Series LS04







3/2 directional valve, LS04-AF series

- 2x3/2

- Qn = 175-310 l/min

- NO/NO NC/NC NC/NO

- Pipe connection

- Compressed air connection output : Ø 4 Ø 6 - Electrical connection: Plug, M8, 3-pin

- Manual override : without detent

- Pilot : Internal



Type Spool valve Activation Electrically Pilot Internal Soft sealing Sealing principle See table below Working pressure min./max. -10 ... 50 °C Ambient temperature min./max. -10 ... 50 °C Medium temperature min./max. Medium Compressed air

Max. particle size 5 µm

Oil content of compressed air 0 ... 5 mg/m³ Nominal flow Qn See table below Connector standard DIN EN 60947-5-2

Class III

Protection class acc. to DIN EN 61140

Electrically

IP65 Protection class with connection Protective circuit Z-diode LED status display Yellow 100 % Duty cycle Typ. switch-on time 12 ms Typ. switch-off time 15 ms

Generic emission standard in accordance EN 61000-6-4:2002

Generic immunity standard in accordance IEC 61000-6-2:2005

with

mounting screws М3 Mounting screw tightening torque 0,5 Nm Weight 0,064 kg



Part No.		MO		Compressed air connection
				Input
R422103573	AAAA		NO/NO	Ø 4
R422103574	AL SALB		NO/NO	Ø 6
R422103581	7-1-1-5		NC/NC	Ø 4
R422103582	#1. A		NC/NC	Ø 6
R422103602			NC/NC	Ø 6
R422103589	ALL ALL		NC/NO	Ø 4
R422103590	751.175 7511.18		NC/NO	Ø 6

Part No.	Compressed air connection	Compressed air connection
	Output	Exhaust
R422103573	Ø 4	Ø 4
R422103574	Ø 6	Ø 6
R422103581	Ø 4	Ø 4
R422103582	Ø 6	Ø 6
R422103602	Ø 6	Ø 6
R422103589	Ø 4	Ø 4
R422103590	Ø 6	Ø 6

Part No.	Operational voltage	Voltage tolerance	Power consumption
	DC	DC	DC
R422103573	24 V	-10% / +10%	1,3 W
R422103574	24 V	-10% / +10%	1,3 W
R422103581	24 V	-10% / +10%	1,3 W
R422103582	24 V	-10% / +10%	1,3 W
R422103602	24 V	-10% / +10%	1,3 W
R422103589	24 V	-10% / +10%	1,3 W
R422103590	24 V	-10% / +10%	1,3 W

Part No.	Flow conductance	Flow conductance	Nominal flow Qn	Working pressure min. / max.	
	b	C-value			
R422103573	0,4	0,8 l/(s*bar)	175 l/min	3 7 bar	-
R422103574	0,25	1,2 l/(s*bar)	250 l/min	3 7 bar	-
R422103581	0,4	0,8 l/(s*bar)	180 l/min	3 7 bar	-
R422103582	0,3	1,5 l/(s*bar)	310 l/min	3 7 bar	-
R422103602	0,3	1,5 l/(s*bar)	310 l/min	3,5 7 bar	1)
R422103589	0,4	0,8 l/(s*bar)	175 l/min	3 7 bar	-
R422103590	0,25	1,2 l/(s*bar)	250 l/min	3 7 bar	-

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

Technical information

¹⁾ Due to its design, this 2x3/2 directional valve with negative overlap cannot remain in a position where all channels are closed.



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).

A duty cycle of 100 percent is only valid for single valves.

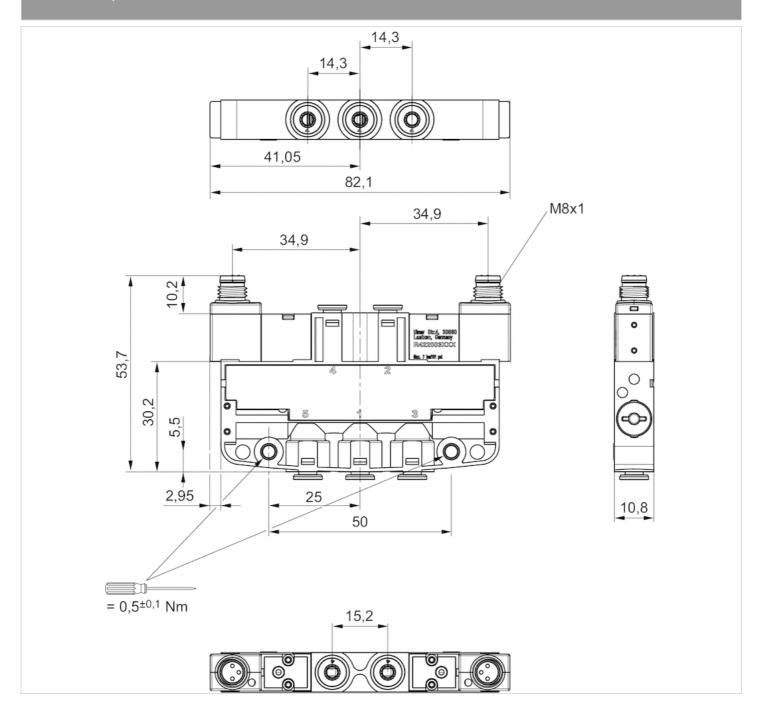
Technical information

Material	
Housing	Polyoxymethylene
Seals	Acrylonitrile butadiene rubber Hydrogenated nitrile butadiene rubber Polyurethane



Dimensions

Dimensions, double solenoid

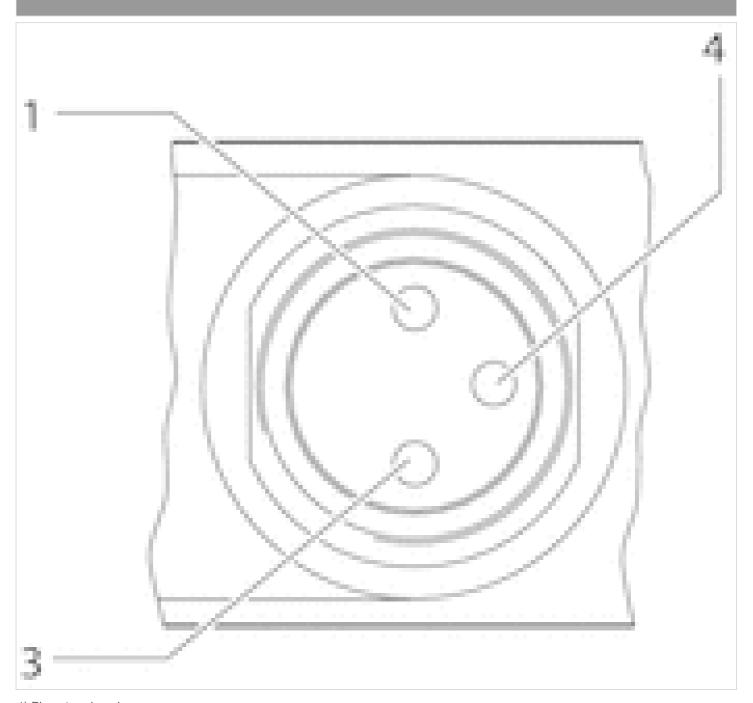






Pin assignments

PIN assignment for valve plug connectors, 3-pin



- 1) Pin not assigned
- 3) 0 V
- 4) 24 V

Note: Bi-polar protective circuit to prevent overvoltage





2x3/2-directional valve, Series LS04-AF

- 2x3/2

- Qn = 175-310 l/min

- NO/NO NC/NC NC/NO

- Pipe connection

- Compressed air connection output : Ø 4 Ø 6

- Electrical connection : Plug, M8, 3-pin

- Manual override: with detent

- Pilot : Internal



Version Spool valve, positive overlapping

Class III

Activation Electrically
Pilot Internal
Sealing principle Soft sealing
Working pressure min./max. 3 ... 7 bar
Ambient temperature min./max. -10 ... 50 °C
Medium temperature min./max. -10 ... 50 °C
Compressed air

Max. particle size 5 µm

Oil content of compressed air 0 ... 5 mg/m³

Nominal flow Qn See table below

Connector standard DIN EN 60947-5-2

Protection class acc. to DIN EN 61140

Electrically

Protection class with connection IP65
Protective circuit Z-diode
LED status display Yellow
Duty cycle 100 %
Typ. switch-on time 12 ms
Typ. switch-off time 15 ms

Generic emission standard in accordance EN 61000-6-4:2002

with

Generic immunity standard in accordance IEC 61000-6-2:2005

with

mounting screws M3

Mounting screw tightening torque 0.5 Nm

Weight 0.064 kg



Part No.		MO		Compressed air connection
				Input
R422103577	ALL IN ALL IN		NO/NO	Ø 4
R422103578	ALV m ALV m	<u> </u>	NO/NO	Ø 6
R422103585			NC/NC	Ø 4
R422103586			NC/NC	Ø 6
R422103593			NC/NO	Ø 4
R422103594			NC/NO	Ø 6

Part No.	Compressed air connection	Compressed air connection
	Output	Exhaust
R422103577	Ø 4	Ø 4
R422103578	Ø 6	Ø 6
R422103585	Ø 4	Ø 4
R422103586	Ø 6	Ø 6
R422103593	Ø 4	Ø 4
R422103594	Ø 6	Ø 6

Part No.	Operational	Voltage tolerance	Power consumption
	voltage		
	DC	DC	DC
R422103577	24 V	-10% / +10%	1.3 W
R422103578	24 V	-10% / +10%	1.3 W
R422103585	24 V	-10% / +10%	1.3 W
R422103586	24 V	-10% / +10%	1.3 W
R422103593	24 V	-10% / +10%	1.3 W
R422103594	24 V	-10% / +10%	1.3 W

Part No.	Flow conductance	Flow conductance C-value	Nominal flow Qn
R422103577	0.4	0.8 l/(s*bar)	175 l/min
	-	, ,	
R422103578	0.25	1.2 l/(s*bar)	250 l/min
R422103585	0.4	0.8 l/(s*bar)	180 l/min
R422103586	0.3	1.5 l/(s*bar)	310 l/min
R422103593	0.4	0.8 l/(s*bar)	175 l/min
R422103594	0.25	1.2 l/(s*bar)	250 l/min

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).

A duty cycle of 100 percent is only valid for single valves.



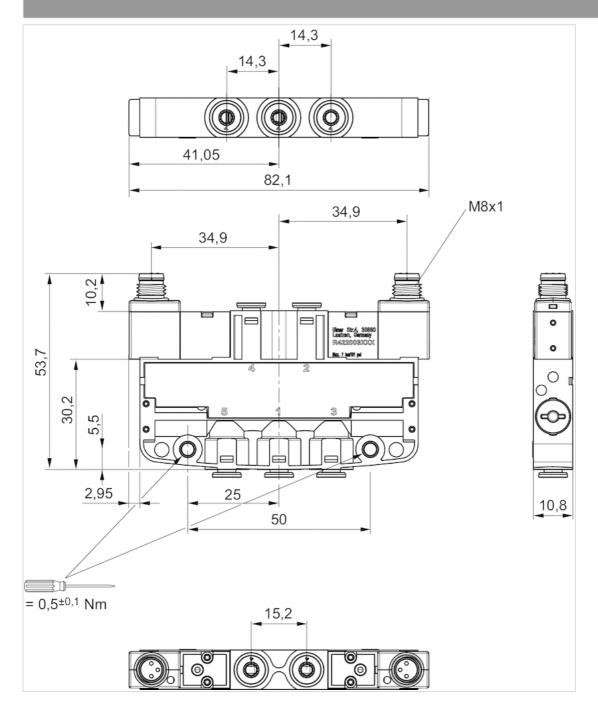


Technical information

Material	
Housing	Polyoxymethylene
	Acrylonitrile butadiene rubber Hydrogenated nitrile butadiene rubber Polyurethane

Dimensions

Dimensions, double solenoid





Pin assignments

PIN assignment for valve plug connectors



- 1) Pin not assigned
- 3) 0 V
- 4) 24 V

Note: Bi-polar protective circuit to prevent overvoltage



2x3/2-directional valve, Series LS04-AF

- 2x3/2
- Qn = 175-310 l/min
- NO/NO NC/NC NC/NO
- Pipe connection
- Compressed air connection output : Ø 4 Ø 6
- Electrical connection: 2, Plug, Industrial plug connector, 2-pin
- Manual override : without detent
- Pilot : Internal



Version Spool valve, positive overlapping

Class III

Activation Electrically
Pilot Internal
Sealing principle Soft sealing
Working pressure min./max. 3 ... 7 bar
Ambient temperature min./max. -10 ... 50 °C
Medium temperature min./max. -10 ... 50 °C
Compressed air

Max. particle size 5 µm

Oil content of compressed air 0 ... 5 mg/m³

Nominal flow Qn See table below

Protection class acc. to DIN EN 61140

Electrically

Protection class with connection IP50
Protective circuit Z-diode
LED status display Yellow
Duty cycle 100 %
Typ. switch-on time 12 ms
Typ. switch-off time 15 ms

Generic emission standard in accordance EN 61000-6-4:2002

with

Generic immunity standard in accordance IEC 61000-6-2:2005

with

mounting screws M3

Mounting screw tightening torque 0.5 Nm

Weight 0.064 kg



Part No.		MO		Compressed air connection
				Input
R422103571	8 Z. & 8 Z. &		NO/NO	Ø 4
R422103572			NO/NO	Ø 6
R422103579			NC/NC	Ø 4
R422103580			NC/NC	Ø 6
R422103587			NC/NO	Ø 4
R422103588	* * *		NC/NO	Ø 6

Part No.	Compressed air connection	Compressed air connection
	Output	Exhaust
R422103571	Ø 4	Ø 4
R422103572	Ø 6	Ø 6
R422103579	Ø 4	Ø 4
R422103580	Ø 6	Ø 6
R422103587	Ø 4	Ø 4
R422103588	Ø 6	Ø 6

Part No.	Operational	Voltage tolerance	Power consumption
	voltage		
	DC	DC	DC
R422103571	24 V	-10% / +10%	1.3 W
R422103572	24 V	-10% / +10%	1.3 W
R422103579	24 V	-10% / +10%	1.3 W
R422103580	24 V	-10% / +10%	1.3 W
R422103587	24 V	-10% / +10%	1.3 W
R422103588	24 V	-10% / +10%	1.3 W

Part No.	Flow conductance	Flow conductance C-value	Nominal flow Qn
R422103571	0.4	0.8 l/(s*bar)	175 l/min
R422103572	0.25	1.2 l/(s*bar)	250 l/min
R422103579	0.4	0.8 l/(s*bar)	180 l/min
R422103580	0.3	1.5 l/(s*bar)	310 l/min
R422103587	0.4	0.8 l/(s*bar)	175 l/min
R422103588	0.25	1.2 l/(s*bar)	250 l/min

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).

A duty cycle of 100 percent is only valid for single valves.

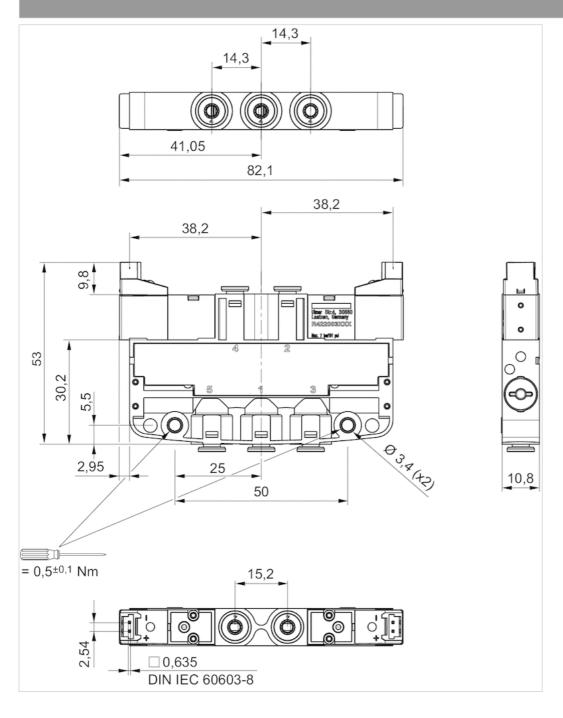


Technical information

Material	
Housing	Polyoxymethylene
	Acrylonitrile butadiene rubber Hydrogenated nitrile butadiene rubber Polyurethane

Dimensions

dimensions, double solenoid





2x3/2-directional valve, Series LS04-AF

- 2x3/2
- Qn = 175-310 l/min
- NO/NO NC/NC NC/NO
- Pipe connection
- Compressed air connection output : Ø 4 Ø 6
- Electrical connection: 2, Plug, Industrial plug connector, 2-pin
- Manual override : with detent

- Pilot : Internal



Version Spool valve, positive overlapping

Class III

Activation Electrically
Pilot Internal
Sealing principle Soft sealing
Working pressure min./max. 3 ... 7 bar
Ambient temperature min./max. -10 ... 50 °C
Medium temperature min./max. -10 ... 50 °C
Compressed air

Max. particle size 5 µm

Oil content of compressed air 0 ... 5 mg/m³

Nominal flow Qn See table below

Protection class acc. to DIN EN 61140

Electrically

Protection class with connection IP50
Protective circuit Z-diode
LED status display Yellow
Duty cycle 100 %
Typ. switch-on time 12 ms
Typ. switch-off time 15 ms

Generic emission standard in accordance EN 61000-6-4:2002

with

Generic immunity standard in accordance IEC 61000-6-2:2005

with

mounting screws M3

Mounting screw tightening torque 0.5 Nm

Weight 0.064 kg



Part No.		MO		Compressed air connection
				Input
R422103575	BIX In BIX In		NO/NO	Ø 4
R422103576	ALV IN ALV IN		NO/NO	Ø 6
R422103583			NC/NC	Ø 4
R422103584			NC/NC	Ø 6
R422103591			NC/NO	Ø 4
R422103592			NC/NO	Ø 6

Part No.	Compressed air connection	Compressed air connection
	Output	Exhaust
R422103575	Ø 4	Ø 4
R422103576	Ø 6	Ø 6
R422103583	Ø 4	Ø 4
R422103584	Ø 6	Ø 6
R422103591	Ø 4	Ø 4
R422103592	Ø 6	Ø 6

Part No.	Operational	Voltage tolerance	Power consumption
	voltage		
	DC	DC	DC
R422103575	24 V	-10% / +10%	1.3 W
R422103576	24 V	-10% / +10%	1.3 W
R422103583	24 V	-10% / +10%	1.3 W
R422103584	24 V	-10% / +10%	1.3 W
R422103591	24 V	-10% / +10%	1.3 W
R422103592	24 V	-10% / +10%	1.3 W

Part No.	Flow conductance	Flow conductance C-value	Nominal flow Qn
R422103575	0.4	0.8 l/(s*bar)	175 l/min
R422103576	0.25	1.2 l/(s*bar)	250 l/min
R422103583	0.4	0.8 l/(s*bar)	180 l/min
R422103584	0.3	1.5 l/(s*bar)	310 l/min
R422103591	0.4	0.8 l/(s*bar)	175 l/min
R422103592	0.25	1.2 l/(s*bar)	250 l/min

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).

A duty cycle of 100 percent is only valid for single valves.

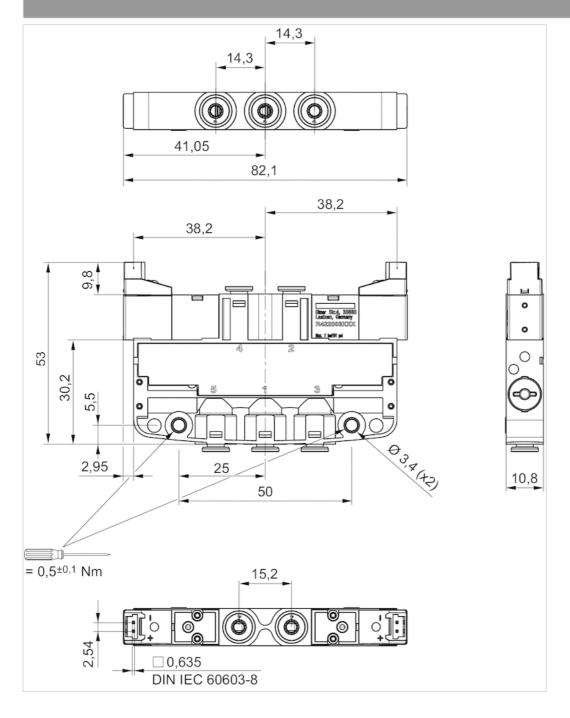


Technical information

Material	
Housing	Polyoxymethylene
	Acrylonitrile butadiene rubber Hydrogenated nitrile butadiene rubber Polyurethane

Dimensions

dimensions, double solenoid





5/2-directional valve, Series LS04-AF

- 5/2

- Qn = 180-310 l/min

- Pipe connection

- Compressed air connection output : Ø 4 Ø 6

- Electrical connection: Plug, M8, 3-pin

- Manual override : without detent

- single solenoid double solenoid

- With spring return

- Pilot : Internal



Version Spool valve, positive overlapping

Activation Electrically
Pilot Internal
Sealing principle Soft sealing
Working pressure min./max. See table below
Ambient temperature min./max. -10 ... 50 °C
Medium temperature min./max. -10 ... 50 °C
Compressed air

Max. particle size 5 μm

Oil content of compressed air 0 ... 5 mg/m³

Nominal flow Qn See table below

Connector standard DIN EN 60947-5-2

Protection class acc. to DIN EN 61140 Class III

Electrically

Protection class with connection IP65
Protective circuit Z-diode
LED status display Yellow
Duty cycle 100 %

Generic emission standard in accordance EN 61000-6-4:2002

with

Generic immunity standard in accordance IEC 61000-6-2:2005

with

mounting screws M3

Mounting screw tightening torque 0.5 Nm

Weight See table below

Comment The delivered product may vary from that

in the illustration.



Part No.		MO	Compressed air connection	Compressed air connection
			Input	Output
R422103561	4 12 5 113		Ø 4	Ø 4
R422103562	4 12 5 113		Ø 6	Ø 6
R422103569			Ø 4	Ø 4
R422103570	75 1 1 1 3 T		Ø 6	Ø 6

Part No.	Compressed air connection	Operational voltage	Voltage tolerance
	Exhaust	DC	DC
R422103561	Ø 4	24 V	-10% / +10%
R422103562	Ø 6	24 V	-10% / +10%
R422103569	Ø 4	24 V	-10% / +10%
R422103570	Ø 6	24 V	-10% / +10%

Part No.	Power consumption	Flow conductance	Flow conductance	Nominal flow Qn
	DC	b	C-value	
R422103561	1.3 W	0.3	0.8 l/(s*bar)	180 l/min
R422103562	1.3 W	0.27	1.5 l/(s*bar)	310 l/min
R422103569	1.3 W	0.3	0.8 l/(s*bar)	180 l/min
R422103570	1.3 W	0.27	1.5 l/(s*bar)	310 l/min

Part No.	Working pressure min./max.	Typ. switch-on time	Typ. switch-off time	Weight
R422103561	3 7 bar	10 ms	22 ms	0.053 kg
R422103562	3 7 bar	10 ms	22 ms	0.053 kg
R422103569	2 7 bar	9 ms	9 ms	0.063 kg
R422103570	2 7 bar	9 ms	9 ms	0.063 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).

A duty cycle of 100 percent is only valid for single valves.

Technical information

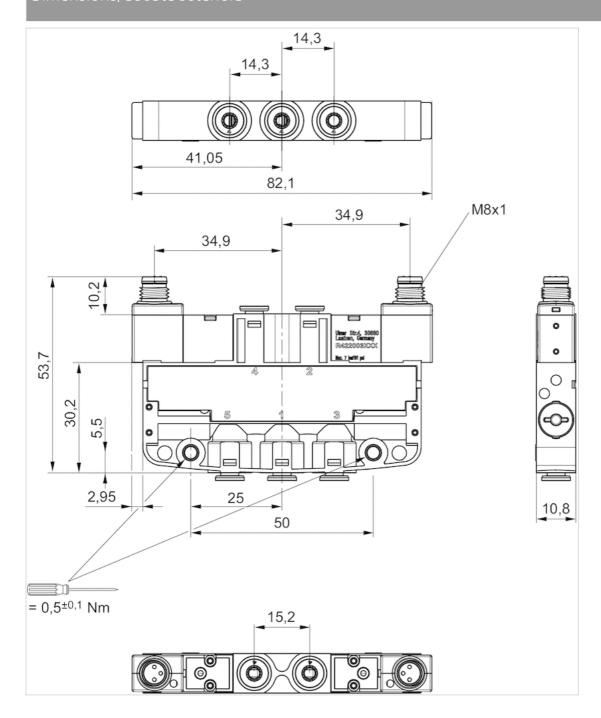
Material	
Housing	Polyoxymethylene
	Acrylonitrile butadiene rubber Hydrogenated nitrile butadiene rubber Polyurethane





Dimensions

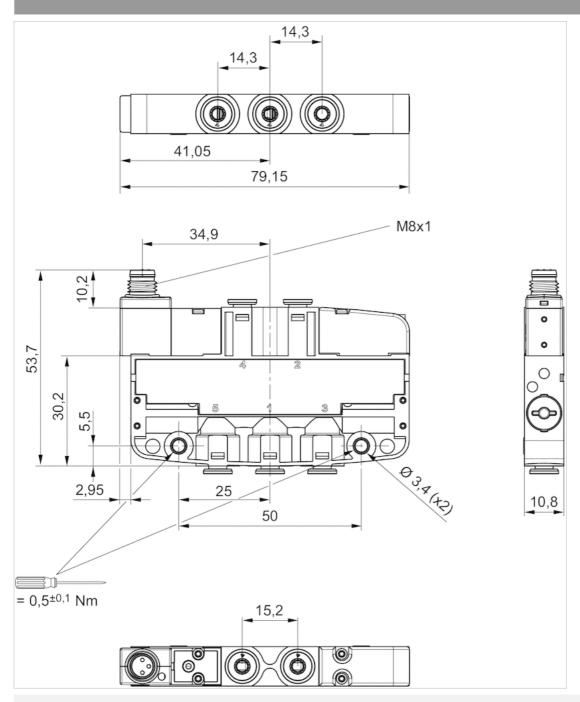
Dimensions, double solenoic







dimensions, single solenoid



Pin assignments

PIN assignment for valve plug connectors



- 1) Pin not assigned
- 3) 0 V
- 4) 24 V



Note: Bi-polar protective circuit to prevent overvoltage



5/2-directional valve, Series LS04-AF

- 5/2
- Qn = 180-310 l/min
- Pipe connection

- Compressed air connection output : Ø 4 Ø 6

- Electrical connection: Plug, M8, 3-pin

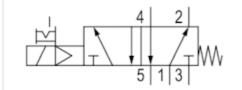
- Manual override : with detent

- single solenoid

- With spring return

- Pilot : Internal





Version Spool valve, positive overlapping

Activation Electrically

Pilot Internal

Sealing principle Soft sealing

Working pressure min./max. 3 ... 7 bar

Ambient temperature min./max. -10 ... 50 °C

Medium temperature min./max. -10 ... 50 °C

Medium Compressed air

Max. particle size 5 µm

Oil content of compressed air 0 ... 5 mg/m³

Nominal flow Qn See table below

Connector standard DIN EN 60947-5-2

Protection class acc. to DIN EN 61140 Class III

Electrically

Protection class with connection IP65
Protective circuit Z-diode
LED status display Yellow
Duty cycle 100 %
Typ. switch-on time 10 ms
Typ. switch-off time 22 ms

Generic emission standard in accordance EN 61000-6-4:2002

with

Generic immunity standard in accordance IEC 61000-6-2:2005

with

mounting screws M3

Mounting screw tightening torque 0.5 Nm

Weight 0.053 kg



Part No.	MO	Compressed air connection	Compressed air connection
		Input	Output
R422103565		Ø 4	Ø 4
R422103566		Ø 6	Ø 6

Part No.	Compressed air connection	Operational voltage	Voltage tolerance
	Exhaust	DC	DC
R422103565	Ø 4	24 V	-10% / +10%
R422103566	Ø 6	24 V	-10% / +10%

Part No.	Power consumption	Flow conductance	Flow conductance	Nominal flow Qn
	DC	b	C-value	
R422103565	1.3 W	0.3	0.8 l/(s*bar)	180 l/min
R422103566	1.3 W	0.27	1.5 l/(s*bar)	310 l/min

Nominal flow Qn at 6 bar and $\Delta p = 1$ 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 $^{\circ}$ C under ambient and medium temperature and may not exceed 3 $^{\circ}$ 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).

A duty cycle of 100 percent is only valid for single valves.

Technical information

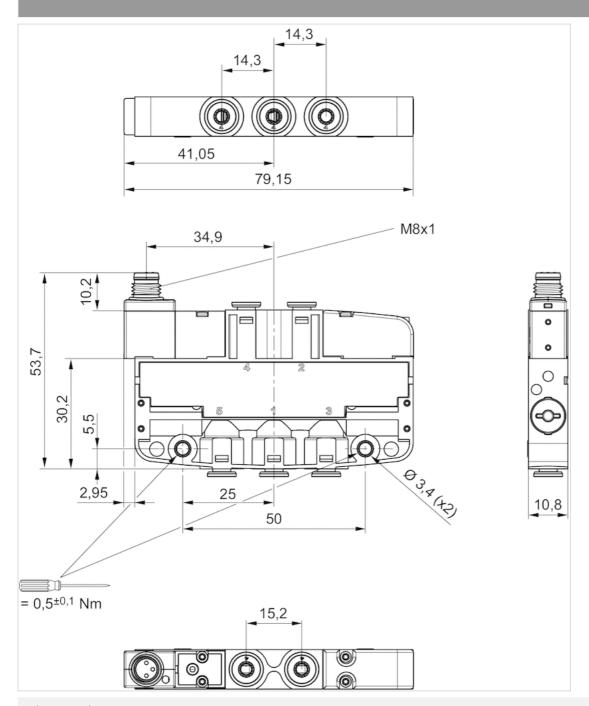
Material		
Housing	Polyoxymethylene	
	Acrylonitrile butadiene rubber Hydrogenated nitrile butadiene rubber Polyurethane	





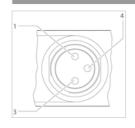
Dimensions

dimensions, single solenoid



Pin assignments

PIN assignment for valve plug connectors



1) Pin not assigned

3) 0 V



4) 24 V

Note: Bi-polar protective circuit to prevent overvoltage



5/2-directional valve, Series LS04-AF

- 5/2
- Qn = 180-310 l/min
- Pipe connection
- Compressed air connection output : Ø 4 Ø 6
- Electrical connection: Plug, Industrial plug connector, 2-pin
- Manual override : without detentsingle solenoid double solenoid
- With spring return
- Pilot : Internal



Version Spool valve, positive overlapping

Activation Electrically

Pilot Internal

Sealing principle Soft sealing

Working pressure min./max. See table below

Ambient temperature min./max. -10 ... 50 °C

Medium temperature min./max. -10 ... 50 °C

Medium Compressed air

Max. particle size 5 µm

Oil content of compressed air 0 ... 5 mg/m³

Nominal flow Qn See table below

Protection class acc. to DIN EN 61140

Electrically

Protection class with connection IP50
Protective circuit Z-diode
LED status display Yellow
Duty cycle 100 %

Generic emission standard in accordance EN 61000-6-4:2002

with

Generic immunity standard in accordance IEC 61000-6-2:2005

with

mounting screws M3

Mounting screw tightening torque 0.5 Nm

Weight See table below

Comment The delivered product may vary from that

in the illustration.

Class III



Part No.		MO	Compressed air connection	Compressed air connection
			Input	Output
R422103559	4 1 ² 5 113		Ø 4	Ø 4
R422103560	4 1 ² 5 113		Ø 6	Ø 6
R422103567			Ø 4	Ø 4
R422103568	75 1 1 1 3 T		Ø 6	Ø 6

Part No.	Compressed air connection	Operational voltage	Voltage tolerance
	Exhaust	DC	DC
R422103559	Ø 4	24 V	-10% / +10%
R422103560	Ø 6	24 V	-10% / +10%
R422103567	Ø 4	24 V	-10% / +10%
R422103568	Ø 6	24 V	-10% / +10%

Part No.	Power consumption	Flow conductance	Flow conductance	Nominal flow Qn
	DC	b	C-value	
R422103559	1.3 W	0.3	0.8 l/(s*bar)	180 l/min
R422103560	1.3 W	0.27	1.5 l/(s*bar)	310 l/min
R422103567	1.3 W	0.3	0.8 l/(s*bar)	180 l/min
R422103568	1.3 W	0.27	1.5 l/(s*bar)	310 l/min

Part No.	Working pressure min./max.	Typ. switch-on time	Typ. switch-off time	Weight
R422103559	3 7 bar	10 ms	22 ms	0.053 kg
R422103560	3 7 bar	10 ms	22 ms	0.053 kg
R422103567	2 7 bar	9 ms	9 ms	0.063 kg
R422103568	2 7 bar	9 ms	9 ms	0.063 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).

A duty cycle of 100 percent is only valid for single valves.

Technical information

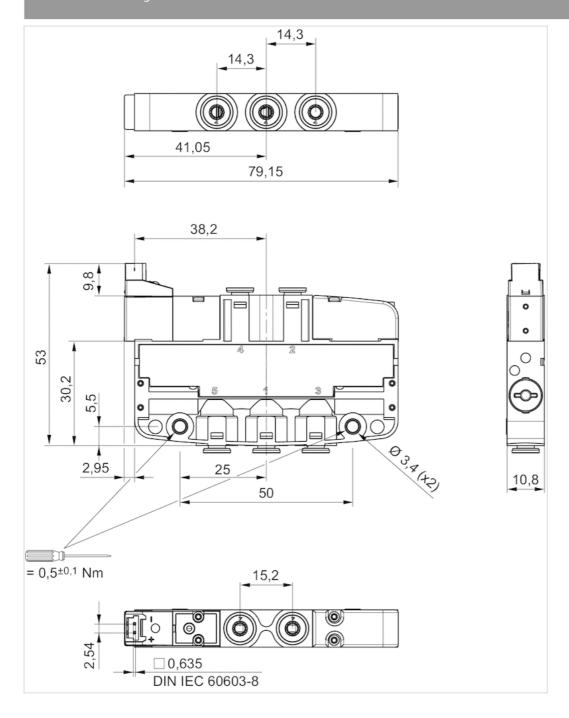
Material	
Housing	Polyoxymethylene
	Acrylonitrile butadiene rubber Hydrogenated nitrile butadiene rubber Polyurethane





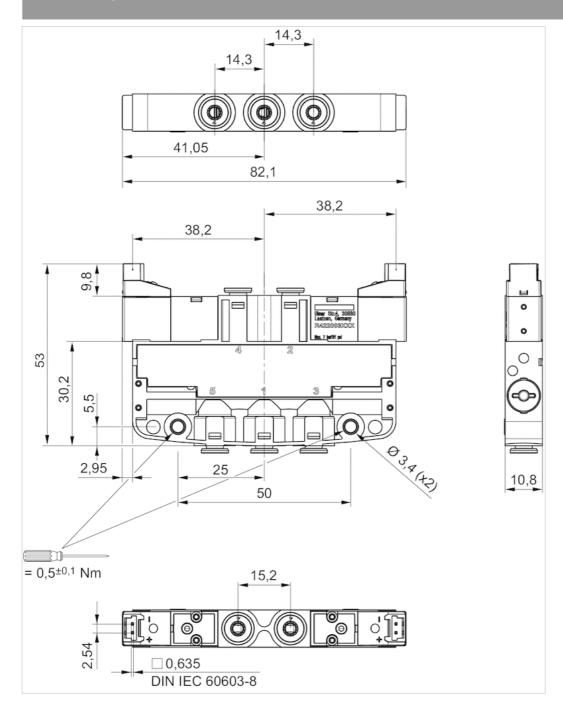
Dimensions

dimensions, single solenoid





dimensions, double solenoid



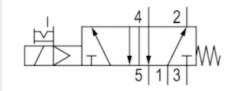




5/2-directional valve, Series LS04-AF

- 5/2
- Qn = 180-310 l/min
- Pipe connection
- Compressed air connection output : Ø 4 Ø 6
- Electrical connection: Plug, Industrial plug connector, 2-pin
- Manual override : with detent
- single solenoid
- With spring return
- Pilot : Internal





Version Spool valve, positive overlapping

Class III

Activation Electrically

Pilot Internal

Sealing principle Soft sealing

Working pressure min./max. 3 ... 7 bar

Ambient temperature min./max. -10 ... 50 °C

Medium temperature min./max. -10 ... 50 °C

Medium Compressed air

Max. particle size 5 µm

Oil content of compressed air 0 ... 5 mg/m³

Nominal flow Qn See table below

Protection class acc. to DIN EN 61140

Electrically

Protection class with connection IP50
Protective circuit Z-diode
LED status display Yellow
Duty cycle 100 %
Typ. switch-on time 10 ms
Typ. switch-off time 22 ms

Generic emission standard in accordance EN 61000-6-4:2002

with

Generic immunity standard in accordance IEC 61000-6-2:2005

with

mounting screws M3

Mounting screw tightening torque 0.5 Nm

Weight 0.053 kg



Part No.	MO	Compressed air connection	Compressed air connection
		Input	Output
R422103563		Ø 4	Ø 4
R422103564		Ø 6	Ø 6

Part No.	Compressed air connection	Operational voltage	Voltage tolerance
	Exhaust	DC	DC
R422103563	Ø 4	24 V	-10% / +10%
R422103564	Ø 6	24 V	-10% / +10%

Part No.	Power consumption	Flow conductance	Flow conductance	Nominal flow Qn
	DC	b	C-value	
R422103563	1.3 W	0.3	0.8 l/(s*bar)	180 l/min
R422103564	1.3 W	0.27	1.5 l/(s*bar)	310 l/min

Nominal flow Qn at 6 bar and $\Delta p = 1$ 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 $^{\circ}$ C under ambient and medium temperature and may not exceed 3 $^{\circ}$ 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).

A duty cycle of 100 percent is only valid for single valves.

Technical information

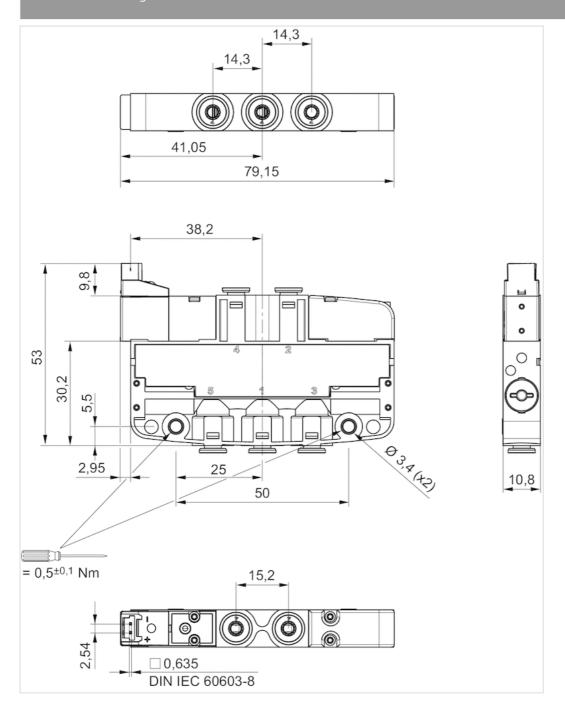
Material	
Housing	Polyoxymethylene
	Acrylonitrile butadiene rubber Hydrogenated nitrile butadiene rubber Polyurethane





Dimensions

dimensions, single solenoid





5/2-directional valve, Series LS04-XS

- 5/2
- Qn = 200 I/min
- Pipe connection
- Compressed air connection output : Ø 4
- Electrical connection: Plug, Industrial plug connector, 2-pin
- Manual override : with detent without detent
- single solenoid
- With spring return
- Pilot : Internal



Version Spool valve, positive overlapping

Activation Electrically

Pilot Internal

Sealing principle Soft sealing

Working pressure min./max. 3 ... 7 bar

Ambient temperature min./max. -10 ... 50 °C

Medium temperature min./max. -10 ... 50 °C

Medium Compressed air

Max. particle size 5 μm

Oil content of compressed air 0 ... 5 mg/m³

Nominal flow Qn 200 l/min

Protection class acc. to DIN EN 61140 Class III

Electrically

Protection class with connection IP50
Protective circuit Z-diode
LED status display Yellow
Duty cycle 100 %
Typ. switch-on time 9 ms
Typ. switch-off time 18 ms

Generic emission standard in accordance EN 61000-6-4:2002

with

Generic immunity standard in accordance IEC 61000-6-2:2005

with

mounting screws M3

Mounting screw tightening torque 0.5 Nm

Weight 0.04 kg



Part No.		MO	Compressed air connection	Compressed air connection
			Input	Output
R422103557	1 1 2 M		Ø 4	Ø 4
R422103555	7 1 1 1 mm		Ø 4	Ø 4

Part No.	Compressed air connection	Operational voltage	Voltage tolerance
	Exhaust	DC	DC
R422103557	Ø 4	24 V	-10% / +10%
R422103555	Ø 4	24 V	-10% / +10%

Part No.	Power consumption	Flow conductance	Flow conductance
	DC	b	C-value
R422103557	1.3 W	0.4	0.8 l/(s*bar)
R422103555	1.3 W	0.4	0.8 l/(s*bar)

Nominal flow Qn at 6 bar and $\Delta p = 1$ 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 $^{\circ}$ C under ambient and medium temperature and may not exceed 3 $^{\circ}$ 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).

A duty cycle of 100 percent is only valid for single valves.

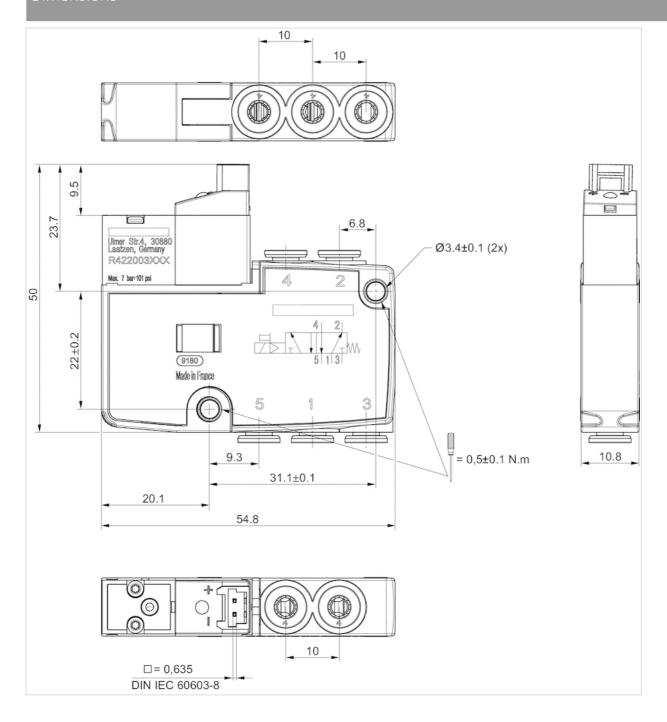
Technical information

Material	
Housing	Aluminum Polyoxymethylene
	Acrylonitrile butadiene rubber Hydrogenated nitrile butadiene rubber Polyurethane



Dimensions

Dimensions





5/2-directional valve, Series LS04-XS

- 5/2

- Qn = 200 I/min

- Pipe connection

- Compressed air connection output : \varnothing 4 - Electrical connection : Plug, M8, 3-pin

- Manual override : with detent, without detent

single solenoidWith spring return

- Pilot : Internal



Version Spool valve, positive overlapping

Activation Electrically
Pilot Internal
Sealing principle Soft sealing
Working pressure min./max. 3 ... 7 bar
Ambient temperature min./max. -10 ... 50 °C
Medium temperature min./max. -10 ... 50 °C
Compressed air

Max. particle size 5 μm

Oil content of compressed air 0 ... 5 mg/m³
Nominal flow Qn 200 l/min

Connector standard DIN EN 60947-5-2

Protection class acc. to DIN EN 61140 Class III

Electrically

Protection class with connection IP65
Protective circuit Z-diode
LED status display Yellow
Duty cycle 100 %

Duty cycle 100 %
Typ. switch-on time 9 ms
Typ. switch-off time 18 ms

Generic emission standard in accordance EN 61000-6-4:2002

with

Generic immunity standard in accordance IEC 61000-6-2:2005

with

mounting screws M3

Mounting screw tightening torque 0.5 Nm

Weight 0.04 kg



Technical data

Part No.		MO	Compressed air connection	Compressed air connection
			Input	Output
R422103556	7 1 1 1 m		Ø 4	Ø 4
R422103558	4 2 5 1 3 M		Ø 4	Ø 4

Part No.	Compressed air connection	Operational	Voltage tolerance
		voltage	
	Exhaust	DC	DC
R422103556	Ø 4	24 V	-10% / +10%
R422103558	Ø 4	24 V	-10% / +10%

Part No.	Power consumption	Flow conductance	Flow conductance
	DC	b	C-value
R422103556	1.3 W	0.4	0.8 l/(s*bar)
R422103558	1.3 W	0.4	0.8 l/(s*bar)

Nominal flow Qn at 6 bar and $\Delta p = 1$ 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).

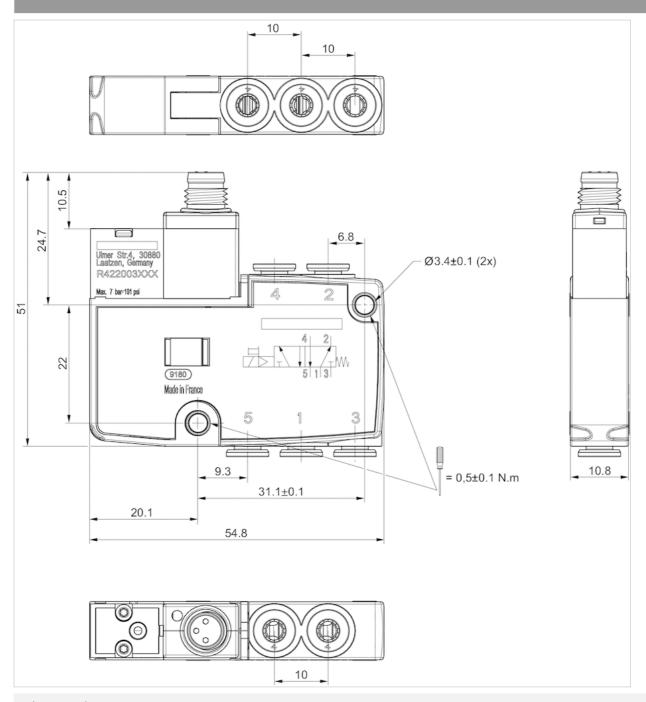
A duty cycle of 100 percent is only valid for single valves.

Material	
Housing	Aluminum Polyoxymethylene
	Acrylonitrile butadiene rubber Hydrogenated nitrile butadiene rubber Polyurethane



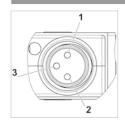


Dimensions



Pin assignments

PIN assignment for valve plug connectors



- 1) DC -/+
- 2) not assigned

MERSON. AVENTICS

3) DC -/+





5/3-directional valve, Series LS04-AF

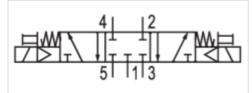
- 5/3
- Qn = 170-270 l/min
- closed center
- Pipe connection

Compressed air connection output: Ø 4 Ø 6
Electrical connection: 2, Plug, M8, 3-pin

- Manual override : without detent

double solenoidPilot : Internal





Version Spool valve, positive overlapping

Activation Electrically

Pilot Internal

Sealing principle Soft sealing

Working pressure min./max. 3 ... 7 bar

Ambient temperature min./max. -10 ... 50 °C

Medium temperature min./max. -10 ... 50 °C

Medium Compressed air

Max. particle size 5 μm

Oil content of compressed air 0 ... 5 mg/m³

Nominal flow Qn See table below

Connector standard DIN EN 60947-5-2

Protection class acc. to DIN EN 61140 Class III

Electrically

Protection class with connection IP65
Protective circuit Z-diode
LED status display Yellow
Duty cycle 100 %
Typ. switch-on time 10 ms

Generic emission standard in accordance EN 61000-6-4:2002

with

Generic immunity standard in accordance IEC 61000-6-2:2005

with

mounting screws M3

Mounting screw tightening torque 0.5 Nm

Weight 0.063 kg



Technical data

Part No.	MO		Compressed air connection
			Input
R422103842		closed center	Ø 4
R422103843		closed center	Ø 6

Part No.	Compressed air connection	Compressed air connection
	Output	Exhaust
R422103842	Ø 4	Ø 4
R422103843	Ø 6	Ø 6

Part No.	Operational	Voltage tolerance	Power consumption
	voltage DC	DC	DC
R422103842	24 V	-10% / +10%	1.3 W
R422103843	24 V	-10% / +10%	1.3 W

Part No.	Flow conductance	Flow conductance	Nominal flow Qn
	b	C-value	
R422103842	0.4	0.8 l/(s*bar)	170 l/min
R422103843	0.3	1.3 l/(s*bar)	270 l/min

Nominal flow Qn at 6 bar and $\Delta p = 1$ 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).

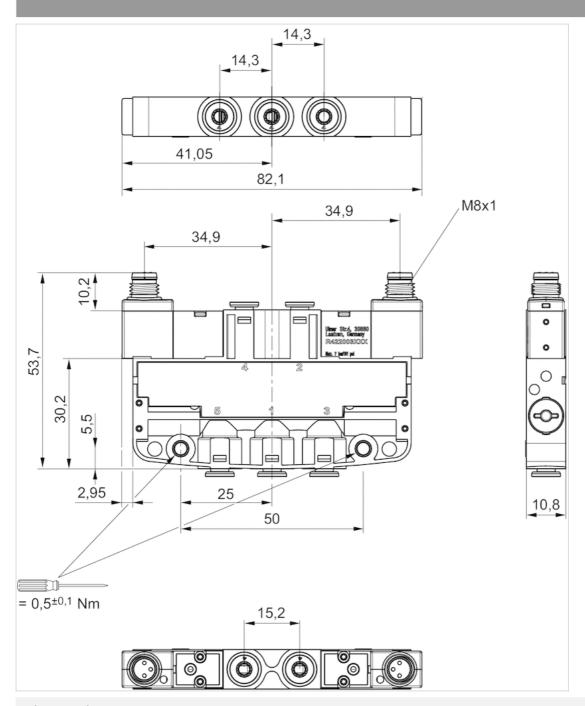
A duty cycle of 100 percent is only valid for single valves.

Material	
Housing	Polyoxymethylene
	Acrylonitrile butadiene rubber Hydrogenated nitrile butadiene rubber Polyurethane



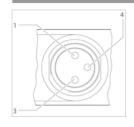


Dimensions, double solenoic



Pin assignments

PIN assignment for valve plug connectors



1) Pin not assigned

3) 0 V



4) 24 V

Note: Bi-polar protective circuit to prevent overvoltage



5/3-directional valve, Series LS04-AF

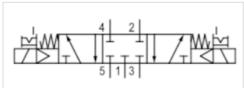
- 5/3
- Qn = 170-270 l/min
- closed center
- Pipe connection

Compressed air connection output: Ø 4 Ø 6
Electrical connection: 2, Plug, M8, 3-pin

- Manual override : with detent

double solenoidPilot : Internal





Version Spool valve, positive overlapping

5 µm

Activation Electrically

Pilot Internal

Sealing principle Soft sealing

Working pressure min./max. 3 ... 7 bar

Ambient temperature min./max. -10 ... 50 °C

Medium temperature min./max. -10 ... 50 °C

Medium Compressed air

Oil content of compressed air 0 ... 5 mg/m³

Nominal flow Qn See table below

Connector standard DIN EN 60947-5-2

Protection class acc. to DIN EN 61140 Class III

Electrically

Max. particle size

Protection class with connection IP65
Protective circuit Z-diode
LED status display Yellow
Duty cycle 100 %
Typ. switch-on time 10 ms

Generic emission standard in accordance EN 61000-6-4:2002

with

Generic immunity standard in accordance IEC 61000-6-2:2005

with

mounting screws M3

Mounting screw tightening torque 0.5 Nm

Weight 0.063 kg



Technical data

Part No.	MO		Compressed air connection
			Input
R422103846		closed center	Ø 4
R422103847		closed center	Ø 6

Part No.	Compressed air connection	Compressed air connection
	Output	Exhaust
R422103846	Ø 4	Ø 4
R422103847	Ø 6	Ø 6

Part No.	Operational	Voltage tolerance	Power consumption
	voltage		
	DC	DC	DC
R422103846	24 V	-10% / +10%	1.3 W
R422103847	24 V	-10% / +10%	1.3 W

Part No.	Flow conductance	Flow conductance	Nominal flow Qn
	b	C-value	
R422103846	0.4	0.8 l/(s*bar)	170 l/min
R422103847	0.3	1.3 l/(s*bar)	270 l/min

Nominal flow Qn at 6 bar and $\Delta p = 1$ 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).

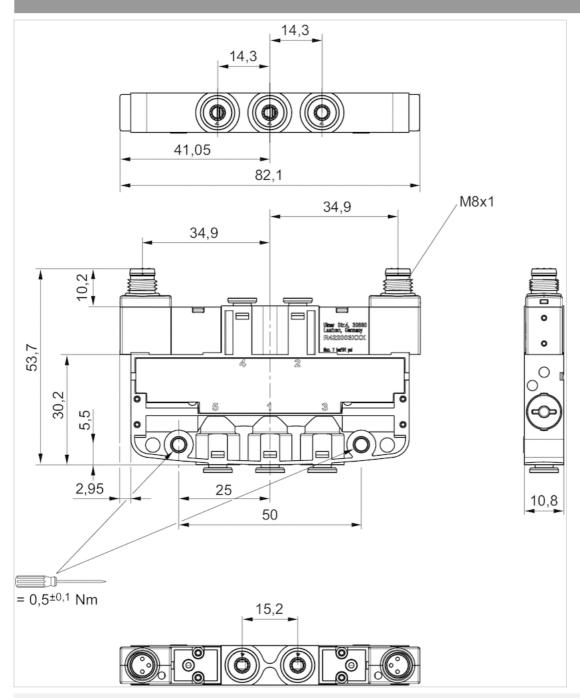
A duty cycle of 100 percent is only valid for single valves.

Material	
Housing	Polyoxymethylene
	Acrylonitrile butadiene rubber Hydrogenated nitrile butadiene rubber Polyurethane



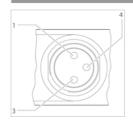


Dimensions, double solenoid



Pin assignments

PIN assignment for valve plug connectors



1) Pin not assigned

3) 0 V



4) 24 V

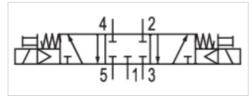
Note: Bi-polar protective circuit to prevent overvoltage



5/3-directional valve, Series LS04-AF

- 5/3
- Qn = 170-270 l/min
- closed center
- Pipe connection
- Compressed air connection output : Ø 4 Ø 6
- Electrical connection: 2, Plug, Industrial plug connector, 2-pin
- Manual override : without detent
- double solenoidPilot : Internal





Version Spool valve, positive overlapping

Activation Electrically

Pilot Internal

Sealing principle Soft sealing

Working pressure min./max. 3 ... 7 bar

Ambient temperature min./max. -10 ... 50 °C

Medium temperature min./max. -10 ... 50 °C

Medium Compressed air

Max. particle size $5 \mu m$

Oil content of compressed air 0 ... 5 mg/m³
Nominal flow Qn See table below

Protection class acc. to DIN EN 61140 Class III

Electrically

Protection class with connection IP50
Protective circuit Z-diode
LED status display Yellow
Duty cycle 100 %
Typ. switch-on time 10 ms

Generic emission standard in accordance EN 61000-6-4:2002

with

Generic immunity standard in accordance IEC 61000-6-2:2005

with

mounting screws M3

Mounting screw tightening torque 0.5 Nm

Weight 0.063 kg



Technical data

Part No.	MO		Compressed air connection
			Input
R422103840		closed center	Ø 4
R422103841		closed center	Ø 6

Part No.	Compressed air connection	Compressed air connection
	Output	Exhaust
R422103840	Ø 4	Ø 4
R422103841	Ø 6	Ø 6

Part No.	Operational voltage	Voltage tolerance	Power consumption
	DC	DC	DC
R422103840	24 V	-10% / +10%	1.3 W
R422103841	24 V	-10% / +10%	1.3 W

Part No.	Flow conductance	Flow conductance	Nominal flow Qn
	b	C-value	
R422103840	0.4	0.8 l/(s*bar)	170 l/min
R422103841	0.3	1.3 l/(s*bar)	270 l/min

Nominal flow Qn at 6 bar and $\Delta p = 1$ 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).

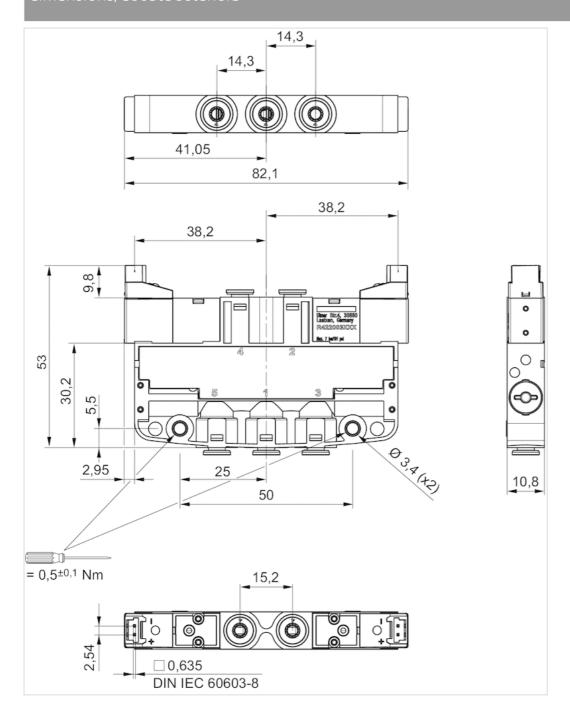
A duty cycle of 100 percent is only valid for single valves.

Material	
Housing	Polyoxymethylene
	Acrylonitrile butadiene rubber Hydrogenated nitrile butadiene rubber Polyurethane





dimensions, double solenoid

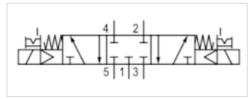




5/3-directional valve, Series LS04-AF

- 5/3
- Qn = 170-270 l/min
- closed center
- Pipe connection
- Compressed air connection output : Ø 4 Ø 6
- Electrical connection: 2, Plug, Industrial plug connector, 2-pin
- Manual override : with detent
- double solenoidPilot : Internal





Version Spool valve, positive overlapping

Class III

Activation Electrically

Pilot Internal

Sealing principle Soft sealing

Working pressure min./max. 3 ... 7 bar

Ambient temperature min./max. -10 ... 50 °C

Medium temperature min./max. -10 ... 50 °C

Medium Compressed air

Max. particle size 5 µm

Oil content of compressed air 0 ... 5 mg/m³

Nominal flow Qn See table below

Protection class acc. to DIN EN 61140

Electrically

Protection class with connection IP50
Protective circuit Z-diode
LED status display Yellow
Duty cycle 100 %
Typ. switch-on time 10 ms

Generic emission standard in accordance EN 61000-6-4:2002

with

Generic immunity standard in accordance IEC 61000-6-2:2005

with

mounting screws M3

Mounting screw tightening torque 0.5 Nm

Weight 0.063 kg



Technical data

Part No.	MO		Compressed air connection
			Input
R422103844		closed center	Ø 4
R422103845		closed center	Ø 6

Part No.	Compressed air connection	Compressed air connection
	Output	Exhaust
R422103844	Ø 4	Ø 4
R422103845	Ø 6	Ø 6

Part No.	Operational	Voltage tolerance	Power consumption
	voltage DC	DC	DC
R422103844	24 V	-10% / +10%	1.3 W
R422103845	24 V	-10% / +10%	1.3 W

Part No.	Flow conductance	Flow conductance	Nominal flow Qn
	b	C-value	
R422103844	0.4	0.8 l/(s*bar)	170 l/min
R422103845	0.3	1.3 l/(s*bar)	270 l/min

Nominal flow Qn at 6 bar and $\Delta p = 1$ 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).

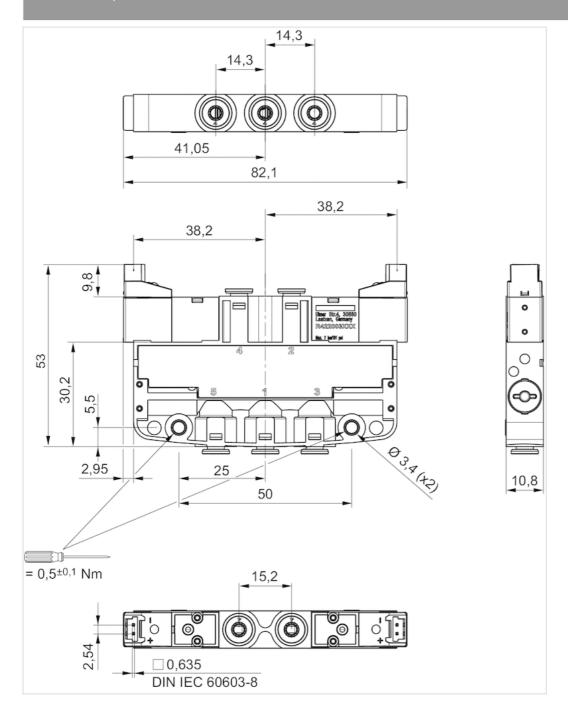
A duty cycle of 100 percent is only valid for single valves.

Material	
Housing	Polyoxymethylene
	Acrylonitrile butadiene rubber Hydrogenated nitrile butadiene rubber Polyurethane





dimensions, double solenoid







Round plug connector, Series CON-RD

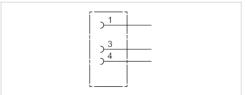
- Socket, M8x1, 3-pin, A-coded, straight, 180°
- UL (Underwriters Laboratories)
- unshielded



Connection type Soldering
Ambient temperature min./max. -25 ... 80 °C
Operational 48 V AC/DC

voltage

Protection class IP67
Weight 0.009 kg



Technical data

Part No.	Max. current	suitable cable-Ø min./max
1834484173	4 A	3.5 / 5 mm

Technical information

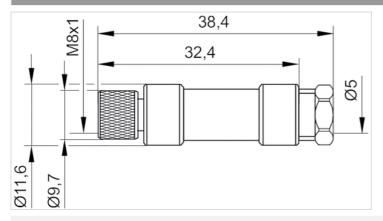
The specified protection class is only valid in assembled and tested state.

Ma	aterial	
Но	pusing	Polyamide





Dimensions



Pin assignments

Pin assignment, socket







Round plug connector, Series CON-RD

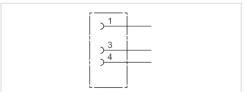
- Socket, M8x1, 3-pin, A-coded, angled, 90°
- UL (Underwriters Laboratories)
- unshielded



Connection type Soldering
Ambient temperature min./max. -40 ... 85 °C
Operational 48 V AC/DC

voltage

Protection class IP67
Weight 0.01 kg



Technical data

Part No.	Max. current	Contact assignment	suitable cable-Ø min./max
1834484174	4 A	3	3.5 / 5 mm

Technical information

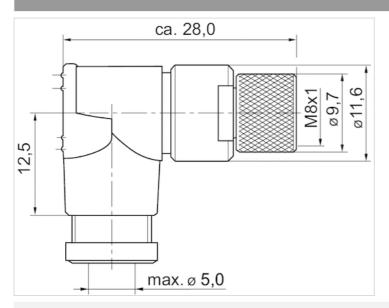
The specified protection class is only valid in assembled and tested state.

Material	
Housing	Polyamide



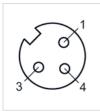


Dimensions



Pin assignments

Pin assignment, socket







Round plug connector, Series CON-RD

- Socket M8x1 3-pin A-coded straight 180°
- open cable ends
- with cable
- UL (Underwriters Laboratories)
- unshielded

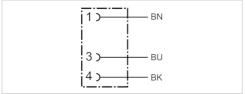


Ambient temperature min./max. $-25 \dots 85 \,^{\circ}\text{C}$ Operational $48 \,^{\circ}\text{V AC/DC}$

voltage

Protection class IP67
Wire cross-section 0.24 mm²

Weight See table below



Technical data

Part No.	Max. current	Number of wires	Cable-Ø	Cable length	Certification	Weight
1834484166	4 A	3	4.5 mm	3 m	UL (Underwriters Laboratories)	0.087 kg
1834484168	4 A	3	4.5 mm	5 m	UL (Underwriters Laboratories)	0.141 kg
1834484247	4 A	3	4.5 mm	10 m	UL (Underwriters Laboratories)	0.277 kg

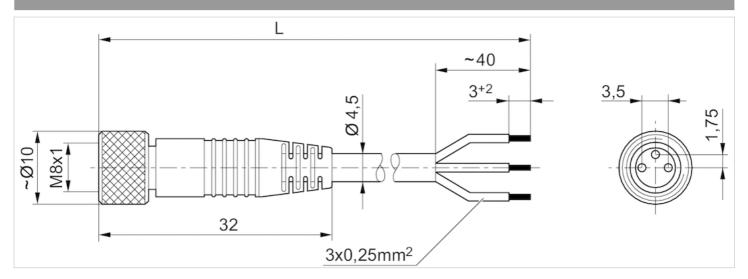
Technical information

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

Material	
Housing	Polyurethane
Cable sheath	Polyurethane



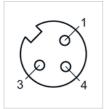
Dimensions



L = length

Pin assignments

Pin assignment, socket



- (1) BN=brown
- (3) BU=blue
- (4) BK=black





Round plug connector, Series CON-RD

- Socket M8x1 3-pin A-coded angled 90°
- open cable ends
- with cable
- unshielded

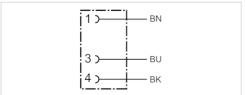


Ambient temperature min./max. -40 ... 85 °C
Operational 48 V AC/DC

voltage

Protection class IP67
Wire cross-section 0.24 mm²

Weight See table below



Technical data

Part No.	Max. current	Number of wires	Cable-Ø	Cable length	Weight
1834484167	4 A	3	4.5 mm	3 m	0.087 kg
1834484169	4 A	3	4.5 mm	5 m	0.139 kg
1834484248	4 A	3	4.5 mm	10 m	0.279 kg

Technical information

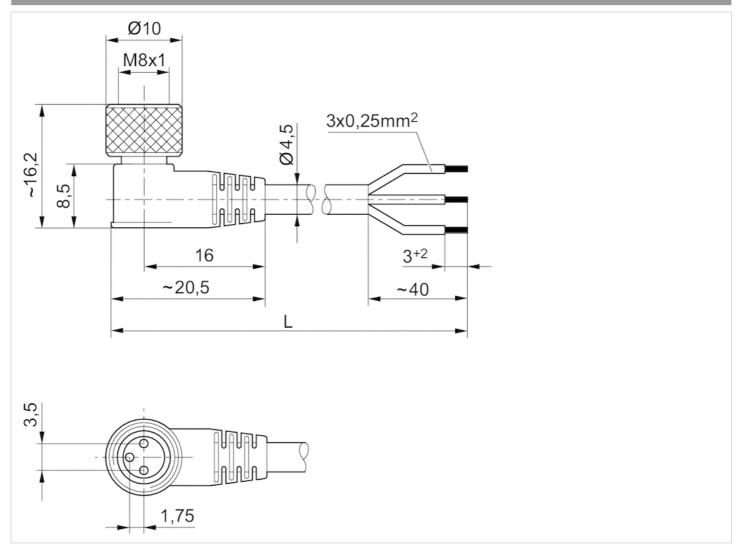
The specified protection class is only valid in assembled and tested state.

Material	
Housing	Polyurethane
Cable sheath	Polyurethane





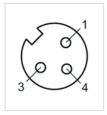
Dimensions



L = length

Pin assignments

Pin assignment, socket



- (1) BN=brown
- (3) BU=blue
- (4) BK=black





Valve plug connector, series CON-VP

- Socket Industrial plug connector 2-pin straight 180°
- with cable
- unshielded



Ambient temperature min./max. See table below Operational 48 V AC/DC

voltage

Protection class IP40

Weight See table below

Technical data

Part No.	Ambient temperature min./max.	Electrical connection
		2
R422003277	-40 80 °C	-
R422003278	-40 80 °C	open cable ends 2-pin
R422003279	-15 80 °C	open cable ends 2-pin
R412024482	-25 80 °C	Plug Industrial plug connector 2-pin straight 180°

Part No.	Number of wires	Wire cross-section	Cable sheath	Cable-Ø	Cable length	Cable
R422003277	-	-	-	-	-	-
R422003278	2	0.25 mm ²	Polyvinyl chloride	1.5 mm	3 m	with cable
R422003279	2	0.25 mm ²	Polyvinyl chloride	1.5 mm	5 m	with cable
R412024482	2	0.25 mm ²	Polyvinyl chloride	1.5 mm	0.6 m	with cable

Part No.	Connection type	Delivery unit	Weight	Fig.	
R422003277	Crimping	10 piece	0.001 kg	Fig. 1	1)
R422003278	-	1 piece	0.026 kg	Fig. 1	-
R422003279	-	1 piece	0.042 kg	Fig. 1	-
R412024482	-	1 piece	0.002 kg	Fig. 2	2)

- 1) without cable
- 2) Adapter cable for industrial plug-in fittings

Technical information

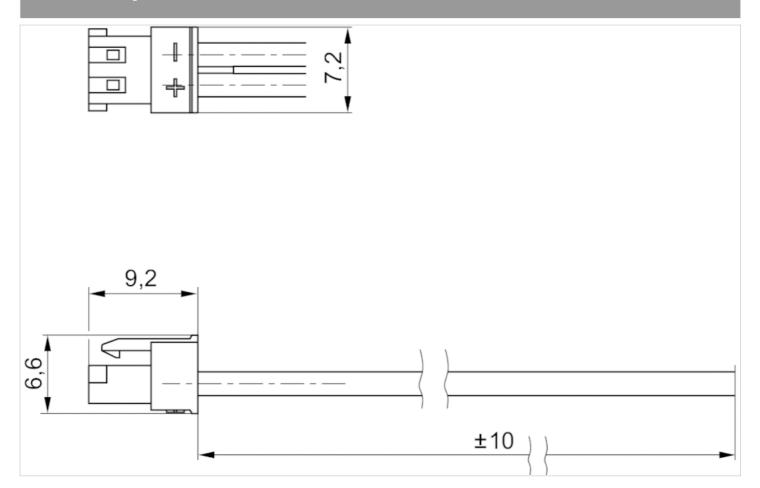
Material	
Cable sheath	Polyvinyl chloride

PDF creation date:



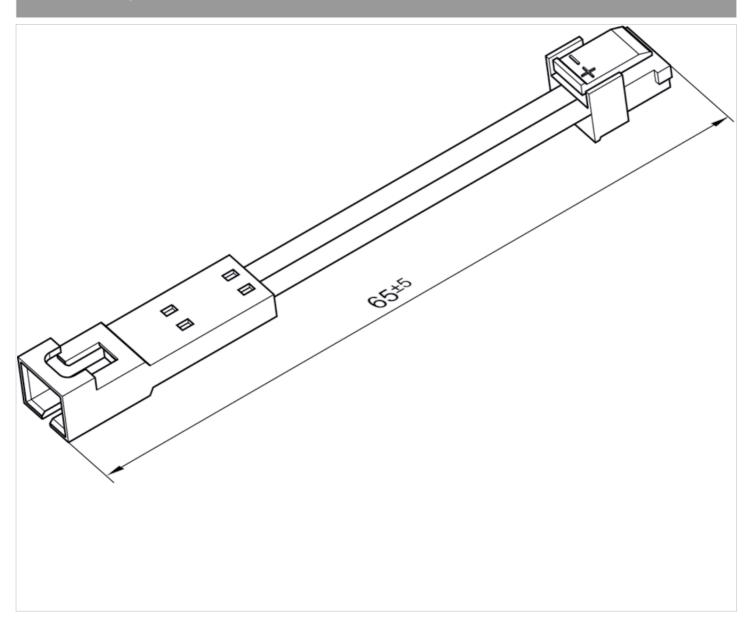


Dimensions, Fig. 1





Dimensions, Fig. 2



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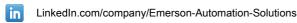


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