Series 740

AVENTICS™ Series 740

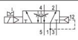
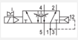
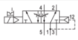
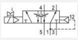
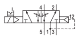
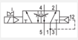
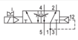
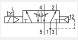
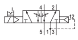
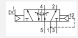
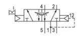
EMERSON.

5/2-directional valve, Series 740

- ATEX optional
- 5/2
- Qn = 700-950 l/min
- Pipe connection
- Compressed air connection output : Ø 8x1 Ø 10x1
- Electrical connection : Plug, EN 175301-803, form A
- -25 °C cold-resistant
- Can be assembled into blocks
- Manual override : without detent, with detent
- single solenoid
- With air spring return
- Pilot : Internal

Version	Diaphragm poppet valve
Activation	Electrically
Pilot	Internal
Sealing principle	Soft sealing
Blocking principle	Single base plate principle Plate principle
Working pressure min./max.	1.5 ... 10 bar
Ambient temperature min./max.	-25 ... 50 °C
Medium temperature min./max.	-25 ... 50 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow Qn	See table below
Connector standard	EN 175301-803:2006
Protection class with connection	IP65
Reverse polarity protection	Protected against polarity reversal
Compatibility index	See table below
Duty cycle	100 %
Typ. switch-on time	17 ms
Typ. switch-off time	24 ms
Mounting on manifold strip	PRS strip
Weight	See table below

Technical data

Part No.		MO	Compressed air connection	Compressed air connection
			Input	Output
5727400220			Ø 8x1	Ø 8x1
5727400420			Ø 8x1	Ø 8x1
5727420220			Ø 8x1	Ø 8x1
5727450220			Ø 10x1	Ø 10x1
5727450420			Ø 10x1	Ø 10x1
5727405280			Ø 8x1	Ø 8x1
5727405480			Ø 8x1	Ø 8x1
5727455280			Ø 10x1	Ø 10x1
5727455480			Ø 10x1	Ø 10x1
5727405302			Ø 8x1	Ø 8x1
5727455302			Ø 10x1	Ø 10x1

Part No.	Compressed air connection	Operational voltage	Operational voltage
	Exhaust	DC	AC 50 Hz
5727400220	M14x1	24 V	-
5727400420	M14x1	24 V	-
5727420220	M14x1	24 V	-
5727450220	M14x1	24 V	-
5727450420	M14x1	24 V	-
5727405280	M14x1	-	230 V
5727405480	M14x1	-	230 V
5727455280	M14x1	-	230 V
5727455480	M14x1	-	230 V
5727405302	M14x1	-	-
5727455302	M14x1	-	-

Part No.	Operational voltage	Voltage tolerance	Voltage tolerance	Voltage tolerance
	AC 60 Hz	DC	AC 50 Hz	AC 60 Hz
5727400220	-	-10% / +10%	-	-
5727400420	-	-10% / +10%	-	-
5727420220	-	-10% / +10%	-	-
5727450220	-	-10% / +10%	-	-
5727450420	-	-10% / +10%	-	-
5727405280	230 V	-	-20% / +10%	-10% / +20%
5727405480	230 V	-	-20% / +10%	-10% / +20%
5727455280	230 V	-	-20% / +10%	-10% / +20%
5727455480	230 V	-	-20% / +10%	-10% / +20%
5727405302	-	-	-	-
5727455302	-	-	-	-

Part No.	Power consumption	Holding power	Holding power	Switch-on power
	DC	AC 50 Hz	AC 60 Hz	AC 50 Hz
5727400220	2.1 W	-	-	-
5727400420	2.1 W	-	-	-
5727420220	2.1 W	-	-	-

Part No.	Power consumption	Holding power	Holding power	Switch-on power
	DC	AC 50 Hz	AC 60 Hz	AC 50 Hz
5727450220	2.1 W	-	-	-
5727450420	2.1 W	-	-	-
5727405280	2.1 W	4.18 VA	3.3 VA	6.6 VA
5727405480	2.1 W	4.18 VA	3.3 VA	6.6 VA
5727455280	2.1 W	4.18 VA	3.3 VA	6.6 VA
5727455480	2.1 W	4.18 VA	3.3 VA	6.6 VA
5727405302	-	-	-	-
5727455302	-	-	-	-

Part No.	Switch-on power	Nominal flow Qn	Compatibility index	Throttle
	AC 60 Hz			
5727400220	-	700 l/min	13 14	with throttle
5727400420	-	700 l/min	13 14	with throttle
5727420220	-	700 l/min	13 14	with throttle
5727450220	-	950 l/min	14 14	with throttle
5727450420	-	950 l/min	13 14	with throttle
5727405280	5.5 VA	700 l/min	14	with throttle
5727405480	5.5 VA	700 l/min	14	with throttle
5727455280	5.5 VA	950 l/min	14	with throttle
5727455480	5.5 VA	950 l/min	14	with throttle
5727405302	-	700 l/min	14	with throttle
5727455302	-	950 l/min	14	with throttle

Part No.	Valve plug connector	basic valve with electrical connector
5727400220	With valve plug connector	-
5727400420	Without valve plug connector	-
5727420220	With valve plug connector	-
5727450220	With valve plug connector	-
5727450420	Without valve plug connector	-
5727405280	With valve plug connector	-
5727405480	Without valve plug connector	-
5727455280	With valve plug connector	-
5727455480	Without valve plug connector	-
5727405302	-	Basic valve without coil
5727455302	-	Basic valve without coil

Part No.	Reverse polarity protection	ATEX	Weight	
5727400220	Protected against polarity reversal	-	0.339 kg	-
5727400420	Protected against polarity reversal	-	0.317 kg	-
5727420220	Protected against polarity reversal	ATEX	0.335 kg	1)
5727450220	Protected against polarity reversal	-	0.341 kg	-
5727450420	Protected against polarity reversal	-	0.318 kg	-
5727405280	Protected against polarity reversal	-	0.335 kg	-
5727405480	Protected against polarity reversal	-	0.311 kg	-
5727455280	Protected against polarity reversal	-	0.336 kg	-
5727455480	Protected against polarity reversal	-	0.311 kg	-
5727405302	-	ATEX optional	0.221 kg	-

Part No.	Reverse polarity protection	ATEX	Weight	
5727455302	-	ATEX optional	0.22 kg	-

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

1) II 3G3D EEX nA IIB T4 IP65 T125 °C X

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).

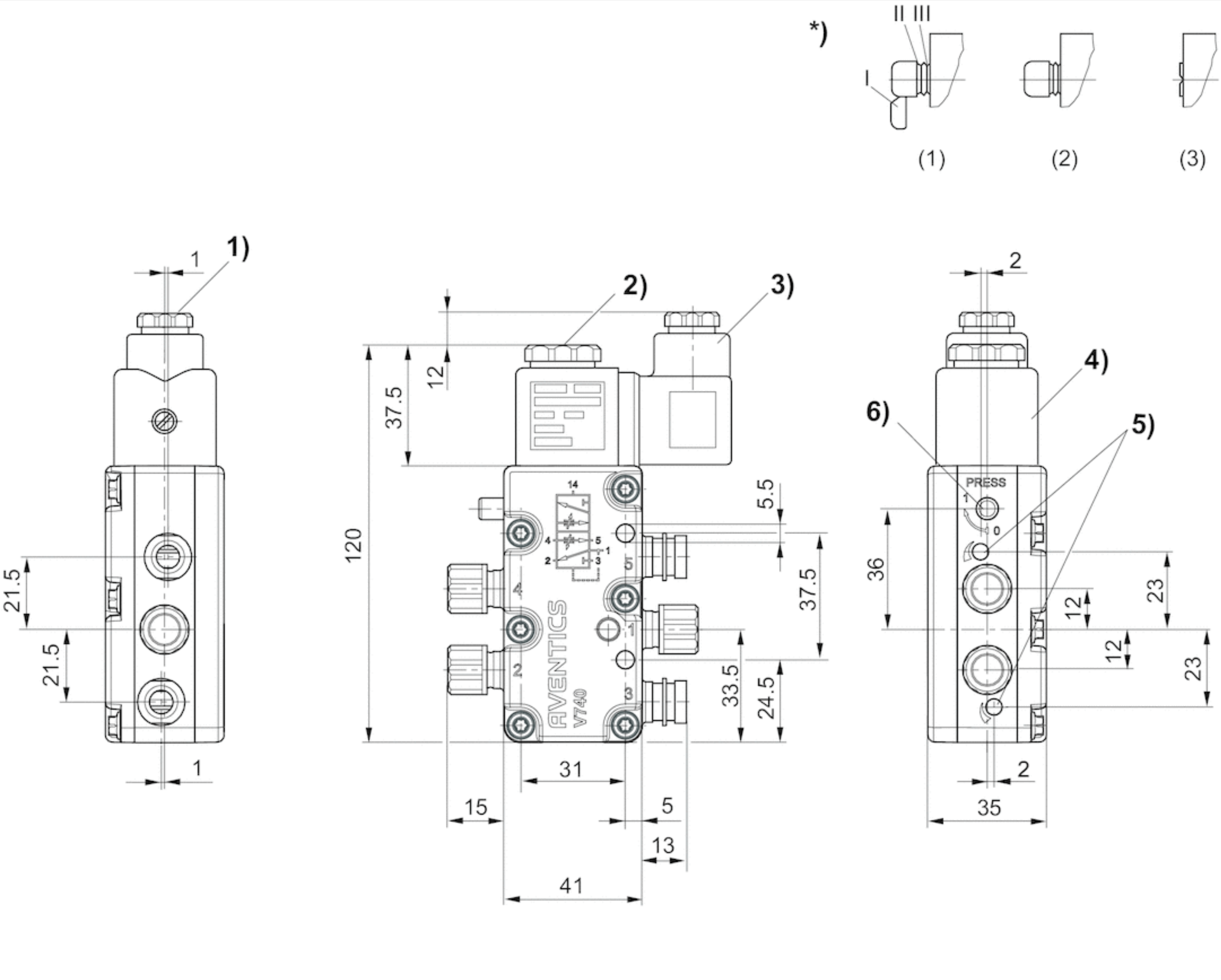
ATEX optional: ATEX version can be produced by combining the basic valve without coil with an ATEX coil. ATEX ID: see ATEX coils catalog page.

Technical information

Material	
Housing	Polyarylamide Polyoxymethylene
Seals	Acrylonitrile butadiene rubber

Dimensions

Dimensions



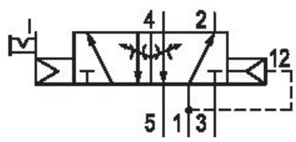
1) Gland fitting M16x1.52) M5 internal thread accessible under cap3) Valve plug connector can be rotated at 90° intervals4) Coil can be plugged at 45° intervals5) Flow control screw for exhausts 5 (R) and 3 (S)6) Manual override and position indicator*): Manual override:Manual actuation: (1) with detent - push and turn into position 1 (2) without detent - remove segment I - push onlyActuation with tool: (3) with detent - remove segments up to II - push with tool and turn into position 1

5/2-directional valve, Series 740

5727405302

General series information
Series 740

- The AVENTICS Series 740/840 feature directional valves with soft, abrasion-free diaphragm technology. The simple, reliable and robust design is suitable for all air qualities and ensures high repeatability and unsurpassed service life. Due to its high resilience, the corrosion-resistant polyamide housing is also suited for dusty and damp environments.



Technical data

Industry
Industrial

Activation
Electrically

Nominal flow Qn
700 l/min

Switching principle
5/2

Compressed air connection output
Ø 8x1

Working pressure min.
1.5 bar

Working pressure max
10 bar

Manual override
without detent
with detent

Sealing principle
Soft Seal

Pilot
Internal

ATEX
ATEX optional

Valve type
Diaphragm poppet valve

basic valve with electrical connector
Basic valve without coil

Throttle
with throttle

Connection type
Pipe connection

Return
with air spring return

Blocking principle
Single base plate principle
Plate principle

Can be assembled into blocks
Can be assembled into blocks

Temperature resistance
-25 °C cold-resistant

Min. ambient temperature
-25 °C

Max. ambient temperature
50 °C

Min. medium temperature
-25 °C

Max. medium temperature
50 °C

Medium
Compressed air

Max. particle size
50 µm

Oil content of compressed air min.
0 mg/m³

Oil content of compressed air max.
5 mg/m³

Compressed air connection input
Ø 8x1

Compressed air connection, exhaust
M14x1

Compatibility index
14

Duty cycle
100 %

Typ. switch-on time
17 ms

Typ. switch-off time
24 ms

Protection class with connection
IP65

Weight
0.221 kg

Housing material
Polyoxymethylene

Seal material
Acrylonitrile butadiene rubber

Material front plate
Polyamide

Part No.
5727405302

Technical information

Nominal flow Qn at 6 bar and Δp = 1 bar

Basic valve without coil

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.

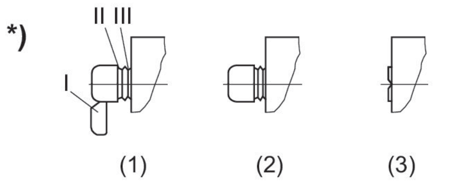
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!

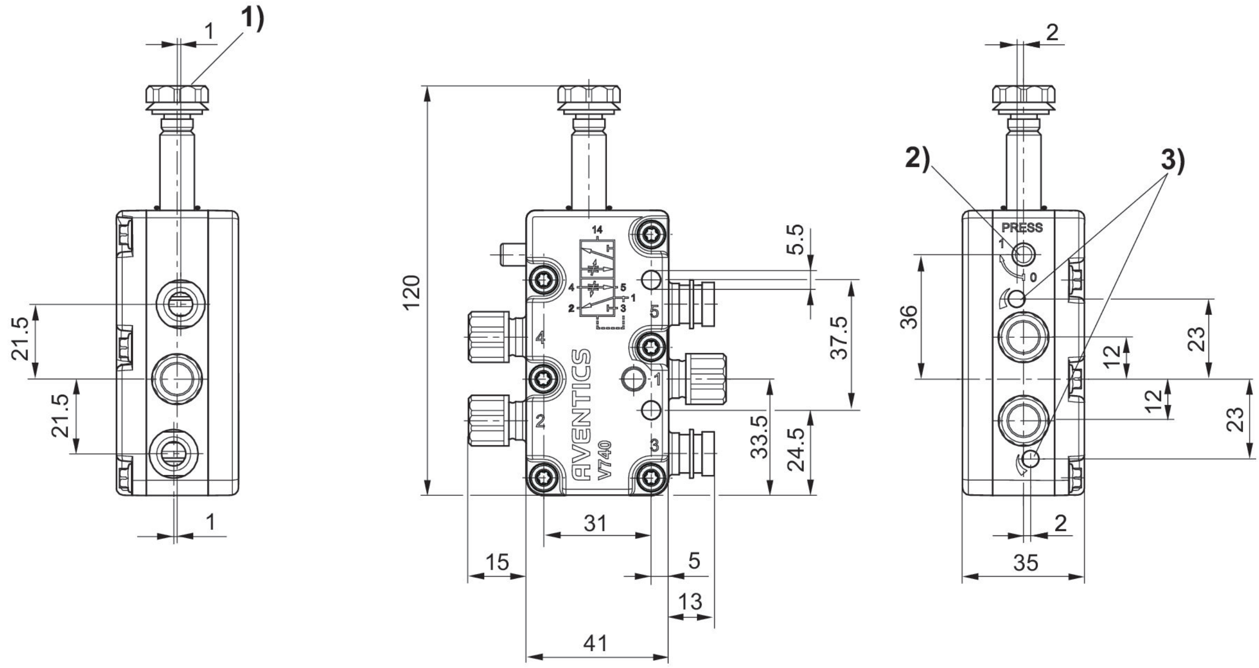
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

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 https://www.emerson.com/en-us/support).

Dimensions in mm





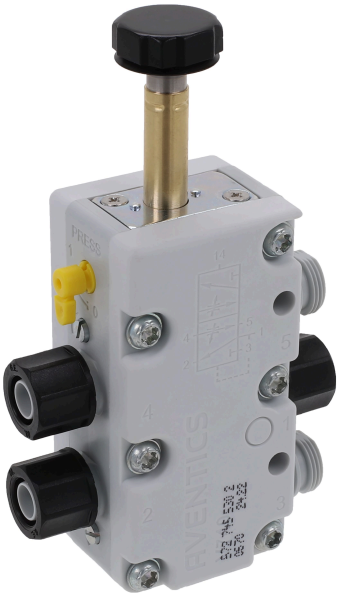
1) M5 internal thread accessible under cap
2) Manual override and position indicator
3) Throttle screw for exhausts 5 (R) and 3 (S) (S)
* Manual override: Manual actuation: (1) with detent - push and turn into position 1 (2) without detent - remove segment I - push only Actuation with tool: (3) with detent - remove segments up to II - push with tool and turn into position 1

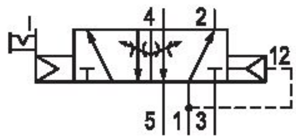
5/2-directional valve, Series 740

5727455302

General series information
Series 740

- The AVENTICS Series 740/840 feature directional valves with soft, abrasion-free diaphragm technology. The simple, reliable and robust design is suitable for all air qualities and ensures high repeatability and unsurpassed service life. Due to its high resilience, the corrosion-resistant polyamide housing is also suited for dusty and damp environments.





Technical data

Industry
Industrial

Activation
Electrically

Nominal flow Qn
950 l/min

Switching principle
5/2

Compressed air connection output
Ø 10x1

Working pressure min.
1.5 bar

Working pressure max
10 bar

Manual override
without detent
with detent

Actuating control
Single Solenoid

Sealing principle
Soft Seal

Pilot
Internal

ATEX
ATEX optional

Valve type
Diaphragm poppet valve

basic valve with electrical connector
Basic valve without coil

Throttle
with throttle

Connection type
Pipe connection

Return
with air spring return

Blocking principle
Single base plate principle
Plate principle

Can be assembled into blocks
Can be assembled into blocks

Temperature resistance
-25 °C cold-resistant

Min. ambient temperature
-25 °C

Max. ambient temperature
50 °C

Min. medium temperature
-25 °C

Max. medium temperature
50 °C

Medium
Compressed air

Max. particle size
50 µm

Oil content of compressed air min.
0 mg/m³

Oil content of compressed air max.
5 mg/m³

Compressed air connection input
Ø 10x1

Compressed air connection, exhaust
M14x1

Compatibility index
14

Duty cycle
100 %

Typ. switch-on time
17 ms

Typ. switch-off time
24 ms

Protection class with connection
IP65

Weight
0.22 kg

Housing material
Polyoxymethylene

Seal material
Acrylonitrile butadiene rubber

Material front plate
Polyamide

Part No.
5727455302

Technical information

Nominal flow Qn at 6 bar and Δp = 1 bar

Basic valve without coil

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.

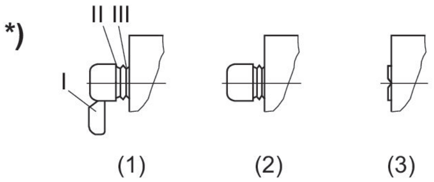
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!

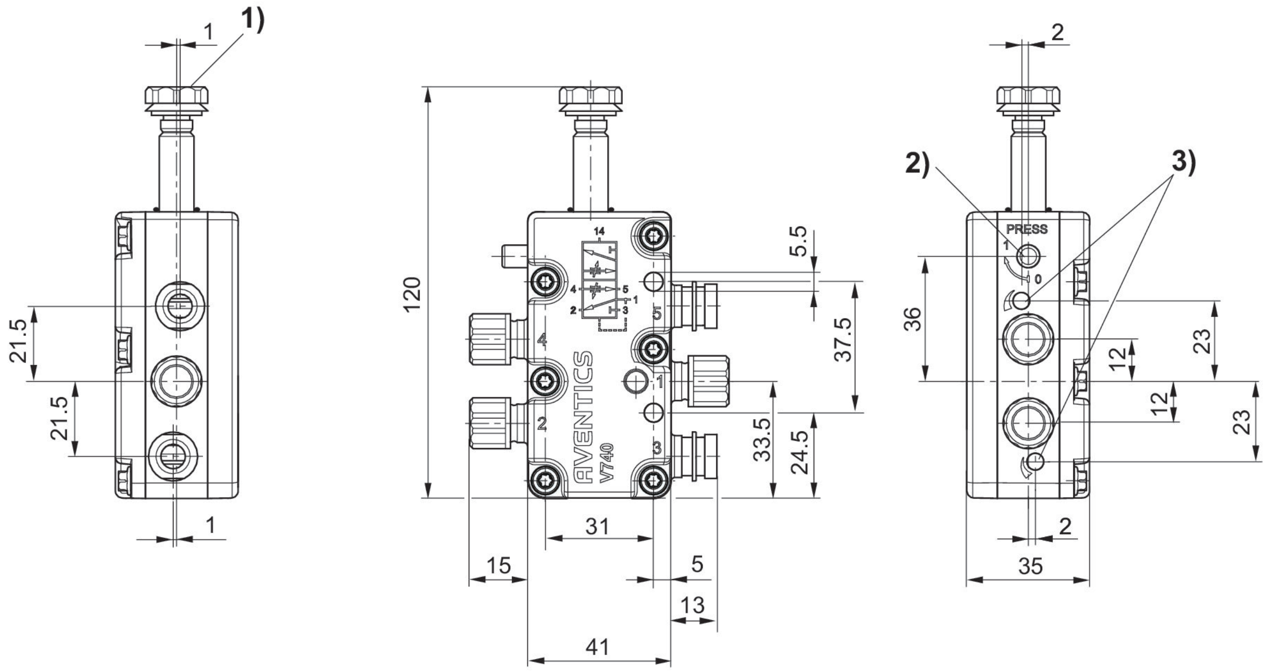
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

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 https://www.emerson.com/en-us/support).

Dimensions in mm





1) M5 internal thread accessible under cap
2) Manual override and position indicator
3) Throttle screw for exhausts 5 (R) and 3 (S) (S)
* Manual override: Manual actuation: (1) with detent - push and turn into position 1 (2) without detent - remove segment I - push only Actuation with tool: (3) with detent - remove segments up to II - push with tool and turn into position 1

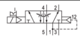
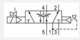
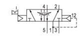
EMERSON

5/2-directional valve, Series 740

- ATEX optional
- 5/2
- Qn = 1100 l/min
- Pipe connection
- Compressed air connection output : Ø 10x1
- Electrical connection : Plug, EN 175301-803, form A
- -25 °C cold-resistant
- Can be assembled into blocks
- Manual override : with detent
- With air spring return
- Pilot : Internal

Version	Diaphragm poppet valve
Activation	Electrically
Pilot	Internal
Sealing principle	Soft sealing
Blocking principle	Plate principle Single base plate principle
Working pressure min./max.	1.5 ... 10 bar
Ambient temperature min./max.	-25 ... 50 °C
Medium temperature min./max.	-25 ... 50 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow Qn	1100 l/min
Connector standard	EN 175301-803:2006
Protection class with connection	IP65
Reverse polarity protection	Protected against polarity reversal
Compatibility index	See table below
Duty cycle	100 %
Typ. switch-on time	17 ms
Typ. switch-off time	26 ms
Mounting on manifold strip	PRS strip
Weight	See table below

Technical data

Part No.		MO	Compressed air connection	Compressed air connection
			Input	Output
5727470220			Ø 10x1	Ø 10x1
5727475280			Ø 10x1	Ø 10x1
5727475302			Ø 10x1	Ø 10x1

Part No.	Compressed air connection	Operational voltage	Operational voltage
	Exhaust	DC	AC 50 Hz
5727470220	M14x1	24 V	-
5727475280	M14x1	-	230 V
5727475302	M14x1	-	-

Part No.	Operational voltage	Voltage tolerance	Voltage tolerance	Voltage tolerance
	AC 60 Hz	DC	AC 50 Hz	AC 60 Hz
5727470220	-	-10% / +10%	-	-
5727475280	230 V	-	-20% / +10%	-10% / +20%
5727475302	-	-	-	-

Part No.	Power consumption	Holding power	Holding power	Switch-on power
	DC	AC 50 Hz	AC 60 Hz	AC 50 Hz
5727470220	2.1 W	-	-	-
5727475280	2.1 W	4.18 VA	3.3 VA	6.6 VA
5727475302	2.1 W	-	-	-

Part No.	Switch-on power	Compatibility index	Throttle	Valve plug connector
	AC 60 Hz			
5727470220	-	13 14	with throttle	Without valve plug connector
5727475280	5.5 VA	14	with throttle	Without valve plug connector
5727475302	-	14	with throttle	-

Part No.	basic valve with electrical connector	Reverse polarity protection
5727470220	-	Protected against polarity reversal
5727475280	-	Protected against polarity reversal
5727475302	Basic valve without coil	-

Part No.	ATEX	Weight
5727470220	-	0.33 kg
5727475280	-	0.325 kg
5727475302	ATEX optional	0.236 kg

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).

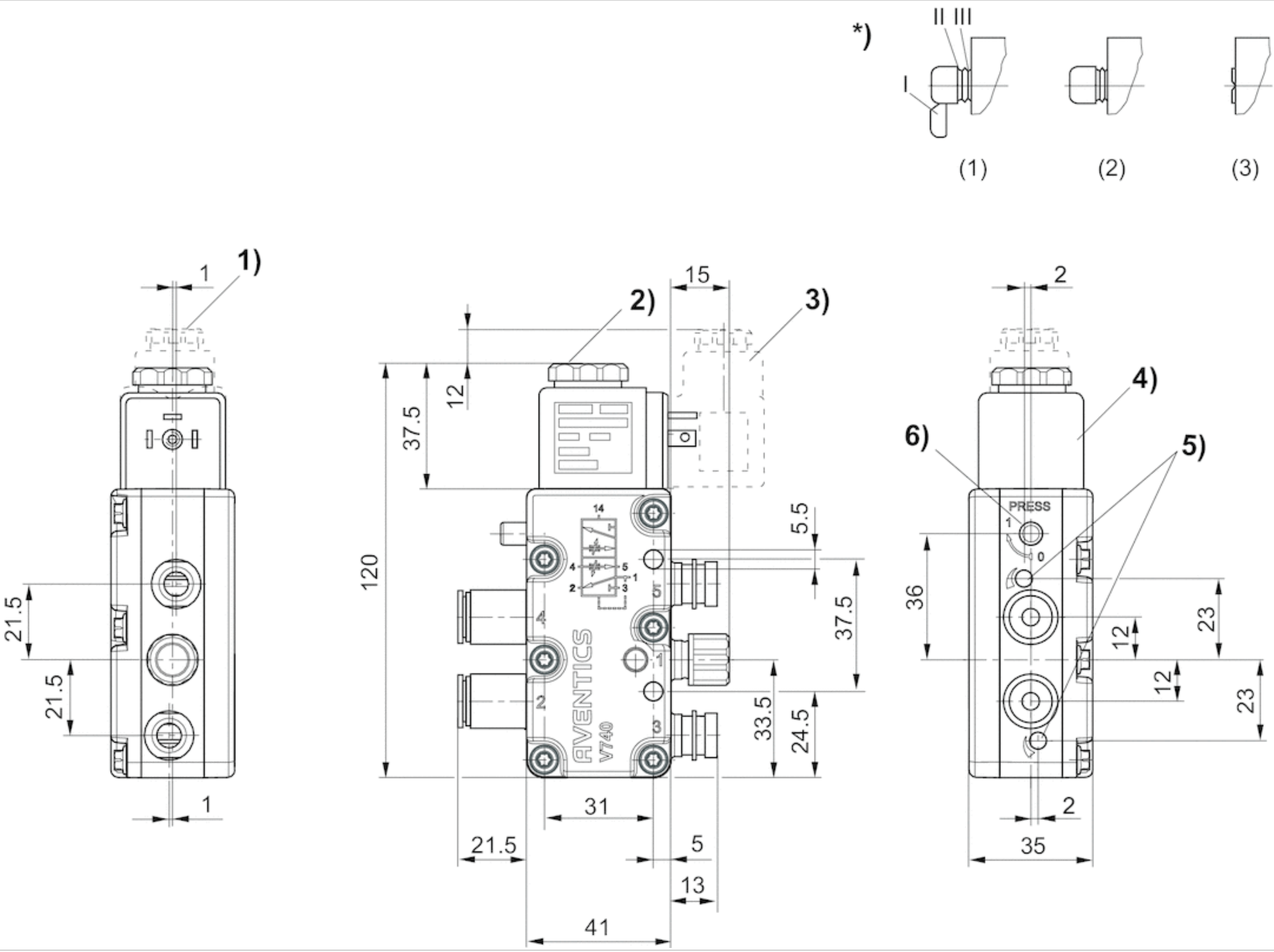
ATEX optional: ATEX version can be produced by combining the basic valve without coil with an ATEX coil. ATEX ID: see ATEX coils catalog page.

Technical information

Material	
Housing	Polyoxymethylene Polyarylamide
Seals	Acrylonitrile butadiene rubber

Dimensions

Dimensions



1) Gland fitting M16x1.52) M5 internal thread accessible under cap3) Valve plug connector can be rotated at 90° intervals4) Coil can be plugged at 45° intervals5) Flow control screw for exhausts 5 (R) and 3 (S)6) Manual override and position indicator*): Manual override:Manual actuation: (1) with detent - push and turn into position 1 (2) without detent - remove segment I - push onlyActuation with tool: (3) with detent - remove segments up to II - push with tool and turn into position 1

5/2-directional valve, Series 740

5727475302

General series information
Series 740

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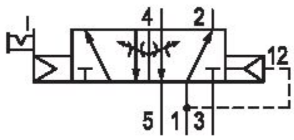


Technical data

Industry
Industrial

Activation
Electrically

Nominal flow Qn
1100 l/min

Switching principle
5/2

Compressed air connection output
Ø 10x1

Working pressure min.
1.5 bar

Working pressure max
10 bar

Manual override
with detent

Sealing principle
Soft Seal

Pilot
Internal

ATEX
ATEX optional

Valve type
Diaphragm poppet valve

basic valve with electrical connector
Basic valve without coil

Throttle
with throttle

Connection type
Pipe connection

Return
with air spring return

Blocking principle
Plate principle
Single base plate principle

Can be assembled into blocks
Can be assembled into blocks

Temperature resistance
-25 °C cold-resistant

Min. ambient temperature
-25 °C

Max. ambient temperature
50 °C

Min. medium temperature
-25 °C

Max. medium temperature
50 °C

Medium
Compressed air

Max. particle size
50 µm

Oil content of compressed air min.
0 mg/m³

Oil content of compressed air max.
5 mg/m³

Compressed air connection input
Ø 10x1

Compressed air connection, exhaust
M14x1

Compatibility index
14

Duty cycle
100 %

Typ. switch-on time
17 ms

Typ. switch-off time
26 ms

Protection class with connection
IP65

Weight
0.236 kg

Housing material
Polyoxymethylene

Seal material
Acrylonitrile butadiene rubber

Material front plate
Polyamide

Part No.
5727475302

Technical information

Nominal flow Qn at 6 bar and Δp = 1 bar

Basic valve without coil

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.

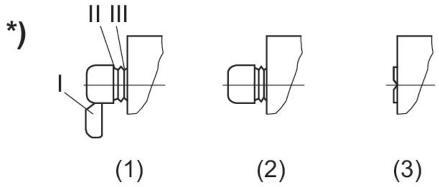
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!

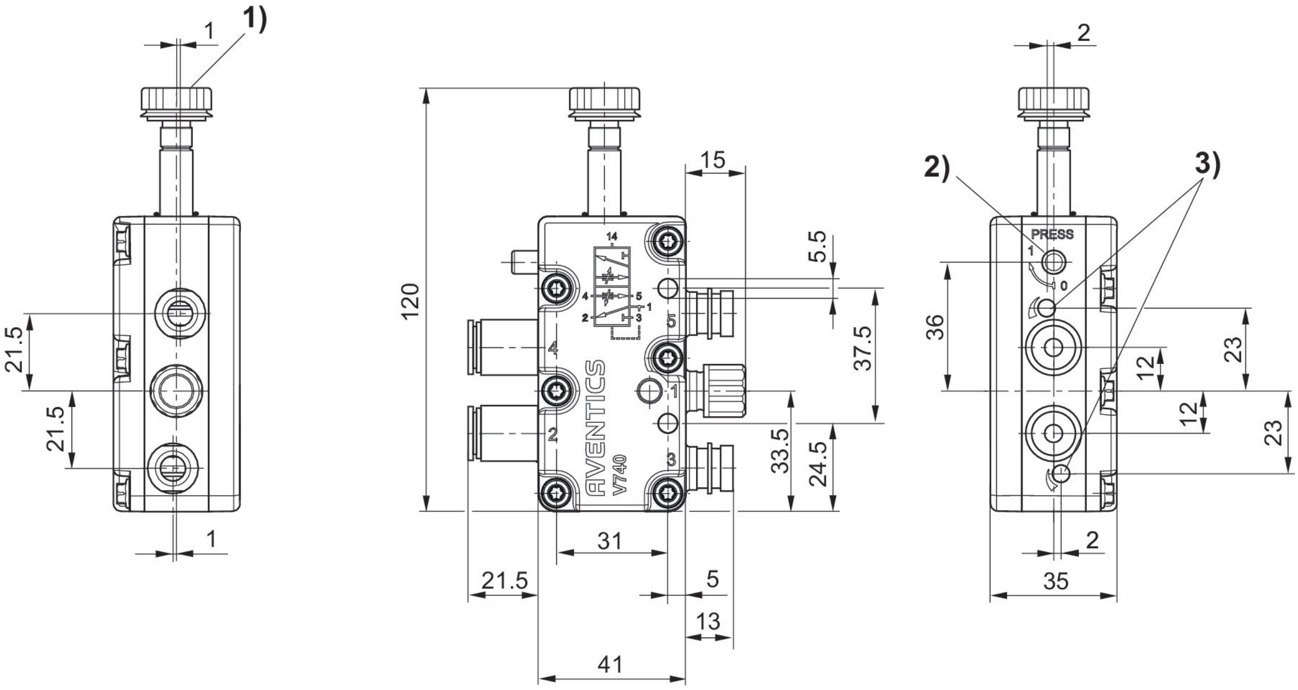
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

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 https://www.emerson.com/en-us/support).

Dimensions in mm





1) M5 internal thread accessible under cap
2) Manual override and position indicator
3) Throttle screw for exhausts 5 (R) and 3 (S) (S)
* Manual override: Manual actuation: (1) with detent - push and turn into position 1 (2) without detent - remove segment I - push only Actuation with tool: (3) with detent - remove segments up to II - push with tool and turn into position 1

5/2-directional valve, Series 740

- ATEX optional
- 5/2
- Qn = 700-950 l/min
- Pipe connection
- Compressed air connection output : Ø 8x1 Ø 10x1
- Electrical connection : Plug, EN 175301-803, form A
- Can be assembled into blocks
- Manual override : with detent
- double solenoid
- Pilot : Internal

Version	Diaphragm poppet valve
Activation	Electrically
Pilot	Internal
Sealing principle	Soft sealing
Blocking principle	Plate principle Single base plate principle
Working 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	See table below
Connector standard	EN 175301-803:2006
Protection class with connection	IP65
Reverse polarity protection	Protected against polarity reversal
Compatibility index	See table below
Duty cycle	100 %
Typ. switch-on time	40 ms
Mounting on manifold strip	PRS strip
Weight	See table below

Technical data

Part No.		MO	Compressed air connection	Compressed air connection
			Input	Output
5727410220			Ø 8x1	Ø 8x1
5727410420			Ø 8x1	Ø 8x1
5727460220			Ø 10x1	Ø 10x1
5727460420			Ø 10x1	Ø 10x1
5727415280			Ø 8x1	Ø 8x1
5727440220			Ø 8x1	Ø 8x1
5727415480			Ø 8x1	Ø 8x1
5727465280			Ø 10x1	Ø 10x1
5727465480			Ø 10x1	Ø 10x1
5727415302			Ø 8x1	Ø 8x1
5727465302			Ø 10x1	Ø 10x1

Part No.	Compressed air connection	Operational voltage	Operational voltage
	Exhaust	DC	AC 50 Hz
5727410220	M14x1	24 V	-
5727410420	M14x1	24 V	-
5727460220	M14x1	24 V	-
5727460420	M14x1	24 V	-
5727415280	M14x1	-	230 V
5727440220	M14x1	24 V	-
5727415480	M14x1	-	230 V
5727465280	M14x1	-	230 V
5727465480	M14x1	-	230 V
5727415302	M14x1	-	-
5727465302	M14x1	-	-

Part No.	Operational voltage	Voltage tolerance	Voltage tolerance	Voltage tolerance
	AC 60 Hz	DC	AC 50 Hz	AC 60 Hz
5727410220	-	-10% / +10%	-	-
5727410420	-	-10% / +10%	-	-
5727460220	-	-10% / +10%	-	-
5727460420	-	-10% / +10%	-	-
5727415280	230 V	-	-20% / +10%	-10% / +20%
5727440220	-	-10% / +10%	-	-
5727415480	230 V	-	-20% / +10%	-10% / +20%
5727465280	230 V	-	-20% / +10%	-10% / +20%
5727465480	230 V	-	-20% / +10%	-10% / +20%
5727415302	-	-	-	-
5727465302	-	-	-	-

Part No.	Power consumption	Holding power	Holding power	Switch-on power
	DC	AC 50 Hz	AC 60 Hz	AC 50 Hz
5727410220	2.1 W	-	-	-
5727410420	2.1 W	-	-	-
5727460220	2.1 W	-	-	-

Part No.	Power consumption	Holding power	Holding power	Switch-on power
	DC	AC 50 Hz	AC 60 Hz	AC 50 Hz
5727460420	2.1 W	-	-	-
5727415280	2.1 W	4.18 VA	3.3 VA	6.6 VA
5727440220	2.1 W	-	-	-
5727415480	2.1 W	4.18 VA	3.3 VA	6.6 VA
5727465280	2.1 W	4.18 VA	3.3 VA	6.6 VA
5727465480	2.1 W	4.18 VA	3.3 VA	6.6 VA
5727415302	-	-	-	-
5727465302	-	-	-	-

Part No.	Switch-on power	Nominal flow Qn	Compatibility index	Throttle
	AC 60 Hz			
5727410220	-	700 l/min	13 14	with throttle
5727410420	-	700 l/min	13 14	with throttle
5727460220	-	950 l/min	13 14	with throttle
5727460420	-	950 l/min	13 14	with throttle
5727415280	5.5 VA	700 l/min	14	with throttle
5727440220	-	700 l/min	13 14	with throttle
5727415480	5.5 VA	700 l/min	14	with throttle
5727465280	5.5 VA	950 l/min	14	with throttle
5727465480	5.5 VA	950 l/min	14	with throttle
5727415302	-	700 l/min	14	with throttle
5727465302	-	950 l/min	14	with throttle

Part No.	Valve plug connector	basic valve with electrical connector
5727410220	With valve plug connector	-
5727410420	Without valve plug connector	-
5727460220	With valve plug connector	-
5727460420	Without valve plug connector	-
5727415280	With valve plug connector	-
5727440220	With valve plug connector	-
5727415480	Without valve plug connector	-
5727465280	With valve plug connector	-
5727465480	Without valve plug connector	-
5727415302	-	Basic valve without coil
5727465302	-	Basic valve without coil

Part No.	Reverse polarity protection	ATEX	Weight	
5727410220	Protected against polarity reversal	-	0.555 kg	-
5727410420	Protected against polarity reversal	-	0.505 kg	-
5727460220	Protected against polarity reversal	-	0.555 kg	-
5727460420	Protected against polarity reversal	-	0.505 kg	-
5727415280	Protected against polarity reversal	-	0.544 kg	-
5727440220	Protected against polarity reversal	ATEX	-	1)
5727415480	Protected against polarity reversal	-	0.53 kg	-
5727465280	Protected against polarity reversal	-	0.539 kg	-
5727465480	Protected against polarity reversal	-	0.496 kg	-
5727415302	-	ATEX optional	0.319 kg	-

Part No.	Reverse polarity protection	ATEX	Weight	
5727465302	-	ATEX optional	0.316 kg	-

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

1) II 3G3D EEX nA IIB T4 IP65 T125 °C X

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).

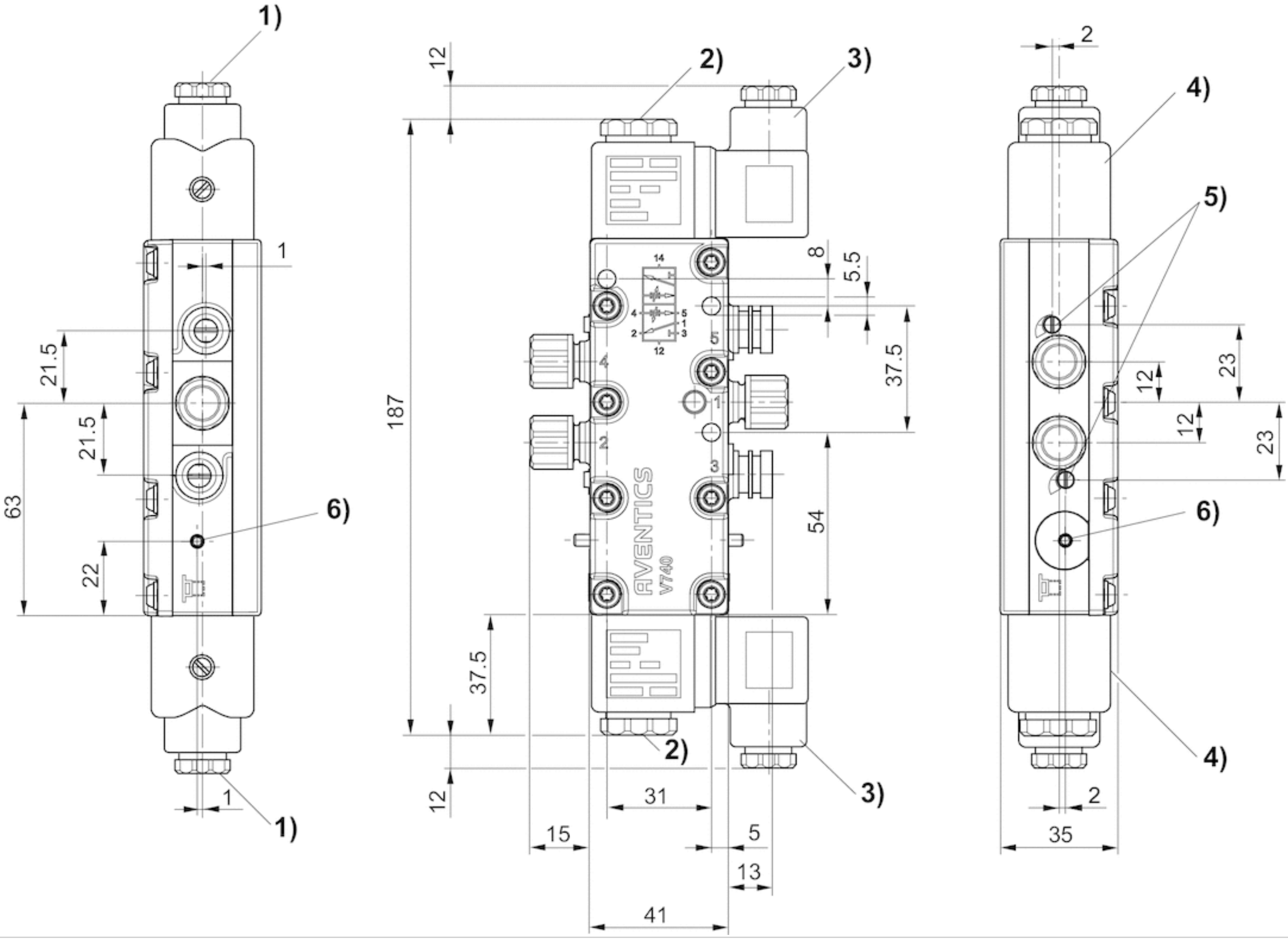
ATEX optional: ATEX version can be produced by combining the basic valve without coil with an ATEX coil. ATEX ID: see ATEX coils catalog page.

Technical information

Material	
Housing	Polyoxymethylene
Seals	Acrylonitrile butadiene rubber

Dimensions

Dimensions



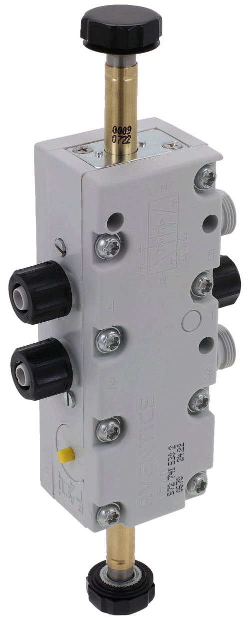
1) Gland fitting M16x1.52) M5 internal thread accessible under cap3) Valve plug connector can be rotated at 90° intervals4) Coil can be plugged at 45° intervals5) Flow control screw for exhausts 5 (R) and 3 (S)6) Manual override and position indicator

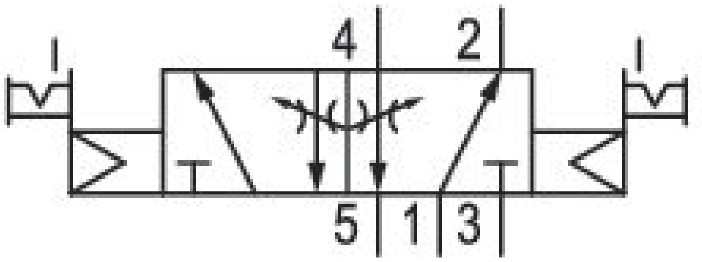
5/2-directional valve, Series 740

5727415302

General series information
Series 740

- The AVENTICS Series 740/840 feature directional valves with soft, abrasion-free diaphragm technology. The simple, reliable and robust design is suitable for all air qualities and ensures high repeatability and unsurpassed service life. Due to its high resilience, the corrosion-resistant polyamide housing is also suited for dusty and damp environments.





Technical data

Industry
Industrial

Activation
Electrically

Nominal flow Qn
700 l/min

Switching principle
5/2

Compressed air connection output
Ø 8x1

Working pressure min.
1.5 bar

Working pressure max
10 bar

Manual override
with detent

Actuating control
Double Solenoid

Sealing principle
Soft Seal

Pilot
Internal

ATEX
ATEX optional

EMERSON

Valve type
Diaphragm poppet valve

basic valve with electrical connector
Basic valve without coil

Throttle
with throttle

Connection type
Pipe connection

Blocking principle
Plate principle
Single base plate principle

Can be assembled into blocks
Can be assembled into blocks

Min. ambient temperature
-15 °C

Max. ambient temperature
50 °C

Min. medium temperature
-15 °C

Max. medium temperature
50 °C

Medium
Compressed air

Max. particle size
50 µm

Oil content of compressed air min.
0 mg/m³

Oil content of compressed air max.
5 mg/m³

Compressed air connection input
Ø 8x1

Compressed air connection, exhaust
M14x1

Compatibility index
14

Duty cycle
100 %

Typ. switch-on time
40 ms

Protection class with connection
IP65

Weight
0.319 kg

Housing material
Polyoxymethylene

Seal material
Acrylonitrile butadiene rubber

Material front plate
Polyoxymethylene

Part No.
5727415302

Technical information

Nominal flow Qn at 6 bar and Δp = 1 bar

Basic valve without coil

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.

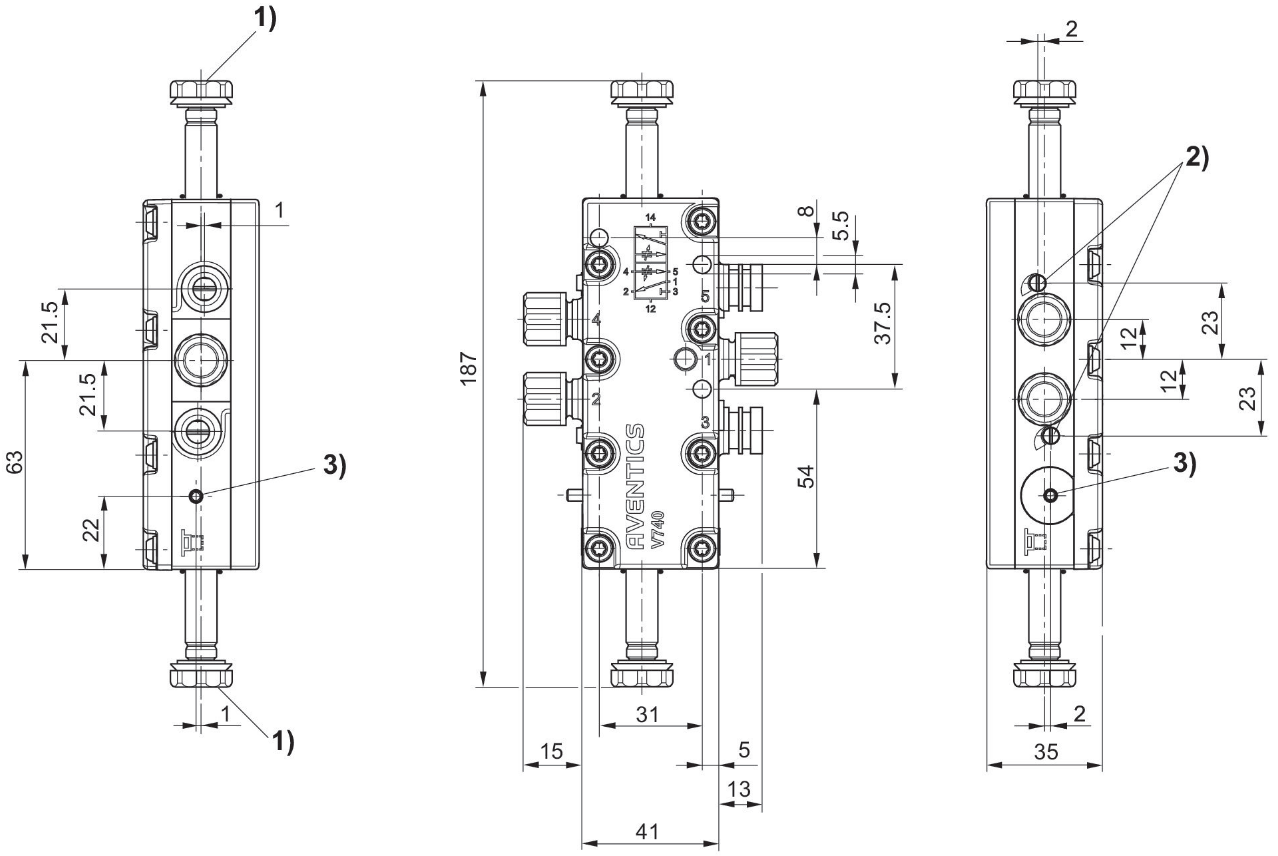
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!

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 https://www.emerson.com/en-us/support).

Dimensions in mm



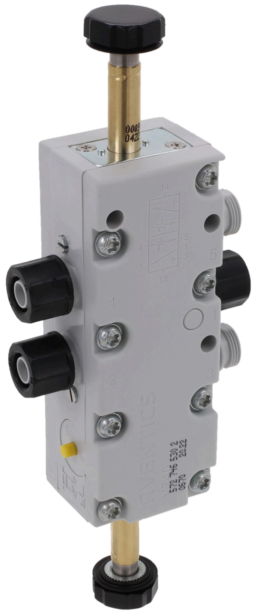
1) M5 internal thread accessible under cap
2) Throttle screw for exhausts 5 (R) and 3 (S) (S)
3) Manual override and position indicator

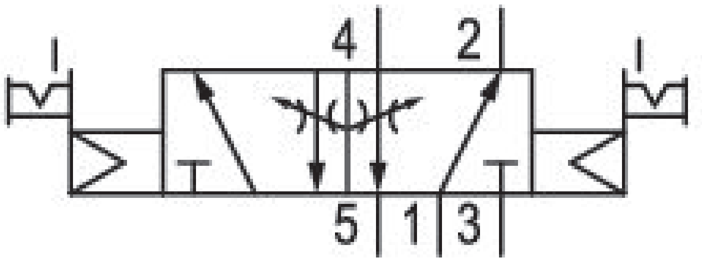
5/2-directional valve, Series 740

5727465302

General series information
Series 740

- The AVENTICS Series 740/840 feature directional valves with soft, abrasion-free diaphragm technology. The simple, reliable and robust design is suitable for all air qualities and ensures high repeatability and unsurpassed service life. Due to its high resilience, the corrosion-resistant polyamide housing is also suited for dusty and damp environments.





Technical data

Industry
Industrial

Activation
Electrically

Nominal flow Qn
950 l/min

Switching principle
5/2

Compressed air connection output
Ø 10x1

Working pressure min.
1.5 bar

Working pressure max
10 bar

Manual override
with detent

Actuating control
Double Solenoid

Sealing principle
Soft Seal

Pilot
Internal

ATEX
ATEX optional

Valve type
Diaphragm poppet valve

basic valve with electrical connector
Basic valve without coil

Throttle
with throttle

Connection type
Pipe connection

Blocking principle
Plate principle
Single base plate principle

Can be assembled into blocks
Can be assembled into blocks

Min. ambient temperature
-15 °C

Max. ambient temperature
50 °C

Min. medium temperature
-15 °C

Max. medium temperature
50 °C

Medium
Compressed air

Max. particle size
50 µm

Oil content of compressed air min.
0 mg/m³

Oil content of compressed air max.
5 mg/m³

Compressed air connection input
Ø 10x1

Compressed air connection, exhaust
M14x1

Compatibility index
14

Duty cycle
100 %

Typ. switch-on time
40 ms

Protection class with connection
IP65

Weight
0.316 kg

Housing material
Polyoxymethylene

Seal material
Acrylonitrile butadiene rubber

Material front plate
Polyamide

Part No.
5727465302

Technical information

Nominal flow Qn at 6 bar and Δp = 1 bar

Basic valve without coil

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.

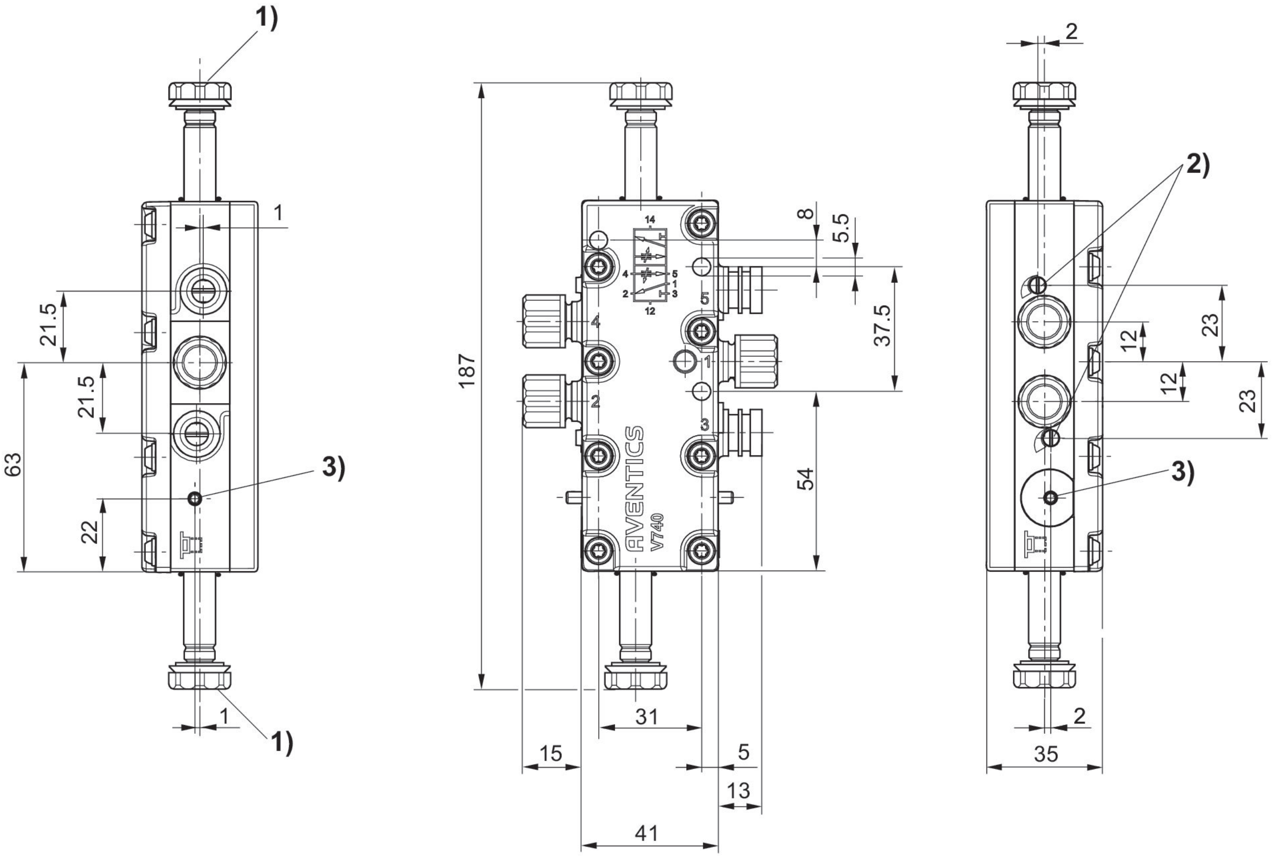
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!

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 https://www.emerson.com/en-us/support).

Dimensions in mm



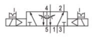
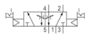
1) M5 internal thread accessible under cap
2) Throttle screw for exhausts 5 (R) and 3 (S) (S)
3) Manual override and position indicator

5/2-directional valve, Series 740

- ATEX optional
- 5/2
- Qn = 1100 l/min
- Pipe connection
- Compressed air connection output : Ø 10x1
- Electrical connection : Plug, EN 175301-803, form A
- Can be assembled into blocks
- Manual override : with detent
- double solenoid
- Pilot : Internal

Version	Diaphragm poppet valve
Activation	Electrically
Pilot	Internal
Sealing principle	Soft sealing
Blocking principle	Plate principle Single base plate principle
Working 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	1100 l/min
Connector standard	EN 175301-803:2006
Protection class with connection	IP65
Reverse polarity protection	Protected against polarity reversal
Compatibility index	See table below
Duty cycle	100 %
Typ. switch-on time	40 ms
Mounting on manifold strip	PRS strip
Weight	See table below

Technical data

Part No.		MO	Compressed air connection	Compressed air connection
			Input	Output
5727480220			Ø 10x1	Ø 10x1
5727485280			Ø 10x1	Ø 10x1
5727485302			Ø 10x1	Ø 10x1

Part No.	Compressed air connection	Operational voltage	Operational voltage
	Exhaust	DC	AC 50 Hz
5727480220	M14x1	24 V	-
5727485280	M14x1	-	230 V
5727485302	M14x1	-	-

Part No.	Operational voltage	Voltage tolerance	Voltage tolerance	Voltage tolerance
	AC 60 Hz	DC	AC 50 Hz	AC 60 Hz
5727480220	-	-10% / +10%	-	-
5727485280	230 V	-	-20% / +10%	-10% / +20%
5727485302	-	-	-	-

Part No.	Power consumption	Holding power	Holding power	Switch-on power
	DC	AC 50 Hz	AC 60 Hz	AC 50 Hz
5727480220	2.1 W	-	-	-
5727485280	2.1 W	4.18 VA	3.3 VA	6.6 VA
5727485302	2.1 W	-	-	-

Part No.	Switch-on power	Compatibility index	Throttle	Valve plug connector
	AC 60 Hz			
5727480220	-	13 14	with throttle	Without valve plug connector
5727485280	5.5 VA	14	with throttle	Without valve plug connector
5727485302	-	14	with throttle	-

Part No.	basic valve with electrical connector	Reverse polarity protection
5727480220	-	Protected against polarity reversal
5727485280	-	Protected against polarity reversal
5727485302	Basic valve without coil	-

Part No.	ATEX	Weight
5727480220	-	0.514 kg
5727485280	-	0.52 kg
5727485302	ATEX optional	0.327 kg

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).

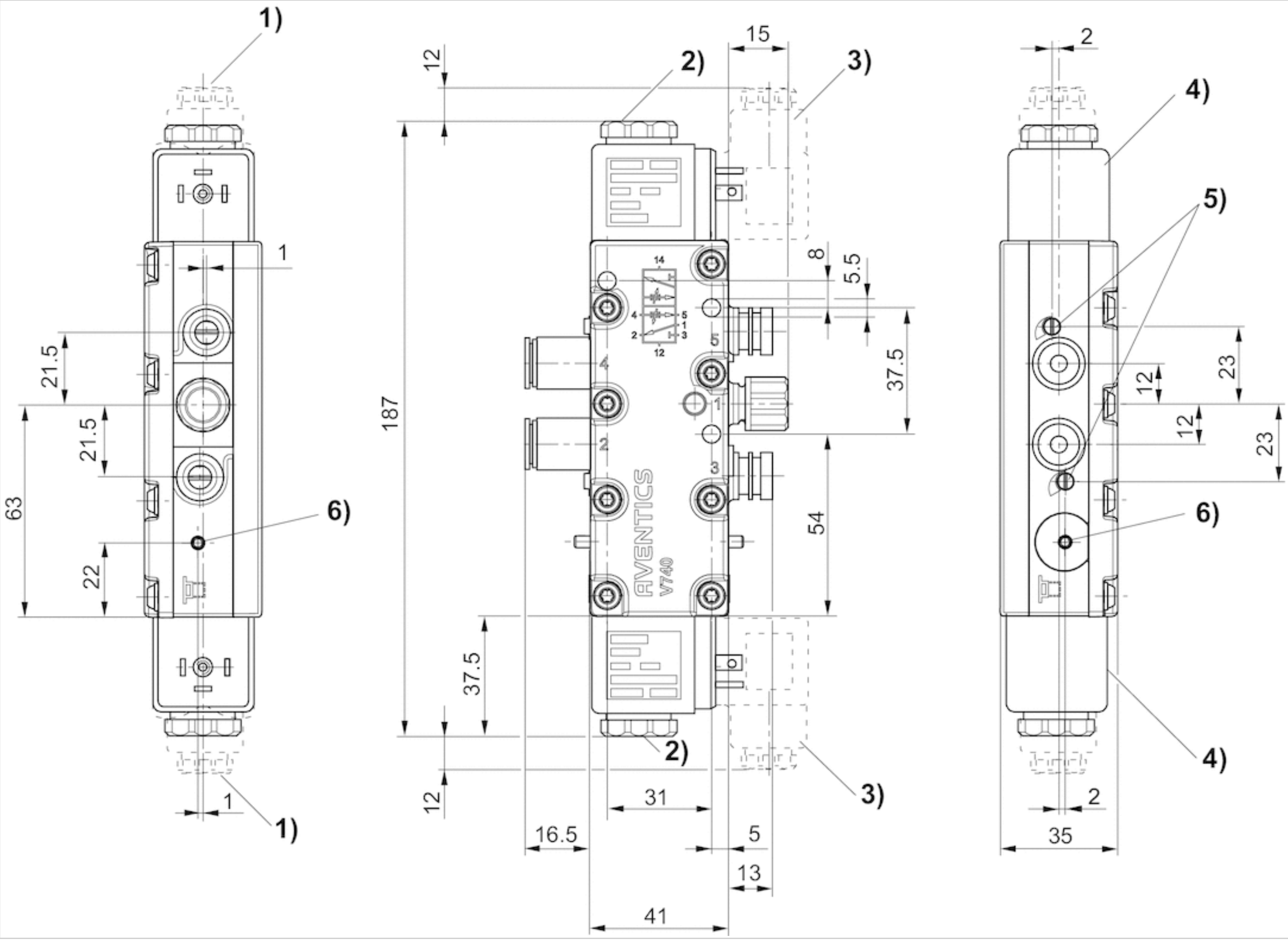
ATEX optional: ATEX version can be produced by combining the basic valve without coil with an ATEX coil. ATEX ID: see ATEX coils catalog page.

Technical information

Material	
Housing	Polyoxymethylene
Seals	Acrylonitrile butadiene rubber

Dimensions

Dimensions



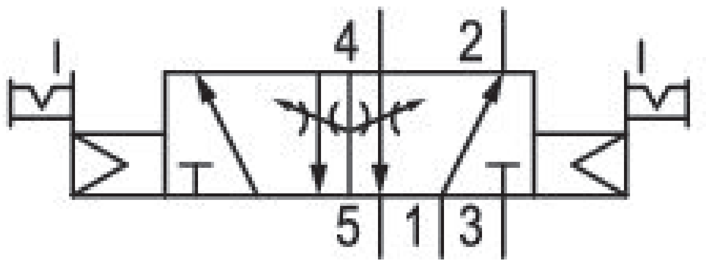
1) Gland fitting M16x1.52) M5 internal thread accessible under cap3) Valve plug connector can be rotated at 90° intervals4) Coil can be plugged at 45° intervals5) Flow control screw for exhausts 5 (R) and 3 (S)6) Manual override and position indicator

5/2-directional valve, Series 740

5727485302

General series information
Series 740

- The AVENTICS Series 740/840 feature directional valves with soft, abrasion-free diaphragm technology. The simple, reliable and robust design is suitable for all air qualities and ensures high repeatability and unsurpassed service life. Due to its high resilience, the corrosion-resistant polyamide housing is also suited for dusty and damp environments.



Technical data

Industry
Industrial

Activation
Electrically

Nominal flow Qn
1100 l/min

Switching principle
5/2

Compressed air connection output
Ø 10x1

Working pressure min.
1.5 bar

Working pressure max
10 bar

Manual override
with detent

Actuating control
Double Solenoid

Sealing principle
Soft Seal

Pilot
Internal

ATEX
ATEX optional

Valve type
Diaphragm poppet valve

basic valve with electrical connector
Basic valve without coil

Throttle
with throttle

Connection type
Pipe connection

Blocking principle
Plate principle
Single base plate principle

Can be assembled into blocks
Can be assembled into blocks

Min. ambient temperature
-15 °C

Max. ambient temperature
50 °C

Min. medium temperature
-15 °C

Max. medium temperature
50 °C

Medium
Compressed air

Max. particle size
50 µm

Oil content of compressed air min.
0 mg/m³

Oil content of compressed air max.
5 mg/m³

Compressed air connection input
Ø 10x1

Compressed air connection, exhaust
M14x1

Compatibility index
14

Duty cycle
100 %

Typ. switch-on time
40 ms

Protection class with connection
IP65

Weight
0.327 kg

Housing material
Polyoxymethylene

Seal material
Acrylonitrile butadiene rubber

Material front plate
Polyoxymethylene

Part No.
5727485302

Technical information

Nominal flow Qn at 6 bar and Δp = 1 bar

Basic valve without coil

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.

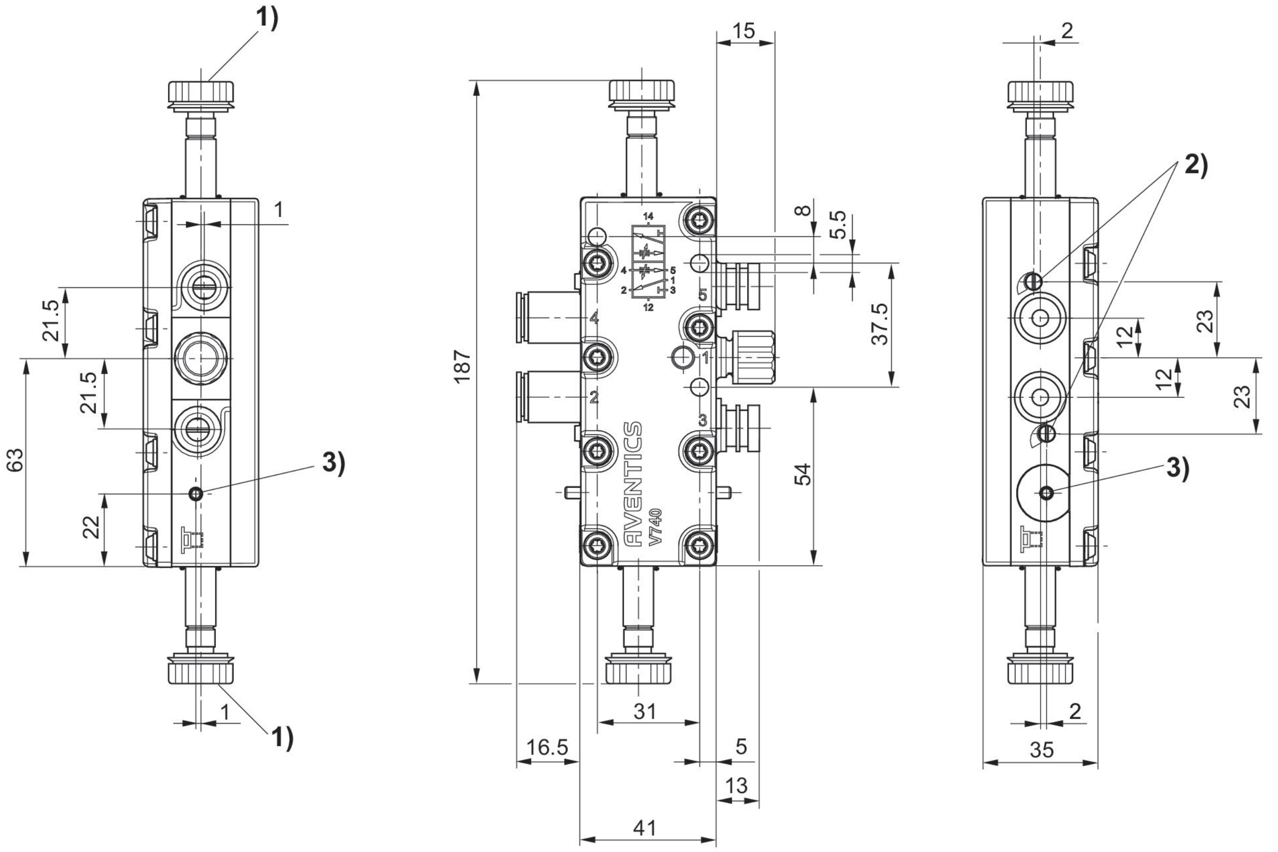
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!

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 https://www.emerson.com/en-us/support).

Dimensions in mm



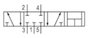
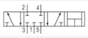
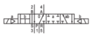
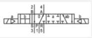
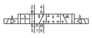
1) M5 internal thread accessible under cap
2) Throttle screw for exhausts 5 (R) and 3 (S) (S)
3) Manual override and position indicator

5/4-directional valve, Series 740

- ATEX optional
- 5/4
- Qn = 700-950 l/min
- closed center
- Pipe connection
- Compressed air connection output : Ø 8x1 Ø 10x1
- Electrical connection : Plug, EN 175301-803, form A
- Can be assembled into blocks
- Manual override : without detent
- Pilot : Internal

Version	Diaphragm poppet valve
Activation	Electrically
Pilot	Internal
Sealing principle	Soft sealing
Blocking principle	Plate principle Single base plate principle
Working 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	See table below
Connector standard	EN 175301-803:2006
Protection class with connection	IP65
Reverse polarity protection	Protected against polarity reversal
Compatibility index	See table below
Duty cycle	100 %
Typ. switch-on time	20 ms
Typ. switch-off time	54 ms
Mounting on manifold strip	PRS strip
Weight	See table below

Technical data

Part No.		MO		Compressed air connection
				Input
5727500220			closed center	Ø 8x1
5727550220			closed center	Ø 10x1
5727505280			closed center	Ø 8x1
5727555280			closed center	Ø 10x1
5727505302			closed center	Ø 8x1
5727555302			closed center	Ø 10x1
5727510220			-	Ø 8x1
5727515280			-	Ø 8x1
5727560920			-	Ø 10x1
5727515302			-	Ø 8x1
5727565280			-	Ø 10x1
5727565302			-	Ø 10x1

Part No.	Compressed air connection	Compressed air connection
	Output	Exhaust
5727500220	Ø 8x1	M14x1
5727550220	Ø 10x1	M14x1
5727505280	Ø 8x1	M14x1
5727555280	Ø 10x1	M14x1
5727505302	Ø 8x1	M14x1
5727555302	Ø 10x1	M14x1
5727510220	Ø 8x1	M14x1
5727515280	Ø 8x1	M14x1
5727560920	Ø 10x1	M14x1
5727515302	Ø 8x1	M14x1
5727565280	Ø 10x1	M14x1
5727565302	Ø 10x1	M14x1

Part No.	Operational voltage	Operational voltage	Operational voltage
	DC	AC 50 Hz	AC 60 Hz
5727500220	24 V	-	-
5727550220	24 V	-	-
5727505280	-	230 V	230 V
5727555280	-	230 V	230 V
5727505302	-	-	-
5727555302	-	-	-
5727510220	24 V	-	-
5727515280	-	230 V	230 V
5727560920	24 V	-	-
5727515302	-	-	-
5727565280	-	230 V	230 V
5727565302	-	-	-

Part No.	Voltage tolerance	Voltage tolerance	Voltage tolerance	Power consumption
	DC	AC 50 Hz	AC 60 Hz	DC
5727500220	-10% / +10%	-	-	2.1 W

Part No.	Voltage tolerance	Voltage tolerance	Voltage tolerance	Power consumption
	DC	AC 50 Hz	AC 60 Hz	DC
5727550220	-10% / +10%	-	-	2.1 W
5727505280	-	-20% / +10%	-10% / +20%	-
5727555280	-	-20% / +10%	-10% / +20%	-
5727505302	-	-	-	-
5727555302	-	-	-	-
5727510220	-10% / +10%	-	-	2.1 W
5727515280	-	-20% / +10%	-10% / +20%	-
5727560920	-10% / +10%	-	-	2.1 W
5727515302	-	-	-	-
5727565280	-	-20% / +10%	-10% / +20%	-
5727565302	-	-	-	-

Part No.	Holding power	Holding power	Switch-on power	Switch-on power	Nominal flow Qn
	AC 50 Hz	AC 60 Hz	AC 50 Hz	AC 60 Hz	
5727500220	-	-	-	-	700 l/min
5727550220	-	-	-	-	950 l/min
5727505280	4.18 VA	3.3 VA	6.6 VA	5.5 VA	700 l/min
5727555280	4.18 VA	3.3 VA	6.6 VA	5.5 VA	950 l/min
5727505302	-	-	-	-	700 l/min
5727555302	-	-	-	-	950 l/min
5727510220	-	-	-	-	700 l/min
5727515280	-	-	-	-	700 l/min
5727560920	-	-	-	-	950 l/min
5727515302	-	-	-	-	700 l/min
5727565280	-	-	-	-	950 l/min
5727565302	-	-	-	-	950 l/min

Part No.	Compatibility index	Valve plug connector	basic valve with electrical connector
5727500220	13 14	With valve plug connector	-
5727550220	13 14	With valve plug connector	-
5727505280	14	With valve plug connector	-
5727555280	14	With valve plug connector	-
5727505302	14	-	Basic valve without coil
5727555302	14	-	Basic valve without coil
5727510220	13 14	With valve plug connector	-
5727515280	14	With valve plug connector	-
5727560920	14	Without valve plug connector	-
5727515302	14	-	Basic valve without coil
5727565280	14	With valve plug connector	-
5727565302	14	-	Basic valve without coil

Part No.	Reverse polarity protection	ATEX	Weight	Fig.
5727500220	Protected against polarity reversal	-	0.551 kg	Fig. 1
5727550220	Protected against polarity reversal	-	0.547 kg	Fig. 1
5727505280	Protected against polarity reversal	-	0.541 kg	Fig. 1
5727555280	Protected against polarity reversal	-	0.539 kg	Fig. 1
5727505302	-	ATEX optional	0.318 kg	Fig. 1

Part No.	Reverse polarity protection	ATEX	Weight	Fig.
5727555302	-	ATEX optional	0.317 kg	Fig. 1
5727510220	Protected against polarity reversal	-	0.547 kg	Fig. 1
5727515280	Protected against polarity reversal	-	0.539 kg	Fig. 1
5727560920	Protected against polarity reversal	-	0.551 kg	Fig. 2
5727515302	-	ATEX optional	0.317 kg	Fig. 1
5727565280	Protected against polarity reversal	-	0.541 kg	Fig. 1
5727565302	-	ATEX optional	0.318 kg	Fig. 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).

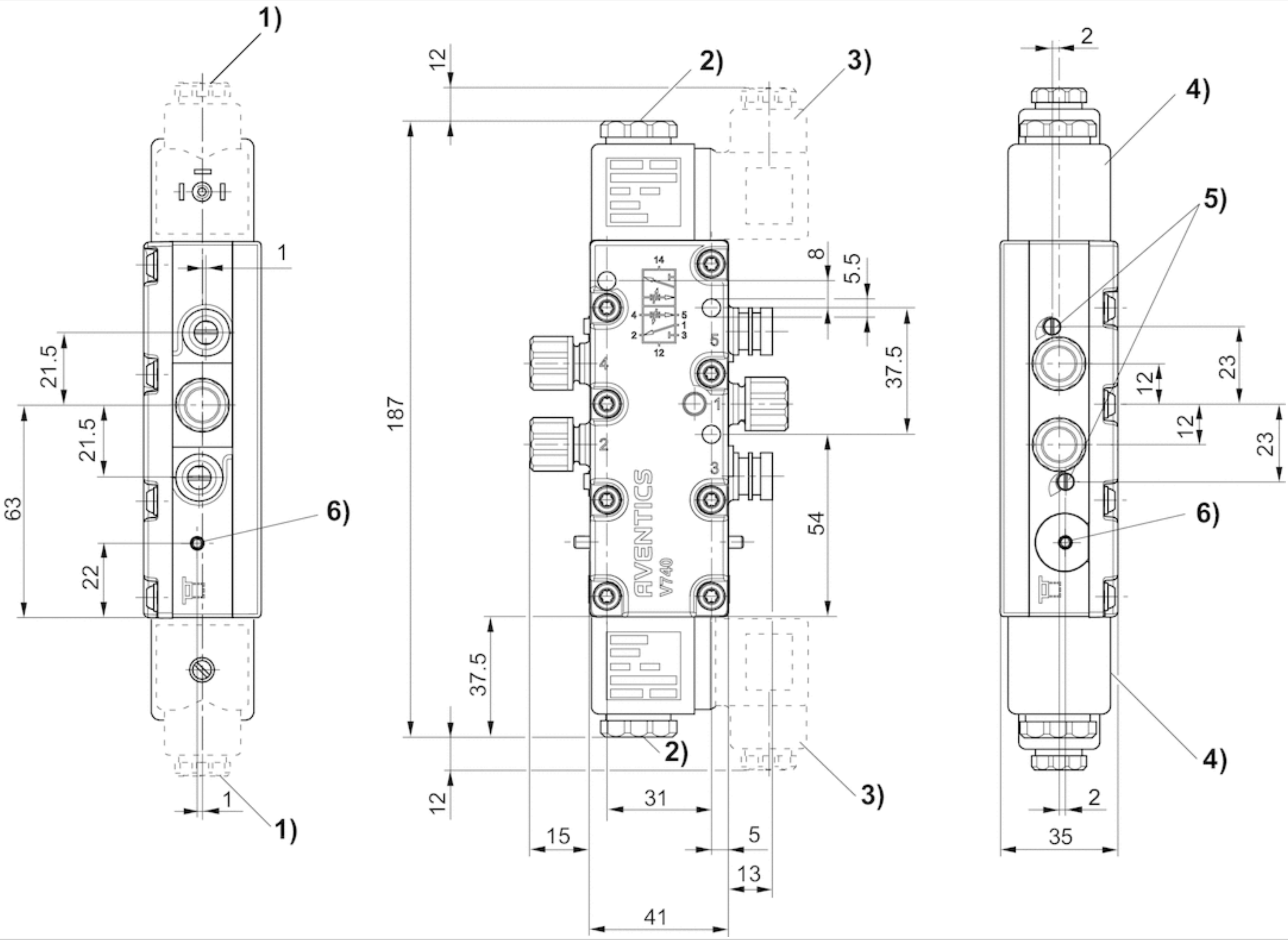
ATEX optional: ATEX version can be produced by combining the basic valve without coil with an ATEX coil. ATEX ID: see ATEX coils catalog page.
NOTE:
In order to ensure the operating function of the valve, do not fall below the minimum operating pressure of 3 bar !

Technical information

Material	
Housing	Polyoxymethylene
Seals	Acrylonitrile butadiene rubber

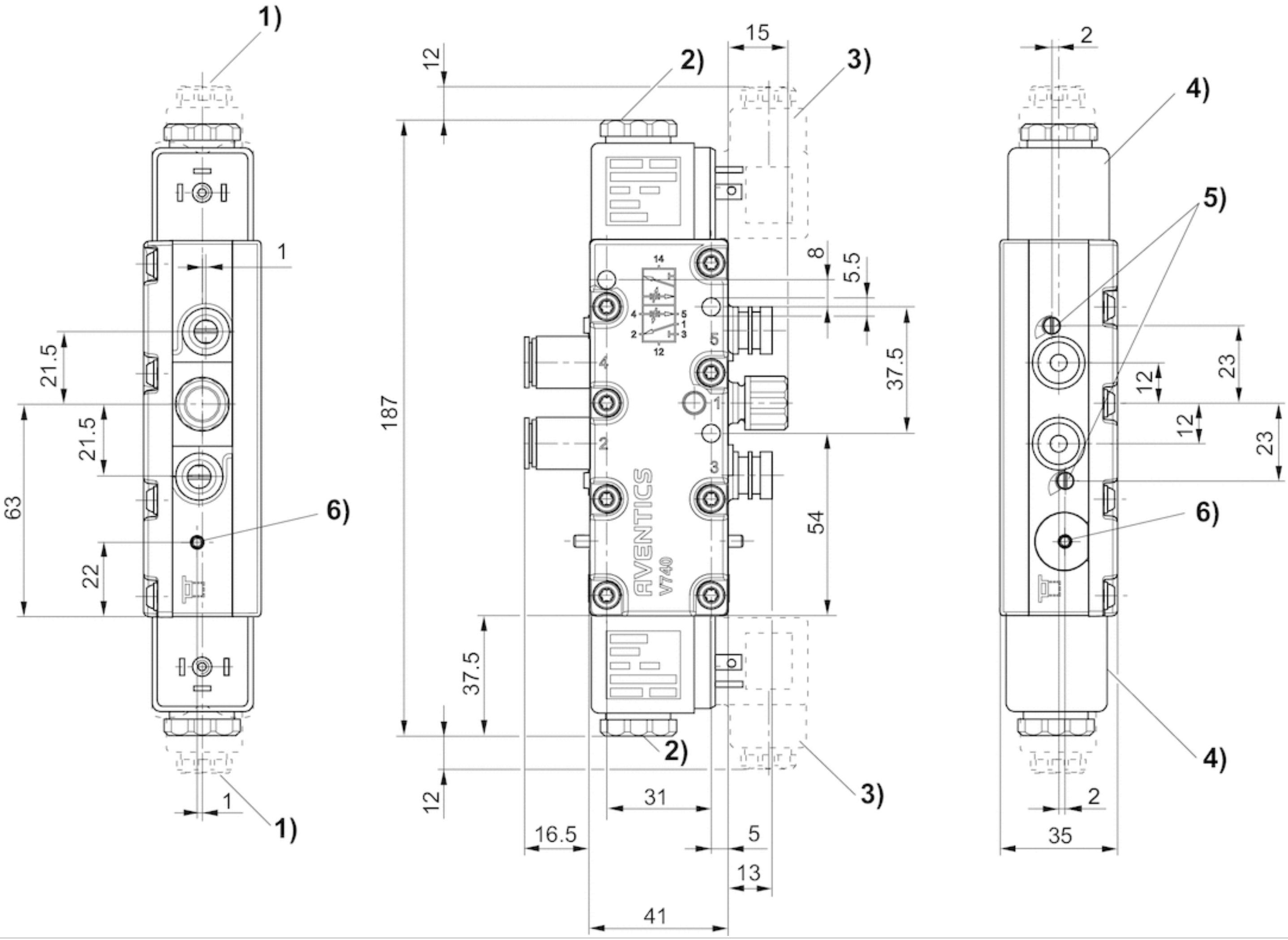
Dimensions

Dimensions, Fig. 1



1) gland fitting M16x1,5
2) M5 internal thread accessible under cap
3) el. connector can be fixed at 90° intervals
4) coil can be mounted at 45° intervals
5) throttle screw for exhausts 5 (R) and 3 (S)
6) manual override and position indicator

Dimensions, Fig. 2

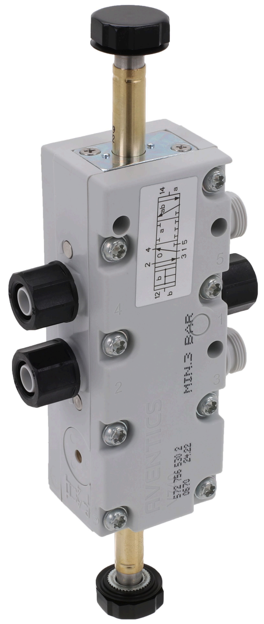


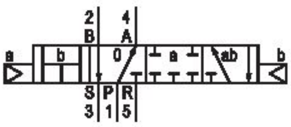
1) Gland fitting M16x1.52) M5 internal thread accessible under cap3) Valve plug connector can be rotated at 90° intervals4) Coil can be plugged at 45° intervals5) Flow control screw for exhausts 5 (R) and 3 (S)6) Manual override and position indicator

5/4-directional valve, Series 740
5727565302

General series information
Series 740

- The AVENTICS Series 740/840 feature directional valves with soft, abrasion-free diaphragm technology. The simple, reliable and robust design is suitable for all air qualities and ensures high repeatability and unsurpassed service life. Due to its high resilience, the corrosion-resistant polyamide housing is also suited for dusty and damp environments.





Technical data

Industry
Industrial

Activation
Electrically

Nominal flow Qn
950 l/min

Switching principle
5/4

Compressed air connection output
Ø 10x1

Working pressure min.
3 bar

Working pressure max
10 bar

Manual override
without detent

Sealing principle
Soft Seal

Pilot
Internal

ATEX
ATEX optional

Valve type
Diaphragm poppet valve

basic valve with electrical connector
Basic valve without coil

Connection type
Pipe connection

Blocking principle
Plate principle
Single base plate principle

Can be assembled into blocks
Can be assembled into blocks

Min. ambient temperature
-15 °C

Max. ambient temperature
50 °C

Min. medium temperature
-15 °C

Max. medium temperature
50 °C

Medium
Compressed air

Max. particle size
50 µm

Oil content of compressed air min.
0 mg/m³

Oil content of compressed air max.
5 mg/m³

Compressed air connection input
Ø 10x1

Compressed air connection, exhaust
M14x1

Compatibility index
14

Duty cycle
100 %

Typ. switch-on time
20 ms

Typ. switch-off time
54 ms

Protection class with connection
IP65

Weight
0.318 kg

Housing material
Polyoxymethylene

Seal material
Acrylonitrile butadiene rubber

Material front plate
Polyoxymethylene

Part No.
5727565302

Technical information

Nominal flow Qn at 6 bar and Δp = 1 bar

Basic valve without coil

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.

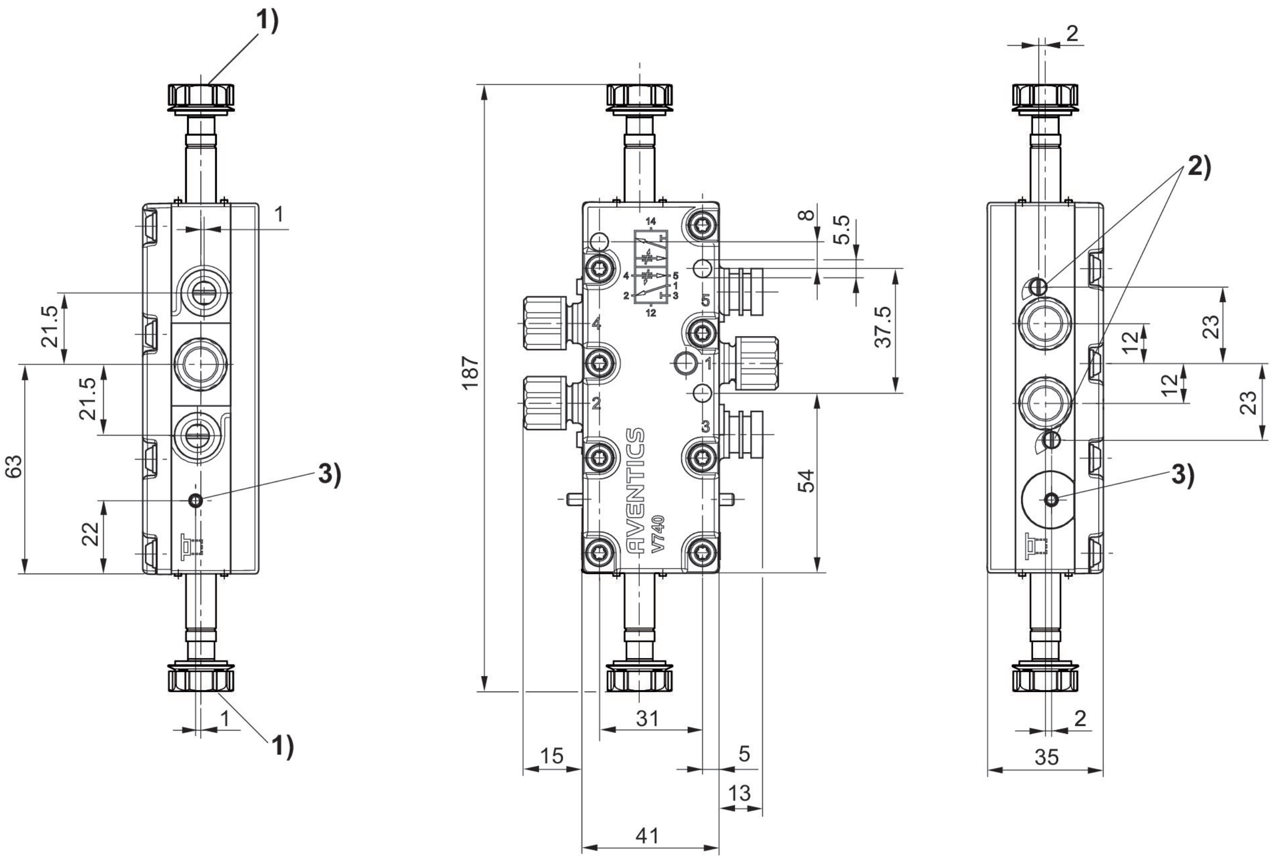
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!

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 https://www.emerson.com/en-us/support).

Dimensions in mm



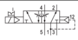
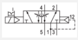
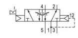
1) M5 internal thread accessible under cap
2) Throttle screw for exhausts 5 (R) and 3 (S) (S)
3) Manual override and position indicator

5/2-directional valve, Series 740-CP

- ATEX optional
- 5/2
- Qn = 950 l/min
- Pipe connection
- Compressed air connection output : Ø 10x1
- Electrical connection : Plug, EN 175301-803, form A
- -25 °C cold-resistant
- corrosion-protected
- Can be assembled into blocks
- Manual override : with detent, without detent
- single solenoid
- With air spring return
- Pilot : Internal

Version	Diaphragm poppet valve
Activation	Electrically
Pilot	Internal
Sealing principle	Soft sealing
Blocking principle	Plate principle Single base plate principle
Working pressure min./max.	2 ... 10 bar
Ambient temperature min./max.	-25 ... 50 °C
Medium temperature min./max.	-25 ... 50 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow Qn	950 l/min
Connector standard	EN 175301-803:2006
Protection class with connection	IP65
Reverse polarity protection	Protected against polarity reversal
Compatibility index	See table below
Duty cycle	100 %
Typ. switch-on time	17 ms
Typ. switch-off time	24 ms
Mounting on manifold strip	PRS strip
Weight	See table below

Technical data

Part No.		MO	Compressed air connection	Compressed air connection
			Input	Output
5727940220			Ø 10x1	Ø 10x1
5727945280			Ø 10x1	Ø 10x1
5727945302			Ø 10x1	Ø 10x1

Part No.	Compressed air connection	Operational voltage	Operational voltage
	Exhaust	DC	AC 50 Hz
5727940220	M14x1	24 V	-
5727945280	M14x1	-	230 V
5727945302	M14x1	-	-

Part No.	Operational voltage	Voltage tolerance	Voltage tolerance	Voltage tolerance
	AC 60 Hz	DC	AC 50 Hz	AC 60 Hz
5727940220	-	-10% / +10%	-	-
5727945280	230 V	-	-20% / +10%	-10% / +20%
5727945302	-	-	-	-

Part No.	Power consumption	Holding power	Holding power	Switch-on power
	DC	AC 50 Hz	AC 60 Hz	AC 50 Hz
5727940220	2.1 W	-	-	-
5727945280	2.1 W	4.18 VA	3.3 VA	6.6 VA
5727945302	2.1 W	-	-	-

Part No.	Switch-on power	Compatibility index	Throttle	Valve plug connector
	AC 60 Hz			
5727940220	-	13 14	with throttle	Without valve plug connector
5727945280	5.5 VA	14	with throttle	Without valve plug connector
5727945302	-	14	with throttle	-

Part No.	basic valve with electrical connector	Reverse polarity protection
5727940220	-	Protected against polarity reversal
5727945280	-	Protected against polarity reversal
5727945302	Basic valve without coil	-

Part No.	ATEX	Weight
5727940220	-	0.326 kg
5727945280	-	0.328 kg
5727945302	ATEX optional	0.228 kg

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).

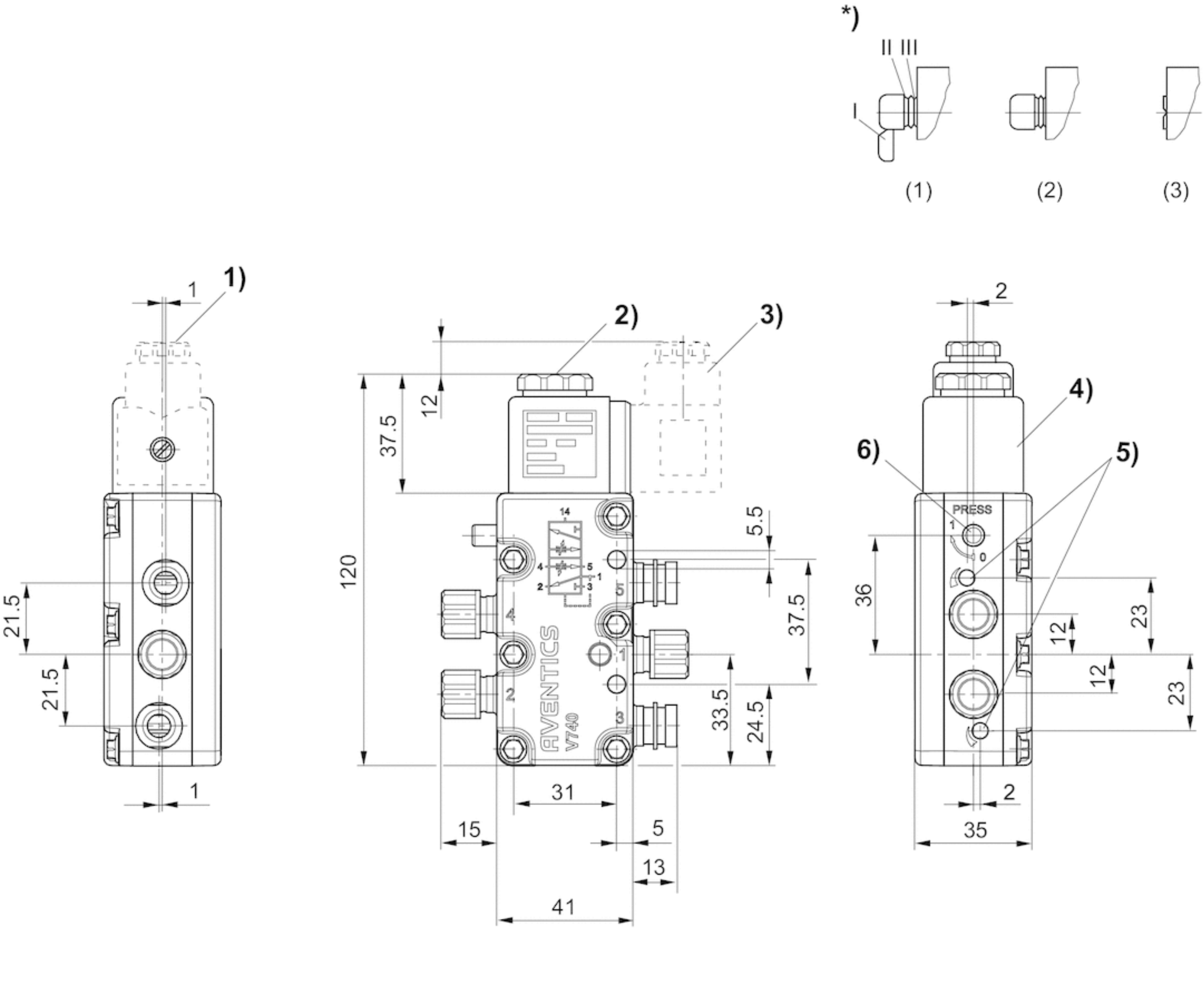
ATEX optional: ATEX version can be produced by combining the basic valve without coil with an ATEX coil. ATEX ID: see ATEX coils catalog page.

Technical information

Material	
Housing	Polyoxymethylene
Seals	Acrylonitrile butadiene rubber
Front plate	Polyarylamide

Dimensions

Dimensions

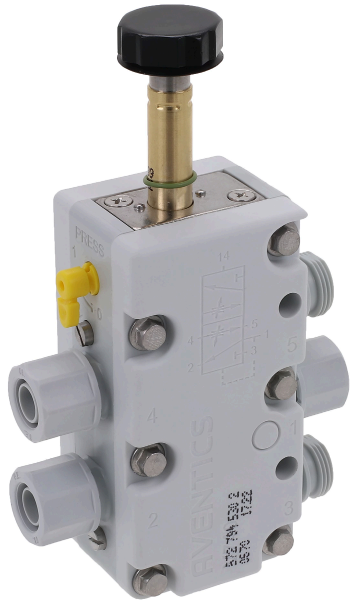


1) Gland fitting M16x1.52) M5 internal thread accessible under cap3) Valve plug connector can be rotated at 90° intervals4) Coil can be plugged at 45° intervals5) Flow control screw for exhausts 5 (R) and 3 (S)6) Manual override and position indicator*): Manual override:Manual actuation: (1) with detent - push and turn into position 1 (2) without detent - remove segment I - push onlyActuation with tool: (3) with detent - remove segments up to II - push with tool and turn into position 1

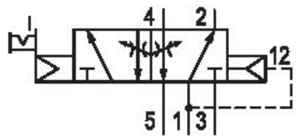
5/2-directional valve, Series 740-CP

5727945302

General series information
Series 740



- The AVENTICS Series 740/840 feature directional valves with soft, abrasion-free diaphragm technology. The simple, reliable and robust design is suitable for all air qualities and ensures high repeatability and unsurpassed service life. Due to its high resilience, the corrosion-resistant polyamide housing is also suited for dusty and damp environments.



Technical data

Industry
Industrial

Activation
Electrically

Nominal flow Qn
950 l/min

Switching principle
5/2

Compressed air connection output
Ø 10x1

Working pressure min.
2 bar

Working pressure max
10 bar

Manual override
with detent
without detent

Sealing principle
Soft Seal

Pilot
Internal

ATEX
ATEX optional

Valve type
Diaphragm poppet valve

basic valve with electrical connector
Basic valve without coil

Throttle
with throttle

Connection type
Pipe connection

EMERSON

Return
with air spring return

Blocking principle
Plate principle
Single base plate principle

Can be assembled into blocks
Can be assembled into blocks

Temperature resistance
-25 °C cold-resistant

Corrosion resistance
corrosion-protected

Min. ambient temperature
-25 °C

Max. ambient temperature
50 °C

Min. medium temperature
-25 °C

Max. medium temperature
50 °C

Medium
Compressed air

Max. particle size
50 µm

Oil content of compressed air min.
0 mg/m³

Oil content of compressed air max.
5 mg/m³

Compressed air connection input
Ø 10x1

Compressed air connection, exhaust
M14x1

Compatibility index
14

Duty cycle
100 %

Typ. switch-on time
17 ms

Typ. switch-off time
24 ms

Protection class with connection
IP65

Weight
0.228 kg

Housing material
Polyoxymethylene

Seal material
Acrylonitrile butadiene rubber

Material front plate
Polyamide

Part No.
5727945302

Technical information

Nominal flow Qn at 6 bar and Δp = 1 bar

Basic valve without coil

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.

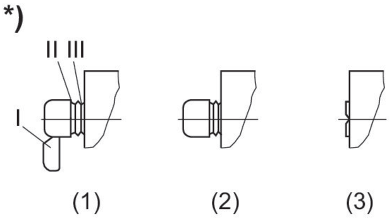
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!

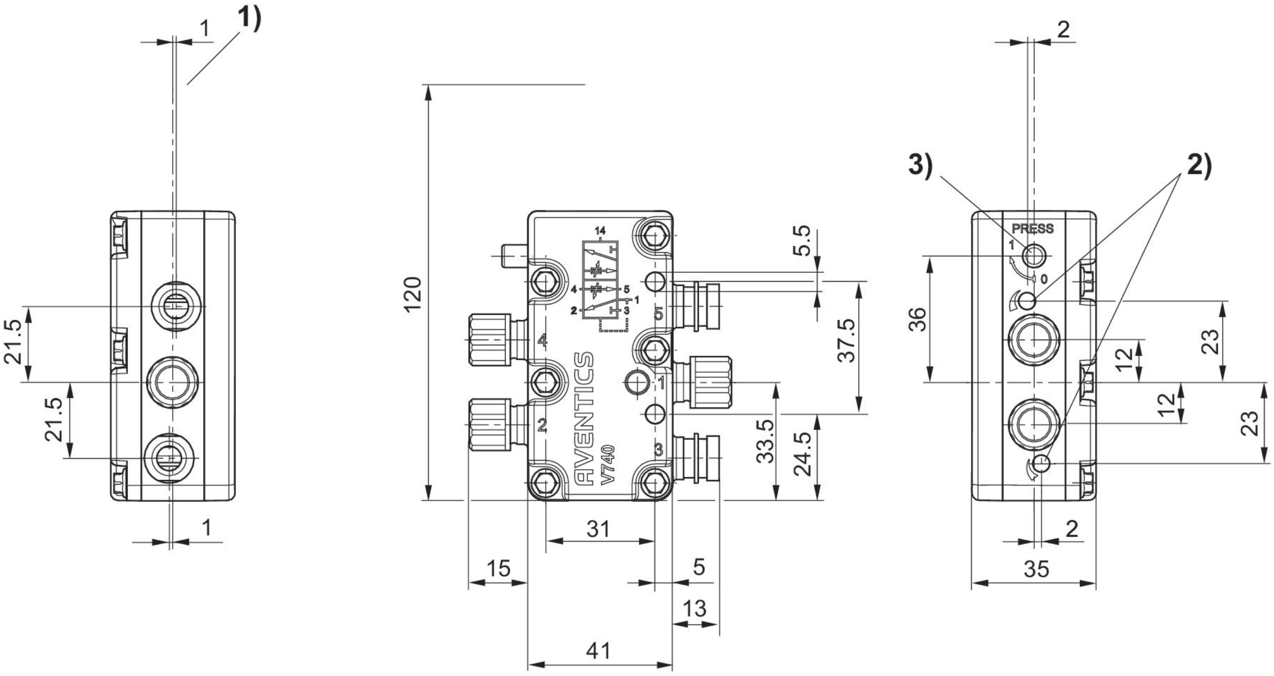
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

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 https://www.emerson.com/en-us/support).

Dimensions in mm





1) M5 internal thread accessible under cap
2) Throttle screw for exhausts 5 (R) and 3 (S) (S)
3) Manual override and position indicator
* Manual override: Manual actuation: (1) with detent - push and turn into position 1 (2) without detent - remove segment I - push only Actuation with tool: (3) with detent - remove segments up to II - push with tool and turn into position 1

5/2-directional valve, Series 740-CP

- ATEX optional
- 5/2
- Qn = 950 l/min
- Pipe connection
- Compressed air connection output : Ø 10x1
- Electrical connection : Plug, EN 175301-803, form A
- corrosion-protected
- Can be assembled into blocks
- Manual override : with detent
- double solenoid
- Pilot : Internal

Version	Diaphragm poppet valve
Activation	Electrically
Pilot	Internal
Sealing principle	Soft sealing
Blocking principle	Plate principle Single base plate principle
Working pressure min./max.	2 ... 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	950 l/min
Connector standard	EN 175301-803:2006
Protection class with connection	IP65
Reverse polarity protection	Protected against polarity reversal
Compatibility index	See table below
Duty cycle	100 %
Typ. switch-on time	40 ms
Mounting on manifold strip	PRS strip
Weight	See table below

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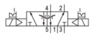
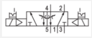
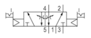
Technical data

Part No.		MO	Compressed air connection	Compressed air connection
			Input	Output
5727920220			Ø 10x1	Ø 10x1
5727925280			Ø 10x1	Ø 10x1
5727925302			Ø 10x1	Ø 10x1

Part No.	Compressed air connection	Operational voltage	Operational voltage
	Exhaust	DC	AC 50 Hz
5727920220	M14x1	24 V	-
5727925280	M14x1	-	230 V
5727925302	M14x1	-	-

Part No.	Operational voltage	Voltage tolerance	Voltage tolerance	Voltage tolerance
	AC 60 Hz	DC	AC 50 Hz	AC 60 Hz
5727920220	-	-10% / +10%	-	-
5727925280	230 V	-	-20% / +10%	-10% / +20%
5727925302	-	-	-	-

Part No.	Power consumption	Holding power	Holding power	Switch-on power
	DC	AC 50 Hz	AC 60 Hz	AC 50 Hz
5727920220	2.1 W	-	-	-
5727925280	2.1 W	4.18 VA	3.3 VA	6.6 VA
5727925302	2.1 W	-	-	-

Part No.	Switch-on power	Compatibility index	Throttle	Valve plug connector
	AC 60 Hz			
5727920220	-	14	with throttle	Without valve plug connector
5727925280	5.5 VA	14	with throttle	Without valve plug connector
5727925302	-	13 14	with throttle	-

Part No.	basic valve with electrical connector	Reverse polarity protection
5727920220	-	Protected against polarity reversal
5727925280	-	Protected against polarity reversal
5727925302	Basic valve without coil	-

Part No.	ATEX	Weight
5727920220	-	0.52 kg
5727925280	-	0.52 kg
5727925302	ATEX optional	0.306 kg

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).

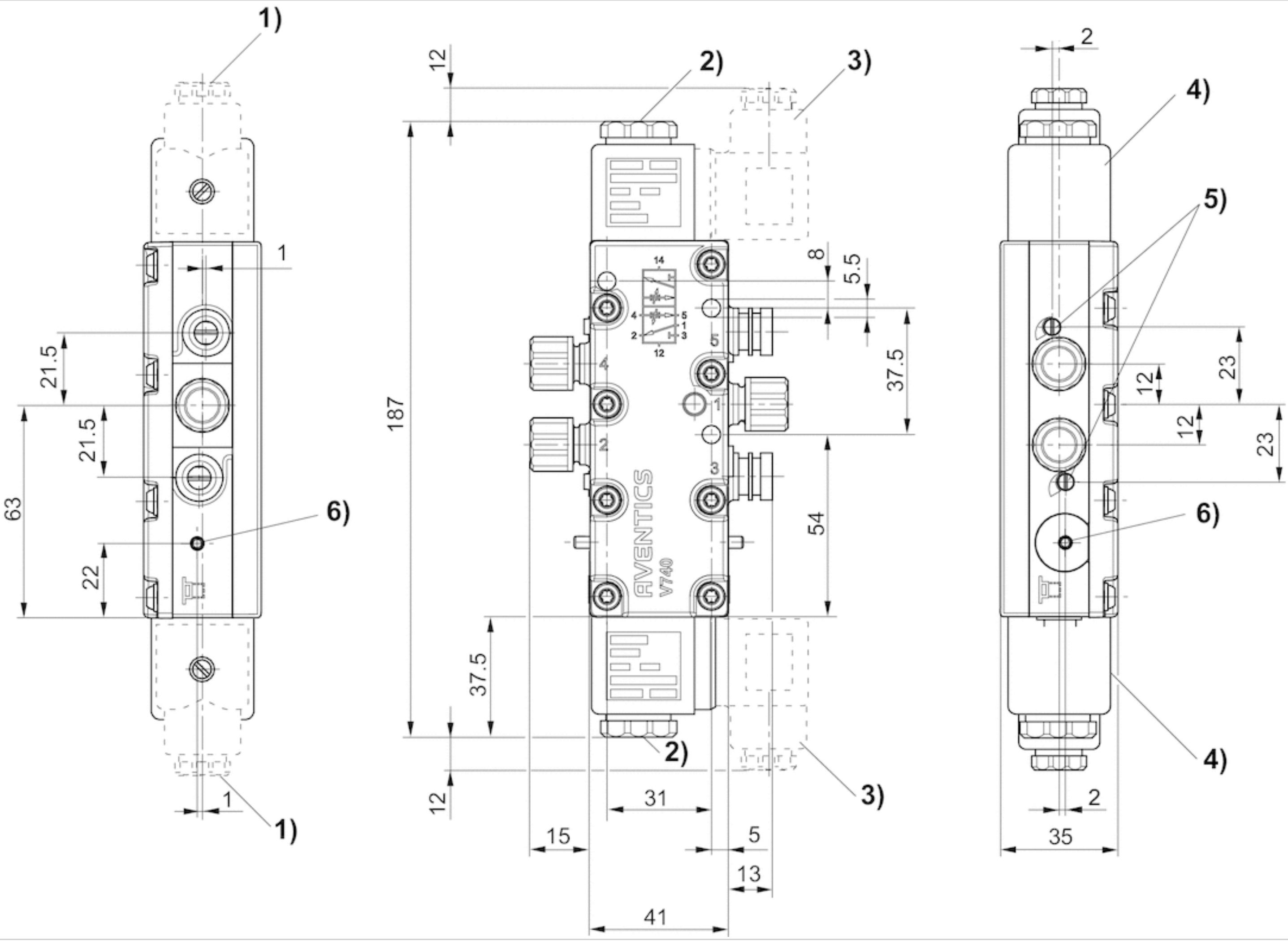
ATEX optional: ATEX version can be produced by combining the basic valve without coil with an ATEX coil. ATEX ID: see ATEX coils catalog page.

Technical information

Material	
Housing	Polyoxymethylene
Seals	Acrylonitrile butadiene rubber
Front plate	Polyarylamide

Dimensions

Dimensions



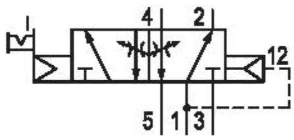
1) Gland fitting M16x1.52) M5 internal thread accessible under cap3) Valve plug connector can be rotated at 90° intervals4) Coil can be plugged at 45° intervals5) Flow control screw for exhausts 5 (R) and 3 (S)6) Manual override and position indicator

5/2-directional valve, Series 740-BV

R412009690

General series information
Series 740

- The AVENTICS Series 740/840 feature directional valves with soft, abrasion-free diaphragm technology. The simple, reliable and robust design is suitable for all air qualities and ensures high repeatability and unsurpassed service life. Due to its high resilience, the corrosion-resistant polyamide housing is also suited for dusty and damp environments.



Technical data

Industry
Industrial

Activation
Electrically

Nominal flow Qn
700 l/min

Switching principle
5/2

Compressed air connection output
Ø 8x1

Working pressure min.
1.5 bar

Working pressure max
10 bar

Manual override
with detent

Actuating control
Single Solenoid

Sealing principle
Soft Seal

Pilot
Internal

ATEX
ATEX optional

Valve type
Diaphragm poppet valve

basic valve with electrical connector
Basic valve without coil

Throttle
with throttle

Connection type
Pipe connection

Return
with air spring return

Blocking principle
Single base plate principle
Plate principle

Can be assembled into blocks
Can be assembled into blocks

Temperature resistance
-25 °C cold-resistant

Min. ambient temperature
-25 °C

Max. ambient temperature
50 °C

Min. medium temperature
-25 °C

Max. medium temperature
50 °C

Medium
Compressed air

Max. particle size
50 µm

Oil content of compressed air min.
0 mg/m³

Oil content of compressed air max.
5 mg/m³

Compressed air connection input
Ø 8x1

Compressed air connection, exhaust
M14x1

Compatibility index
14

Duty cycle
100 %

Typ. switch-on time
16 ms

Typ. switch-off time
35 ms

Protection class with connection
IP65

Weight
0.221 kg

Housing material
Polyoxymethylene

Seal material
Acrylonitrile butadiene rubber

Material front plate
Polyamide

Part No.
R412009690

Technical information

Nominal flow Qn at 6 bar and Δp = 1 bar

Basic valve without coil

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.

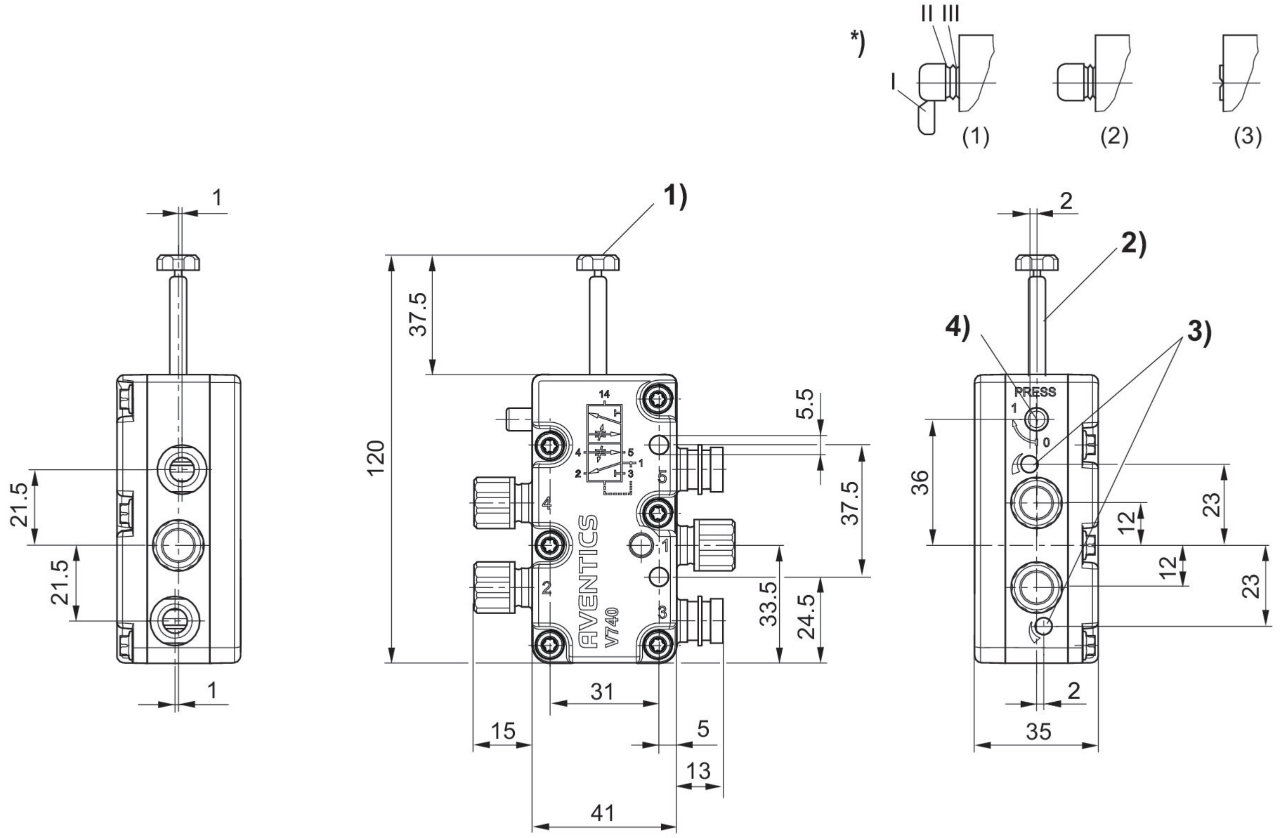
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!

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 https://www.emerson.com/en-us/support).

Dimensions in mm



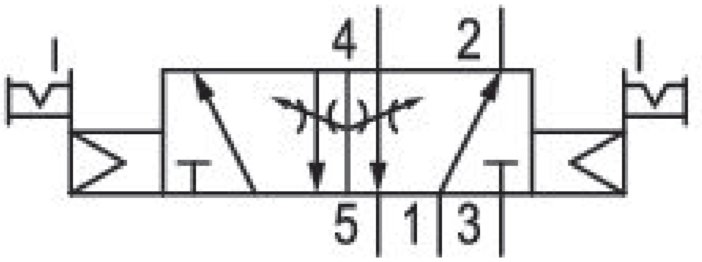
1) M 5 internal thread 2) coil can be plugged at 45° intervals 3) throttle screw for exhausts 5 (R) and 3 (S) (S) 4) manual override and position indicator *) : manual override: manual actuation: (1) with detent - push and turn into position 1 (2) without detent - remove segment 1 - push only actuation by tool: (3) with detent - remove segments up to III - push with tool and turn into position 1

5/2-directional valve, Series 740-BV

R412009671

General series information
Series 740

- The AVENTICS Series 740/840 feature directional valves with soft, abrasion-free diaphragm technology. The simple, reliable and robust design is suitable for all air qualities and ensures high repeatability and unsurpassed service life. Due to its high resilience, the corrosion-resistant polyamide housing is also suited for dusty and damp environments.



Technical data

Industry
Industrial

Activation
Electrically

Nominal flow Qn
700 l/min

Switching principle
5/2

Compressed air connection output
Ø 8x1

Working pressure min.
1.5 bar

Working pressure max
10 bar

Manual override
with detent

Actuating control
Double Solenoid

Sealing principle
Soft Seal

Pilot
Internal

ATEX
ATEX optional

Valve type
Diaphragm poppet valve

basic valve with electrical connector
Basic valve without coil

Throttle
with throttle

Connection type
Pipe connection

Blocking principle
Single base plate principle
Plate principle

Can be assembled into blocks
Can be assembled into blocks

Temperature resistance
-25 °C cold-resistant

Min. ambient temperature
-25 °C

Max. ambient temperature
50 °C

Min. medium temperature
-25 °C

Max. medium temperature
50 °C

Medium
Compressed air

Max. particle size
50 µm

Oil content of compressed air min.
0 mg/m³

Oil content of compressed air max.
5 mg/m³

Compressed air connection input
Ø 8x1

Compressed air connection, exhaust
M14x1

Compatibility index
14

Duty cycle
100 %

Typ. switch-on time
40 ms

Protection class with connection
IP65

Weight
0.319 kg

Housing material
Polyoxymethylene

Seal material
Acrylonitrile butadiene rubber

Material front plate
Polyoxymethylene

Part No.
R412009671

Technical information

Nominal flow Qn at 6 bar and Δp = 1 bar

Basic valve without coil

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.

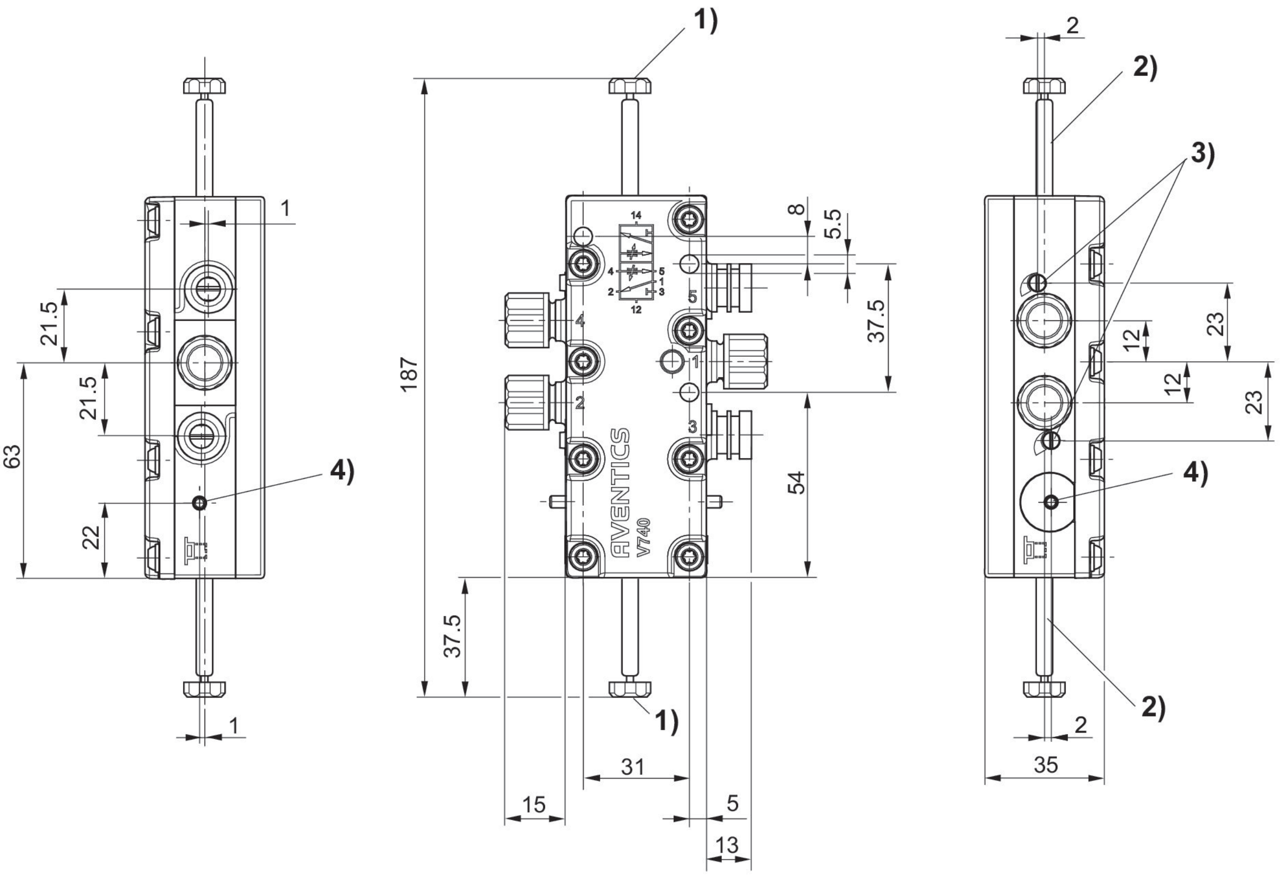
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!

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 https://www.emerson.com/en-us/support).

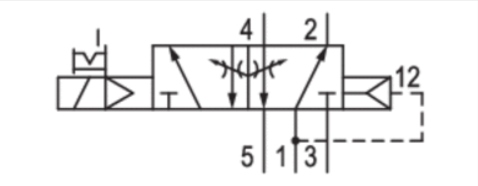
Dimensions in mm



1) M5 internal thread
2) Coil can be plugged at 45° intervals
3) Throttle screw for exhausts 5 (R) and 3 (S) (S)
4) Manual override and position indicator

5/2-directional valve, Series 740-UL

- 5/2
- Qn = 700 l/min
- Pipe connection
- Compressed air connection output : 3/8″
- Electrical connection : Plug, EN 175301-803, form A
- -25 °C cold-resistant
- Can be assembled into blocks
- Manual override : with detent, without detent
- single solenoid
- With air spring return
- Pilot : Internal



Version	Diaphragm poppet valve
Activation	Electrically
Pilot	Internal
Sealing principle	Soft sealing
Blocking principle	Plate principle Single base plate principle
Certificates	UL (Underwriters Laboratories)
Working pressure min./max.	1.5 ... 10 bar
Ambient temperature min./max.	-25 ... 50 °C
Medium temperature min./max.	-25 ... 50 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow Qn	700 l/min
Connector standard	EN 175301-803:2006
Protection class with connection	IP65
Reverse polarity protection	Protected against polarity reversal
Compatibility index	14
Duty cycle	100 %
Typ. switch-on time	17 ms
Typ. switch-off time	24 ms
Mounting on manifold strip	PRS strip
Weight	0.317 kg

Technical data

Part No.	MO	Compressed air connection	Compressed air connection
		Input	Output
R432038437		3/8"	3/8"
R432038419		3/8"	3/8"

Part No.	Compressed air connection	Operational voltage	Operational voltage
	Exhaust	DC	AC 50 Hz
R432038437	M14x1	24 V	-
R432038419	M14x1	-	110 V

Part No.	Operational voltage	Voltage tolerance	Voltage tolerance	Voltage tolerance
	AC 60 Hz	DC	AC 50 Hz	AC 60 Hz
R432038437	-	-10% / +10%	-	-
R432038419	110 V	-	-10% / +10%	-10% / +10%

Part No.	Power consumption	Holding power	Holding power	Switch-on power
	DC	AC 50 Hz	AC 60 Hz	AC 50 Hz
R432038437	2.7 W	-	-	-
R432038419	-	4.8 VA	3.6 VA	8 VA

Part No.	Switch-on power	Throttle	Valve plug connector
	AC 60 Hz		
R432038437	-	with throttle	Without valve plug connector
R432038419	6.5 VA	with throttle	Without valve plug connector

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).

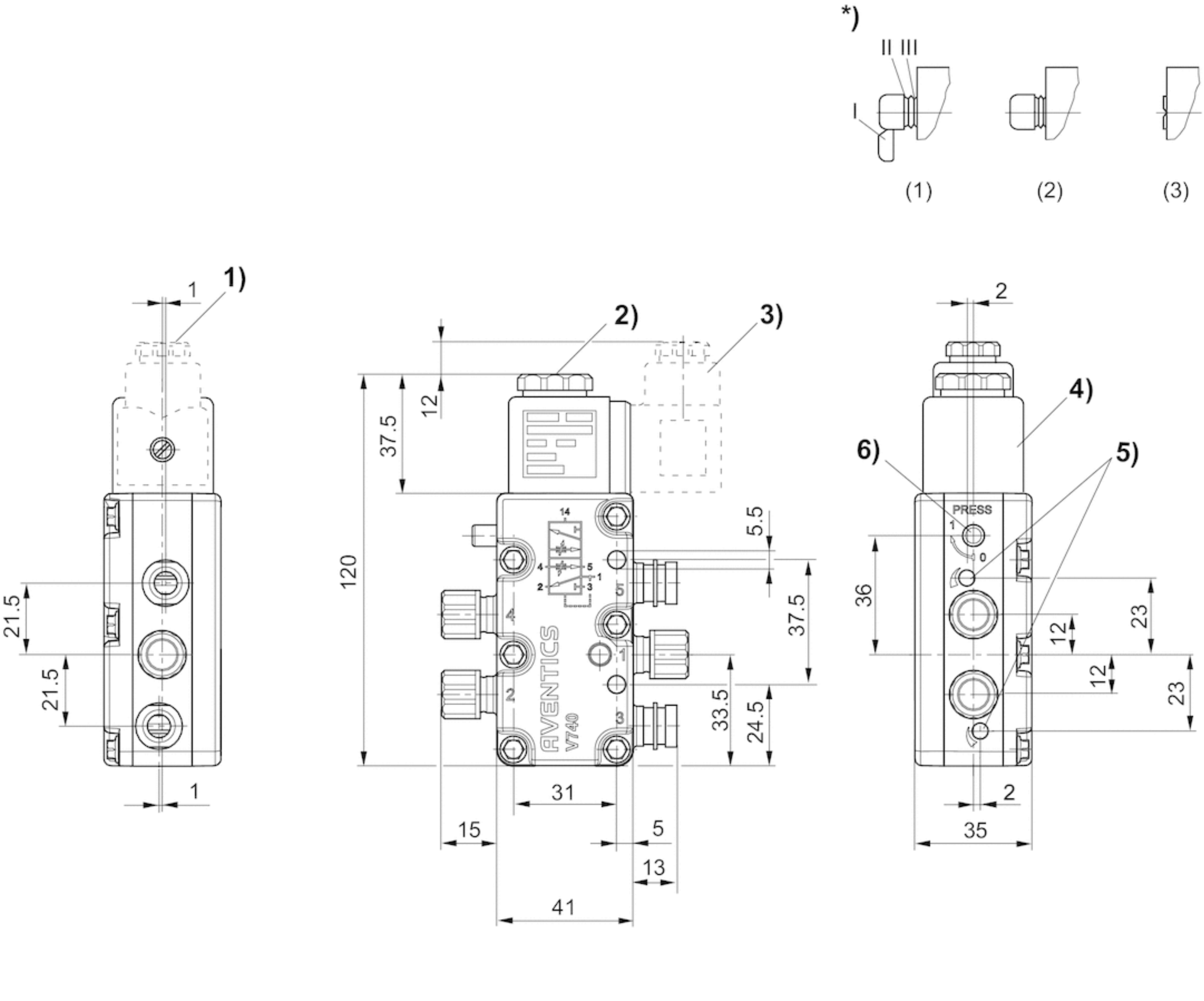
UL recognized solenoid coils with cURus mark

Technical information

Material	
Housing	Polyoxymethylene
Seals	Acrylonitrile butadiene rubber

Dimensions

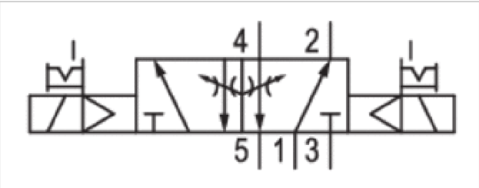
Dimensions



1) Gland fitting M16x1.52) M5 internal thread accessible under cap3) Valve plug connector can be rotated at 90° intervals (not included in scope of delivery) 4) Coil can be plugged at 45° intervals5) Flow control screw for exhausts 5 (R) and 3 (S)6) Manual override and position indicator*): Manual override:Manual actuation: (1) with detent - push and turn into position 1 (2) without detent - remove segment I - push onlyActuation with tool: (3) with detent - remove segments up to II - push with tool and turn into position 1

5/2-directional valve, Series 740-UL

- 5/2
- Qn = 700 l/min
- Pipe connection
- Compressed air connection output : 3/8″
- Electrical connection : Plug, EN 175301-803, form A
- Can be assembled into blocks
- Manual override : with detent, without detent
- double solenoid
- Pilot : Internal



Version	Diaphragm poppet valve
Activation	Electrically
Pilot	Internal
Sealing principle	Soft sealing
Blocking principle	Plate principle Single base plate principle
Certificates	UL (Underwriters Laboratories)
Working 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	700 l/min
Connector standard	EN 175301-803:2006
Protection class with connection	IP65
Reverse polarity protection	Protected against polarity reversal
Compatibility index	14
Duty cycle	100 %
Typ. switch-on time	40 ms
Typ. switch-off time	40 ms
Mounting on manifold strip	PRS strip
Weight	0.505 kg

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Technical data

Part No.	MO	Compressed air connection	Compressed air connection
		Input	Output
R432038438		3/8″	3/8″
R432038420		3/8″	3/8″

Part No.	Compressed air connection	Operational voltage	Operational voltage
	Exhaust	DC	AC 50 Hz
R432038438	M14x1	24 V	-
R432038420	M14x1	-	110 V

Part No.	Operational voltage	Voltage tolerance	Voltage tolerance	Voltage tolerance
	AC 60 Hz	DC	AC 50 Hz	AC 60 Hz
R432038438	-	-10% / +10%	-	-
R432038420	110 V	-	-10% / +10%	-10% / +10%

Part No.	Power consumption	Holding power	Holding power	Switch-on power
	DC	AC 50 Hz	AC 60 Hz	AC 50 Hz
R432038438	2.7 W	-	-	-
R432038420	-	4.8 VA	3.6 VA	8 VA

Part No.	Switch-on power	Throttle	Valve plug connector
	AC 60 Hz		
R432038438	-	with throttle	Without valve plug connector
R432038420	6.5 VA	with throttle	Without valve plug connector

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).

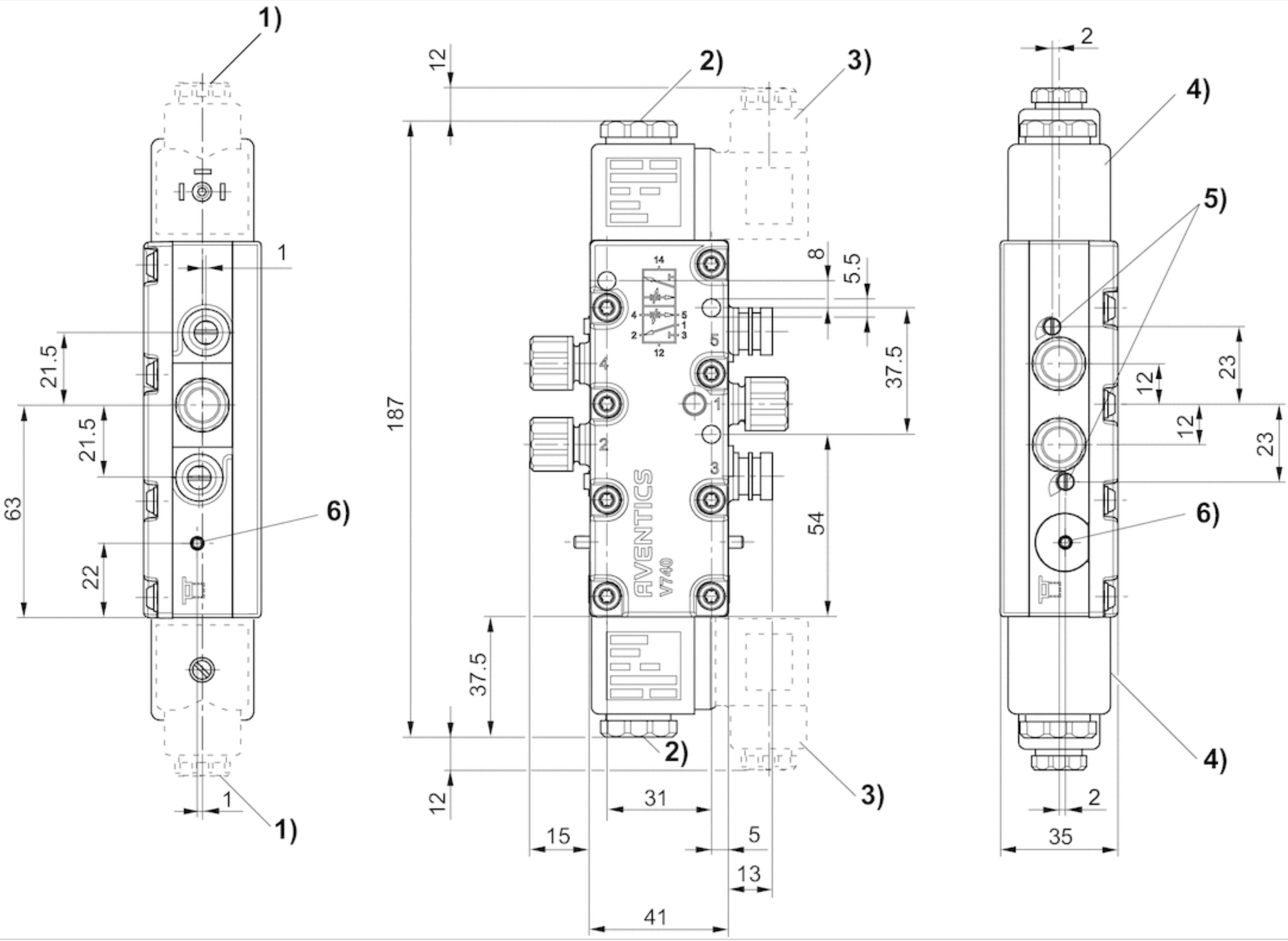
UL recognized solenoid coils with cURus mark

Technical information

Material	
Housing	Polyoxymethylene Polyoxymethylene Polyarylamide
Seals	Acrylonitrile butadiene rubber

Dimensions

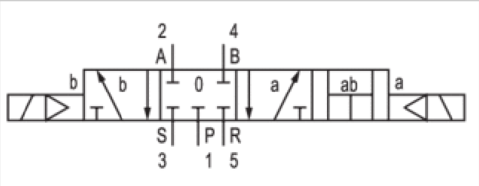
Dimensions



1) 1) Gland fitting M16x1.52) M5 internal thread accessible under cap3) Valve plug connector can be rotated at 90° intervals (not included in scope of delivery) 4) Coil can be plugged at 45° intervals5) Flow control screw for exhausts 5 (R) and 3 (S)6) Manual override and position indicator

5/4-directional valve, Series 740-UL

- 5/3
- Qn = 700 l/min
- closed center
- Pipe connection
- Compressed air connection output : 3/8″
- Electrical connection : Plug, EN 175301-803, form A
- Can be assembled into blocks
- Manual override : with detent, without detent
- double solenoid
- Pilot : Internal



Version	Diaphragm poppet valve
Activation	Electrically
Pilot	Internal
Sealing principle	Soft sealing
Blocking principle	Plate principle Single base plate principle
Certificates	UL (Underwriters Laboratories)
Working 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	700 l/min
Connector standard	EN 175301-803:2006
Protection class with connection	IP65
Reverse polarity protection	Protected against polarity reversal
Compatibility index	14
Duty cycle	100 %
Typ. switch-on time	20 ms
Typ. switch-off time	54 ms
Mounting on manifold strip	PRS strip
Weight	0.501 kg

Technical data

Part No.	MO		Compressed air connection
			Input
R432038439		closed center	3/8″
R432038421		closed center	3/8″

Part No.	Compressed air connection	Compressed air connection
	Output	Exhaust
R432038439	3/8″	M14x1
R432038421	3/8″	M14x1

Part No.	Operational voltage	Operational voltage	Operational voltage
	DC	AC 50 Hz	AC 60 Hz
R432038439	24 V	-	-
R432038421	-	110 V	110 V

Part No.	Voltage tolerance	Voltage tolerance	Voltage tolerance	Power consumption
	DC	AC 50 Hz	AC 60 Hz	DC
R432038439	-10% / +10%	-	-	2.7 W
R432038421	-	-10% / +10%	-10% / +10%	-

Part No.	Holding power	Holding power	Switch-on power	Switch-on power	Throttle
	AC 50 Hz	AC 60 Hz	AC 50 Hz	AC 60 Hz	
R432038439	-	-	-	-	with throttle
R432038421	4.8 VA	3.6 VA	8 VA	6.5 VA	with throttle

Part No.	Valve plug connector
R432038439	Without valve plug connector
R432038421	Without valve plug connector

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).

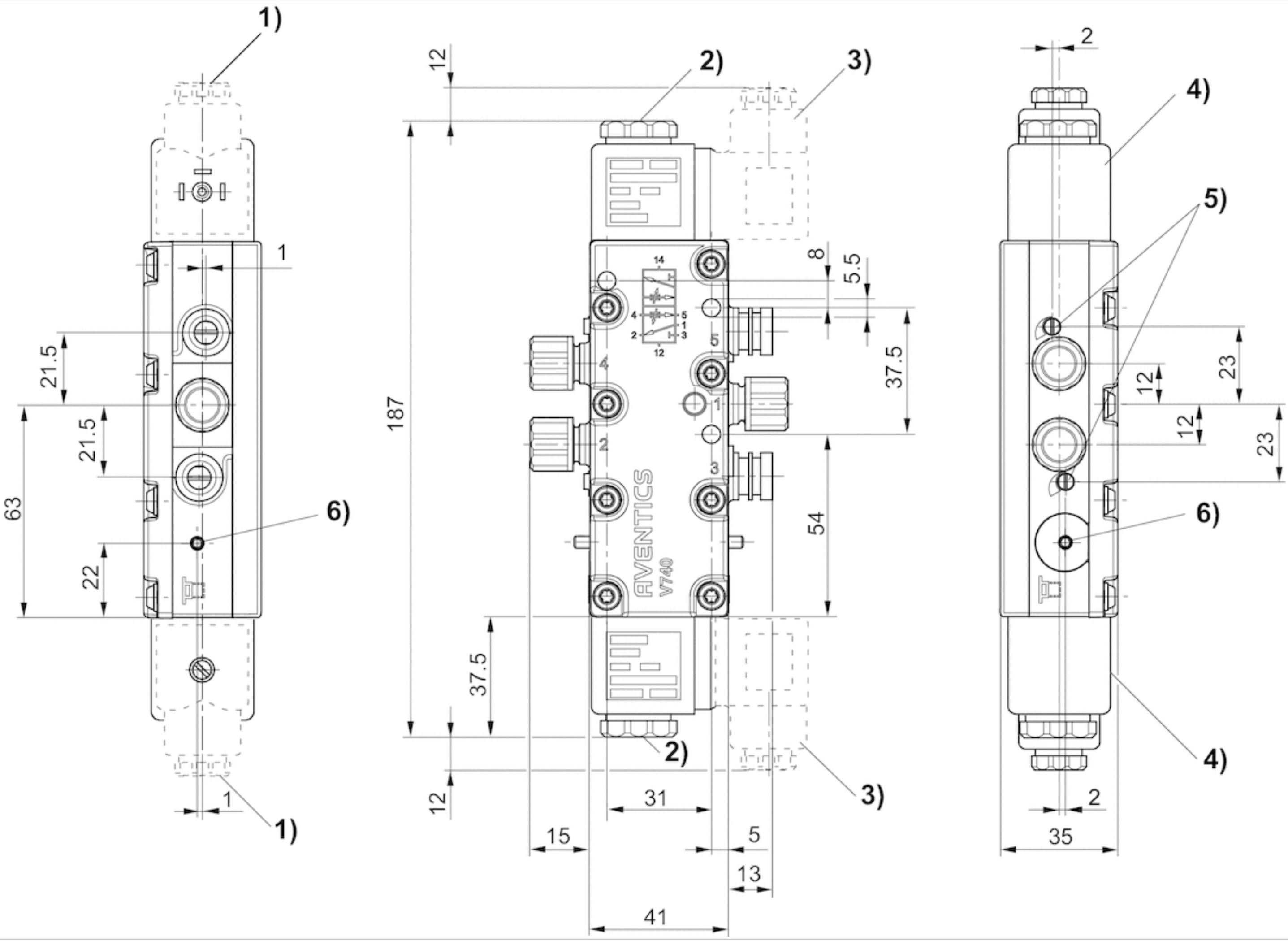
UL recognized solenoid coils with cURus mark

Technical information

Material	
Housing	Polyoxymethylene
Seals	Acrylonitrile butadiene rubber

Dimensions

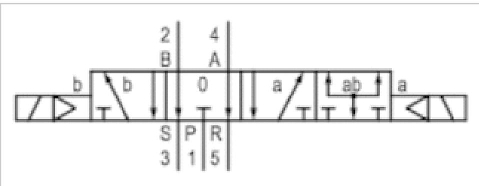
Dimensions



1) Gland fitting M16x1.52) M5 internal thread accessible under cap3) Valve plug connector can be rotated at 90° intervals (not included in scope of delivery) 4) Coil can be plugged at 45° intervals5) Flow control screw for exhausts 5 (R) and 3 (S)6) Manual override and position indicator

5/4-directional valve, Series 740-UL

- 5/4
- Qn = 700 l/min
- pressurized center
- Pipe connection
- Compressed air connection output : 3/8″
- Electrical connection : Plug, EN 175301-803, form A
- Can be assembled into blocks
- Manual override : with detent, without detent
- double solenoid
- Pilot : Internal



Version	Diaphragm poppet valve
Activation	Electrically
Pilot	Internal
Sealing principle	Soft sealing
Blocking principle	Plate principle Single base plate principle
Certificates	UL (Underwriters Laboratories)
Working 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	700 l/min
Connector standard	EN 175301-803:2006
Protection class with connection	IP65
Reverse polarity protection	Protected against polarity reversal
Compatibility index	14
Duty cycle	100 %
Typ. switch-on time	20 ms
Typ. switch-off time	54 ms
Mounting on manifold strip	PRS strip
Weight	0.497 kg

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Technical data

Part No.	MO		Compressed air connection
			Input
R432038440		pressurized center	3/8″
R432038422		pressurized center	3/8″

Part No.	Compressed air connection	Compressed air connection
	Output	Exhaust
R432038440	3/8″	M14x1
R432038422	3/8″	M14x1

Part No.	Operational voltage	Operational voltage	Operational voltage
	DC	AC 50 Hz	AC 60 Hz
R432038440	24 V	-	-
R432038422	-	110 V	110 V

Part No.	Voltage tolerance	Voltage tolerance	Voltage tolerance	Power consumption
	DC	AC 50 Hz	AC 60 Hz	DC
R432038440	-10% / +10%	-	-	2.7 W
R432038422	-	-10% / +10%	-10% / +10%	-

Part No.	Holding power	Holding power	Switch-on power	Switch-on power	Throttle
	AC 50 Hz	AC 60 Hz	AC 50 Hz	AC 60 Hz	
R432038440	-	-	-	-	with throttle
R432038422	4.8 VA	3.6 VA	8 VA	6.5 VA	with throttle

Part No.	Valve plug connector
R432038440	Without valve plug connector
R432038422	Without valve plug connector

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).

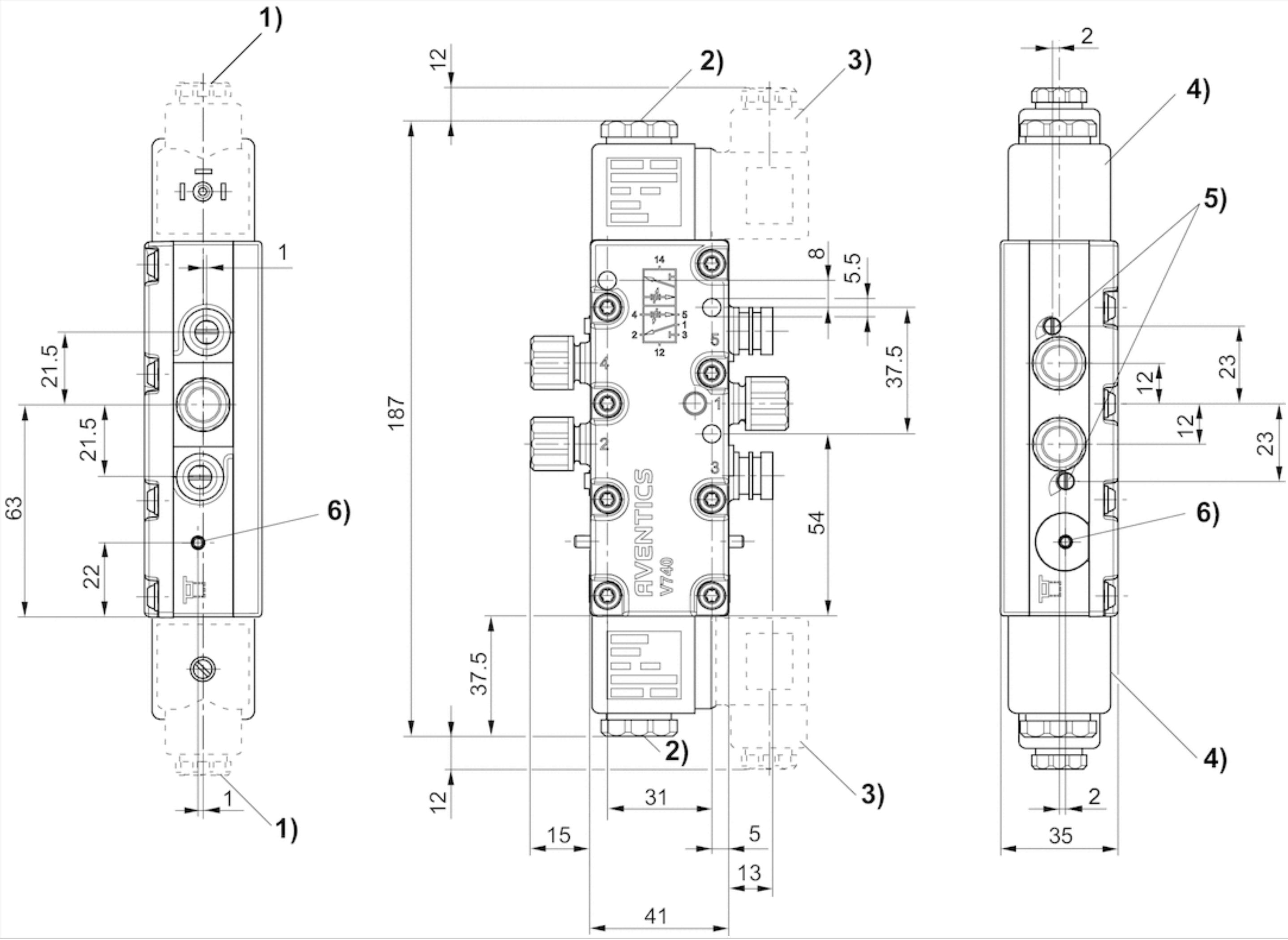
UL recognized solenoid coils with cURus mark

Technical information

Material	
Housing	Polyoxymethylene
Seals	Acrylonitrile butadiene rubber

Dimensions

Dimensions

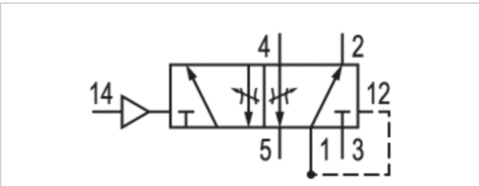


1) Gland fitting M16x1.52) M5 internal thread accessible under cap3) Valve plug connector can be rotated at 90° intervals (not included in scope of delivery) 4) Coil can be plugged at 45° intervals5) Flow control screw for exhausts 5 (R) and 3 (S)6) Manual override and position indicator

5/2-directional valve, Series 740

- Qn = 700-950 l/min
- Compressed air connection output Ø 8x1 Ø 10x1
- Pipe connection
- Can be assembled into blocks
- Manual override without
- suitable for ATEX

Version	Diaphragm poppet valve
Activation	pneumatically
Pilot	Internal
Sealing principle	Soft sealing
Blocking principle	Single base plate principle Plate principle
Working pressure min./max.	1.5 ... 10 bar
Ambient temperature min./max.	-15 ... 60 °C
Medium temperature min./max.	-15 ... 60 °C
Medium	Compressed air
Oil content of compressed air	0 ... 5 mg/m³
Mounting on manifold strip	PRS strip
Weight	0.18 kg



Technical data

Part No.	Compressed air connection Input	Compressed air connection Output
5717400000	Ø 8x1	Ø 8x1
5717450000	Ø 10x1	Ø 10x1

Part No.	Compressed air connection Exhaust	Compressed air connection Pilot control exhaust	Flow Qn
5717400000	M14x1	Ø 8x1	700 l/min
5717450000	M14x1	Ø 8x1	950 l/min

Part No.	Throttle
5717400000	with throttle
5717450000	with throttle

Nominal flow Qn at p1 = 6.3 bar and Δp = 1 bar

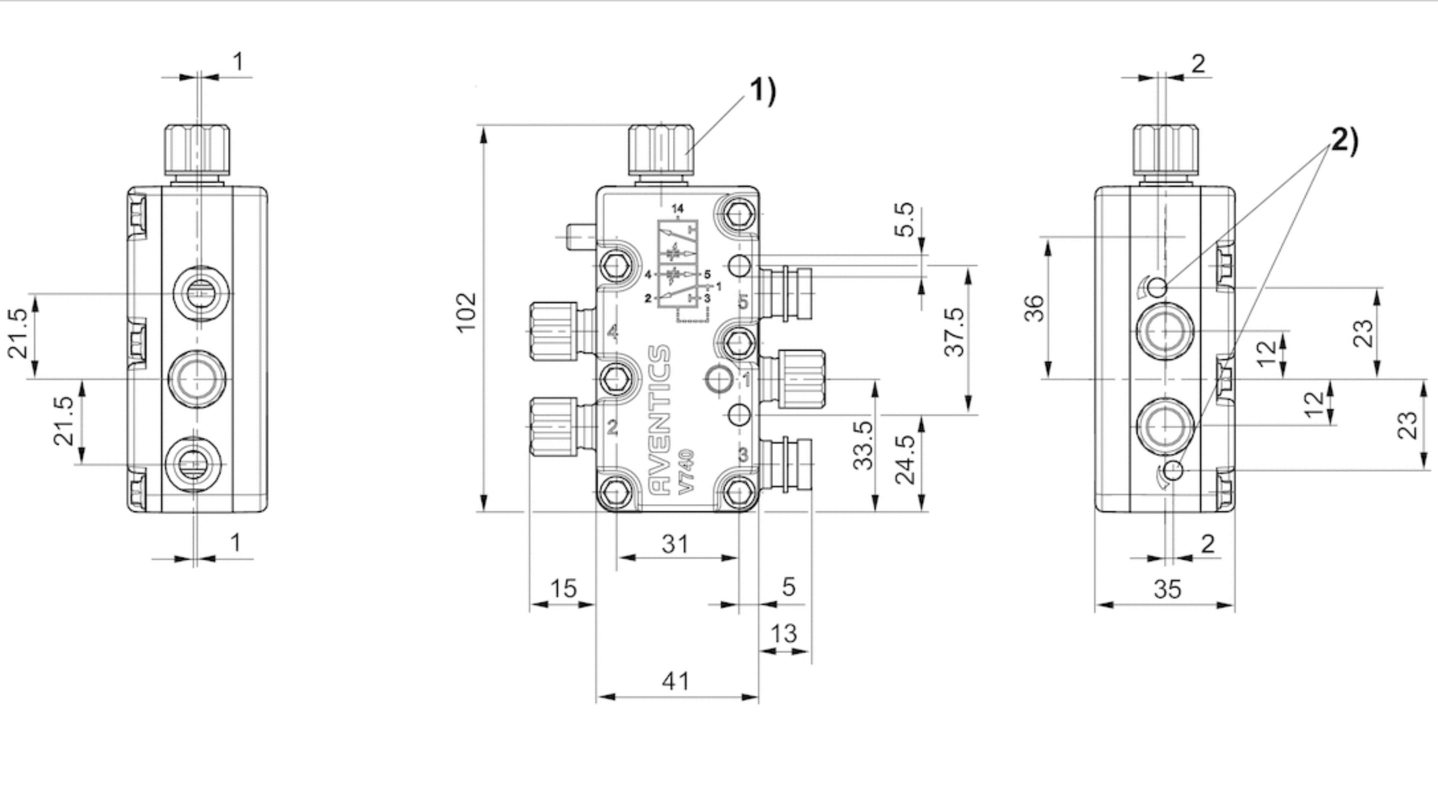
Technical information

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

Material	
Housing	Polyarylamide Polyarylamide
Seals	Acrylonitrile butadiene rubber

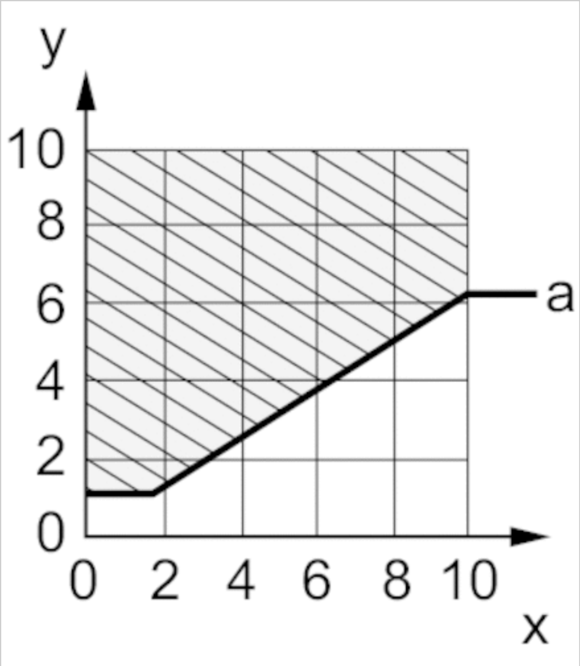
Dimensions



1) for pipe Ø 8 x 1
2) flow control screw for exhausts 5 (R) and 3 (S)

Diagrams

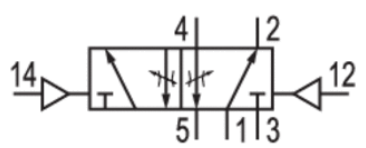
Pilot pressure range



x: Working pressure (0 bar ... 10 bar)
y: Pilot pressure (1 bar ... 6 bar)
a: Min. pilot pressure at port 14 (Z) depending on working pressure

5/2-directional valve, Series 740

- Qn = 700-950 l/min
- Compressed air connection output Ø 8x1 Ø 10x1
- double air pilot
- Pipe connection
- Can be assembled into blocks
- Manual override with detent
- suitable for ATEX



Version	Diaphragm poppet valve
Activation	pneumatically
Pilot	Internal
Sealing principle	Soft sealing
Blocking principle	Single base plate principle Plate principle
Working pressure min./max.	1.5 ... 10 bar
Ambient temperature min./max.	-15 ... 60 °C
Medium temperature min./max.	-15 ... 60 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m³
Mounting on manifold strip	PRS strip
Weight	0.23 kg

Technical data

Part No.	Compressed air connection	Compressed air connection
	Input	Output
5717410000	Ø 8x1	Ø 8x1
5717460000	Ø 10x1	Ø 10x1

Part No.	Compressed air connection	Compressed air connection	Flow
	Exhaust	Pilot control exhaust	Qn
5717410000	M14x1	Ø 8x1	700 l/min
5717460000	M14x1	Ø 8x1	950 l/min

Part No.	Throttle
5717410000	with throttle
5717460000	with throttle

Nominal flow Qn at p1 = 6.3 bar and Δp = 1 bar

Technical information

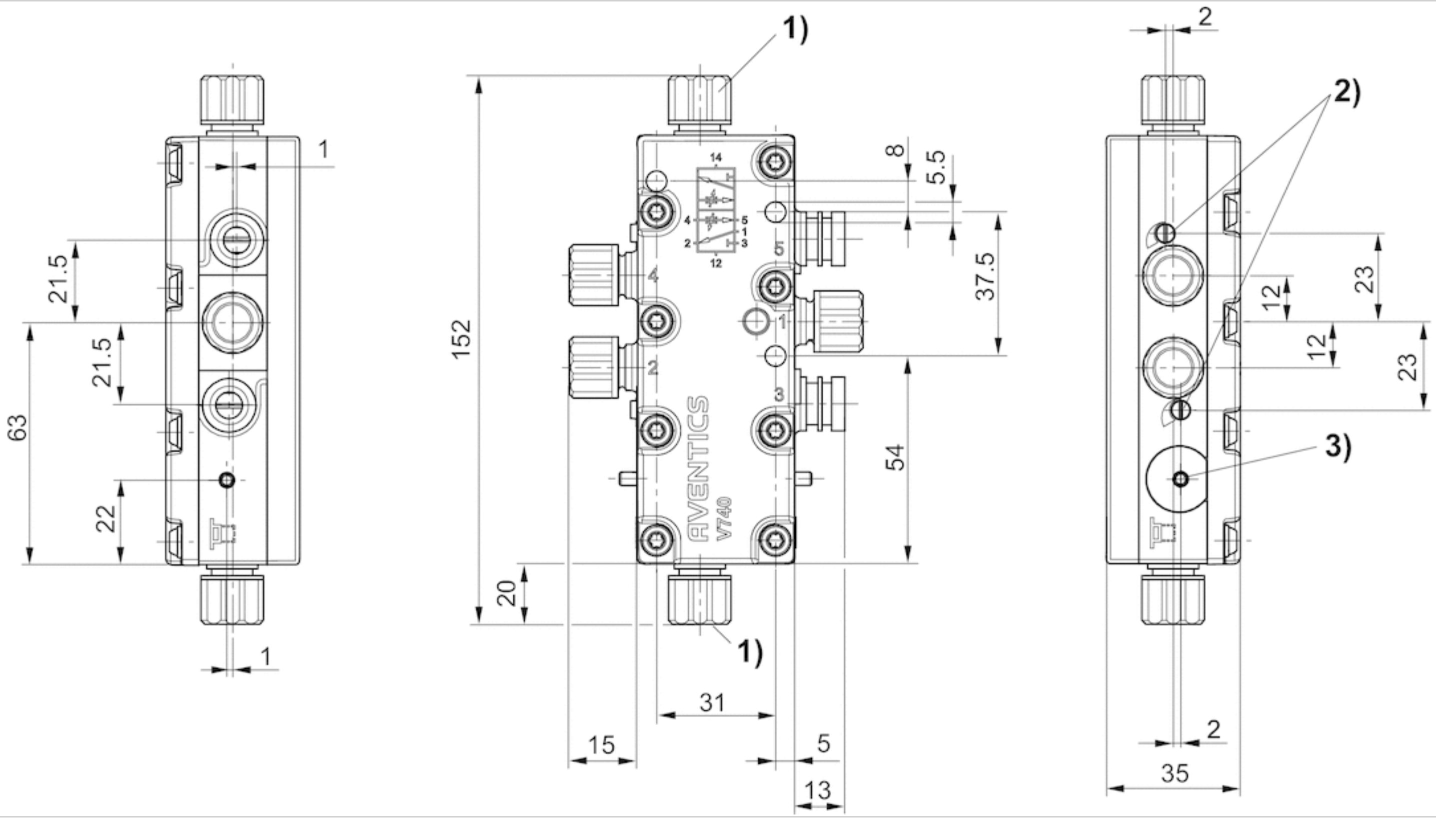
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only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

Technical information

Material	
Housing	Polyoxymethylene
Seals	Acrylonitrile butadiene rubber

Dimensions

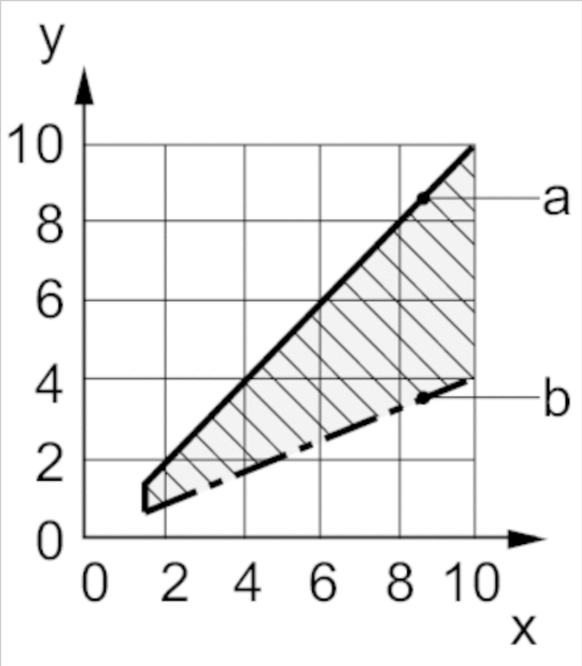
Dimensions



1) for pipe Ø 8 x 1
2) flow control screw for exhausts 5 (R) and 3 (S)
3) position indicator

Diagrams

Pilot pressure range



x: operating pressure (bar) y: control pressure (bar)
a: maximum control pressure depending on operating pressure
b: minimum control pressure depending on operating pressure

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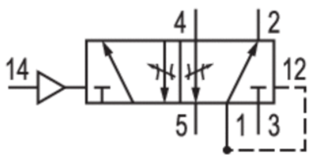
5/2-directional valve, Series 740-CP

- Qn = 950 l/min
- Compressed air connection output Ø 10x1
- Pipe connection
- Can be assembled into blocks
- corrosion-protected
- Manual override without
- suitable for ATEX



Version	Diaphragm poppet valve
Activation	pneumatically
Pilot	Internal
Sealing principle	Soft sealing
Blocking principle	Single base plate principle Plate principle
Flow rate value Qn	950 l/min
Working pressure min./max.	2 ... 10 bar
Ambient temperature min./max.	-15 ... 60 °C
Medium temperature min./max.	-15 ... 60 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m³
Mounting on manifold strip	PRS strip
Weight	0.18 kg

Technical data

Part No.	Compressed air connection	Compressed air connection
	Input	Output
5717451000	Ø 10x1	Ø 10x1

Part No.	Compressed air connection	Compressed air connection	Throttle
	Exhaust	Pilot control exhaust	
5717451000	M14x1	Ø 8x1	with throttle

Nominal flow Qn at p1 = 6.3 bar and Δp = 1 bar

Technical information

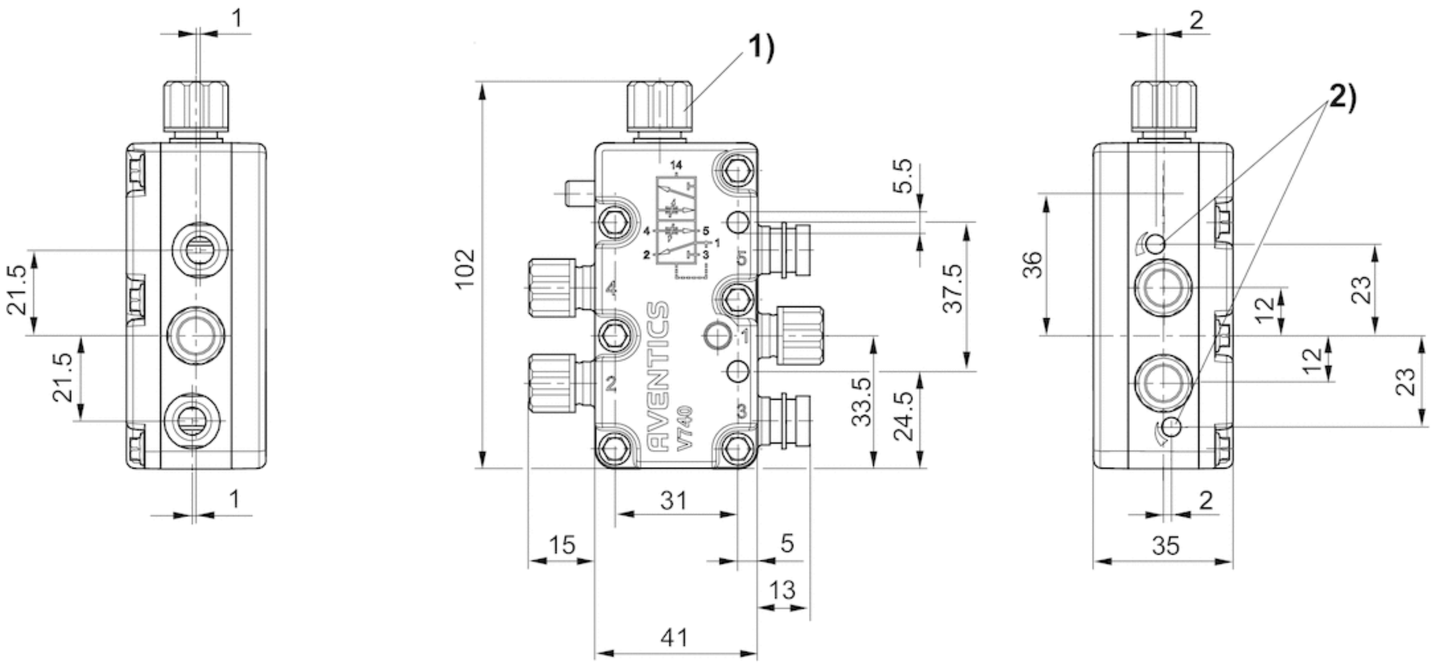
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only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

Technical information

Material	
Housing	Polyoxymethylene
Seals	Acrylonitrile butadiene rubber
Front plate	Polyarylamide

Dimensions

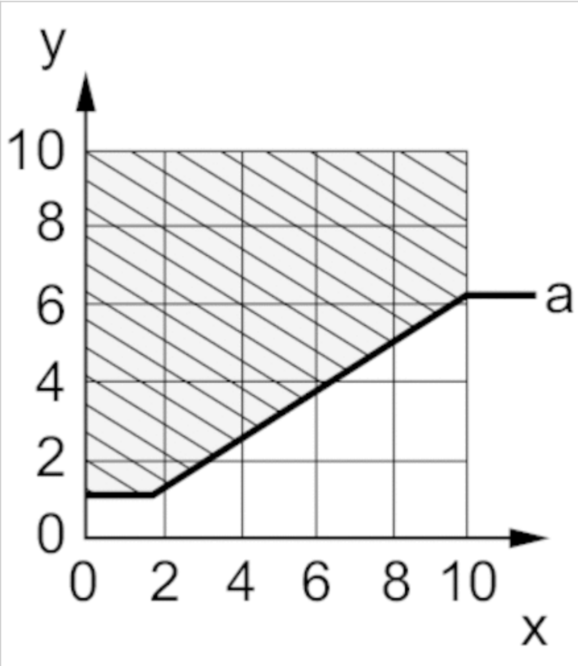
Dimensions



1) for pipe Ø 8 x 1
2) flow control screw for exhausts 5 (R) and 3 (S)

Diagrams

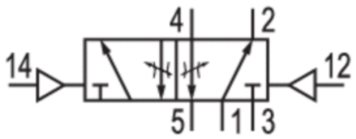
Pilot pressure range



x: Working pressure (0 bar ... 10 bar)
y: Pilot pressure (1 bar ... 6 bar)
a: Min. pilot pressure at port 14 (Z) depending on working pressure

5/2-directional valve, Series 740-CP

- Qn = 950 l/min
- Compressed air connection output Ø 10x1
- double solenoid
- Pipe connection
- Can be assembled into blocks
- corrosion-protected
- Manual override with detent
- suitable for ATEX



Version	Diaphragm poppet valve
Activation	pneumatically
Pilot	Internal
Sealing principle	Soft sealing
Blocking principle	Single base plate principle Plate principle
Flow rate value Qn	950 l/min
Working pressure min./max.	2 ... 10 bar
Ambient temperature min./max.	-15 ... 60 °C
Medium temperature min./max.	-15 ... 60 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m³
Mounting on manifold strip	PRS strip
Weight	0.23 kg

Technical data

Part No.	Compressed air connection	Compressed air connection
	Input	Output
5717461000	Ø 10x1	Ø 10x1

Part No.	Compressed air connection	Compressed air connection	Throttle
	Exhaust	Pilot control exhaust	
5717461000	M14x1	Ø 8x1	with throttle

Nominal flow Qn at p1 = 6.3 bar and Δp = 1 bar, See diagram

Technical information

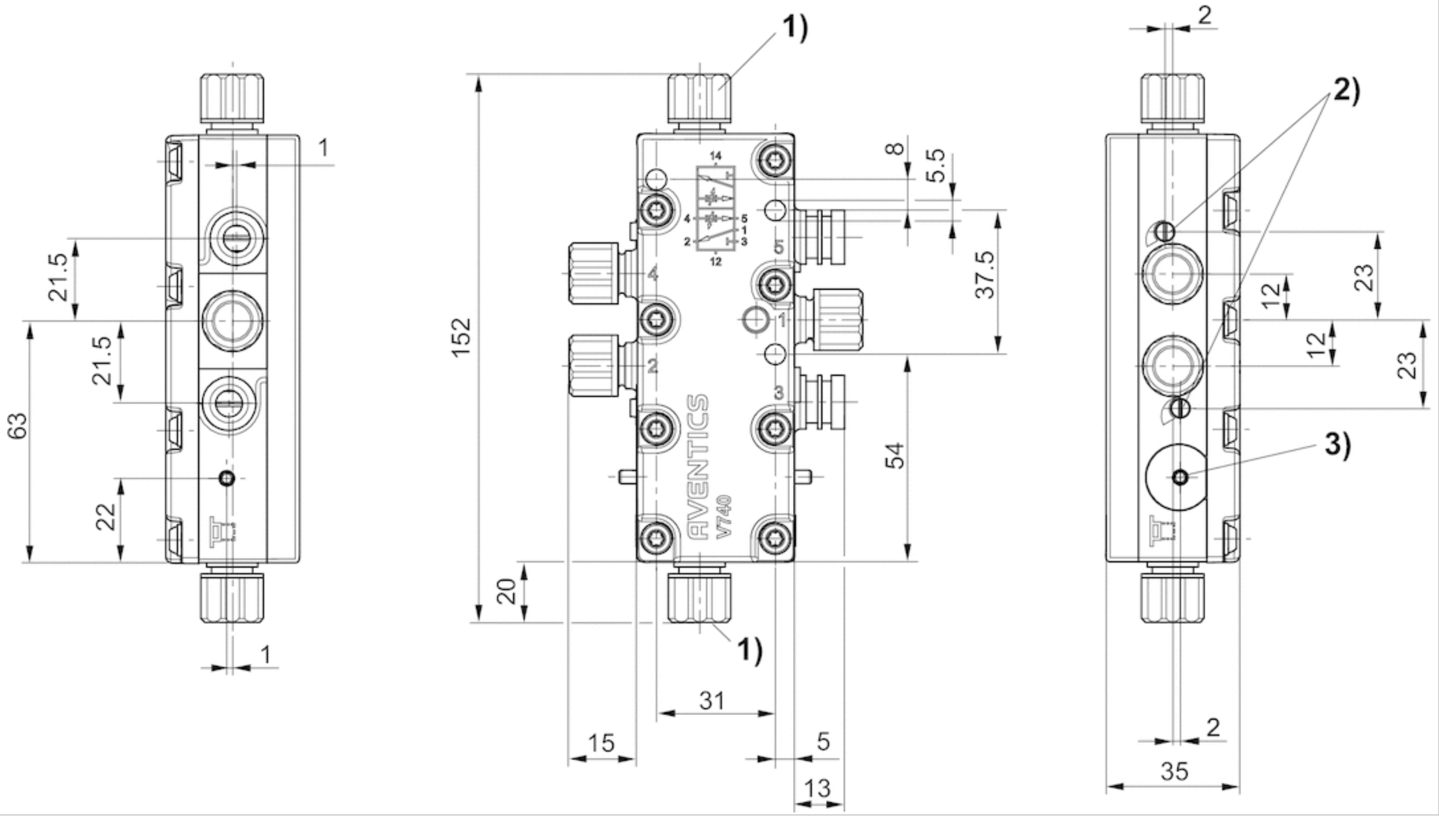
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only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

Technical information

Material	
Housing	Polyoxymethylene
Seals	Acrylonitrile butadiene rubber
Front plate	Polyarylamide

Dimensions

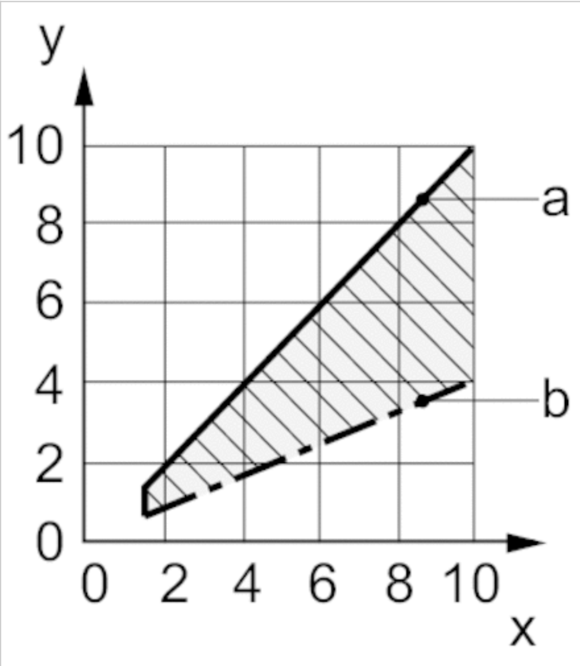
Dimensions



1) for pipe Ø 8 x 1
2) flow control screw for exhausts 5 (R) and 3 (S)
3) position indicator

Diagrams

Pilot pressure range



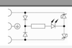
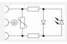
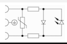
x: operating pressure (bar) y: control pressure (bar)
a: maximum control pressure depending on operating pressure
b: minimum control pressure depending on operating pressure

Valve plug connector, series CON-VP

- Socket, 2+E, angled, 90°
- EN 175301-803
- unshielded
- with LED Yellow 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.		Operational voltage	Protective circuit	Contact assignment	LED status display
1834484101		24 V AC/DC	Z-diode	2+E	Yellow
1834484102		110 V AC	Varistor	2+E	Red
1834484103		230 V AC	Varistor	2+E	Red

Part No.	suitable cable-Ø min./max	Seal	Weight	
1834484101	6 / 8 mm	Silicone caoutchouc	0.03 kg	1)
1834484102	6 / 8 mm	caoutchouc/butadiene caoutchouc	0.03 kg	2)
1834484103	6 / 8 mm	Silicone caoutchouc	0.025 kg	2)

1) Flat gasket
2) Profile seal

Technical information

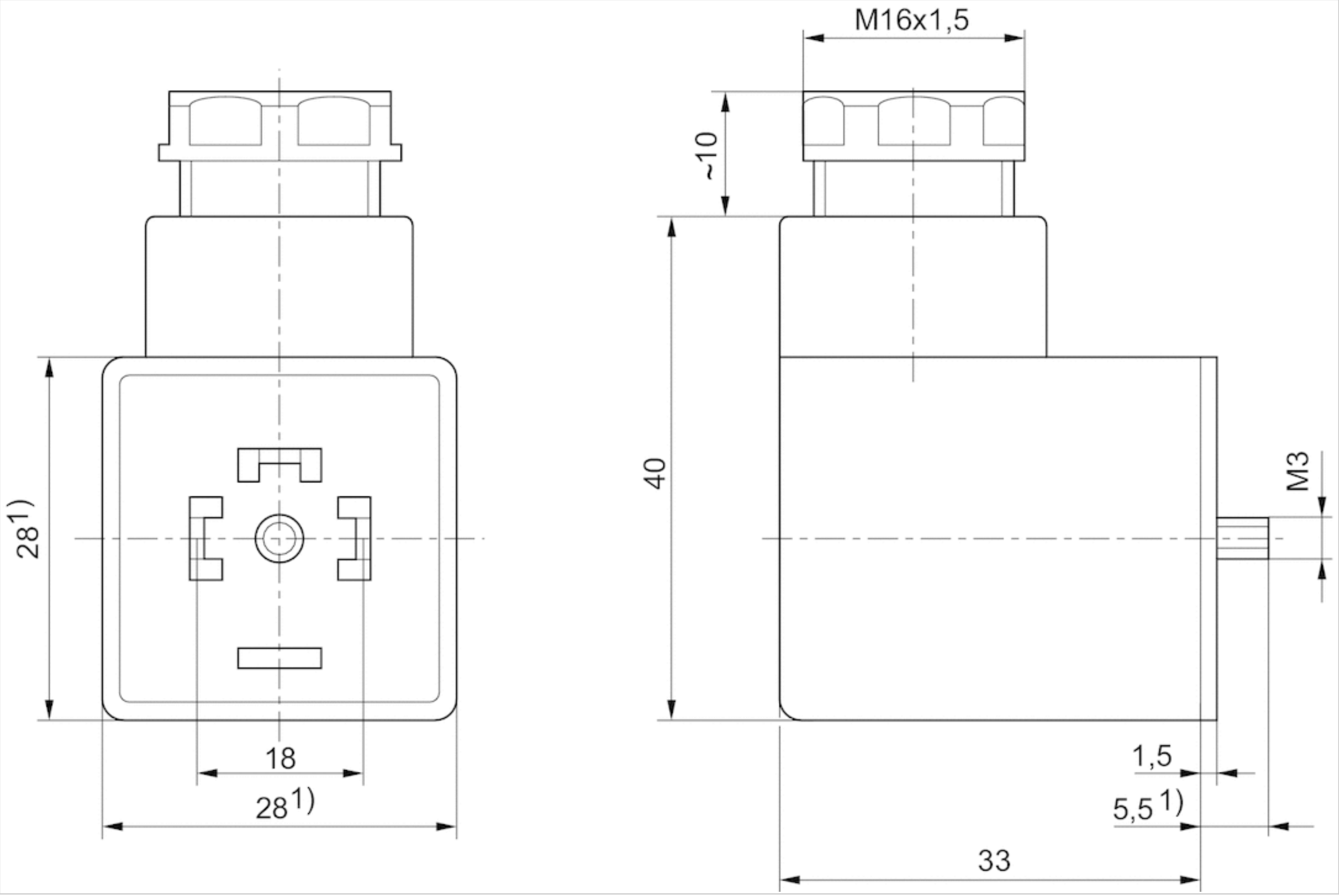
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Seals	Silicone caoutchouc caoutchouc/butadiene caoutchouc

Dimensions

Dimensions



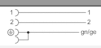
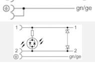
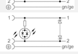
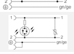
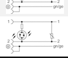
1) Max.

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

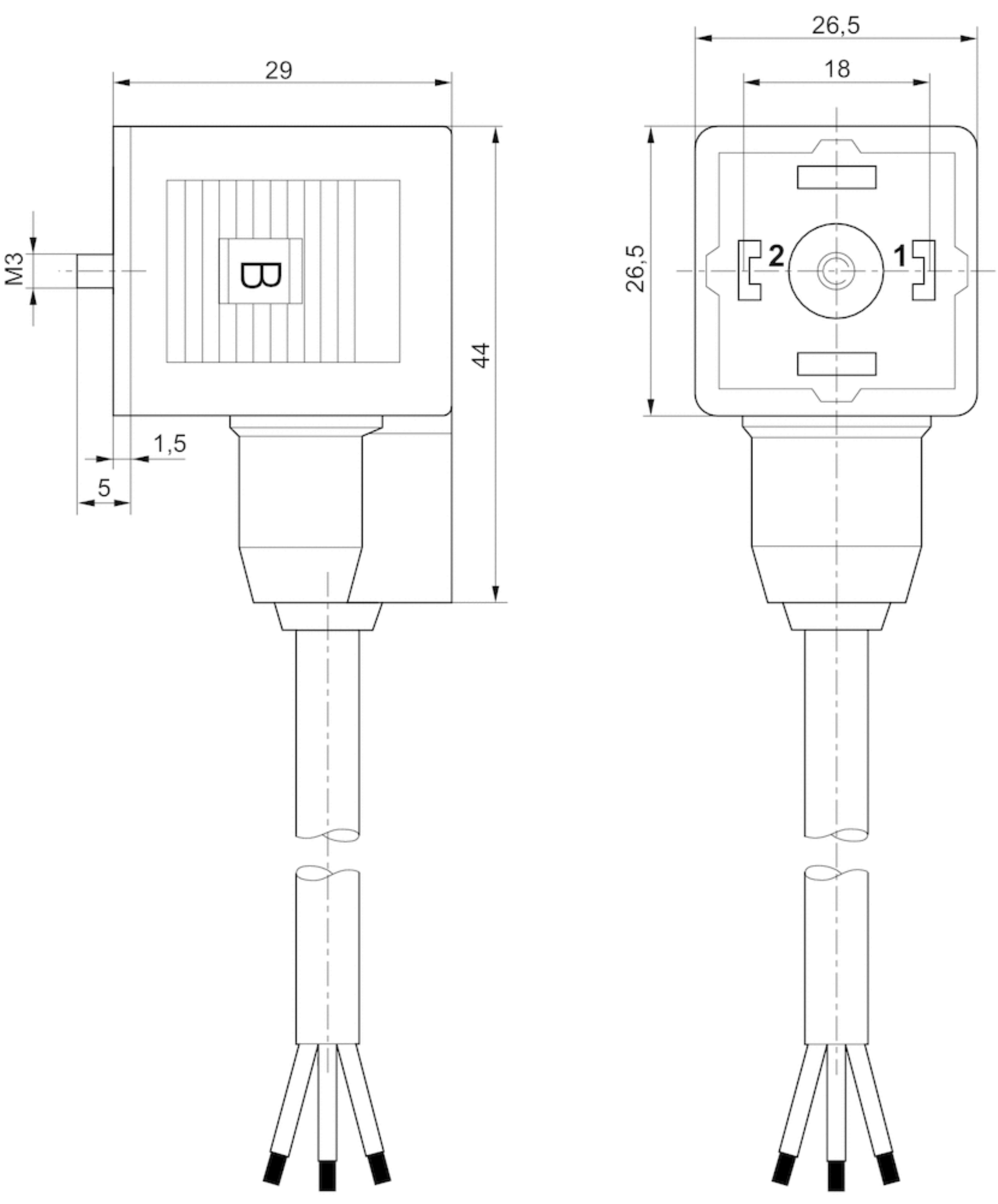
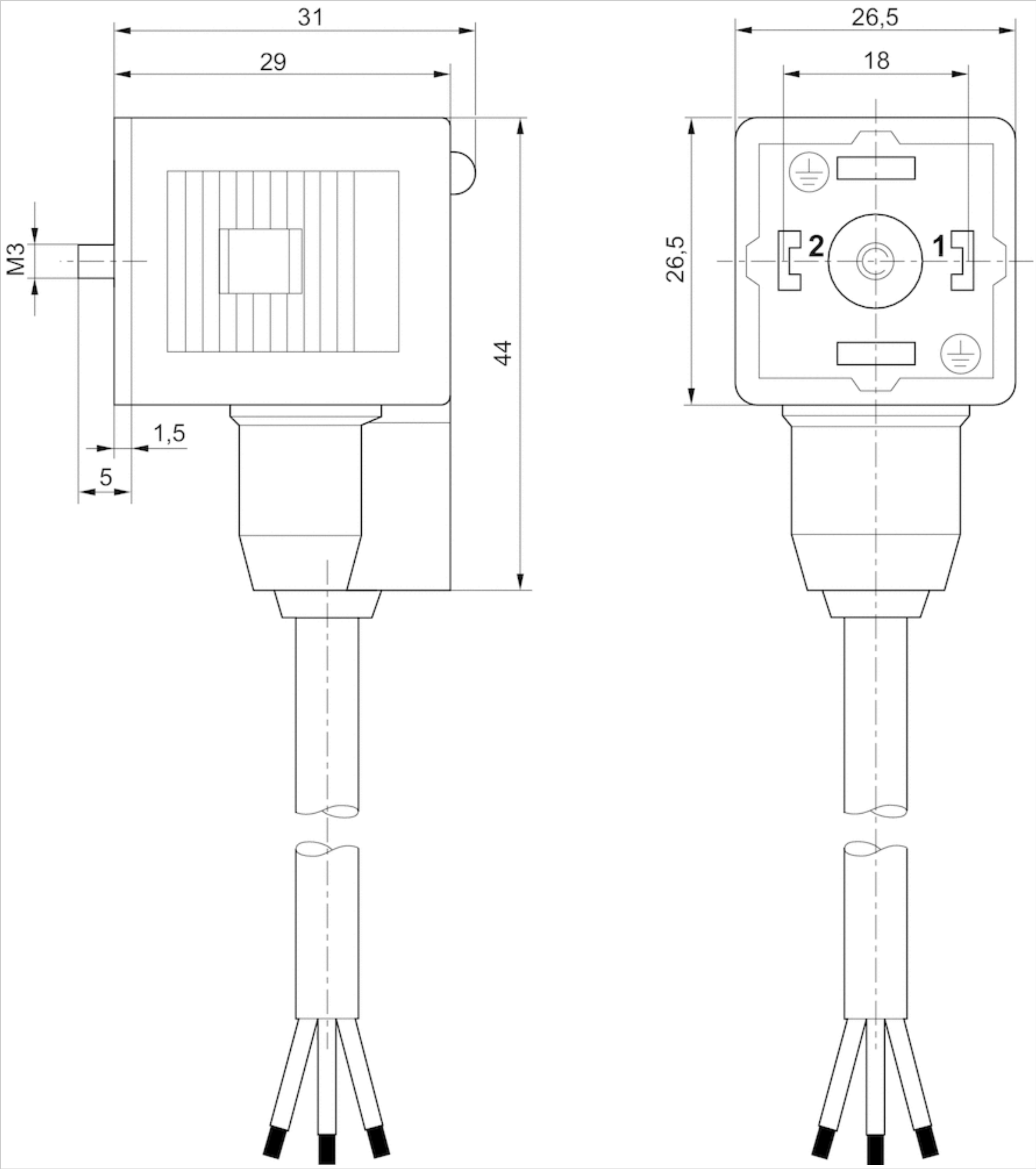


Fig. 2



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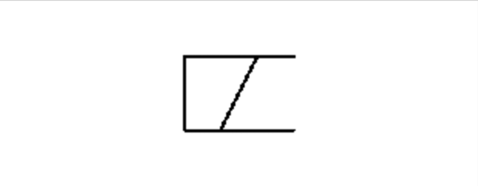
Coil, Series CO1

- form A
- Coil width 30 mm
- Power consumption DC 2.7 W
- Holding power AC 4.8-5.6 VA



Connector standard	EN 175301-803, form A
electrical connections	Plug, 3-pin
Ambient temperature min./max.	50 °C
Protection class With valve plug connector/plug	IP65
Duty cycle ED	100 %
Compatibility index	14
Weight	0.096 kg

Technical data

Part No.	Operational voltage DC	Operational voltage AC 50 Hz	Operational voltage AC 60 Hz
5420897022	24 V	-	-
5428117022	-	24 V	24 V
5428117072	-	110 V	110 V
5428117082	-	230 V	230 V

Part No.	Voltage tolerance DC	Voltage tolerance AC 50 Hz	Voltage tolerance AC 60 Hz	Power consumption DC
5420897022	-10% / +10%	-	-	2.7 W
5428117022	-	-20% / +10%	-10% / +20%	-
5428117072	-	-20% / +10%	-10% / +20%	-
5428117082	-	-20% / +10%	-10% / +20%	-

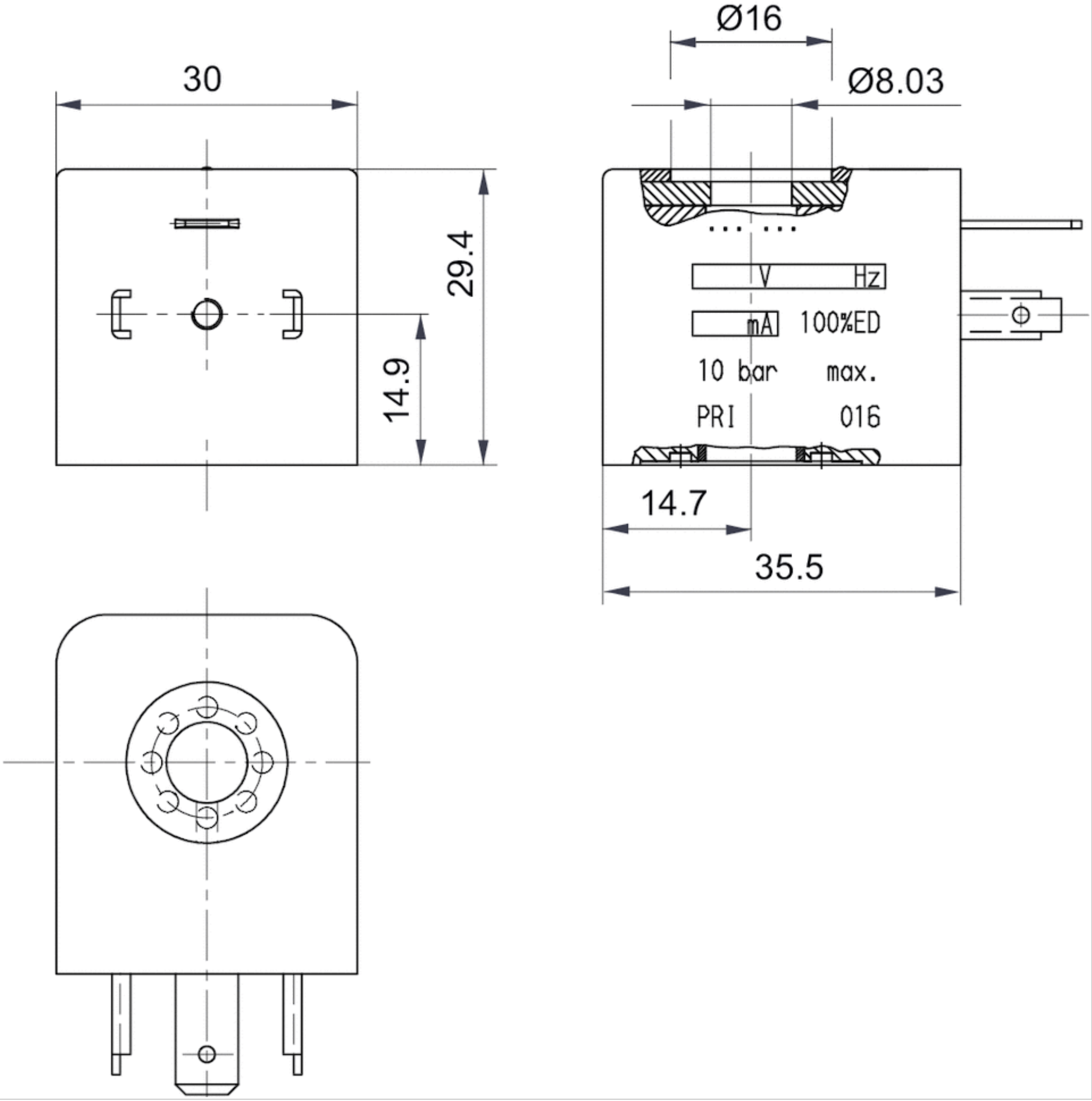
Part No.	Holding power AC 50 Hz	Holding power AC 60 Hz
5420897022	-	-
5428117022	5.2 VA	3.9 VA
5428117072	4.8 VA	3.6 VA
5428117082	5.6 VA	4.2 VA

Technical information

Material	
Housing	Thermoplastic elastomer

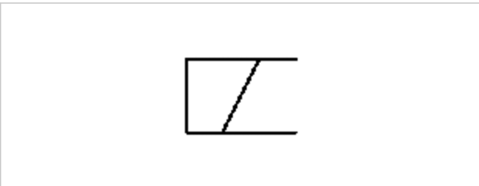
Dimensions

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	-	-

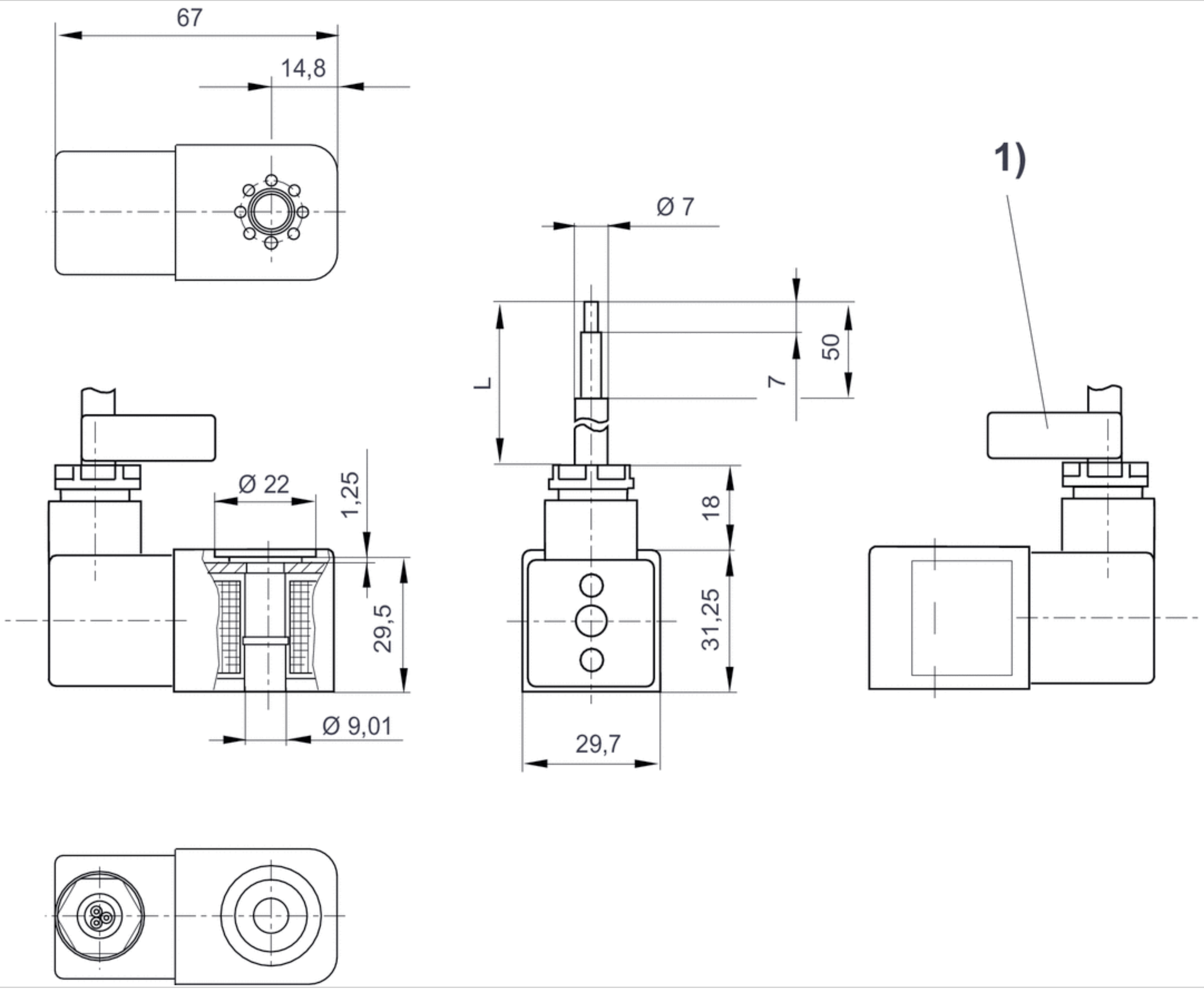
Part No.	Voltage tolerance	Voltage tolerance	Power consumption	Holding power
	DC	AC 50 Hz	DC	AC 50 Hz
1827414297	-	-10% / +10%	-	3 VA
1827414298	-	-10% / +10%	-	3 VA
1827414299	-	-10% / +10%	-	2.9 VA
1827414301	-	-10% / +10%	-	2.9 VA
1827414303	-10% / +10%	-	3.25 W	-
1827414304	-10% / +10%	-	3.25 W	-

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

Part No.	Switch-on power AC 50 Hz	Cable length	Weight
1827414298	3.1 VA	10 m	0.91 kg
1827414299	3 VA	3 m	0.38 kg
1827414301	3 VA	3 m	0.38 kg
1827414303	-	3 m	0.38 kg
1827414304	-	10 m	0.91 kg

Dimensions

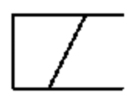
Dimensions



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

Coil, Series CO1

- With valve plug connector
- Coil width 30 mm
- Power consumption DC 2.1 W
- Holding power AC 4-4.1 VA
- Switch-on power AC 4-4.1 VA
- ATEX



Certificates	ATEX
ATEX class G	II 3G Ex nA IIC T4 Gc X
ATEX class D	II 3D Ex tc IIIC T125°C Dc X
Ambient temperature min./max.	-10 ... 50 °C
Protection class	IP65
Duty cycle ED	100 %
Compatibility index	13
Weight	See table below

Technical data

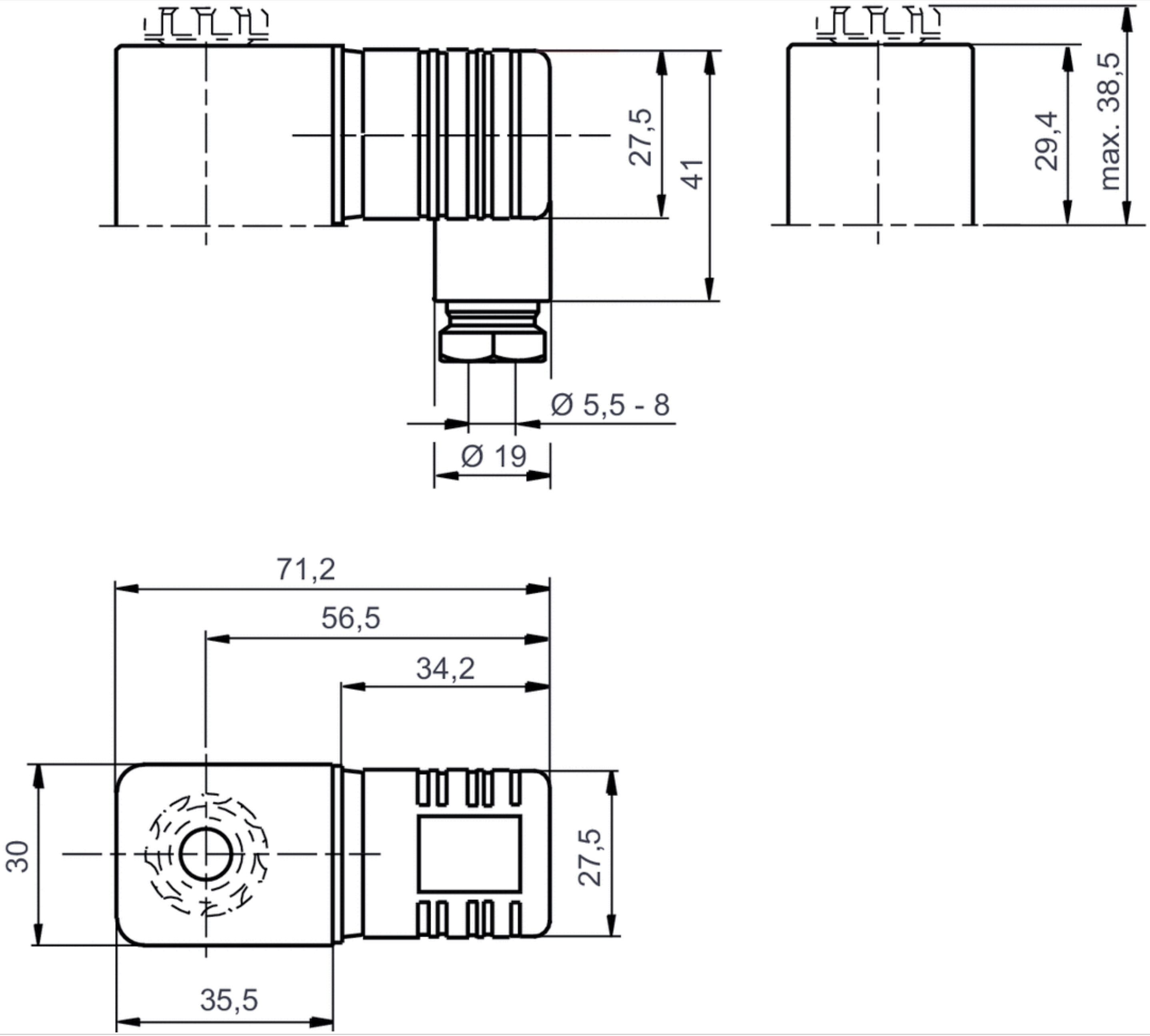
Part No.	Operational voltage	Operational voltage	Operational voltage
	DC	AC 50 Hz	AC 60 Hz
R412000144	24 V	-	-
R412000145	-	24 V	24 V
R412000146	-	110 V	110 V
R412000147	-	230 V	230 V

Part No.	Voltage tolerance	Voltage tolerance	Voltage tolerance	Power consumption
	DC	AC 50 Hz	AC 60 Hz	DC
R412000144	-10% / +10%	-	-	2.1 W
R412000145	-	-20% / +10%	-10% / +20%	-
R412000146	-	-20% / +10%	-10% / +20%	-
R412000147	-	-20% / +10%	-10% / +20%	-

Part No.	Holding power	Switch-on power	Weight
	AC 50 Hz	AC 50 Hz	
R412000144	-	-	0.14 kg
R412000145	4 VA	4 VA	0.134 kg
R412000146	4 VA	4 VA	0.122 kg
R412000147	4.1 VA	4.1 VA	0.137 kg

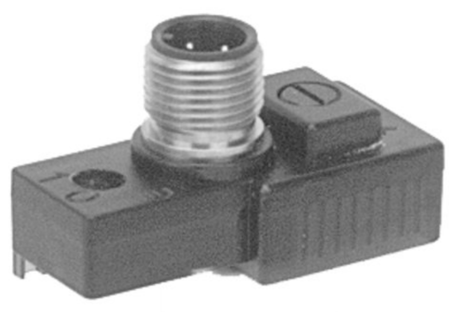
Dimensions

Dimensions



Contact bridges, series CON-CB

- Plug, 4-pin, straight, 180°
- Socket, form C, 2-pin, straight
- Number of solenoid coils 1



Ambient temperature min./max.	-15 ... 50 °C
Protection class	IP65
Operational voltage	24 V AC/DC
Voltage tolerance AC 50 Hz	-10% / +10%
Voltage tolerance AC 60 Hz	-10% / +10%
Valve LED status display	Yellow
Mounting screw	M2.5 with slot
Tightening torque for mounting screws [+0,05]	0.25 Nm
Weight	0.016 kg

Technical data

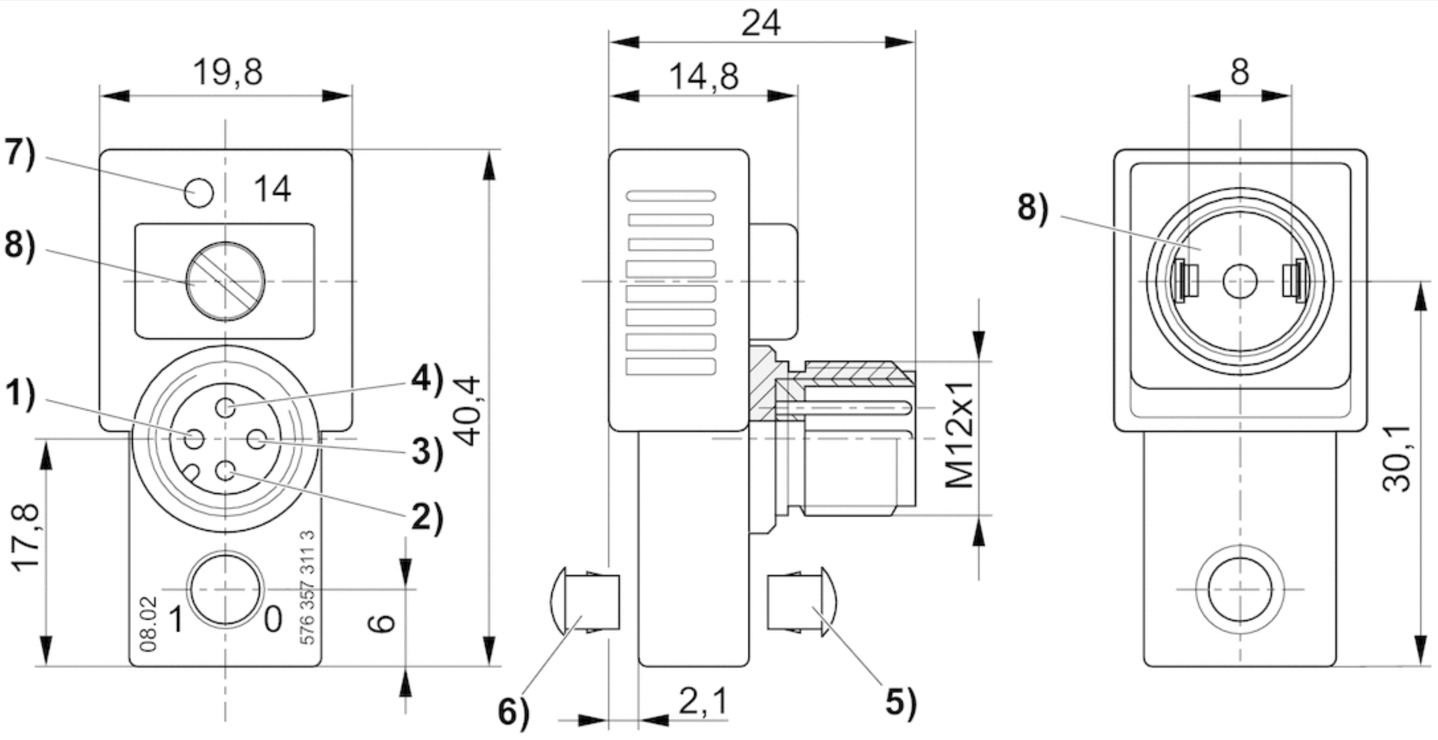
Part No.
5763573113

Technical information

Material	
Housing	Polyester amide
Seals	Fluorocaoutchouc

Dimensions

Dimensions



1) not assigned
2) not assigned
3) 0 V
4) magnet 14
5) Sealing cap for manual override not removable
6) Removable
7) LED valve
8) captive seal and screw

Contact bridges, series CON-CB

- Control Snap Ø8
- Plug, 3-pin, straight, 180°
- Socket, form C, 2-pin, straight
- Number of solenoid coils 1

Ambient temperature min./max.	-25 ... 75 °C
Protection class	IP65
Operational voltage	24 V DC
Valve LED status display	Yellow
Mounting screw	M2.5 with slot
Tightening torque for mounting screws [+0,05]	0.25 Nm
Weight	0.012 kg

Technical data

Part No.	Wire cross-section
5763503183	0.14 mm²

Technical information

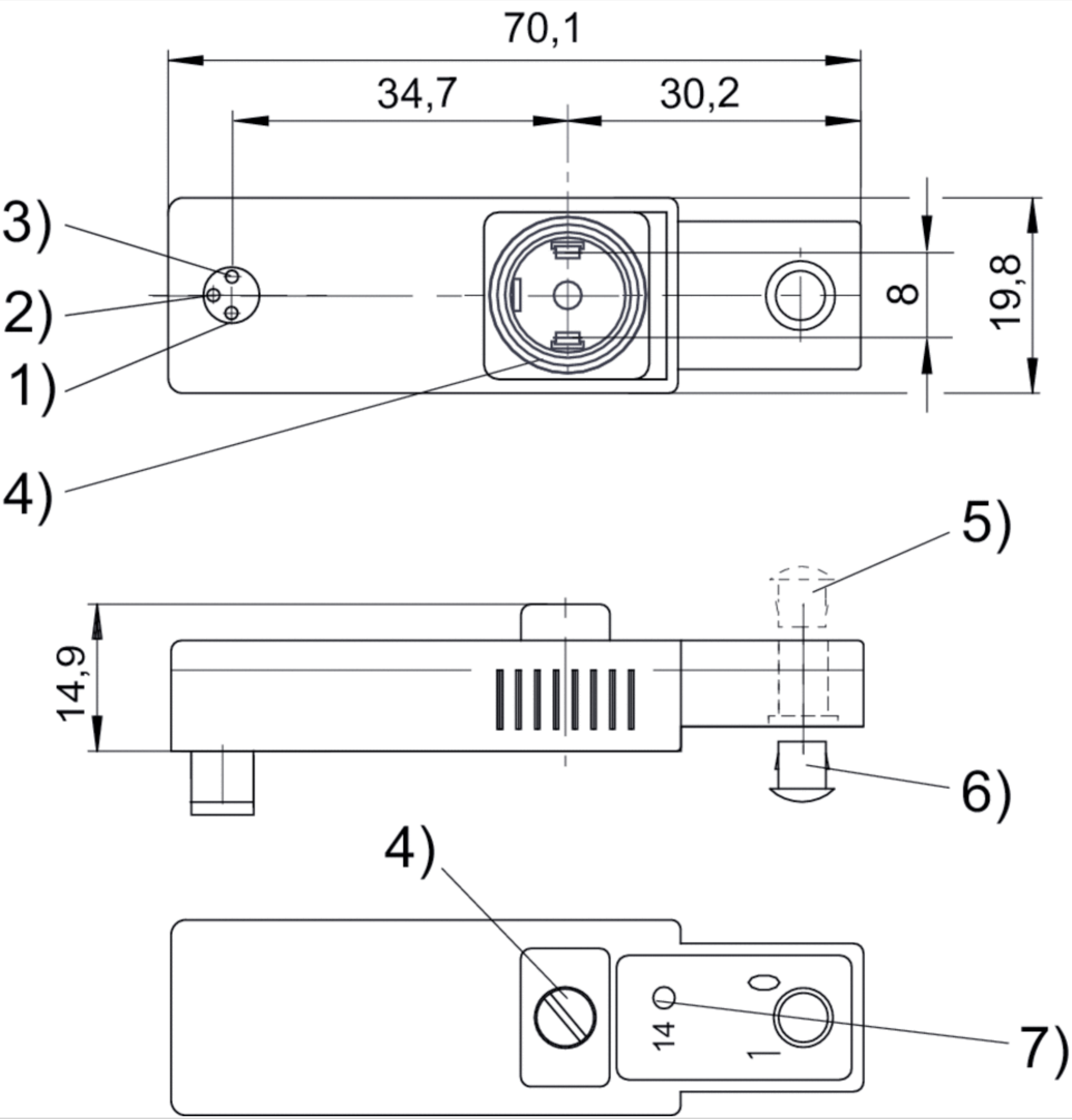
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Housing	Polyester amide
Seals	Fluorocaoutchouc

Dimensions

Dimensions



1) solenoid 14 2) not assigned 3) 0 V
4) captive seal and screw 5) sealing cap for manual override not removable 6) removable 7) LED valve

Adapter, Series CON-VP

- from form A to form C
- Socket, straight, 180°
- Plug, straight, 180°
- unshielded

Ambient temperature min./max.	-25 ... 50 °C
Operational voltage	42 V DC
Protection class	IP65
Protection class	IP65
Weight	0.013 kg

Technical data

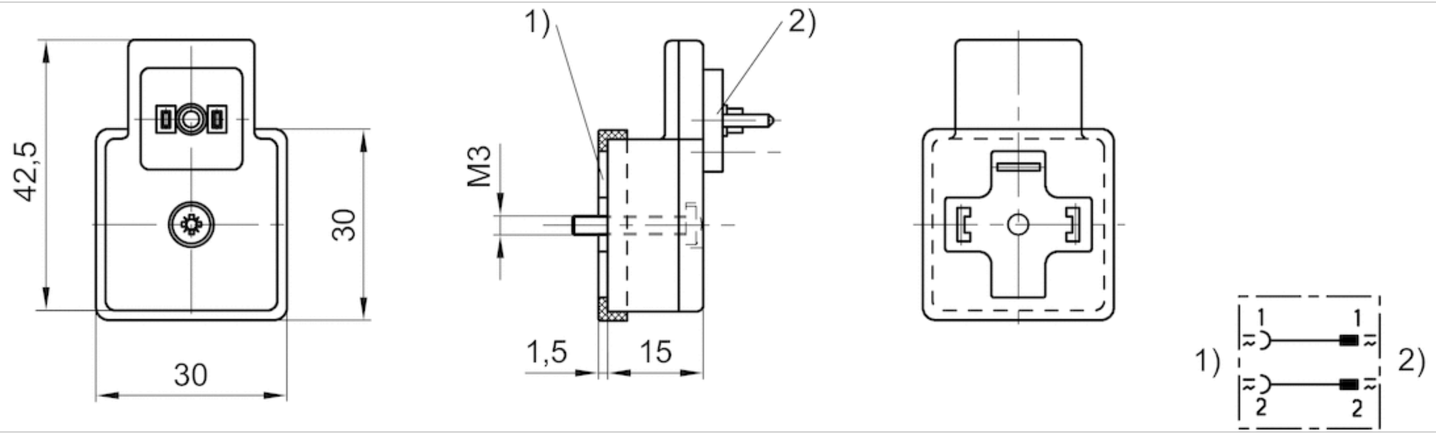
Part No.	Version	Max. current
8946053622	from form A to form C	0.5 A

Technical information

Material	
Housing	Polyamide

Dimensions

Dimensions



1) contact as per DIN EN 175301-803, form A
2) contact as per DIN EN 175301-803, form C

Subbases and accessories

Working pressure min./max.	0 ... 10 bar
Ambient temperature min./max.	-15 ... 50 °C
Medium	Compressed air
Weight	See table below

Technical data

Part No.	Type	Weight
8985003902	Supply plate, complete with O-rings	0.245 kg
8985003972	Supply plate, corrosion-protected, complete with O-rings	0.237 kg
8985003922	Sandwich plate 740, complete with O-rings.	0.089 kg
8985003912	End plate	0.092 kg
5727406012	Dummy flange for reserve places complete with seals	0.033 kg
5727400092	O-rings for connections 1, 3, and 5 (R = 5: Exhaust, P = 1: Pressure, S = 3: Exhaust)	0.009 kg

Technical information

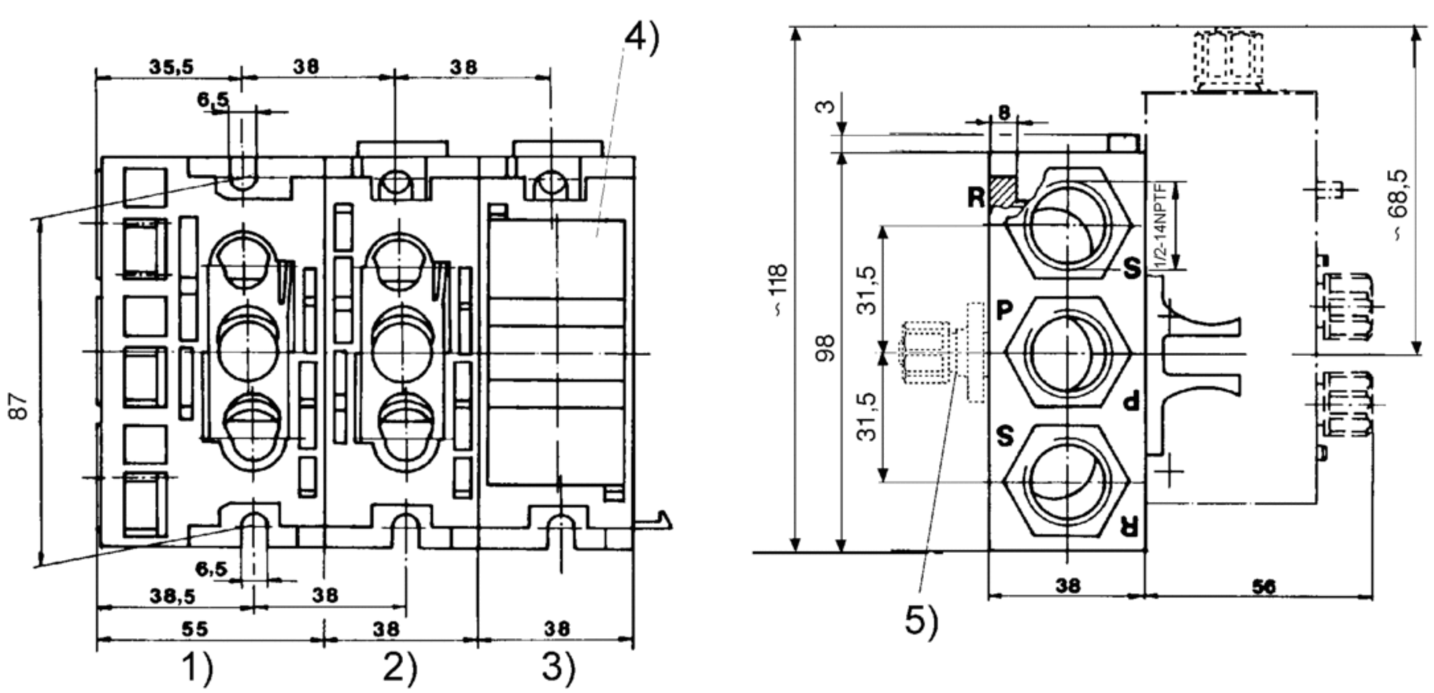
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only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

Technical information

Material	
Base plate	Polyoxymethylene
Seal	Acrylonitrile butadiene rubber

Dimensions

Dimensions



Tightening torque for all screws max. 35 Nm
1) Inlet plate
2) Through plate
3) End plate
4) Dummy flange
5) Adapter for separate air supply

Fittings - Accessories, Series 740

Technical data

Part No.	Fig.	Type
8939008500	Fig. 1	Reducing fitting Ø 8x1 to Ø 6x incl. O-ring
8939008510	Fig. 1	Reducing fitting Ø 10x1 to Ø 6x1 incl. O-ring
8939008520	Fig. 1	Reducing fitting Ø 10x1 to Ø 8x1 incl. O-ring
8938000910	Fig. 2	Reducing fitting Ø 8x1 to Ø 6x1, push-in incl. O-ring
8938000920	Fig. 2	Reducing fitting Ø 8x1 to Ø 8x1, push-in incl. O-ring
8939008800	Fig. 1	fitting, for port R and S for 8x1
8931220200	Fig. 3	Tubing connector for fabric-reinforced tubing Ø 8x3, incl. O-Ring
8938306520	Fig. 4	elbow fitting Ø 10x1 to Ø 6x1, incl. O-ring
8938306530	Fig. 4	elbow fitting Ø 10x1 to Ø 8x1, incl. O-ring
8938306540	Fig. 4	elbow fitting Ø 10x1 to Ø 10x1, incl. O-ring
8919905414	Fig. 7	Tube nut Ø 10x1 for silencer
8993809904	Fig. 8	Silencer
8919905502	Fig. 9	Screw plug, Ø 8x1
8919905512	Fig. 9	Screw plug, Ø 10x1
8932404100	Fig. 10	Adapter, Ø 8x1, G 1/4, incl. O-ring
8938306550	Fig. 5	elbow fitting Ø 8x1 to Ø 6x1, push-in, incl. O-ring
8938306560	Fig. 5	elbow fitting Ø 8x1 to Ø 8x1, push-in, incl. O-ring
8938307900	Fig. 6	Elbow fitting, 2x, plastic tubing Ø 6x1 for supply plate
8938307800	Fig. 6	Elbow fitting, 2x, plastic tubing Ø 8x1 for supply plate
8919905404	Fig. 7	tube nut, Ø 8x1

Dimensions

Fig. 1

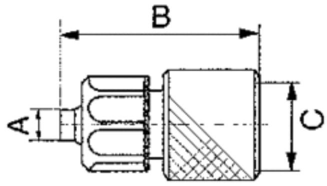


Fig. 2

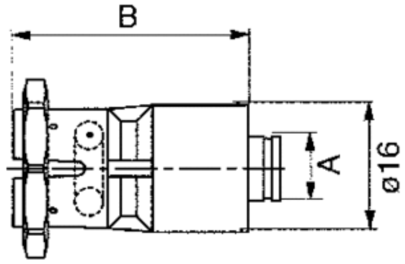


Fig. 3

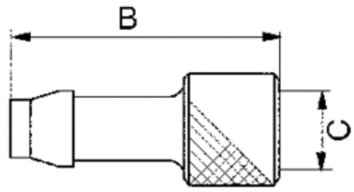


Fig. 4

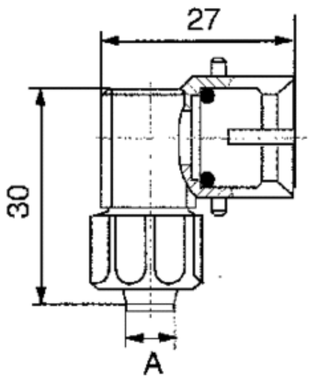


Fig. 5

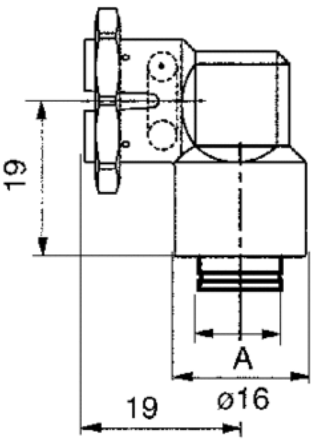


Fig. 6

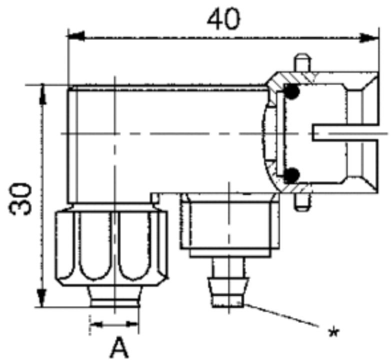


Fig. 7

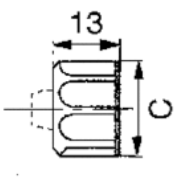


Fig. 8

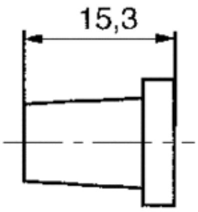


Fig. 9

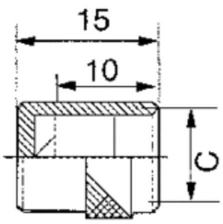
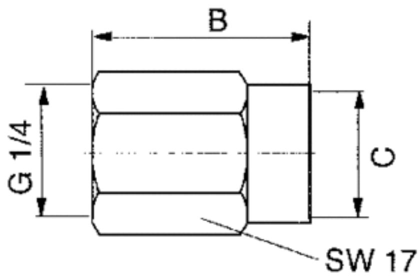


Fig. 10



Dimensions

Part No.	Ø A	B	C	Fig.
8939008500	4	25	M12x1	Fig. 1
8939008510	4	26	M14x1	Fig. 1
8939008520	6	27	M14x1	Fig. 1
8938000910	6	29.5	–	Fig. 2
8938000920	8	29.5	–	Fig. 2
8939008800	6	24	M14x1	Fig. 1
8931220200	8	33	M12x1	Fig. 3
8938306520	4	–	–	Fig. 4

Part No.	Ø A	B	C	Fig.
8938306530	6	–	–	Fig. 4
8938306540	8	–	–	Fig. 4
8919905414	–	–	M14x1	Fig. 7
8993809904	–	–	–	Fig. 8
8919905502	–	–	M12x1	Fig. 9
8919905512	–	–	M14x1	Fig. 9
8932404100	–	27	M12x1	Fig. 10
8938306550	6	–	–	Fig. 5
8938306560	8	–	–	Fig. 5
8938307900	4	–	–	Fig. 6
8938307800	6	–	–	Fig. 6
8919905404	–	–	M12x1	Fig. 7

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