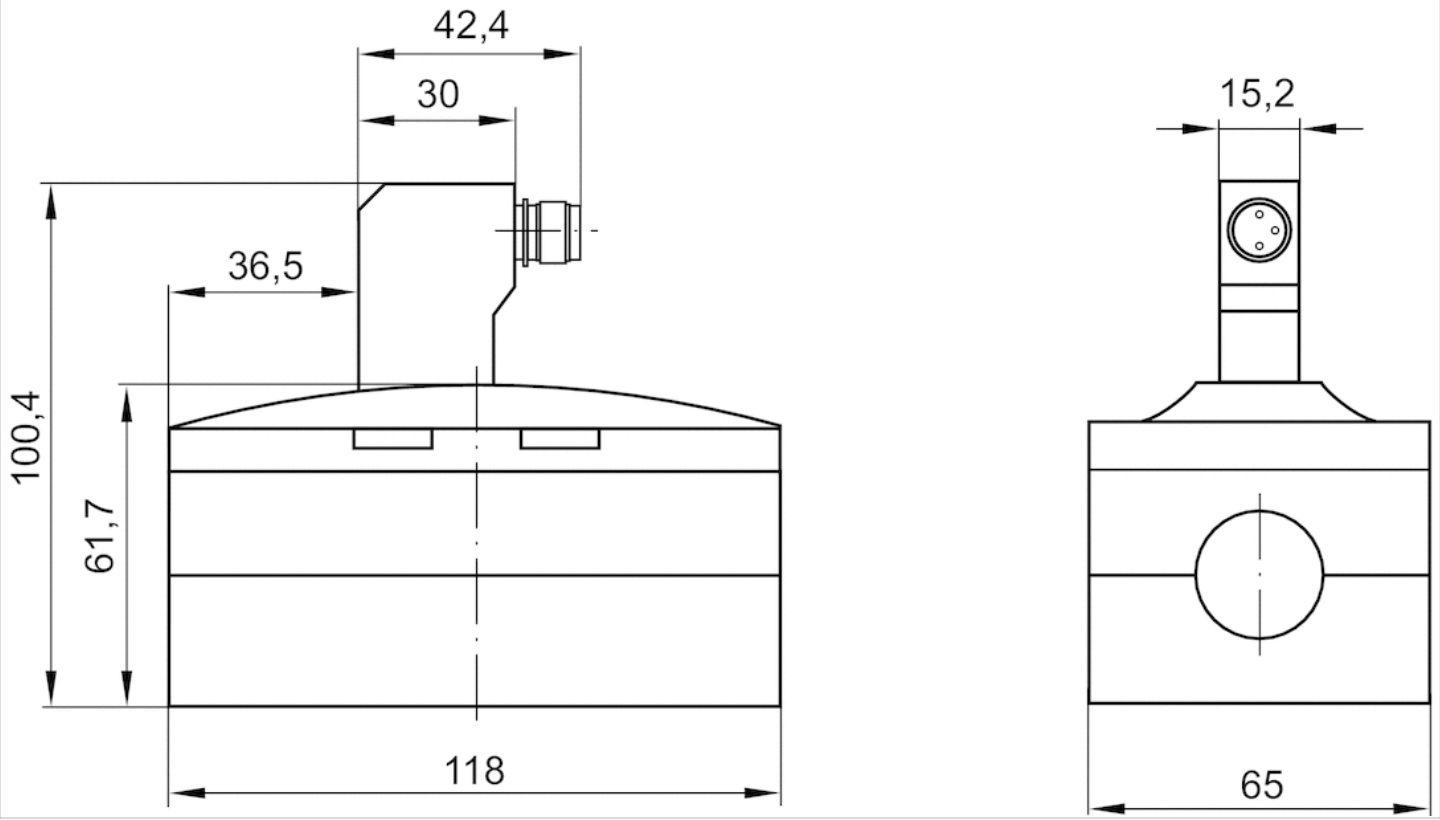
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Housing	Aluminum

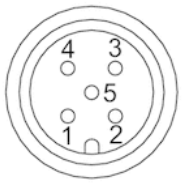
Dimensions

Dimensions



Pin assignments

Pin assignments



M12 contact assignment
contact 1: not assigned
contact 2: 24 V DC/coil 12
contact 3: 0 V
contact 4: 24 V DC/coil 14
contact 5: not assigned

5/2-directional valve, Series 581, size 3

- ISO 5599-1
- ISO 3
- 5/2
- With spring return
- single solenoid
- Qn = 4800 l/min
- Compressed air connection output Base plate ISO 5599-1
- Electrical connection Plug, Form B, industry
- Manual override with detent

Version	Spool valve
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Connection type	Plate connection
Standards	ISO 5599-1, ISO 3
Working pressure min./max.	See table below
Control pressure min./max.	3 ... 10 bar
Ambient temperature min./max.	-15 ... 50 °C
Medium temperature min./max.	-15 ... 50 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow Qn	4800 l/min
Flow conductance C	18.9 l/(s*bar)
Protection class with connection	IP65
Duty cycle	100 %
Typ. switch-on time	19 ms
Typ. switch-off time	71 ms
Mounting screw	with hexagon socket
Mounting screw tightening torque	10 Nm
Weight	0.93 kg

Technical data

Part No.		MO	Operational voltage DC	Operational voltage AC 50 Hz
5813110500			12 V	-
5813110200			-	24 V
5813110100			24 V	-
5813110600			48 V	-
5813110300			-	-
5813110400			-	230 V
5813110000			-	-
5813111500			12 V	-
5813111200			-	24 V
5813111100			24 V	-
5813111600			48 V	-
5813111300			-	-
5813111400			-	230 V
5813111000			-	-
5813112500			12 V	-
5813112200			-	24 V
5813112100			24 V	-
5813112600			48 V	-
5813112300			-	-
5813112400			-	230 V
5813112000			-	-
5813113500			12 V	-
5813113200			-	24 V
5813113100			24 V	-
5813113600			48 V	-
5813113300			-	-
5813113400			-	230 V
5813113000			-	-

Part No.	Operational voltage AC 60 Hz	Voltage tolerance DC	Voltage tolerance AC 50 Hz	Voltage tolerance AC 60 Hz
5813110500	-	-10% / +10%	-	-
5813110200	-	-	-10% / +10%	-
5813110100	-	-10% / +10%	-	-
5813110600	-	-10% / +10%	-	-
5813110300	110 V	-	-	-10% / +10%
5813110400	-	-	-10% / +10%	-
5813110000	-	-	-	-
5813111500	-	-10% / +10%	-	-
5813111200	-	-	-10% / +10%	-
5813111100	-	-10% / +10%	-	-
5813111600	-	-10% / +10%	-	-
5813111300	110 V	-	-	-10% / +10%

Part No.	Operational voltage AC 60 Hz	Voltage tolerance DC	Voltage tolerance AC 50 Hz	Voltage tolerance AC 60 Hz
5813111400	-	-	-10% / +10%	-
5813111000	-	-	-10% / +10%	-
5813112500	-	-10% / +10%	-	-
5813112200	-	-	-10% / +10%	-
5813112100	-	-10% / +10%	-	-
5813112600	-	-10% / +10%	-	-
5813112300	110 V	-	-	-10% / +10%
5813112400	-	-	-10% / +10%	-
5813112000	-	-	-10% / +10%	-
5813113500	-	-10% / +10%	-	-
5813113200	-	-	-10% / +10%	-
5813113100	-	-10% / +10%	-	-
5813113600	-	-10% / +10%	-	-
5813113300	110 V	-	-	-10% / +10%
5813113400	-	-	-10% / +10%	-
5813113000	-	-	-10% / +10%	-

Part No.	Power consumption DC	Holding power AC 50 Hz	Holding power AC 60 Hz	Switch-on power AC 50 Hz
5813110500	5 W	-	-	-
5813110200	-	8 VA	-	10 VA
5813110100	5 W	-	-	-
5813110600	5 W	-	-	-
5813110300	-	-	8 VA	-
5813110400	-	8 VA	-	10 VA
5813110000	-	-	-	-
5813111500	5 W	-	-	-
5813111200	-	8 VA	-	10 VA
5813111100	5 W	-	-	-
5813111600	5 W	-	-	-
5813111300	-	-	8 VA	-
5813111400	-	8 VA	-	10 VA
5813111000	-	-	-	-
5813112500	5 W	-	-	-
5813112200	-	8 VA	-	10 VA
5813112100	5 W	-	-	-
5813112600	5 W	-	-	-
5813112300	-	-	8 VA	-
5813112400	-	8 VA	-	10 VA
5813112000	-	-	-	-
5813113500	5 W	-	-	-
5813113200	-	8 VA	-	10 VA
5813113100	5 W	-	-	-
5813113600	5 W	-	-	-
5813113300	-	-	8 VA	-
5813113400	-	8 VA	-	10 VA
5813113000	-	-	-	-

Part No.	Switch-on power AC 60 Hz	Pilot	Working pressure min./max.	Electrical connection Pilot valve
5813110500	-	Internal	3 ... 10 bar	Plug Form B, industry
5813110200	-	Internal	3 ... 10 bar	Plug Form B, industry
5813110100	-	Internal	3 ... 10 bar	Plug Form B, industry
5813110600	-	Internal	3 ... 10 bar	Plug Form B, industry
5813110300	10 VA	Internal	3 ... 10 bar	Plug Form B, industry
5813110400	-	Internal	3 ... 10 bar	Plug Form B, industry
5813110000	-	Internal	3 ... 10 bar	Plug Form B, industry
5813111500	-	Internal	3 ... 10 bar	Plug Form B, industry
5813111200	-	Internal	3 ... 10 bar	Plug Form B, industry
5813111100	-	Internal	3 ... 10 bar	Plug Form B, industry
5813111600	-	Internal	3 ... 10 bar	Plug Form B, industry
5813111300	10 VA	Internal	3 ... 10 bar	Plug Form B, industry
5813111400	-	Internal	3 ... 10 bar	Plug Form B, industry
5813111000	-	Internal	3 ... 10 bar	Plug Form B, industry
5813112500	-	External	-0.95 ... 10 bar	Plug Form B, industry
5813112200	-	External	-0.95 ... 10 bar	Plug Form B, industry
5813112100	-	External	-0.95 ... 10 bar	Plug Form B, industry
5813112600	-	External	-0.95 ... 10 bar	Plug Form B, industry
5813112300	10 VA	External	-0.95 ... 10 bar	Plug Form B, industry
5813112400	-	External	-0.95 ... 10 bar	Plug Form B, industry
5813112000	-	External	-0.95 ... 10 bar	Plug Form B, industry
5813113500	-	External	-0.95 ... 10 bar	Plug Form B, industry
5813113200	-	External	-0.95 ... 10 bar	Plug Form B, industry
5813113100	-	External	-0.95 ... 10 bar	Plug Form B, industry
5813113600	-	External	-0.95 ... 10 bar	Plug Form B, industry
5813113300	10 VA	External	-0.95 ... 10 bar	Plug Form B, industry
5813113400	-	External	-0.95 ... 10 bar	Plug Form B, industry
5813113000	-	External	-0.95 ... 10 bar	Plug Form B, industry

Part No.	basic valve with electrical connector	Throttle
5813110500	-	-
5813110200	-	-
5813110100	-	-
5813110600	-	-
5813110300	-	-
5813110400	-	-
5813110000	Basic valve without coil	-
5813111500	-	with throttle
5813111200	-	with throttle
5813111100	-	with throttle
5813111600	-	with throttle
5813111300	-	with throttle
5813111400	-	with throttle
5813111000	Basic valve without coil	with throttle
5813112500	-	-
5813112200	-	-

5813112100	-	-
5813112300	-	-
5813112000	Basic valve without coil	-
5813113200	-	with throttle
5813113600	-	with throttle
5813113400	-	with throttle

Connection 12 must be connected with atmospheres, Nominal flow Qn at 6 bar and Δp = 1 bar, MO = Manual override

Technical information

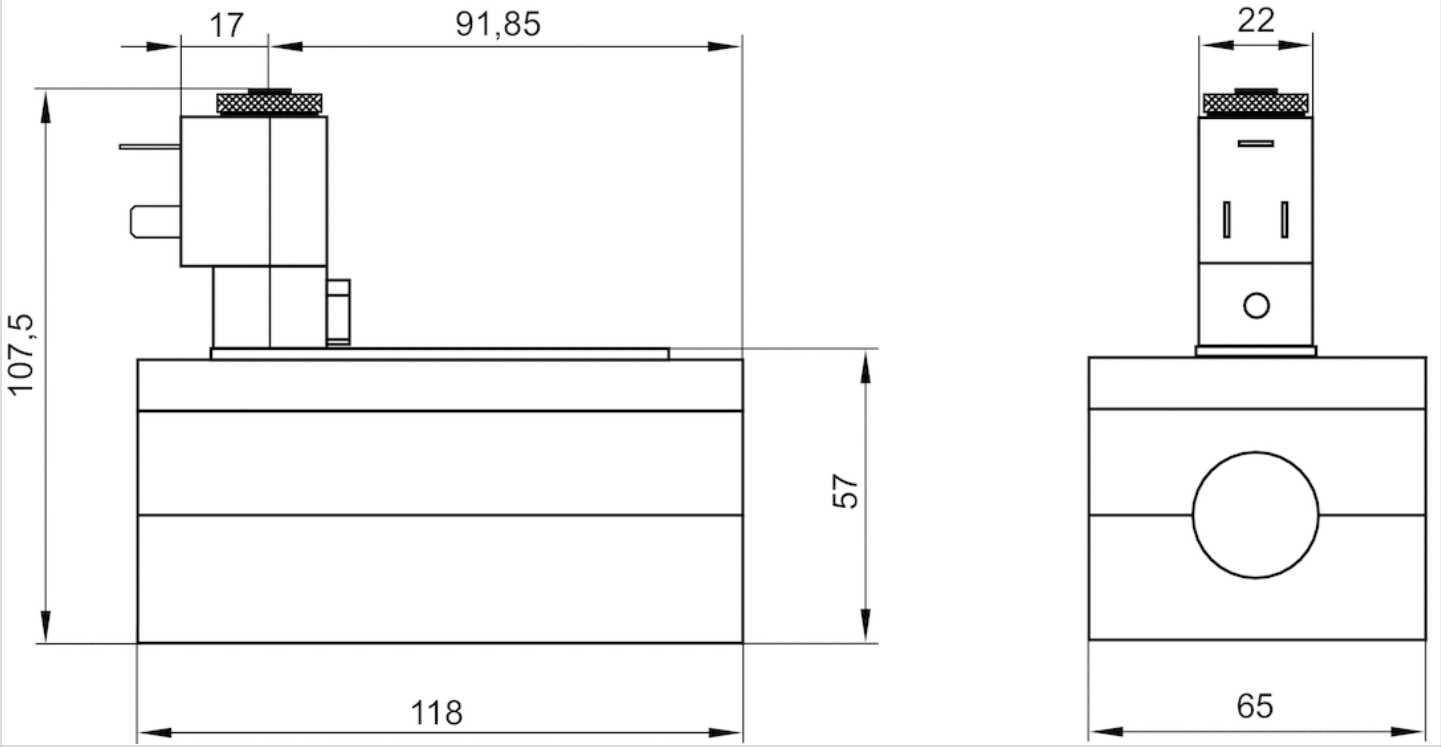
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Housing	Aluminum

Dimensions

Dimensions



The pilot valves can be loosened and turned through 180°.

5/2-directional valve, Series 581, size 3

- ISO 5599-1
- ISO 3
- 5/2
- With differential piston
- With air spring return
- Qn = 4800 l/min
- Compressed air connection output Base plate ISO 5599-1
- Electrical connection Plug, Form B, industry
- Manual override with detent

Version	Spool valve
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Connection type	Plate connection
Standards	ISO 5599-1, ISO 3
Working pressure min./max.	See table below
Control pressure min./max.	1.5 ... 10 bar
Ambient temperature min./max.	-15 ... 50 °C
Medium temperature min./max.	-15 ... 50 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow Qn	4800 l/min
Flow conductance C	18.9 l/(s*bar)
Protection class with connection	IP65
Duty cycle	100 %
Typ. switch-on time	14 ms
Typ. switch-off time	36 ms
Mounting screw	with hexagon socket
Mounting screw tightening torque	10 Nm
Weight	0.93 kg

Technical data

Part No.		MO	Operational voltage DC	Operational voltage AC 50 Hz
5813610500			12 V	-
5813610200			-	24 V
5813610100			24 V	-
5813610600			48 V	-
5813610300			-	-
5813610400			-	230 V
5813610000			-	-
5813611500			12 V	-
5813611200			-	24 V
5813611100			24 V	-
5813611600			48 V	-
5813611300			-	-
5813611400			-	230 V
5813611000			-	-
5813612500			12 V	-
5813612200			-	24 V
5813612100			24 V	-
5813612600			48 V	-
5813612300			-	-
5813612400			-	230 V
5813612000			-	-
5813613500			12 V	-
5813613200			-	24 V
5813613100			24 V	-
5813613300			-	-
5813613400			-	230 V
5813613000			-	-

Part No.	Operational voltage AC 60 Hz	Voltage tolerance DC	Voltage tolerance AC 50 Hz	Voltage tolerance AC 60 Hz
5813610500	-	-10% / +10%	-	-
5813610200	-	-	-10% / +10%	-
5813610100	-	-10% / +10%	-	-
5813610600	-	-10% / +10%	-	-
5813610300	110 V	-	-	-10% / +10%
5813610400	-	-	-10% / +10%	-
5813610000	-	-	-	-
5813611500	-	-10% / +10%	-	-
5813611200	-	-	-10% / +10%	-
5813611100	-	-10% / +10%	-	-
5813611600	-	-10% / +10%	-	-
5813611300	110 V	-	-	-10% / +10%
5813611400	-	-	-10% / +10%	-

Part No.	Operational voltage AC 60 Hz	Voltage tolerance DC	Voltage tolerance AC 50 Hz	Voltage tolerance AC 60 Hz
5813611000	-	-	-	-
5813612500	-	-10% / +10%	-	-
5813612200	-	-	-10% / +10%	-
5813612100	-	-10% / +10%	-	-
5813612600	-	-10% / +10%	-	-
5813612300	110 V	-	-	-10% / +10%
5813612400	-	-	-10% / +10%	-
5813612000	-	-	-	-
5813613500	-	-10% / +10%	-	-
5813613200	-	-	-10% / +10%	-
5813613100	-	-10% / +10%	-	-
5813613300	110 V	-	-	-10% / +10%
5813613400	-	-	-10% / +10%	-
5813613000	-	-	-	-

Part No.	Power consumption DC	Holding power AC 50 Hz	Holding power AC 60 Hz	Switch-on power AC 50 Hz
5813610500	5 W	-	-	-
5813610200	-	8 VA	-	10 VA
5813610100	5 W	-	-	-
5813610600	5 W	-	-	-
5813610300	-	-	8 VA	-
5813610400	-	8 VA	-	10 VA
5813610000	-	-	-	-
5813611500	5 W	-	-	-
5813611200	-	8 VA	-	10 VA
5813611100	5 W	-	-	-
5813611600	5 W	-	-	-
5813611300	-	-	8 VA	-
5813611400	-	8 VA	-	10 VA
5813611000	-	-	-	-
5813612500	5 W	-	-	-
5813612200	-	8 VA	-	10 VA
5813612100	5 W	-	-	-
5813612600	5 W	-	-	-
5813612300	-	-	8 VA	-
5813612400	-	8 VA	-	10 VA
5813612000	-	-	-	-
5813613500	5 W	-	-	-
5813613200	-	8 VA	-	10 VA
5813613100	5 W	-	-	-
5813613300	-	-	8 VA	-
5813613400	-	8 VA	-	10 VA
5813613000	-	-	-	-

Part No.	Switch-on power AC 60 Hz	Pilot	Working pressure min./max.	Electrical connection Pilot valve
5813610500	-	Internal	1.5 ... 10 bar	Plug Form B, industry
5813610200	-	Internal	1.5 ... 10 bar	Plug Form B, industry
5813610100	-	Internal	1.5 ... 10 bar	Plug Form B, industry
5813610600	-	Internal	1.5 ... 10 bar	Plug Form B, industry
5813610300	10 VA	Internal	1.5 ... 10 bar	Plug Form B, industry
5813610400	-	Internal	1.5 ... 10 bar	Plug Form B, industry
5813610000	-	Internal	1.5 ... 10 bar	Plug Form B, industry
5813611500	-	Internal	1.5 ... 10 bar	Plug Form B, industry
5813611200	-	Internal	1.5 ... 10 bar	Plug Form B, industry
5813611100	-	Internal	1.5 ... 10 bar	Plug Form B, industry
5813611600	-	Internal	1.5 ... 10 bar	Plug Form B, industry
5813611300	10 VA	Internal	1.5 ... 10 bar	Plug Form B, industry
5813611400	-	Internal	1.5 ... 10 bar	Plug Form B, industry
5813611000	-	Internal	1.5 ... 10 bar	Plug Form B, industry
5813612500	-	External	-0.95 ... 10 bar	Plug Form B, industry
5813612200	-	External	-0.95 ... 10 bar	Plug Form B, industry
5813612100	-	External	-0.95 ... 10 bar	Plug Form B, industry
5813612600	-	External	-0.95 ... 10 bar	Plug Form B, industry
5813612300	10 VA	External	-0.95 ... 10 bar	Plug Form B, industry
5813612400	-	External	-0.95 ... 10 bar	Plug Form B, industry
5813612000	-	External	-0.95 ... 10 bar	Plug Form B, industry
5813613500	-	External	-0.95 ... 10 bar	Plug Form B, industry
5813613200	-	External	-0.95 ... 10 bar	Plug Form B, industry
5813613100	-	External	-0.95 ... 10 bar	Plug Form B, industry
5813613300	10 VA	External	-0.95 ... 10 bar	Plug Form B, industry
5813613400	-	External	-0.95 ... 10 bar	Plug Form B, industry
5813613000	-	External	-0.95 ... 10 bar	Plug Form B, industry

Part No.	basic valve with electrical connector	Throttle
5813610500	-	-
5813610200	-	-
5813610100	-	-
5813610600	-	-
5813610300	-	-
5813610400	-	-
5813610000	Basic valve without coil	-
5813611500	-	with throttle
5813611200	-	with throttle
5813611100	-	with throttle
5813611600	-	with throttle
5813611300	-	with throttle
5813611400	-	with throttle
5813611000	Basic valve without coil	with throttle
5813612500	-	-
5813612200	-	-
5813612100	-	-

5813612300	-	-
5813612000	Basic valve without coil	-
5813613200	-	with throttle
5813613300	-	with throttle
5813613000	Basic valve without coil	with throttle

Differential piston, signal 14 has priority, Nominal flow Qn at 6 bar and Δp = 1 bar, MO = Manual override

Technical information

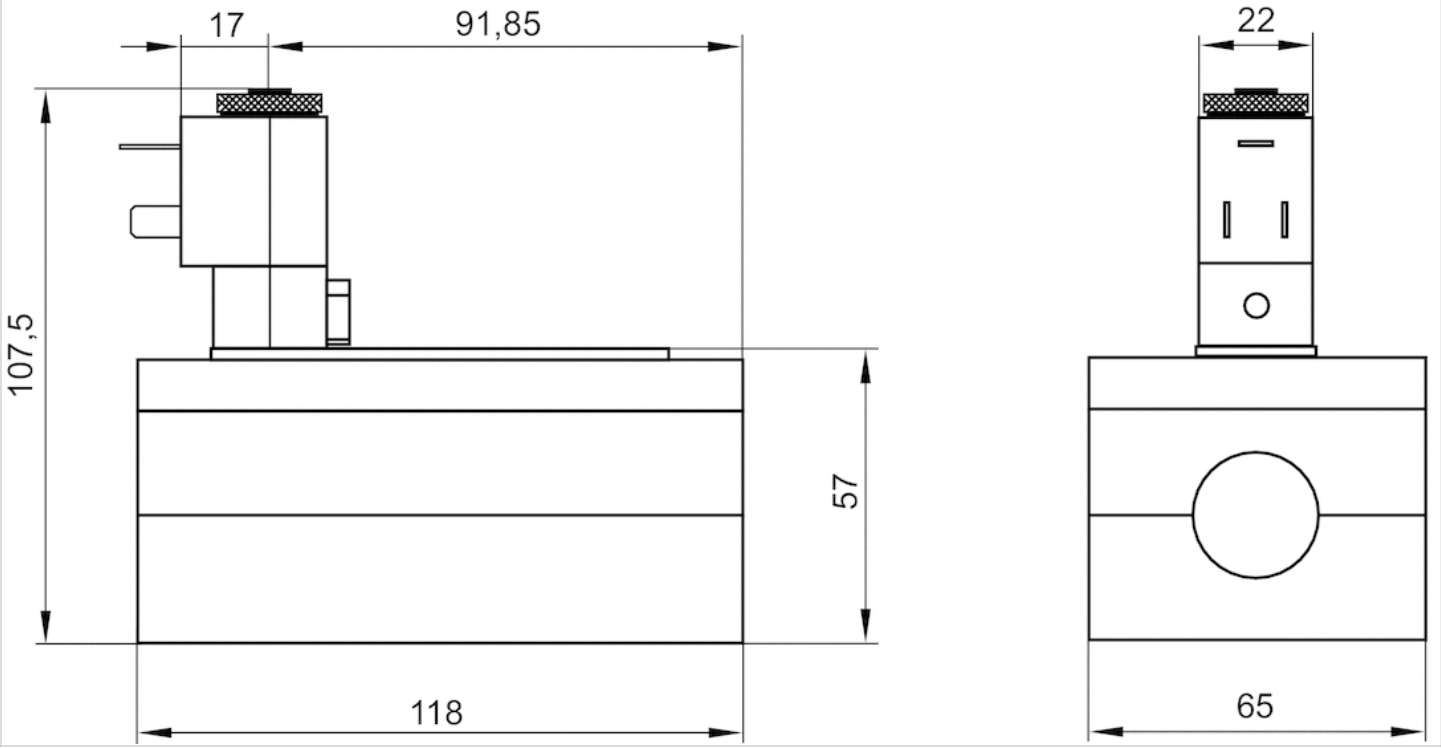
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Housing	Aluminum

Dimensions

Dimensions



The pilot valves can be loosened and turned through 180°.

5/2-directional valve, Series 581, size 3

- ISO 5599-1
- ISO 3
- 5/2
- double solenoid
- Qn = 4800 l/min
- Compressed air connection output Base plate ISO 5599-1
- Electrical connection Plug, Form B, industry
- Manual override with detent

Version	Spool valve
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Connection type	Plate connection
Standards	ISO 5599-1, ISO 3
Working pressure min./max.	See table below
Control pressure min./max.	1.5 ... 10 bar
Ambient temperature min./max.	-15 ... 50 °C
Medium temperature min./max.	-15 ... 50 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow Qn	4800 l/min
Flow conductance C	18.9 l/(s*bar)
Protection class with connection	IP65
Duty cycle	100 %
Typ. switch-on time	14 ms
Typ. switch-off time	14 ms
Mounting screw	with hexagon socket
Mounting screw tightening torque	10 Nm
Weight	1.01 kg

Technical data

Part No.		MO	Operational voltage DC	Operational voltage AC 50 Hz
5813220500			12 V	-
5813220200			-	24 V
5813220100			24 V	-
5813220600			48 V	-
5813220300			-	-
5813220400			-	230 V
5813220000			-	-
5813221500			12 V	-
5813221200			-	24 V
5813221100			24 V	-
5813221600			48 V	-
5813221300			-	-
5813221400			-	230 V
5813221000			-	-
5813222500			12 V	-
5813222200			-	24 V
5813222100			24 V	-
5813222600			48 V	-
5813222300			-	-
5813222400			-	230 V
5813222000			-	-
5813223500			12 V	-
5813223200			-	24 V
5813223100			24 V	-
5813223600			48 V	-
5813223300			-	-
5813223400			-	230 V
5813223000			-	-

Part No.	Operational voltage AC 60 Hz	Voltage tolerance DC	Voltage tolerance AC 50 Hz	Voltage tolerance AC 60 Hz
5813220500	-	-10% / +10%	-	-
5813220200	-	-	-10% / +10%	-
5813220100	-	-10% / +10%	-	-
5813220600	-	-10% / +10%	-	-
5813220300	110 V	-	-	-10% / +10%
5813220400	-	-	-10% / +10%	-
5813220000	-	-	-10% / +10%	-
5813221500	-	-10% / +10%	-	-
5813221200	-	-	-10% / +10%	-
5813221100	-	-10% / +10%	-	-
5813221600	-	-10% / +10%	-	-
5813221300	110 V	-	-	-10% / +10%

Part No.	Operational voltage AC 60 Hz	Voltage tolerance DC	Voltage tolerance AC 50 Hz	Voltage tolerance AC 60 Hz
5813221400	-	-	-10% / +10%	-
5813221000	-	-	-10% / +10%	-
5813222500	-	-10% / +10%	-	-
5813222200	-	-	-10% / +10%	-
5813222100	-	-10% / +10%	-	-
5813222600	-	-10% / +10%	-	-
5813222300	110 V	-	-	-10% / +10%
5813222400	-	-	-10% / +10%	-
5813222000	-	-	-10% / +10%	-
5813223500	-	-10% / +10%	-	-
5813223200	-	-	-10% / +10%	-
5813223100	-	-10% / +10%	-	-
5813223600	-	-10% / +10%	-	-
5813223300	110 V	-	-	-10% / +10%
5813223400	-	-	-10% / +10%	-
5813223000	-	-	-10% / +10%	-

Part No.	Power consumption DC	Holding power AC 50 Hz	Holding power AC 60 Hz	Switch-on power AC 50 Hz
5813220500	5 W	-	-	-
5813220200	-	8 VA	-	10 VA
5813220100	5 W	-	-	-
5813220600	5 W	-	-	-
5813220300	-	-	8 VA	-
5813220400	-	8 VA	-	10 VA
5813220000	-	-	-	-
5813221500	5 W	-	-	-
5813221200	-	8 VA	-	10 VA
5813221100	5 W	-	-	-
5813221600	5 W	-	-	-
5813221300	-	-	8 VA	-
5813221400	-	8 VA	-	10 VA
5813221000	-	-	-	-
5813222500	5 W	-	-	-
5813222200	-	8 VA	-	10 VA
5813222100	5 W	-	-	-
5813222600	5 W	-	-	-
5813222300	-	-	8 VA	-
5813222400	-	8 VA	-	10 VA
5813222000	-	-	-	-
5813223500	5 W	-	-	-
5813223200	-	8 VA	-	10 VA
5813223100	5 W	-	-	-
5813223600	5 W	-	-	-
5813223300	-	-	8 VA	-
5813223400	-	8 VA	-	10 VA
5813223000	-	-	-	-

Part No.	Switch-on power AC 60 Hz	Pilot	Working pressure min./max.	Electrical connection Pilot valve
5813220500	-	Internal	1.5 ... 10 bar	Plug Form B, industry
5813220200	-	Internal	1.5 ... 10 bar	Plug Form B, industry
5813220100	-	Internal	1.5 ... 10 bar	Plug Form B, industry
5813220600	-	Internal	1.5 ... 10 bar	Plug Form B, industry
5813220300	10 VA	Internal	1.5 ... 10 bar	Plug Form B, industry
5813220400	-	Internal	1.5 ... 10 bar	Plug Form B, industry
5813220000	-	Internal	1.5 ... 10 bar	Plug Form B, industry
5813221500	-	Internal	1.5 ... 10 bar	Plug Form B, industry
5813221200	-	Internal	1.5 ... 10 bar	Plug Form B, industry
5813221100	-	Internal	1.5 ... 10 bar	Plug Form B, industry
5813221600	-	Internal	1.5 ... 10 bar	Plug Form B, industry
5813221300	10 VA	Internal	1.5 ... 10 bar	Plug Form B, industry
5813221400	-	Internal	1.5 ... 10 bar	Plug Form B, industry
5813221000	-	Internal	1.5 ... 10 bar	Plug Form B, industry
5813222500	-	External	-0.95 ... 10 bar	Plug Form B, industry
5813222200	-	External	-0.95 ... 10 bar	Plug Form B, industry
5813222100	-	External	-0.95 ... 10 bar	Plug Form B, industry
5813222600	-	External	-0.95 ... 10 bar	Plug Form B, industry
5813222300	10 VA	External	-0.95 ... 10 bar	Plug Form B, industry
5813222400	-	External	-0.95 ... 10 bar	Plug Form B, industry
5813222000	-	External	-0.95 ... 10 bar	Plug Form B, industry
5813223500	-	External	-0.95 ... 10 bar	Plug Form B, industry
5813223200	-	External	-0.95 ... 10 bar	Plug Form B, industry
5813223100	-	External	-0.95 ... 10 bar	Plug Form B, industry
5813223600	-	External	-0.95 ... 10 bar	Plug Form B, industry
5813223300	10 VA	External	-0.95 ... 10 bar	Plug Form B, industry
5813223400	-	External	-0.95 ... 10 bar	Plug Form B, industry
5813223000	-	External	-0.95 ... 10 bar	Plug Form B, industry

Part No.	basic valve with electrical connector	Throttle
5813220500	-	-
5813220200	-	-
5813220100	-	-
5813220600	-	-
5813220300	-	-
5813220400	-	-
5813220000	Basic valve without coil	-
5813221500	-	with throttle
5813221200	-	with throttle
5813221100	-	with throttle
5813221600	-	with throttle
5813221300	-	with throttle
5813221400	-	with throttle
5813221000	Basic valve without coil	with throttle
5813222500	-	-
5813222200	-	-

5813222100	-	-
5813222300	-	-
5813222000	Basic valve without coil	-
5813223200	-	with throttle
5813223600	-	with throttle
5813223400	-	with throttle

Nominal flow Qn at 6 bar and Δp = 1 bar, MO = Manual override

Technical information

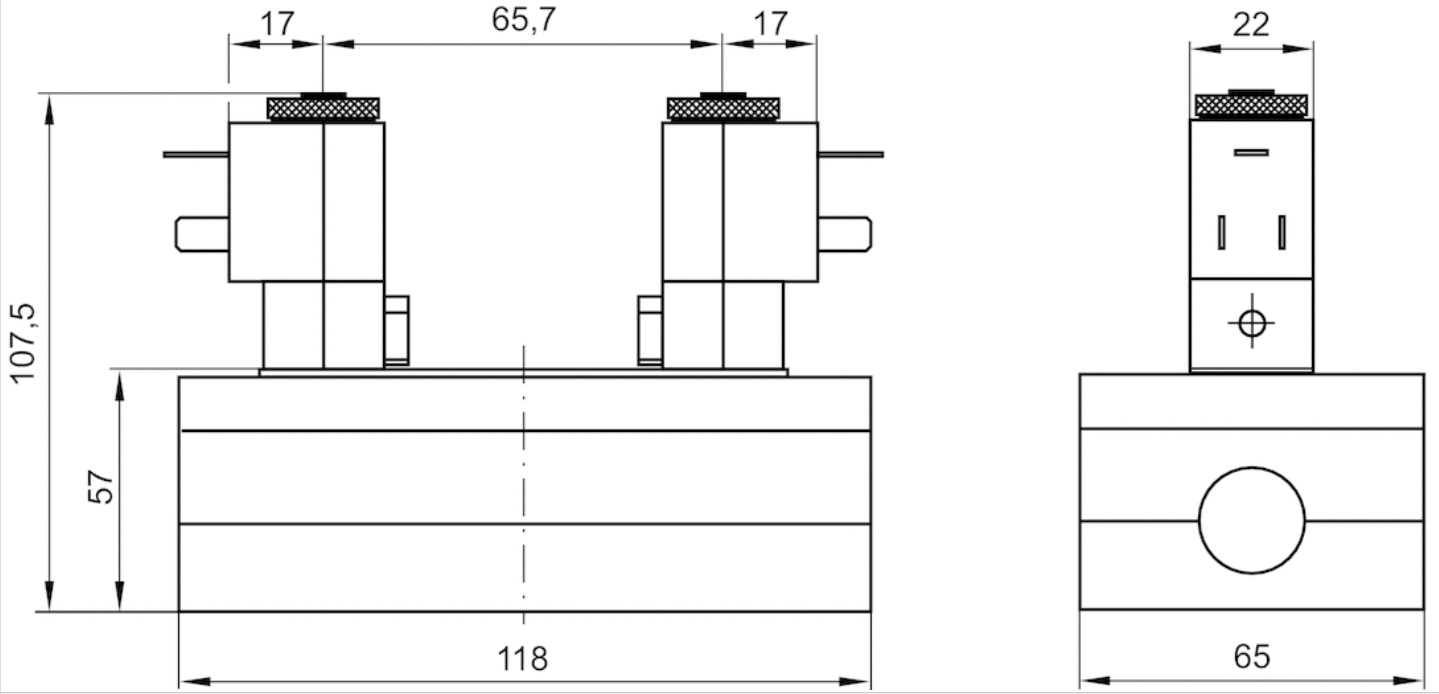
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Housing	Aluminum

Dimensions

Dimensions



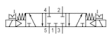
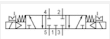
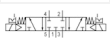
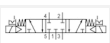
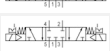
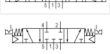
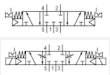
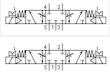
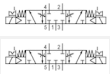
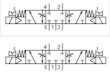
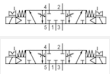
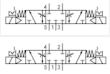
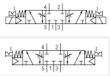
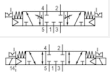
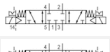
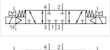
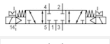
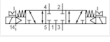
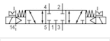
The pilot valves can be loosened and turned through 180°.

5/3-directional valve, Series 581, size 3

- ISO 5599-1
- ISO 3
- 5/3
- closed center
- closed center
- Qn = 4100 l/min
- Compressed air connection output Base plate ISO 5599-1
- Electrical connection Plug, Form B, industry
- Manual override with detent

Version	Spool valve
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Connection type	Plate connection
Standards	ISO 5599-1, ISO 3
Working pressure min./max.	See table below
Control pressure min./max.	3 ... 10 bar
Ambient temperature min./max.	-15 ... 50 °C
Medium temperature min./max.	-15 ... 50 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow Qn	4100 l/min
Flow conductance C	14.1 l/(s*bar)
Protection class with connection	IP65
Duty cycle	100 %
Typ. switch-on time	23 ms
Typ. switch-off time	64 ms
Mounting screw	with hexagon socket
Mounting screw tightening torque	10 Nm
Weight	1.01 kg

Technical data

Part No.			MO	Operational voltage DC
5813420500		closed center		12 V
5813420200		closed center		-
5813420100		closed center		24 V
5813420600		closed center		48 V
5813420300		closed center		-
5813420400		closed center		-
5813420000		closed center		-
5813421500		closed center		12 V
5813421200		closed center		-
5813421100		closed center		24 V
5813421600		closed center		48 V
5813421300		closed center		-
5813421400		closed center		-
5813421000		closed center		-
5813422500		closed center		12 V
5813422200		closed center		-
5813422100		closed center		24 V
5813422600		closed center		48 V
5813422300		closed center		-
5813422400		closed center		-
5813422000		closed center		-
5813423500		closed center		12 V
5813423200		closed center		-
5813423100		closed center		24 V
5813423600		closed center		48 V
5813423300		closed center		-
5813423400		closed center		-
5813423000		closed center		-

Part No.	Operational voltage AC 50 Hz	Operational voltage AC 60 Hz	Voltage tolerance DC
5813420500	-	-	-10% / +10%
5813420200	24 V	-	-
5813420100	-	-	-10% / +10%
5813420600	-	-	-10% / +10%
5813420300	-	110 V	-
5813420400	230 V	-	-
5813420000	-	-	-
5813421500	-	-	-10% / +10%
5813421200	24 V	-	-
5813421100	-	-	-10% / +10%
5813421600	-	-	-10% / +10%
5813421300	-	110 V	-

Part No.	Operational voltage AC 50 Hz	Operational voltage AC 60 Hz	Voltage tolerance DC
5813421400	230 V	-	-
5813421000	-	-	-
5813422500	-	-	-10% / +10%
5813422200	24 V	-	-
5813422100	-	-	-10% / +10%
5813422600	-	-	-10% / +10%
5813422300	-	110 V	-
5813422400	230 V	-	-
5813422000	-	-	-
5813423500	-	-	-10% / +10%
5813423200	24 V	-	-
5813423100	-	-	-10% / +10%
5813423600	-	-	-10% / +10%
5813423300	-	110 V	-
5813423400	230 V	-	-
5813423000	-	-	-

Part No.	Voltage tolerance AC 50 Hz	Voltage tolerance AC 60 Hz	Power consumption DC	Holding power AC 50 Hz
5813420500	-	-	5 W	-
5813420200	-10% / +10%	-	-	8 VA
5813420100	-	-	5 W	-
5813420600	-	-	5 W	-
5813420300	-	-10% / +10%	-	-
5813420400	-10% / +10%	-	-	8 VA
5813420000	-	-	-	-
5813421500	-	-	5 W	-
5813421200	-10% / +10%	-	-	8 VA
5813421100	-	-	5 W	-
5813421600	-	-	5 W	-
5813421300	-	-10% / +10%	-	-
5813421400	-10% / +10%	-	-	8 VA
5813421000	-	-	-	-
5813422500	-	-	5 W	-
5813422200	-10% / +10%	-	-	8 VA
5813422100	-	-	5 W	-
5813422600	-	-	5 W	-
5813422300	-	-10% / +10%	-	-
5813422400	-10% / +10%	-	-	8 VA
5813422000	-	-	-	-
5813423500	-	-	5 W	-
5813423200	-10% / +10%	-	-	8 VA
5813423100	-	-	5 W	-
5813423600	-	-	5 W	-
5813423300	-	-10% / +10%	-	-
5813423400	-10% / +10%	-	-	8 VA
5813423000	-	-	-	-

Part No.	Holding power AC 60 Hz	Switch-on power AC 50 Hz	Switch-on power AC 60 Hz	Pilot
5813420500	-	-	-	Internal
5813420200	-	10 VA	-	Internal
5813420100	-	-	-	Internal
5813420600	-	-	-	Internal
5813420300	8 VA	-	10 VA	Internal
5813420400	-	10 VA	-	Internal
5813420000	-	-	-	Internal
5813421500	-	-	-	Internal
5813421200	-	10 VA	-	Internal
5813421100	-	-	-	Internal
5813421600	-	-	-	Internal
5813421300	8 VA	-	10 VA	Internal
5813421400	-	10 VA	-	Internal
5813421000	-	-	-	Internal
5813422500	-	-	-	External
5813422200	-	10 VA	-	External
5813422100	-	-	-	External
5813422600	-	-	-	External
5813422300	8 VA	-	10 VA	External
5813422400	-	10 VA	-	External
5813422000	-	-	-	External
5813423500	-	-	-	External
5813423200	-	10 VA	-	External
5813423100	-	-	-	External
5813423600	-	-	-	External
5813423300	8 VA	-	10 VA	External
5813423400	-	10 VA	-	External
5813423000	-	-	-	External

Part No.	Working pressure min./max.	Electrical connection Pilot valve
5813420500	3 ... 10 bar	Plug Form B, industry
5813420200	3 ... 10 bar	Plug Form B, industry
5813420100	3 ... 10 bar	Plug Form B, industry
5813420600	3 ... 10 bar	Plug Form B, industry
5813420300	3 ... 10 bar	Plug Form B, industry
5813420400	3 ... 10 bar	Plug Form B, industry
5813420000	3 ... 10 bar	Plug Form B, industry
5813421500	3 ... 10 bar	Plug Form B, industry
5813421200	3 ... 10 bar	Plug Form B, industry
5813421100	3 ... 10 bar	Plug Form B, industry
5813421600	3 ... 10 bar	Plug Form B, industry
5813421300	3 ... 10 bar	Plug Form B, industry
5813421400	3 ... 10 bar	Plug Form B, industry
5813421000	3 ... 10 bar	Plug Form B, industry
5813422500	-0.95 ... 10 bar	Plug Form B, industry
5813422200	-0.95 ... 10 bar	Plug Form B, industry

Part No.	Working pressure min./max.	Electrical connection Pilot valve
5813422100	-0.95 ... 10 bar	Plug Form B, industry
5813422600	-0.95 ... 10 bar	Plug Form B, industry
5813422300	-0.95 ... 10 bar	Plug Form B, industry
5813422400	-0.95 ... 10 bar	Plug Form B, industry
5813422000	-0.95 ... 10 bar	Plug Form B, industry
5813423500	-0.95 ... 10 bar	Plug Form B, industry
5813423200	-0.95 ... 10 bar	Plug Form B, industry
5813423100	-0.95 ... 10 bar	Plug Form B, industry
5813423600	-0.95 ... 10 bar	Plug Form B, industry
5813423300	-0.95 ... 10 bar	Plug Form B, industry
5813423400	-0.95 ... 10 bar	Plug Form B, industry
5813423000	-0.95 ... 10 bar	Plug Form B, industry

Part No.	basic valve with electrical connector	Throttle
5813420500	-	-
5813420200	-	-
5813420100	-	-
5813420600	-	-
5813420300	-	-
5813420400	-	-
5813420000	Basic valve without coil	-
5813421500	-	with throttle
5813421200	-	with throttle
5813421100	-	with throttle
5813421600	-	with throttle
5813421300	-	with throttle
5813421400	-	with throttle
5813421000	Basic valve without coil	with throttle
5813422500	-	-
5813422200	-	-
5813422100	-	-
5813422600	-	-
5813422300	-	-
5813422400	-	-
5813422000	Basic valve without coil	-
5813423500	-	with throttle
5813423200	-	with throttle
5813423100	-	with throttle
5813423600	-	with throttle
5813423300	-	with throttle
5813423400	-	with throttle
5813423000	Basic valve without coil	with throttle

Nominal flow Qn at 6 bar and Δp = 1 bar, MO = Manual override

Technical information

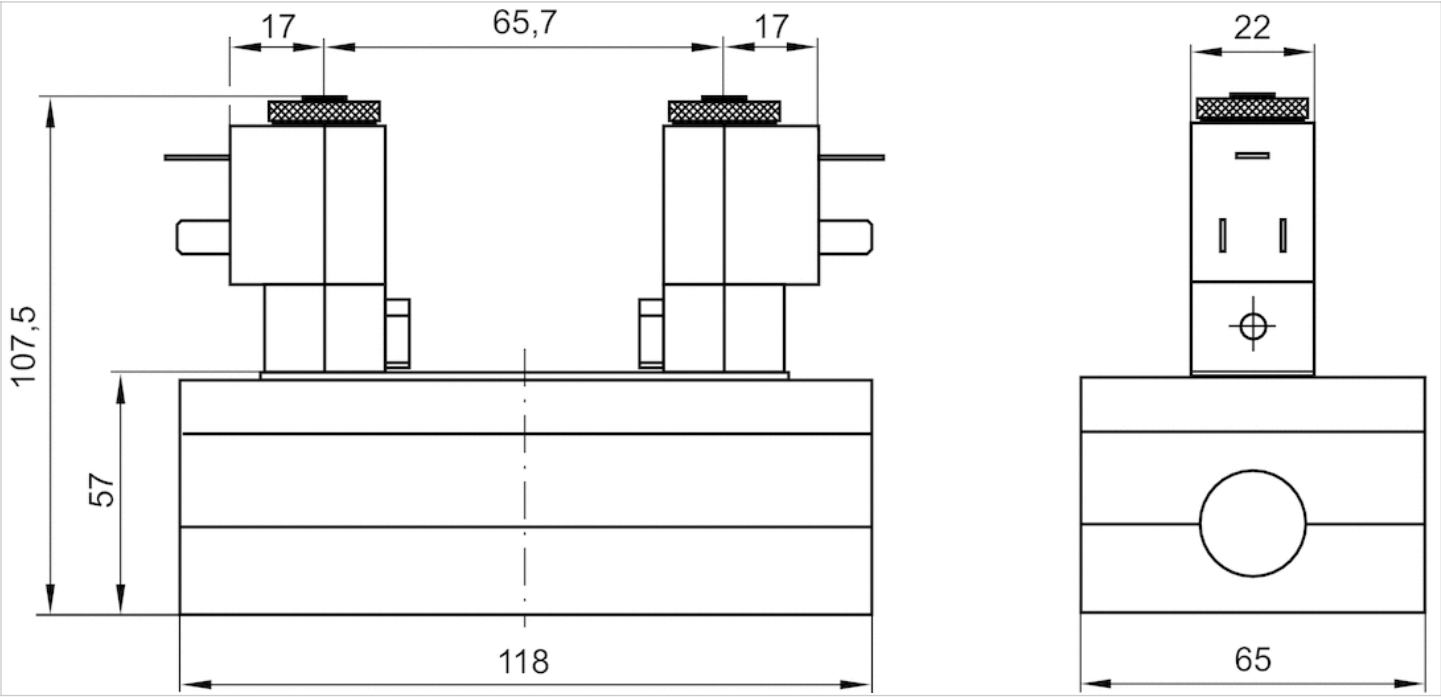
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Housing	Aluminum

Dimensions

Dimensions



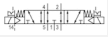
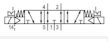
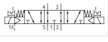
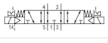
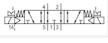
The pilot valves can be loosened and turned through 180°.

5/3-directional valve, Series 581, size 3

- ISO 5599-1
- ISO 3
- 5/3
- exhausted center
- exhausted center
- Qn = 4100 l/min
- Compressed air connection output Base plate ISO 5599-1
- Electrical connection Plug, Form B, industry
- Manual override with detent

Version	Spool valve
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Connection type	Plate connection
Standards	ISO 5599-1, ISO 3
Working pressure min./max.	See table below
Control pressure min./max.	3 ... 10 bar
Ambient temperature min./max.	-15 ... 50 °C
Medium temperature min./max.	-15 ... 50 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow Qn	4100 l/min
Flow conductance C	14.1 l/(s*bar)
Protection class with connection	IP65
Duty cycle	100 %
Typ. switch-on time	23 ms
Typ. switch-off time	64 ms
Mounting screw	with hexagon socket
Mounting screw tightening torque	10 Nm
Weight	1.01 kg

Technical data

Part No.			MO	Operational voltage DC
5813520500		exhausted center		12 V
5813520200		exhausted center		-
5813520100		exhausted center		24 V
5813520600		exhausted center		48 V
5813520300		exhausted center		-
5813520400		exhausted center		-
5813520000		exhausted center		-
5813521500		exhausted center		12 V
5813521200		exhausted center		-
5813521100		exhausted center		24 V
5813521600		exhausted center		48 V
5813521300		exhausted center		-
5813521400		exhausted center		-
5813521000		exhausted center		-
5813522500		exhausted center		12 V
5813522200		exhausted center		-
5813522100		exhausted center		24 V
5813522600		exhausted center		48 V
5813522300		exhausted center		-
5813522400		exhausted center		-
5813522000		exhausted center		-
5813523500		exhausted center		12 V
5813523200		exhausted center		-
5813523100		exhausted center		24 V
5813523600		exhausted center		48 V
5813523300		exhausted center		-
5813523400		exhausted center		-
5813523000		exhausted center		-

Part No.	Operational voltage AC 50 Hz	Operational voltage AC 60 Hz	Voltage tolerance DC
5813520500	-	-	-10% / +10%
5813520200	24 V	-	-
5813520100	-	-	-10% / +10%
5813520600	-	-	-10% / +10%
5813520300	-	110 V	-
5813520400	230 V	-	-
5813520000	-	-	-
5813521500	-	-	-10% / +10%
5813521200	24 V	-	-
5813521100	-	-	-10% / +10%
5813521600	-	-	-10% / +10%
5813521300	-	110 V	-

Part No.	Operational voltage AC 50 Hz	Operational voltage AC 60 Hz	Voltage tolerance DC
5813521400	230 V	-	-
5813521000	-	-	-
5813522500	-	-	-10% / +10%
5813522200	24 V	-	-
5813522100	-	-	-10% / +10%
5813522600	-	-	-10% / +10%
5813522300	-	110 V	-
5813522400	230 V	-	-
5813522000	-	-	-
5813523500	-	-	-10% / +10%
5813523200	24 V	-	-
5813523100	-	-	-10% / +10%
5813523600	-	-	-10% / +10%
5813523300	-	110 V	-
5813523400	230 V	-	-
5813523000	-	-	-

Part No.	Voltage tolerance AC 50 Hz	Voltage tolerance AC 60 Hz	Power consumption DC	Holding power AC 50 Hz
5813520500	-	-	5 W	-
5813520200	-10% / +10%	-	-	8 VA
5813520100	-	-	5 W	-
5813520600	-	-	5 W	-
5813520300	-	-10% / +10%	-	-
5813520400	-10% / +10%	-	-	8 VA
5813520000	-	-	-	-
5813521500	-	-	5 W	-
5813521200	-10% / +10%	-	-	8 VA
5813521100	-	-	5 W	-
5813521600	-	-	5 W	-
5813521300	-	-10% / +10%	-	-
5813521400	-10% / +10%	-	-	8 VA
5813521000	-	-	-	-
5813522500	-	-	5 W	-
5813522200	-10% / +10%	-	-	8 VA
5813522100	-	-	5 W	-
5813522600	-	-	5 W	-
5813522300	-	-10% / +10%	-	-
5813522400	-10% / +10%	-	-	8 VA
5813522000	-	-	-	-
5813523500	-	-	5 W	-
5813523200	-10% / +10%	-	-	8 VA
5813523100	-	-	5 W	-
5813523600	-	-	5 W	-
5813523300	-	-10% / +10%	-	-
5813523400	-10% / +10%	-	-	8 VA
5813523000	-	-	-	-

Part No.	Holding power AC 60 Hz	Switch-on power AC 50 Hz	Switch-on power AC 60 Hz	Pilot
5813520500	-	-	-	Internal
5813520200	-	10 VA	-	Internal
5813520100	-	-	-	Internal
5813520600	-	-	-	Internal
5813520300	8 VA	-	10 VA	Internal
5813520400	-	10 VA	-	Internal
5813520000	-	-	-	Internal
5813521500	-	-	-	Internal
5813521200	-	10 VA	-	Internal
5813521100	-	-	-	Internal
5813521600	-	-	-	Internal
5813521300	8 VA	-	10 VA	Internal
5813521400	-	10 VA	-	Internal
5813521000	-	-	-	Internal
5813522500	-	-	-	External
5813522200	-	10 VA	-	External
5813522100	-	-	-	External
5813522600	-	-	-	External
5813522300	8 VA	-	10 VA	External
5813522400	-	10 VA	-	External
5813522000	-	-	-	External
5813523500	-	-	-	External
5813523200	-	10 VA	-	External
5813523100	-	-	-	External
5813523600	-	-	-	External
5813523300	8 VA	-	10 VA	External
5813523400	-	10 VA	-	External
5813523000	-	-	-	External

Part No.	Working pressure min./max.	Electrical connection Pilot valve
5813520500	3 ... 10 bar	Plug Form B, industry
5813520200	3 ... 10 bar	Plug Form B, industry
5813520100	3 ... 10 bar	Plug Form B, industry
5813520600	3 ... 10 bar	Plug Form B, industry
5813520300	3 ... 10 bar	Plug Form B, industry
5813520400	3 ... 10 bar	Plug Form B, industry
5813520000	3 ... 10 bar	Plug Form B, industry
5813521500	3 ... 10 bar	Plug Form B, industry
5813521200	3 ... 10 bar	Plug Form B, industry
5813521100	3 ... 10 bar	Plug Form B, industry
5813521600	3 ... 10 bar	Plug Form B, industry
5813521300	3 ... 10 bar	Plug Form B, industry
5813521400	3 ... 10 bar	Plug Form B, industry
5813521000	3 ... 10 bar	Plug Form B, industry
5813522500	-0.95 ... 10 bar	Plug Form B, industry
5813522200	-0.95 ... 10 bar	Plug Form B, industry

Part No.	Working pressure min./max.	Electrical connection Pilot valve
5813522100	-0.95 ... 10 bar	Plug Form B, industry
5813522600	-0.95 ... 10 bar	Plug Form B, industry
5813522300	-0.95 ... 10 bar	Plug Form B, industry
5813522400	-0.95 ... 10 bar	Plug Form B, industry
5813522000	-0.95 ... 10 bar	Plug Form B, industry
5813523500	-0.95 ... 10 bar	Plug Form B, industry
5813523200	-0.95 ... 10 bar	Plug Form B, industry
5813523100	-0.95 ... 10 bar	Plug Form B, industry
5813523600	-0.95 ... 10 bar	Plug Form B, industry
5813523300	-0.95 ... 10 bar	Plug Form B, industry
5813523400	-0.95 ... 10 bar	Plug Form B, industry
5813523000	-0.95 ... 10 bar	Plug Form B, industry

Part No.	basic valve with electrical connector	Throttle
5813520500	-	-
5813520200	-	-
5813520100	-	-
5813520600	-	-
5813520300	-	-
5813520400	-	-
5813520000	Basic valve without coil	-
5813521500	-	with throttle
5813521200	-	with throttle
5813521100	-	with throttle
5813521600	-	with throttle
5813521300	-	with throttle
5813521400	-	with throttle
5813521000	Basic valve without coil	with throttle
5813522500	-	-
5813522200	-	-
5813522100	-	-
5813522600	-	-
5813522300	-	-
5813522400	-	-
5813522000	Basic valve without coil	-
5813523500	-	with throttle
5813523200	-	with throttle
5813523100	-	with throttle
5813523600	-	with throttle
5813523300	-	with throttle
5813523400	-	with throttle
5813523000	Basic valve without coil	with throttle

Nominal flow Qn at 6 bar and Δp = 1 bar, MO = Manual override

Technical information

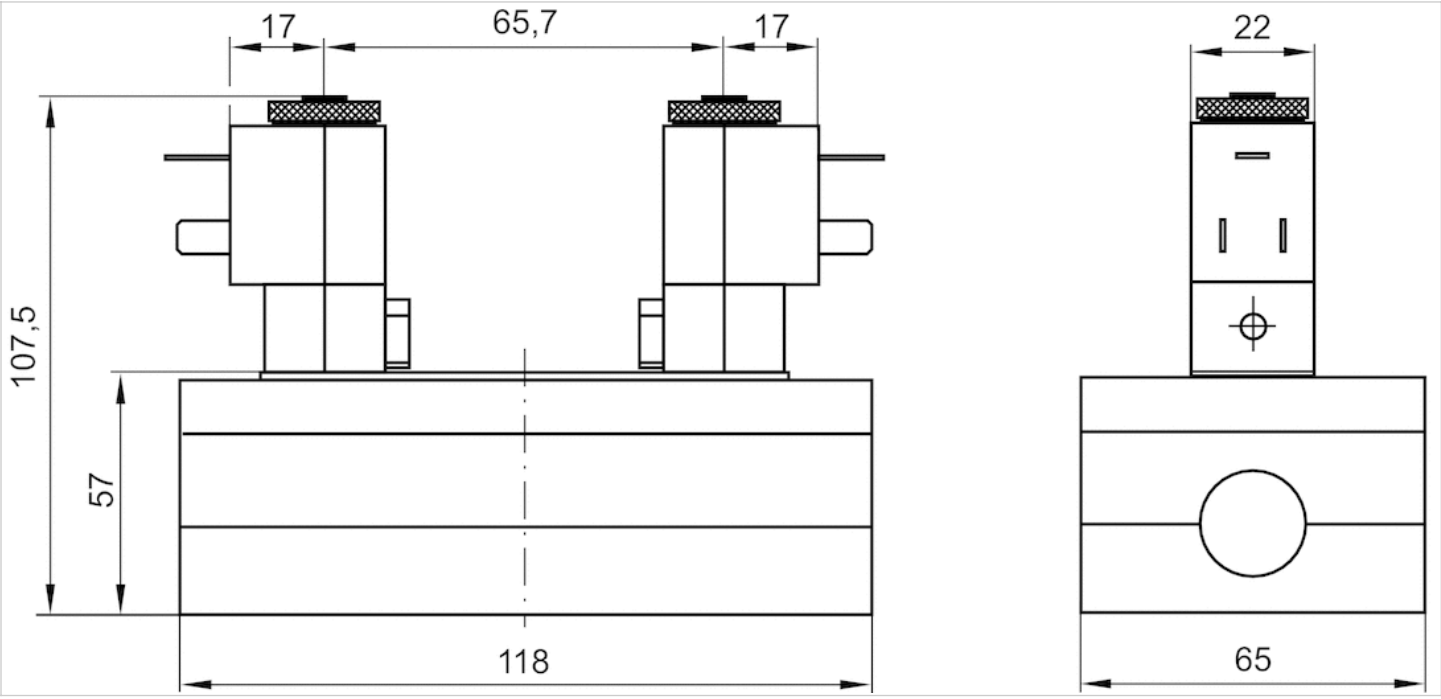
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Housing	Aluminum

Dimensions

Dimensions



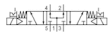
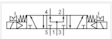
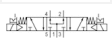
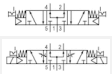
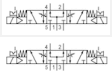
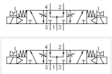
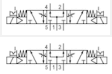
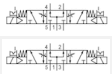
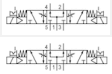
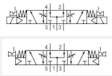
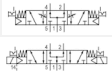
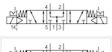
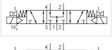
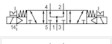
The pilot valves can be loosened and turned through 180°.

5/3-directional valve, Series 581, size 3

- ISO 5599-1
- ISO 3
- 5/3
- pressurized center
- pressurized center
- Qn = 4100 l/min
- Compressed air connection output Base plate ISO 5599-1
- Electrical connection Plug, Form B, industry
- Manual override with detent

Version	Spool valve
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Connection type	Plate connection
Standards	ISO 5599-1, ISO 3
Working pressure min./max.	See table below
Control pressure min./max.	3 ... 10 bar
Ambient temperature min./max.	-15 ... 50 °C
Medium temperature min./max.	-15 ... 50 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow Qn	4100 l/min
Flow conductance C	14.1 l/(s*bar)
Protection class with connection	IP65
Duty cycle	100 %
Typ. switch-on time	23 ms
Typ. switch-off time	64 ms
Mounting screw	with hexagon socket
Mounting screw tightening torque	10 Nm
Weight	1.01 kg

Technical data

Part No.			MO	Operational voltage DC
5813720500		pressurized center		12 V
5813720200		pressurized center		-
5813720100		pressurized center		24 V
5813720600		pressurized center		48 V
5813720300		pressurized center		-
5813720400		pressurized center		-
5813720000		pressurized center		-
5813721500		pressurized center		12 V
5813721200		pressurized center		-
5813721100		pressurized center		24 V
5813721600		pressurized center		48 V
5813721300		pressurized center		-
5813721400		pressurized center		-
5813721000		pressurized center		-
5813722500		pressurized center		12 V
5813722200		pressurized center		-
5813722100		pressurized center		24 V
5813722600		pressurized center		48 V
5813722300		pressurized center		-
5813722400		pressurized center		-
5813722000		pressurized center		-
5813723500		pressurized center		12 V
5813723200		pressurized center		-
5813723100		pressurized center		24 V
5813723600		pressurized center		48 V
5813723300		pressurized center		-
5813723400		pressurized center		-
5813723000		pressurized center		-

Part No.	Operational voltage AC 50 Hz	Operational voltage AC 60 Hz	Voltage tolerance DC
5813720500	-	-	-10% / +10%
5813720200	24 V	-	-
5813720100	-	-	-10% / +10%
5813720600	-	-	-10% / +10%
5813720300	-	110 V	-
5813720400	230 V	-	-
5813720000	-	-	-
5813721500	-	-	-10% / +10%
5813721200	24 V	-	-
5813721100	-	-	-10% / +10%
5813721600	-	-	-10% / +10%
5813721300	-	110 V	-

Part No.	Operational voltage AC 50 Hz	Operational voltage AC 60 Hz	Voltage tolerance DC
5813721400	230 V	-	-
5813721000	-	-	-
5813722500	-	-	-10% / +10%
5813722200	24 V	-	-
5813722100	-	-	-10% / +10%
5813722600	-	-	-10% / +10%
5813722300	-	110 V	-
5813722400	230 V	-	-
5813722000	-	-	-
5813723500	-	-	-10% / +10%
5813723200	24 V	-	-
5813723100	-	-	-10% / +10%
5813723600	-	-	-10% / +10%
5813723300	-	110 V	-
5813723400	230 V	-	-
5813723000	-	-	-

Part No.	Voltage tolerance AC 50 Hz	Voltage tolerance AC 60 Hz	Power consumption DC	Holding power AC 50 Hz
5813720500	-	-	5 W	-
5813720200	-10% / +10%	-	-	8 VA
5813720100	-	-	5 W	-
5813720600	-	-	5 W	-
5813720300	-	-10% / +10%	-	-
5813720400	-10% / +10%	-	-	8 VA
5813720000	-	-	-	-
5813721500	-	-	5 W	-
5813721200	-10% / +10%	-	-	8 VA
5813721100	-	-	5 W	-
5813721600	-	-	5 W	-
5813721300	-	-10% / +10%	-	-
5813721400	-10% / +10%	-	-	8 VA
5813721000	-	-	-	-
5813722500	-	-	5 W	-
5813722200	-10% / +10%	-	-	8 VA
5813722100	-	-	5 W	-
5813722600	-	-	5 W	-
5813722300	-	-10% / +10%	-	-
5813722400	-10% / +10%	-	-	8 VA
5813722000	-	-	-	-
5813723500	-	-	5 W	-
5813723200	-10% / +10%	-	-	8 VA
5813723100	-	-	5 W	-
5813723600	-	-	5 W	-
5813723300	-	-10% / +10%	-	-
5813723400	-10% / +10%	-	-	8 VA
5813723000	-	-	-	-

Part No.	Holding power AC 60 Hz	Switch-on power AC 50 Hz	Switch-on power AC 60 Hz	Pilot
5813720500	-	-	-	Internal
5813720200	-	10 VA	-	Internal
5813720100	-	-	-	Internal
5813720600	-	-	-	Internal
5813720300	8 VA	-	10 VA	Internal
5813720400	-	10 VA	-	Internal
5813720000	-	-	-	Internal
5813721500	-	-	-	Internal
5813721200	-	10 VA	-	Internal
5813721100	-	-	-	Internal
5813721600	-	-	-	Internal
5813721300	8 VA	-	10 VA	Internal
5813721400	-	10 VA	-	Internal
5813721000	-	-	-	Internal
5813722500	-	-	-	External
5813722200	-	10 VA	-	External
5813722100	-	-	-	External
5813722600	-	-	-	External
5813722300	8 VA	-	10 VA	External
5813722400	-	10 VA	-	External
5813722000	-	-	-	External
5813723500	-	-	-	External
5813723200	-	10 VA	-	External
5813723100	-	-	-	External
5813723600	-	-	-	External
5813723300	8 VA	-	10 VA	External
5813723400	-	10 VA	-	External
5813723000	-	-	-	External

Part No.	Working pressure min./max.	Electrical connection Pilot valve
5813720500	3 ... 10 bar	Plug Form B, industry
5813720200	3 ... 10 bar	Plug Form B, industry
5813720100	3 ... 10 bar	Plug Form B, industry
5813720600	3 ... 10 bar	Plug Form B, industry
5813720300	3 ... 10 bar	Plug Form B, industry
5813720400	3 ... 10 bar	Plug Form B, industry
5813720000	3 ... 10 bar	Plug Form B, industry
5813721500	3 ... 10 bar	Plug Form B, industry
5813721200	3 ... 10 bar	Plug Form B, industry
5813721100	3 ... 10 bar	Plug Form B, industry
5813721600	3 ... 10 bar	Plug Form B, industry
5813721300	3 ... 10 bar	Plug Form B, industry
5813721400	3 ... 10 bar	Plug Form B, industry
5813721000	3 ... 10 bar	Plug Form B, industry
5813722500	-0.95 ... 10 bar	Plug Form B, industry
5813722200	-0.95 ... 10 bar	Plug Form B, industry

Part No.	Working pressure min./max.	Electrical connection Pilot valve
5813722100	-0.95 ... 10 bar	Plug Form B, industry
5813722600	-0.95 ... 10 bar	Plug Form B, industry
5813722300	-0.95 ... 10 bar	Plug Form B, industry
5813722400	-0.95 ... 10 bar	Plug Form B, industry
5813722000	-0.95 ... 10 bar	Plug Form B, industry
5813723500	-0.95 ... 10 bar	Plug Form B, industry
5813723200	-0.95 ... 10 bar	Plug Form B, industry
5813723100	-0.95 ... 10 bar	Plug Form B, industry
5813723600	-0.95 ... 10 bar	Plug Form B, industry
5813723300	-0.95 ... 10 bar	Plug Form B, industry
5813723400	-0.95 ... 10 bar	Plug Form B, industry
5813723000	-0.95 ... 10 bar	Plug Form B, industry

Part No.	basic valve with electrical connector	Throttle
5813720500	-	-
5813720200	-	-
5813720100	-	-
5813720600	-	-
5813720300	-	-
5813720400	-	-
5813720000	Basic valve without coil	-
5813721500	-	with throttle
5813721200	-	with throttle
5813721100	-	with throttle
5813721600	-	with throttle
5813721300	-	with throttle
5813721400	-	with throttle
5813721000	Basic valve without coil	with throttle
5813722500	-	-
5813722200	-	-
5813722100	-	-
5813722600	-	-
5813722300	-	-
5813722400	-	-
5813722000	Basic valve without coil	-
5813723500	-	with throttle
5813723200	-	with throttle
5813723100	-	with throttle
5813723600	-	with throttle
5813723300	-	with throttle
5813723400	-	with throttle
5813723000	Basic valve without coil	with throttle

Nominal flow Qn at 6 bar and Δp = 1 bar, MO = Manual override

Technical information

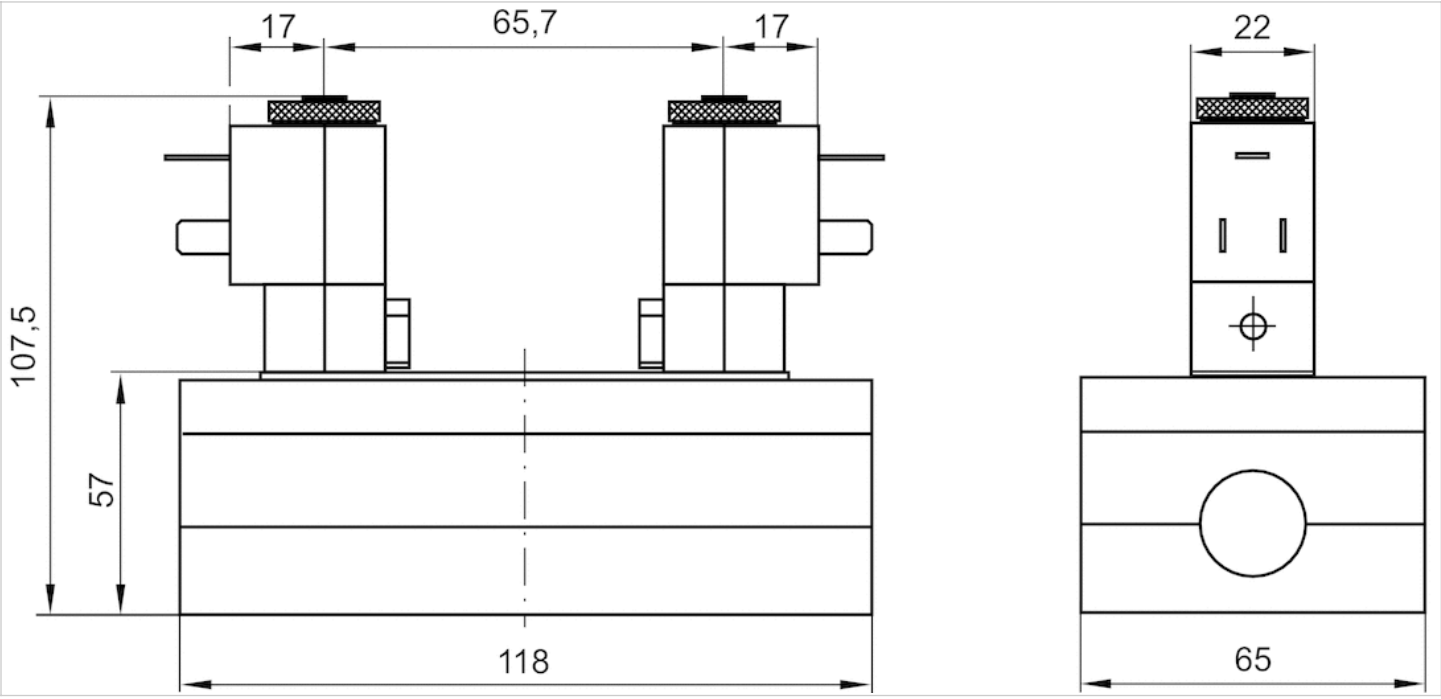
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Housing	Aluminum

Dimensions

Dimensions



The pilot valves can be loosened and turned through 180°.

5/2-directional valve, Series 581, size 3

- ISO 5599-1
- ISO 3
- 5/2
- With spring return
- single solenoid
- Qn = 4800 l/min
- Compressed air connection output Base plate ISO 5599-1
- Electrical connection Plug, EN 175301-803, form A
- Manual override without detent

Version	Spool valve
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Connection type	Plate connection
Standards	ISO 5599-1, ISO 3
Working pressure min./max.	See table below
Control pressure min./max.	3 ... 16 bar
Ambient temperature min./max.	-15 ... 50 °C
Medium temperature min./max.	-15 ... 50 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow Qn	4800 l/min
Flow conductance C	18.9 l/(s*bar)
Protection class with connection	IP65
Duty cycle	100 %
Typ. switch-on time	24 ms
Typ. switch-off time	66 ms
Mounting screw	with hexagon socket
Mounting screw tightening torque	10 Nm
Weight	0.99 kg

Technical data

Part No.		MO	Operational voltage DC	Operational voltage AC 50 Hz
5813170540			24 V	42 V
5813170440			-	230 V
5813171540			24 V	42 V
5813171440			-	230 V
5813172540			24 V	42 V
5813172440			-	230 V
5813173540			24 V	42 V
5813173440			-	230 V

5813170540	-10% / +10%	-10% / +10%	6.7 W	7.7 VA
5813171540	-10% / +10%	-10% / +10%	6.7 W	7.7 VA
5813172540	-10% / +10%	-10% / +10%	6.7 W	7.7 VA
5813173540	-10% / +10%	-10% / +10%	6.7 W	7.7 VA

5813170540	12 VA	Internal	3 ... 16 bar
5813171540	12 VA	Internal	3 ... 16 bar
5813172540	12 VA	External	-0.95 ... 16 bar
5813173540	12 VA	External	-0.95 ... 16 bar

5813170540	Plug EN 175301-803, form A	-
5813171540	Plug EN 175301-803, form A	with throttle
5813172540	Plug EN 175301-803, form A	-
5813173540	Plug EN 175301-803, form A	with throttle

Nominal flow Qn at 6 bar and Δp = 1 bar, MO = Manual override

Technical information

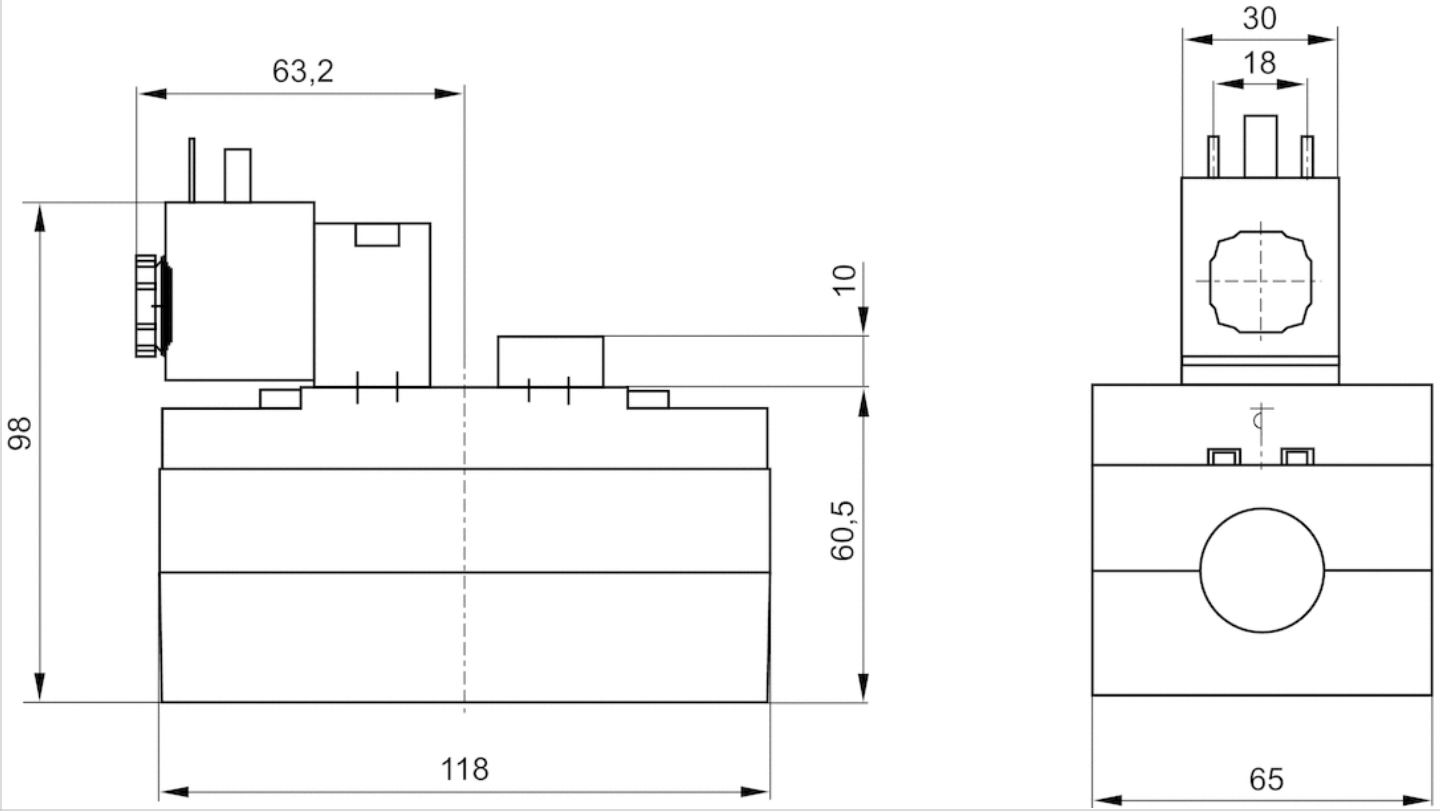
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Housing	Aluminum

Dimensions

Dimensions

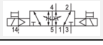


5/2-directional valve, Series 581, size 3

- ISO 5599-1
- ISO 3
- 5/2
- double solenoid
- Qn = 4800 l/min
- Compressed air connection output Base plate ISO 5599-1
- Electrical connection Plug, EN 175301-803, form A
- Manual override without detent

Version	Spool valve
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Connection type	Plate connection
Standards	ISO 5599-1, ISO 3
Working pressure min./max.	See table below
Control pressure min./max.	1.5 ... 16 bar
Ambient temperature min./max.	-15 ... 50 °C
Medium temperature min./max.	-15 ... 50 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow Qn	4800 l/min
Flow conductance C	18.9 l/(s*bar)
Protection class with connection	IP65
Duty cycle	100 %
Typ. switch-on time	18 ms
Typ. switch-off time	18 ms
Mounting screw	with hexagon socket
Mounting screw tightening torque	10 Nm
Weight	1.14 kg

Technical data

Part No.		MO	Operational voltage DC	Operational voltage AC 50 Hz
5813290540			24 V	42 V
5813290440			-	230 V
5813291540			24 V	42 V
5813291440			-	230 V
5813292540			24 V	42 V
5813292440			-	230 V
5813293540			24 V	42 V
5813293440			-	230 V

Part No.	Voltage tolerance DC	Voltage tolerance AC 50 Hz	Power consumption DC	Holding power AC 50 Hz
5813290540	-10% / +10%	-10% / +10%	6.7 W	7.7 VA

5813291540	-10% / +10%	-10% / +10%	6.7 W	7.7 VA
5813292540	-10% / +10%	-10% / +10%	6.7 W	7.7 VA
5813293540	-10% / +10%	-10% / +10%	6.7 W	7.7 VA

5813290540	12 VA	Internal	1.5 ... 16 bar
5813291540	12 VA	Internal	1.5 ... 16 bar
5813292540	12 VA	External	-0.95 ... 16 bar
5813293540	12 VA	External	-0.95 ... 16 bar

5813290540	Plug EN 175301-803, form A	-
5813291540	Plug EN 175301-803, form A	with throttle
5813292540	Plug EN 175301-803, form A	-
5813293540	Plug EN 175301-803, form A	with throttle

Nominal flow Qn at 6 bar and Δp = 1 bar, MO = Manual override

Technical information

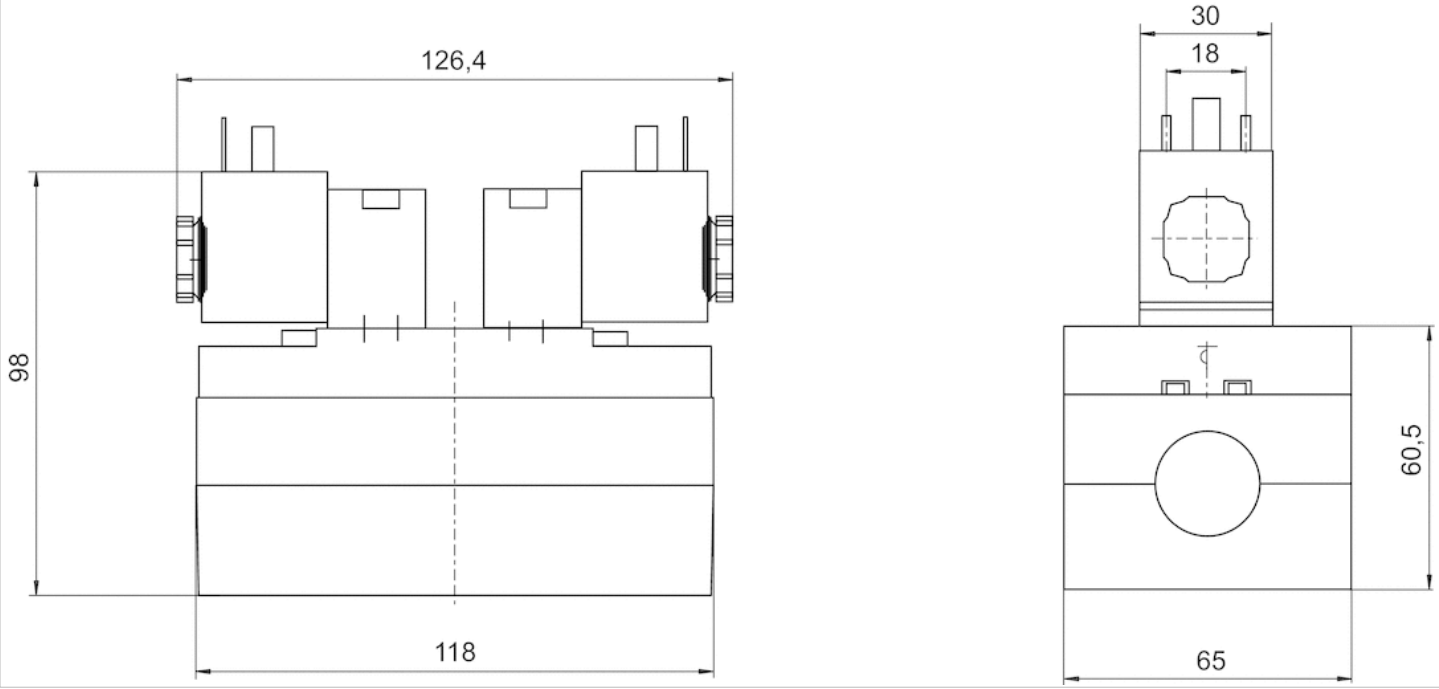
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Housing	Aluminum

Dimensions

Dimensions



5/2-directional valve, Series 581, size 3

- ISO 5599-1
- ISO 3
- 5/2
- With spring return
- single solenoid
- Qn = 4800 l/min
- Compressed air connection output Base plate ISO 5599-1
- Electrical connection Plug, EN 175301-803, form A
- Manual override with detent, without detent

Version	Spool valve
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Connection type	Plate connection
Standards	ISO 5599-1, ISO 3
Working pressure min./max.	See table below
Control pressure min./max.	3 ... 10 bar
Ambient temperature min./max.	-15 ... 50 °C
Medium temperature min./max.	-15 ... 50 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow Qn	4800 l/min
Flow conductance C	18.9 l/(s*bar)
Protection class with connection	IP65
Compatibility index	14
Duty cycle	100 %
Typ. switch-on time	24 ms
Typ. switch-off time	66 ms
Mounting screw	with hexagon socket
Mounting screw tightening torque	10 Nm
Weight	0.99 kg

Technical data

Part No.		MO	Operational voltage DC	Operational voltage AC 50 Hz
5813170650			24 V	-
5813170450			-	230 V
5813171650			24 V	-
5813171450			-	230 V
5813172650			24 V	-
5813172450			-	230 V
5813173650			24 V	-
5813173450			-	230 V

Part No.	Voltage tolerance DC	Voltage tolerance AC 50 Hz	Power consumption DC	Holding power AC 50 Hz
5813170650	-10% / +10%	-	2 W	-
5813170450	-	-10% / +10%	-	4.8 VA
5813171650	-10% / +10%	-	2 W	-
5813171450	-	-10% / +10%	-	4.8 VA
5813172650	-10% / +10%	-	2 W	-
5813172450	-	-10% / +10%	-	4.8 VA
5813173650	-10% / +10%	-	2 W	-
5813173450	-	-10% / +10%	-	4.8 VA

Part No.	Switch-on power AC 50 Hz	Pilot	Working pressure min./max.	Compatibility index
5813170650	-	Internal	3 ... 10 bar	14
5813170450	7 VA	Internal	3 ... 10 bar	14
5813171650	-	Internal	3 ... 10 bar	14
5813171450	7 VA	Internal	3 ... 10 bar	14
5813172650	-	External	-0.95 ... 10 bar	14
5813172450	7 VA	External	-0.95 ... 10 bar	14
5813173650	-	External	-0.95 ... 10 bar	14
5813173450	7 VA	External	-0.95 ... 10 bar	14

Part No.	Electrical connection Pilot valve	Throttle
5813170650	Plug EN 175301-803, form A	-
5813170450	Plug EN 175301-803, form A	-
5813171650	Plug EN 175301-803, form A	with throttle
5813171450	Plug EN 175301-803, form A	with throttle
5813172650	Plug EN 175301-803, form A	-
5813172450	Plug EN 175301-803, form A	-
5813173650	Plug EN 175301-803, form A	with throttle
5813173450	Plug EN 175301-803, form A	with throttle

Nominal flow Qn at 6 bar and Δp = 1 bar, MO = Manual override, An operating pressure of up to 16 bar is possible in the version with manual override without detent.

Technical information

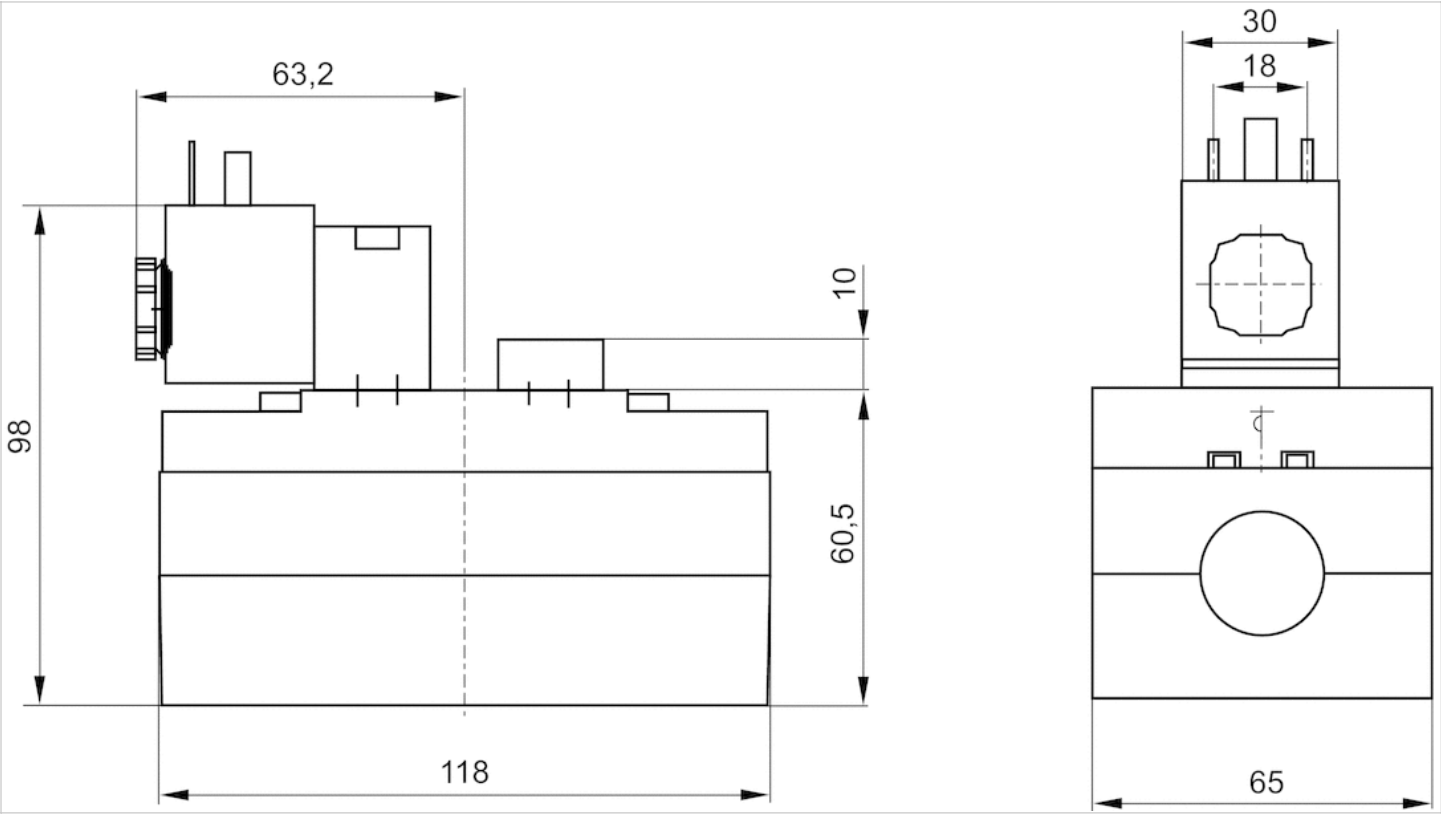
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Housing	Aluminum

Dimensions

Dimensions

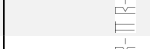
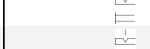
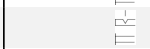


5/2-directional valve, Series 581, size 3

- ISO 5599-1
- ISO 3
- 5/2
- double solenoid
- Qn = 4800 l/min
- Compressed air connection output Base plate ISO 5599-1
- Electrical connection Plug, EN 175301-803, form A
- Manual override with detent, without detent

Version	Spool valve
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Connection type	Plate connection
Standards	ISO 5599-1, ISO 3
Working pressure min./max.	See table below
Control pressure min./max.	1.5 ... 10 bar
Ambient temperature min./max.	-15 ... 50 °C
Medium temperature min./max.	-15 ... 50 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow Qn	4800 l/min
Flow conductance C	18.9 l/(s*bar)
Protection class with connection	IP65
Compatibility index	14
Duty cycle	100 %
Typ. switch-on time	18 ms
Typ. switch-off time	18 ms
Mounting screw	with hexagon socket
Mounting screw tightening torque	10 Nm
Weight	1.14 kg

Technical data

Part No.		MO	Operational voltage DC	Operational voltage AC 50 Hz
5813290650			24 V	-
5813290450			-	230 V
5813291650			24 V	-
5813291450			-	230 V
5813292650			24 V	-
5813292450			-	230 V
5813293650			24 V	-
5813293450			-	230 V

5813290650	-10% / +10%	-	2 W	-
5813291650	-10% / +10%	-	2 W	-
5813292650	-10% / +10%	-	2 W	-
5813293650	-10% / +10%	-	2 W	-

5813290650	-	Internal	1.5 ... 10 bar	14
5813291650	-	Internal	1.5 ... 10 bar	14
5813292650	-	External	-0.95 ... 10 bar	14
5813293650	-	External	-0.95 ... 10 bar	14

5813290650	Plug EN 175301-803, form A	-
5813291650	Plug EN 175301-803, form A	with throttle
5813292650	Plug EN 175301-803, form A	-
5813293650	Plug EN 175301-803, form A	with throttle

Nominal flow Qn at 6 bar and Δp = 1 bar, MO = Manual override, An operating pressure of up to 16 bar is possible in the version with manual override without detent.

Technical information

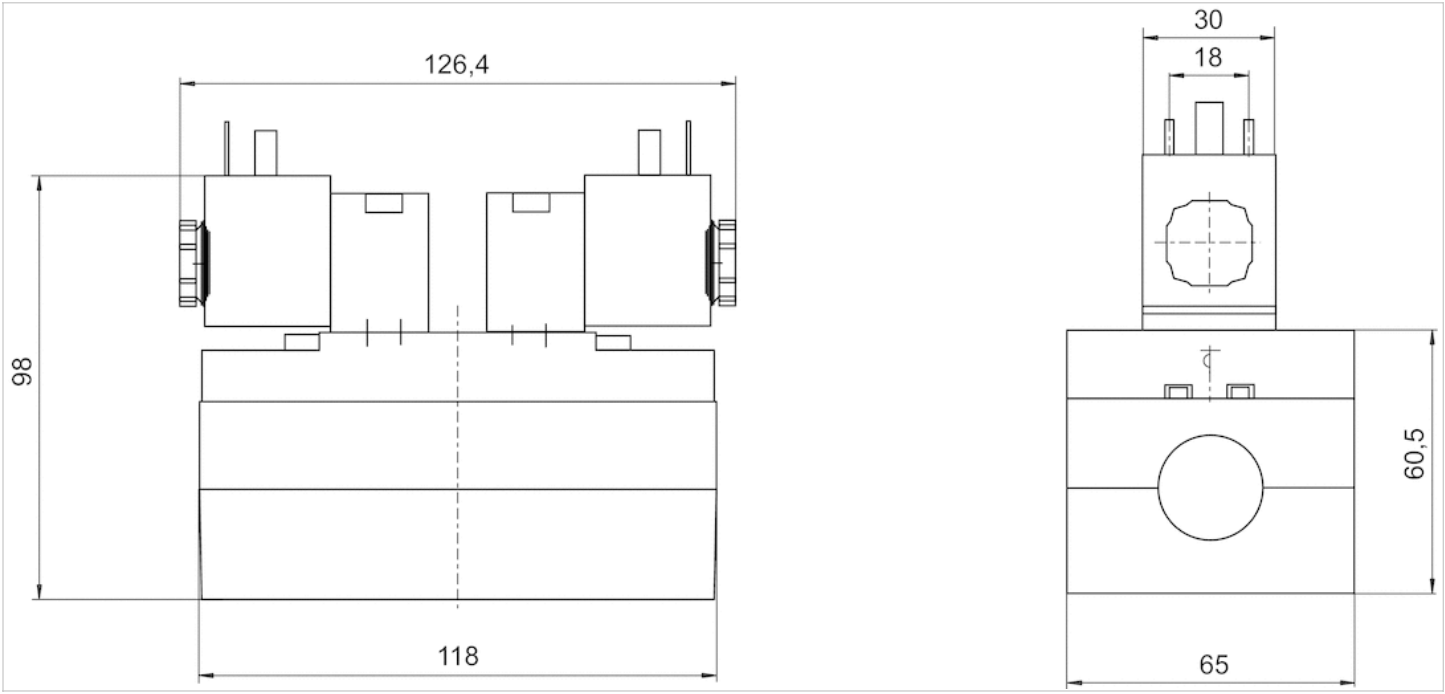
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Housing	Aluminum

Dimensions

Dimensions



5/2-directional valve, Series 581, size 3

- ISO 5599-1
- ISO 3
- 5/2
- With differential piston
- With air spring return
- Qn = 4800 l/min
- Compressed air connection output Base plate ISO 5599-1
- Electrical connection Plug, EN 175301-803, form A
- Manual override with detent, without detent

Version	Spool valve
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Connection type	Plate connection
Standards	ISO 5599-1, ISO 3
Working pressure min./max.	See table below
Control pressure min./max.	1.5 ... 10 bar
Ambient temperature min./max.	-15 ... 50 °C
Medium temperature min./max.	-15 ... 50 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow Qn	4800 l/min
Flow conductance C	18.9 l/(s*bar)
Protection class with connection	IP65
Compatibility index	14
Duty cycle	100 %
Typ. switch-on time	24 ms
Typ. switch-off time	66 ms
Mounting screw	with hexagon socket
Mounting screw tightening torque	10 Nm
Weight	0.99 kg

Technical data

Part No.		MO	Operational voltage DC	Operational voltage AC 50 Hz
5813670650			24 V	-
5813670450			-	230 V
5813671650			24 V	-
5813671450			-	230 V
5813672650			24 V	-
5813672450			-	230 V
5813673650			24 V	-
5813673450			-	230 V

Part No.	Voltage tolerance DC	Voltage tolerance AC 50 Hz	Power consumption DC	Holding power AC 50 Hz
5813670650	-10% / +10%	-	2 W	-
5813670450	-	-10% / +10%	-	4.8 VA
5813671650	-10% / +10%	-	2 W	-
5813671450	-	-10% / +10%	-	4.8 VA
5813672650	-10% / +10%	-	2 W	-
5813672450	-	-10% / +10%	-	4.8 VA
5813673650	-10% / +10%	-	2 W	-
5813673450	-	-10% / +10%	-	4.8 VA

Part No.	Switch-on power AC 50 Hz	Pilot	Working pressure min./max.	Compatibility index
5813670650	-	Internal	1.5 ... 10 bar	14
5813670450	7 VA	Internal	1.5 ... 10 bar	14
5813671650	-	Internal	1.5 ... 10 bar	14
5813671450	7 VA	Internal	1.5 ... 10 bar	14
5813672650	-	External	-0.95 ... 10 bar	14
5813672450	7 VA	External	-0.95 ... 10 bar	14
5813673650	-	External	-0.95 ... 10 bar	14
5813673450	7 VA	External	-0.95 ... 10 bar	14

Part No.	Electrical connection Pilot valve	Throttle
5813670650	Plug EN 175301-803, form A	-
5813670450	Plug EN 175301-803, form A	-
5813671650	Plug EN 175301-803, form A	with throttle
5813671450	Plug EN 175301-803, form A	with throttle
5813672650	Plug EN 175301-803, form A	-
5813672450	Plug EN 175301-803, form A	-
5813673650	Plug EN 175301-803, form A	with throttle
5813673450	Plug EN 175301-803, form A	with throttle

Nominal flow Qn at 6 bar and Δp = 1 bar, MO = Manual override, An operating pressure of up to 16 bar is possible in the version with manual override without detent.

Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

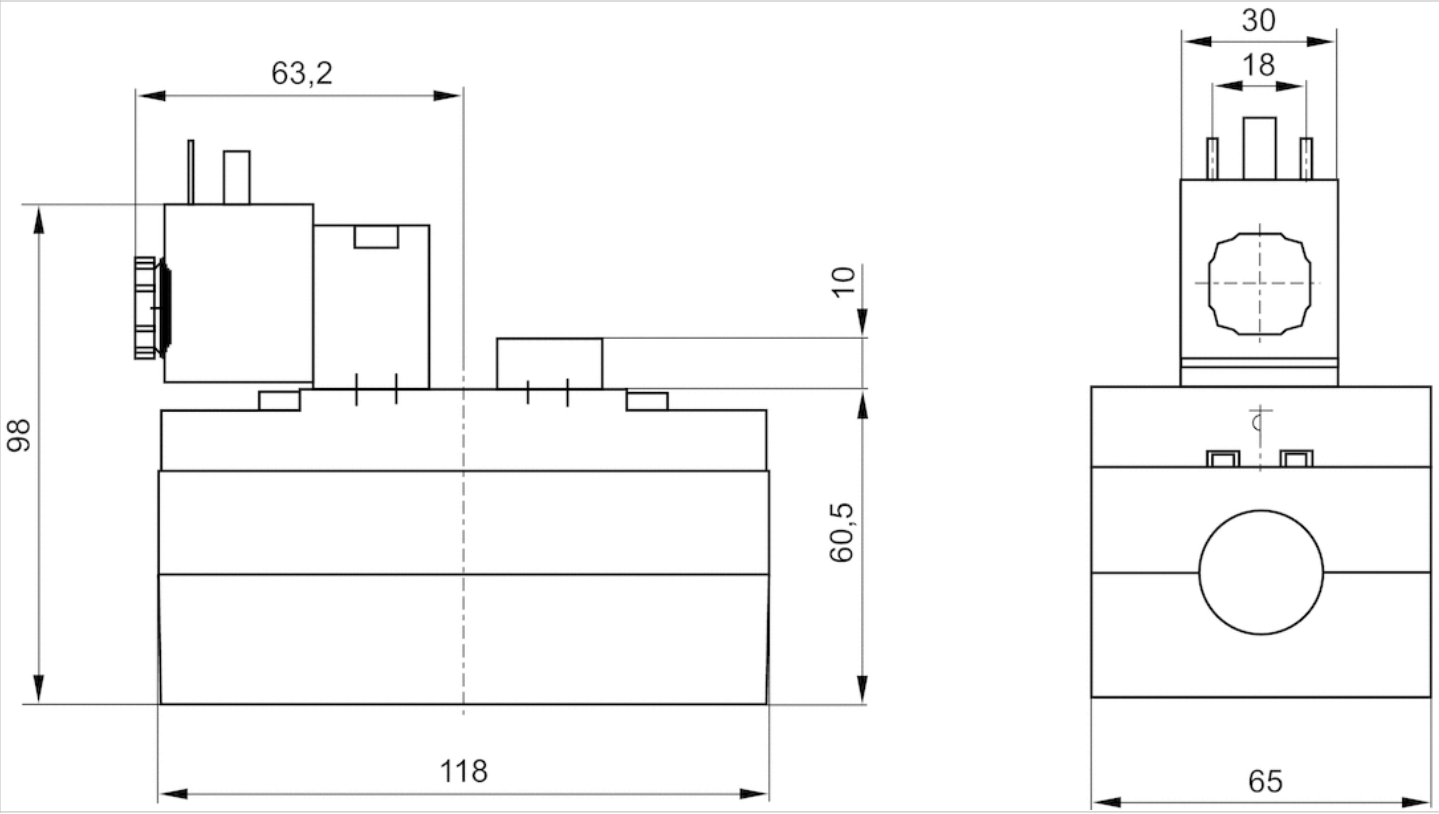
Differential piston, signal 14 has priority
The minimum pilot pressure at port 14 is dependent on the pressure in port 1.

Technical information

Housing	Aluminum

Dimensions

Dimensions



5/2-directional valve, Series 581, size 3

- ISO 5599-1
- ISO 3
- 5/2
- double solenoid
- Qn = 4800 l/min
- Compressed air connection output Base plate ISO 5599-1
- Electrical connection Plug, EN 175301-803, form A
- Manual override without

Version	Spool valve
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Connection type	Plate connection
Standards	ISO 5599-1, ISO 3
Working pressure min./max.	See table below
Control pressure min./max.	1.5 ... 16 bar
Ambient temperature min./max.	-15 ... 50 °C
Medium temperature min./max.	-15 ... 50 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow Qn	4800 l/min
Flow conductance C	18.9 l/(s*bar)
Protection class with connection	IP65
Duty cycle	100 %
Typ. switch-on time	18 ms
Typ. switch-off time	18 ms
Mounting screw	with hexagon socket
Mounting screw tightening torque	10 Nm
Weight	1.14 kg

Technical data

Part No.		Operational voltage DC	Operational voltage AC 50 Hz	Voltage tolerance DC
5813290530		24 V	-	-10% / +10%
5813290430		-	230 V	-
5813291530		24 V	-	-10% / +10%
5813291430		-	230 V	-
5813292530		24 V	-	-10% / +10%
5813292430		-	230 V	-
5813293530		24 V	-	-10% / +10%
5813293430		-	230 V	-

Part No.	Voltage tolerance AC 50 Hz	Power consumption DC	Holding power AC 50 Hz	Switch-on power AC 50 Hz
5813290530	-10% / +10%	6.7 W	-	-

5813291530	-10% / +10%	6.7 W	-	-
5813292530	-10% / +10%	6.7 W	-	-
5813293530	-10% / +10%	6.7 W	-	-

5813290530	Internal	1.5 ... 16 bar	Plug EN 175301-803, form A	-
5813291530	Internal	1.5 ... 16 bar	Plug EN 175301-803, form A	with throttle
5813292530	External	-0.95 ... 16 bar	Plug EN 175301-803, form A	-
5813293530	External	-0.95 ... 16 bar	Plug EN 175301-803, form A	with throttle

Nominal flow Qn at 6 bar and Δp = 1 bar

Technical information

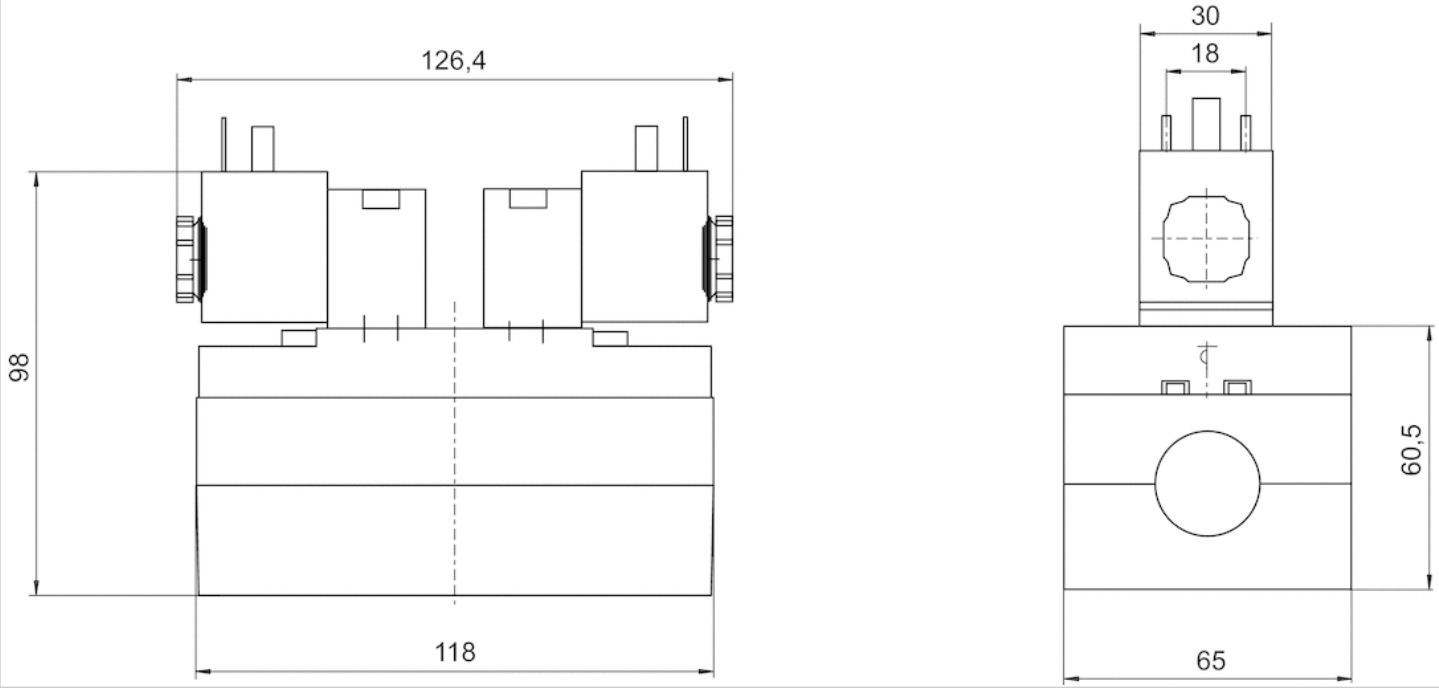
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Housing	Aluminum

Dimensions

Dimensions



5/2-directional valve, Series 581, size 3

- ISO 5599-1
- ISO 3
- 5/2
- With differential piston
- With air spring return
- Qn = 4800 l/min
- Compressed air connection output Base plate ISO 5599-1
- Electrical connection Plug, EN 175301-803, form A
- Manual override without

Version	Spool valve
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Connection type	Plate connection
Standards	ISO 5599-1, ISO 3
Working pressure min./max.	See table below
Control pressure min./max.	1.5 ... 16 bar
Ambient temperature min./max.	-15 ... 50 °C
Medium temperature min./max.	-15 ... 50 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow Qn	4800 l/min
Flow conductance C	18.9 l/(s*bar)
Protection class with connection	IP65
Duty cycle	100 %
Typ. switch-on time	24 ms
Typ. switch-off time	66 ms
Mounting screw	with hexagon socket
Mounting screw tightening torque	10 Nm
Weight	0.99 kg

Technical data

Part No.		Operational voltage DC	Operational voltage AC 50 Hz	Voltage tolerance DC
5813670530		24 V	-	-10% / +10%
5813670430		-	230 V	-
5813671530		24 V	-	-10% / +10%
5813671430		-	230 V	-
5813672530		24 V	-	-10% / +10%
5813672430		-	230 V	-
5813673530		24 V	-	-10% / +10%
5813673430		-	230 V	-

5813670530	-10% / +10%	6.7 W	-	-
5813671530	-10% / +10%	6.7 W	-	-
5813672530	-10% / +10%	6.7 W	-	-
5813673530	-10% / +10%	6.7 W	-	-

5813670530	Internal	1.5 ... 16 bar	Plug EN 175301-803, form A	-
5813671530	Internal	1.5 ... 16 bar	Plug EN 175301-803, form A	with throttle
5813672530	External	-0.95 ... 16 bar	Plug EN 175301-803, form A	-
5813673530	External	-0.95 ... 16 bar	Plug EN 175301-803, form A	with throttle

Differential piston, signal 14 has priority, The minimum pilot pressure at port 14 is dependent on the pressure in port 1., Nominal flow Qn at 6 bar and Δp = 1 bar

Technical information

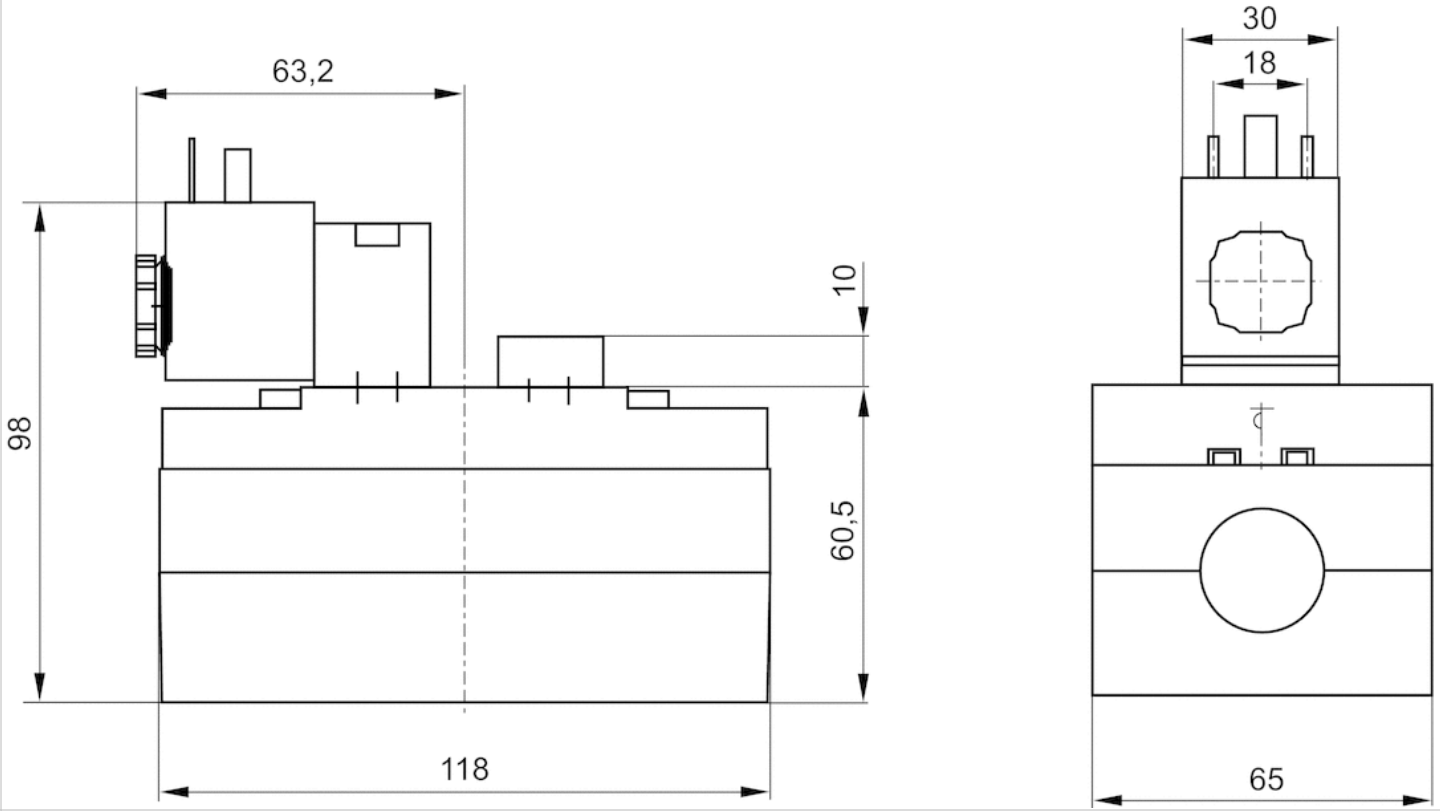
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Housing	Aluminum

Dimensions

Dimensions



5/2-directional valve, Series 581, size 3

- ISO 5599-1
- ISO 3
- 5/2
- With spring return
- single solenoid
- Qn = 4800 l/min
- Compressed air connection output Base plate ISO 5599-1
- Electrical connection Plug, EN 175301-803, form A
- Manual override without

Version	Spool valve
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Connection type	Plate connection
Standards	ISO 5599-1, ISO 3
Working pressure min./max.	See table below
Control pressure min./max.	3 ... 16 bar
Ambient temperature min./max.	-15 ... 50 °C
Medium temperature min./max.	-15 ... 50 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow Qn	4800 l/min
Flow conductance C	18.9 l/(s*bar)
Protection class with connection	IP65
Duty cycle	100 %
Typ. switch-on time	24 ms
Typ. switch-off time	66 ms
Mounting screw	with hexagon socket
Mounting screw tightening torque	10 Nm
Weight	0.99 kg

Technical data

Part No.		Operational voltage DC	Operational voltage AC 50 Hz	Voltage tolerance DC
5813170530		24 V	-	-10% / +10%
5813170430		-	230 V	-
5813171530		24 V	-	-10% / +10%
5813171430		-	230 V	-
5813172530		24 V	-	-10% / +10%
5813172430		-	230 V	-
5813173530		24 V	-	-10% / +10%
5813173430		-	230 V	-

5813170530	-10% / +10%	6.7 W	-	-
5813171530	-10% / +10%	6.7 W	-	-
5813172530	-10% / +10%	6.7 W	-	-
5813173530	-10% / +10%	6.7 W	-	-

5813170530	Internal	3 ... 16 bar	Plug EN 175301-803, form A	-
5813171530	Internal	3 ... 16 bar	Plug EN 175301-803, form A	with throttle
5813172530	External	-0.95 ... 16 bar	Plug EN 175301-803, form A	-
5813173530	External	-0.95 ... 16 bar	Plug EN 175301-803, form A	with throttle

Nominal flow Qn at 6 bar and Δp = 1 bar

Technical information

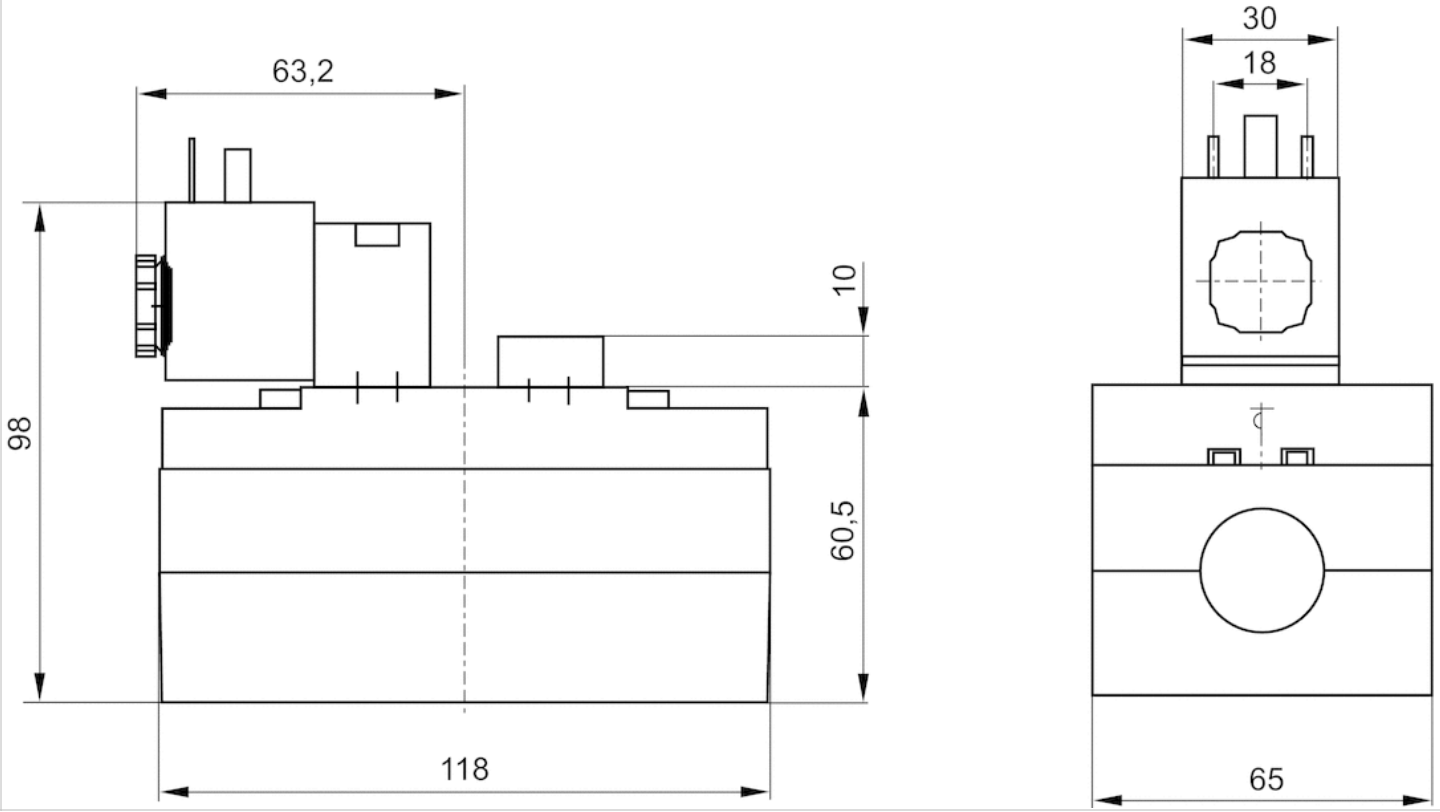
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Housing	Aluminum

Dimensions

Dimensions



5/2-directional valve, Series 581, size 3

- ISO 5599-1
- ISO 3
- 5/2
- double solenoid
- Qn = 4800 l/min
- Compressed air connection output Base plate ISO 5599-1
- Electrical connection Plug, EN 175301-803, form A
- Manual override without detent

Version	Spool valve
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Connection type	Plate connection
Standards	ISO 5599-1, ISO 3
Working pressure min./max.	See table below
Control pressure min./max.	1.5 ... 10 bar
Ambient temperature min./max.	-15 ... 50 °C
Medium temperature min./max.	-15 ... 50 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow Qn	4800 l/min
Flow conductance C	18.9 l/(s*bar)
Protection class with connection	IP65
Duty cycle	100 %
Typ. switch-on time	18 ms
Typ. switch-off time	18 ms
Mounting screw	with hexagon socket
Mounting screw tightening torque	10 Nm
Weight	1.22 kg

Technical data

Part No.		MO	Operational voltage DC	Voltage tolerance DC
5813290190			24 V	-10% / +10%
5813291190			24 V	-10% / +10%
5813292190			24 V	-10% / +10%
5813293190			24 V	-10% / +10%

Part No.	Power consumption DC	Pilot	Working pressure min./max.
5813290190	6 W	Internal	1.5 ... 10 bar
5813291190	6 W	Internal	1.5 ... 10 bar
5813292190	6 W	External	-0.95 ... 10 bar
5813293190	6 W	External	-0.95 ... 10 bar

5813290190	Plug EN 175301-803, form A	-
5813292190	Plug EN 175301-803, form A	-

Nominal flow Qn at 6 bar and Δp = 1 bar, MO = Manual override

Technical information

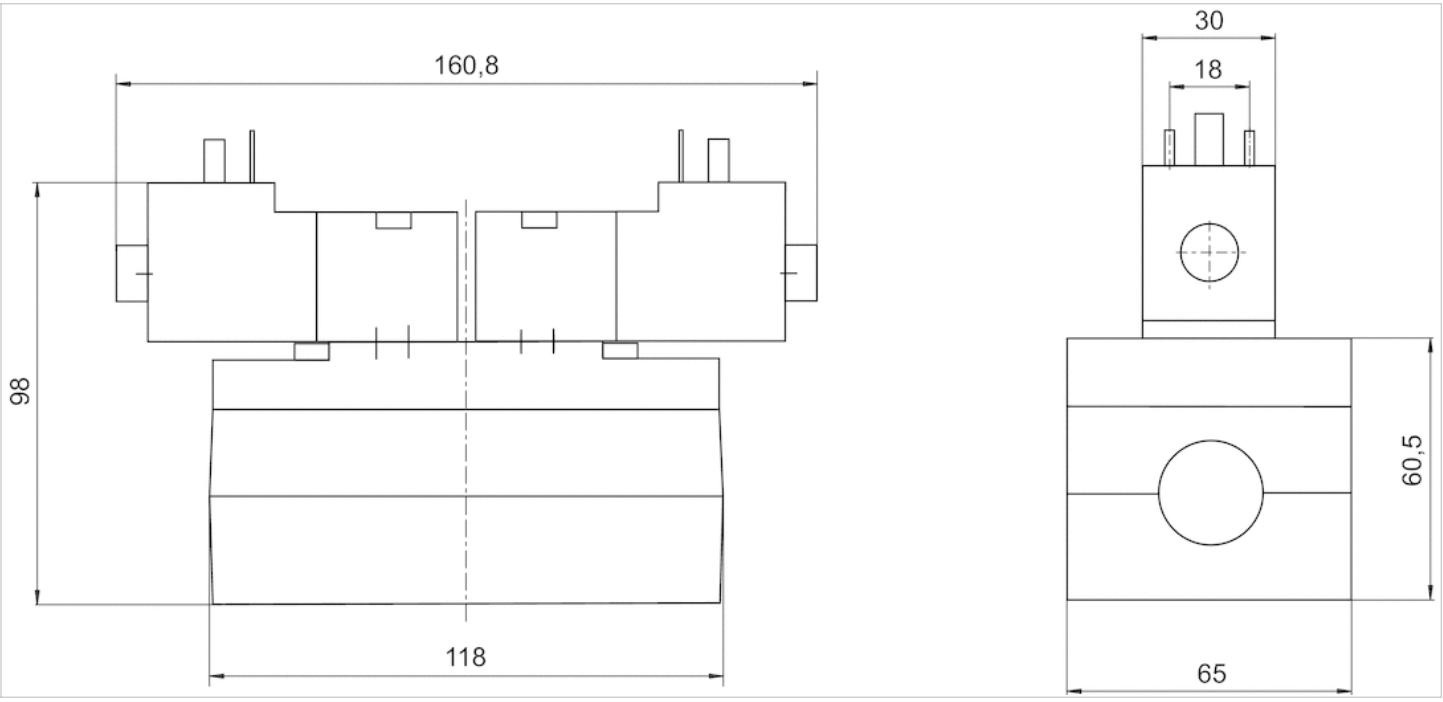
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Housing	Aluminum

Dimensions

Dimensions



5/2-directional valve, Series 581, size 3

- ISO 5599-1
- ISO 3
- 5/2
- With differential piston
- With air spring return
- Qn = 4800 l/min
- Compressed air connection output Base plate ISO 5599-1
- Electrical connection Plug, EN 175301-803, form A
- Manual override without detent

Version	Spool valve
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Connection type	Plate connection
Standards	ISO 5599-1, ISO 3
Working pressure min./max.	See table below
Control pressure min./max.	1.5 ... 10 bar
Ambient temperature min./max.	-15 ... 50 °C
Medium temperature min./max.	-15 ... 50 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow Qn	4800 l/min
Flow conductance C	18.9 l/(s*bar)
Protection class with connection	IP65
Duty cycle	100 %
Typ. switch-on time	24 ms
Typ. switch-off time	66 ms
Mounting screw	with hexagon socket
Mounting screw tightening torque	10 Nm
Weight	1.03 kg

Technical data

Part No.		MO	Operational voltage DC	Voltage tolerance DC
5813670190			24 V	-10% / +10%
5813671190			24 V	-10% / +10%
5813672190			24 V	-10% / +10%
5813673190			24 V	-10% / +10%

Part No.	Power consumption DC	Pilot	Working pressure min./max.
5813670190	6 W	Internal	1.5 ... 10 bar
5813671190	6 W	Internal	1.5 ... 10 bar
5813672190	6 W	External	-0.95 ... 10 bar
5813673190	6 W	External	-0.95 ... 10 bar

5813670190	Plug EN 175301-803, form A	-
5813672190	Plug EN 175301-803, form A	-

Differential piston, signal 14 has priority, The minimum pilot pressure at port 14 is dependent on the pressure in port 1., Nominal flow Qn at 6 bar and Δp = 1 bar, MO = Manual override

Technical information

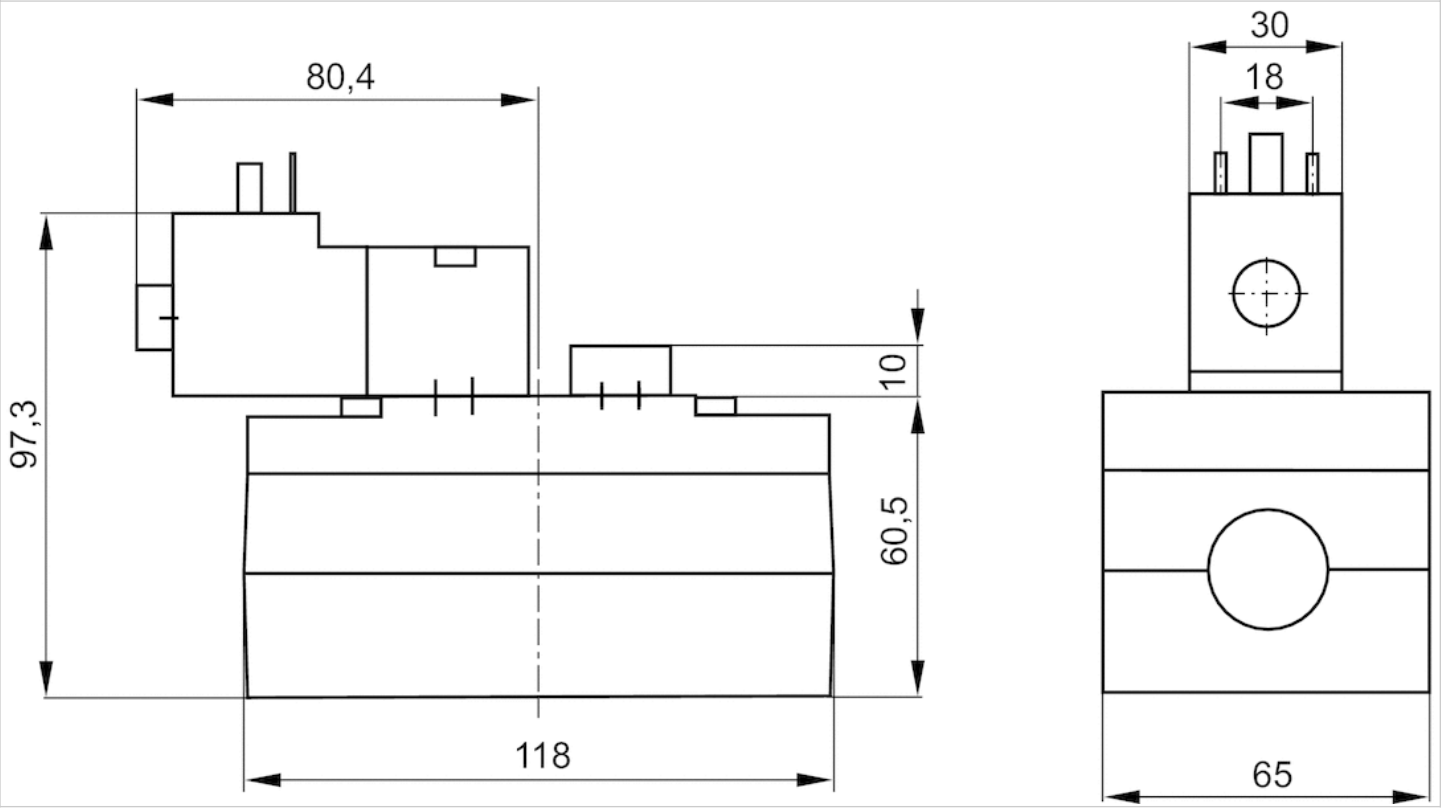
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Housing	Aluminum

Dimensions

Dimensions



5/2-directional valve, Series 581, size 3

- ISO 5599-1
- ISO 3
- 5/2
- With spring return
- single solenoid
- Qn = 4800 l/min
- Compressed air connection output Base plate ISO 5599-1
- Electrical connection Plug, EN 175301-803, form A
- Manual override without detent

Version	Spool valve
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Connection type	Plate connection
Standards	ISO 5599-1, ISO 3
Working pressure min./max.	See table below
Control pressure min./max.	3 ... 10 bar
Ambient temperature min./max.	-15 ... 50 °C
Medium temperature min./max.	-15 ... 50 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow Qn	4800 l/min
Flow conductance C	18.9 l/(s*bar)
Protection class with connection	IP65
Duty cycle	100 %
Typ. switch-on time	24 ms
Typ. switch-off time	66 ms
Mounting screw	with hexagon socket
Mounting screw tightening torque	10 Nm
Weight	1.03 kg

Technical data

Part No.		MO	Operational voltage DC	Voltage tolerance DC
5813170190			24 V	-10% / +10%
5813171190			24 V	-10% / +10%
5813172190			24 V	-10% / +10%
5813173190			24 V	-10% / +10%

Part No.	Power consumption DC	Pilot	Working pressure min./max.
5813170190	6 W	Internal	3 ... 10 bar
5813171190	6 W	Internal	3 ... 10 bar
5813172190	6 W	External	-0.95 ... 10 bar
5813173190	6 W	External	-0.95 ... 10 bar

5813170190	Plug EN 175301-803, form A	-
5813172190	Plug EN 175301-803, form A	-

Nominal flow Qn at 6 bar and Δp = 1 bar, MO = Manual override

Technical information

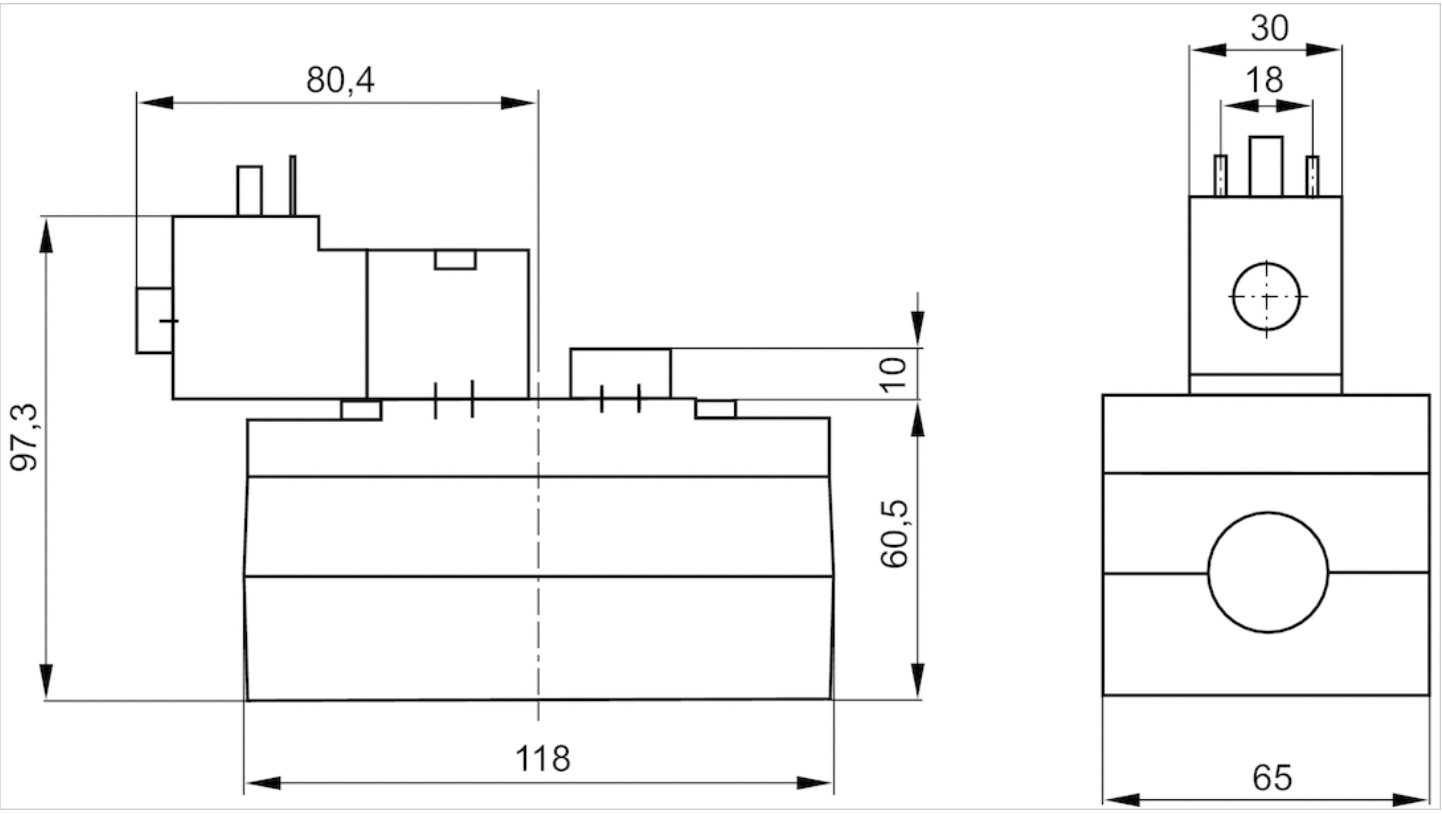
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Housing	Aluminum

Dimensions

Dimensions

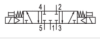
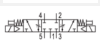
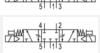
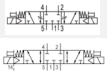
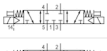
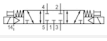
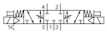
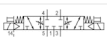
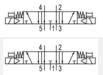
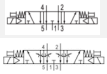


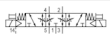
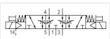
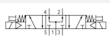
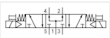
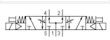
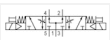
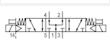
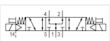
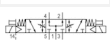
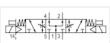
5/3-directional valve, Series 581, size 3

- ISO 5599-1
- ISO 3
- 5/3
- closed center exhausted center pressurized center
- Qn = 4100 l/min
- Compressed air connection output Base plate ISO 5599-1
- Electrical connection Plug, EN 175301-803, form A
- Manual override without detent

Version	Spool valve
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Connection type	Plate connection
Standards	ISO 5599-1, ISO 3
Working pressure min./max.	See table below
Control pressure min./max.	3 ... 16 bar
Ambient temperature min./max.	-15 ... 50 °C
Medium temperature min./max.	-15 ... 50 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow Qn	4100 l/min
Flow conductance C	14.1 l/(s*bar)
Protection class with connection	IP65
Duty cycle	100 %
Typ. switch-on time	22 ms
Typ. switch-off time	61 ms
Mounting screw	with hexagon socket
Mounting screw tightening torque	10 Nm
Weight	1.14 kg

Technical data

Part No.			MO	Operational voltage DC
5813490540		closed center		24 V
5813490440		closed center		-
5813491540		closed center		24 V
5813491440		closed center		-
5813492540		closed center		24 V
5813492440		closed center		-
5813493540		closed center		24 V
5813493440		closed center		-
5813590540		exhausted center		24 V
5813590440		exhausted center		-
5813591540		exhausted center		24 V
5813591440		exhausted center		-

Part No.			MO	Operational voltage DC
5813592540		exhausted center		24 V
5813592440		exhausted center		-
5813593540		exhausted center		24 V
5813593440		exhausted center		-
5813790540		pressurized center		24 V
5813790440		pressurized center		-
5813791540		pressurized center		24 V
5813791440		pressurized center		-
5813792540		pressurized center		24 V
5813792440		pressurized center		-
5813793540		pressurized center		24 V
5813793440		pressurized center		-

Part No.	Operational voltage AC 50 Hz	Voltage tolerance DC	Voltage tolerance AC 50 Hz
5813490540	42 V	-10% / +10%	-10% / +10%
5813490440	230 V	-	-10% / +10%
5813491540	42 V	-10% / +10%	-10% / +10%
5813491440	230 V	-	-10% / +10%
5813492540	42 V	-10% / +10%	-10% / +10%
5813492440	230 V	-	-10% / +10%
5813493540	42 V	-10% / +10%	-10% / +10%
5813493440	230 V	-	-10% / +10%
5813590540	42 V	-10% / +10%	-10% / +10%
5813590440	230 V	-	-10% / +10%
5813591540	42 V	-10% / +10%	-10% / +10%
5813591440	230 V	-	-10% / +10%
5813592540	42 V	-10% / +10%	-10% / +10%
5813592440	230 V	-	-10% / +10%
5813593540	42 V	-10% / +10%	-10% / +10%
5813593440	230 V	-	-10% / +10%
5813790540	42 V	-10% / +10%	-10% / +10%
5813790440	230 V	-	-10% / +10%
5813791540	42 V	-10% / +10%	-10% / +10%
5813791440	230 V	-	-10% / +10%
5813792540	42 V	-10% / +10%	-10% / +10%
5813792440	230 V	-	-10% / +10%
5813793540	42 V	-10% / +10%	-10% / +10%
5813793440	230 V	-	-10% / +10%

Part No.	Power consumption DC	Holding power AC 50 Hz	Switch-on power AC 50 Hz	Pilot
5813490540	6.7 W	7.7 VA	12 VA	Internal
5813490440	-	10.8 VA	15.2 VA	Internal
5813491540	6.7 W	7.7 VA	12 VA	Internal
5813491440	-	10.8 VA	15.2 VA	Internal

Part No.	Power consumption DC	Holding power AC 50 Hz	Switch-on power AC 50 Hz	Pilot
5813492540	6.7 W	7.7 VA	12 VA	External
5813492440	-	10.8 VA	15.2 VA	External
5813493540	6.7 W	7.7 VA	12 VA	External
5813493440	-	10.8 VA	15.2 VA	External
5813590540	6.7 W	7.7 VA	12 VA	Internal
5813590440	-	10.8 VA	15.2 VA	Internal
5813591540	6.7 W	7.7 VA	12 VA	Internal
5813591440	-	10.8 VA	15.2 VA	Internal
5813592540	6.7 W	7.7 VA	12 VA	External
5813592440	-	10.8 VA	15.2 VA	External
5813593540	6.7 W	7.7 VA	12 VA	External
5813593440	-	10.8 VA	15.2 VA	External
5813790540	6.7 W	7.7 VA	12 VA	Internal
5813790440	-	10.8 VA	15.2 VA	Internal
5813791540	6.7 W	7.7 VA	12 VA	Internal
5813791440	-	10.8 VA	15.2 VA	Internal
5813792540	6.7 W	7.7 VA	12 VA	External
5813792440	-	10.8 VA	15.2 VA	External
5813793540	6.7 W	7.7 VA	12 VA	External
5813793440	-	10.8 VA	15.2 VA	External

Part No.	Working pressure min./max.	Electrical connection Pilot valve	Throttle
5813490540	3 ... 16 bar	Plug EN 175301-803, form A	-
5813490440	3 ... 16 bar	Plug EN 175301-803, form A	-
5813491540	3 ... 16 bar	Plug EN 175301-803, form A	with throttle
5813491440	3 ... 16 bar	Plug EN 175301-803, form A	with throttle
5813492540	-0.95 ... 16 bar	Plug EN 175301-803, form A	-
5813492440	-0.95 ... 16 bar	Plug EN 175301-803, form A	-
5813493540	-0.95 ... 16 bar	Plug EN 175301-803, form A	with throttle
5813493440	-0.95 ... 16 bar	Plug EN 175301-803, form A	with throttle
5813590540	3 ... 16 bar	Plug EN 175301-803, form A	-
5813590440	3 ... 16 bar	Plug EN 175301-803, form A	-
5813591540	3 ... 16 bar	Plug EN 175301-803, form A	with throttle
5813591440	3 ... 16 bar	Plug EN 175301-803, form A	with throttle
5813592540	-0.95 ... 16 bar	Plug EN 175301-803, form A	-
5813592440	-0.95 ... 16 bar	Plug EN 175301-803, form A	-
5813593540	-0.95 ... 16 bar	Plug EN 175301-803, form A	with throttle
5813593440	-0.95 ... 16 bar	Plug EN 175301-803, form A	with throttle
5813790540	3 ... 16 bar	Plug EN 175301-803, form A	-
5813790440	3 ... 16 bar	Plug EN 175301-803, form A	-
5813791540	3 ... 16 bar	Plug EN 175301-803, form A	with throttle
5813791440	3 ... 16 bar	Plug EN 175301-803, form A	with throttle
5813792540	-0.95 ... 16 bar	Plug EN 175301-803, form A	-
5813792440	-0.95 ... 16 bar	Plug EN 175301-803, form A	-
5813793540	-0.95 ... 16 bar	Plug EN 175301-803, form A	with throttle
5813793440	-0.95 ... 16 bar	Plug EN 175301-803, form A	with throttle

Nominal flow Qn at 6 bar and Δp = 1 bar, MO = Manual override

Technical information

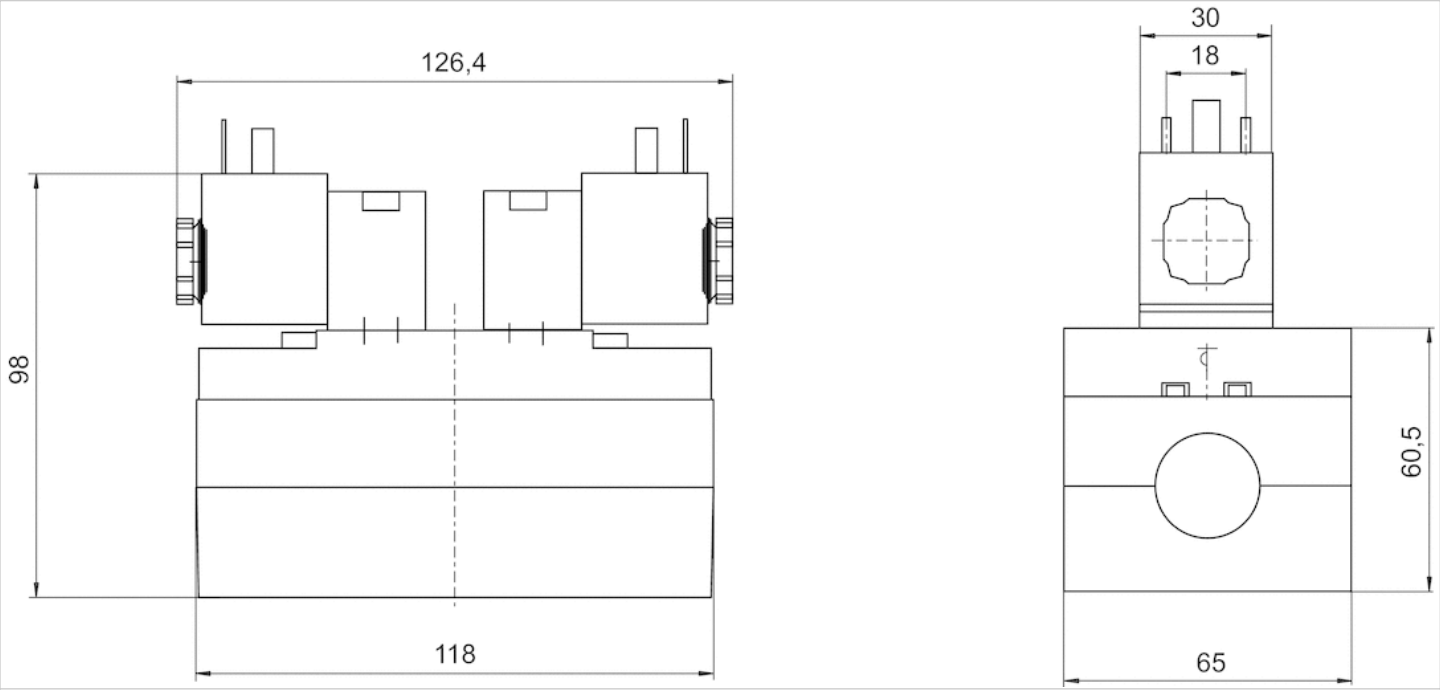
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Housing	Aluminum

Dimensions

Dimensions



5/3-directional valve, Series 581, size 3

- ISO 5599-1
- ISO 3
- 5/3
- closed center exhausted center pressurized center
- Qn = 4100 l/min
- Compressed air connection output Base plate ISO 5599-1
- Electrical connection Plug, EN 175301-803, form A
- Manual override with detent, without detent

Version	Spool valve
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Connection type	Plate connection
Standards	ISO 5599-1, ISO 3
Working pressure min./max.	See table below
Control pressure min./max.	3 ... 10 bar
Ambient temperature min./max.	-15 ... 50 °C
Medium temperature min./max.	-15 ... 50 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow Qn	4100 l/min
Flow conductance C	14.1 l/(s*bar)
Protection class with connection	IP65
Compatibility index	14
Duty cycle	100 %
Typ. switch-on time	22 ms
Typ. switch-off time	61 ms
Mounting screw	with hexagon socket
Mounting screw tightening torque	10 Nm
Weight	1.14 kg

Technical data

Part No.			MO	Operational voltage DC
5813490650		closed center		24 V
5813490450		closed center		-
5813491650		closed center		24 V
5813491450		closed center		-
5813492650		closed center		24 V
5813492450		closed center		-
5813493650		closed center		24 V
5813493450		closed center		-
5813590650		exhausted center		24 V
5813590450		exhausted center		-
5813591650		exhausted center		24 V
5813591450		exhausted center		-
5813592650		exhausted center		24 V
5813592450		exhausted center		-
5813593650		exhausted center		24 V
5813593450		exhausted center		-
5813790650		pressurized center		24 V
5813790450		pressurized center		-
5813791650		pressurized center		24 V
5813791450		pressurized center		-
5813792650		pressurized center		24 V
5813792450		pressurized center		-
5813793650		pressurized center		24 V
5813793450		pressurized center		-

Part No.	Operational voltage AC 50 Hz	Voltage tolerance DC	Voltage tolerance AC 50 Hz
5813490650	-	-10% / +10%	-
5813490450	230 V	-	-10% / +10%
5813491650	-	-10% / +10%	-
5813491450	230 V	-	-10% / +10%
5813492650	-	-10% / +10%	-
5813492450	230 V	-	-10% / +10%
5813493650	-	-10% / +10%	-
5813493450	230 V	-	-10% / +10%
5813590650	-	-10% / +10%	-
5813590450	230 V	-	-10% / +10%
5813591650	-	-10% / +10%	-
5813591450	230 V	-	-10% / +10%
5813592650	-	-10% / +10%	-
5813592450	230 V	-	-10% / +10%
5813593650	-	-10% / +10%	-
5813593450	230 V	-	-10% / +10%

Part No.	Operational voltage AC 50 Hz	Voltage tolerance DC	Voltage tolerance AC 50 Hz
5813790650	-	-10% / +10%	-
5813790450	230 V	-	-10% / +10%
5813791650	-	-10% / +10%	-
5813791450	230 V	-	-10% / +10%
5813792650	-	-10% / +10%	-
5813792450	230 V	-	-10% / +10%
5813793650	-	-10% / +10%	-
5813793450	230 V	-	-10% / +10%

Part No.	Power consumption DC	Holding power AC 50 Hz	Switch-on power AC 50 Hz	Pilot
5813490650	2 W	-	-	Internal
5813490450	-	4.8 VA	7 VA	Internal
5813491650	2 W	-	-	Internal
5813491450	-	4.8 VA	7 VA	Internal
5813492650	2 W	-	-	External
5813492450	-	4.8 VA	7 VA	External
5813493650	2 W	-	-	External
5813493450	-	4.8 VA	7 VA	External
5813590650	2 W	-	-	Internal
5813590450	-	4.8 VA	7 VA	Internal
5813591650	2 W	-	-	Internal
5813591450	-	4.8 VA	7 VA	Internal
5813592650	2 W	-	-	External
5813592450	-	4.8 VA	7 VA	External
5813593650	2 W	-	-	External
5813593450	-	4.8 VA	7 VA	External
5813790650	2 W	-	-	Internal
5813790450	-	4.8 VA	7 VA	Internal
5813791650	2 W	-	-	Internal
5813791450	-	4.8 VA	7 VA	Internal
5813792650	2 W	-	-	External
5813792450	-	4.8 VA	7 VA	External
5813793650	2 W	-	-	External
5813793450	-	4.8 VA	7 VA	External

Part No.	Working pressure min./max.	Compatibility index	Electrical connection Pilot valve
5813490650	3 ... 10 bar	14	Plug EN 175301-803, form A
5813490450	3 ... 10 bar	14	Plug EN 175301-803, form A
5813491650	3 ... 10 bar	14	Plug EN 175301-803, form A
5813491450	3 ... 10 bar	14	Plug EN 175301-803, form A
5813492650	-0.95 ... 10 bar	14	Plug EN 175301-803, form A
5813492450	-0.95 ... 10 bar	14	Plug EN 175301-803, form A
5813493650	-0.95 ... 10 bar	14	Plug EN 175301-803, form A
5813493450	-0.95 ... 10 bar	14	Plug EN 175301-803, form A

Part No.	Working pressure min./max.	Compatibility index	Electrical connection Pilot valve
5813590650	3 ... 10 bar	14	Plug EN 175301-803, form A
5813590450	3 ... 10 bar	14	Plug EN 175301-803, form A
5813591650	3 ... 10 bar	14	Plug EN 175301-803, form A
5813591450	3 ... 10 bar	14	Plug EN 175301-803, form A
5813592650	-0.95 ... 10 bar	14	Plug EN 175301-803, form A
5813592450	-0.95 ... 10 bar	14	Plug EN 175301-803, form A
5813593650	-0.95 ... 10 bar	14	Plug EN 175301-803, form A
5813593450	-0.95 ... 10 bar	14	Plug EN 175301-803, form A
5813790650	3 ... 10 bar	14	Plug EN 175301-803, form A
5813790450	3 ... 10 bar	14	Plug EN 175301-803, form A
5813791650	3 ... 10 bar	14	Plug EN 175301-803, form A
5813791450	3 ... 10 bar	14	Plug EN 175301-803, form A
5813792650	-0.95 ... 10 bar	14	Plug EN 175301-803, form A
5813792450	-0.95 ... 10 bar	14	Plug EN 175301-803, form A
5813793650	-0.95 ... 10 bar	14	Plug EN 175301-803, form A
5813793450	-0.95 ... 10 bar	14	Plug EN 175301-803, form A

Part No.	Throttle
5813490650	-
5813490450	-
5813491650	with throttle
5813491450	with throttle
5813492650	-
5813492450	-
5813493650	with throttle
5813493450	with throttle
5813590650	-
5813590450	-
5813591650	with throttle
5813591450	with throttle
5813592650	-
5813592450	-
5813593650	with throttle
5813593450	with throttle
5813790650	-
5813790450	-
5813791650	with throttle
5813791450	with throttle
5813792650	-
5813792450	-
5813793650	with throttle
5813793450	with throttle

Nominal flow Qn at 6 bar and Δp = 1 bar, MO = Manual override, An operating pressure of up to 16 bar is possible in the version with manual override without detent.

Technical information

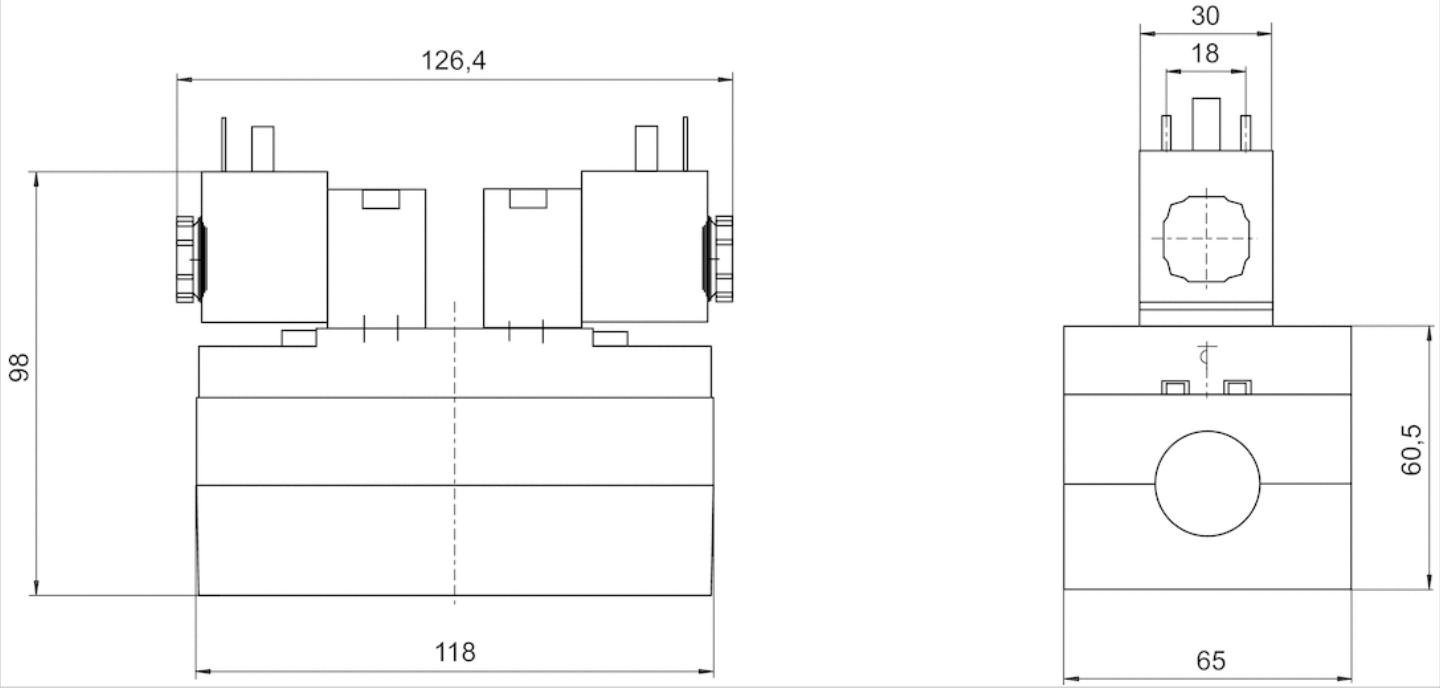
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Housing	Aluminum

Dimensions

Dimensions

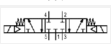
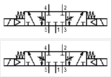
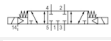
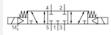
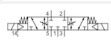
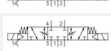
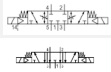
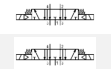
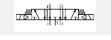


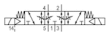
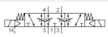
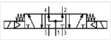
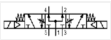
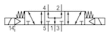
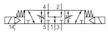
5/3-directional valve, Series 581, size 3

- ISO 5599-1
- ISO 3
- 5/3
- closed center exhausted center pressurized center
- Qn = 4100 l/min
- Compressed air connection output Base plate ISO 5599-1
- Electrical connection Plug, EN 175301-803, form A
- Manual override without

Version	Spool valve
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Connection type	Plate connection
Standards	ISO 5599-1, ISO 3
Working pressure min./max.	See table below
Control pressure min./max.	3 ... 16 bar
Ambient temperature min./max.	-15 ... 50 °C
Medium temperature min./max.	-15 ... 50 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow Qn	4100 l/min
Flow conductance C	14.1 l/(s*bar)
Protection class with connection	IP65
Duty cycle	100 %
Typ. switch-on time	22 ms
Typ. switch-off time	61 ms
Mounting screw	with hexagon socket
Mounting screw tightening torque	10 Nm
Weight	1.14 kg

Technical data

Part No.			Operational voltage DC	Operational voltage AC 50 Hz
5813490530		closed center	24 V	-
5813490430		closed center	-	230 V
5813491530		closed center	24 V	-
5813491430		closed center	-	230 V
5813492530		closed center	24 V	-
5813492430		closed center	-	230 V
5813493530		closed center	24 V	-
5813493430		closed center	-	230 V
5813590530		exhausted center	24 V	-
5813590430		exhausted center	-	230 V
5813591530		exhausted center	24 V	-
5813591430		exhausted center	-	230 V

Part No.			Operational voltage DC	Operational voltage AC 50 Hz
5813592530		exhausted center	24 V	-
5813592430		exhausted center	-	230 V
5813593530		exhausted center	24 V	-
5813593430		exhausted center	-	230 V
5813790530		pressurized center	24 V	-
5813790430		pressurized center	-	230 V
5813791530		pressurized center	24 V	-
5813791430		pressurized center	-	230 V
5813792530		pressurized center	24 V	-
5813792430		pressurized center	-	230 V
5813793530		pressurized center	24 V	-
5813793430		pressurized center	-	230 V

Part No.	Voltage tolerance DC	Voltage tolerance AC 50 Hz	Power consumption DC	Holding power AC 50 Hz
5813490530	-10% / +10%	-10% / +10%	6.7 W	-
5813490430	-	-10% / +10%	-	10.8 VA
5813491530	-10% / +10%	-10% / +10%	6.7 W	-
5813491430	-	-10% / +10%	-	10.8 VA
5813492530	-10% / +10%	-10% / +10%	6.7 W	-
5813492430	-	-10% / +10%	-	10.8 VA
5813493530	-10% / +10%	-10% / +10%	6.7 W	-
5813493430	-	-10% / +10%	-	10.8 VA
5813590530	-10% / +10%	-10% / +10%	6.7 W	-
5813590430	-	-10% / +10%	-	10.8 VA
5813591530	-10% / +10%	-10% / +10%	6.7 W	-
5813591430	-	-10% / +10%	-	10.8 VA
5813592530	-10% / +10%	-10% / +10%	6.7 W	-
5813592430	-	-10% / +10%	-	10.8 VA
5813593530	-10% / +10%	-10% / +10%	6.7 W	-
5813593430	-	-10% / +10%	-	10.8 VA
5813790530	-10% / +10%	-10% / +10%	6.7 W	-
5813790430	-	-10% / +10%	-	10.8 VA
5813791530	-10% / +10%	-10% / +10%	6.7 W	-
5813791430	-	-10% / +10%	-	10.8 VA
5813792530	-10% / +10%	-10% / +10%	6.7 W	-
5813792430	-	-10% / +10%	-	10.8 VA
5813793530	-10% / +10%	-10% / +10%	6.7 W	-
5813793430	-	-10% / +10%	-	10.8 VA

Part No.	Switch-on power AC 50 Hz	Pilot	Working pressure min./max.
5813490530	-	Internal	3 ... 16 bar
5813490430	15.2 VA	Internal	3 ... 16 bar
5813491530	-	Internal	3 ... 16 bar
5813491430	15.2 VA	Internal	3 ... 16 bar

Part No.	Switch-on power AC 50 Hz	Pilot	Working pressure min./max.
5813492530	-	External	-0.95 ... 16 bar
5813492430	15.2 VA	External	-0.95 ... 16 bar
5813493530	-	External	-0.95 ... 16 bar
5813493430	15.2 VA	External	-0.95 ... 16 bar
5813590530	-	Internal	3 ... 16 bar
5813590430	15.2 VA	Internal	3 ... 16 bar
5813591530	-	Internal	3 ... 16 bar
5813591430	15.2 VA	Internal	3 ... 16 bar
5813592530	-	External	-0.95 ... 16 bar
5813592430	15.2 VA	External	-0.95 ... 16 bar
5813593530	-	External	-0.95 ... 16 bar
5813593430	15.2 VA	External	-0.95 ... 16 bar
5813790530	-	Internal	3 ... 16 bar
5813790430	15.2 VA	Internal	3 ... 16 bar
5813791530	-	Internal	3 ... 16 bar
5813791430	15.2 VA	Internal	3 ... 16 bar
5813792530	-	External	-0.95 ... 16 bar
5813792430	15.2 VA	External	-0.95 ... 16 bar
5813793530	-	External	-0.95 ... 16 bar
5813793430	15.2 VA	External	-0.95 ... 16 bar

Part No.	Electrical connection Pilot valve	Throttle
5813490530	Plug EN 175301-803, form A	-
5813490430	Plug EN 175301-803, form A	-
5813491530	Plug EN 175301-803, form A	with throttle
5813491430	Plug EN 175301-803, form A	with throttle
5813492530	Plug EN 175301-803, form A	-
5813492430	Plug EN 175301-803, form A	-
5813493530	Plug EN 175301-803, form A	with throttle
5813493430	Plug EN 175301-803, form A	with throttle
5813590530	Plug EN 175301-803, form A	-
5813590430	Plug EN 175301-803, form A	-
5813591530	Plug EN 175301-803, form A	with throttle
5813591430	Plug EN 175301-803, form A	with throttle
5813592530	Plug EN 175301-803, form A	-
5813592430	Plug EN 175301-803, form A	-
5813593530	Plug EN 175301-803, form A	with throttle
5813593430	Plug EN 175301-803, form A	with throttle
5813790530	Plug EN 175301-803, form A	-
5813790430	Plug EN 175301-803, form A	-
5813791530	Plug EN 175301-803, form A	with throttle
5813791430	Plug EN 175301-803, form A	with throttle
5813792530	Plug EN 175301-803, form A	-
5813792430	Plug EN 175301-803, form A	-
5813793530	Plug EN 175301-803, form A	with throttle
5813793430	Plug EN 175301-803, form A	with throttle

Nominal flow Qn at 6 bar and Δp = 1 bar

Technical information

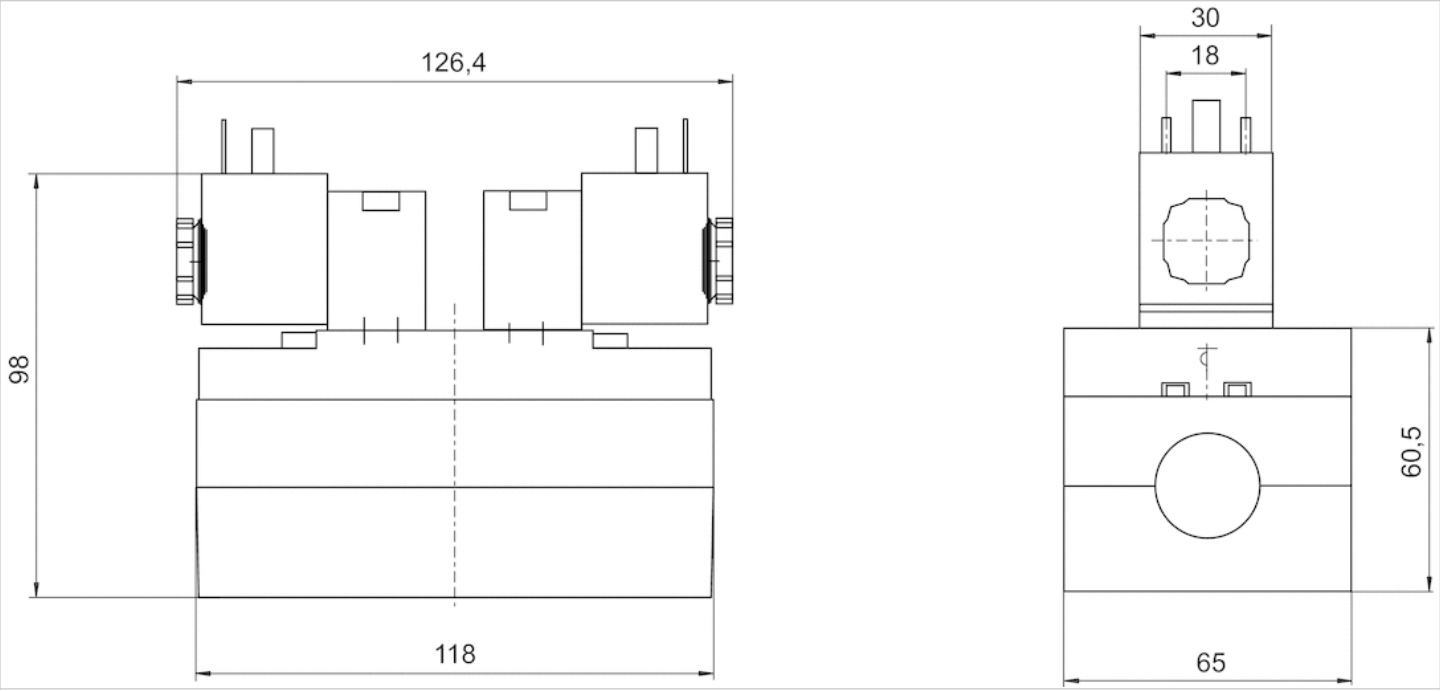
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Housing	Aluminum

Dimensions

Dimensions

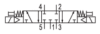
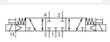
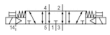
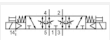
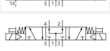
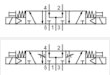


5/3-directional valve, Series 581, size 3

- ISO 5599-1
- ISO 3
- 5/3
- closed center exhausted center pressurized center
- Qn = 4100 l/min
- Compressed air connection output Base plate ISO 5599-1
- Electrical connection Plug, EN 175301-803, form A
- Manual override without detent

Version	Spool valve
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Connection type	Plate connection
Standards	ISO 5599-1, ISO 3
Working pressure min./max.	See table below
Control pressure min./max.	3 ... 10 bar
Ambient temperature min./max.	-15 ... 50 °C
Medium temperature min./max.	-15 ... 50 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow Qn	4100 l/min
Flow conductance C	14.1 l/(s*bar)
Protection class with connection	IP65
Duty cycle	100 %
Typ. switch-on time	22 ms
Typ. switch-off time	61 ms
Mounting screw	with hexagon socket
Mounting screw tightening torque	10 Nm
Weight	1.22 kg

Technical data

Part No.			MO	Operational voltage DC
5813490190		closed center		24 V
5813491190		closed center		24 V
5813492190		closed center		24 V
5813493190		closed center		24 V
5813590190		exhausted center		24 V
5813591190		exhausted center		24 V
5813592190		exhausted center		24 V
5813593190		exhausted center		24 V
5813790190		pressurized center		24 V
5813791190		pressurized center		24 V
5813792190		pressurized center		24 V
5813793190		pressurized center		24 V

5813490190	-10% / +10%	6 W	Internal	3 ... 10 bar
5813492190	-10% / +10%	6 W	External	-0.95 ... 10 bar
5813590190	-10% / +10%	6 W	Internal	3 ... 10 bar
5813592190	-10% / +10%	6 W	External	-0.95 ... 10 bar
5813790190	-10% / +10%	6 W	Internal	3 ... 10 bar
5813792190	-10% / +10%	6 W	External	-0.95 ... 10 bar

5813490190	Plug EN 175301-803, form A	-
5813492190	Plug EN 175301-803, form A	-
5813590190	Plug EN 175301-803, form A	-
5813592190	Plug EN 175301-803, form A	-
5813790190	Plug EN 175301-803, form A	-
5813792190	Plug EN 175301-803, form A	-

Nominal flow Qn at 6 bar and Δp = 1 bar, MO = Manual override

Technical information

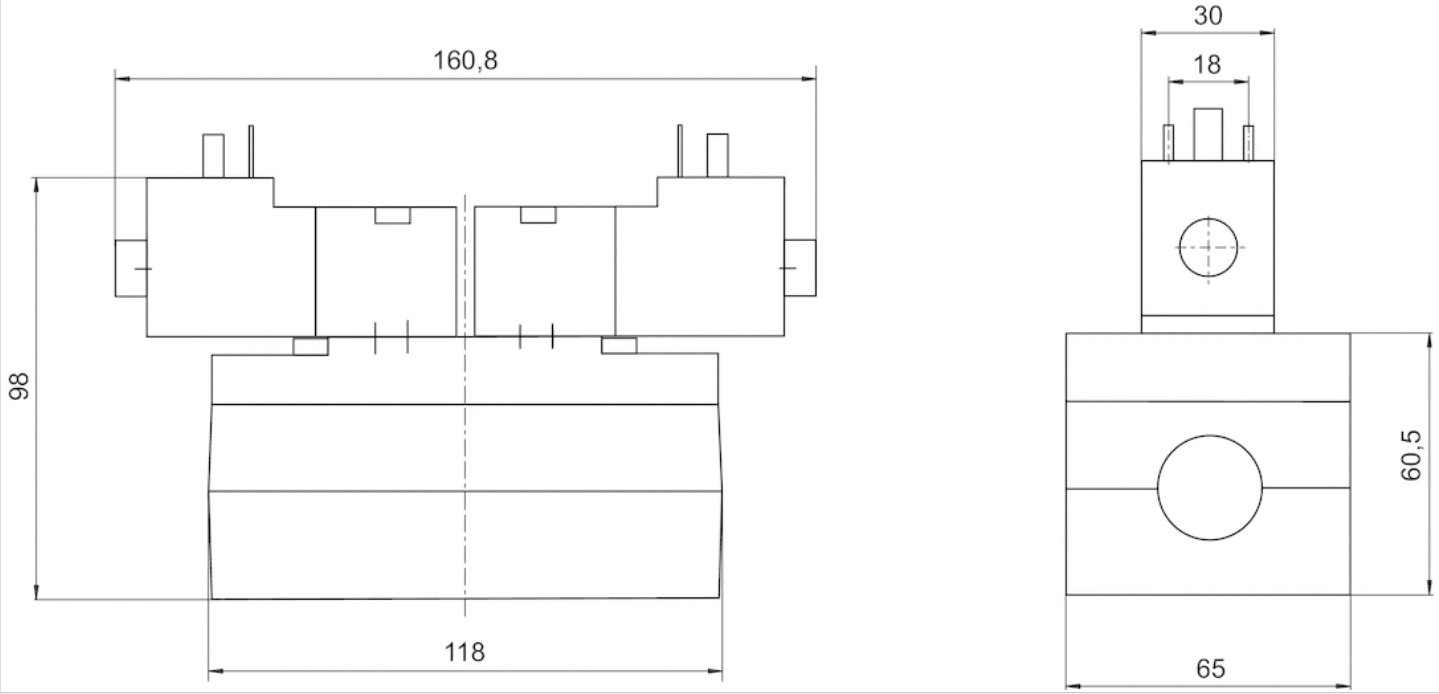
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Housing	Aluminum

Dimensions

Dimensions



5/2-directional valve, Series 581, size 3

- ISO 5599-1
- ISO 3
- 5/2
- Basic valve for CNOMO pilot valve
- With spring return
- single solenoid
- Qn = 4800 l/min
- Compressed air connection output Base plate ISO 5599-1
- suitable for ATEX

Version	Spool valve
basic valve with electrical connector	Basic valve without pilot valve
Pilot	External Internal
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Connection type	Plate connection
Standards	ISO 5599-1, ISO 3
ATEX class G	2G Ex mb II T4
ATEX class D	2D Ex tD A21 T130°C
Working pressure min./max.	-0.95 ... 16 bar
Control pressure min./max.	3 ... 16 bar
Ambient temperature min./max.	-20 ... 70 °C
Medium temperature min./max.	-20 ... 70 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow Qn	4800 l/min
Flow conductance C	18.9 l/(s*bar)
Protection class with connection	IP65
Duty cycle	100 %
Mounting screw	with hexagon socket
Mounting screw tightening torque	10 Nm
Weight	0.85 kg

Technical data

Part No.		Throttle
5813180000		-
5813181000		with throttle

Nominal flow Qn at 6 bar and Δp = 1 bar, An operating pressure of up to 16 bar is possible in the version with manual override without detent., Internal pilot: min./max. operating pressure is the same as min./max. control pressure

Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

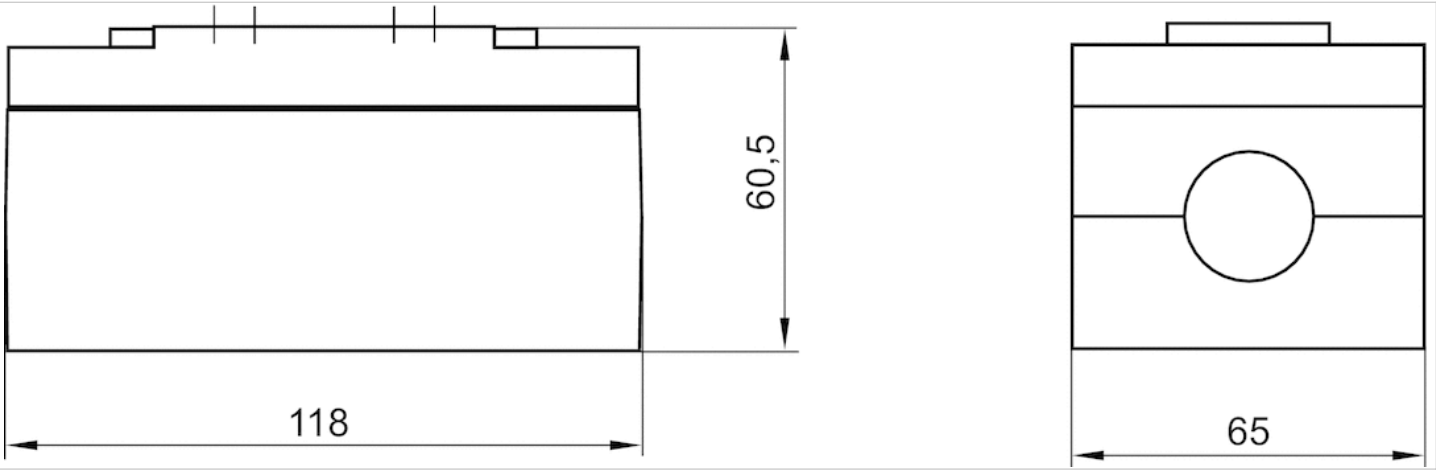
* Note: ATEX version can be produced by combining the basic valve without coil with a series DO30 CNOMO pilot valve and an ATEX coil.
ATEX ID: see ATEX coils catalog page.

Technical information

Housing	Aluminum

Dimensions

Dimensions



5/2-directional valve, Series 581, size 3

- ISO 5599-1
- ISO 3
- 5/2
- Basic valve for CNOMO pilot valve
- double solenoid
- Qn = 4800 l/min
- Compressed air connection output Base plate ISO 5599-1
- suitable for ATEX

Version	Spool valve
basic valve with electrical connector	Basic valve without pilot valve
Pilot	External Internal
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Connection type	Plate connection
Standards	ISO 5599-1, ISO 3
ATEX class G	2G Ex mb II T4
ATEX class D	2D Ex tD A21 T130°C
Working pressure min./max.	-0.95 ... 16 bar
Control pressure min./max.	1.5 ... 16 bar
Ambient temperature min./max.	-20 ... 70 °C
Medium temperature min./max.	-20 ... 70 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow Qn	4800 l/min
Flow conductance C	18.9 l/(s*bar)
Protection class with connection	IP65
Duty cycle	100 %
Mounting screw	with hexagon socket
Mounting screw tightening torque	10 Nm
Weight	0.85 kg

Technical data

Part No.		Throttle
5813280000		-
5813281000		with throttle

Nominal flow Qn at 6 bar and Δp = 1 bar, The pilot can be set by turning the seal under the valve cover by 180°., For internal pilot the working pressure min/max is the same as the control pressure min/max.

Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

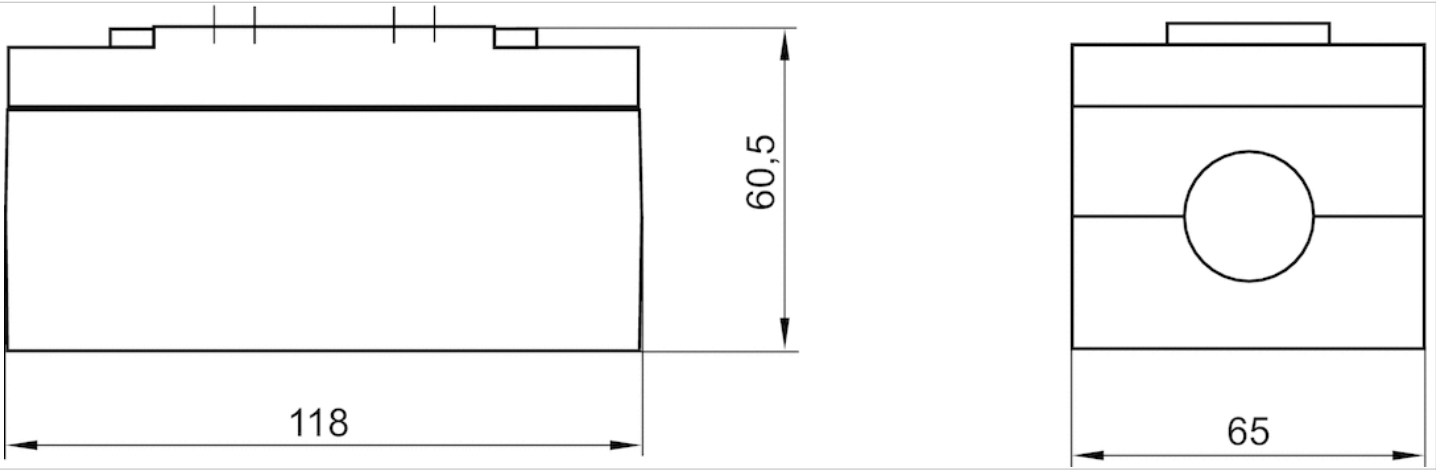
* Note: ATEX version can be produced by combining the basic valve without coil with a series DO30 CNOMO pilot valve and an ATEX coil.
ATEX ID: see ATEX coils catalog page.

Technical information

Housing	Aluminum

Dimensions

Dimensions



5/2-directional valve, Series 581, size 3

- ISO 5599-1
- ISO 3
- 5/2
- Basic valve for CNOMO pilot valve, with differential piston
- With air spring return
- Qn = 4800 l/min
- Compressed air connection output Base plate ISO 5599-1
- suitable for ATEX

Version	Spool valve
basic valve with electrical connector	Basic valve without pilot valve
Pilot	External Internal
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Connection type	Plate connection
Standards	ISO 5599-1, ISO 3
ATEX class G	2G Ex mb II T4
ATEX class D	2D Ex tD A21 T130°C
Working pressure min./max.	-0.95 ... 16 bar
Control pressure min./max.	1.5 ... 16 bar
Ambient temperature min./max.	-20 ... 70 °C
Medium temperature min./max.	-20 ... 70 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow Qn	4800 l/min
Flow conductance C	18.9 l/(s*bar)
Compressed air connection	according to ISO 5599
Protection class with connection	IP65
Duty cycle	100 %
Mounting screw	with hexagon socket
Mounting screw tightening torque	10 Nm
Weight	0.85 kg

Technical data

Part No.		Throttle
5813680000		-
5813681000		with throttle

Nominal flow Qn at 6 bar and Δp = 1 bar, The pilot can be set by turning the seal under the valve cover by 180°., For internal pilot the working pressure min/max is the same as the control pressure min/max.

Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

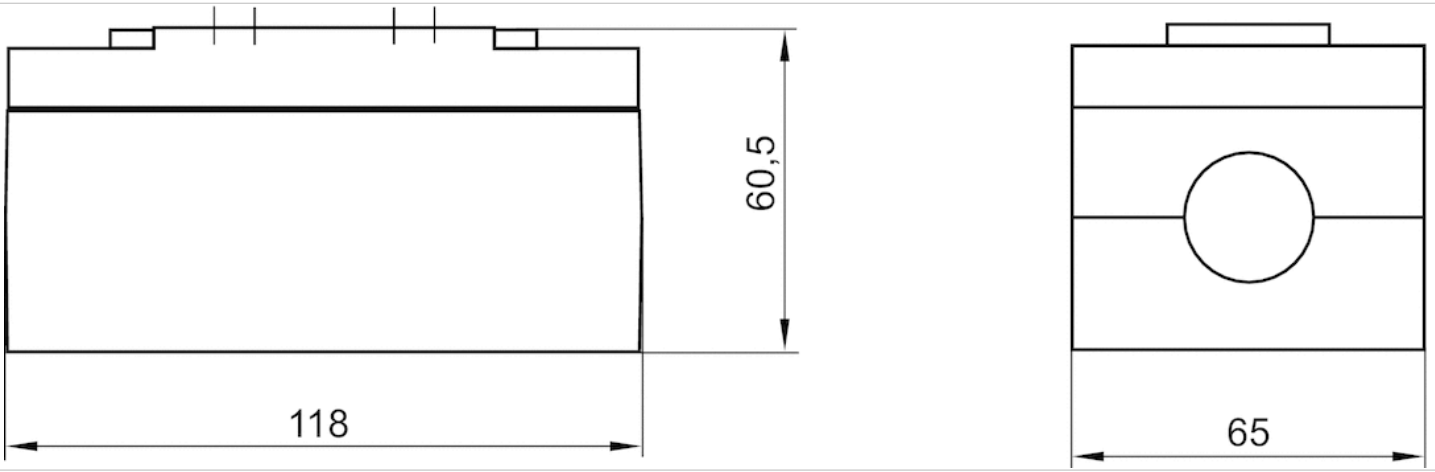
* Note: ATEX version can be produced by combining the basic valve without coil with a series DO30 CNOMO pilot valve and an ATEX coil.
ATEX ID: see ATEX coils catalog page.
Differential piston, signal 14 has priority
The minimum pilot pressure at port 14 is dependent on the pressure in port 1.

Technical information

Housing	Aluminum

Dimensions

Dimensions

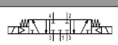
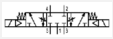
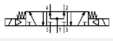
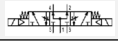


5/3-directional valve, Series 581, size 3

- ISO 5599-1
- ISO 3
- 5/3
- Basic valve for CNOMO pilot valve
- closed center pressurized center
- Qn = 4100 l/min
- Compressed air connection output Base plate ISO 5599-1
- suitable for ATEX

Version	Spool valve
basic valve with electrical connector	Basic valve without pilot valve
Pilot	External Internal
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Connection type	Plate connection
Standards	ISO 5599-1, ISO 3
ATEX class G	2G Ex mb II T4
ATEX class D	2D Ex tD A21 T130°C
Working pressure min./max.	-0.95 ... 16 bar
Control pressure min./max.	3 ... 16 bar
Ambient temperature min./max.	-20 ... 70 °C
Medium temperature min./max.	-20 ... 70 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow Qn	4100 l/min
Flow conductance C	14.1 l/(s*bar)
Protection class with connection	IP65
Duty cycle	100 %
Mounting screw	with hexagon socket
Mounting screw tightening torque	10 Nm
Weight	0.85 kg

Technical data

Part No.			Throttle
5813480000		closed center	-
5813481000		closed center	with throttle
5813580000		closed center	-
5813581000		closed center	with throttle
5813780000		pressurized center	-
5813781000		pressurized center	with throttle

Nominal flow Qn at 6 bar and Δp = 1 bar, The pilot can be set by turning the seal under the valve cover by 180°., For internal pilot the working pressure min/max is the same as the control pressure min/max.

Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

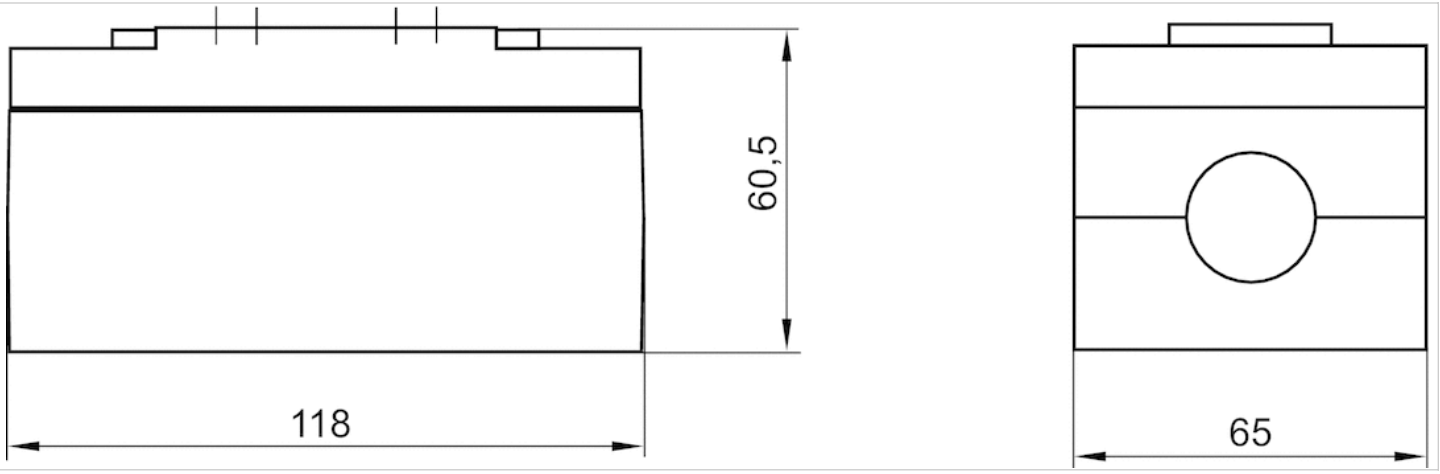
* Note: ATEX version can be produced by combining the basic valve without coil with a series DO30 CNOMO pilot valve and an ATEX coil.
ATEX ID: see ATEX coils catalog page.

Technical information

Housing	Aluminum

Dimensions

Dimensions



5/2-directional valve, Series 581, size 3

- Single air pilot
- Qn = 4800 l/min
- Plate connection
- Compressed air connection output Base plate ISO 5599-1
- Can be assembled into blocks
- suitable for ATEX

Version	Spool valve
Blocking principle	Single base plate principle
Sealing principle	Soft sealing
ATEX class G	2G Ex mb II T4
ATEX class D	2D Ex tD A21 T130°C
Connection type	Plate connection
Standards	ISO 5599-1, ISO 3
Nominal flow Qn	4800 l/min
Compressed air connection	Base plate ISO 5599-1
Working pressure min./max.	-0.95 ... 16 bar
Control pressure min./max.	3 ... 16 bar
Ambient temperature min./max.	-20 ... 70 °C
Medium temperature min./max.	-20 ... 70 °C
Medium	Compressed air class 6-4-3
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m³
Mounting screw	with hexagon socket
Mounting screw tightening torque	10 Nm
Weight	0.85 kg

Technical data

Part No.		Flow conductance C-value	Throttle	ATEX	Fig.	
5813130000		18.9 l/(s*bar)	-	suitable for ATEX	-	-
5813140000		18.9 l/(s*bar)	-	suitable for ATEX	Fig. 1	1)
5813131000		18.9 l/(s*bar)	with throttle	suitable for ATEX	-	-
5813141000		18.9 l/(s*bar)	with throttle	suitable for ATEX	Fig. 1	1)

Connection 12 must be connected with atmospheres, Nominal flow Qn at 6 bar and Δp = 1 bar

1) Valve cover with two connection locations for mounting series 551 logic modules.↩Only one valve position can be installed.

Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Housing	Aluminum

Dimensions

Dimensions

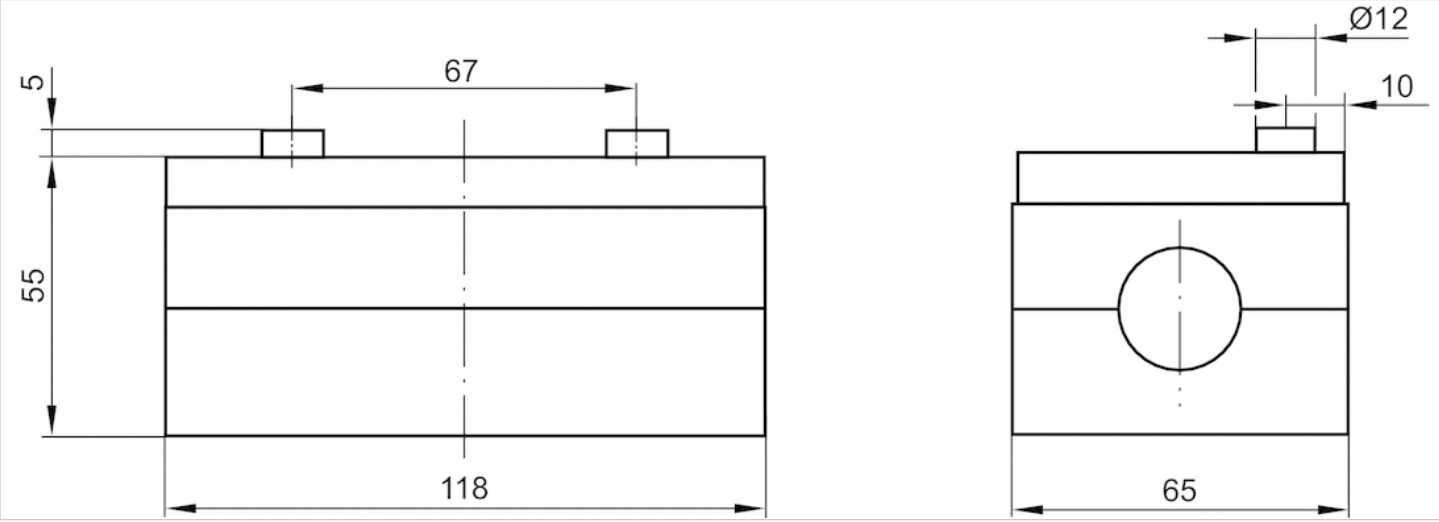
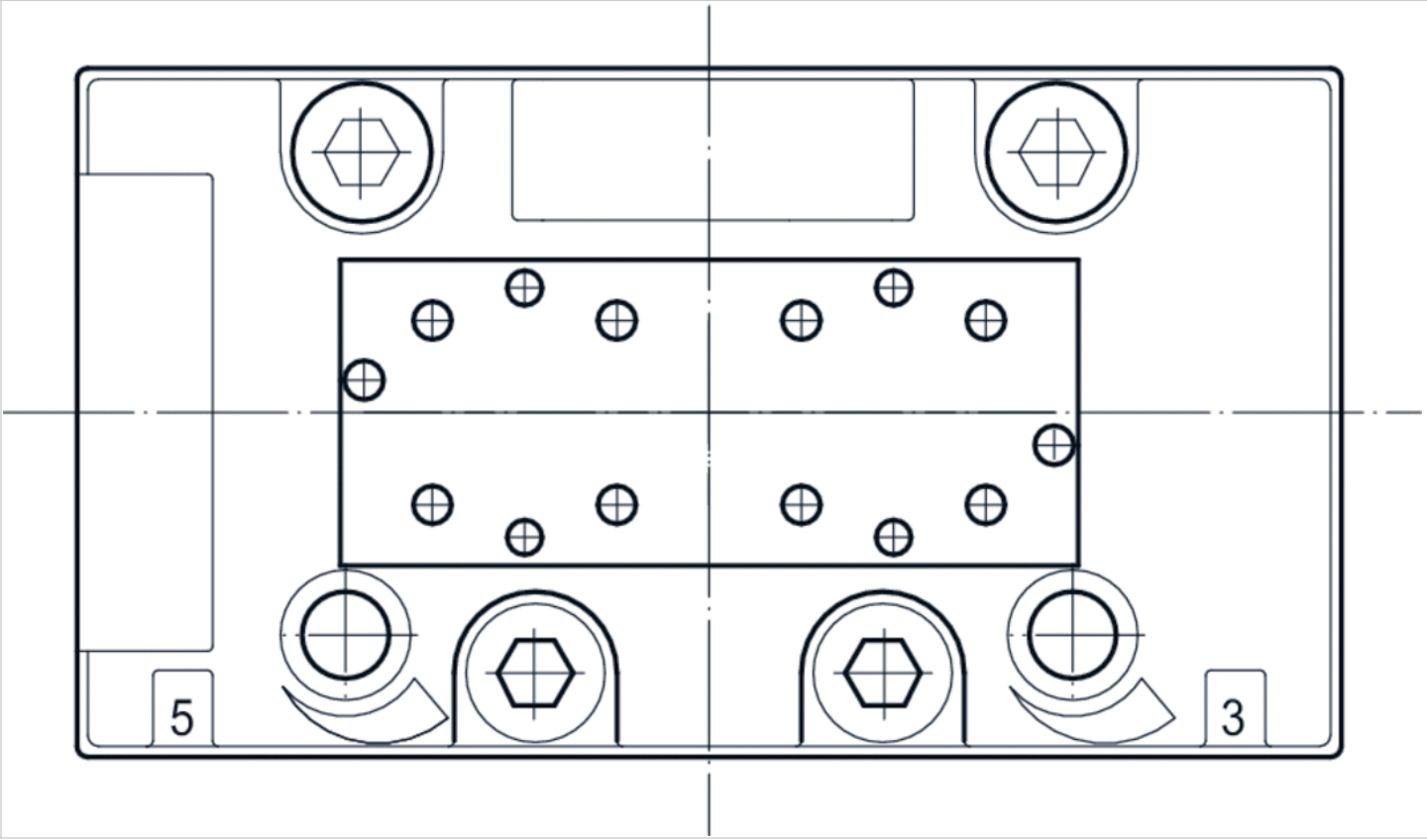


Fig. 1, Hole pattern for logic modules



5/2-directional valve, Series 581, size 3

- double air pilot
- Qn = 4800 l/min
- Plate connection
- Compressed air connection output Base plate ISO 5599-1
- Can be assembled into blocks
- suitable for ATEX

Version	Spool valve
Blocking principle	Single base plate principle
Sealing principle	Soft sealing
ATEX class G	2G Ex mb II T4
ATEX class D	2D Ex tD A21 T130°C
Connection type	Plate connection
Standards	ISO 5599-1, ISO 3
Nominal flow Qn	4800 l/min
Compressed air connection	Base plate ISO 5599-1
Working pressure min./max.	-0.95 ... 16 bar
Control pressure min./max.	1.5 ... 16 bar
Ambient temperature min./max.	-20 ... 70 °C
Medium temperature min./max.	-20 ... 70 °C
Medium	Compressed air class 6-4-3
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m³
Mounting screw	with hexagon socket
Mounting screw tightening torque	10 Nm
Weight	0.85 kg

Technical data

Part No.		Flow conductance C-value	Throttle	ATEX	Fig.	
5813230000		18.9 l/(s*bar)	-	suitable for ATEX	-	-
5813240000		18.9 l/(s*bar)	-	suitable for ATEX	Fig. 1	1)
5813231000		18.9 l/(s*bar)	with throttle	suitable for ATEX	-	-
5813241000		18.9 l/(s*bar)	with throttle	suitable for ATEX	Fig. 1	1)

Nominal flow Qn at 6 bar and Δp = 1 bar

1) Valve cover with two connection locations for mounting series 551 logic modules.

Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Housing	Aluminum

Dimensions

Dimensions

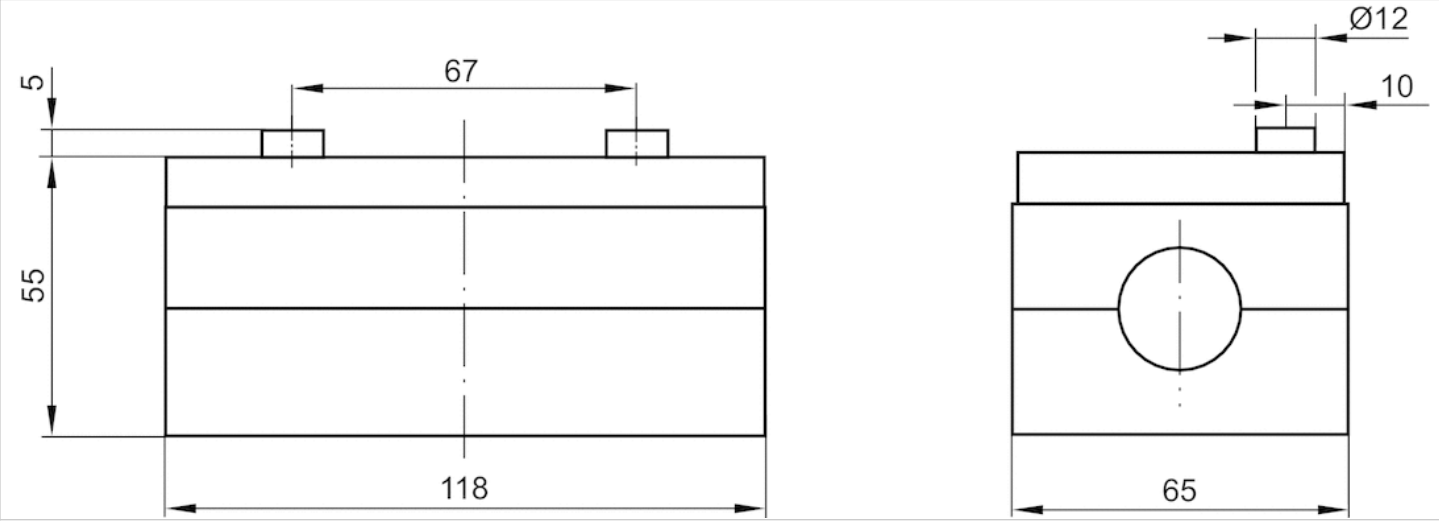
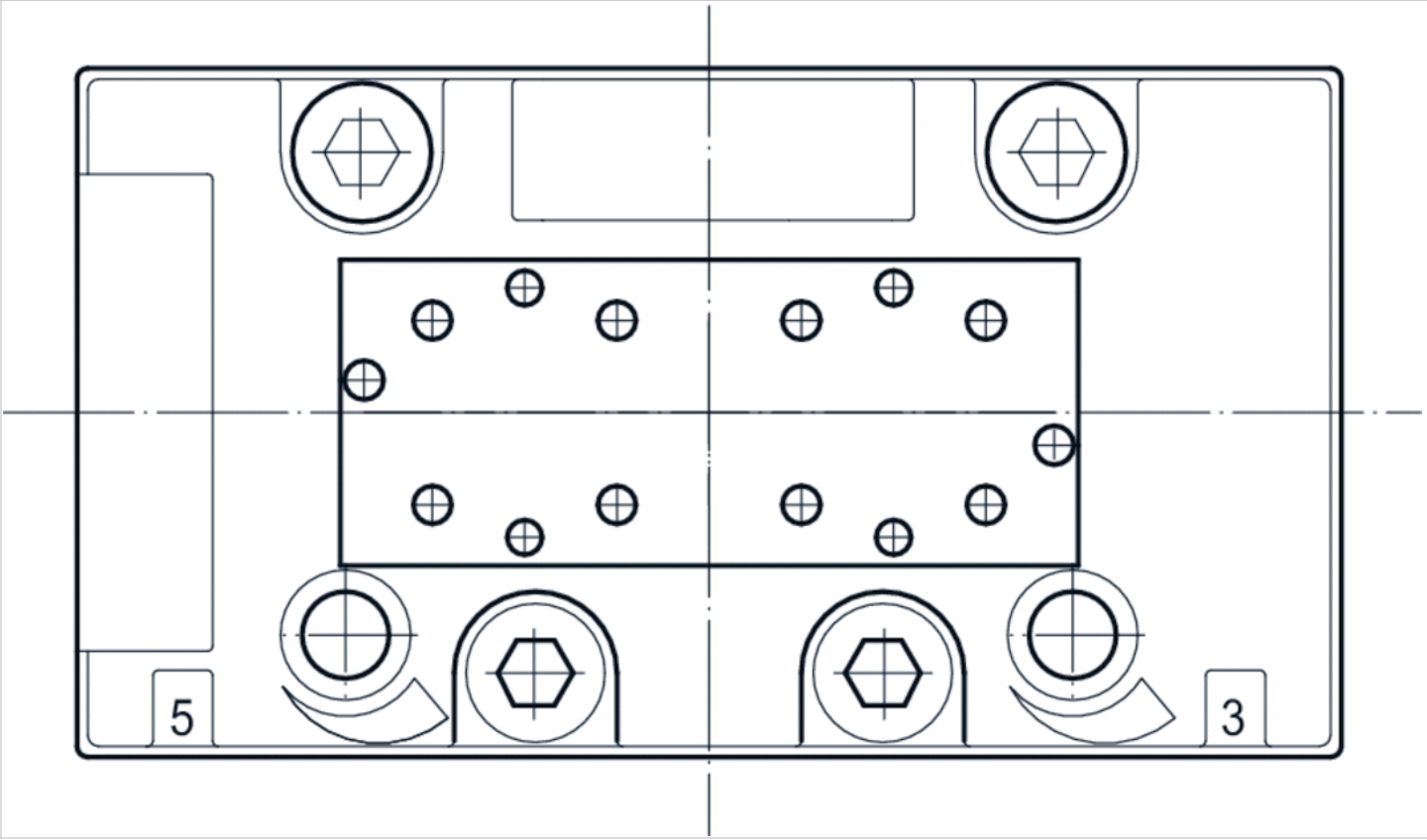


Fig. 1, Hole pattern for logic modules



5/2-directional valve, Series 581, size 3

- Qn = 4800 l/min
- Plate connection
- Compressed air connection output Base plate ISO 5599-1
- Can be assembled into blocks
- Manual override with detent
- suitable for ATEX

Version	Spool valve
Blocking principle	Single base plate principle
Sealing principle	Soft sealing
ATEX class G	2G Ex mb II T4
ATEX class D	2D Ex tD A21 T130°C
Connection type	Plate connection
Standards	ISO 5599-1, ISO 3
Nominal flow Qn	4800 l/min
Compressed air connection	Base plate ISO 5599-1
Working pressure min./max.	-0.95 ... 16 bar
Control pressure min./max.	1.5 ... 16 bar
Ambient temperature min./max.	-20 ... 70 °C
Medium temperature min./max.	-20 ... 70 °C
Medium	Compressed air class 6-4-3
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m³
Mounting screw	with hexagon socket
Mounting screw tightening torque	10 Nm
Weight	0.85 kg

Technical data

Part No.		Flow conductance C-value	Throttle	ATEX	Fig.	
5813330000		18.9 l/(s*bar)	-	suitable for ATEX	-	-
5813340000		18.9 l/(s*bar)	-	suitable for ATEX	Fig. 1	1)
5813331000		18.9 l/(s*bar)	with throttle	suitable for ATEX	-	-
5813341000		18.9 l/(s*bar)	with throttle	suitable for ATEX	Fig. 1	1)

Nominal flow Qn at 6 bar and Δp = 1 bar

1) Valve cover with two connection locations for mounting series 551 logic modules.

Technical information

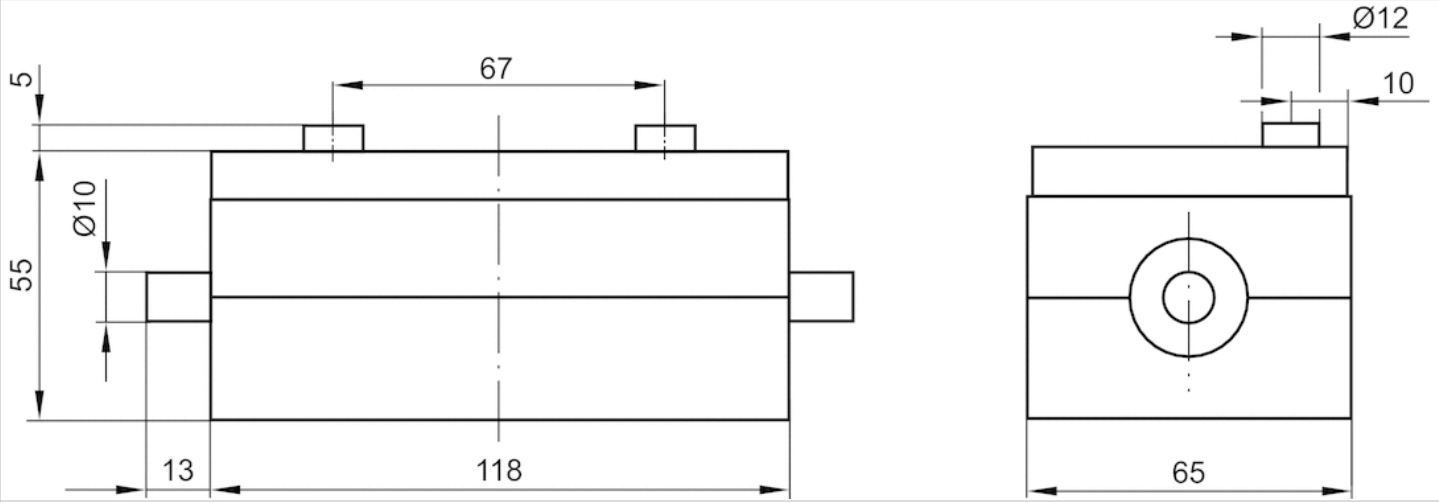
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Housing	Aluminum

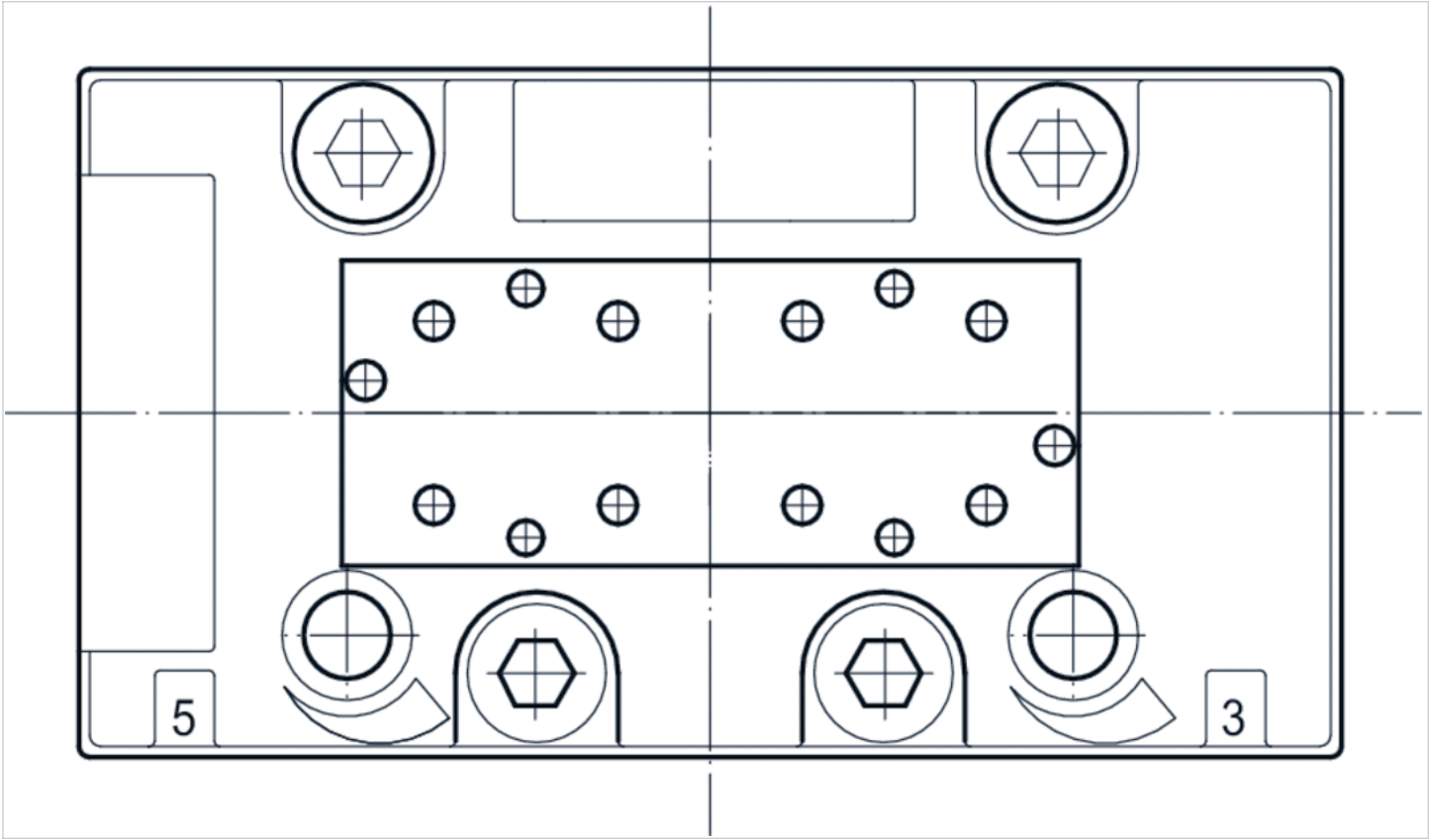
Dimensions

Dimensions



With manual override

Fig. 1, Hole pattern for logic modules



5/2-directional valve, Series 581, size 3

- With differential piston
- Qn = 4800 l/min
- Plate connection
- Compressed air connection output Base plate ISO 5599-1
- Can be assembled into blocks
- suitable for ATEX

Version	Spool valve
Blocking principle	Single base plate principle
Sealing principle	Soft sealing
ATEX class G	2G Ex mb II T4
ATEX class D	2D Ex tD A21 T130°C
Connection type	Plate connection
Standards	ISO 5599-1, ISO 3
Nominal flow Qn	4800 l/min
Compressed air connection	Base plate ISO 5599-1
Working pressure min./max.	-0.95 ... 16 bar
Control pressure min./max.	1.5 ... 16 bar
Ambient temperature min./max.	-20 ... 70 °C
Medium temperature min./max.	-20 ... 70 °C
Medium	Compressed air class 6-4-3
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m³
Mounting screw	with hexagon socket
Mounting screw tightening torque	10 Nm
Weight	0.85 kg

Technical data

Part No.		Flow conductance C-value	Throttle	ATEX	Fig.	
5813630000		18.9 l/(s*bar)	-	suitable for ATEX	-	-
5813640000		18.9 l/(s*bar)	-	suitable for ATEX	Fig. 1	1)
5813631000		18.9 l/(s*bar)	with throttle	suitable for ATEX	-	-
5813641000		18.9 l/(s*bar)	with throttle	suitable for ATEX	Fig. 1	1)

Differential piston, signal 14 has priority, Nominal flow Qn at 6 bar and Δp = 1 bar

1) Valve cover with two connection locations for mounting series 551 logic modules.

Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Housing	Aluminum

Dimensions

Dimensions

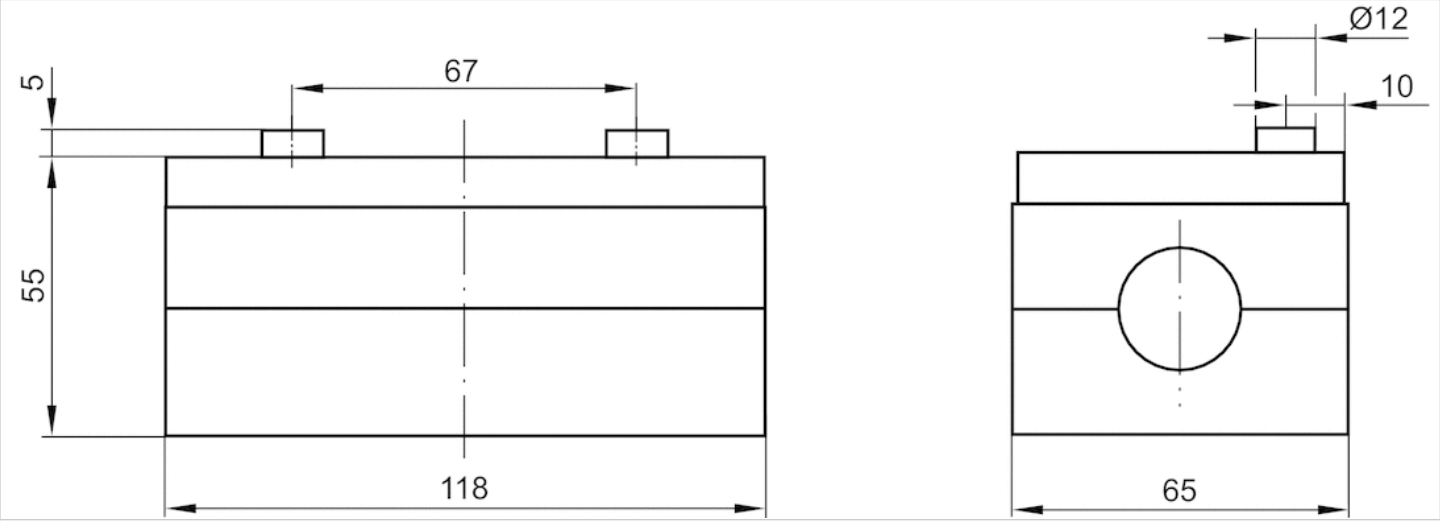
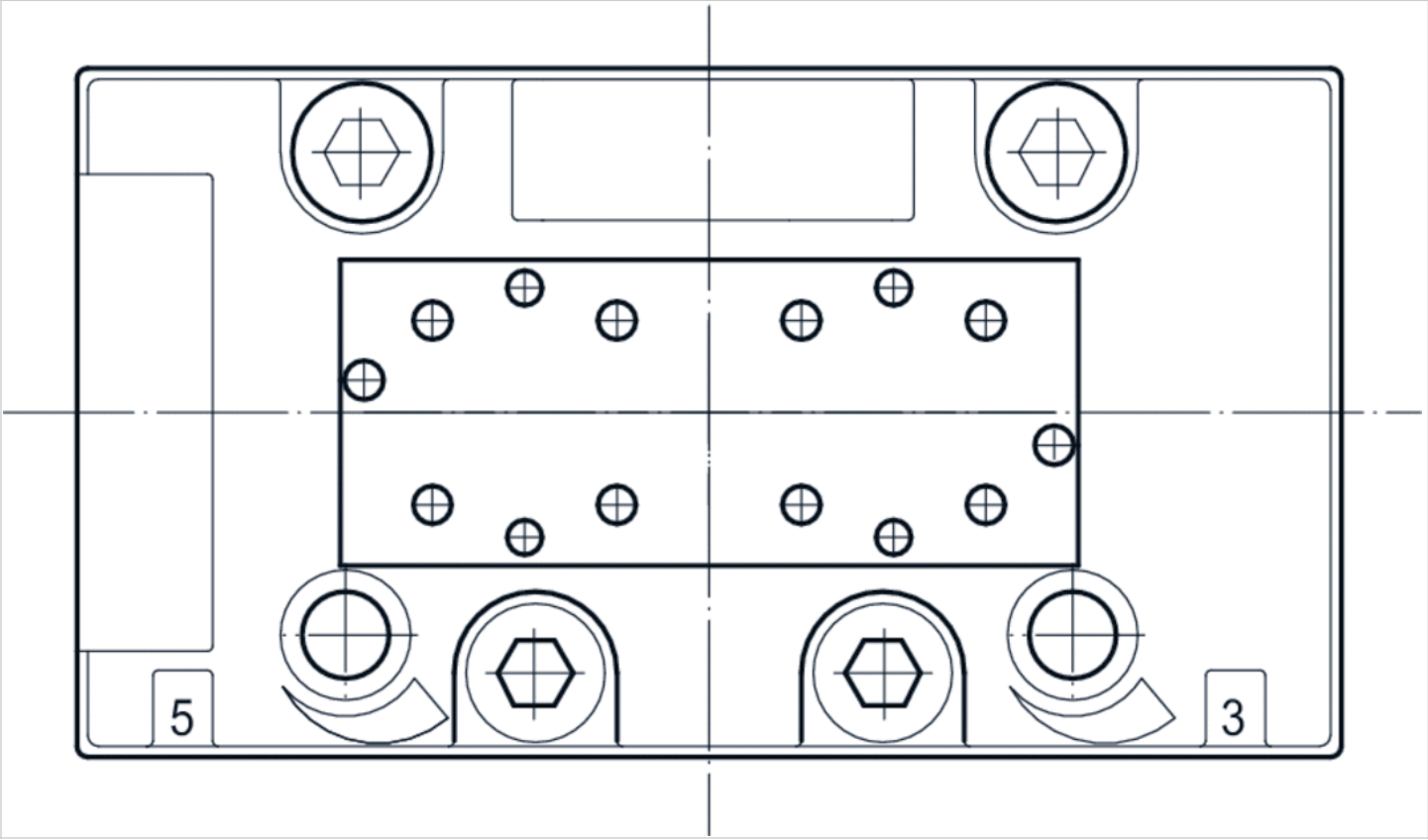


Fig. 1, Hole pattern for logic modules

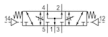


5/3-directional valve, Series 581, size 3

- Qn = 4100 l/min
- Plate connection
- Compressed air connection output Base plate ISO 5599-1
- Can be assembled into blocks
- suitable for ATEX

Version	Spool valve
Blocking principle	Single base plate principle
Sealing principle	Soft sealing
ATEX class G	2G Ex mb II T4
ATEX class D	2D Ex tD A21 T130°C
Connection type	Plate connection
Standards	ISO 5599-1, ISO 3
Nominal flow Qn	4100 l/min
Compressed air connection	Base plate ISO 5599-1
Working pressure min./max.	-0.95 ... 16 bar
Control pressure min./max.	3 ... 16 bar
Ambient temperature min./max.	-20 ... 70 °C
Medium temperature min./max.	-20 ... 70 °C
Medium	Compressed air class 6-4-3
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m³
Mounting screw	with hexagon socket
Mounting screw tightening torque	10 Nm
Weight	0.85 kg

Technical data

Part No.			Flow conductance	Throttle	ATEX
			C-value		
5813430000		closed center	14.1 l/(s*bar)	-	suitable for ATEX
5813440000		closed center	14.1 l/(s*bar)	-	suitable for ATEX
5813431000		closed center	14.1 l/(s*bar)	with throttle	suitable for ATEX
5813441000		closed center	14.1 l/(s*bar)	with throttle	suitable for ATEX
5813530000		exhausted center	14.1 l/(s*bar)	-	suitable for ATEX
5813540000		exhausted center	14.1 l/(s*bar)	-	suitable for ATEX
5813531000		exhausted center	14.1 l/(s*bar)	with throttle	suitable for ATEX
5813541000		exhausted center	14.1 l/(s*bar)	with throttle	suitable for ATEX
5813730000		pressurized center	14.1 l/(s*bar)	-	suitable for ATEX
5813740000		pressurized center	14.1 l/(s*bar)	-	suitable for ATEX
5813731000		pressurized center	14.1 l/(s*bar)	with throttle	suitable for ATEX
5813741000		pressurized center	14.1 l/(s*bar)	with throttle	suitable for ATEX

Part No.	Fig.	
5813430000	-	-
5813440000	Fig. 1	1)
5813431000	-	2)

5813530000	-	-
5813531000	-	2)
5813730000	-	-
5813731000	-	2)

Nominal flow Qn at 6 bar and Δp = 1 bar

1) Valve cover with two connection locations for mounting series 551 logic modules.

2)

Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Housing	Aluminum

Dimensions

Dimensions

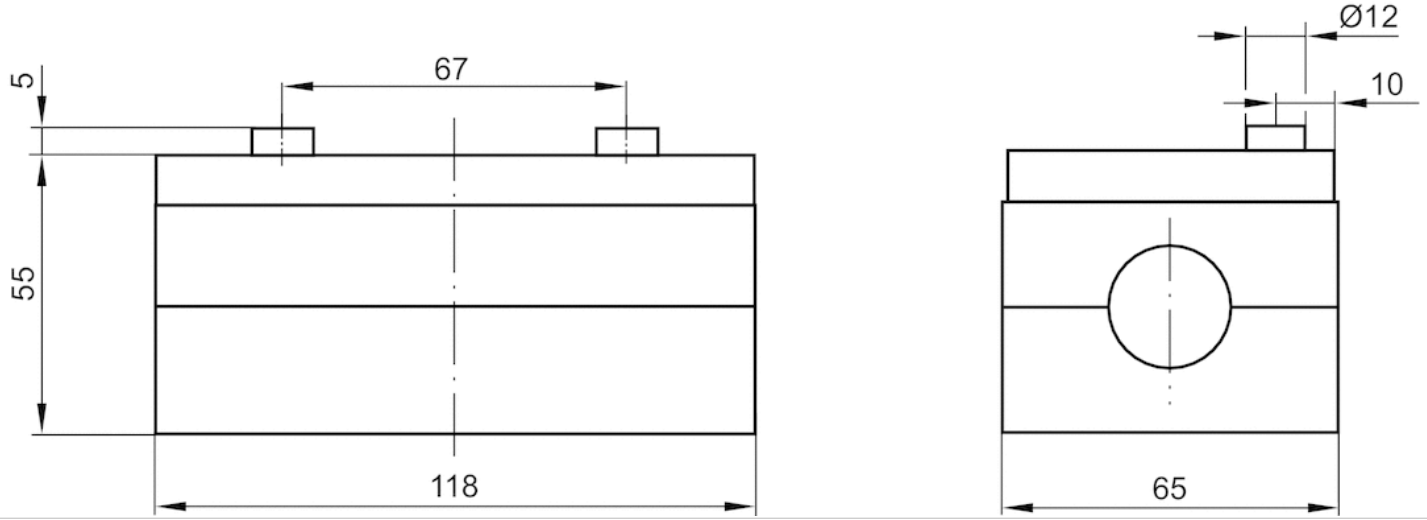
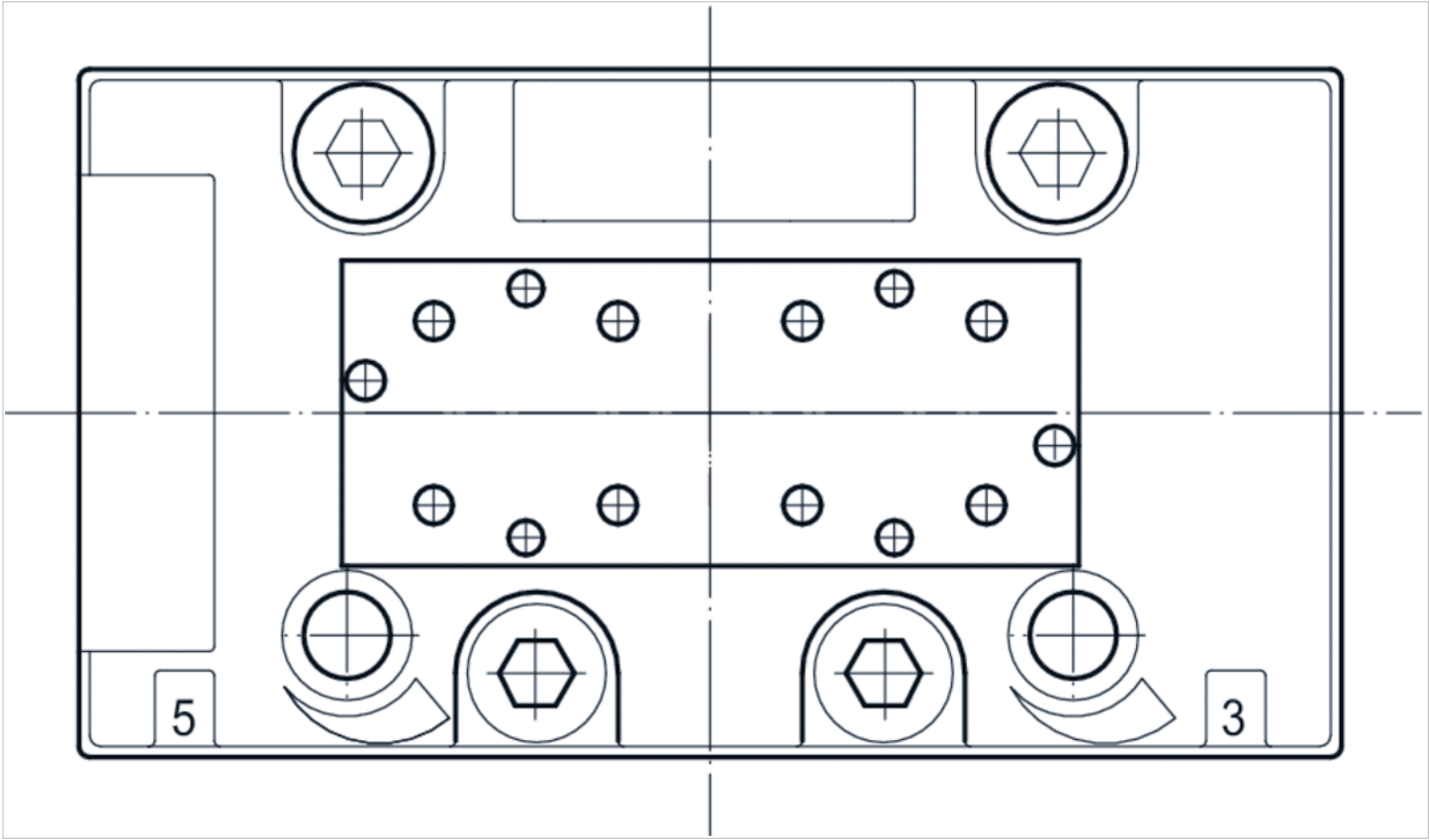


Fig. 1, Hole pattern for logic modules



Single subbase, thread connections on the side

- standard ISO 5599-1
- Frame size ISO 3
- Compressed air connection output G 1/2
- Reversed pressure supply permissible

Standards	ISO 5599-1
Working pressure min./max.	-0.95 ... 16 bar
Ambient temperature min./max.	-25 ... 70 °C
Medium temperature min./max.	-25 ... 70 °C
Medium	Compressed air
Number of valve positions max.	1
Grid dimension	71 mm
Direction of pneumatic port (1)	On the side
Direction of pneumatic port (3,5)	On the side
Direction of pneumatic port (2,4)	On the side
Direction of pneumatic port (12)	On the side
Direction of pneumatic port (14)	On the side
Exhaust (3,5)	With directional exhaust (3/5)
Exhaust type	Ports separated
Weight	0.34 kg

Technical data

Part No.	Compressed air connection Input [1]	Compressed air connection Output [2 / 4]
1825503149	G 1/2	G 1/2

Part No.	Compressed air connection Exhaust [3 / 5]	Compressed air connection Pilot connection [X]
1825503149	G 1/2	G 1/8

Part No.	Compressed air connection Pilot control exhaust [R]
1825503149	G 1/8

Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

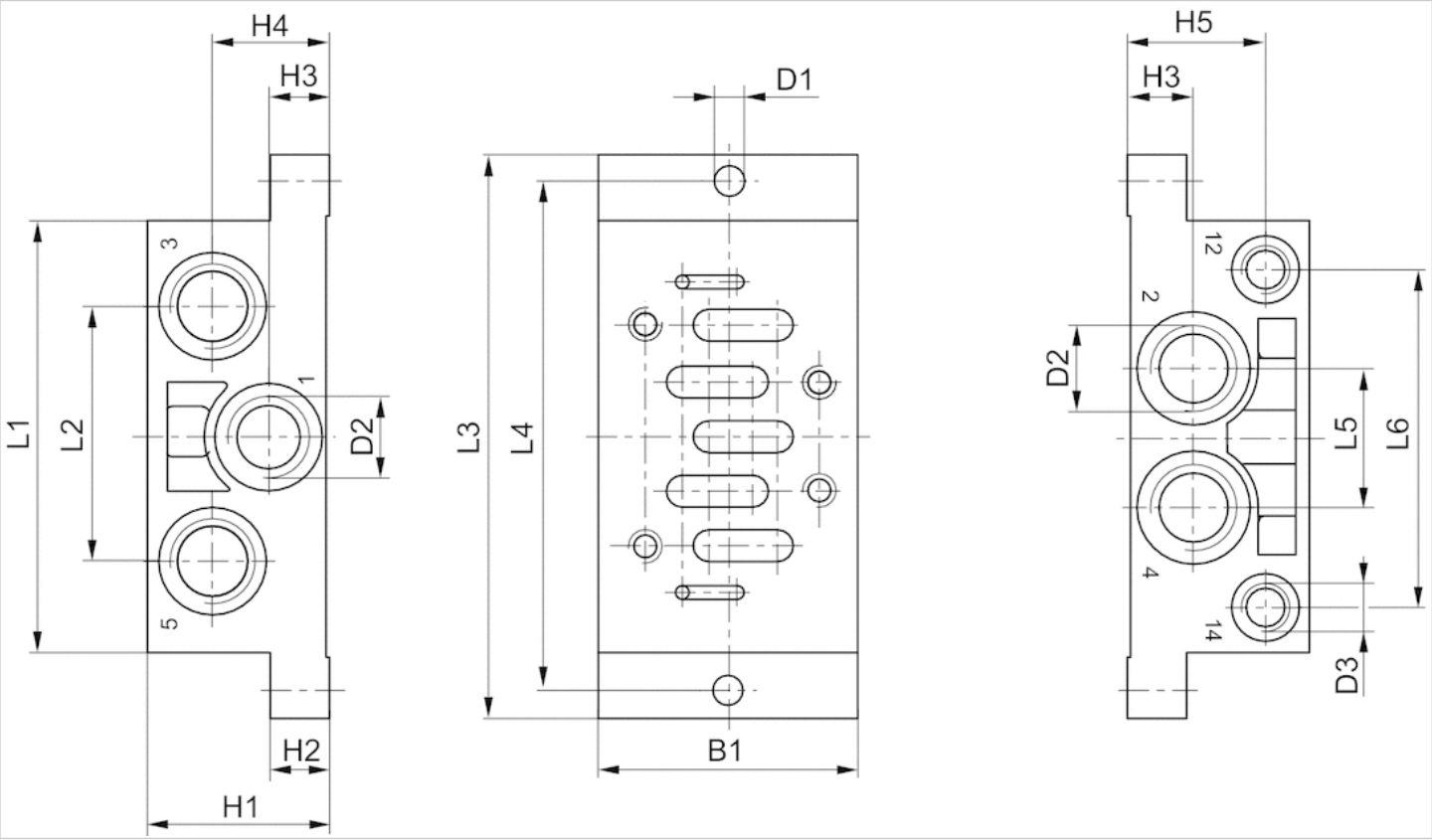
For use with HV series valves, the ambient temperature is -25 °C...200 °C and the medium temperature is -25 °C...120 °C.
Reversed pressure supply is not permitted for HV series valves.

Technical information

Housing	Die-cast aluminum

Dimensions

Fig. 1



Dimensions

Part No.	Frame size	B1	H1	H2	H3	H4	H5	D1	D2 *)	D3 *)	L1	L2	L3	L4	L5	L6
1825503149	ISO 3	71	32	18	17	17	22	6.6	G 1/2	G 1/8	119	68	149	136	32	90

*) Ports

Single subbase, thread connections on the bottom

- standard ISO 5599-1
- Frame size ISO 3
- Compressed air connection output G 1/2
- Reversed pressure supply permissible

Standards	ISO 5599-1
Working pressure min./max.	-0.95 ... 16 bar
Ambient temperature min./max.	-25 ... 70 °C
Medium temperature min./max.	-25 ... 70 °C
Medium	Compressed air
Number of valve positions max.	1
Direction of pneumatic port (1)	Down
Direction of pneumatic port (3,5)	Down
Direction of pneumatic port (2,4)	Down
Direction of pneumatic port (12)	Down
Direction of pneumatic port (14)	Down
Exhaust (3,5)	With directional exhaust (3/5)
Exhaust type	Ports separated
Weight	0.416 kg

Technical data

Part No.	Compressed air connection Input [1]	Compressed air connection Output [2 / 4]
1825503203	G 1/2	G 1/2

Part No.	Compressed air connection Exhaust [3 / 5]	Compressed air connection Pilot connection [X]
1825503203	G 1/2	G 1/8

Part No.	Compressed air connection Pilot control exhaust [R]
1825503203	G 1/8

Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

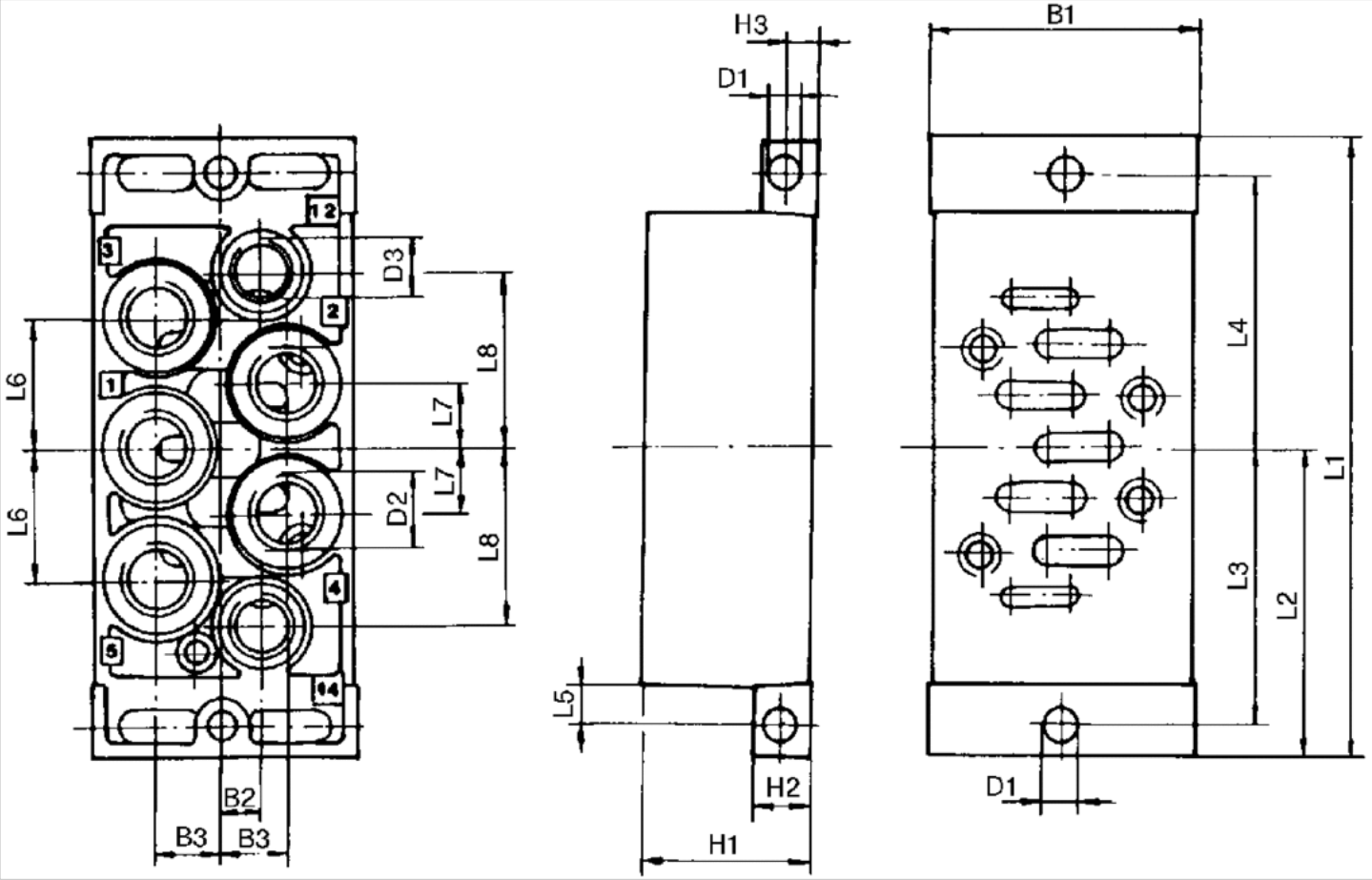
For use with HV series valves, the ambient temperature is -25 °C...200 °C and the medium temperature is -25 °C...120 °C.
Reversed pressure supply is not permitted for HV series valves.

Technical information

Material	
Base plate	Die-cast aluminum

Dimensions

Dimensions



Dimensions

Part No.	Frame size	B1	B2	B3	D1	D2 *)	D3 *)	H1	H2	H3	L1	L2	L3	L4	L5	L6	L7	L8
1825503203	ISO 3	77	10	17	6.6	G 1/2	G 1/8	32	18	9	149	74.5	68	68	8.5	34	17	45

*) Ports

Single subbase, ports on side

- standard ISO 5599-1
- Frame size ISO 3
- Compressed air connection output G 3/8

Standards	ISO 5599-1
Working pressure min./max.	-1 ... 16 bar
Ambient temperature min./max.	-20 ... 70 °C
Medium temperature min./max.	-20 ... 70 °C
Medium	Compressed air
Number of valve positions max.	1
Direction of pneumatic port (1)	On the side
Direction of pneumatic port (3,5)	On the side
Direction of pneumatic port (2,4)	On the side
Direction of pneumatic port (14)	On the side
Exhaust (3,5)	With directional exhaust (3/5)
Exhaust type	Ports separated
Weight	0.39 kg

Technical data

Part No.	Compressed air connection Input [1]	Compressed air connection Output [2 / 4]
5803710000	G 3/8	G 3/8

Part No.	Compressed air connection Exhaust [3 / 5]	Compressed air connection Pilot connection [X]
5803710000	G 3/8	G 1/8

Technical information

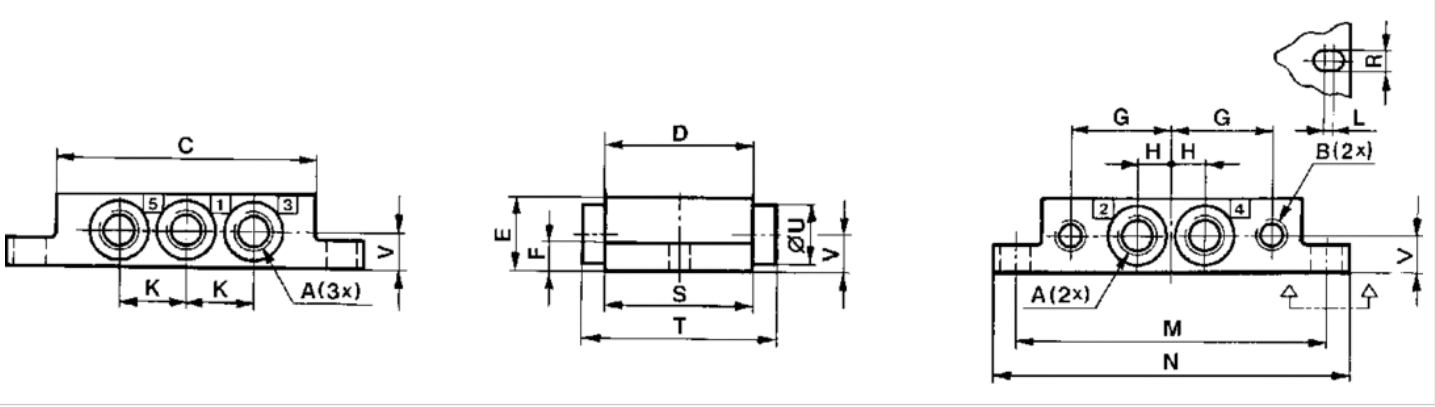
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Material	
Base plate	Die-cast aluminum, black painted

Dimensions

Dimensions



Dimensions

Part No.	Frame size	A *)	B *)	C	D	E	F	G	H	K	L	M	N	R	S	T	U	V
5803710000	ISO 3	G 3/8	G 1/8	118	65	32	10	45	16	32	2	138	153	8.4	65	–	–	17.5

*) Ports

Single subbase, ports on bottom

- standard ISO 5599-1
- Frame size ISO 3
- Compressed air connection output G 3/8

Standards	ISO 5599-1
Working pressure min./max.	-1 ... 16 bar
Ambient temperature min./max.	-20 ... 70 °C
Medium temperature min./max.	-20 ... 70 °C
Medium	Compressed air
Number of valve positions max.	1
Direction of pneumatic port (1)	Down
Direction of pneumatic port (3,5)	Down
Direction of pneumatic port (2,4)	Down
Direction of pneumatic port (14)	Down
Exhaust (3,5)	uncollected exhaust
Exhaust type	Ports separated
Weight	0.39 kg

Technical data

Part No.	Compressed air connection Input [1]	Compressed air connection Output [2 / 4]
5803700000	G 3/8	G 3/8

Part No.	Compressed air connection Exhaust [3 / 5]	Compressed air connection Pilot connection [X]
5803700000	G 3/8	G 1/8

Technical information

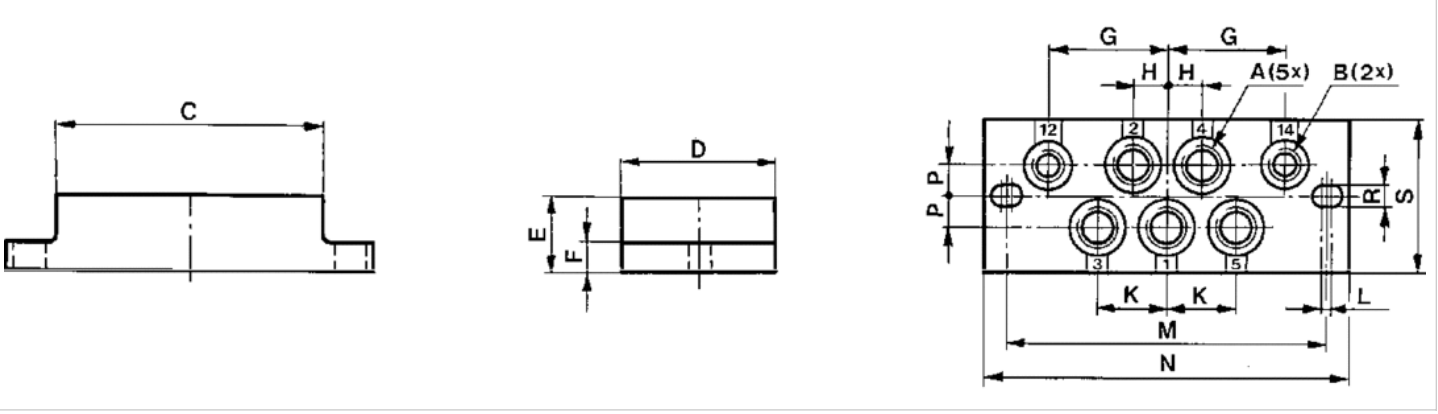
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Material	
Base plate	Die-cast aluminum, black painted

Dimensions

Dimensions



Dimensions

Part No.	Frame size	A *)	B *)	C	D	E	F	G	H	K	L	M	N	P	R	S
5803700000	ISO 3	G3/8	G1/8	118	65	32	10	45	16	32	2	138	153	11	8.4	65

*) Ports

Single subbase, for soft-start valve

- Compressed air connection output G 1/2

Working pressure min./max.	-1 ... 16 bar
Ambient temperature min./max.	-20 ... 70 °C
Medium temperature min./max.	-20 ... 70 °C
Medium	Compressed air
Number of valve positions max.	1
Exhaust (3,5)	uncollected exhaust
Exhaust type	Ports separated
Weight	0.34 kg

Technical data

Part No.	Compressed air connection Input [1]	Compressed air connection Output [2 / 4]
5834710000	G 1/2	G 1/2

Part No.	Compressed air connection Exhaust [3 / 5]	Compressed air connection Pilot connection [X]
5834710000	G 1/2	G 1/8

Technical information

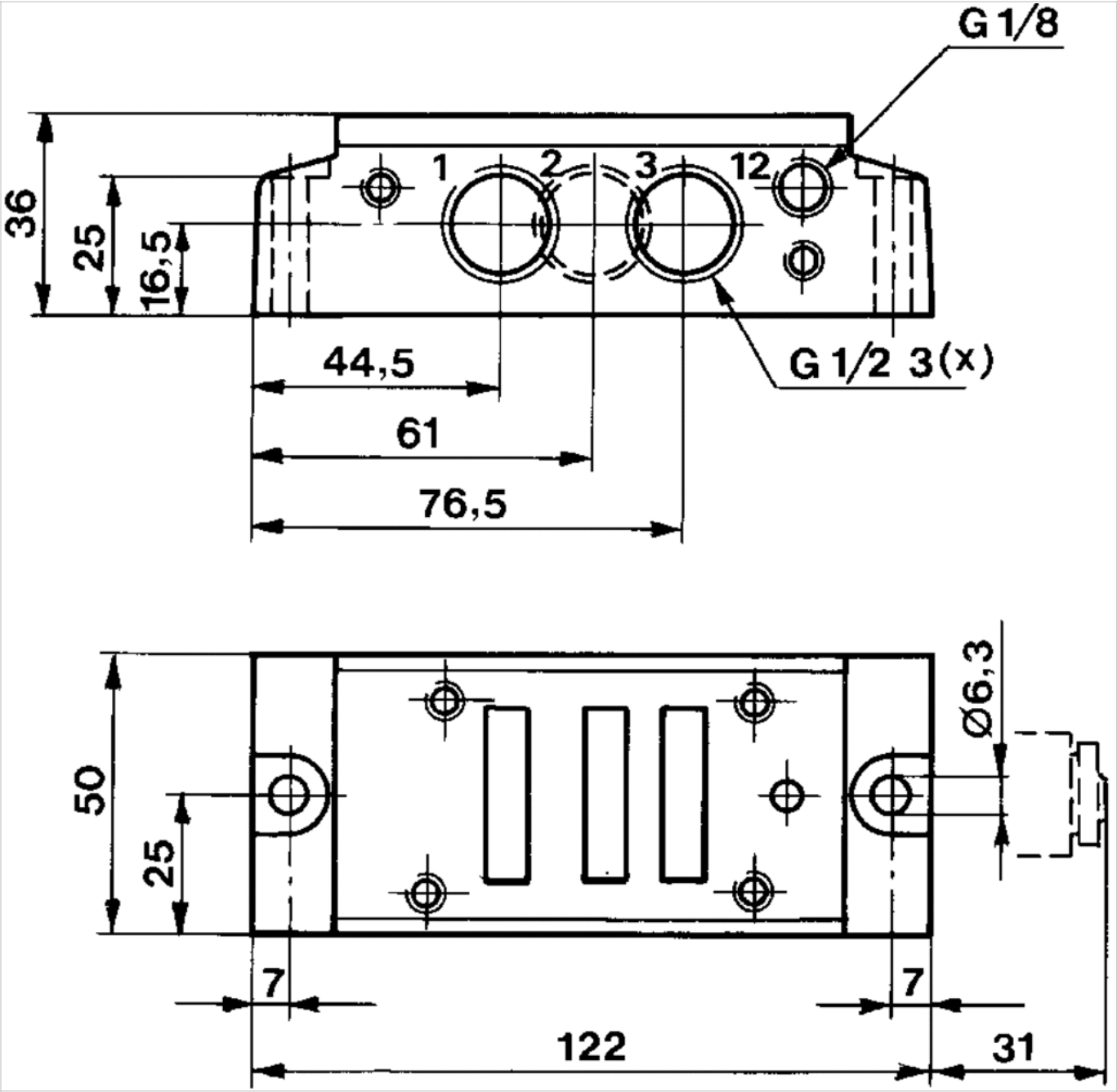
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Material	
Base plate	Die-cast aluminum, black painted

Dimensions

Dimensions



Base plate, ports 2 and 4 on bottom

- standard ISO 5599-1
- Frame size ISO 3
- type F
- Compressed air connection output G 1/2
- Can be assembled into blocks
- Single base plate principle
- Reversed pressure supply permissible
- With collective pilot air exhaust

Standards	ISO 5599-1
Compressed air connection	according to ISO 5599-1
Working pressure min./max.	-0.95 ... 16 bar
Ambient temperature min./max.	-25 ... 70 °C
Medium temperature min./max.	-25 ... 70 °C
Medium	Compressed air
Number of valve positions max.	1
Grid dimension	71 mm
Direction of pneumatic port (1)	On the side
Direction of pneumatic port (3,5)	On the side
Direction of pneumatic port (2,4)	Down
Direction of pneumatic port (12)	On the side
Direction of pneumatic port (14)	On the side
Exhaust (3,5)	With directional exhaust (3/5)
Exhaust type	Ports separated
Mounting screw	hexagon head
Weight	0.679 kg

Technical data

Part No.	Compressed air connection Output [2 / 4]	Compressed air connection Pilot connection [X]
1825503150	G 1/2	G 1/8

Part No.	Compressed air connection Pilot control exhaust [R]
1825503150	G 1/8

Scope of delivery incl. seal and mounting screws

Technical information

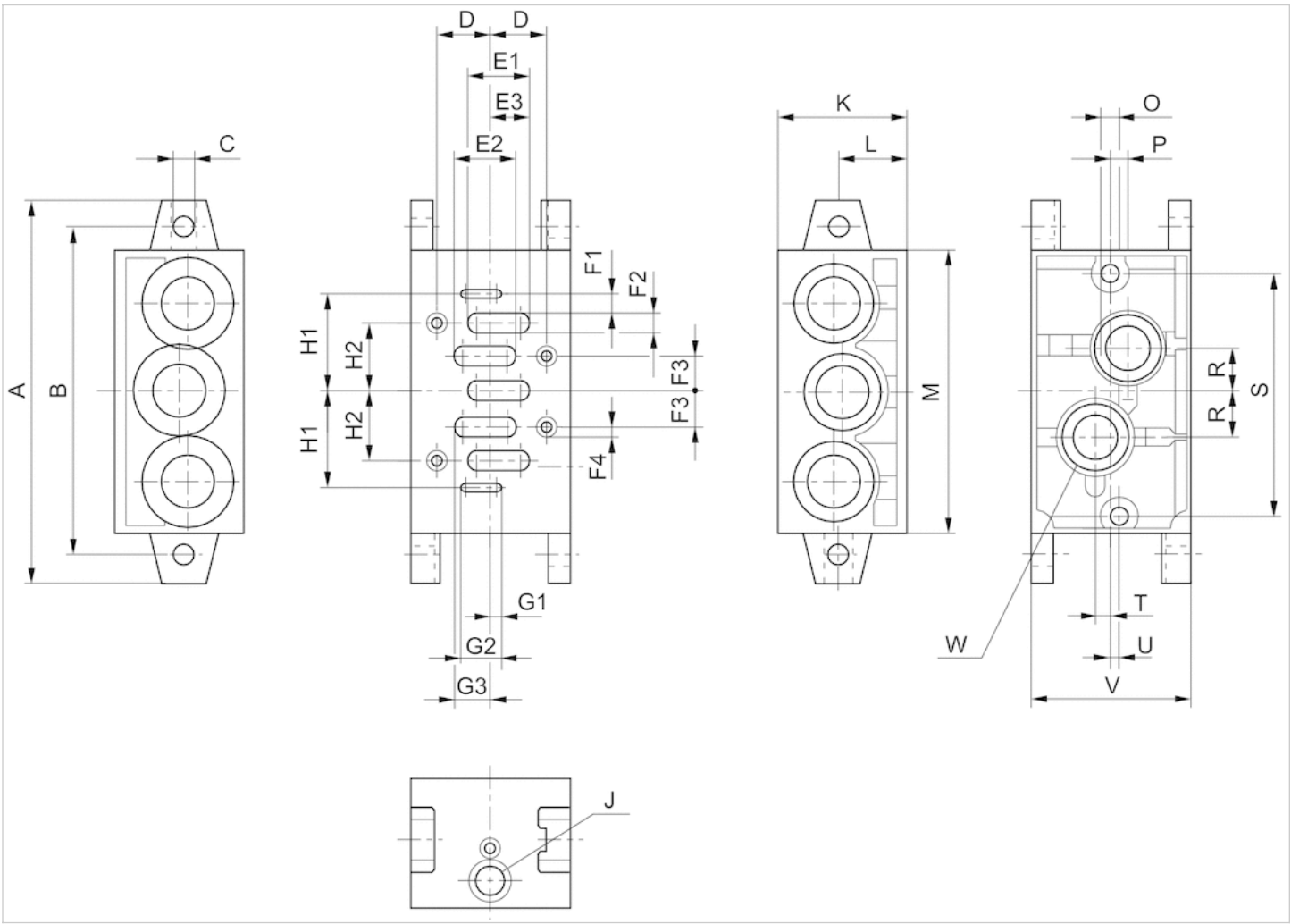
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Housing	Die-cast aluminum
Seal	Acrylonitrile butadiene rubber

Dimensions

Dimensions



Dimensions

Part No.	A	B	C	D	E1	E2	E3	F1	F2	F3	F4	G1	G2	G3	H1	H2	J	K	L	M	O	P	R
1825503150	190	168	9	24	29	29	16,5	4	10	16	M8	4	17,5	16,5	45	32	G 1/8	54	25	140	M8	8	19

S	T	U	V	W
130	6	3	71	G 1/2

Transition plate

- standard ISO 5599-1
- Frame size ISO 1 ▸ ISO 3 ISO 2 ▸ ISO 3
- type F
- Can be assembled into blocks
- Reversed pressure supply permissible

Standards	ISO 5599-1
Working pressure min./max.	-0.95 ... 16 bar
Ambient temperature min./max.	-15 ... 70 °C
Medium temperature min./max.	-15 ... 80 °C
Medium	Compressed air
Exhaust (3,5)	uncollected exhaust
Exhaust type	Ports separated
Mounting screw	hexagon head
Weight	See table below

Technical data

Part No.	Frame size	Weight	Fig.
1825503166	ISO 1 ▸ ISO 3	0.825 kg	Fig. 1
1825503165	ISO 2 ▸ ISO 3	0.79 kg	Fig. 2

Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Material	
Housing	Aluminum
Base plate	Aluminum
Seal	Acrylonitrile butadiene rubber

Dimensions

Fig. 1

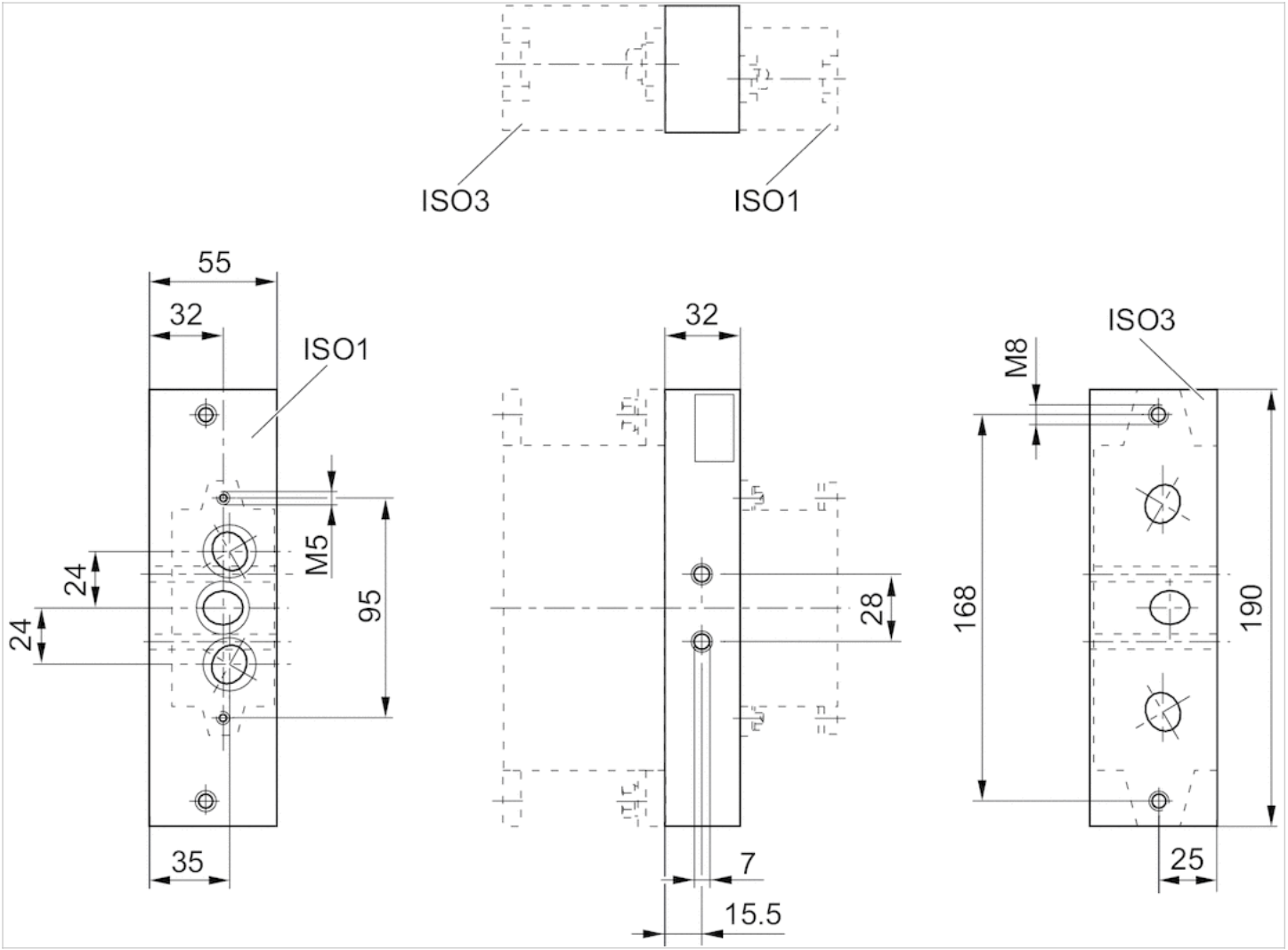
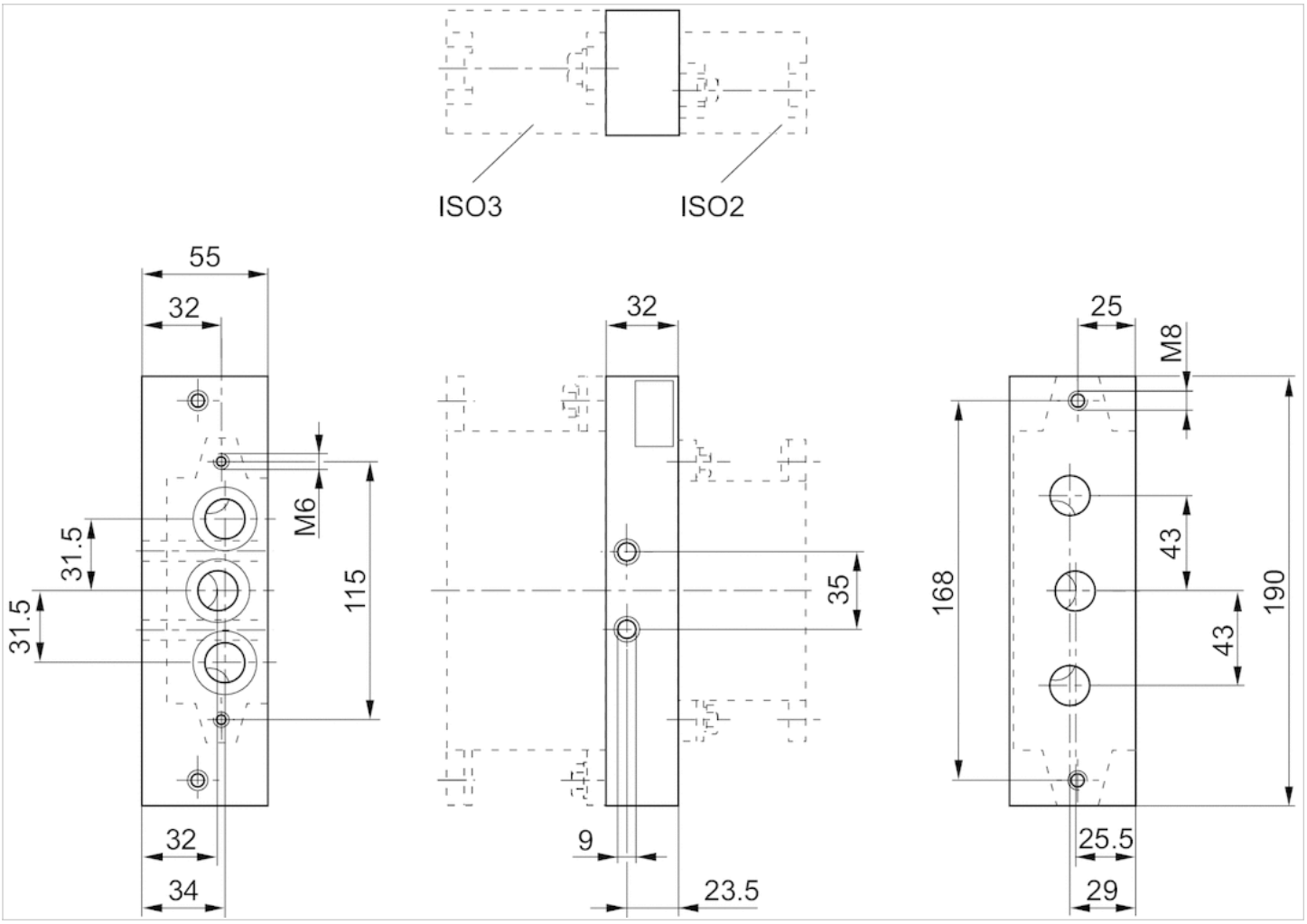


Fig. 2


ISO3
ISO2
55
32
31.5
31.5
M6
115
32
34
32
35
9
23.5
25
M8
168
43
43
190
25.5
29

End plate left, End plate right

- standard ISO 5599-1
- Frame size ISO 3
- type F
- Can be assembled into blocks
- Base plate principle, multiple
- Reversed pressure supply permissible

Standards	ISO 5599-1
Compressed air connection	according to ISO 5599-1
Working pressure min./max.	-0.95 ... 16 bar
Ambient temperature min./max.	-15 ... 70 °C
Medium temperature min./max.	-25 ... 70 °C
Medium	Compressed air
Direction of pneumatic port (1)	On the side
Direction of pneumatic port (3,5)	On the side
Exhaust (3,5)	With directional exhaust (3/5)
Exhaust type	Ports separated
Mounting screw	hexagon head
Weight	0.678 kg

Technical data

Part No.	Compressed air connection Input [1]	Compressed air connection Exhaust [3 / 5]
1825503151	G 1	G 1

Scope of delivery: 2 end plates including seal and mounting screws

Technical information

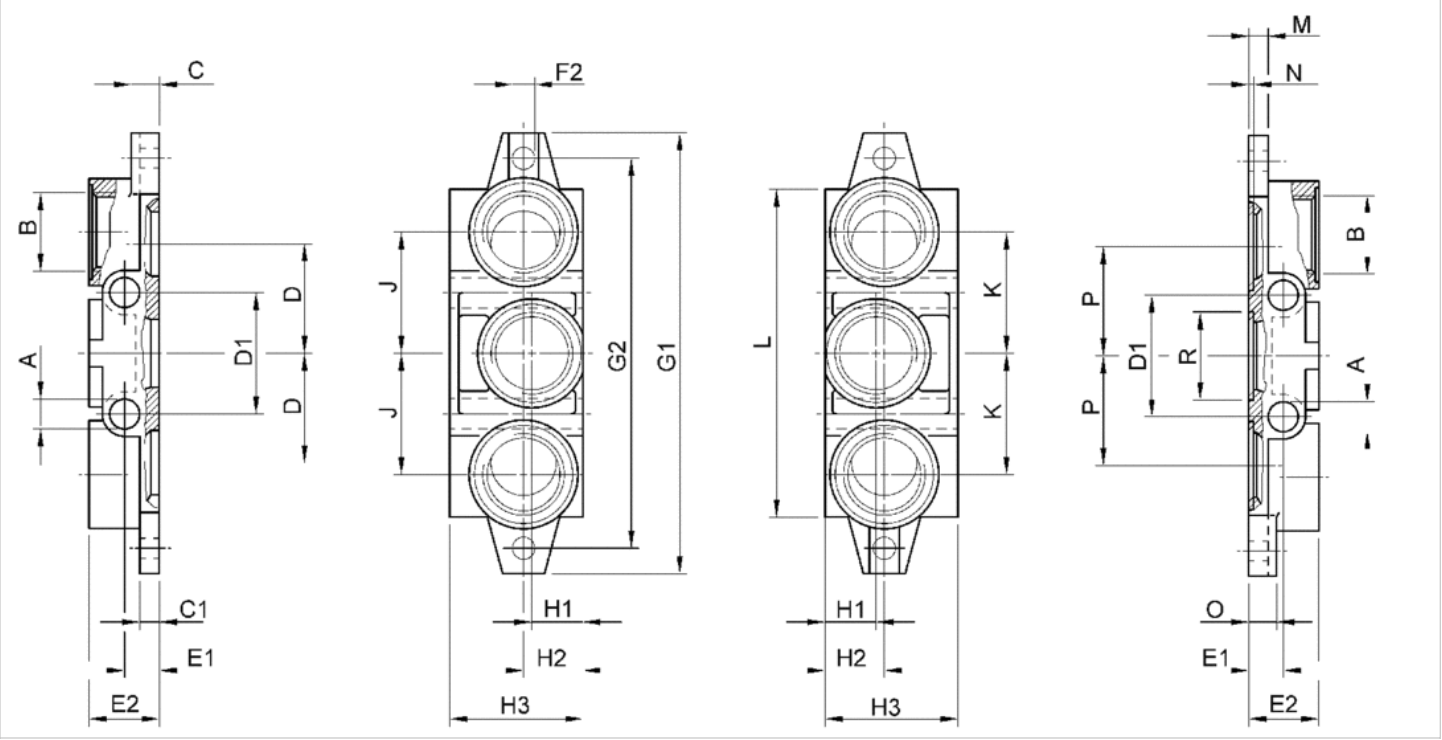
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Material	
Base plate	Die-cast aluminum
Seal	Acrylonitrile butadiene rubber

Dimensions

Dimensions



Dimensions

Part No.	A	B	C	C1	D	D1	E1	E2	F2	G1	G2	H1	H2	H3	J	K	L	M	N	O	P	R
1825503151	12	G 1	12	8	47	52	15	32	Ø 9	190	168	22	25	56	52	52	140	8	2,7	12	47	Ø 38

End plates for adapter plate

- standard ISO 5599-1
- Frame size ISO 1, ISO 3 ISO 2, ISO 3
- type F
- Can be assembled into blocks
- Reversed pressure supply permissible

Standards	ISO 5599-1
Working pressure min./max.	-0.95 ... 16 bar
Ambient temperature min./max.	-15 ... 70 °C
Medium temperature min./max.	-15 ... 80 °C
Medium	Compressed air
Direction of pneumatic port (1)	On the side
Direction of pneumatic port (3,5)	On the side
Exhaust (3,5)	With directional exhaust (3/5)
Exhaust type	Ports separated
Mounting screw	hexagon head
Weight	See table below

Technical data

Part No.	Frame size	Weight
1825503243	ISO 1, ISO 3	0.395 kg
1825503245	ISO 2, ISO 3	0.45 kg

Scope of delivery: 2 end plates of different sizes including seal and mounting screws

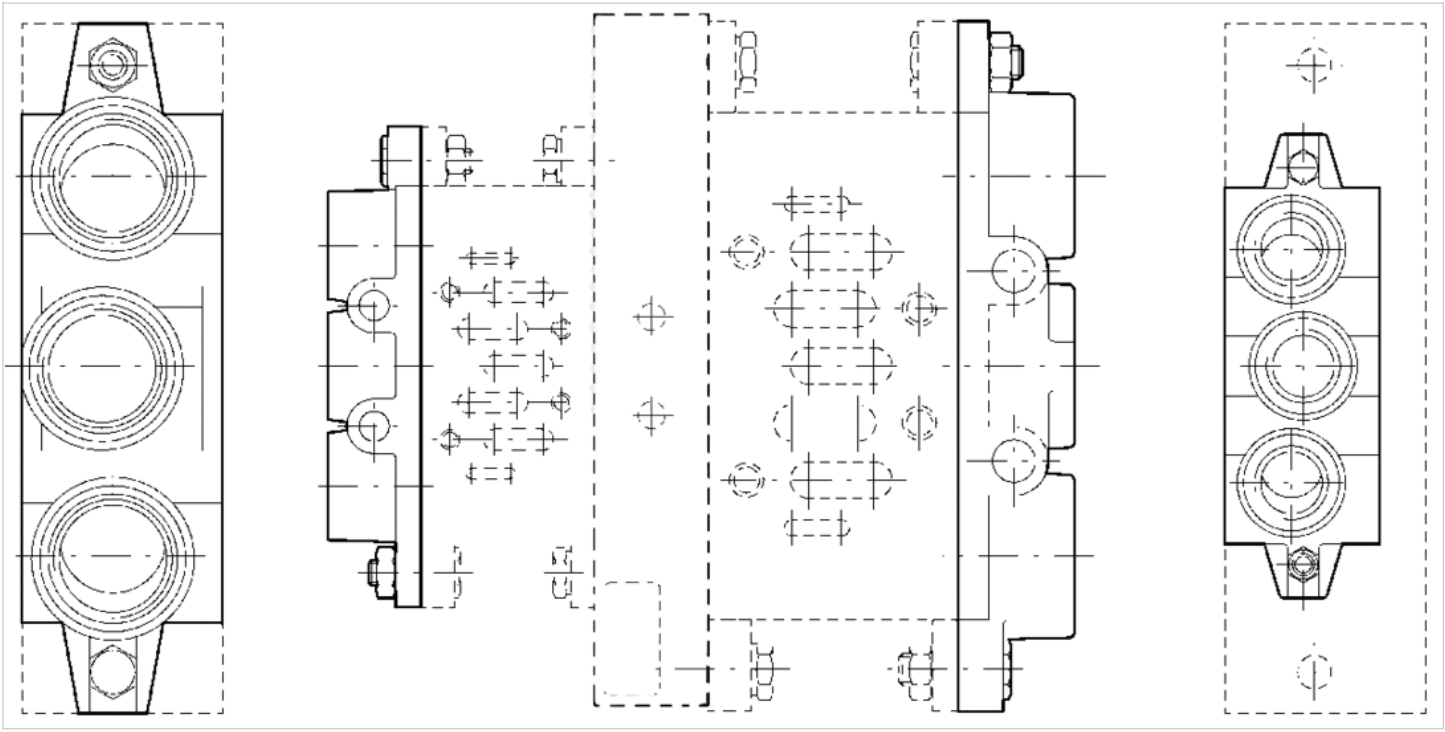
Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

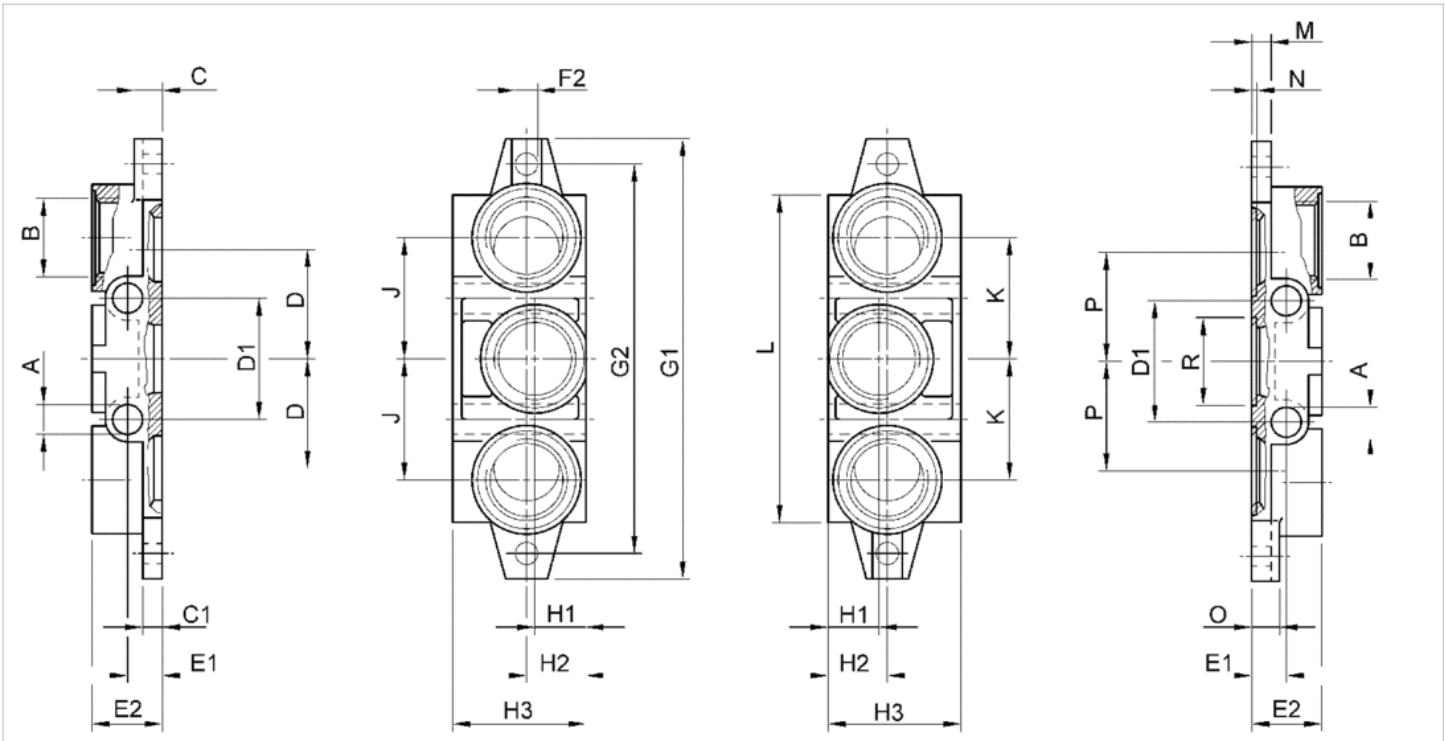
Technical information

Material	
Base plate	Die-cast aluminum
Seal	Acrylonitrile butadiene rubber

Dimensions



Dimensions



Dimensions

	ISO 1	ISO 2	ISO 3
A	7	9	12
B	G 3/8	G 1/2	G 1

	ISO 1	ISO 2	ISO 3
C	8	11	12
C1	6	8	8
D	24	31,5	47
D1	28	35	52
E1	11	13	15
E2	22	26	32
F2	Ø 5,5	Ø 6,6	Ø 9
G1	110	135	190
G2	95	115	168
H1	22	23	22
H2	22	24	25
H3	46	47	56
J	28	34	52
K	28	34	52
L	85	100	140
M	6	8	8
N	2	2	2,7
O	8	11	12
P	24	31,5	47
R	Ø 22,1	Ø 28,7	Ø 38

Angle subplate

- standard ISO 5599-1
- Frame size ISO 3
- type F
- Compressed air connection output G 1/2

Standards	ISO 5599-1
Working pressure min./max.	0 ... 10 bar
Ambient temperature min./max.	-15 ... 80 °C
Medium temperature min./max.	-15 ... 80 °C
Medium	Compressed air
Direction of pneumatic port (2,4)	On the side
Mounting screw	with hexagon socket
Weight	1.4 kg

Technical data

Part No.	Compressed air connection Output [2 / 4]
1825503205	G 1/2

Technical information

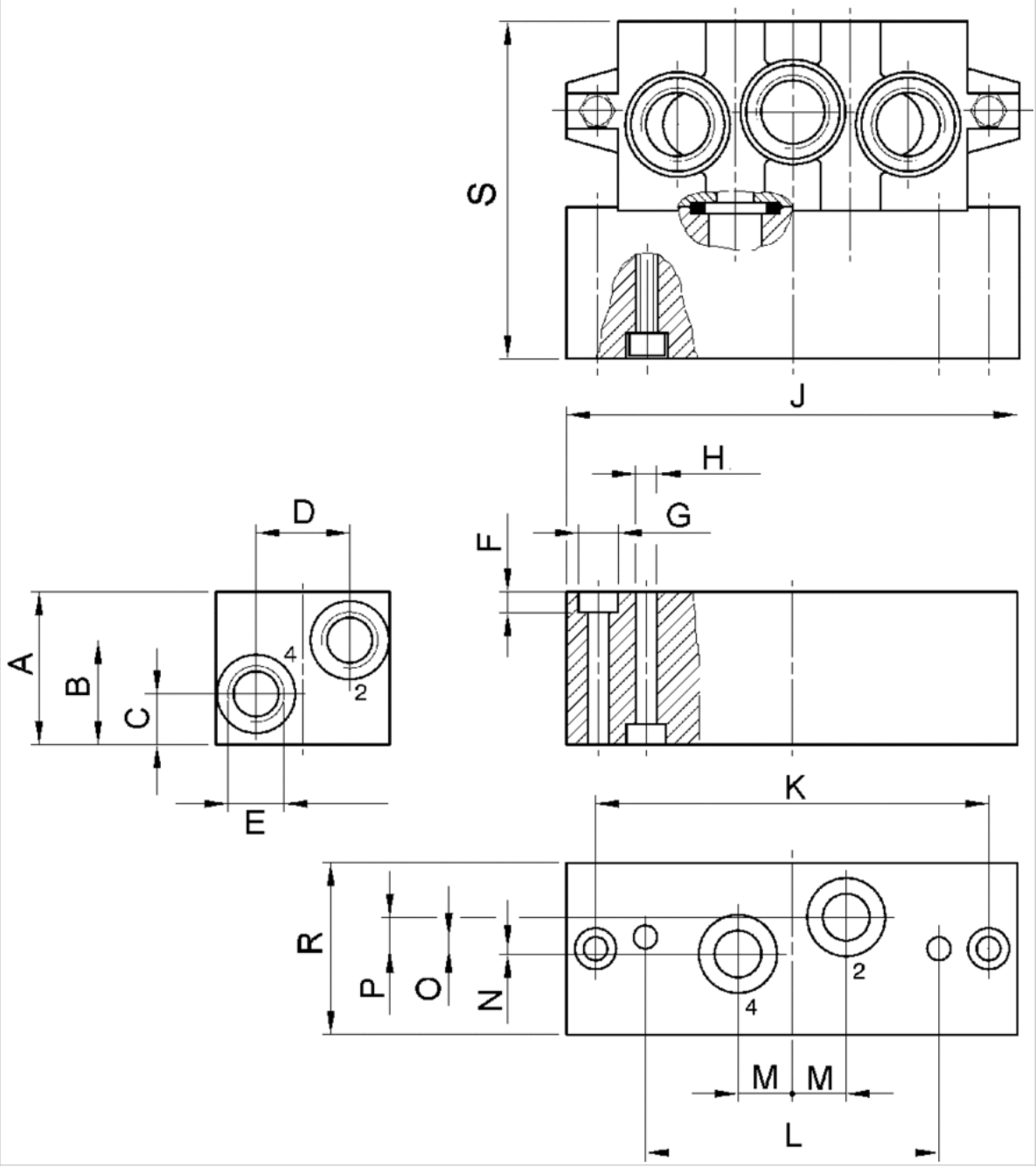
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Material	
Base plate	Aluminum
Seal	Acrylonitrile butadiene rubber

Dimensions

Dimensions



Dimensions

Part No.	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	R	S
1825503205	45	29	17	36	G 1/2	9	Ø 15	Ø 9	190	168	130	19	6	3	8	70	99

Blanking piece

- standard ISO 5599-1, ISO 3 ISO 5599-1, ISO 2
- type F

Standards	ISO 5599-1
Ambient temperature min./max.	-15 ... 80 °C
Weight	See table below

Technical data

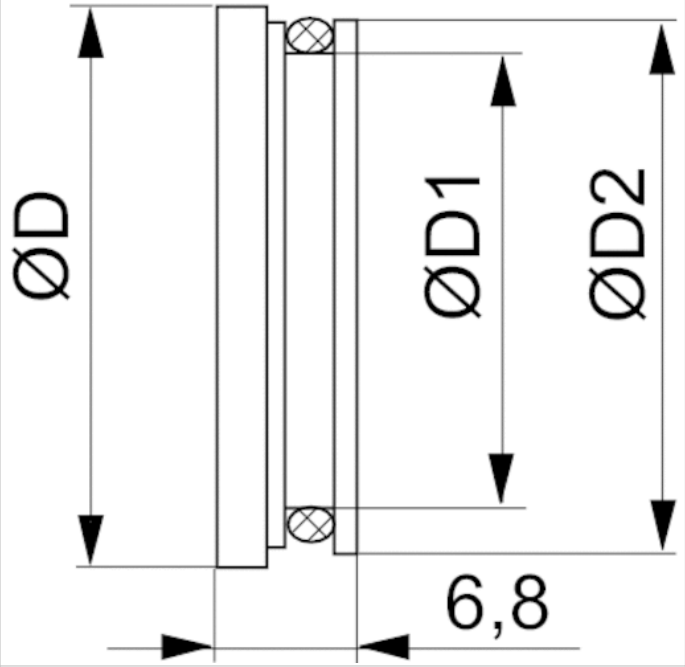
Part No.	Type	Accessory type	Frame size	Weight
1820A20013	Blanking piece, ISO 3	type F	ISO 3	0.105 kg
1820220023	Blanking piece, ISO 2	type F	ISO 2	0.011 kg

Technical information

Material	
Housing	Aluminum
Seal	Acrylonitrile butadiene rubber

Dimensions

Dimensions



Dimensions

Part No.	Ø D	Ø D1	Ø D2
1820A20013	29.3	23.8	27.7
1820220023	23	14.3	18.2

Blanking piece, Subbases ISO 5599-1

- standard ISO 5599-1, ISO 3
- type F

Standards	ISO 5599-1
Working pressure min./max.	-0.95 ... 10 bar
Ambient temperature min./max.	-25 ... 70 °C

Technical data

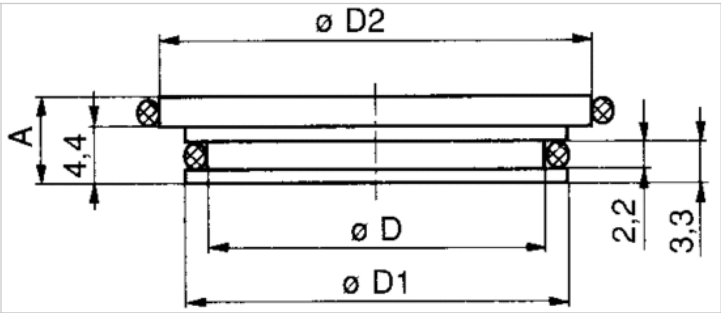
8985049032	type F	ISO 3

Technical information

Housing	Brass

Dimensions

Dimensions



Dimensions

Part No.	Frame size	A	D	D1	D2
8985049032	ISO 3	6.9	25.1	27.7	30

End plate right

- standard ISO 5599-1
- Frame size ISO 1 ISO 2 ISO 3
- type C

Standards	ISO 5599-1
Working pressure min./max.	-0.95 ... 16 bar
Ambient temperature min./max.	-15 ... 70 °C
Medium temperature min./max.	-15 ... 70 °C
Medium	Compressed air
Weight	See table below

Technical data

Part No.	Frame size	Compressed air connection Input [1]	Compressed air connection Exhaust [3 / 5]	Weight
R432037651	ISO 1	G 3/8	G 3/8	0.32 kg
R432037653	ISO 2	G 3/4	G 3/4	0.491 kg
R432037655	ISO 3	G 1	G 1	1.32 kg

Scope of delivery incl. seal and mounting screws

Technical information

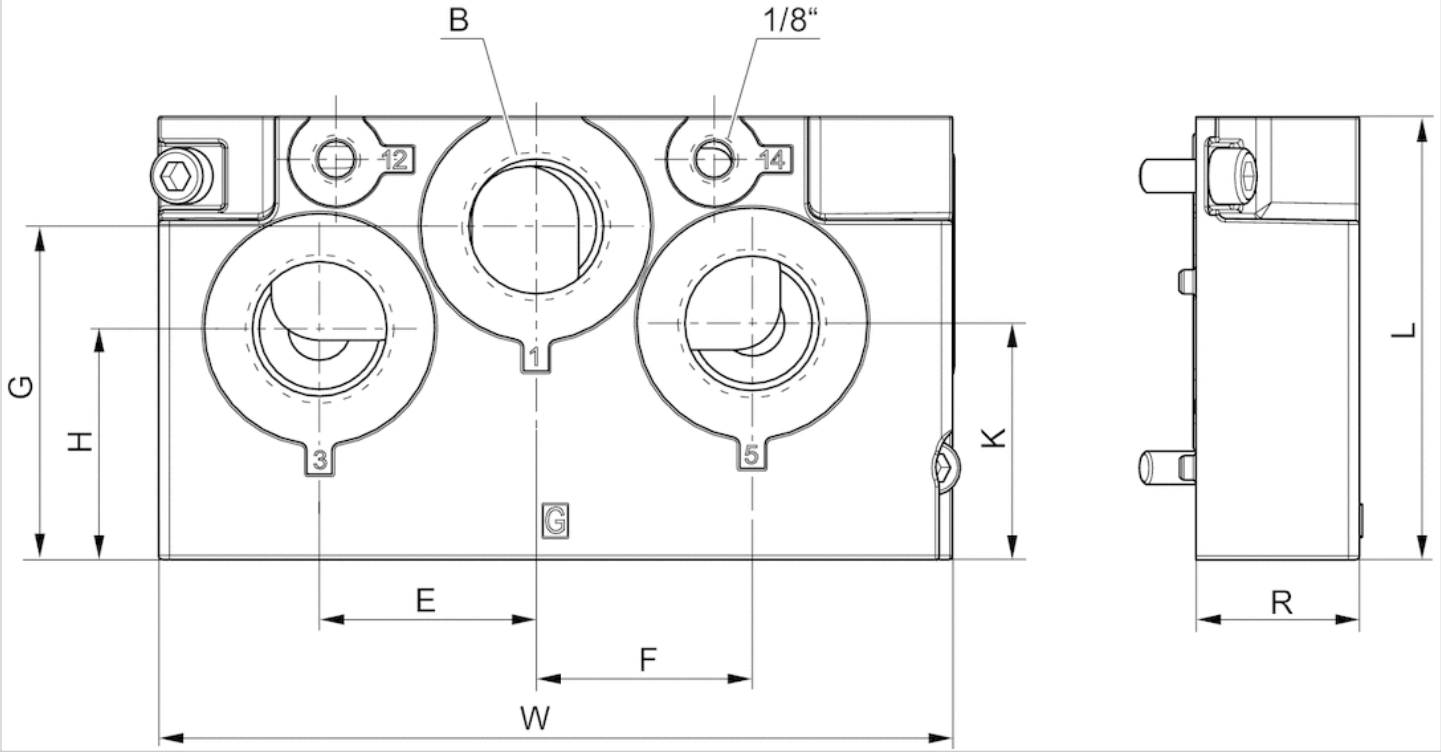
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Material	
Surface	painted
Base plate	Die-cast aluminum, black painted
Seal	Acrylonitrile butadiene rubber

Dimensions

Dimensions



Dimensions

Part No.	Frame size	B	E	F	G	H	J	K	R	L	W
R432037651	ISO 1	3/8	23	18	15.5	30	20	37.5	25	60.6	135
R432037653	ISO 2	3/4	39	39	60	41.5	38	42.5	29.5	79.7	143
R432037655	ISO 3	1	49	49	76	53	32	53	36	100	164

End plate right, Inch version

- standard ISO 5599-1
- Frame size ISO 1 ISO 2 ISO 3
- type C

Standards	ISO 5599-1
Working pressure min./max.	-0.95 ... 16 bar
Ambient temperature min./max.	-15 ... 70 °C
Medium temperature min./max.	-15 ... 70 °C
Medium	Compressed air
Weight	See table below

Technical data

Part No.	Frame size	Compressed air connection Input [1]	Compressed air connection Exhaust [3 / 5]	Weight
R432037652	ISO 1	3/8 NPT	3/8 NPT	0.32 kg
R432037654	ISO 2	3/4 NPT	3/4 NPT	0.491 kg
R432037656	ISO 3	1 NPT	1 NPT	1.32 kg

Scope of delivery incl. seal and mounting screws

Technical information

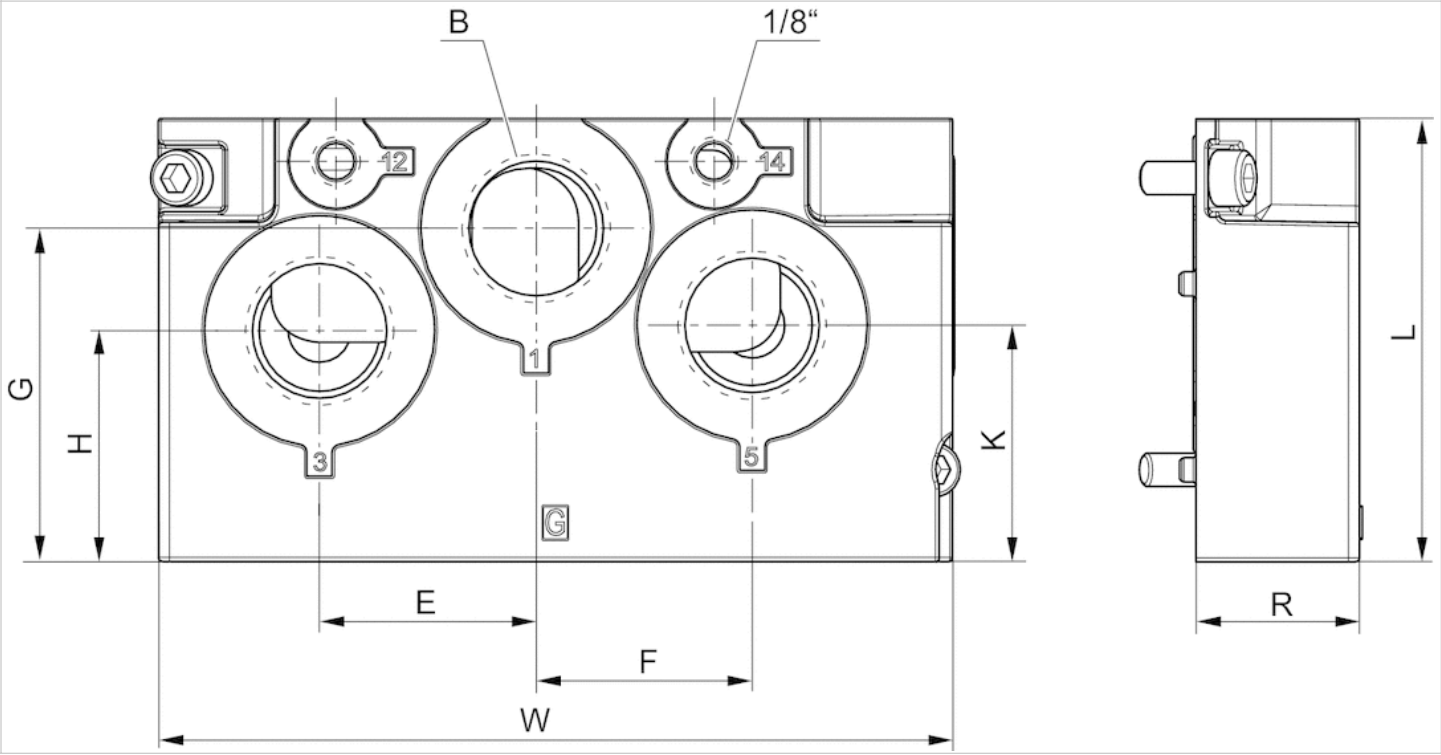
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Material	
Surface	painted
Base plate	Die-cast aluminum, black painted
Seal	Acrylonitrile butadiene rubber

Dimensions

Dimensions



Dimensions

Part No.	E	F	G	H	J	K	W	Frame size
R432037652	23	18	15.5	30	20	37.5	135	ISO 1
R432037654	39	39	60	41.5	38	42.5	143	ISO 2
R432037656	49	49	76	53	32	53	53	ISO 3

Base plate

- standard ISO 5599-1
- Frame size ISO 1 ISO 2 ISO 3
- type C
- Compressed air connection output G 3/8 G 1/2 G 3/4
- Can be assembled into blocks

Standards	ISO 5599-1
Working pressure min./max.	-1 ... 16 bar
Ambient temperature min./max.	-20 ... 70 °C
Medium temperature min./max.	-20 ... 70 °C
Medium	Compressed air
Direction of pneumatic port (1)	Both directions possible
Direction of pneumatic port (3,5)	Both directions possible
Exhaust type	Ports separated
Weight	See table below

Technical data

Part No.	Frame size	Compressed air connection Output [2 / 4]	Weight
R432037639	ISO 1	G 3/8	0.592 kg
R432037641	ISO 2	G 1/2	1.04 kg
R432037643	ISO 3	G 3/4	1.89 kg

Scope of delivery incl. seal and mounting screws

Technical information

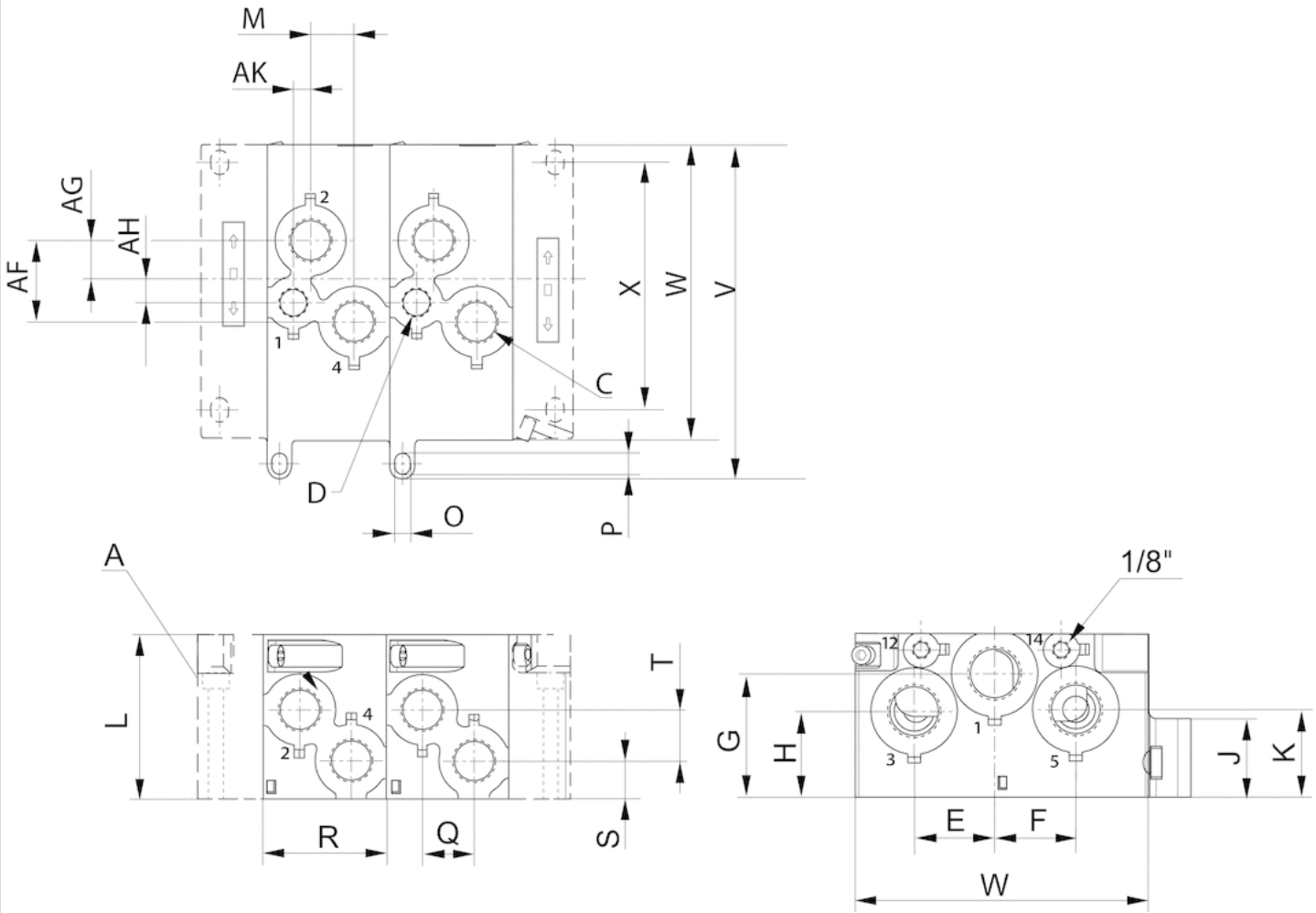
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Material	
Surface	painted
Base plate	Die-cast aluminum, black painted
Seal	Acrylonitrile butadiene rubber

Dimensions

Dimensions



A = left and right end plates in two versions

Dimensions

Part No.	A	D	C	AF	AG	AH	AK	E	F	G	H	J	K	L	M	O	P	R
R432037639	G 1/4	-	G 3/8	23.8	11.8	-	-	23	18	15,5	30	20	37,5	60.6	12	5.5	8.5	45
R432037641	G 1/2	G 3/8	G 1/2	39.5	19	11	8.2	39	39	60	41,5	38	42,5	79.7	21	5.5	9.3	59.5
R432037643	G 3/4	G 1/2	G 3/4	46.3	25.1	11.2	15.8	49	49	76	53	32	53	100	22.5	6.3	9.3	80

Q	S	T	X	W	V
18	13.3	14.7	102,5	135	150
25	18	24.8	119,6	143	162,5
38	24.5	20.5	99	164	183

ISO 5599-1, Base and end plates, Inch version

- standard ISO 5599-1
- Frame size ISO 1 ISO 2 ISO 3
- type C
- Compressed air connection output 3/8 NPT 1/2 NPT 3/4 NPT
- Can be assembled into blocks

Standards	ISO 5599-1
Working pressure min./max.	-1 ... 16 bar
Ambient temperature min./max.	-20 ... 70 °C
Medium temperature min./max.	-20 ... 70 °C
Medium	Compressed air
Direction of pneumatic port (1)	Both directions possible
Direction of pneumatic port (3,5)	Both directions possible
Exhaust type	Ports separated
Weight	See table below

Technical data

Part No.	Frame size	Compressed air connection Output [2 / 4]	Weight
R432037640	ISO 1	3/8 NPT	0.592 kg
R432037642	ISO 2	1/2 NPT	1.04 kg
R432037644	ISO 3	3/4 NPT	1.89 kg

Scope of delivery incl. seal and mounting screws

Technical information

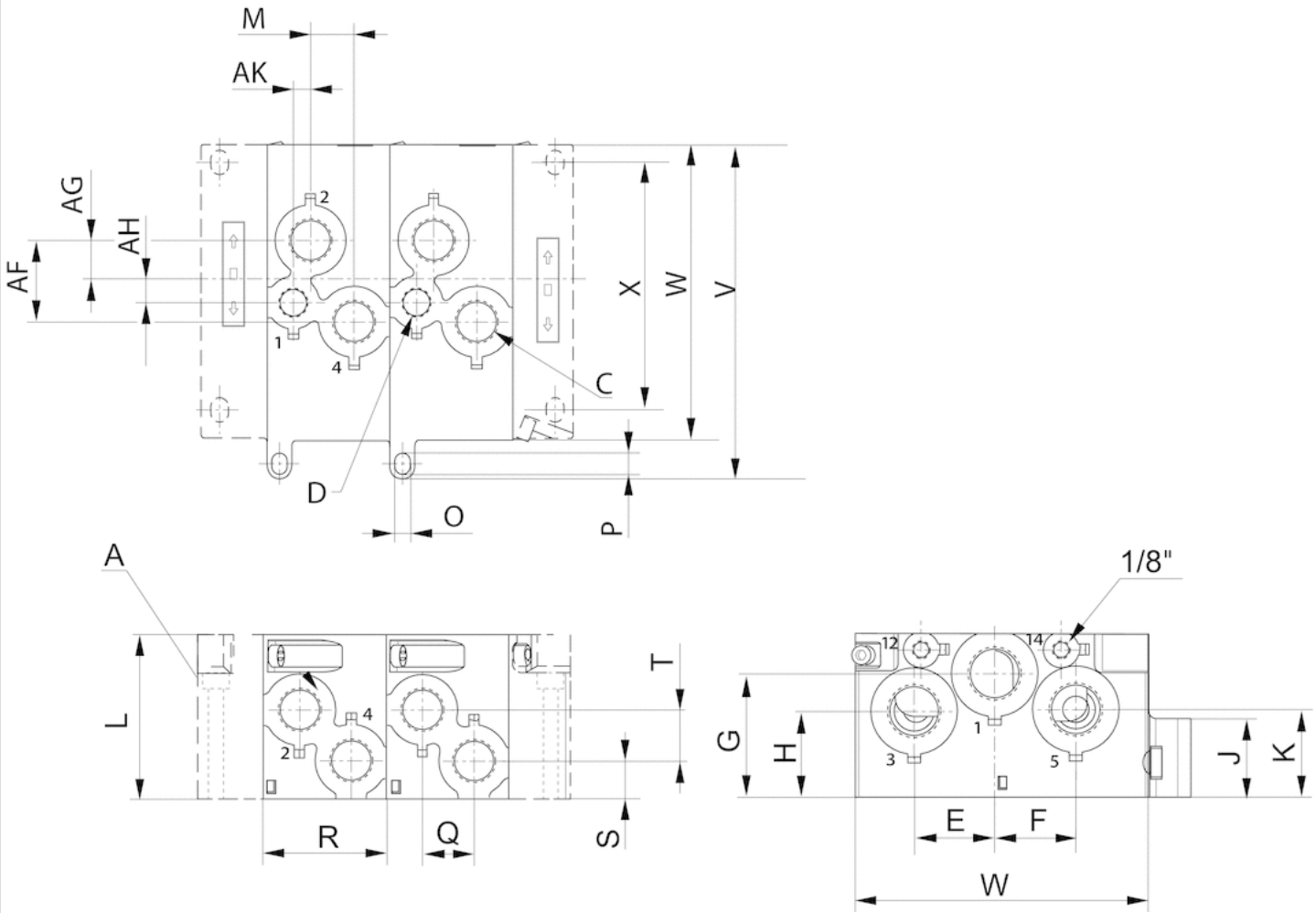
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Material	
Surface	painted
Base plate	Die-cast aluminum, black painted
Seal	Acrylonitrile butadiene rubber

Dimensions

Dimensions



A = left and right end plates in two versions

Dimensions

Part No.	A	D	C	F	G	H	K	L	M	O	P	R	Q	S	T
R432037640	1/4 NPT	-	3/8 NPT	23.8	11.8	-	-	60.6	12	5.5	8.5	45	18	13.3	14.7
R432037642	1/2 NPT	3/8 NPT	1/2 NPT	39.5	19	11	8.2	79.7	21	5.5	9.3	59.5	25	18	24.8
R432037644	3/4 NPT	1/2 NPT	3/4 NPT	46.3	25.1	11.2	15.8	100	22.5	6.3	9.3	80	38	24.5	20.5

End plate left

- standard ISO 5599-1
- Frame size ISO 1 ISO 2 ISO 3
- type C

Standards	ISO 5599-1
Working pressure min./max.	-0.95 ... 16 bar
Ambient temperature min./max.	-15 ... 70 °C
Medium temperature min./max.	-15 ... 70 °C
Medium	Compressed air
Weight	See table below

Technical data

Part No.	Frame size	Compressed air connection Input [1]	Compressed air connection Exhaust [3 / 5]	Weight
R432037645	ISO 1	G 3/8	G 3/8	0.309 kg
R432037647	ISO 2	G 3/4	G 3/4	0.509 kg
R432037649	ISO 3	G 1	G 1	1.31 kg

Scope of delivery incl. seal and mounting screws

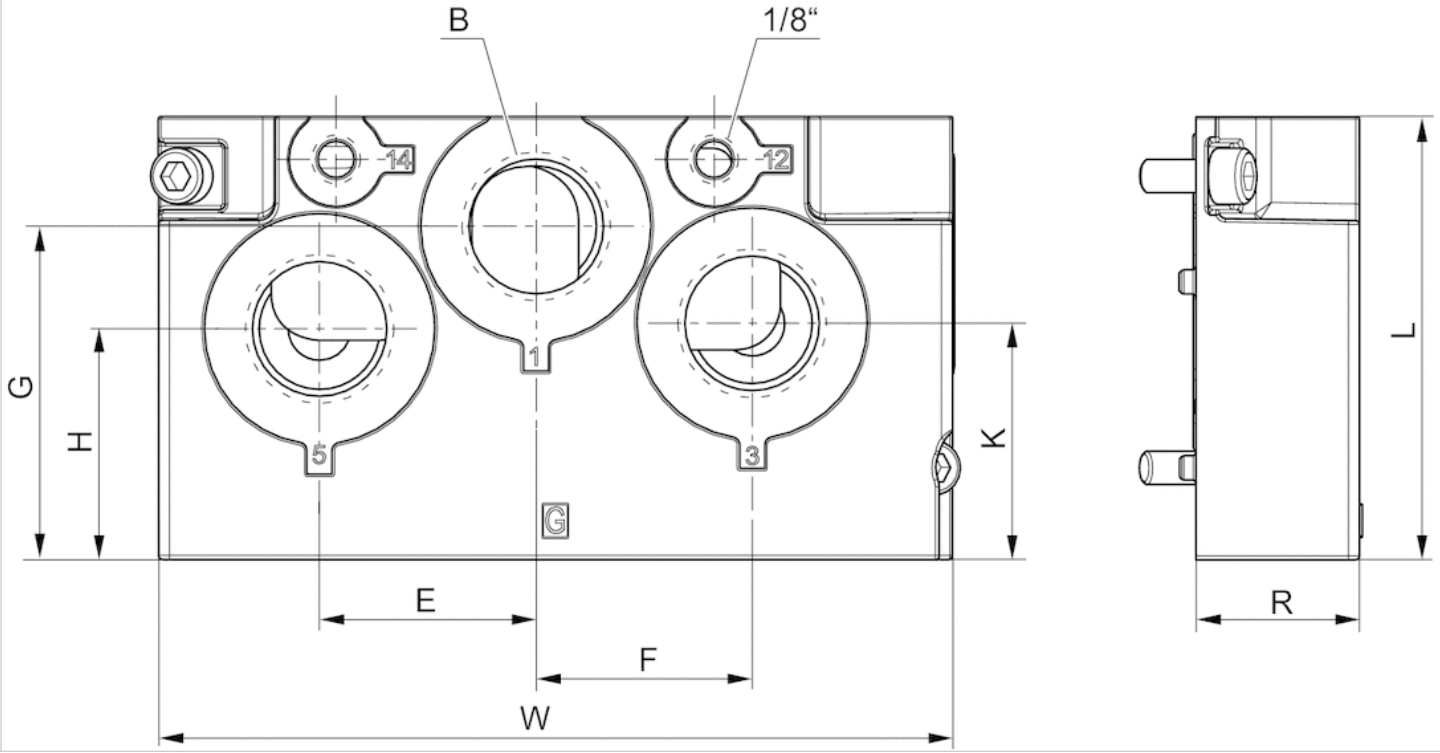
Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Material	
Base plate	Die-cast aluminum
Seal	Acrylonitrile butadiene rubber

Dimensions



Dimensions

Part No.	Frame size	B	E	F	G	H	J	K	L	R	W
R432037645	ISO 1	3/8	23	18	15.5	30	20	37.5	60.6	25	135
R432037647	ISO 2	3/4	39	39	60	41.5	38	42.5	79.7	32	143
R432037649	ISO 3	1	49	49	76	53	32	53	100	37	164

End plate left

- standard ISO 5599-1
- Frame size ISO 1 ISO 2 ISO 3
- type C

Standards	ISO 5599-1
Working pressure min./max.	-0.95 ... 16 bar
Ambient temperature min./max.	-15 ... 70 °C
Medium temperature min./max.	-15 ... 70 °C
Medium	Compressed air
Weight	See table below

Technical data

Part No.	Frame size	Compressed air connection Input [1]	Compressed air connection Exhaust [3 / 5]	Weight
R432037646	ISO 1	3/8 NPT	3/8 NPT	0.309 kg
R432037648	ISO 2	3/4 NPT	3/4 NPT	0.509 kg
R432037650	ISO 3	1 NPT	1 NPT	1.31 kg

Scope of delivery incl. seal and mounting screws

Technical information

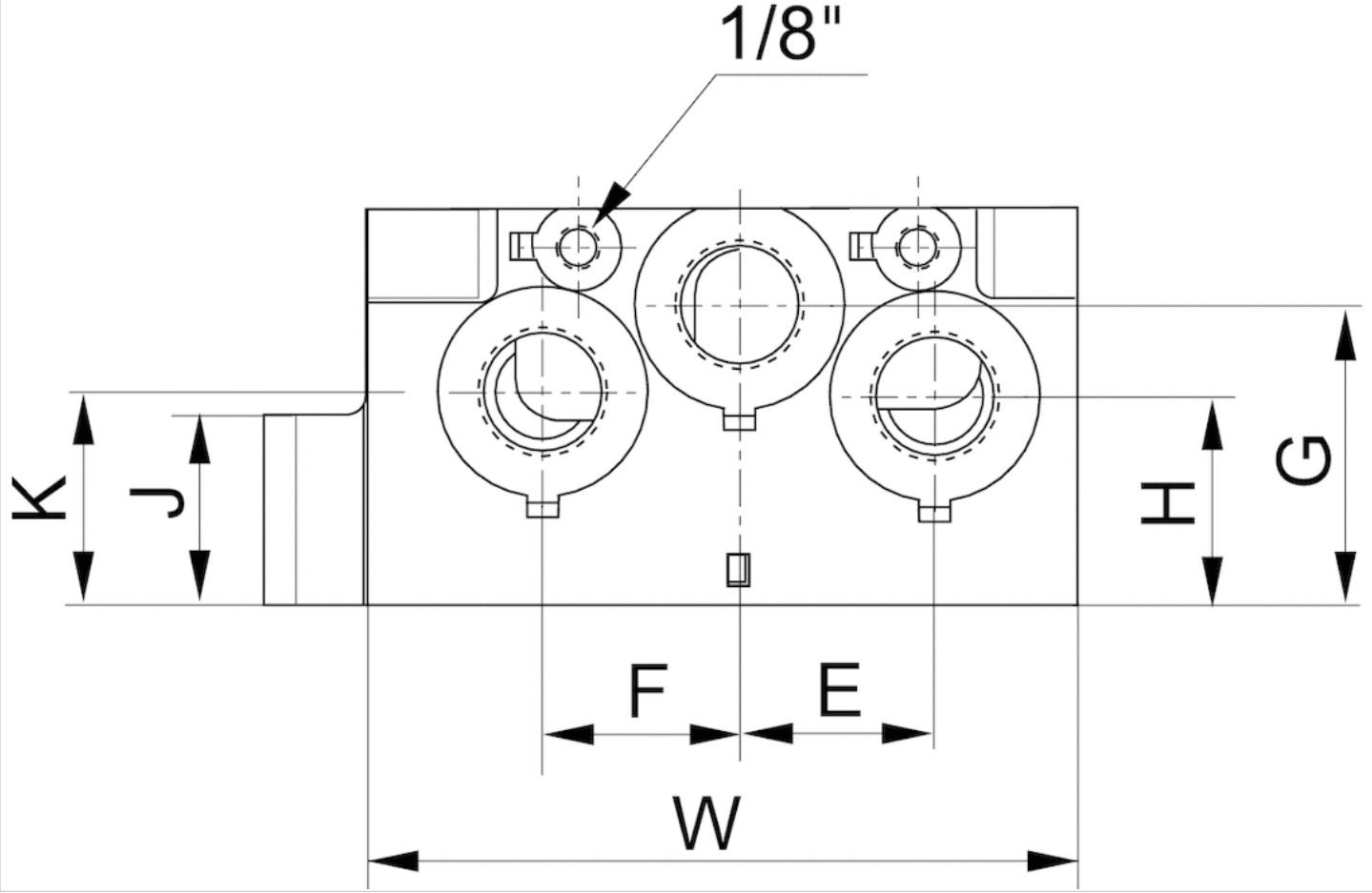
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Material	
Base plate	Die-cast aluminum
Seal	Acrylonitrile butadiene rubber

Dimensions

Dimensions



Dimensions

Part No.	E	F	G	H	J	K	W
R432037646	23	18	15.5	30	20	37.5	135
R432037648	39	39	60	41.5	38	42.5	143
R432037650	49	49	76	53	32	53	164

Blanking piece

- according to ISO 5599
- standard ISO 1 ISO 2 ISO 3
- type C

Weight See table below

Technical data

Part No.	Type	Accessory type	Frame size	Weight
R432038306	Blanking piece	type C	ISO 1	0.009 kg
R432037662	Blanking piece	type C	ISO 2	0.009 kg
R432037663	Blanking piece	type C	ISO 3	0.02 kg

Base plate, ports 2 and 4 on bottom

- standard ISO 5599-1
- Frame size ISO 3
- type K
- Compressed air connection output G 1/2
- Can be assembled into blocks

Standards	ISO 5599-1
Working pressure min./max.	-1 ... 16 bar
Ambient temperature min./max.	-20 ... 70 °C
Medium temperature min./max.	-20 ... 70 °C
Medium	Compressed air
Number of valve positions max.	1
Direction of pneumatic port (2,4)	Down
Exhaust (3,5)	uncollected exhaust
Exhaust type	Ports separated
Weight	0.7 kg

An example configuration is illustrated. The delivered product may thus deviate from the illustration.

Technical data

Part No.	Compressed air connection Output [2 / 4]	Compressed air connection Pilot connection [X]
5803750000	G 1/2	G 1/8

Scope of delivery incl. seal and mounting screws

Technical information

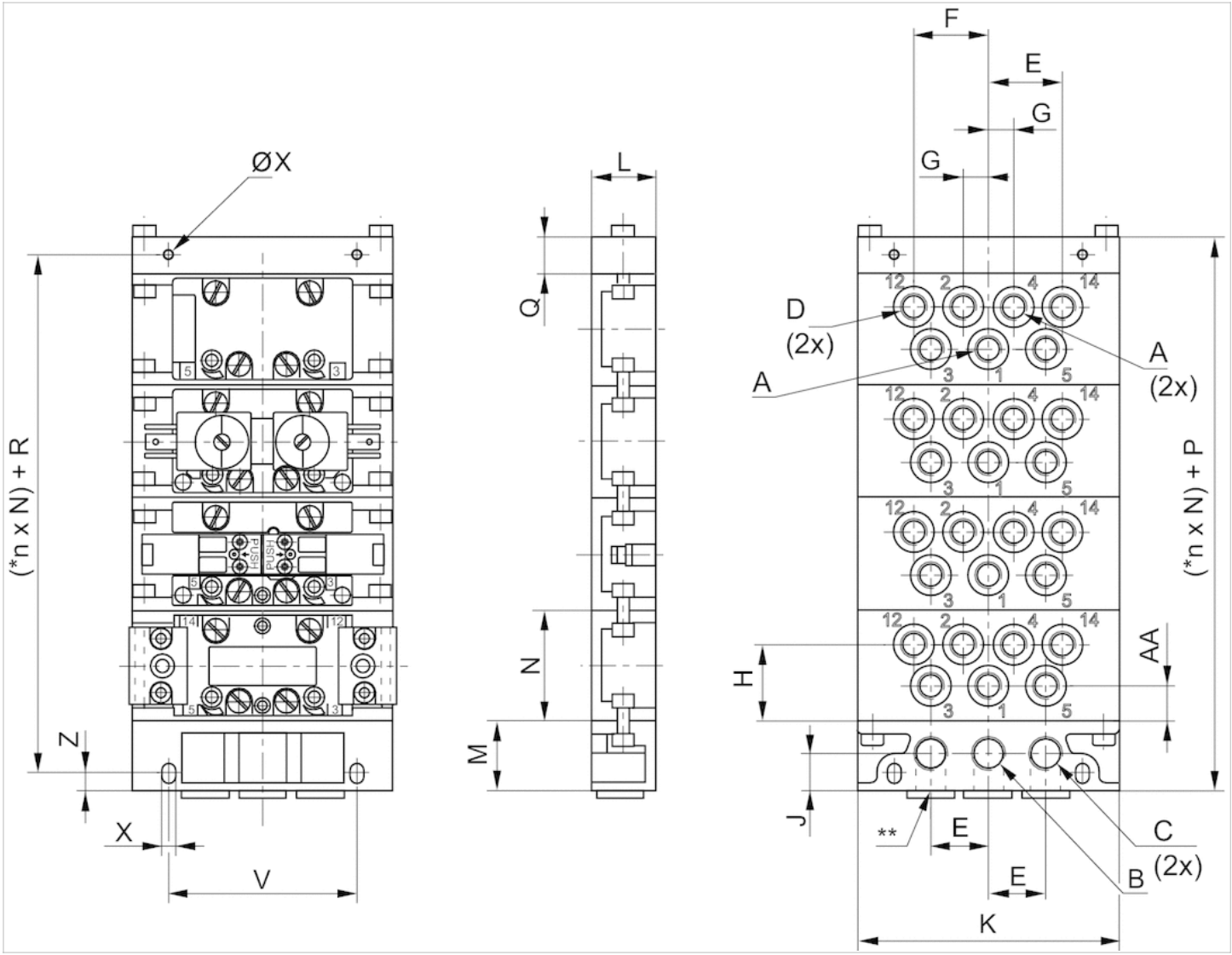
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Material	
Base plate	Die-cast aluminum, black painted
Seal	Acrylonitrile butadiene rubber

Dimensions

Dimensions



* n = Number of subbases.
** Alternative port openings, closed with plugs

Dimensions

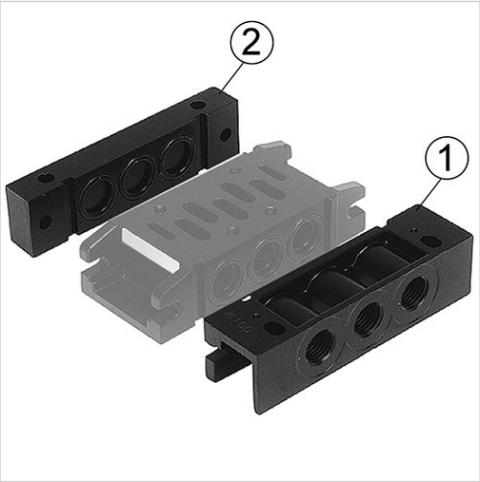
Part No.	*		A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	V	X
5803750000	d	ISO 3	G 1/2	G 3/4	G 3/4	G 1/8	44	62	20.5	42	24	190	40	44	71	64	20	45	146	8.4

Z	AA
10	–

* Intermediate plates designated with the same letters (a-d) can be mounted together without a transition plate.

End plate left, End plate right

- standard ISO 5599-1
- Frame size ISO 2, ISO 3 ISO 3, ISO 4
- type K
- Can be assembled into blocks



Standards	ISO 5599-1
Working pressure min./max.	-1 ... 16 bar
Ambient temperature min./max.	-20 ... 70 °C
Medium temperature min./max.	-20 ... 70 °C
Medium	Compressed air
Exhaust (3,5)	uncollected exhaust
Exhaust type	Ports separated
Weight	See table below

An example configuration is illustrated. The delivered product may thus deviate from the illustration.

Technical data

Part No.	Frame size	Compressed air connection Input [1]	Compressed air connection Exhaust [3 / 5]	Weight
5803850000	ISO 2, ISO 3	G 1/2	G 1/2	0.39 kg
5803860000	ISO 2, ISO 3	-	-	0.24 kg
5804850000	ISO 3, ISO 4	G 3/4	G 3/4	0.55 kg
5804860000	ISO 3, ISO 4	-	-	0.3 kg

Technical information

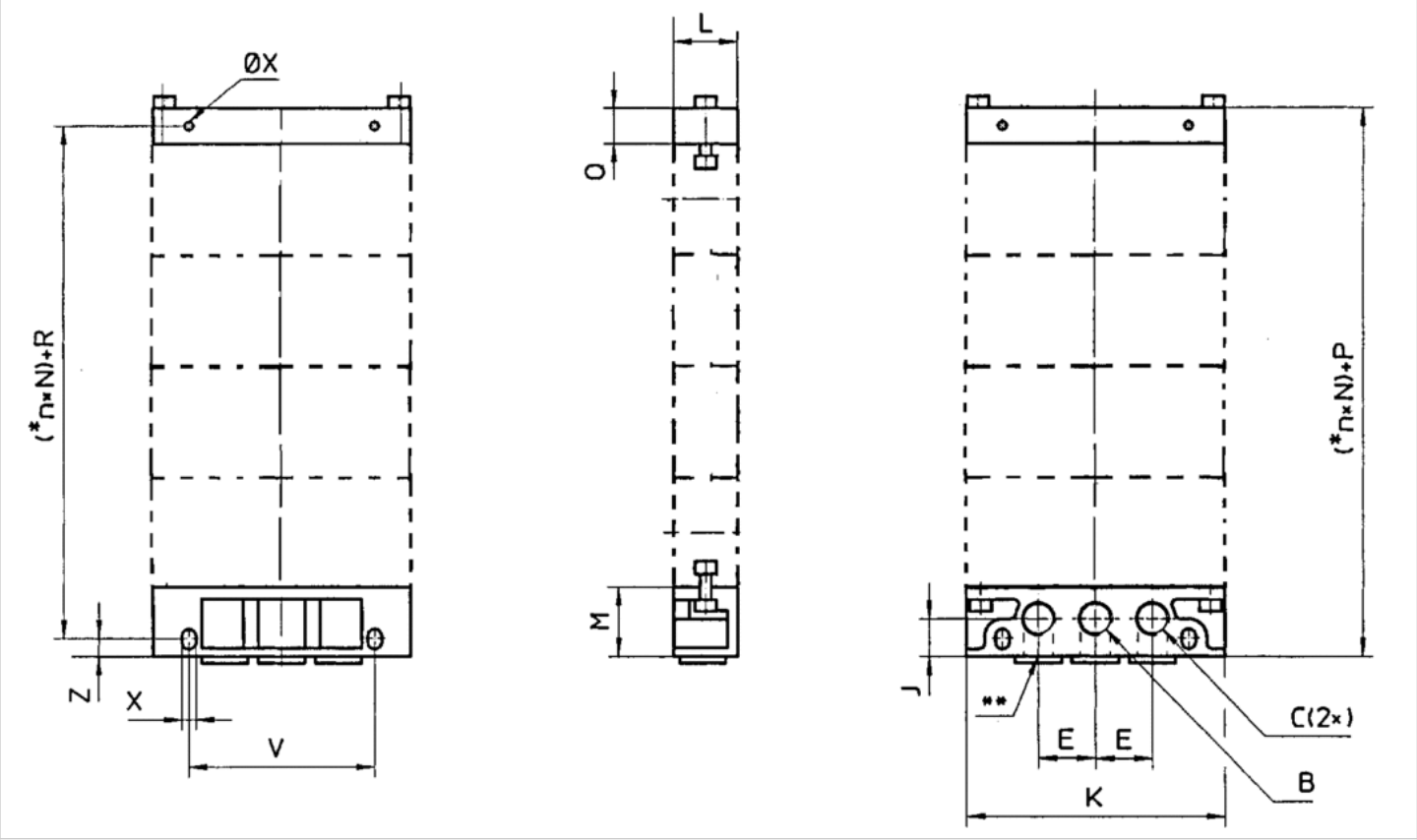
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Material	
Surface	painted
Base plate	Die-cast aluminum, black painted
Seal	Acrylonitrile butadiene rubber

Dimensions

Dimensions



* n = Number of subbases.
** Alternative port openings, closed with plugs

Dimensions

Part No.		B	C	E	J	K	L	M	P	Q	R	V	X	Z	Weight
5803850000	ISO 2 , ISO 3	G 1/2	G 1/2	36	22	156	37	39	59	-	40	118	8.4	10	0.39 kg
5803860000	ISO 2 , ISO 3	-	-	-	-	156	37	-	59	20	40	118	8.4	-	0.24 kg
5804850000	ISO 3 , ISO 4	G 3/4	G 3/4	44	24	190	42	44	64	-	45	146	8.4	10	0.55 kg
5804860000	ISO 3 , ISO 4	-	-	-	-	190	42	-	64	20	45	146	8.4	-	0.3 kg

Separator set

- standard ISO 5599-1, ISO 2 ISO 3 ISO 5599-1, ISO 3 ISO 4
- type K

Standards	ISO 5599-1
Ambient temperature min./max.	-20 ... 70 °C
Weight	See table below

An example configuration is illustrated. The delivered product may thus deviate from the illustration.

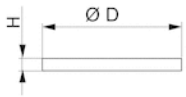
Technical data

Part No.	Type	Accessory type	Frame size	Delivery unit	Weight
5803880000	c	type K	ISO 2, ISO 3	3 piece	0.02 kg
5804880000	d	type K	ISO 3, ISO 4	3 piece	0.029 kg

Technical information

Material	
Housing	Brass

Dimensions



Dimensions

Part No.	D	H
5803880000	20,5	2,2
5804880000	24,5	2,2

Blanking plate

- standard ISO 5599-1
- Frame size ISO 3

Standards	ISO 5599-1
Working pressure min./max.	-1 ... 16 bar
Ambient temperature min./max.	-20 ... 70 °C
Medium temperature min./max.	-20 ... 70 °C
Medium	Compressed air
Number of valve positions max.	1
Weight	0.21 kg

Technical data

Part No.
5803870000

Scope of delivery incl. seal and mounting screws

Technical information

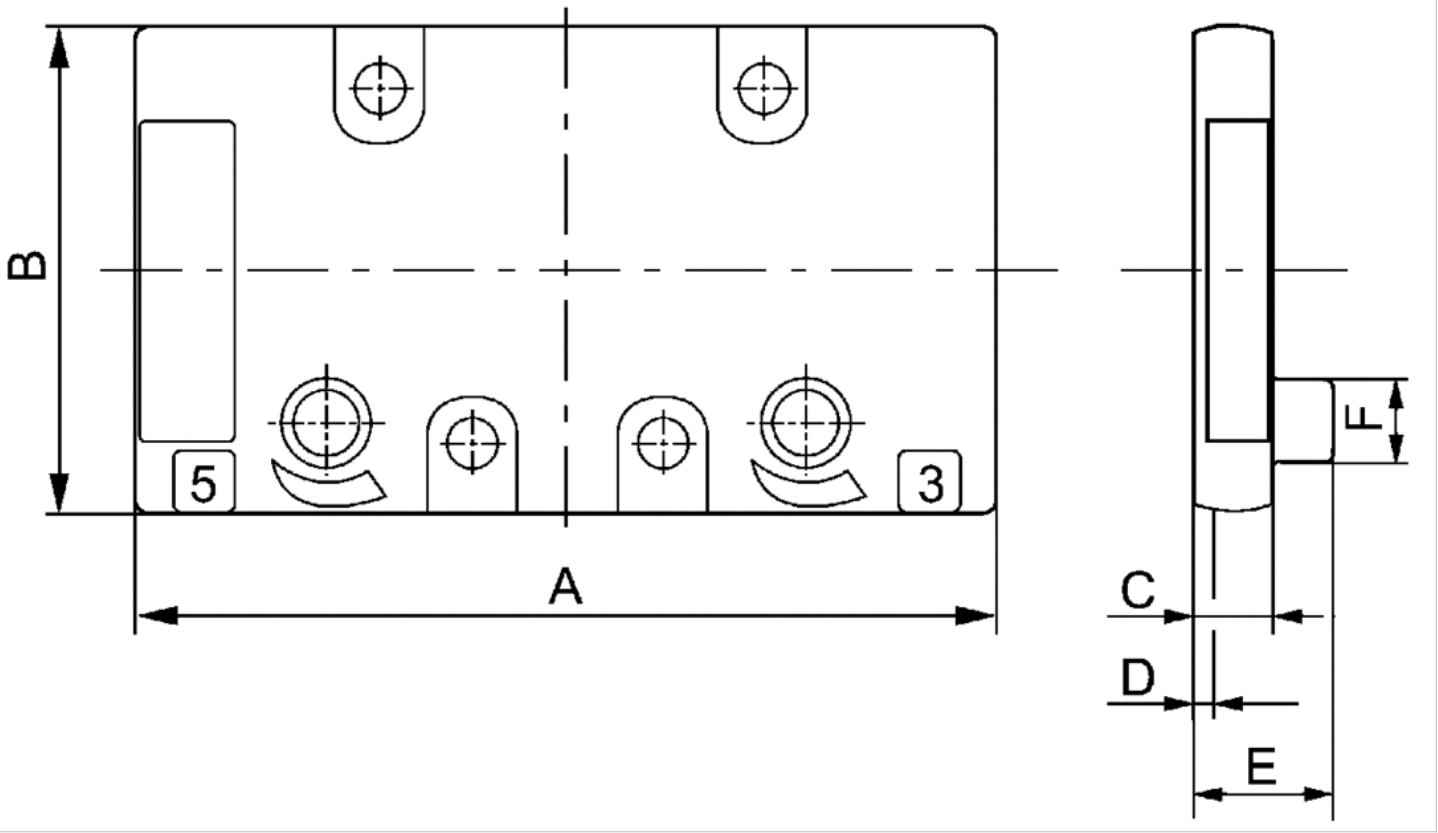
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Material	
Housing	Die-cast aluminum, black painted
Base plate	Die-cast aluminum
Seal	Acrylonitrile butadiene rubber

Dimensions

Dimensions



Dimensions

Part No.	A	B	C	D	E	F	Weight
5803870000	116.5	63.5	10	2	15	12	0.21 kg

Blanking plate

- standard ISO 5599-1
- Frame size ISO 3

Standards	ISO 5599-1
Working pressure min./max.	-0.9 ... 16 bar
Ambient temperature min./max.	0 ... 80 °C
Medium temperature min./max.	0 ... 80 °C
Medium	Compressed air
Mounting screw	with hexagon socket
Weight	0.421 kg

Technical data

Part No.	Type
1825503174	Blanking plate

Scope of delivery incl. seal and mounting screws

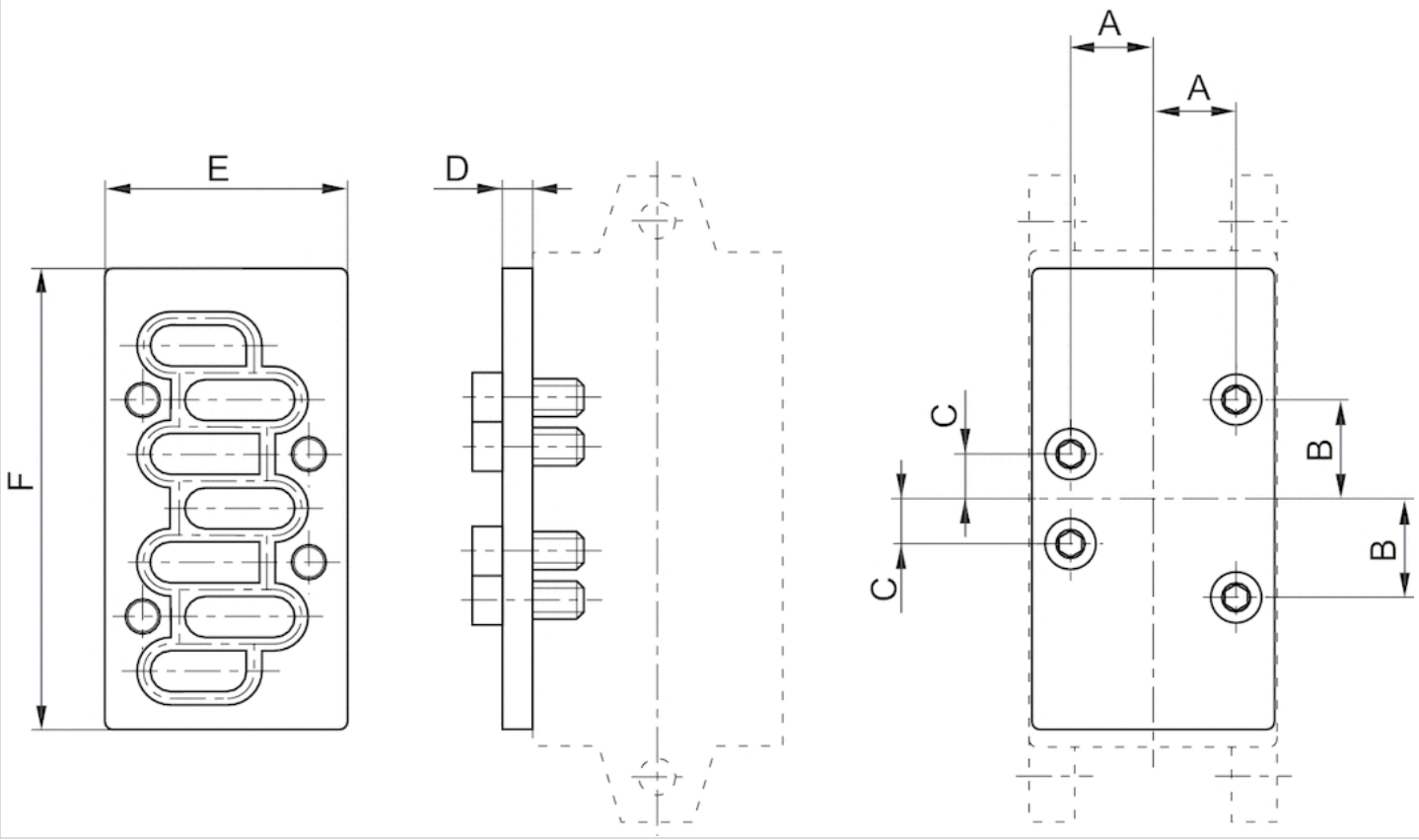
Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Material	
Base plate	Die-cast aluminum
Seal	Acrylonitrile butadiene rubber

Dimensions



Dimensions

Part No.	Frame size	A	B	C	D	E	F
1825503174	ISO 3	24	32	16	15	70	140

Pressure regulator

- Qn = 1700 l/min
- standard ISO 5599-1
- Frame size ISO 3
- Controlled port 1 2 2, 4 4

Working pressure min./max.	12 bar
Adjustment range min./max.	0.5 ... 8 bar
Ambient temperature min./max.	-15 ... 50 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow Qn	1700 l/min
Tightening torque for mounting screws	6 Nm
Weight	See table below

The delivered product may vary from that in the illustration.

Technical data

Part No.		Frame size	Controlled port	Weight
R422103096		ISO 3	1	1.9 kg
R422103097		ISO 3	2	2.06 kg
R422103098		ISO 3	2, 4	2.8 kg
R422103167		ISO 3	1	1.9 kg
R422103168		ISO 3	4	2.06 kg

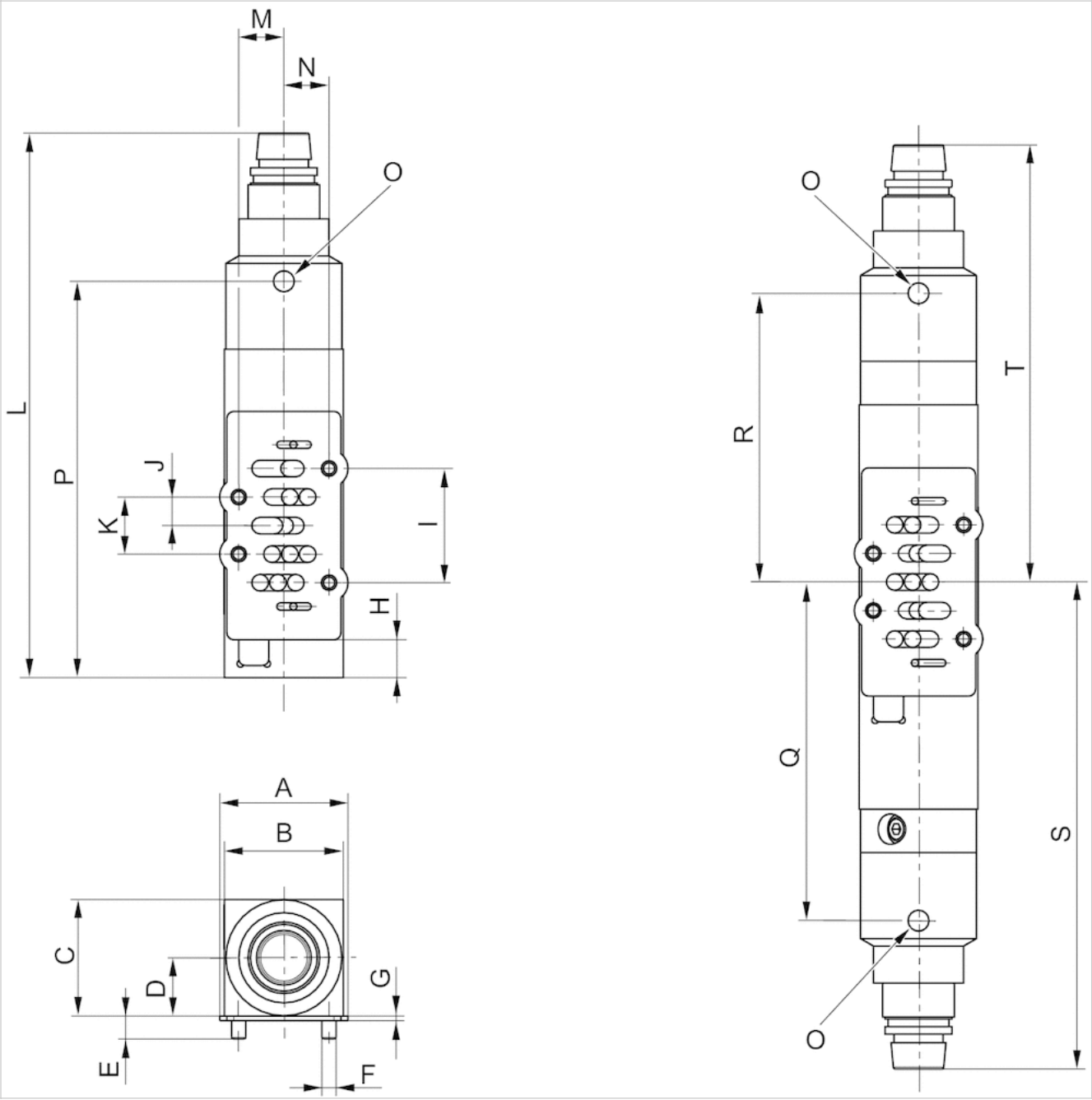
Scope of delivery incl. seal and mounting screws, Order pressure gauge separately, Nominal flow Qn at 6 bar and Δp = 1 bar .

Technical information

Material	
Housing	Aluminum
Seals	Butadiene rubber

Dimensions

Dimensions



Dimensions

Part No.	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
R422103096	–	68	68	34	13.7	M8	2	19.2	64	16	32	288.8	24	24	G1/8	200.5	–	–	–	–
R422103097	–	68	68	34	13.7	M8	2	19.2	64	16	32	294.7	24	24	G1/8	206.5	–	–	–	–
R422103098	–	68	68	34	13.7	M8	2	19.2	64	16	32	–	24	24	G1/8	–	161.3	131.3	249.5	219.5
R422103167	–	68	68	34	13.7	M8	2	1.5	64	16	32	288.8	24	24	G1/8	–	–	–	–	–
R422103168	–	68	68	34	13.7	M8	2	1.5	64	16	32	307	24	24	G1/8	–	–	–	–	–

Pressure gauge, Series PG1-ROU

- Port on bottom
- Background color Black
- Scale color White, Red
- Viewing window Polystyrene
- Units bar
- Units psi

Version	Bourdon tube pressure gauge
Standardization	EN 837-1
Class	1,6
Ambient temperature min./max.	-40 ... 60 °C
Medium	Compressed air
Main scale unit (outside)	bar
Main scale color (outside)	White
Secondary scale unit (inside)	psi
Secondary scale color (inside)	Red
Background color	Black
Pointer color	White

Technical data

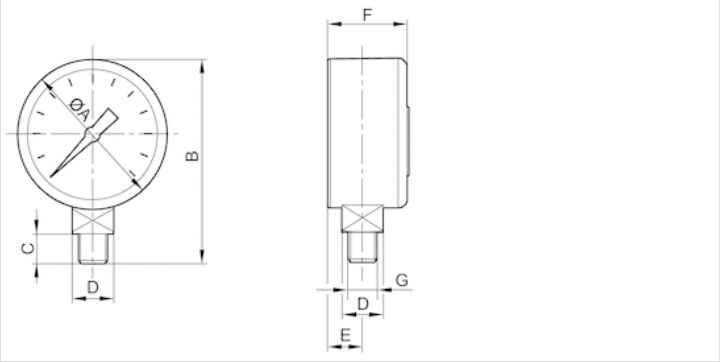
Part No.	Compressed air connection	Nominal diameter	Range of application	Display range	Operating pressure	Scale value
8901703200	R 1/8	50 mm	0 ... 10	0 bar ... 12	0 ... 12 bar	0.2

Technical information

Material	
Housing	Acrylonitrile butadiene styrene
Thread	Brass
Viewing window	Polystyrene

Dimensions

Dimensions

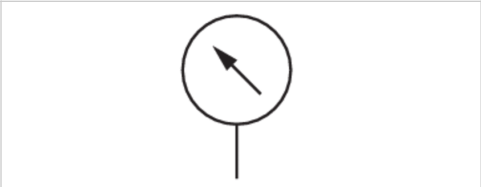


Dimensions in mm

Compressed air connection	Nominal diameter	Ø A	B	C	D	F	E
R 1/8	50 mm	50	66.5	10	SW14	27,5	10

Pressure gauge, Series PG1-SAS

- Back port
- Background color Black
- Scale color White, Grey
- Viewing window Polystyrene
- Units bar
- Units psi



Version	Bourdon tube pressure gauge
Standardization	EN 837-1
Class	2,5
Ambient temperature min./max.	-40 ... 60 °C
Medium	Compressed air
Main scale unit (outside)	bar
Main scale color (outside)	White
Secondary scale unit (inside)	psi
Secondary scale color (inside)	Grey
Background color	Black
Pointer color	White
Weight	0.08 kg

Technical data

Part No.	Compressed air connection	Nominal diameter	Range of application	Display range	Operating pressure	Scale value
R412003857	G 1/8	40 mm	0 bar ... 8	0 bar ... 10	0 ... 10 bar	0.2

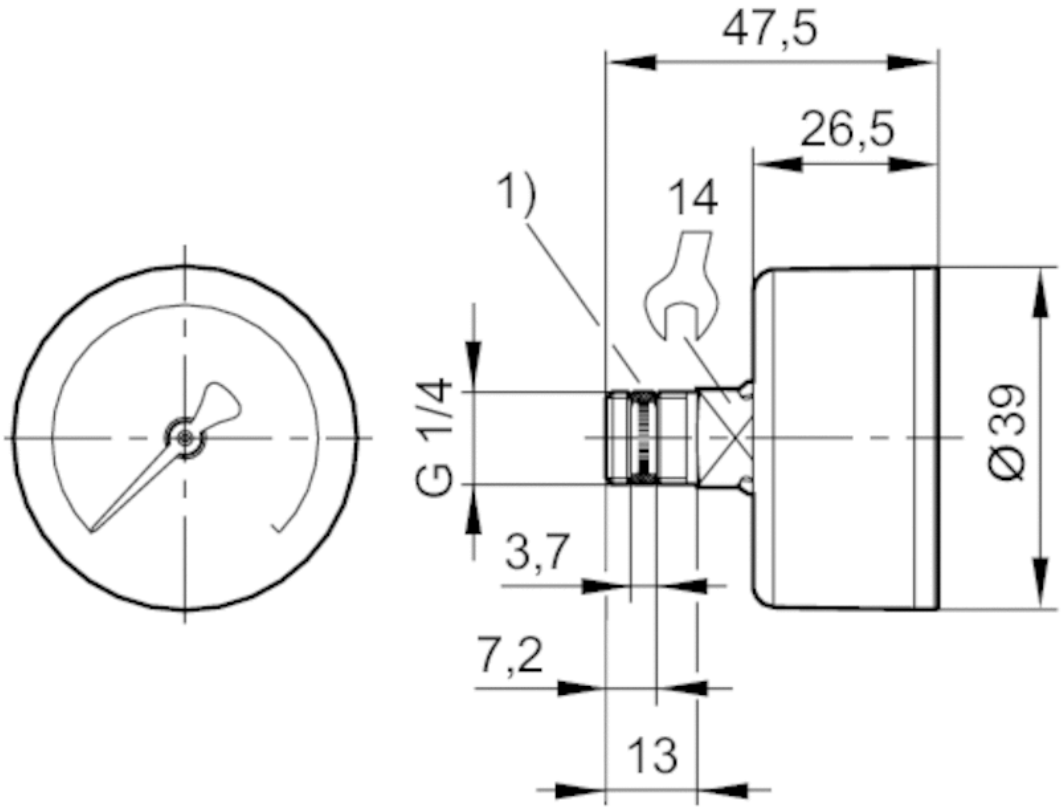
Part No.	Fig.
R412003857	Fig. 4

Technical information

Material	
Housing	Acrylonitrile butadiene styrene
Thread	Brass
Viewing window	Polystyrene
Seal	Polytetrafluorethylene

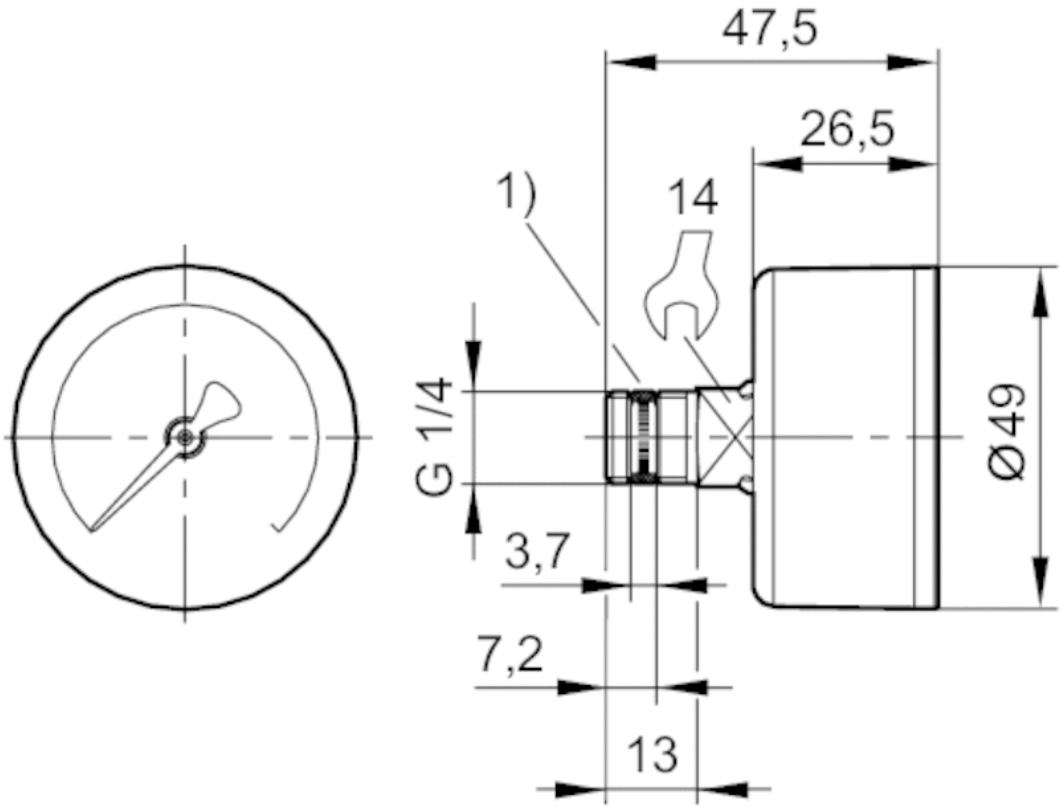
Dimensions

Dimensions in mm, Fig. 1



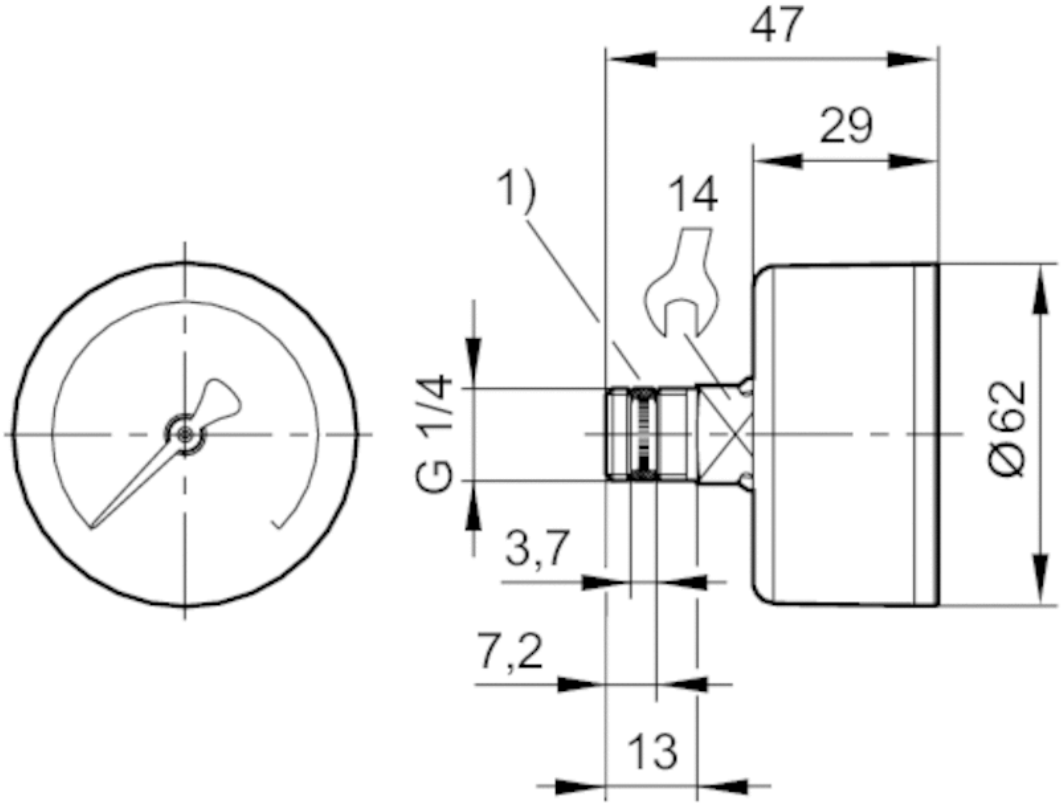
1) Gasket thread

Dimensions in mm, Fig. 2



1) Gasket thread

Dimensions in mm, Fig. 3



1) Gasket thread

throttle insert for flow control in 3/5

- for 581
- size 3

Weight	0.05 kg

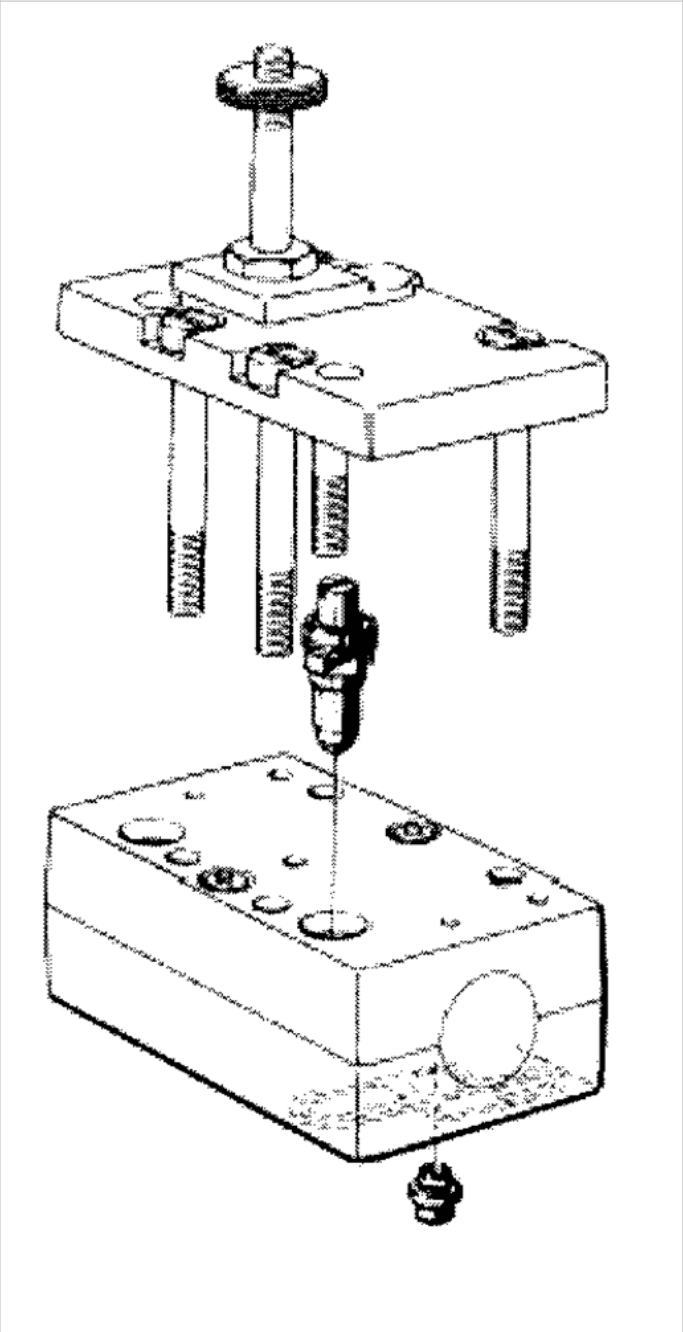
Technical data

Part No.
5813001000

delivered in pairs incl. plug set

Dimensions

Dimensions



Pilot valve

- 581, Modular system
- Manual override without detent

Working pressure min./max.	0 ... 10 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium	Compressed air
Protection class with connection	See table below
LED status display	Green
Duty cycle	100 %
Weight	See table below

Technical data

Part No.	Operational voltage DC	Power consumption DC	Cable length	Protection class
0493833308	24 V	2.2 W	0.2 m	IP67
0493832506	24 V	2.2 W	0.35 m	IP67
0493833103	24 V	2.2 W	0.5 m	IP67
0493838601	24 V	2.2 W	5 m	IP67
0493833502	24 V	2 W	-	IP65

Part No.	Power consumption	Weight	Fig.	
0493833308	-	0.05 kg	Fig. 1	-
0493832506	-	0.056 kg	Fig. 1	-
0493833103	-	0.058 kg	Fig. 1	-
0493838601	-	0.1 kg	Fig. 1	-
0493833502	Low power consumption	0.04 kg	Fig. 2	1)

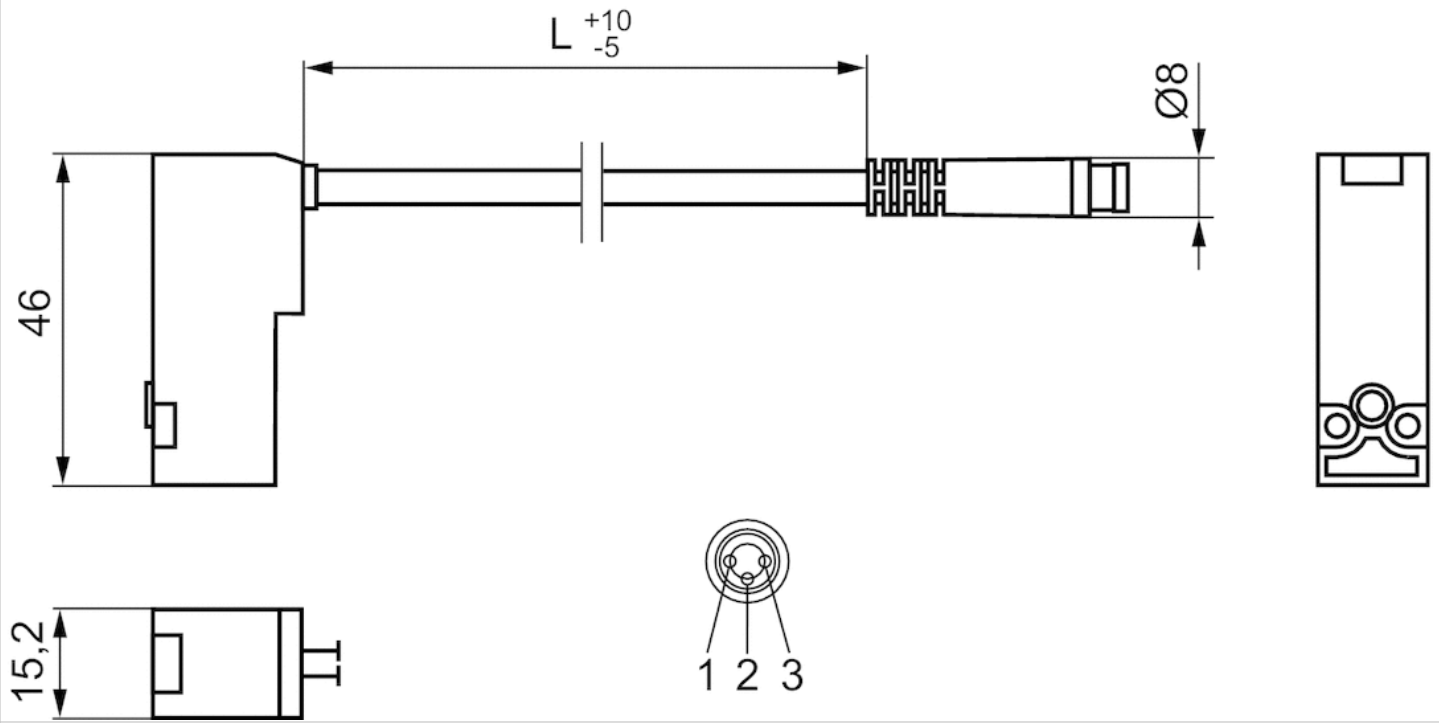
1) For valve plug connectors

Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

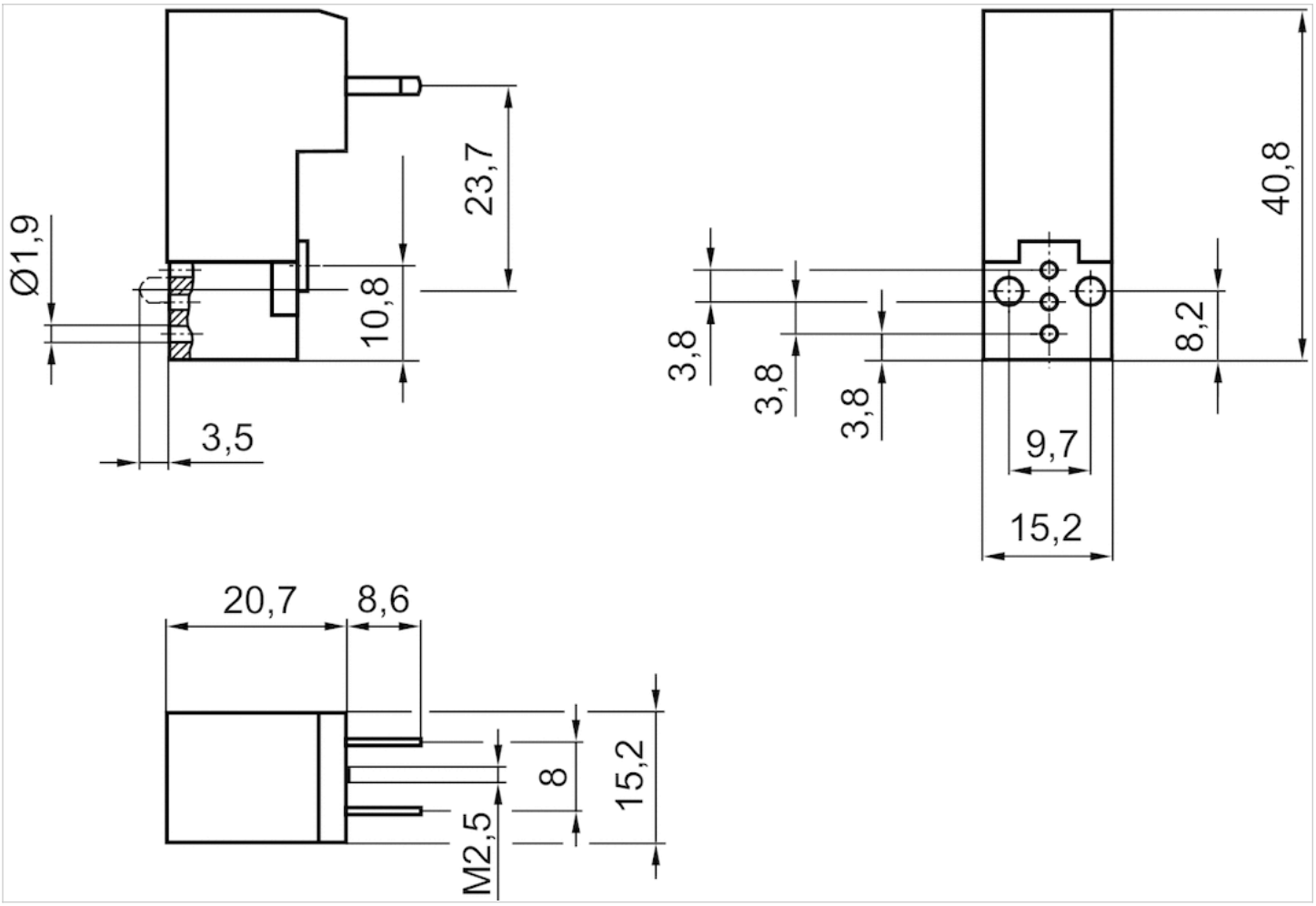
Dimensions

Fig. 1



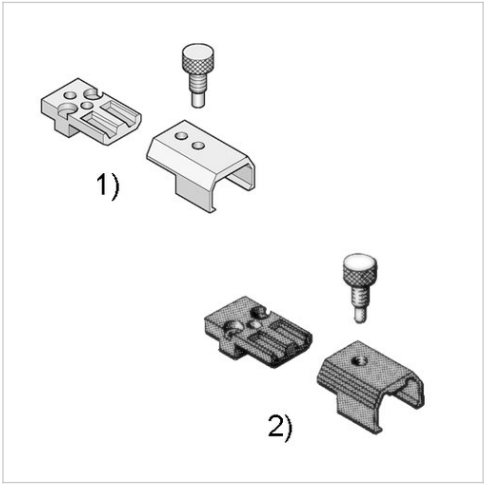
Pin assignment
1) +24 V
2) ground
3) 0 V

Fig. 2



Control unit for manual override

- for 581



Weight 0.03 kg

An example configuration is illustrated. The delivered product may thus deviate from the illustration.

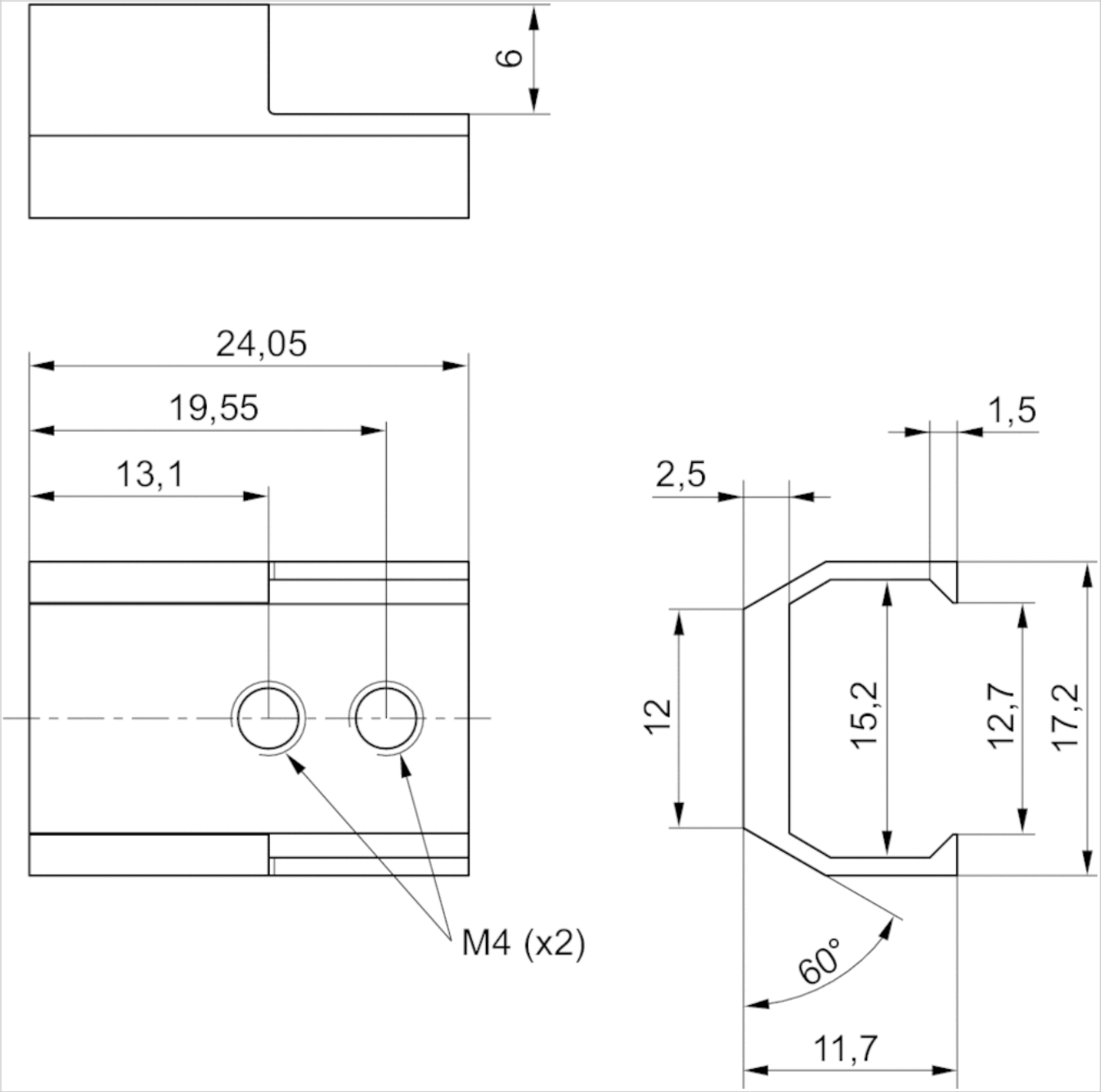
Technical data

Part No.
0493835718

Version as of August 1, 2014, compatible with old applications, Version before August 1, 2014, 6 controls per set

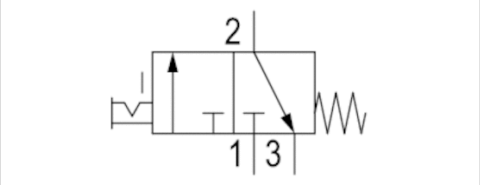
Dimensions

Dimensions



Pilot valve

- 581, Modular system
- Manual override with detent



Working pressure min./max.	0 ... 10 bar
Ambient temperature min./max.	-15 ... 50 °C
Medium	Compressed air
Protection class with connection	IP65
Duty cycle	100 %
Weight	See table below

Technical data

Part No.	Operational voltage DC	Operational voltage AC 50 Hz	Operational voltage AC 60 Hz
0493818805	24 V	230 V	110 V
0493818902	24 V	-	-

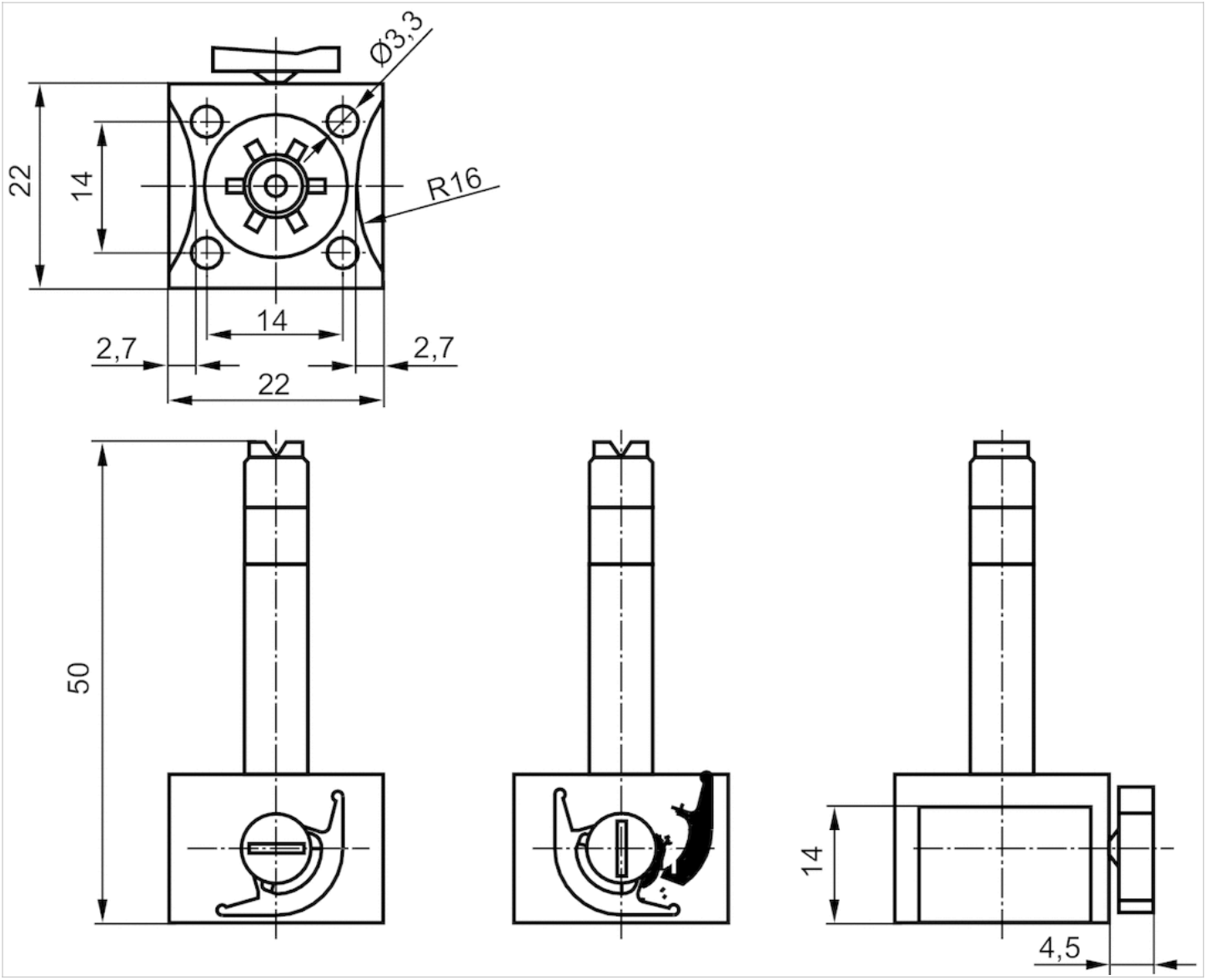
Part No.	Power consumption DC	Power consumption	Weight
0493818805	5 W	-	0.031 kg
0493818902	2 W	Low power consumption	0.03 kg

Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Dimensions

Dimensions



Coil, Series CO1

- Form B, industry
- Coil width 22 mm
- Power consumption DC 2-5 W
- Holding power AC 8 VA
- Switch-on power AC 10 VA

Connector standard	ISO 6952
electrical connections	Plug, Form B, industry
Ambient temperature min./max.	50 °C
Protection class With valve plug connector/plug	IP65
Duty cycle ED	100 %
Weight	See table below

An example configuration is illustrated. The delivered product may thus deviate from the illustration.

Technical data

Part No.	Operational voltage	Operational voltage	Voltage tolerance
	DC	AC 50 Hz	DC
0498317405	12 V	-	-
0498317502	24 V	-	-10% / +10%
0498318800	24 V	-	-10% / +10%
0498317618	48 V	-	-
0498317707	110 V	-	-10% / +10%
0498317804	220 V	-	-10% / +10%
0498316905	-	24 V	-
0498317006	-	48 V	-
0498317103	-	110 V	-
0498322506	-	230 V	-

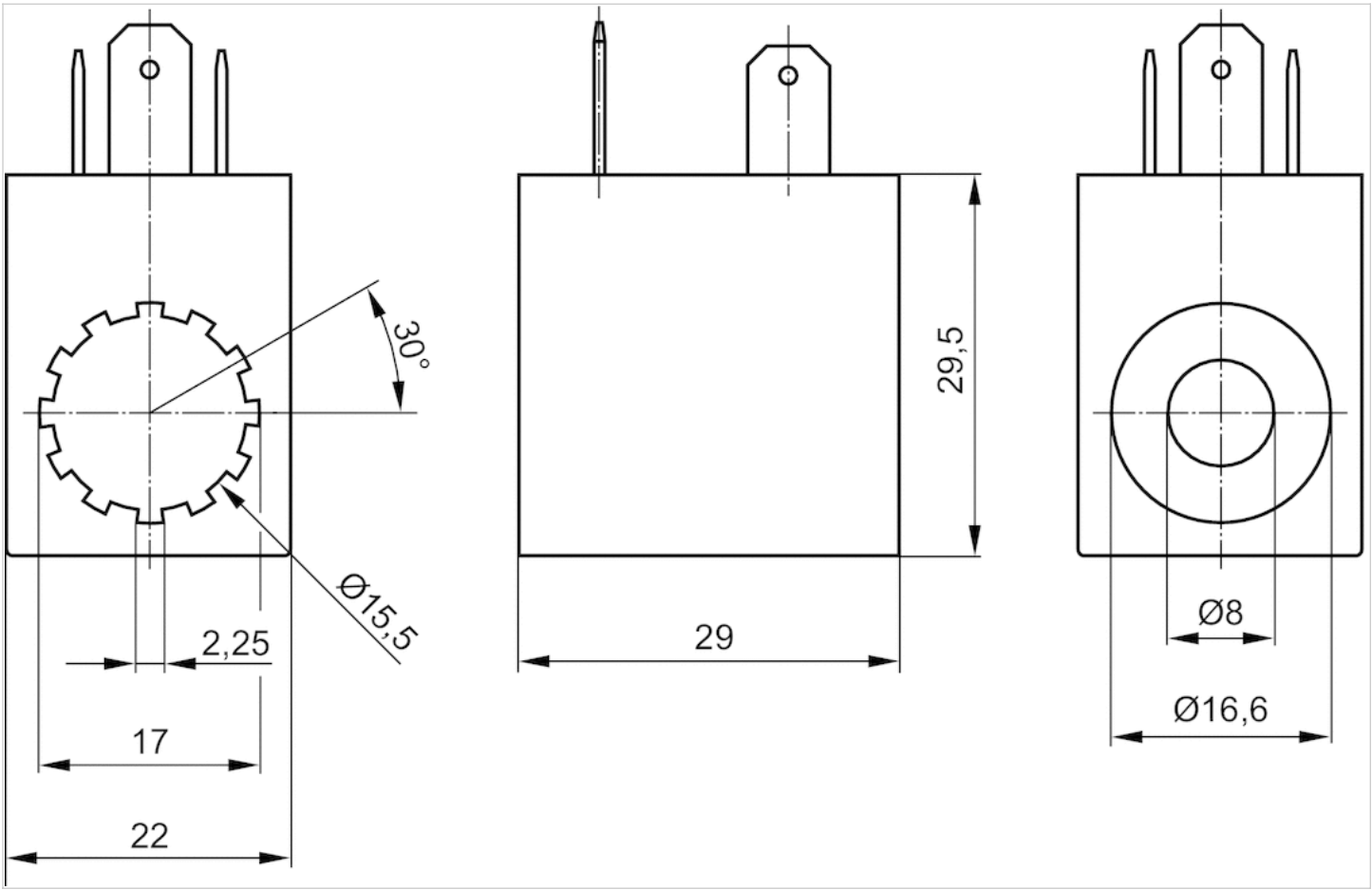
Part No.	Voltage tolerance	Power consumption	Holding power	Switch-on power
	AC 50 Hz	DC	AC 50 Hz	AC 50 Hz
0498317405	-	5 W	-	-
0498317502	-	5 W	-	-
0498318800	-	2 W	-	-
0498317618	-	5 W	-	-
0498317707	-	5 W	-	-
0498317804	-	5 W	-	-
0498316905	-10% / +10%	-	8 VA	10 VA
0498317006	-10% / +10%	-	8 VA	10 VA
0498317103	-10% / +10%	-	8 VA	10 VA
0498322506	-10% / +10%	-	8 VA	10 VA

0498317405	0.054 kg	-
0498318800	0.051 kg	1)
0498317707	0.054 kg	-
0498316905	0.054 kg	-
0498317103	0.051 kg	-

1) Low power consumption

Dimensions

Dimensions



Pilot valve

- CNOMO / NFE 49-003-1
- 581, Modular system

Standards	CNOMO / NFE 49-003-1
Working pressure min./max.	See table below
Ambient temperature min./max.	-10 ... 50 °C
Medium	Compressed air
Protection class with connection	IP65
Duty cycle	100 %
Weight	See table below

An example configuration is illustrated. The delivered product may thus deviate from the illustration.

Technical data

Part No.		MO	Operational voltage DC	Operational voltage AC 50 Hz
5428110080			-	230 V
5420890020			24 V	-
5420850020		—	24 V	-
5428150080		—	-	230 V
5420890030			48 V	-
5420890070			110 V	-
5420890080			220 V	-
5428110020			-	24 V
5428110040			-	48 V
5428110070			-	110 V

Part No.	Voltage tolerance DC	Voltage tolerance AC 50 Hz	Power consumption DC	Holding power AC 50 Hz
5428110080	-	-20% / +10%	-	8 VA
5420890020	-10% / +10%	-	2 W	-
5420850020	-10% / +10%	-	6.7 W	-
5428150080	-	-20% / +10%	-	8 VA
5420890030	-10% / +10%	-	2 W	-
5420890070	-10% / +10%	-	2 W	-
5420890080	-10% / +10%	-	2 W	-
5428110020	-	-20% / +10%	-	8 VA
5428110040	-	-20% / +10%	-	8 VA
5428110070	-	-20% / +10%	-	8 VA

Part No.	Switch-on power AC 50 Hz	Working pressure min./max.	Power consumption
5428110080	10 VA	0 ... 10 bar	-

Part No.	Switch-on power AC 50 Hz	Working pressure min./max.	Power consumption
5420890020	-	0 ... 10 bar	Low power consumption
5420850020	-	0 ... 16 bar	-
5428150080	10 VA	0 ... 16 bar	-
5420890030	-	0 ... 10 bar	Low power consumption
5420890070	-	0 ... 10 bar	Low power consumption
5420890080	-	0 ... 10 bar	Low power consumption
5428110020	10 VA	0 ... 10 bar	-
5428110040	10 VA	0 ... 10 bar	-
5428110070	10 VA	0 ... 10 bar	-

Part No.	Weight
5428110080	0.17 kg
5420890020	0.17 kg
5420850020	0.206 kg
5428150080	0.162 kg
5420890030	0.17 kg
5420890070	0.17 kg
5420890080	0.17 kg
5428110020	0.17 kg
5428110040	0.17 kg
5428110070	0.17 kg

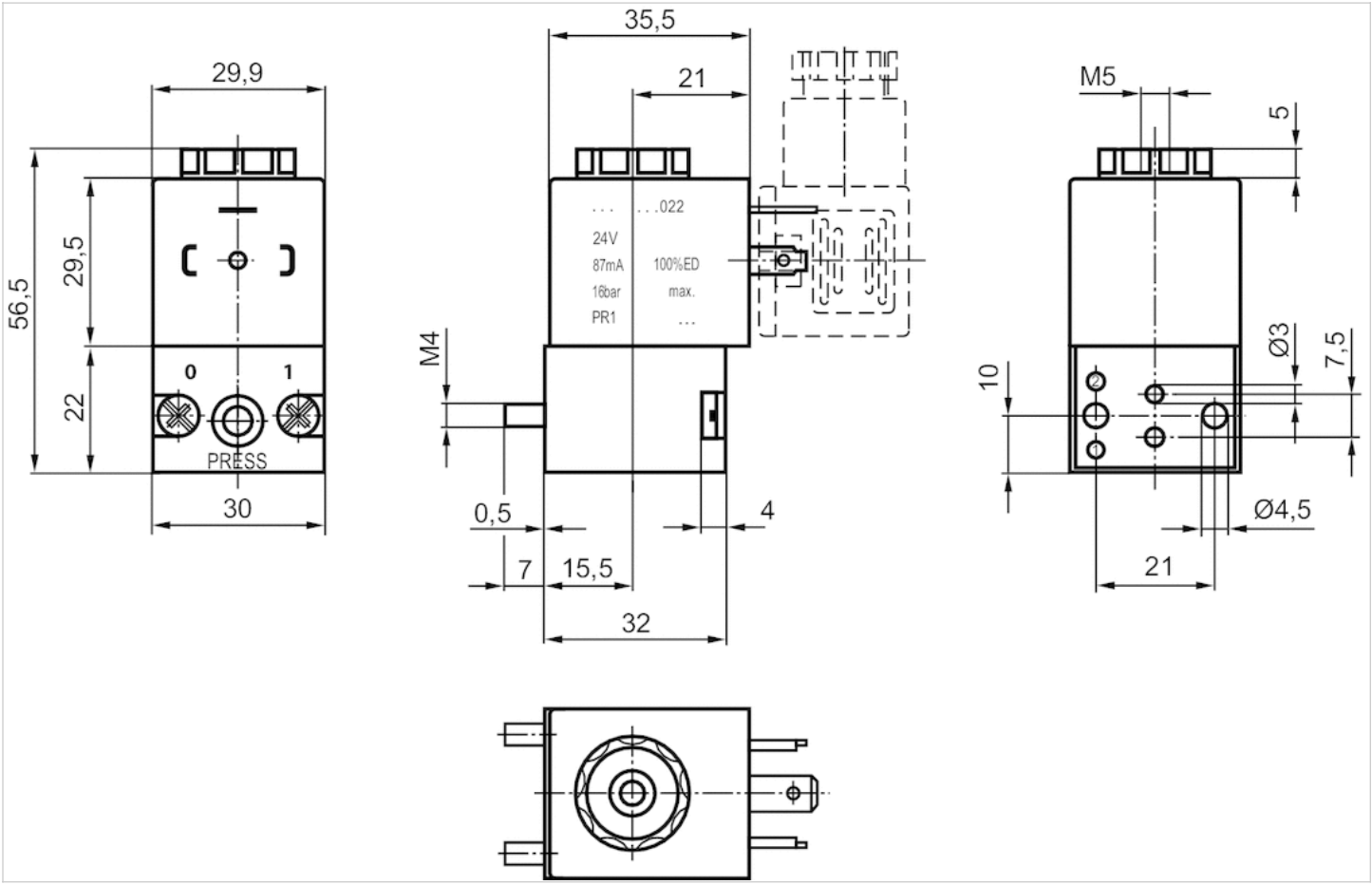
MO = Manual override, pilot valve 30x22 mm with CNOMO porting configuration

Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Dimensions

Dimensions



3/2-directional valve, Series DO30

- 3/2
- Pilot valve width : 30 mm
- Plate valve with pipe connection
- Compressed air connection output : CNOMO
- Electrical connection : Plug, EN 175301-803, form A
- Manual override : without detent with detent
- With spring return

Version	Poppet valve
Activation	Electrically
Sealing principle	Soft sealing
Standards	CNOMO / NFE 49-003-1
Working pressure min./max.	0 ... 10 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow 1 ▸ 2	See table below
Nominal flow 2 ▸ 3	See table below
Protection class with connection	IP65
Compatibility index	See table below
Duty cycle	100 %
Mounting on manifold strip	P-strip
mounting screws	M4
Weight	See table below

Technical data

Part No.		MO	Compressed air connection	Compressed air connection
			Input	Output
0820019527			CNOMO	CNOMO
0820019526			CNOMO	CNOMO
0820019529			CNOMO	CNOMO
0820019528			CNOMO	CNOMO
0820019525			CNOMO	CNOMO
0820019985			CNOMO	CNOMO
0820019986			CNOMO	CNOMO
0820019987			M5	CNOMO
0820019982			M5	CNOMO
0820019502			CNOMO	CNOMO
0820019501			CNOMO	CNOMO
0820019504			CNOMO	CNOMO
0820019503			CNOMO	CNOMO
0820019500			CNOMO	CNOMO
0820019980			CNOMO	CNOMO
0820019981			CNOMO	CNOMO

Part No.	Compressed air connection	Operational voltage	Operational voltage
	Exhaust	DC	AC 50 Hz
0820019527	M5	-	24 V
0820019526	M5	24 V	-
0820019529	M5	24 V	-
0820019528	M5	-	-
0820019525	M5	-	230 V
0820019985	M5	-	-
0820019986	M5	-	-
0820019987	CNOMO	-	-
0820019982	CNOMO	-	-
0820019502	M5	-	24 V
0820019501	M5	24 V	-
0820019504	M5	24 V	-
0820019503	M5	-	-
0820019500	M5	-	230 V
0820019980	M5	-	-
0820019981	M5	-	-

Part No.	Operational voltage	Voltage tolerance	Voltage tolerance
	AC 60 Hz	AC 50 Hz	AC 60 Hz
0820019527	-	-10% / +10%	-
0820019526	-	-	-
0820019529	-	-	-
0820019528	110 V	-	-10% / +10%
0820019525	-	-10% / +10%	-
0820019985	-	-	-
0820019986	-	-	-

Part No.	Operational voltage	Voltage tolerance	Voltage tolerance
	AC 60 Hz	AC 50 Hz	AC 60 Hz
0820019987	-	-	-
0820019982	-	-	-
0820019502	-	-10% / +10%	-
0820019501	-	-	-
0820019504	-	-	-
0820019503	110 V	-	-10% / +10%
0820019500	-	-10% / +10%	-
0820019980	-	-	-
0820019981	-	-	-

Part No.	Power consumption	Holding power	Holding power	Switch-on power
	DC	AC 50 Hz	AC 60 Hz	AC 50 Hz
0820019527	-	8 VA	-	11.5 VA
0820019526	4.5 W	-	-	-
0820019529	2.7 W	-	-	-
0820019528	-	-	5.6 VA	-
0820019525	-	9.1 VA	-	12.6 VA
0820019985	-	-	-	-
0820019986	-	-	-	-
0820019987	-	-	-	-
0820019982	-	-	-	-
0820019502	-	8 VA	-	11.5 VA
0820019501	4.5 W	-	-	-
0820019504	2.7 W	-	-	-
0820019503	-	-	5.6 VA	-
0820019500	-	9.1 VA	-	12.6 VA
0820019980	-	-	-	-
0820019981	-	-	-	-

Part No.	Switch-on power	Nominal flow 1 ▸ 2	Nominal flow 2 ▸ 3	Compatibility index
	AC 60 Hz			
0820019527	-	68 l/min	90 l/min	15
0820019526	-	68 l/min	90 l/min	15
0820019529	-	54 l/min	80 l/min	14
0820019528	9.5 VA	68 l/min	90 l/min	15
0820019525	-	68 l/min	90 l/min	15
0820019985	-	68 l/min	90 l/min	15
0820019986	-	54 l/min	80 l/min	14
0820019987	-	72 l/min	105 l/min	15
0820019982	-	72 l/min	105 l/min	15
0820019502	-	65 l/min	80 l/min	15
0820019501	-	65 l/min	80 l/min	15
0820019504	-	54 l/min	80 l/min	14
0820019503	9.5 VA	65 l/min	80 l/min	15
0820019500	-	65 l/min	80 l/min	15
0820019980	-	65 l/min	80 l/min	15
0820019981	-	54 l/min	80 l/min	14

Part No.	basic valve with electrical connector	Power consumption	ATEX
0820019527	-	Higher voltage tolerance	-
0820019526	-	Higher voltage tolerance	-
0820019529	-	Low power consumption	-
0820019528	-	Higher voltage tolerance	-
0820019525	-	Higher voltage tolerance	-
0820019985	Basic valve without coil	Higher voltage tolerance	suitable for ATEX
0820019986	Basic valve without coil	Low power consumption	suitable for ATEX
0820019987	Basic valve without coil	Higher voltage tolerance	suitable for ATEX
0820019982	Basic valve without coil	Higher voltage tolerance	suitable for ATEX
0820019502	-	Higher voltage tolerance	-
0820019501	-	Higher voltage tolerance	-
0820019504	-	Low power consumption	-
0820019503	-	Higher voltage tolerance	-
0820019500	-	Higher voltage tolerance	-
0820019980	Basic valve without coil	Higher voltage tolerance	suitable for ATEX
0820019981	Basic valve without coil	Low power consumption	suitable for ATEX

Part No.	Weight	
0820019527	0.16 kg	-
0820019526	0.16 kg	-
0820019529	0.16 kg	-
0820019528	0.16 kg	-
0820019525	0.16 kg	-
0820019985	0.06 kg	1)
0820019986	0.07 kg	-
0820019987	0.08 kg	-
0820019982	0.06 kg	-
0820019502	0.16 kg	-
0820019501	0.16 kg	-
0820019504	0.16 kg	-
0820019503	0.16 kg	-
0820019500	0.16 kg	-
0820019980	0.06 kg	1)
0820019981	0.06 kg	-

Nominal flow Qn at 6 bar and Δp = 1 bar, MO = Manual override

1) pilot valve without coil

Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

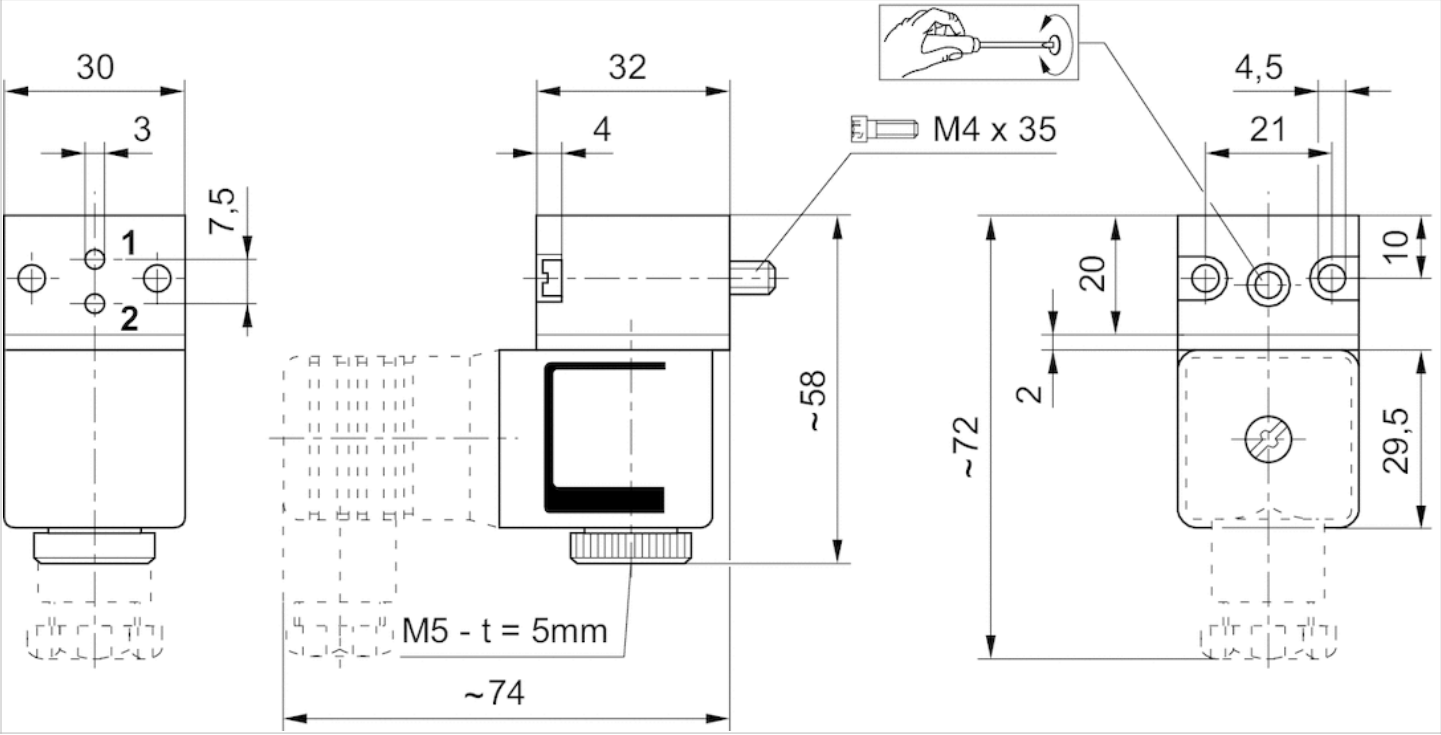
ATEX optional: ATEX version can be produced by combining the basic valve without coil with an ATEX coil. ATEX ID: see ATEX coils catalog page.

Technical information

Housing	Plastic

Dimensions

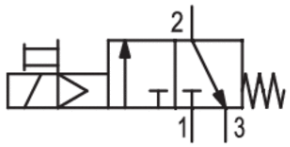
Dimensions



t = depth

3/2-directional valve

- Manual override : without detent



Activation	Electrically
Working pressure min./max.	0 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium	Compressed air Compressed air
Weight	0.15 kg

Technical data

Part No.	Operational voltage	Operational voltage	Voltage tolerance
	DC	AC 50 Hz	DC
5420800390	24 V	42 V	-10% / +10%
5428200380	-	230 V	-
5428200370	-	110 V	-

Part No.	Voltage tolerance	Power consumption	Holding power	Switch-on power
	AC 50 Hz	DC	AC 50 Hz	AC 50 Hz
5420800390	-20% / +10%	6.7 W	-	-
5428200380	-20% / +10%	-	8 VA	10 VA
5428200370	-20% / +10%	-	8 VA	10 VA

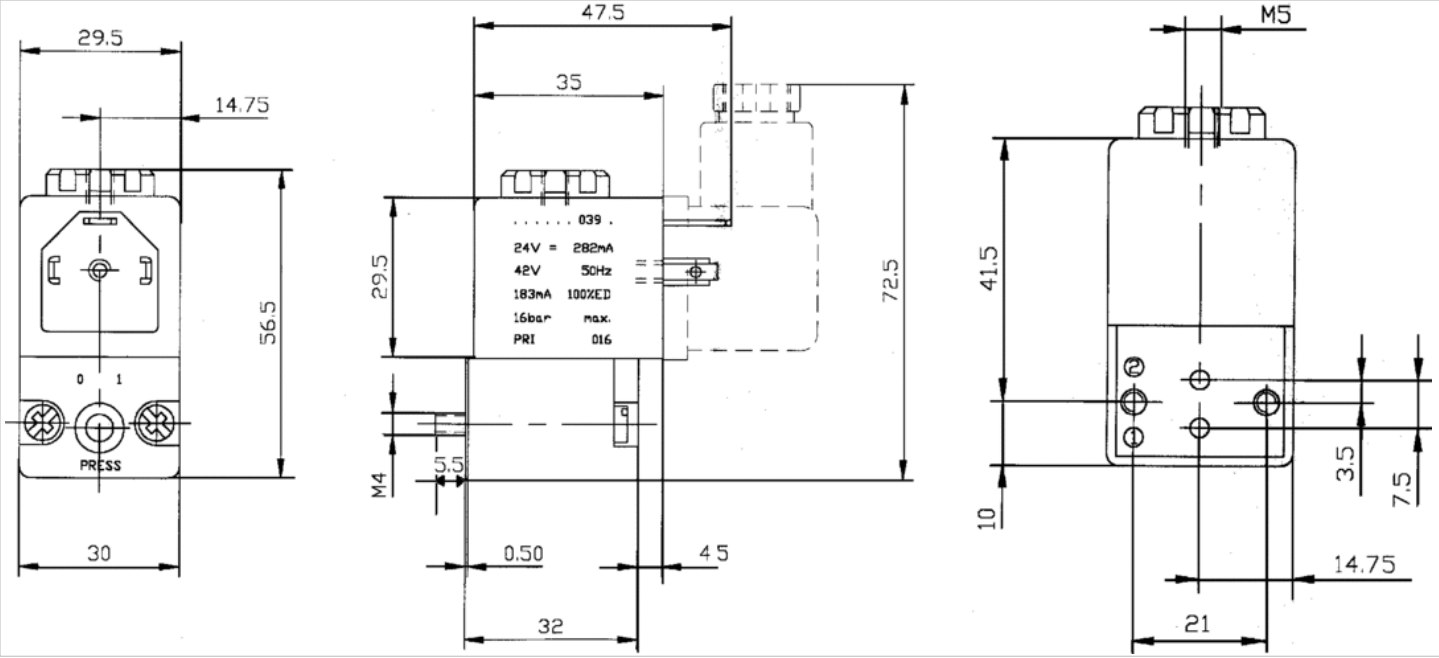
Nominal flow Qn with secondary pressure 6 bar at Δp = 1 bar

Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

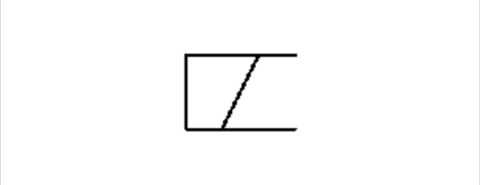
Dimensions

Dimensions



Coil, Series CO1

- Cable with valve plug connector
- Coil width 30 mm
- Power consumption DC 3.25 W
- Holding power AC 2.9-3 VA
- Switch-on power AC 3-3.1 VA
- ATEX



Certificates	ATEX
ATEX class G	II 2G Ex mb IIC T4 Gb
ATEX class D	II 2D Ex mb tb IIIC T130°C Db IP65
Ambient temperature min./max.	-20 ... 50 °C
Protection class	IP65
Duty cycle ED	100 %
Compatibility index	14
Weight	See table below

Technical data

Part No.	Operational voltage	Operational voltage	Operational voltage
	DC	AC 50 Hz	AC 60 Hz
1827414297	-	230 V	230 V
1827414298	-	230 V	230 V
1827414299	-	110 V	110 V
1827414301	-	24 V	24 V
1827414303	24 V	-	-
1827414304	24 V	-	-

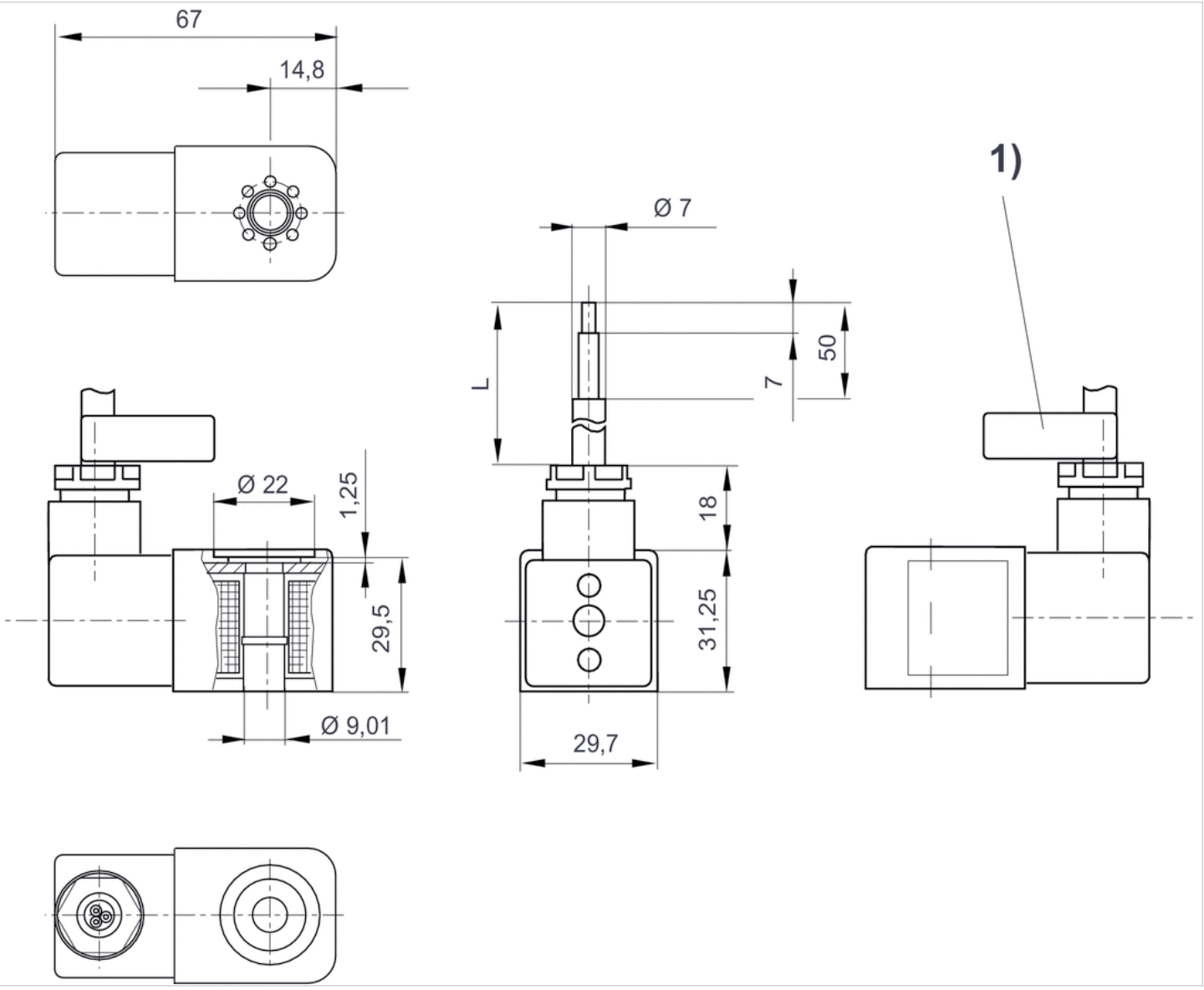
Part No.	Voltage tolerance	Voltage tolerance	Power consumption	Holding power
	DC	AC 50 Hz	DC	AC 50 Hz
1827414297	-	-10% / +10%	-	3 VA
1827414298	-	-10% / +10%	-	3 VA
1827414299	-	-10% / +10%	-	2.9 VA
1827414301	-	-10% / +10%	-	2.9 VA
1827414303	-10% / +10%	-	3.25 W	-
1827414304	-10% / +10%	-	3.25 W	-

Part No.	Switch-on power	Cable length	Weight
	AC 50 Hz		
1827414297	3.1 VA	3 m	0.38 kg

1827414299	3 VA	3 m	0.38 kg
1827414303	-	3 m	0.38 kg

Dimensions

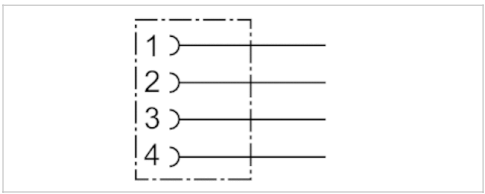
Dimensions



L = cable length
1) Cable ID band with serial number

Round plug connector, Series CON-RD

- Socket, M12x1, 4-pin, A-coded, straight, 180°
- UL (Underwriters Laboratories)
- unshielded



Connection type	Screws
Ambient temperature min./max.	-25 ... 90 °C
Operational voltage	48 V AC/DC
Protection class	IP67
Weight	0.029 kg

The delivered product may vary from that in the illustration.

Technical data

Part No.	Max. current	suitable cable-Ø min./max
8941054324	4 A	4 mm

Technical information

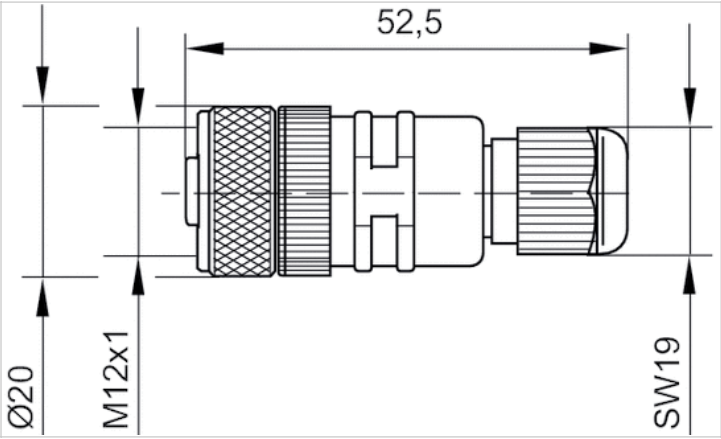
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Housing	Polybutyleneterephthalate
Seals	Fluorocarbon caoutchouc

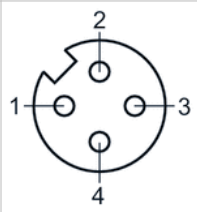
Dimensions

Dimensions



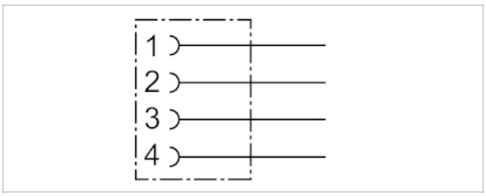
Pin assignments

Pin assignment, socket



Round plug connector, Series CON-RD

- Socket, M12x1, 4-pin, A-coded, angled, 90°
- unshielded



Connection type	Screws
Ambient temperature min./max.	-25 ... 90 °C
Operational voltage	48 V AC/DC
Protection class	IP67
Weight	0.027 kg

Technical data

Part No.	Max. current	suitable cable-Ø min./max
8941054424	4 A	4 mm

Technical information

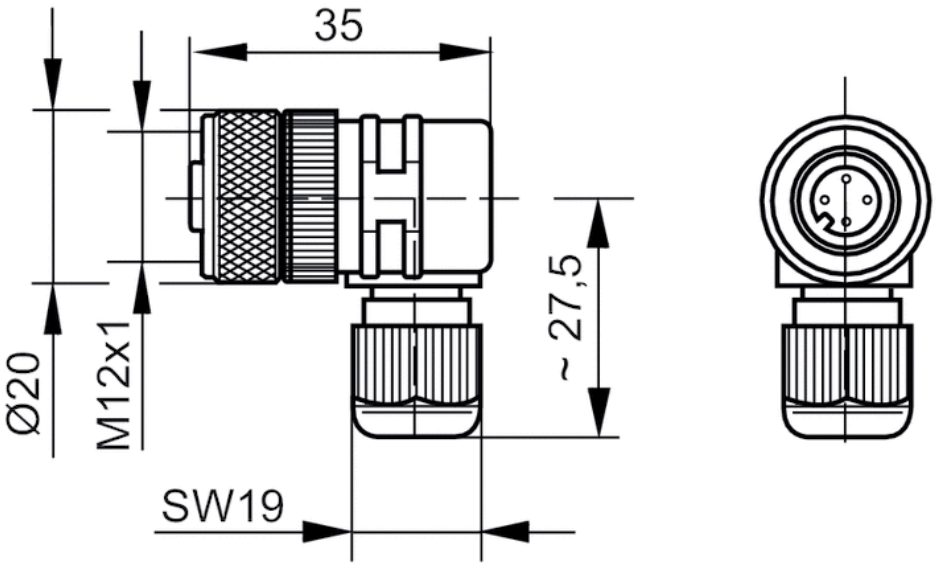
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Housing	Polybutyleneterephthalate
Seals	Fluorocarbon caoutchouc

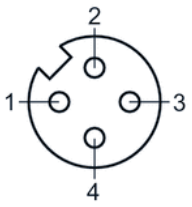
Dimensions

Dimensions



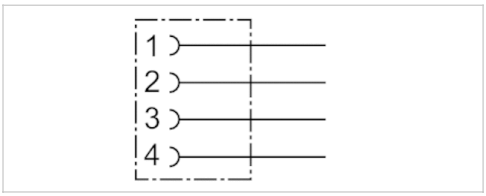
Pin assignments

Pin assignment, socket



Round plug connector, Series CON-RD

- Socket, M12x1, 4-pin, A-coded, angled, 90°
- unshielded



Connection type	Screws
Ambient temperature min./max.	-40 ... 85 °C
Operational voltage	48 V AC/DC
Protection class	IP67
Weight	0.016 kg

Technical data

Part No.	Max. current	suitable cable-Ø min./max
1834484178	4 A	4 mm

Technical information

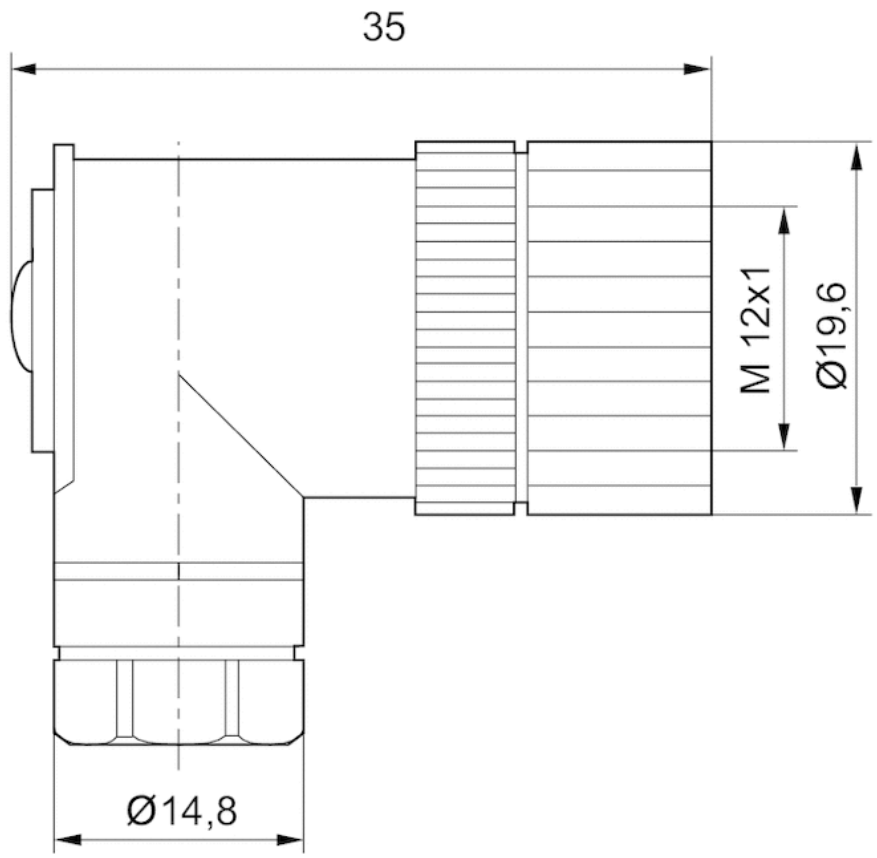
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Housing	Polyamide

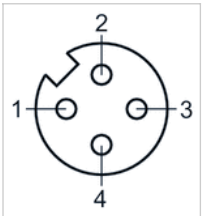
Dimensions

Dimensions



Pin assignments

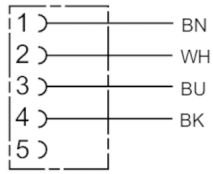
Pin assignment, socket



Round plug connector, Series CON-RD

- Socket M12x1 5-pin A-coded straight 180°
- open cable ends
- with cable
- unshielded

Ambient temperature min./max.	-25 ... 70 °C
Operational voltage	48 V AC/DC
Protection class	IP67
Wire cross-section	0.34 mm²
Weight	See table below



Technical data

Part No.	Max. current	Number of wires	Cable-Ø	Cable length	Weight
1834484256	4 A	4	5.2 mm	3 m	0.122 kg
1834484257	4 A	4	5.2 mm	5 m	0.194 kg
1834484258	4 A	4	5.2 mm	10 m	0.373 kg

Technical information

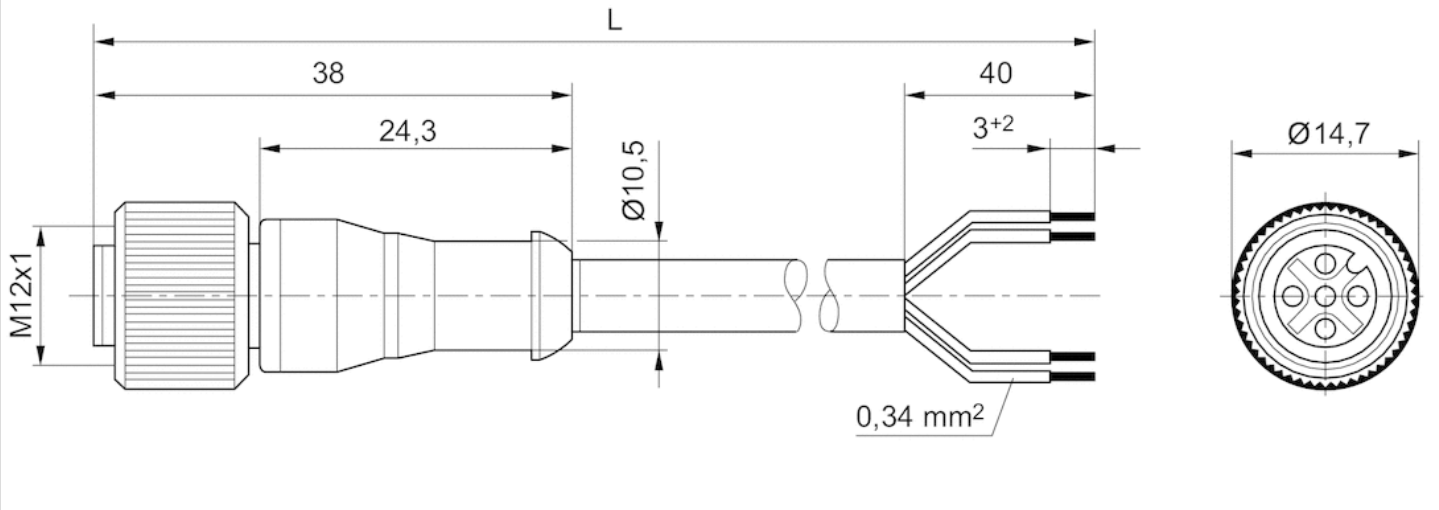
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Cable sheath	Polyurethane

Dimensions

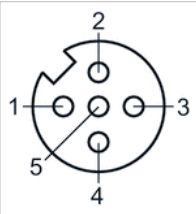
Dimensions



L = length

Pin assignments

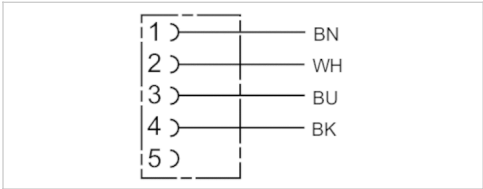
Pin assignment, socket



(1) BN=brown
(2) WH=white
(3) BU=blue
(4) BK=black
(5) not assigned

Round plug connector, Series CON-RD

- Socket M12x1 5-pin A-coded angled 90°
- open cable ends
- for DeviceNet
- with cable
- unshielded



Ambient temperature min./max.	-40 ... 85 °C
Operational voltage	48 V AC/DC
Protection class	IP65
Wire cross-section	0.34 mm²
Weight	See table below

Technical data

Part No.	Max. current	Number of wires	Cable-Ø	Cable length	Weight
1834484259	4 A	4	5.2 mm	3 m	0.126 kg
1834484260	4 A	4	5.2 mm	5 m	0.195 kg
1834484261	4 A	4	5.2 mm	10 m	0.38 kg

Technical information

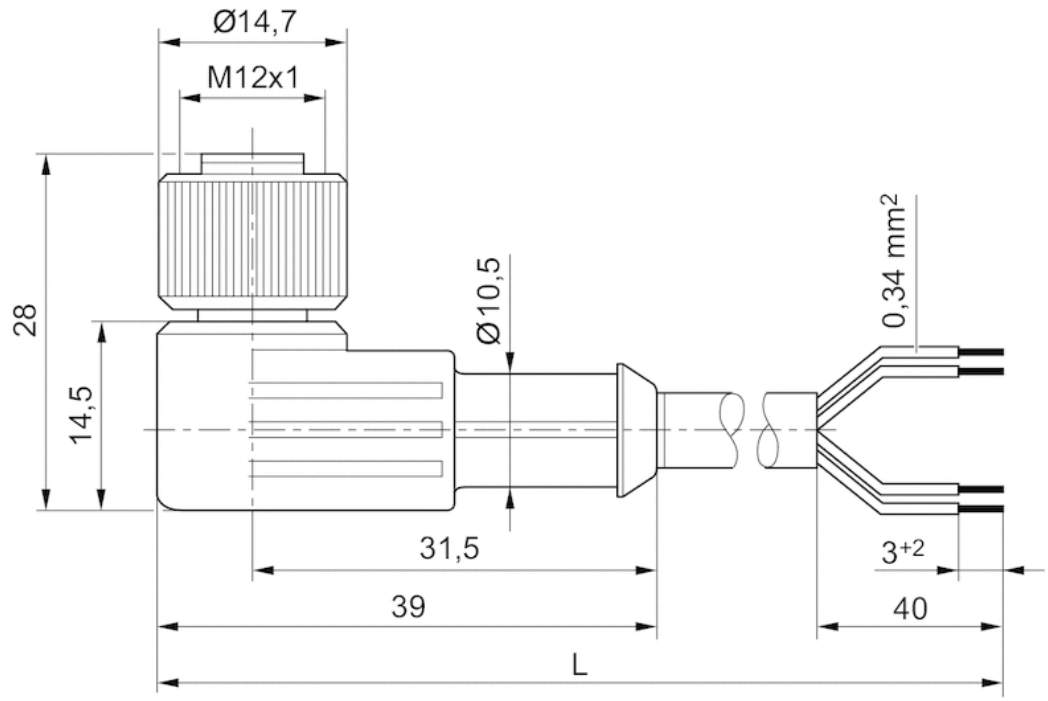
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Cable sheath	Polyurethane

Dimensions

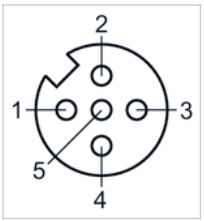
Dimensions



L = length

Pin assignments

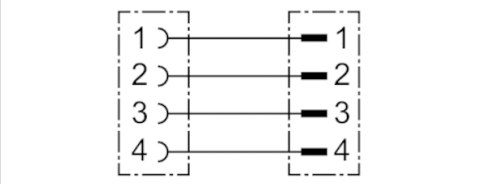
Pin assignment, socket



(1) BN=brown
(2) WH=white
(3) BU=blue
(4) BK=black
(5) not assigned

Round plug connector, Series CON-RD

- Socket M12x1 4-pin A-coded straight 180°
- Plug M12x1 4-pin A-coded straight 180°
- EN 61076-2-101
- with cable
- unshielded



Ambient temperature min./max.	-40 ... 105 °C
Protection class	IP65 IP67 IP68 IP69
Wire cross-section	0.34 mm²
Weight	See table below

Technical data

Part No.	Max. current	Number of wires	Bending radius min.	Cable-Ø	Cable length	Delivery unit	Weight
R402003760	4 A	4	45 mm	4.5 mm	5 m	1 piece	0.258 kg
R402003761	4 A	4	45 mm	4.5 mm	10 m	1 piece	0.484 kg
R402003762	4 A	4	45 mm	4.5 mm	15 m	1 piece	0.721 kg

Technical information

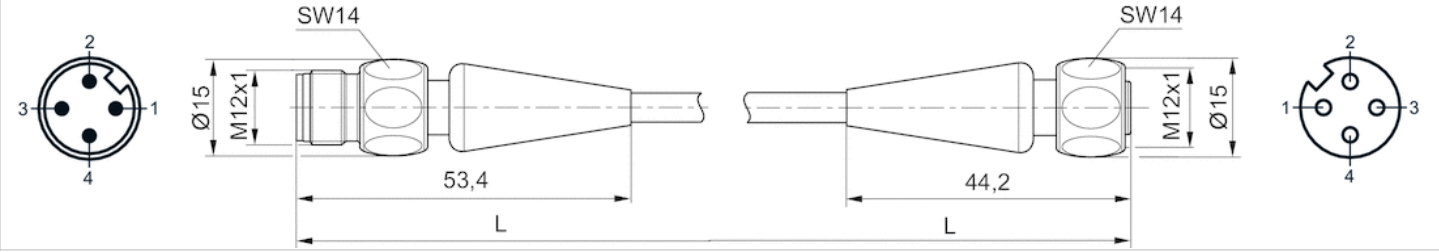
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Housing	Polypropylene
Seals	Ethylene propylene diene monomer rubber
Cable sheath	Polyvinyl chloride

Dimensions

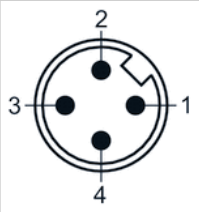
Dimensions



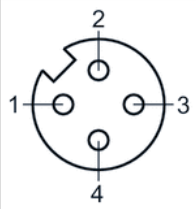
L = cable length

Pin assignments

Plug pin assignment

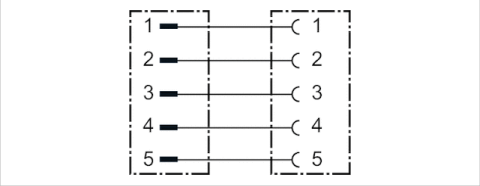


Pin assignment, socket



Round plug connector, Series CON-RD

- Socket M12x1 5-pin A-coded straight 180°
- Plug M12x1 5-pin A-coded angled 90°
- with cable
- suitable for dynamic laying
- unshielded



Ambient temperature min./max.	-25 ... 85 °C
Operational voltage	48 V AC/DC
Protection class	IP68
Wire cross-section	0.34 mm²
Mounting screw tightening torque	0.8 Nm
Weight	See table below

Technical data

Part No.	Max. current	Number of wires	Bending radius min.	Cable-Ø	Cable length	Weight
R412021694	4 A	5	50 mm	5 mm	2 m	0.114 kg
R412021695	4 A	5	50 mm	5 mm	5 m	0.217 kg

suitable for dynamic laying

Technical information

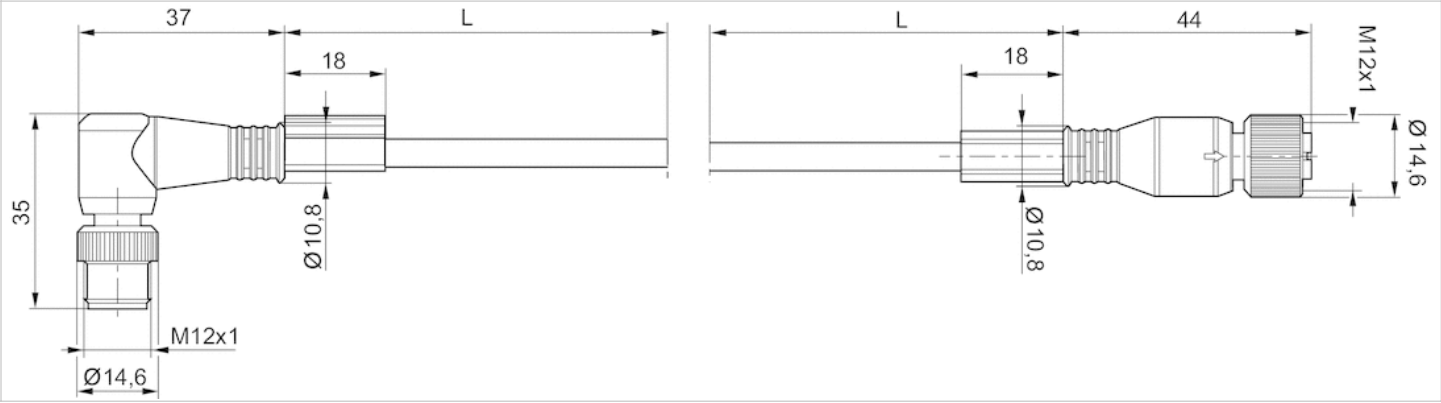
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Housing	Polyurethane
Cable sheath	Polyurethane

Dimensions

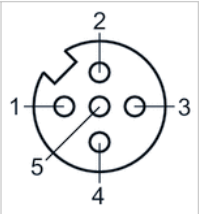
Dimensions



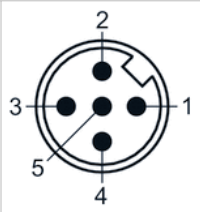
L = length

Pin assignments

Pin assignment, socket



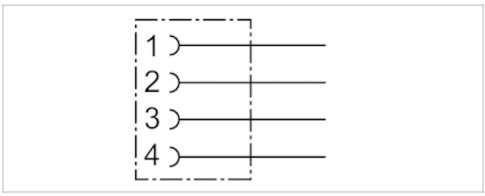
Plug pin assignment



Round plug connector, Series CON-RD

- Socket, M12x1, 4-pin, A-coded, straight, 180°
- UL (Underwriters Laboratories)
- unshielded

Connection type	Screws
Ambient temperature min./max.	-40 ... 85 °C
Operational voltage	48 V AC/DC
Protection class	IP67
Weight	0.015 kg



Technical data

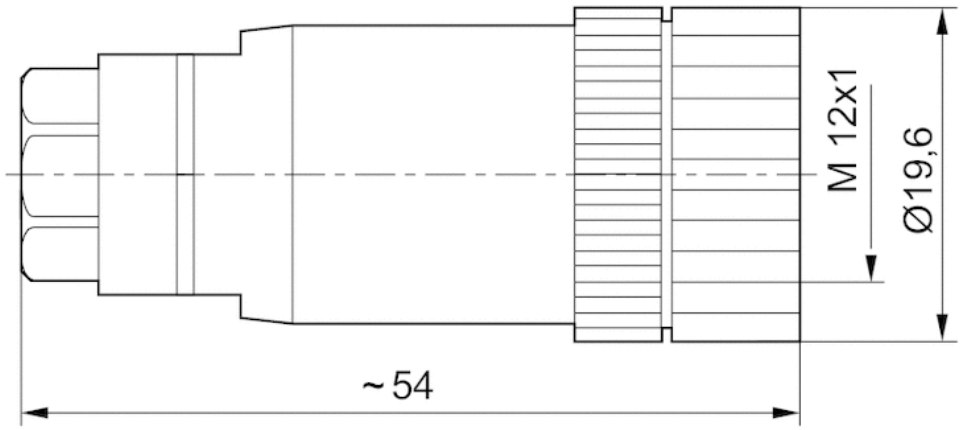
Part No.	Max. current	suitable cable-Ø min./max
1834484177	4 A	4 / 6 mm

Technical information

Material	
Housing	Polyamide

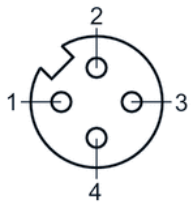
Dimensions

Dimensions



Pin assignments

Pin assignment, socket



Valve plug connector, series CON-VP

- Socket, 2+E, angled, 90° Socket, 3+E, angled, 90°
- EN 175301-803
- unshielded
- with LED Yellow Red Green green/red

Connection type	Screws
Ambient temperature min./max.	-40 ... 90 °C
Operational voltage	See table below
Protection class	IP65
Mounting screw tightening torque	0.4 Nm
Weight	See table below

Technical data

Part No.		Electrical connection 1	Operational voltage	Max. current
1834484048		Socket 2+E angled 90°	-	10 A
1834484059		Socket 3+E angled 90°	-	10 A
1834484101		Socket 2+E angled 90°	24 V AC/DC	-
1834484102		Socket 2+E angled 90°	110 V AC	-
1834484103		Socket 2+E angled 90°	230 V AC	-
8941016112		Socket 2+E angled 90°	230 V AC	-
8941012462		Socket 3+E angled 90°	24 V DC	8 A

Part No.	Protective circuit	Contact assignment	LED status display	suitable cable-Ø min./max
1834484048	-	2+E	-	6 / 8 mm
1834484059	-	3+E	-	6 / 8 mm
1834484101	Z-diode	2+E	Yellow	6 / 8 mm
1834484102	Varistor	2+E	Red	6 / 8 mm
1834484103	Varistor	2+E	Red	6 / 8 mm
8941016112	Varistor	2+E	Green	6 / 10 mm
8941012462	-	3+E	green/red	4.5 / 11 mm

Part No.	Seal	Weight	
1834484048	caoutchouc/butadiene caoutchouc	0.03 kg	1)
1834484059	caoutchouc/butadiene caoutchouc	0.03 kg	1)
1834484101	Silicone caoutchouc	0.03 kg	2)
1834484102	caoutchouc/butadiene caoutchouc	0.03 kg	1)
1834484103	Silicone caoutchouc	0.025 kg	1)
8941016112	caoutchouc/butadiene caoutchouc	0.03 kg	1)
8941012462	caoutchouc/butadiene caoutchouc	0.03 kg	2)

1) Profile seal
2) Flat gasket

Technical information

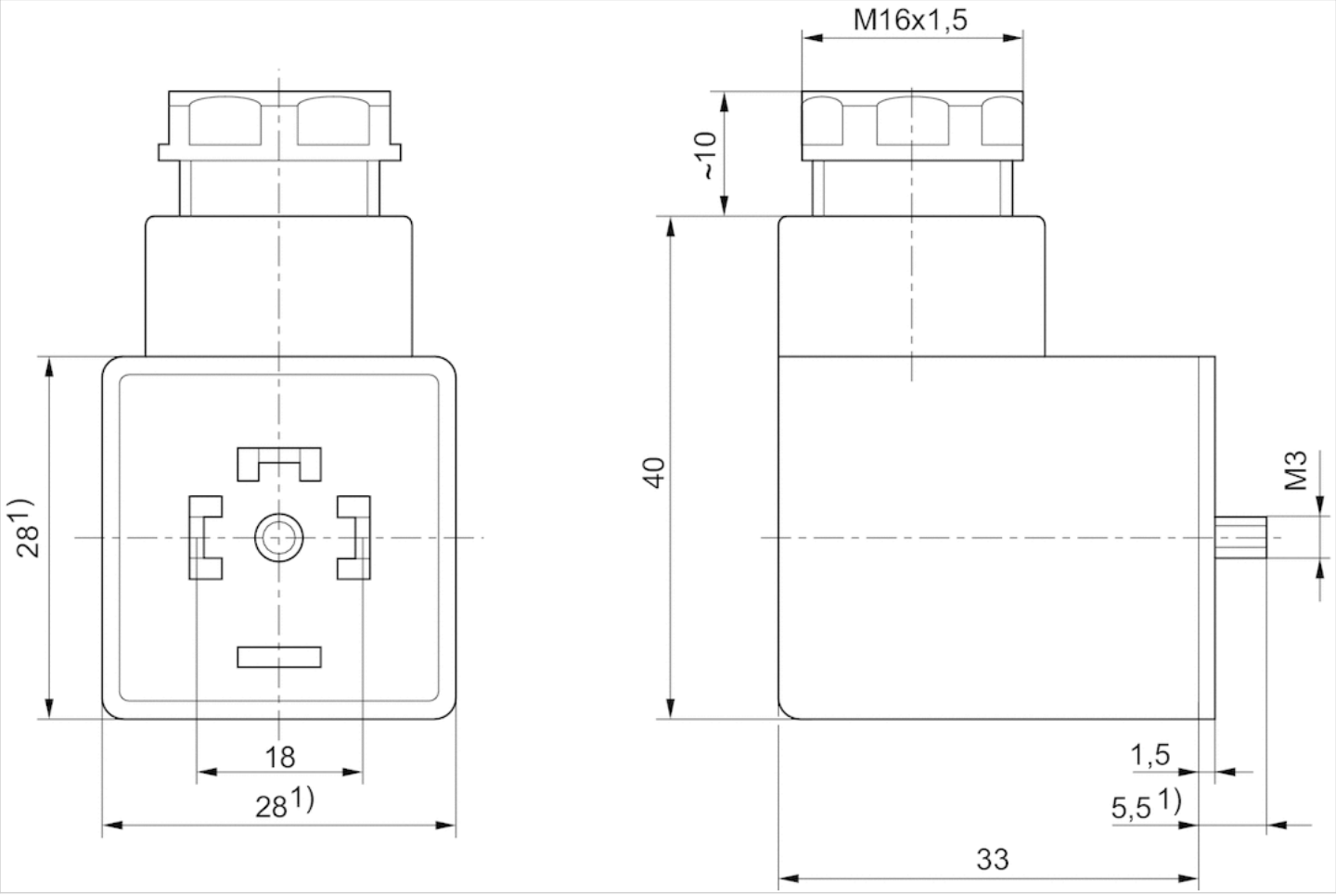
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Seals	caoutchouc/butadiene caoutchouc Silicone caoutchouc

Dimensions

Dimensions



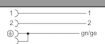
1) Max.

Valve plug connector, series CON-VP

- Socket form A 2+E angled 90°
- open cable ends 3-pin
- with cable
- unshielded

Ambient temperature min./max.	-20 ... 80 °C
Operational voltage	See table below
Protection class	IP67
Wire cross-section	0.75 mm²
Mounting screw tightening torque	0.4 Nm
Weight	See table below

Technical data

Part No.		Operational voltage	Protective circuit	Contact assignment	LED status display
1834484160		230 V AC/DC	-	2+E	-
1834484162		24 V AC/DC	Z-diode	2+E	Yellow
1834484163		24 V AC/DC	Z-diode	2+E	Yellow
1834484164		230 V AC/DC	Varistor	2+E	Red
1834484165		230 V AC/DC	Varistor	2+E	Red

Part No.	Number of wires	Cable-Ø	Cable length	Weight	Fig.	
1834484160	3	5.9 mm	3 m	0.2 kg	Fig. 1	1)
1834484162	3	5.9 mm	3 m	0.2 kg	Fig. 2	-
1834484163	3	5.9 mm	5 m	0.31 kg	Fig. 2	-
1834484164	3	5.9 mm	3 m	0.2 kg	Fig. 2	-
1834484165	3	5.9 mm	5 m	0.31 kg	Fig. 2	-

1) Scope of delivery incl. flat gasket

Technical information

The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Seals	caoutchouc/butadiene caoutchouc
Cable sheath	Polyvinyl chloride

Dimensions

Fig. 1

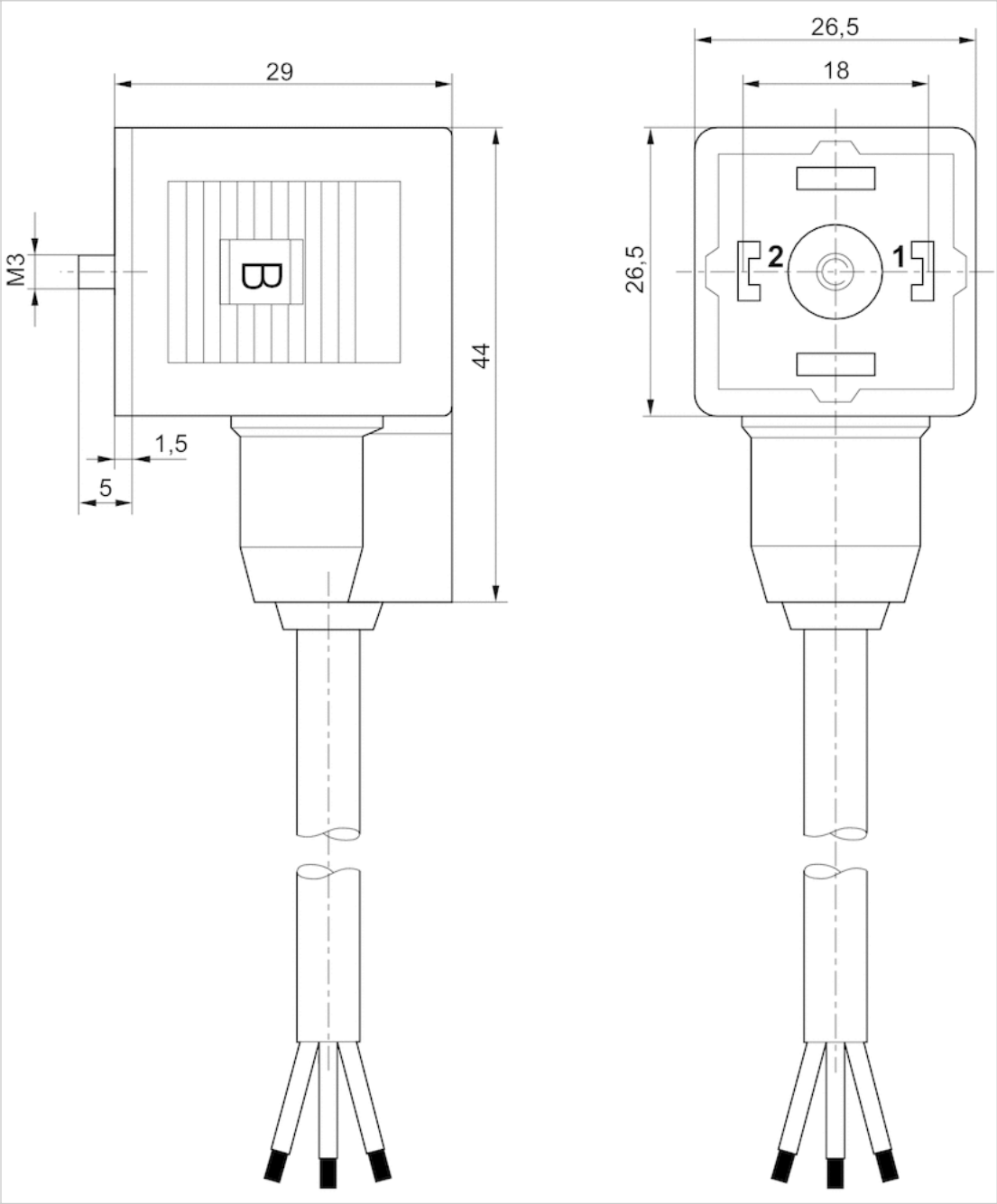
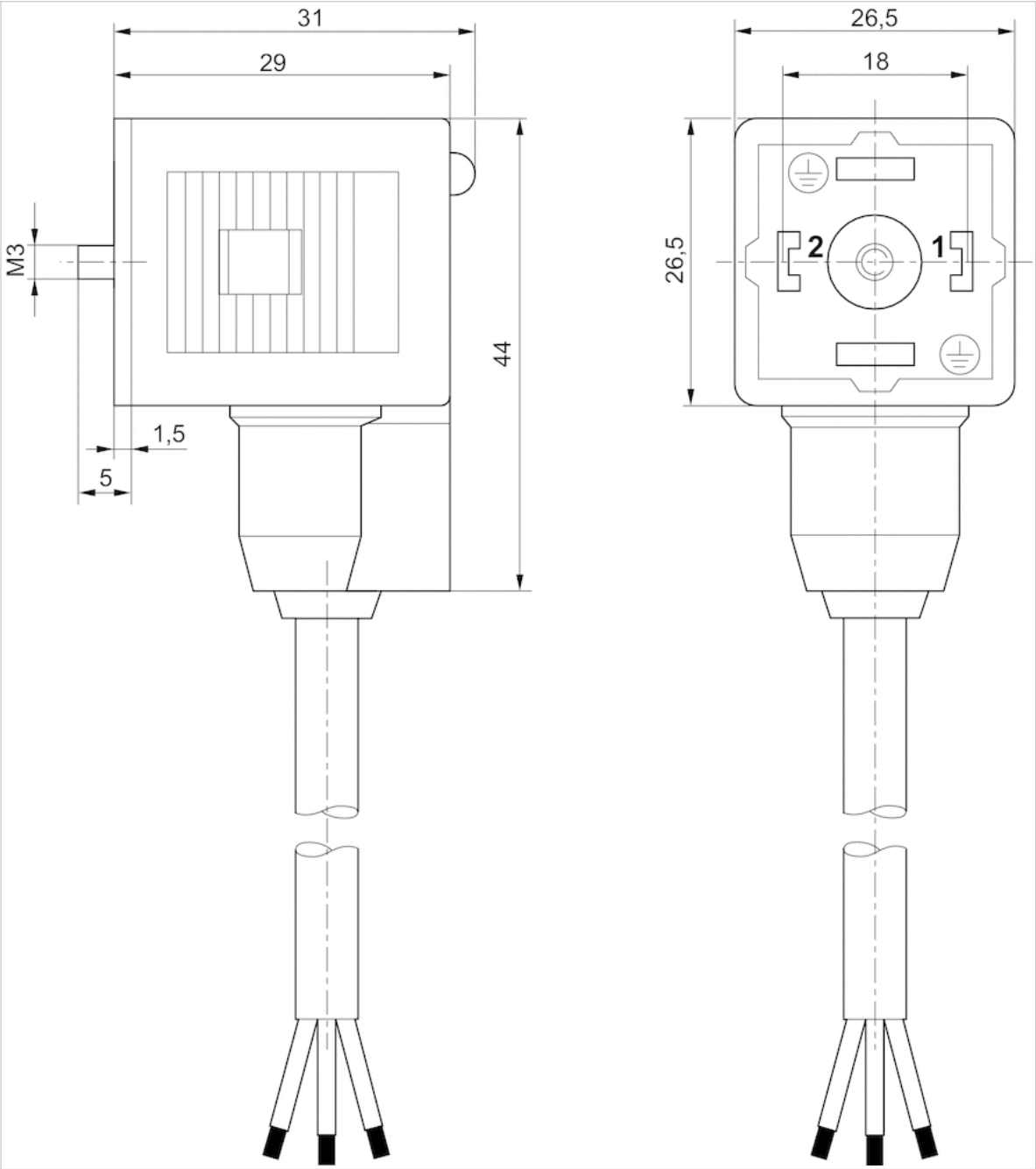


Fig. 2

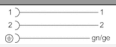


Valve plug connector, series CON-VP

- Socket, Form B, industry, 2+E, angled, 90°
- Industry standard
- unshielded
- with LED Yellow Red

Connection type	Screws
Ambient temperature min./max.	-25 ... 50 °C
Operational voltage	See table below
Protection class	IP65
Mounting screw tightening torque	0.4 Nm
Weight	0.02 kg

Technical data

Part No.		Operational voltage	Max. current	Protective circuit	Contact assignment
1834484051		-	10 A	-	2+E
1834484107		24 V AC/DC	-	Z-diode	2+E
1834484108		110 V AC	-	Varistor	2+E
1834484109		230 V AC	-	Varistor	2+E

Part No.	LED status display	suitable cable-Ø min./max	Seal	Fig.	
1834484051	-	4 / 8 mm	caoutchouc/butadiene caoutchouc	Fig. 1	1)
1834484107	Yellow	6 / 8 mm	Silicone caoutchouc	Fig. 2	2)
1834484108	Red	6 / 8 mm	Silicone caoutchouc	Fig. 2	1)
1834484109	Red	4 / 8 mm	Silicone caoutchouc	Fig. 2	2)

1) Profile seal

2) Flat gasket,

Technical information

For security reasons, the valve plug connector must be plugged properly and centrically.
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Seals	caoutchouc/butadiene caoutchouc Silicone caoutchouc

Dimensions

Fig. 1

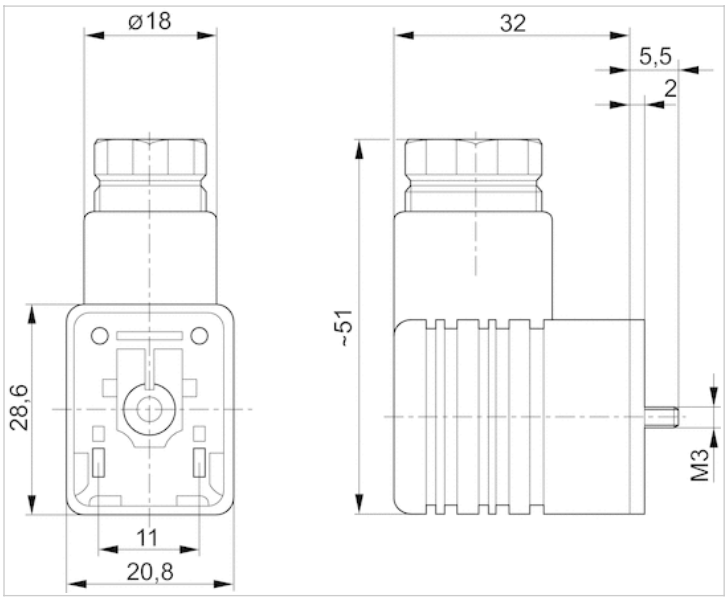
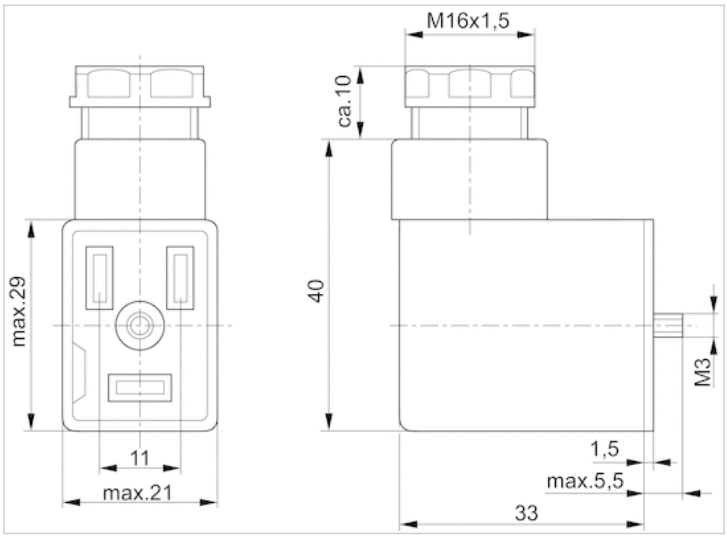


Fig. 2



Valve plug connector, series CON-VP

- Socket Form B, industry 2+E angled 90°
- open cable ends 3-pin
- with cable
- unshielded

Ambient temperature min./max.	-20 ... 80 °C
Protection class	IP67
Wire cross-section	0.75 mm²
Mounting screw tightening torque	0.4 Nm
Weight	0.02 kg

Technical data

Part No.	Max. current	Contact assignment	Number of wires	Cable-Ø	Cable length
8946201912	4 A	2+E	3	5.9 mm	3 m

Technical information

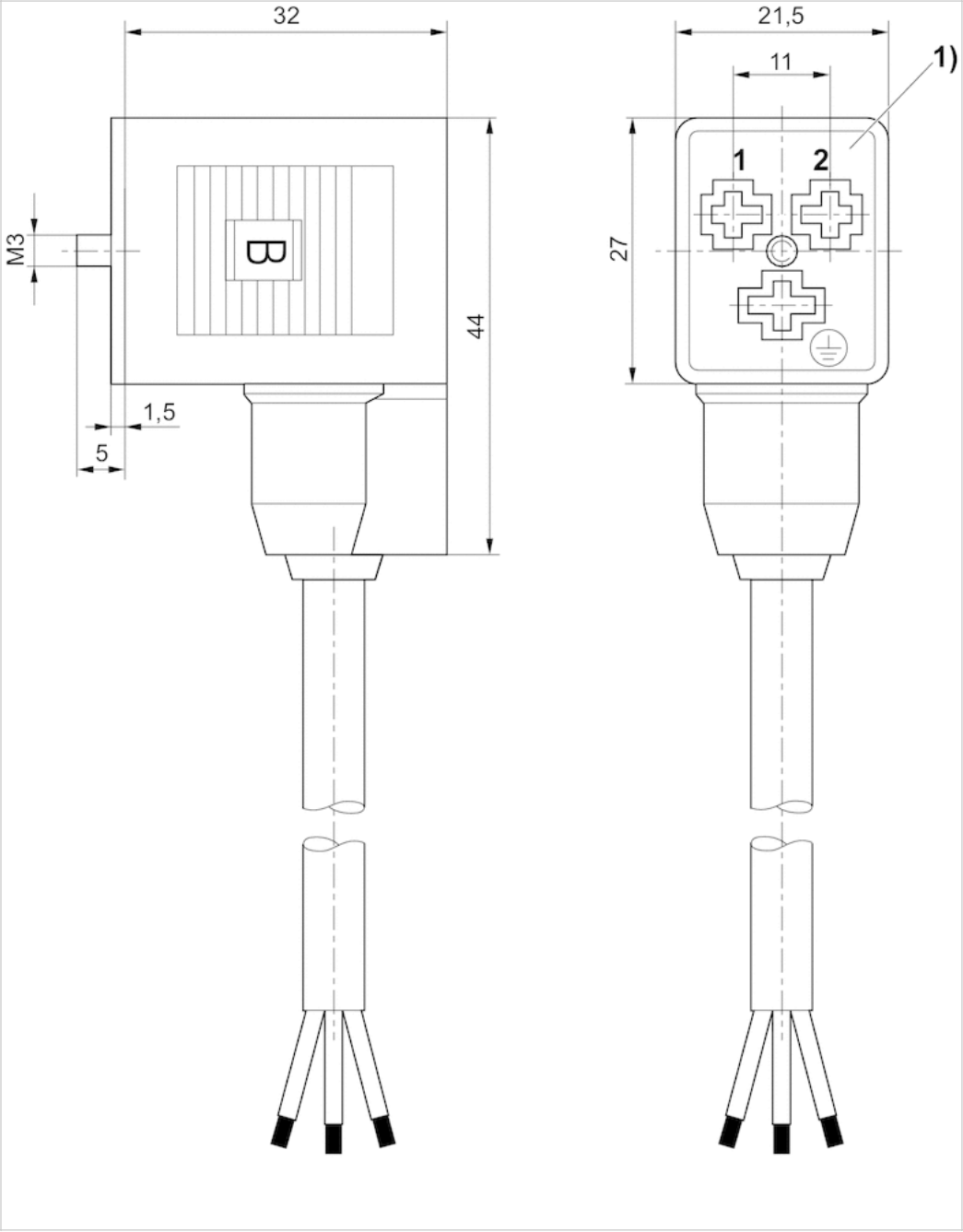
For security reasons, the valve plug connector must be plugged properly and centrically.
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Cable sheath	Polyvinyl chloride

Dimensions

Dimensions



1) 0° female insert

Valve cover seal, Valve housing seal

- for 581
- size 3

Weight	See table below

Technical data

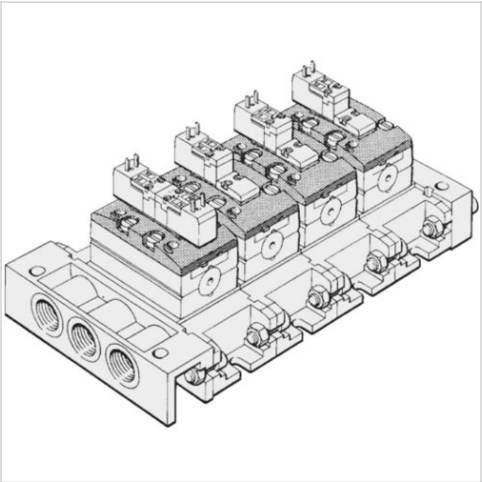
Part No.	Type	Weight
0490429204	Valve cover seal, electrically operated valves	0.01 kg
0490429301	Valve cover seal, pneumatically operated valves	0.1 kg
0490429409	Valve cover seal, for valves with logic function	0.01 kg
0486704608	Valve housing seal, between housing and base plate	0.003 kg

Technical information

Material	
Housing	caoutchouc/butadiene caoutchouc

valve cover, with or without pilot valve

- for 581
- size 3
- standard ISO 5599-1



standard	ISO 5599-1
Ambient temperature min./max.	-10 ... 50 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	40 ... 400 mg/m³
Weight	See table below

Technical data

Part No.	Type	Pilot valve width	Weight	
5813010000	5/2-directional valve, mono-stable	22 mm	0.29 kg	1)
5813020000	2x3/2-, 5/2-, 5/3-directional valve	22 mm	0.3 kg	1)
5813050000	5/2-directional valve, mono-stable	22 mm	0.29 kg	2)
5813060000	2x3/2-, 5/2-, 5/3-directional valve	22 mm	0.3 kg	2)
5813080000	all	30 mm	0.415 kg	3)

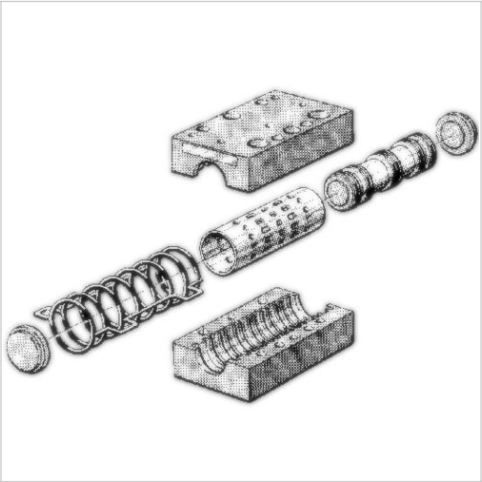
1) with pilot valve without coil, For version 12 V DC - 230 V AC, 5 W

2) with pilot valve without coil, For version 24 V DC, 2 W

3) without pilot valve

valve housing, without cover

- Aluminum
- for 581
- size 3
- standard ISO 5599-1



standard	ISO 5599-1
Ambient temperature min./max.	-20 ... 70 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	40 ... 400 mg/m³
Weight	See table below

Technical data

Part No.	Type	Weight
5813100000	5/2-directional valve, mono-stable	0.58 kg
5813200000	5/2-directional valve, double solenoid	1 kg
5813300000	5/2-directional valve, double solenoid, with manual override	0.77 kg
5813600000	5/2-way solenoid valve, with differential piston	0.55 kg
5813400000	5/3-directional valve, closed center	0.77 kg
5813500000	5/3-directional valve, exhausted center	0.77 kg
5813700000	5/3-directional valve, pressurized center	0.77 kg

The valve can be changed to a single solenoid version with air return., signal 14 has priority

Technical information

Material	
Housing	Aluminum

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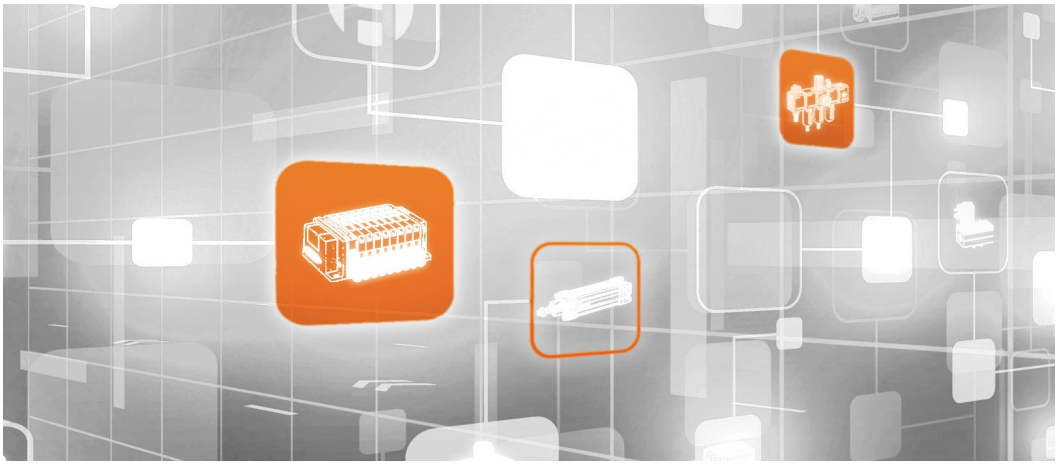

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