Series EV12

AVENTICS™ Series EV12

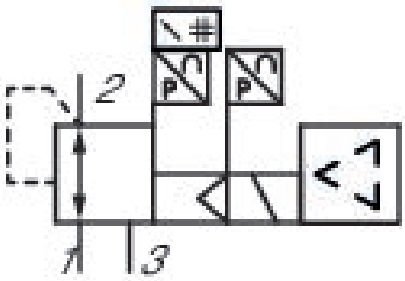
EMERSON.

E/P pressure regulator, Series EV12

R414011386

General series information
Series EV12

- The AVENTICS EV12 high flow proportional pressure control valve with its compact design hides its large flow capacity. It can be used as a stand-alone solution (high flow valve), as a battery for block assembly with consistently controlled pressure, or integrated into a maintenance unit.



Technical data

Type	Pressure supply, right Display: display
Control	Externally piloted
Air supply	right
Regulation range min.	0 bar
Regulation range max.	10 bar
Hysteresis	0,12 bar
Medium	Neutral gases
Nominal flow Qn	6500 l/min
Min. ambient temperature	0 °C
Max. ambient temperature	50 °C
Min. medium temperature	0 °C

Max. medium temperature	50 °C
DC operating voltage	24 V
Permissible ripple	5%
Max. current consumption	220 mA
Max. particle size	50 µm
Oil content of compressed air min.	0 mg/m³
Oil content of compressed air max.	5 mg/m³
Frame size	AS3
Type	Poppet valve
Compressed air connection input	G 1/2
Compressed air connection output	G 1/2
Electrical connection size	M12
Electrical connection number of poles	5-pin
Electrical connection coding	A-coded
Actual output value	0 ... 10 V
Nominal input value	0 ... 10 V
Industry	Industrial
Weight	1.4 kg

Material

Housing material	Polyamide
Seal material	Nitrile butadiene rubber
Material base plate	Aluminum
Part No.	R414011386

Technical information

Power outage: maintain pressure

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

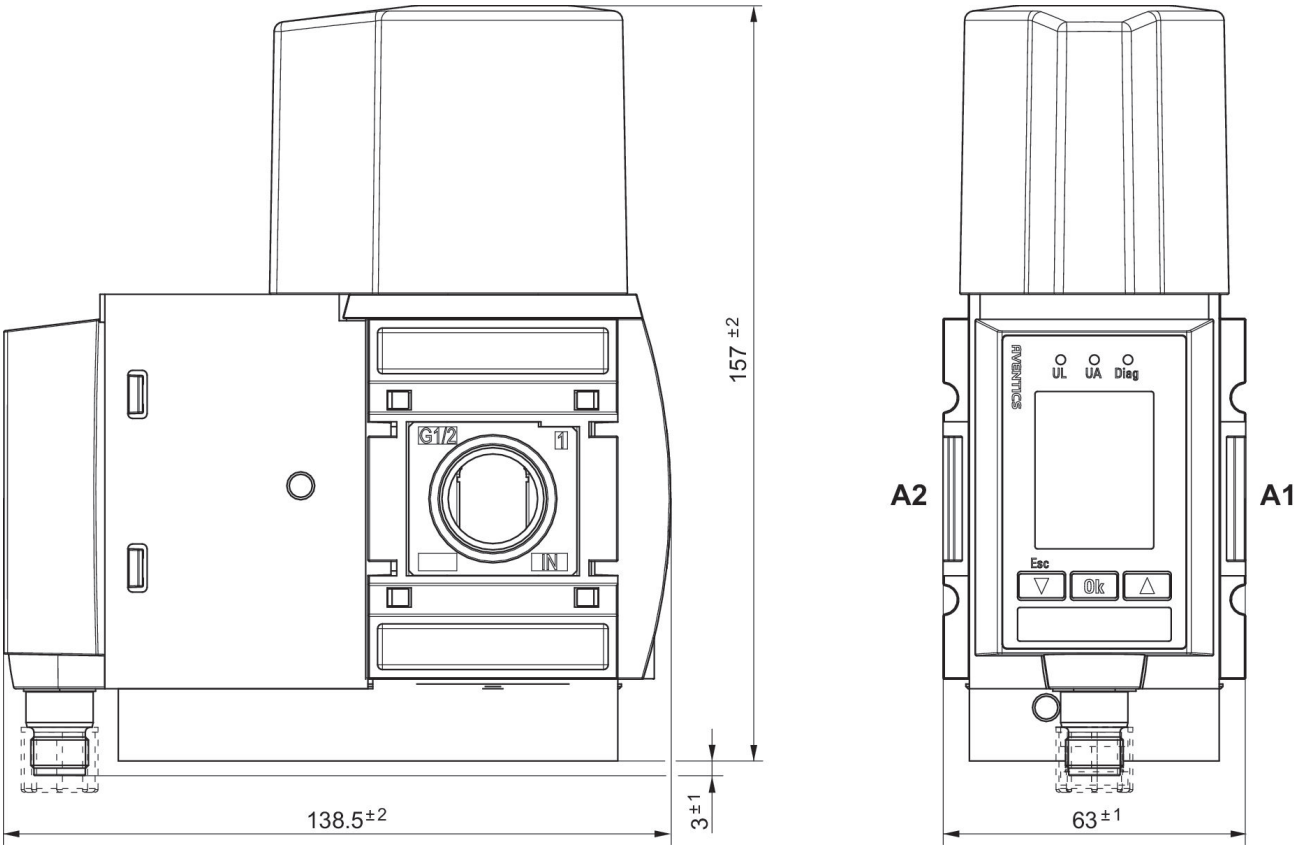
The pressure dew point must be at least 15 °C less than ambient and medium temperature and may not exceed 3 °C.

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).

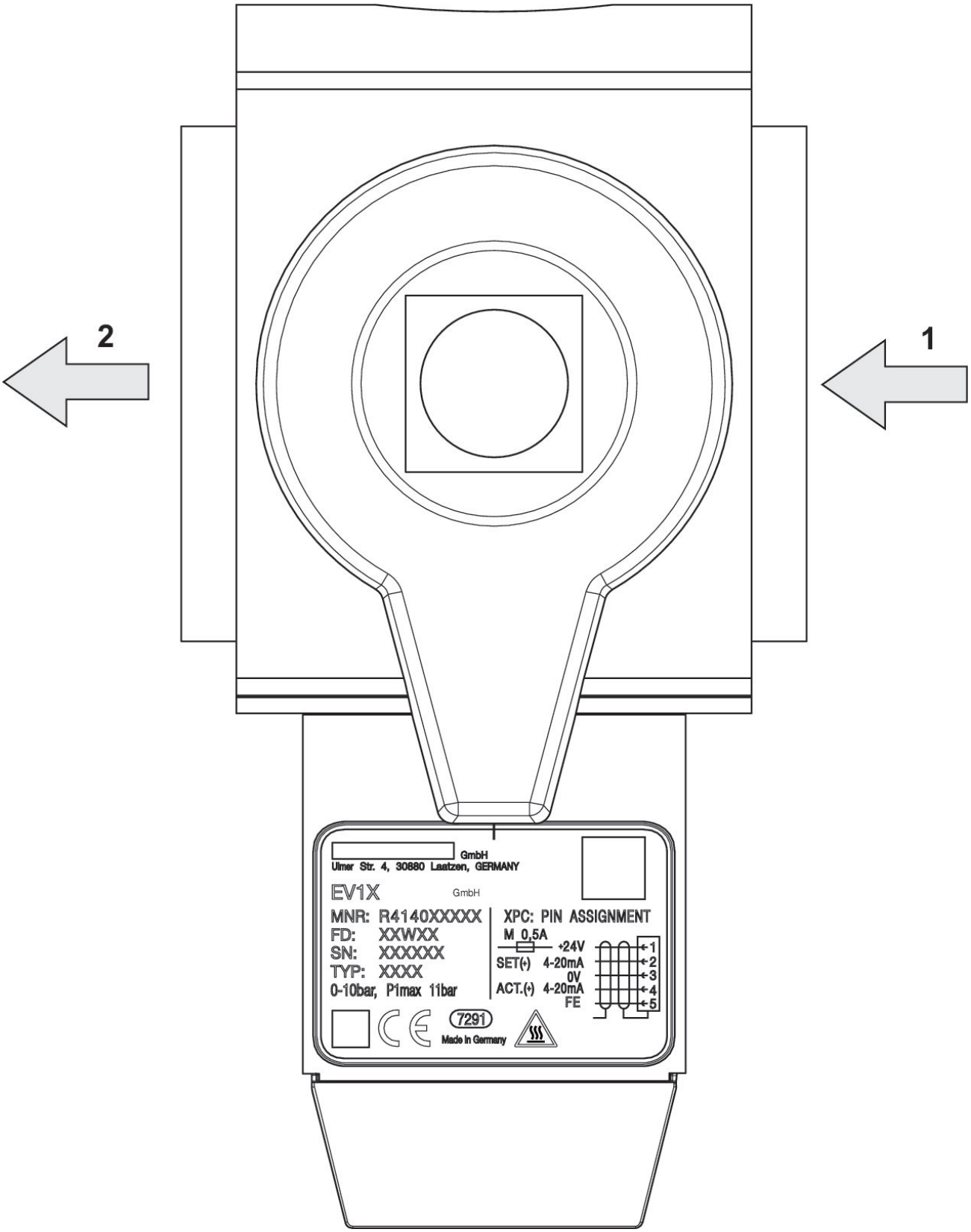
Dimensions

Pressure supply, right

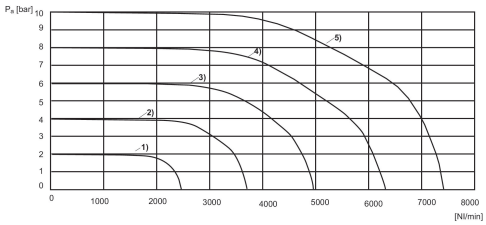


A1 = input
A2 = output

Pressure supply, right

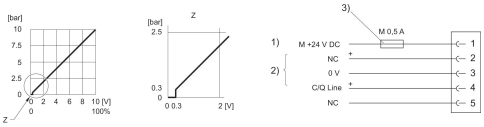


Flow characteristic curve



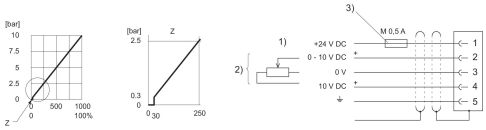
1) Pv = [[3] bar] 2)Pv = [[5] bar] 3)Pv = [[7] bar] 4) Pv = [[9] bar] 5)Pv = [[11] bar]
Pv = Supply pressure
Pa = Working pressure
Pv = Pa + 1

Characteristic curve and plug assignment for IO-Link version



1) power supply
2) C/Q Line (pin 4) Not connected (NC) (pin 2) are related to 0 V (pin 3).
3) The power supply must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.

Characteristic and pin assignment for voltage control with actual output value



1) power supply
2) Actual value (pin 4) and nominal value (pin 2) are related to 0 V (pin 3). Nominal input value (R = 1 MΩ), actual output value: min. load resistance > 10 KΩ. If the power supply is switched off, the nominal input value is high-ohmic.
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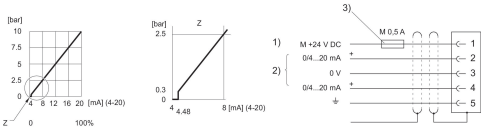
Characteristic and pin assignment for current control with actual output value



1) power supply
2) Actual value (pin 4) and nominal value (pin 2) are related to 0 V (pin 3). Nominal input value (ohmic load 100 Ω), actual output value: external ohmic load < 300 Ω. If the power supply is switched off, the nominal input value is high-ohmic.
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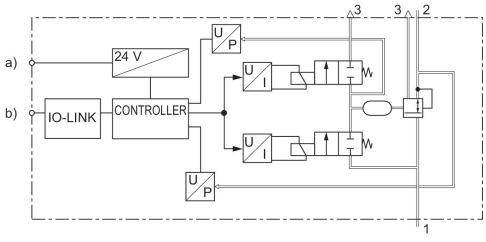
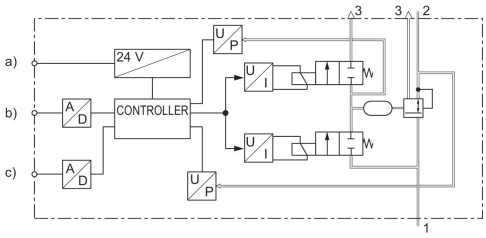
Functional diagram
IO-Link



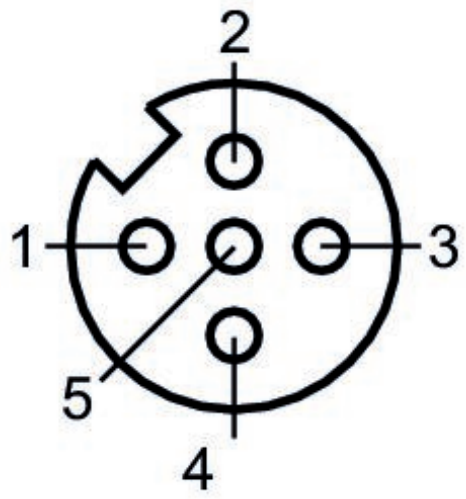
a) Supply Voltage
b) C/Q Line

Functional diagram



a) Voltage supply b) Nominal value
c) Actual output value

Plug assignment



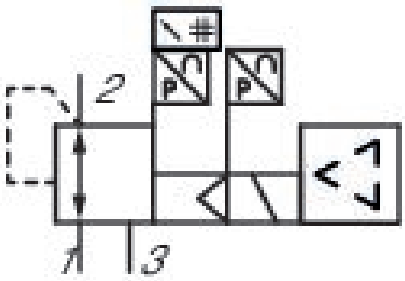
1) 24 V DC
2) Nominal input value
3) GND
4) Actual output value
5) Ground

E/P pressure regulator, Series EV12

R414011387

General series information
Series EV12

- The AVENTICS EV12 high flow proportional pressure control valve with its compact design hides its large flow capacity. It can be used as a stand-alone solution (high flow valve), as a battery for block assembly with consistently controlled pressure, or integrated into a maintenance unit.



Technical data

Type	Pressure supply, right Display: display
Control	Externally piloted
Air supply	right
Regulation range min.	0 bar
Regulation range max.	10 bar
Hysteresis	0,12 bar
Medium	Neutral gases
Nominal flow Qn	6500 l/min
Min. ambient temperature	0 °C
Max. ambient temperature	50 °C
Min. medium temperature	0 °C

Max. medium temperature	50 °C
DC operating voltage	24 V
Permissible ripple	5%
Max. current consumption	220 mA
Max. particle size	50 µm
Oil content of compressed air min.	0 mg/m³
Oil content of compressed air max.	5 mg/m³
Frame size	AS3
Type	Poppet valve
Compressed air connection input	G 1/2
Compressed air connection output	G 1/2
Electrical connection size	M12
Electrical connection number of poles	5-pin
Electrical connection coding	A-coded
Actual output value	4 ... 20 mA
Nominal input value	4 ... 20 mA
Industry	Industrial
Weight	1.4 kg

Material

Housing material	Polyamide
Seal material	Nitrile butadiene rubber
Material base plate	Aluminum
Part No.	R414011387

Technical information

Power outage: maintain pressure

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 less than ambient and medium temperature and may not exceed 3 °C.

The oil content of compressed air must remain constant during the life cycle.

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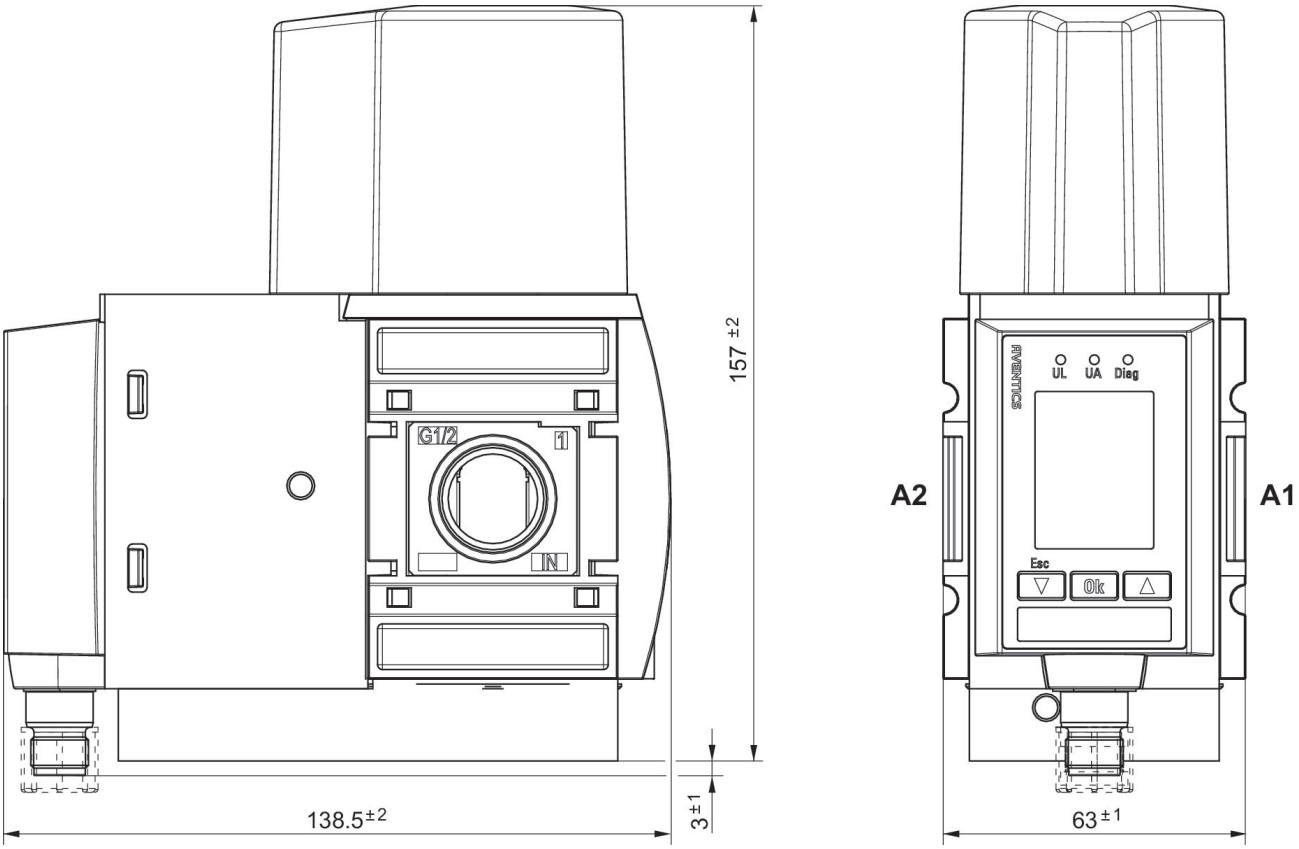
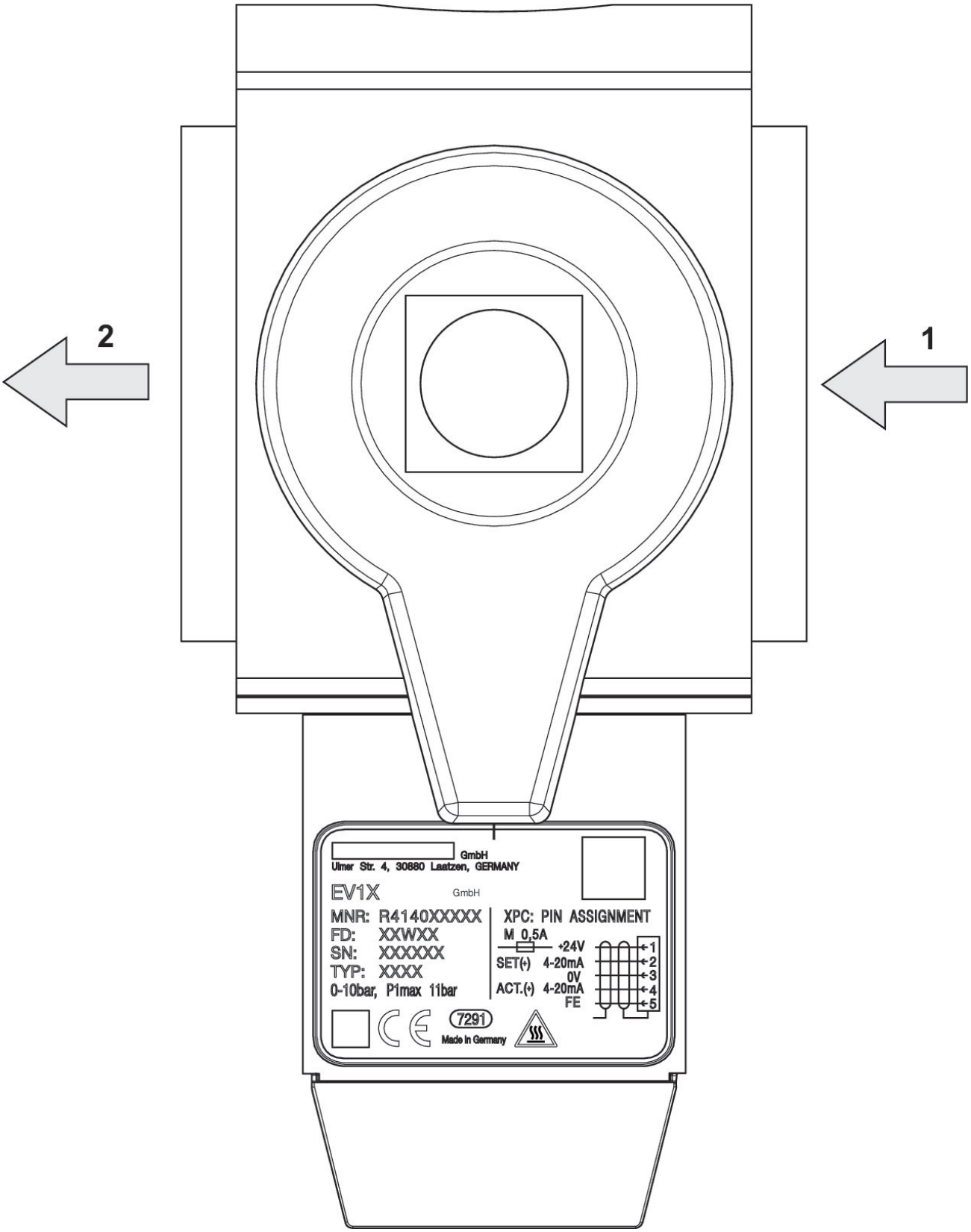
Dimensions

Pressure supply, right

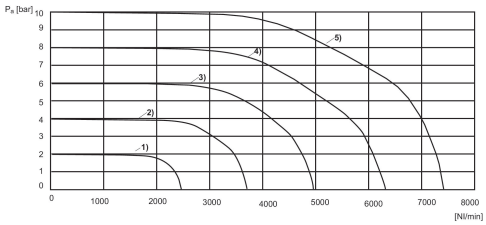


A1 = input
A2 = output

Pressure supply, right



Flow characteristic curve



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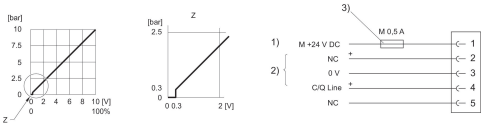
Characteristic curve and plug assignment for IO-Link version



1) power supply
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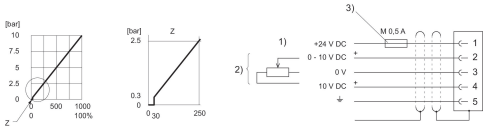
Characteristic and pin assignment for voltage control with actual output value



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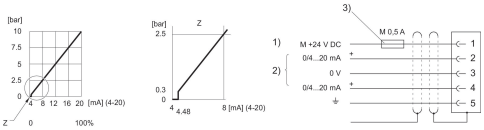
Characteristic and pin assignment for current control with actual output value



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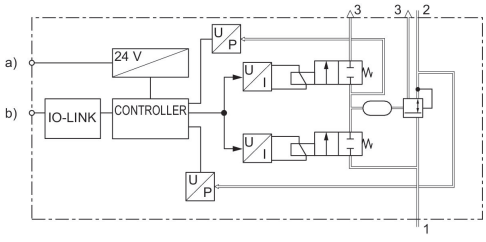
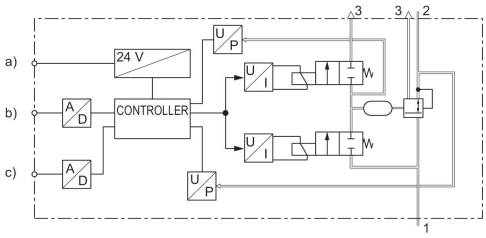
Functional diagram
IO-Link



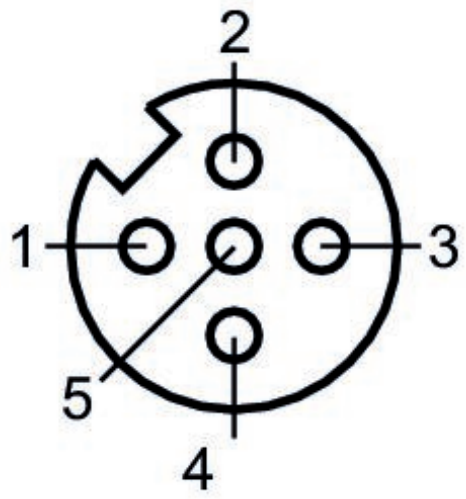
a) Supply Voltage
b) C/Q Line

Functional diagram



a) Voltage supply b) Nominal value
c) Actual output value

Plug assignment



1) 24 V DC
2) Nominal input value
3) GND
4) Actual output value
5) Ground

E/P pressure regulator, Series EV12

R414011389

General series information
Series EV12

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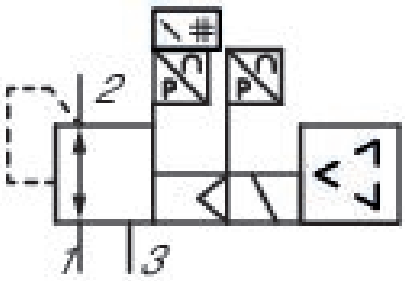

Technical data

Type	Pressure supply, right Display: display
Control	Externally piloted
Air supply	right
Regulation range min.	0 bar
Regulation range max.	10 bar
Hysteresis	0,12 bar
Medium	Neutral gases
Nominal flow Qn	6500 l/min
Min. ambient temperature	0 °C
Max. ambient temperature	50 °C
Min. medium temperature	0 °C

Max. medium temperature	50 °C
DC operating voltage	24 V
Permissible ripple	5%
Max. current consumption	220 mA
Max. particle size	50 µm
Oil content of compressed air min.	0 mg/m³
Oil content of compressed air max.	5 mg/m³
Frame size	AS3
Type	Poppet valve
Compressed air connection input	G 1/2
Compressed air connection output	G 1/2
Electrical connection size	M12
Electrical connection number of poles	5-pin
Electrical connection coding	A-coded
Industry	Industrial
Weight	1.4 kg

Material

Housing material	Polyamide
Seal material	Nitrile butadiene rubber
Material base plate	Aluminum
Part No.	R414011389

Technical information

Power outage: maintain pressure

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 less than ambient and medium temperature and may not exceed 3 °C.

The oil content of compressed air must remain constant during the life cycle.

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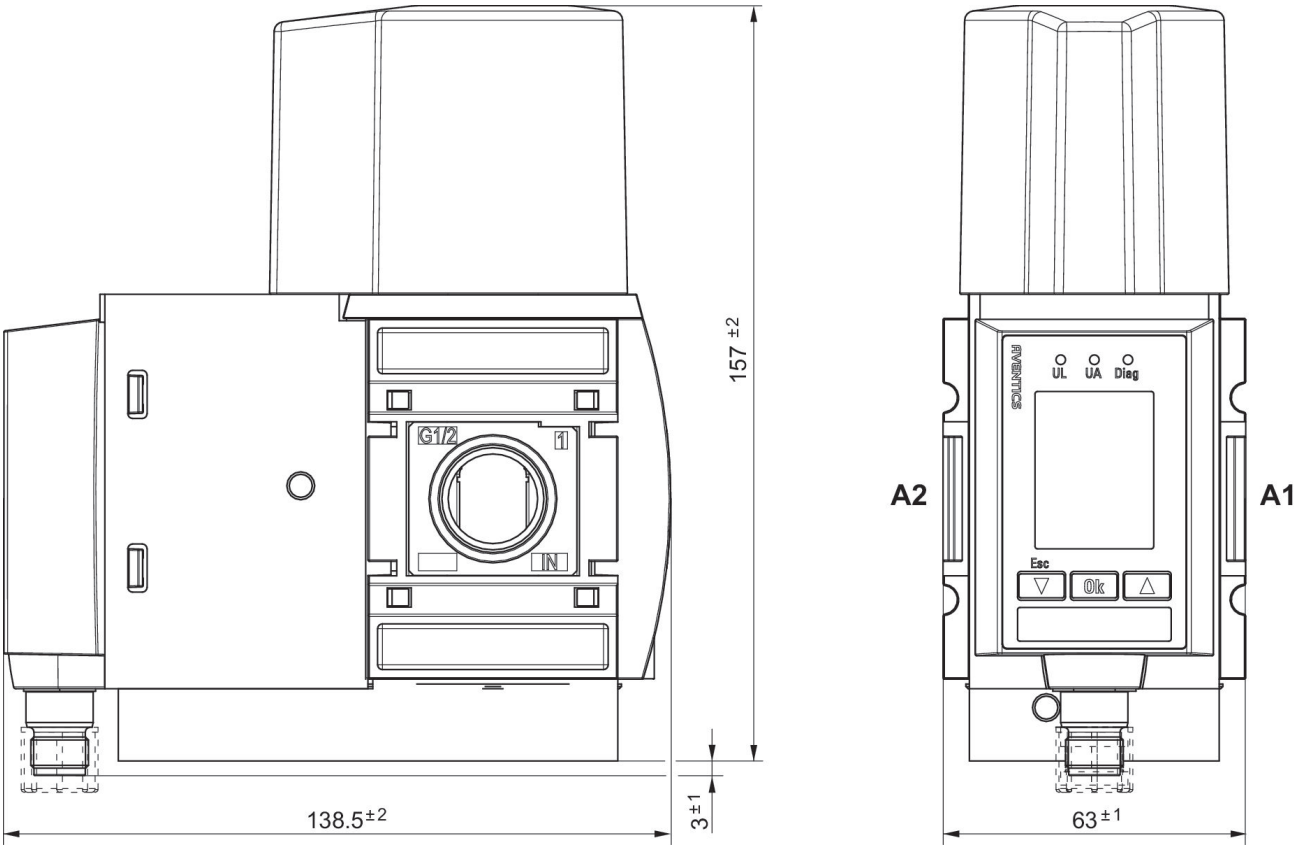
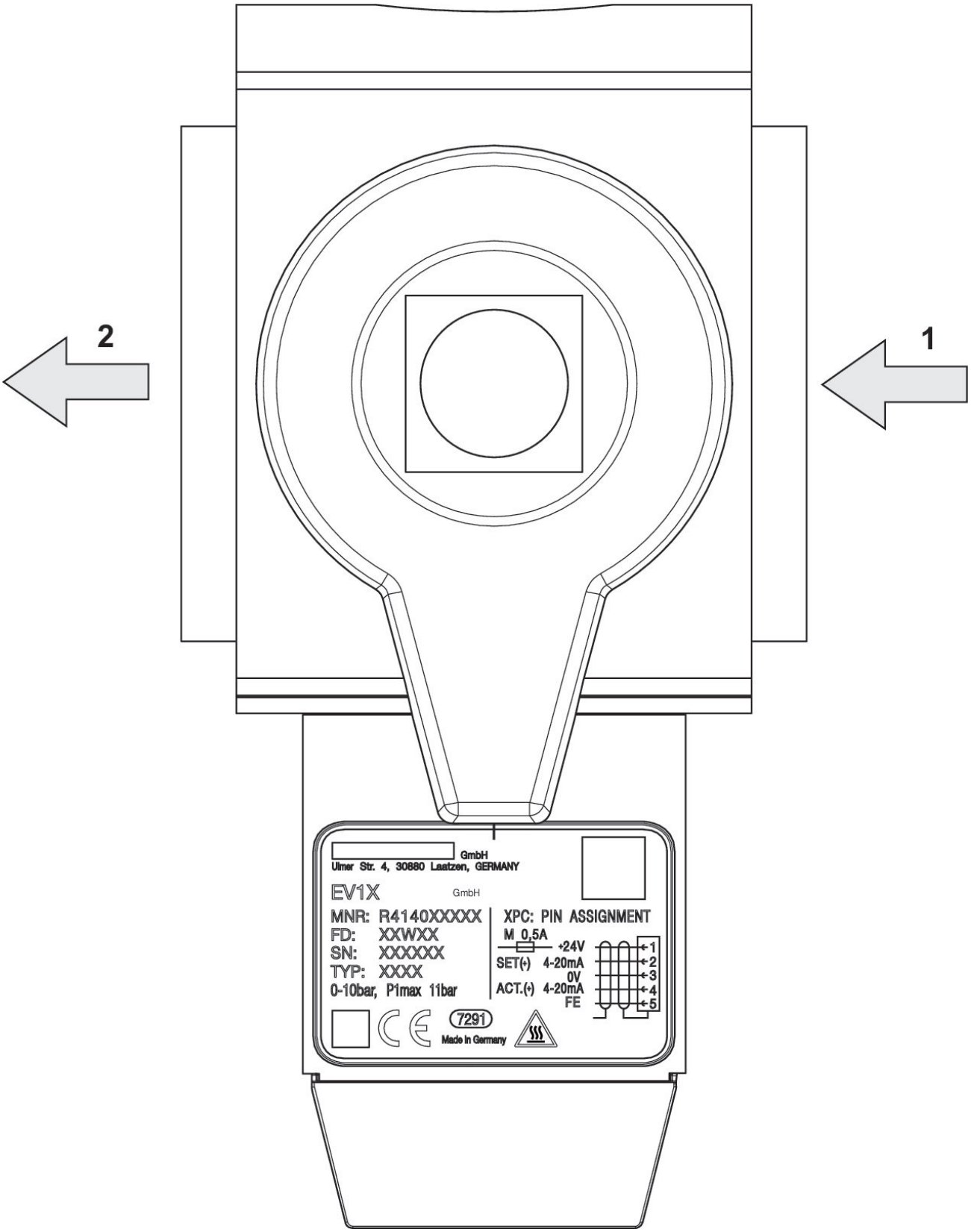
Dimensions

Pressure supply, right

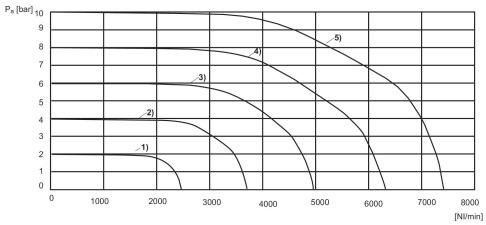


A1 = input
A2 = output

Pressure supply, right



Flow characteristic curve



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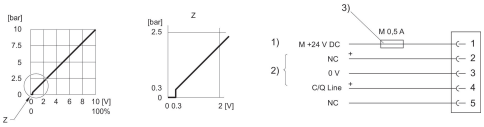
Characteristic curve and plug assignment for IO-Link version



1) power supply
2) C/Q Line (pin 4) Not connected (NC) (pin 2) are related to 0 V (pin 3).
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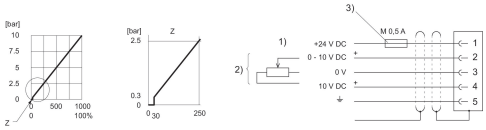
Characteristic and pin assignment for voltage control with actual output value



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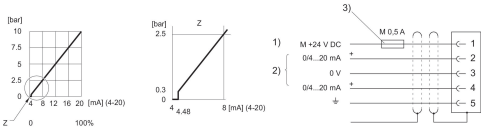
Characteristic and pin assignment for current control with actual output value



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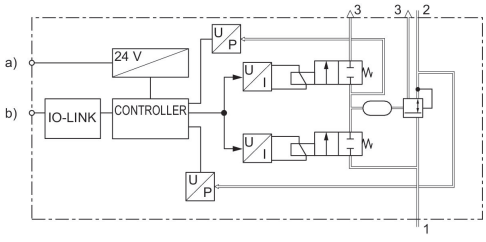
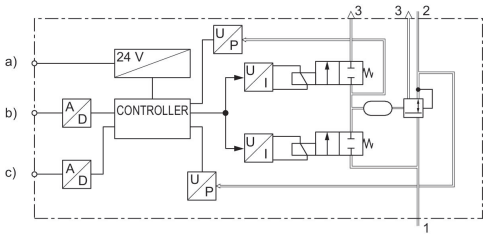
Functional diagram
IO-Link



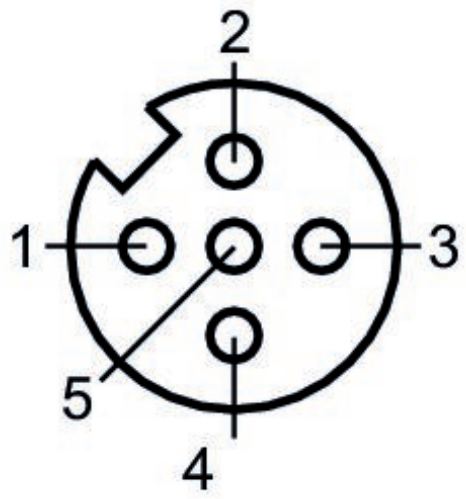
a) Supply Voltage
b) C/Q Line

Functional diagram



a) Voltage supply b) Nominal value
c) Actual output value

Plug assignment



1) 24 V DC
2) Nominal input value
3) GND
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5) Ground

E/P pressure regulator, Series EV12

R414011398

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Series EV12

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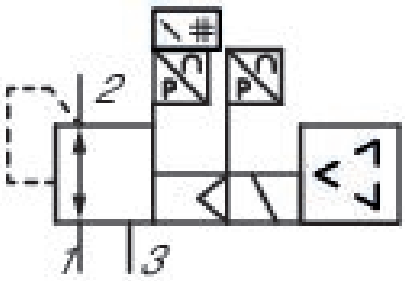

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Regulation range max.	10 bar
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Min. medium temperature	0 °C

Max. medium temperature	50 °C
DC operating voltage	24 V
Permissible ripple	5%
Max. current consumption	220 mA
Max. particle size	50 µm
Oil content of compressed air min.	0 mg/m³
Oil content of compressed air max.	5 mg/m³
Frame size	AS3
Type	Poppet valve
Compressed air connection input	G 3/8
Compressed air connection output	G 3/8
Electrical connection size	M12
Electrical connection number of poles	5-pin
Electrical connection coding	A-coded
Actual output value	0 ... 10 V
Nominal input value	0 ... 10 V
Industry	Industrial
Weight	1.4 kg

Material

Housing material	Polyamide
Seal material	Nitrile butadiene rubber
Material base plate	Aluminum
Part No.	R414011398

Technical information

Power outage: maintain pressure

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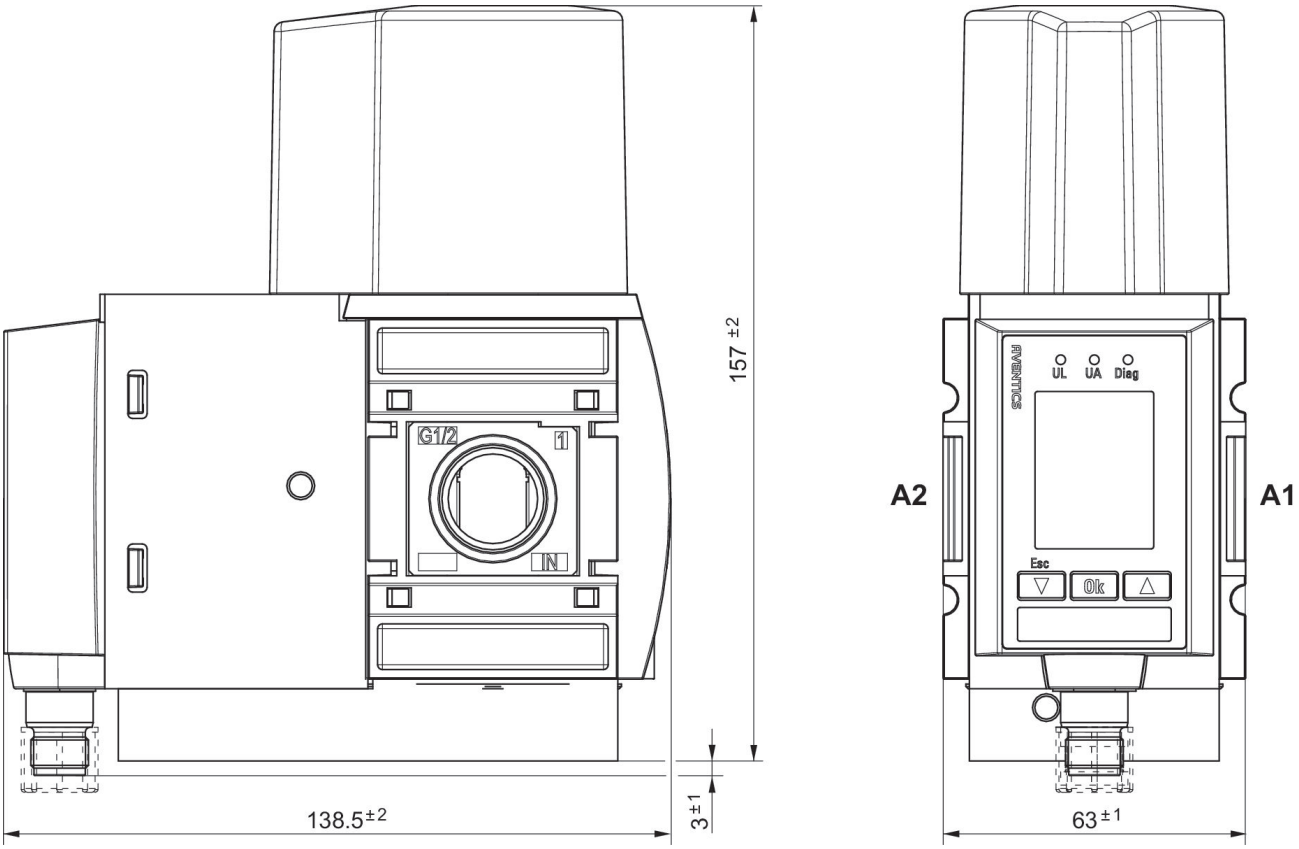
Dimensions

Pressure supply, right



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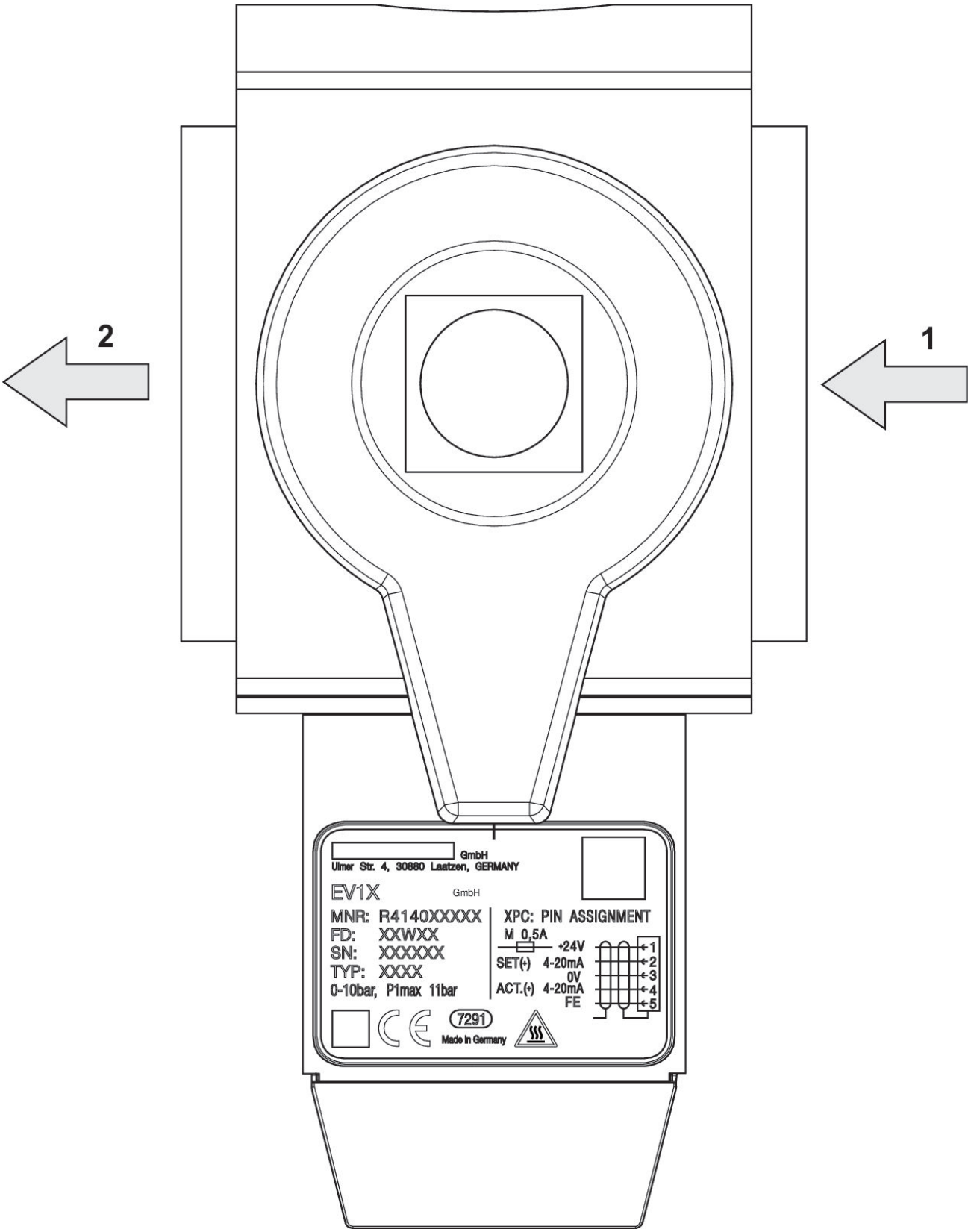
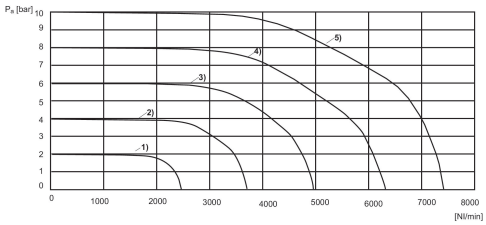
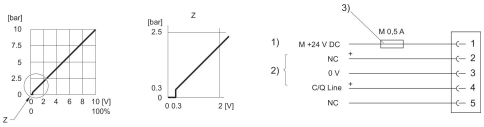


Flow characteristic curve



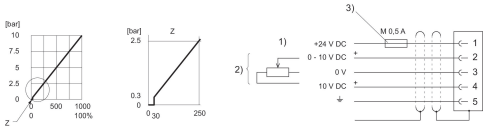
1) Pv = [[3] bar] 2)Pv = [[5] bar] 3)Pv = [[7] bar] 4) Pv = [[9] bar] 5)Pv = [[11] bar]
Pv = Supply pressure
Pa = Working pressure
Pv = Pa + 1

Characteristic curve and plug assignment for IO-Link version



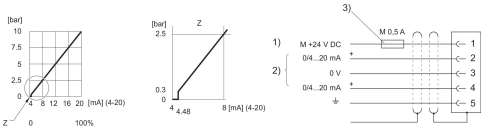
1) power supply
2) C/Q Line (pin 4) Not connected (NC) (pin 2) are related to 0 V (pin 3).
3) The power supply must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.

Characteristic and pin assignment for voltage control with actual output value



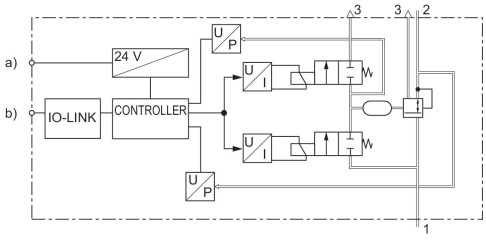
1) power supply
2) Actual value (pin 4) and nominal value (pin 2) are related to 0 V (pin 3). Nominal input value (R = 1 MΩ), actual output value: min. load resistance > 10 KΩ. If the power supply is switched off, the nominal input value is high-ohmic.
3) The power supply must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.

Characteristic and pin assignment for current control with actual output value



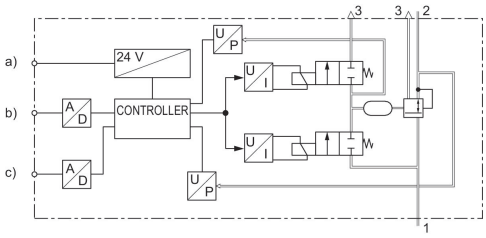
1) power supply
2) Actual value (pin 4) and nominal value (pin 2) are related to 0 V (pin 3). Nominal input value (ohmic load 100 Ω), actual output value: external ohmic load < 300 Ω. If the power supply is switched off, the nominal input value is high-ohmic.
3) The power supply must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.

Functional diagram
IO-Link



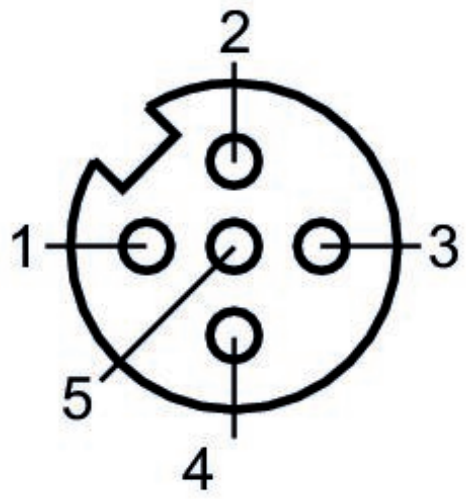
a) Supply Voltage
b) C/Q Line

Functional diagram



a) Voltage supply b) Nominal value
c) Actual output value

Plug assignment



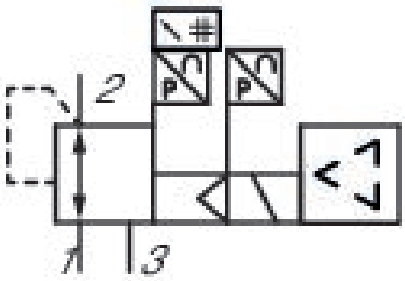
1) 24 V DC
2) Nominal input value
3) GND
4) Actual output value
5) Ground

E/P pressure regulator, Series EV12

R414011399

General series information
Series EV12

- The AVENTICS EV12 high flow proportional pressure control valve with its compact design hides its large flow capacity. It can be used as a stand-alone solution (high flow valve), as a battery for block assembly with consistently controlled pressure, or integrated into a maintenance unit.



Technical data

Type	Pressure supply, right Display: display
Control	Externally piloted
Air supply	right
Regulation range min.	0 bar
Regulation range max.	10 bar
Hysteresis	0,12 bar
Medium	Neutral gases
Nominal flow Qn	6500 l/min
Min. ambient temperature	0 °C
Max. ambient temperature	50 °C
Min. medium temperature	0 °C

Max. medium temperature	50 °C
DC operating voltage	24 V
Permissible ripple	5%
Max. current consumption	220 mA
Max. particle size	50 µm
Oil content of compressed air min.	0 mg/m³
Oil content of compressed air max.	5 mg/m³
Frame size	AS3
Type	Poppet valve
Compressed air connection input	G 3/8
Compressed air connection output	G 3/8
Electrical connection size	M12
Electrical connection number of poles	5-pin
Electrical connection coding	A-coded
Actual output value	0 ... 20 mA
Nominal input value	4 ... 20 mA
Industry	Industrial
Weight	1.4 kg

Material

Housing material	Polyamide
Seal material	Nitrile butadiene rubber
Material base plate	Aluminum
Part No.	R414011399

Technical information

Power outage: maintain pressure

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

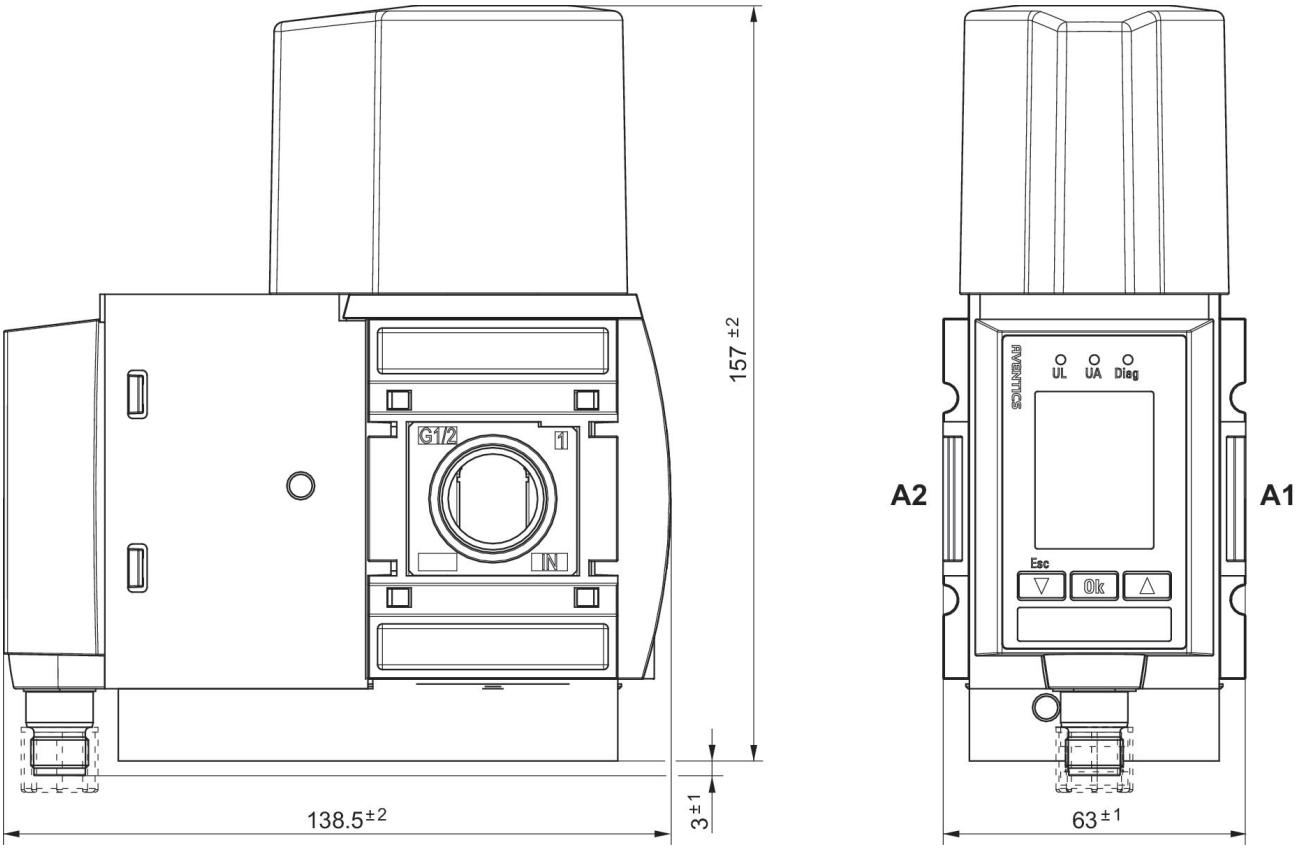
The pressure dew point must be at least 15 °C less than ambient and medium temperature and may not exceed 3 °C.

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).

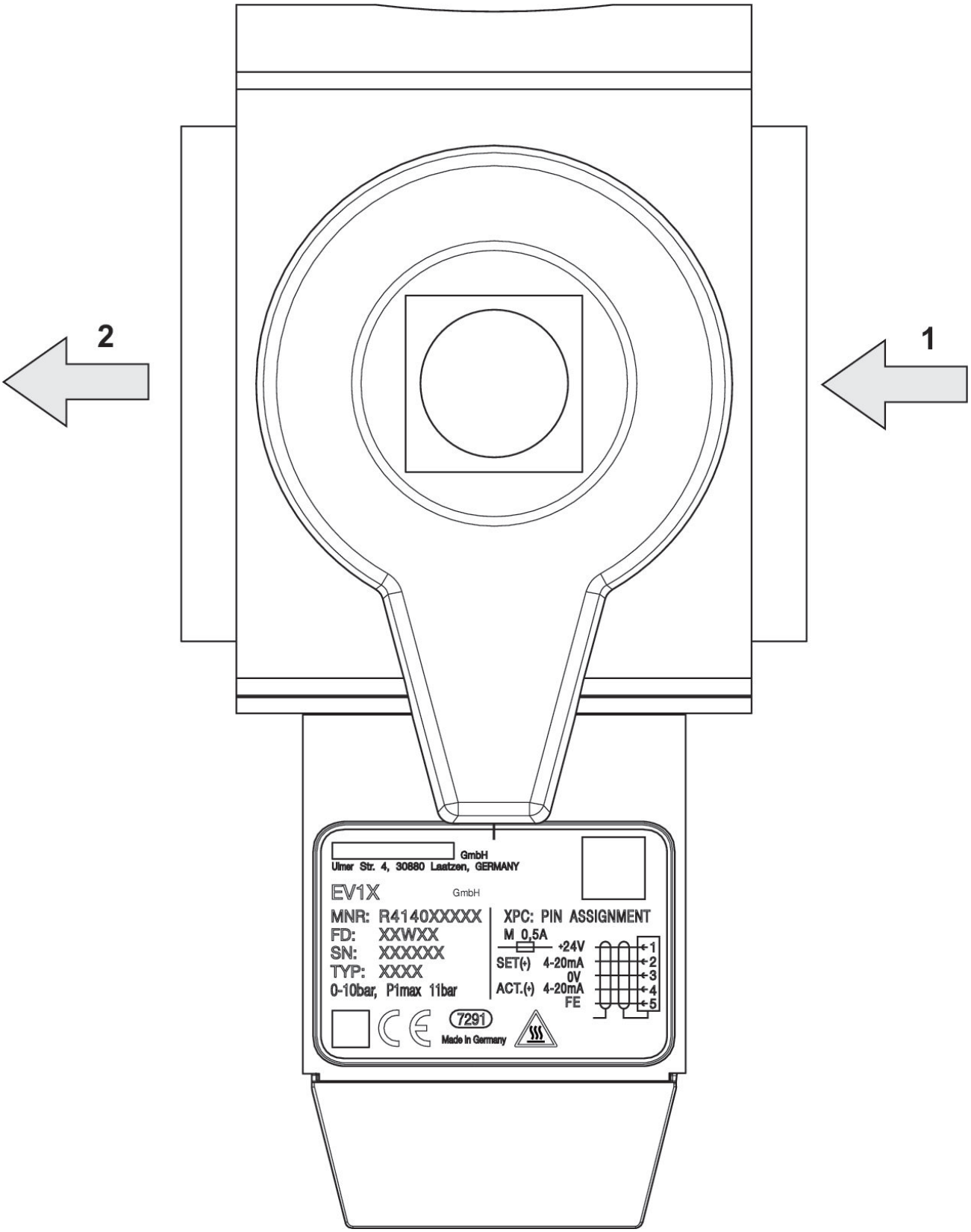
Dimensions

Pressure supply, right

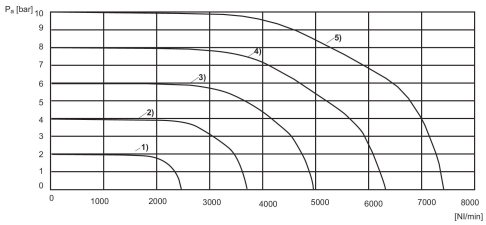


A1 = input
A2 = output

Pressure supply, right

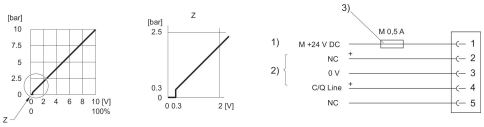


Flow characteristic curve



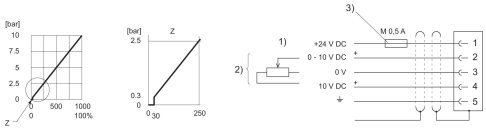
1) Pv = [[3] bar] 2)Pv = [[5] bar] 3)Pv = [[7] bar] 4) Pv = [[9] bar] 5)Pv = [[11] bar]
Pv = Supply pressure
Pa = Working pressure
Pv = Pa + 1

Characteristic curve and plug assignment for IO-Link version



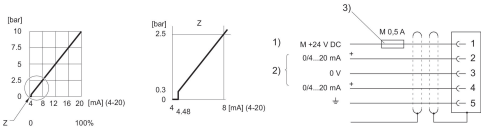
1) power supply
2) C/Q Line (pin 4) Not connected (NC) (pin 2) are related to 0 V (pin 3).
3) The power supply must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.

Characteristic and pin assignment for voltage control with actual output value



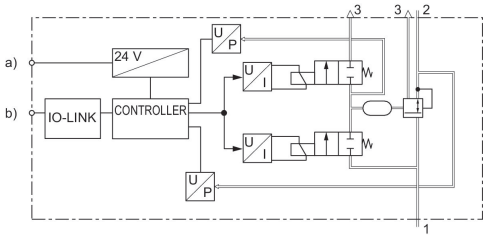
1) power supply
2) Actual value (pin 4) and nominal value (pin 2) are related to 0 V (pin 3). Nominal input value (R = 1 MΩ), actual output value: min. load resistance > 10 KΩ. If the power supply is switched off, the nominal input value is high-ohmic.
3) The power supply must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.

Characteristic and pin assignment for current control with actual output value



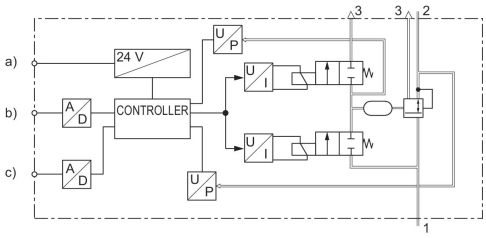
1) power supply
2) Actual value (pin 4) and nominal value (pin 2) are related to 0 V (pin 3). Nominal input value (ohmic load 100 Ω), actual output value: external ohmic load < 300 Ω. If the power supply is switched off, the nominal input value is high-ohmic.
3) The power supply must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.

Functional diagram
IO-Link



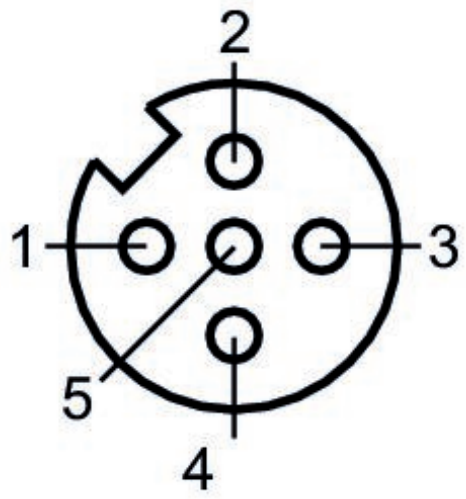
a) Supply Voltage
b) C/Q Line

Functional diagram



a) Voltage supply b) Nominal value
c) Actual output value

Plug assignment



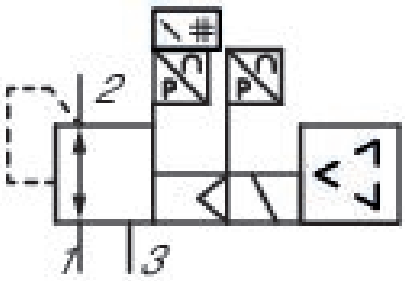
1) 24 V DC
2) Nominal input value
3) GND
4) Actual output value
5) Ground

E/P pressure regulator, Series EV12

R414011401

General series information
Series EV12

- The AVENTICS EV12 high flow proportional pressure control valve with its compact design hides its large flow capacity. It can be used as a stand-alone solution (high flow valve), as a battery for block assembly with consistently controlled pressure, or integrated into a maintenance unit.



Technical data

Type	Pressure supply, right Display: display
Control	Externally piloted
Air supply	right
Regulation range min.	0 bar
Regulation range max.	10 bar
Hysteresis	0,12 bar
Medium	Neutral gases
Nominal flow Qn	6500 l/min
Min. ambient temperature	0 °C
Max. ambient temperature	50 °C
Min. medium temperature	0 °C

Max. medium temperature	50 °C
DC operating voltage	24 V
Permissible ripple	5%
Max. current consumption	220 mA
Max. particle size	50 µm
Oil content of compressed air min.	0 mg/m³
Oil content of compressed air max.	5 mg/m³
Frame size	AS3
Type	Poppet valve
Compressed air connection input	G 3/8
Compressed air connection output	G 3/8
Electrical connection size	M12
Electrical connection number of poles	5-pin
Electrical connection coding	A-coded
Industry	Industrial
Weight	1.4 kg

Material

Housing material	Polyamide
Seal material	Nitrile butadiene rubber
Material base plate	Aluminum
Part No.	R414011401

Technical information

Power outage: maintain pressure

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

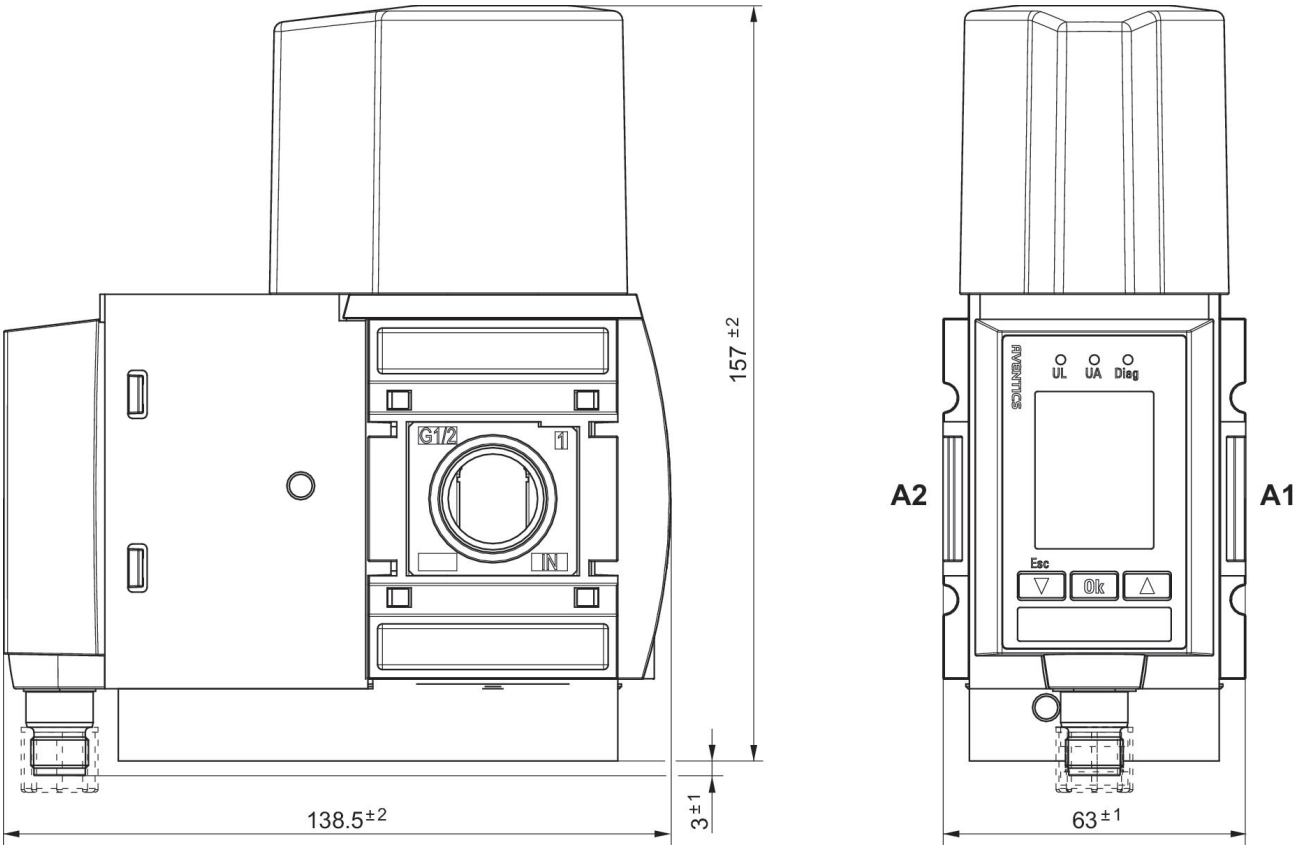
The pressure dew point must be at least 15 °C less than ambient and medium temperature and may not exceed 3 °C.

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).

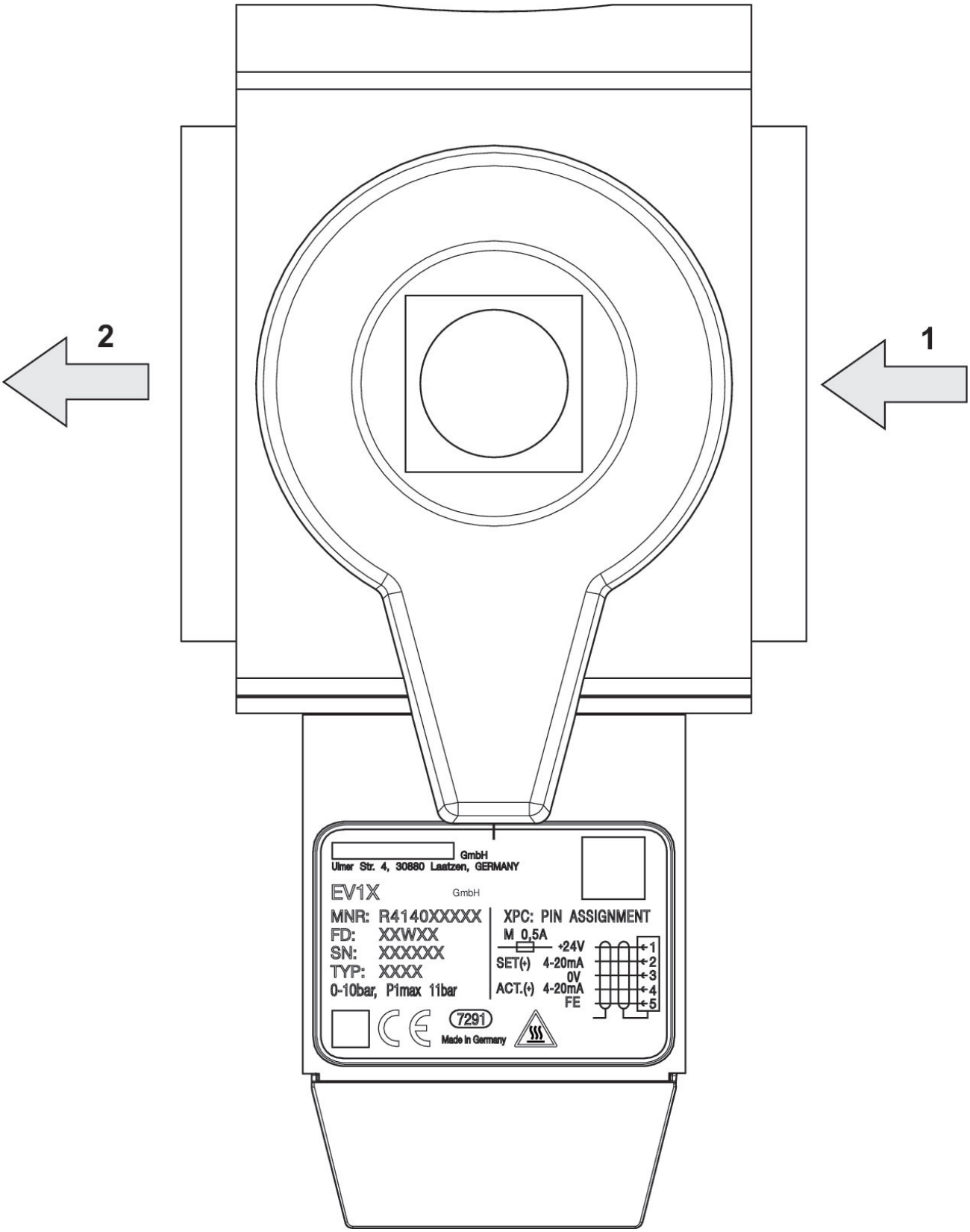
Dimensions

Pressure supply, right

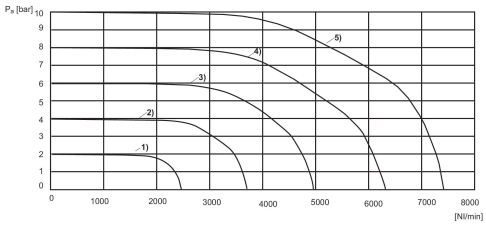


A1 = input
A2 = output

Pressure supply, right

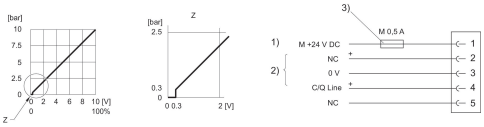


Flow characteristic curve



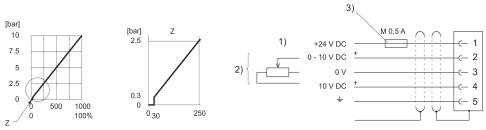
1) Pv = [[3] bar] 2)Pv = [[5] bar] 3)Pv = [[7] bar] 4) Pv = [[9] bar] 5)Pv = [[11] bar]
Pv = Supply pressure
Pa = Working pressure
Pv = Pa + 1

Characteristic curve and plug assignment for IO-Link version



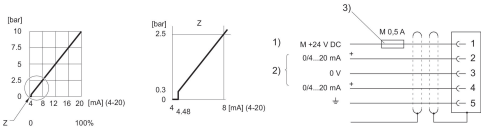
1) power supply
2) C/Q Line (pin 4) Not connected (NC) (pin 2) are related to 0 V (pin 3).
3) The power supply must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.

Characteristic and pin assignment for voltage control with actual output value



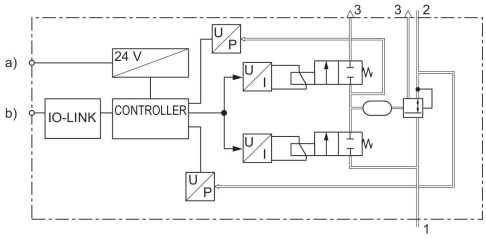
1) power supply
2) Actual value (pin 4) and nominal value (pin 2) are related to 0 V (pin 3). Nominal input value (R = 1 MΩ), actual output value: min. load resistance > 10 KΩ. If the power supply is switched off, the nominal input value is high-ohmic.
3) The power supply must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.

Characteristic and pin assignment for current control with actual output value



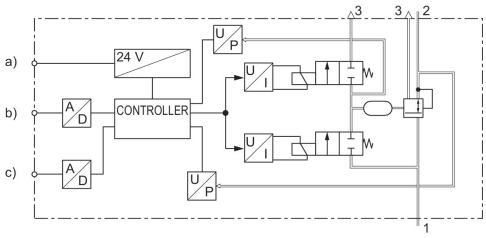
1) power supply
2) Actual value (pin 4) and nominal value (pin 2) are related to 0 V (pin 3). Nominal input value (ohmic load 100 Ω), actual output value: external ohmic load < 300 Ω. If the power supply is switched off, the nominal input value is high-ohmic.
3) The power supply must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.

Functional diagram
IO-Link



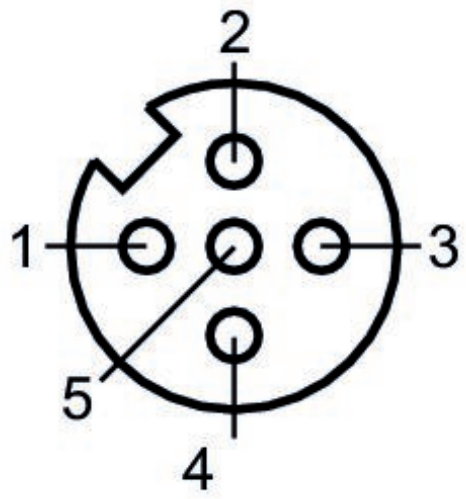
a) Supply Voltage
b) C/Q Line

Functional diagram



a) Voltage supply b) Nominal value
c) Actual output value

Plug assignment



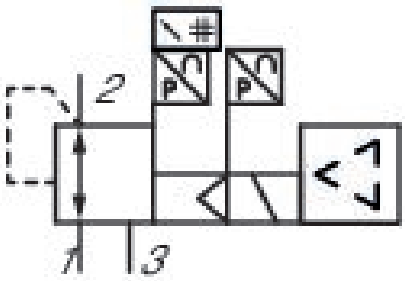
1) 24 V DC
2) Nominal input value
3) GND
4) Actual output value
5) Ground

E/P pressure regulator, Series EV12

R414011384

General series information
Series EV12

- The AVENTICS EV12 high flow proportional pressure control valve with its compact design hides its large flow capacity. It can be used as a stand-alone solution (high flow valve), as a battery for block assembly with consistently controlled pressure, or integrated into a maintenance unit.



Technical data

Type	Pressure supply, left Display: display
Control	Externally piloted
Air supply	left
Regulation range min.	0 bar
Regulation range max.	10 bar
Working pressure min.	0 bar
Working pressure max	10 bar
Hysteresis	0,12 bar
Medium	Compressed air
Nominal flow Qn	6500 l/min
Min. ambient temperature	0 °C

Max. ambient temperature	50 °C
Min. medium temperature	0 °C
Max. medium temperature	50 °C
DC operating voltage	24 V
Permissible ripple	5%
Max. current consumption	220 mA
Max. particle size	50 µm
Oil content of compressed air min.	0 mg/m³
Oil content of compressed air max.	5 mg/m³
Frame size	AS3
Type	Poppet valve
Compressed air connection input	G 1/2
Compressed air connection output	G 1/2
Electrical connection size	M12
Electrical connection number of poles	5-pin
Actual output value	0 ... 10 V
Nominal input value	0 ... 10 V
Industry	Industrial
Weight	1.4 kg

Material

Housing material	Polyamide
Seal material	Nitrile butadiene rubber
Material base plate	Aluminum
Part No.	R414011384

Technical information

Power outage: maintain pressure

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

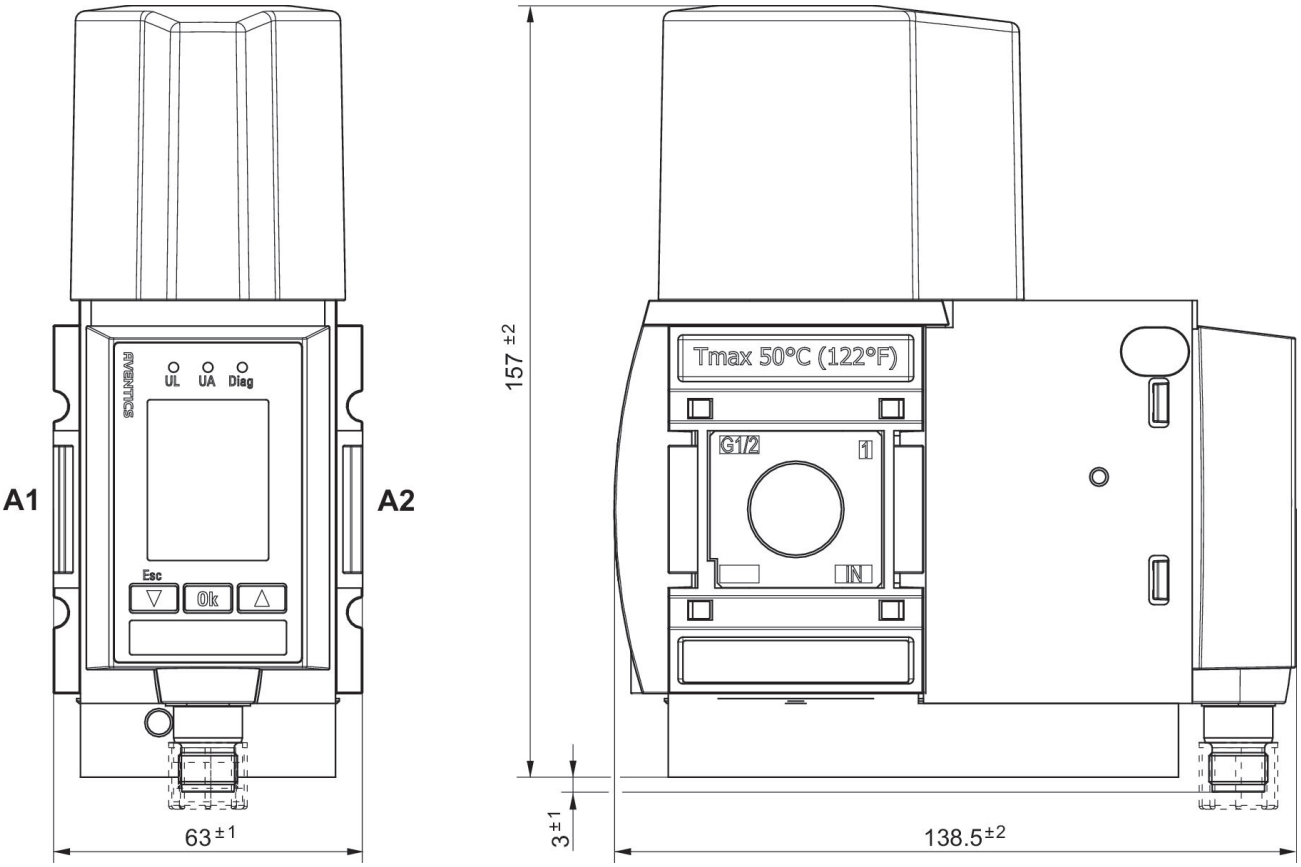
The pressure dew point must be at least 15 °C less than ambient and medium temperature and may not exceed 3 °C.

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).

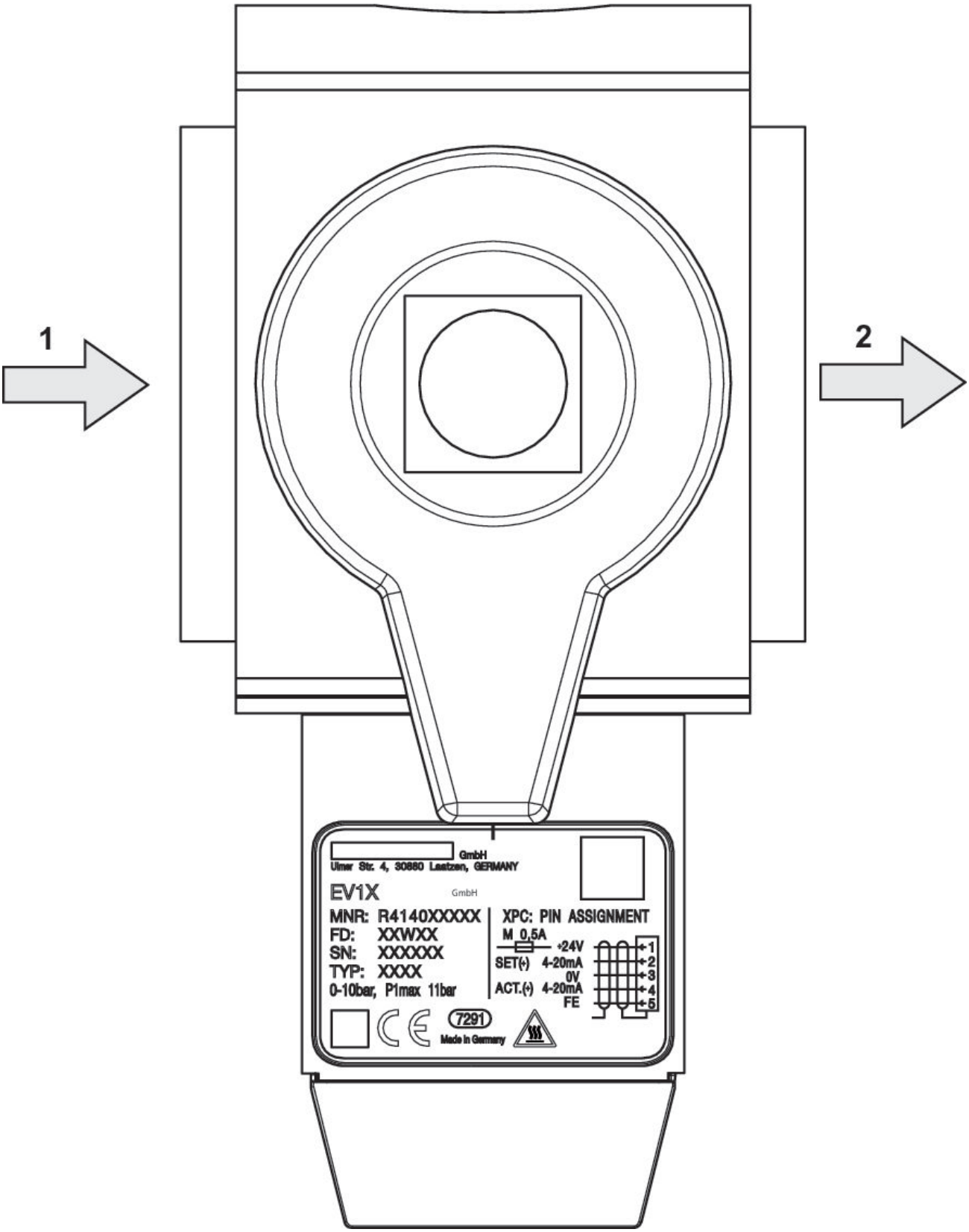
Dimensions

Pressure supply, left

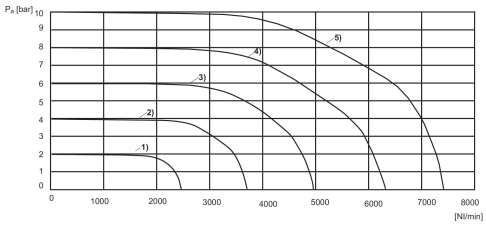


A1 = input
A2 = output

Pressure supply, left



Flow characteristic curve



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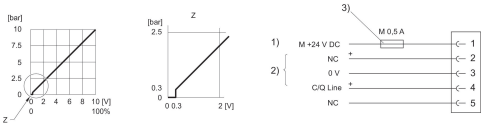
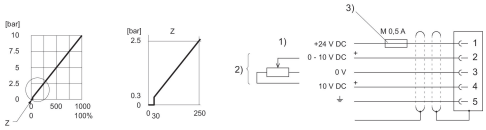
Pv = Supply pressure
Pa = Working pressure
Pv = Pa + 1

Characteristic curve and plug assignment for IO-Link version



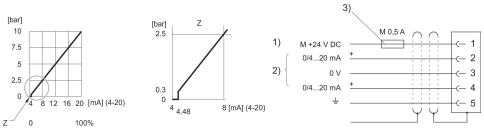
1) power supply
2) C/Q Line (pin 4) Not connected (NC) (pin 2) are related to 0 V (pin 3).
3) The power supply must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.

Characteristic and pin assignment for voltage control with actual output value



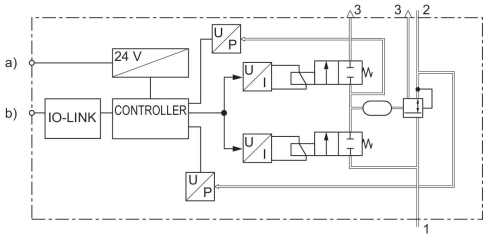
1) power supply
2) Actual value (pin 4) and nominal value (pin 2) are related to 0 V (pin 3). Nominal input value (R = 1 MΩ), actual output value: min. load resistance > 10 KΩ. If the power supply is switched off, the nominal input value is high-ohmic.
3) The power supply must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.

Characteristic and pin assignment for current control with actual output value



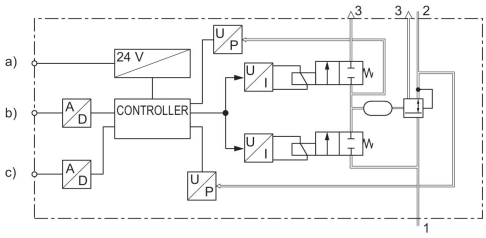
1) power supply
2) Actual value (pin 4) and nominal value (pin 2) are related to 0 V (pin 3). Nominal input value (ohmic load 100 Ω), actual output value: external ohmic load < 300 Ω. If the power supply is switched off, the nominal input value is high-ohmic.
3) The power supply must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.

Functional diagram
IO-Link



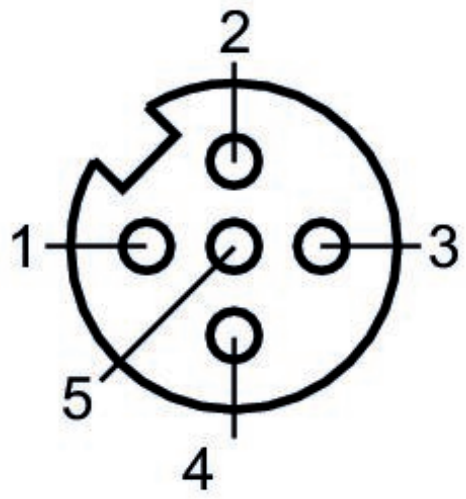
a) Supply Voltage
b) C/Q Line

Functional diagram



a) Voltage supply b) Nominal value
c) Actual output value

Plug assignment



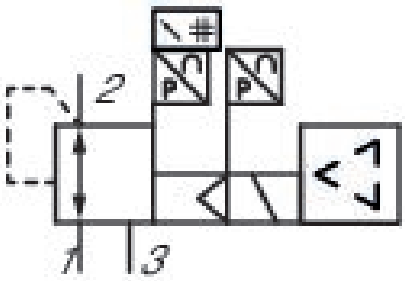
1) 24 V DC
2) Nominal input value
3) GND
4) Actual output value
5) Ground

E/P pressure regulator, Series EV12

R414011385

General series information
Series EV12

- The AVENTICS EV12 high flow proportional pressure control valve with its compact design hides its large flow capacity. It can be used as a stand-alone solution (high flow valve), as a battery for block assembly with consistently controlled pressure, or integrated into a maintenance unit.



Technical data

Type	Pressure supply, left Display: display
Control	Externally piloted
Air supply	left
Regulation range min.	0 bar
Regulation range max.	10 bar
Working pressure min.	0 bar
Working pressure max	10 bar
Hysteresis	0,12 bar
Medium	Compressed air
Nominal flow Qn	6500 l/min
Min. ambient temperature	0 °C

Max. ambient temperature	50 °C
Min. medium temperature	0 °C
Max. medium temperature	50 °C
DC operating voltage	24 V
Permissible ripple	5%
Max. current consumption	220 mA
Max. particle size	50 µm
Oil content of compressed air min.	0 mg/m³
Oil content of compressed air max.	5 mg/m³
Frame size	AS3
Type	Poppet valve
Compressed air connection input	G 1/2
Compressed air connection output	G 1/2
Electrical connection size	M12
Electrical connection number of poles	5-pin
Actual output value	4 ... 20 mA
Nominal input value	4 ... 20 mA
Industry	Industrial
Weight	1.4 kg

Material

Housing material	Polyamide
Seal material	Nitrile butadiene rubber
Material base plate	Aluminum
Part No.	R414011385

Technical information

Power outage: maintain pressure

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

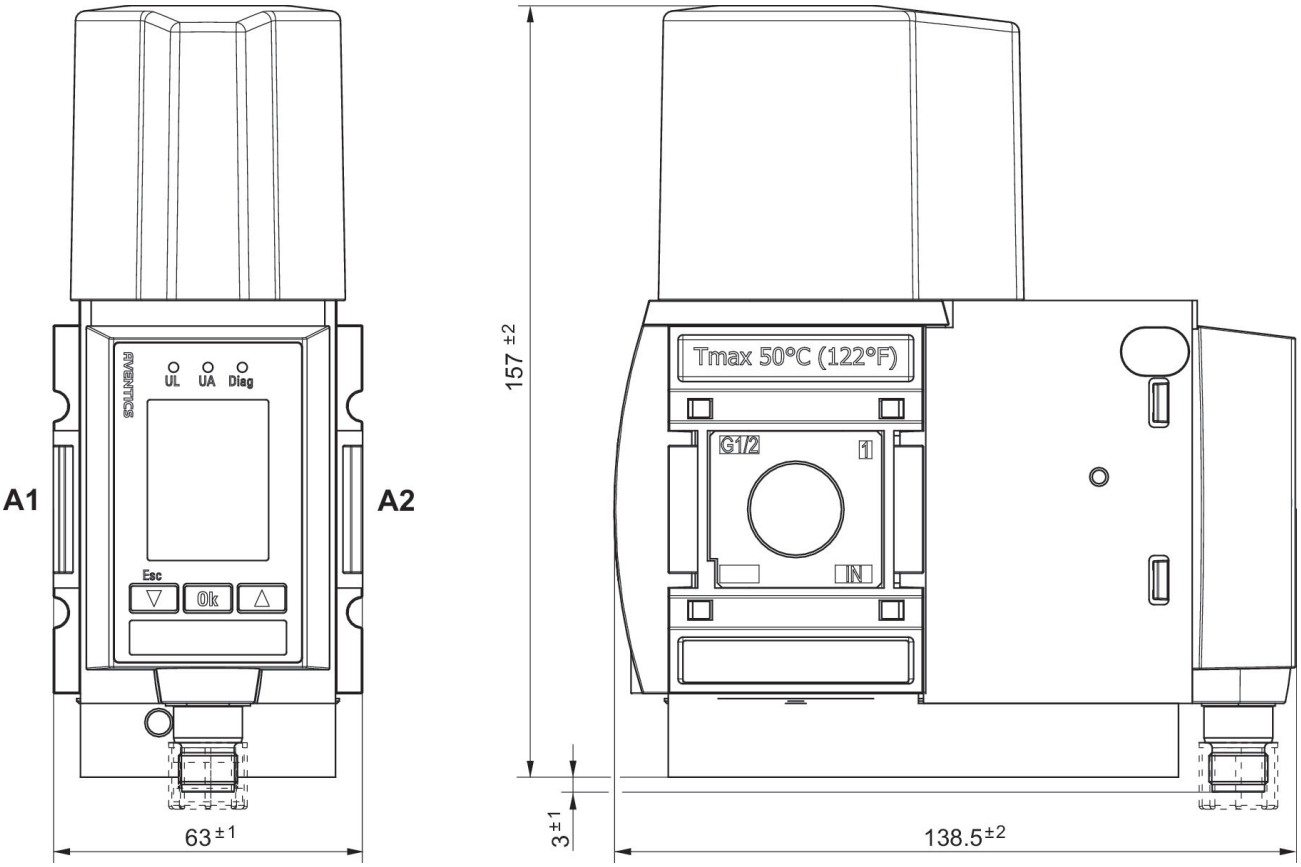
The pressure dew point must be at least 15 °C less than ambient and medium temperature and may not exceed 3 °C.

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).

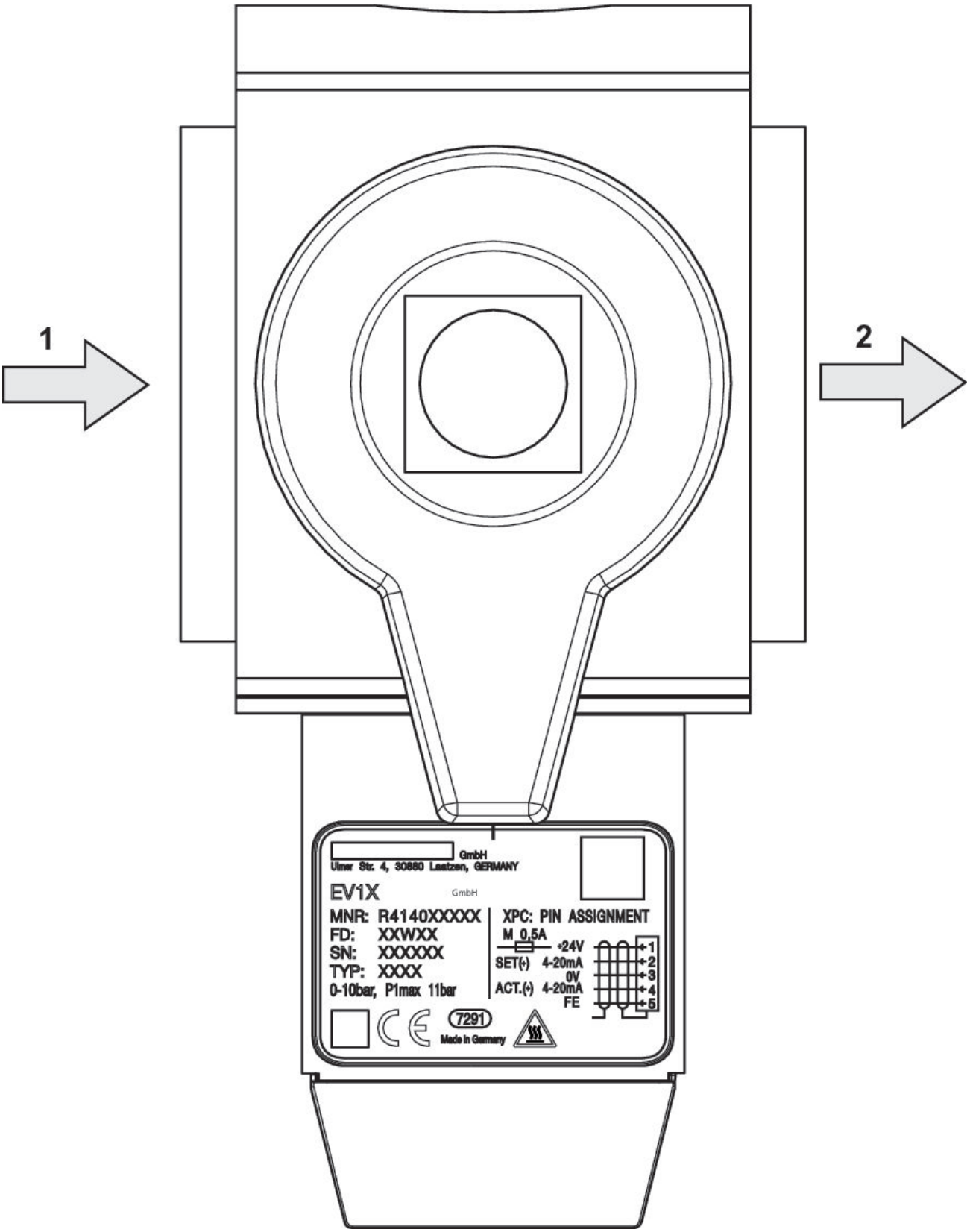
Dimensions

Pressure supply, left

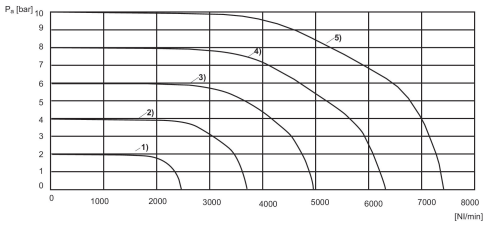


A1 = input
A2 = output

Pressure supply, left

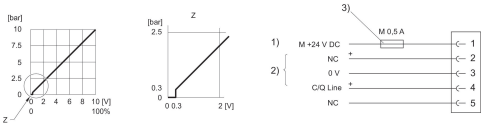


Flow characteristic curve



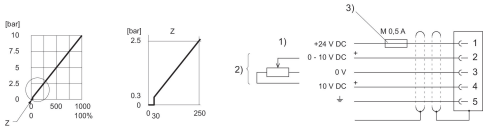
1) Pv = [[3] bar] 2)Pv = [[5] bar] 3)Pv = [[7] bar] 4) Pv = [[9] bar] 5)Pv = [[11] bar]
Pv = Supply pressure
Pa = Working pressure
Pv = Pa + 1

Characteristic curve and plug assignment for IO-Link version



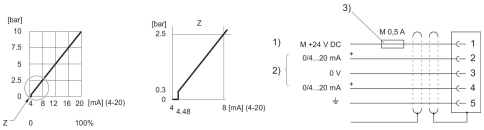
1) power supply
2) C/Q Line (pin 4) Not connected (NC) (pin 2) are related to 0 V (pin 3).
3) The power supply must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.

Characteristic and pin assignment for voltage control with actual output value



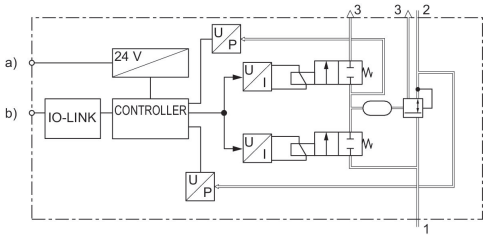
1) power supply
2) Actual value (pin 4) and nominal value (pin 2) are related to 0 V (pin 3). Nominal input value (R = 1 MΩ), actual output value: min. load resistance > 10 KΩ. If the power supply is switched off, the nominal input value is high-ohmic.
3) The power supply must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.

Characteristic and pin assignment for current control with actual output value



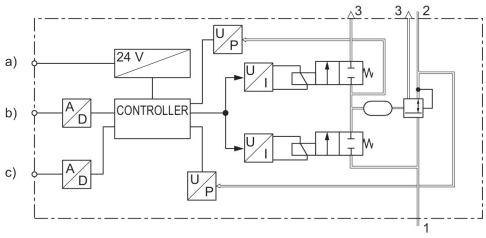
1) power supply
2) Actual value (pin 4) and nominal value (pin 2) are related to 0 V (pin 3). Nominal input value (ohmic load 100 Ω), actual output value: external ohmic load < 300 Ω. If the power supply is switched off, the nominal input value is high-ohmic.
3) The power supply must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.

Functional diagram
IO-Link



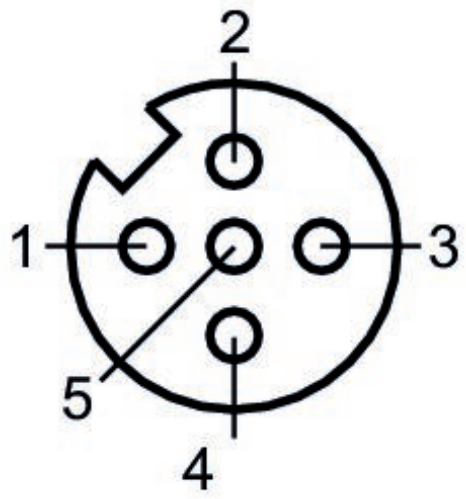
a) Supply Voltage
b) C/Q Line

Functional diagram



a) Voltage supply b) Nominal value
c) Actual output value

Plug assignment



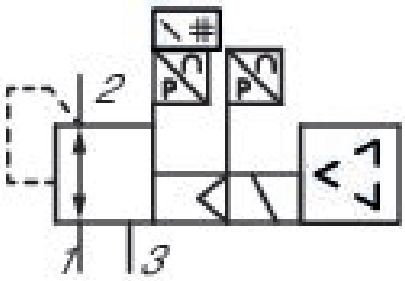
1) 24 V DC
2) Nominal input value
3) GND
4) Actual output value
5) Ground

E/P pressure regulator, Series EV12

R414011388

General series information
Series EV12

- The AVENTICS EV12 high flow proportional pressure control valve with its compact design hides its large flow capacity. It can be used as a stand-alone solution (high flow valve), as a battery for block assembly with consistently controlled pressure, or integrated into a maintenance unit.



Technical data

Type	Pressure supply, left Display: display
Control	Externally piloted
Air supply	left
Regulation range min.	0 bar
Regulation range max.	10 bar
Working pressure min.	0 bar
Working pressure max	10 bar
Hysteresis	0,12 bar
Medium	Compressed air
Nominal flow Qn	6500 l/min
Min. ambient temperature	0 °C

Max. ambient temperature	50 °C
Min. medium temperature	0 °C
Max. medium temperature	50 °C
DC operating voltage	24 V
Permissible ripple	5%
Max. current consumption	220 mA
Max. particle size	50 µm
Oil content of compressed air min.	0 mg/m³
Oil content of compressed air max.	5 mg/m³
Frame size	AS3
Type	Poppet valve
Compressed air connection input	G 1/2
Compressed air connection output	G 1/2
Electrical connection size	M12
Electrical connection number of poles	5-pin
Industry	Industrial
Weight	1.4 kg

Material

Housing material	Polyamide
Seal material	Nitrile butadiene rubber
Material base plate	Aluminum
Part No.	R414011388

Technical information

Power outage: maintain pressure

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

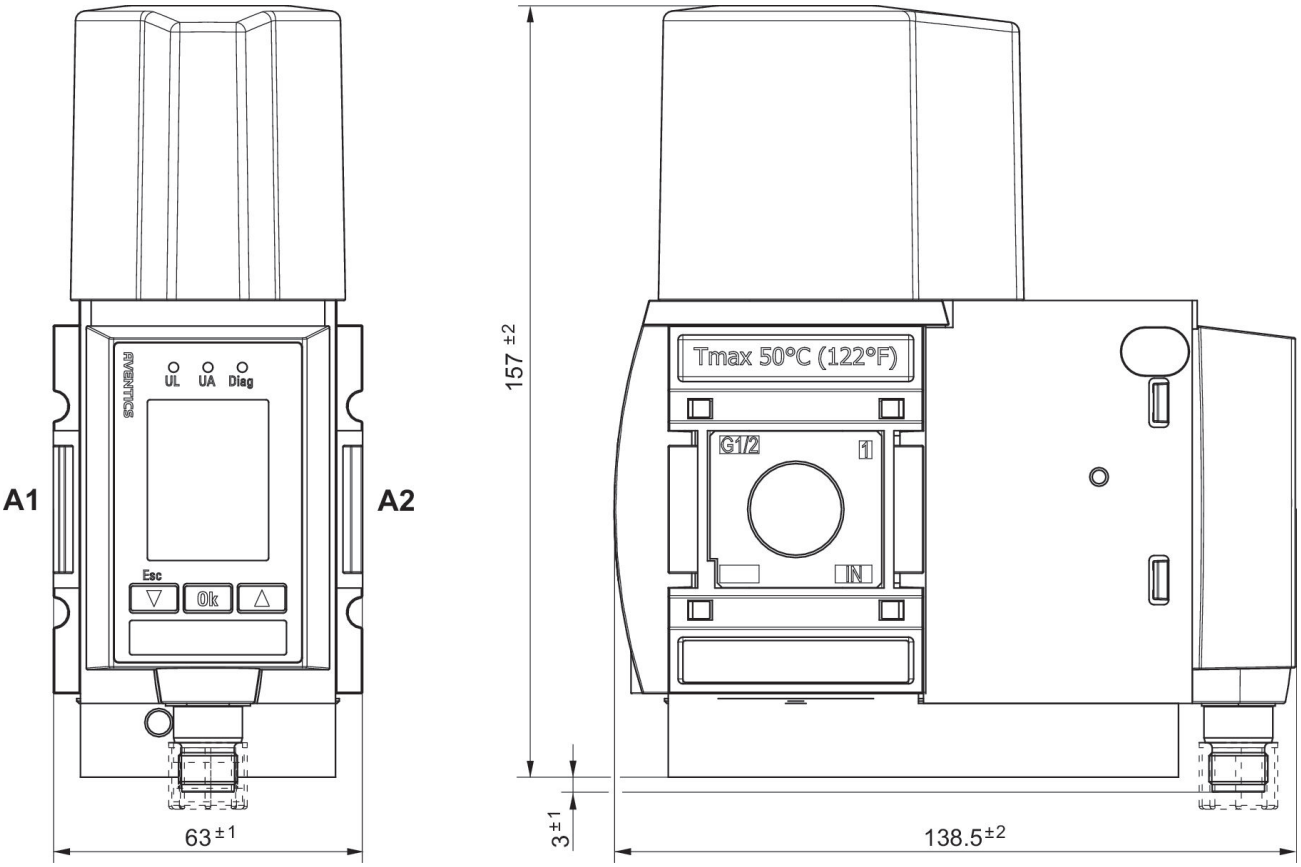
The pressure dew point must be at least 15 °C less than ambient and medium temperature and may not exceed 3 °C.

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).

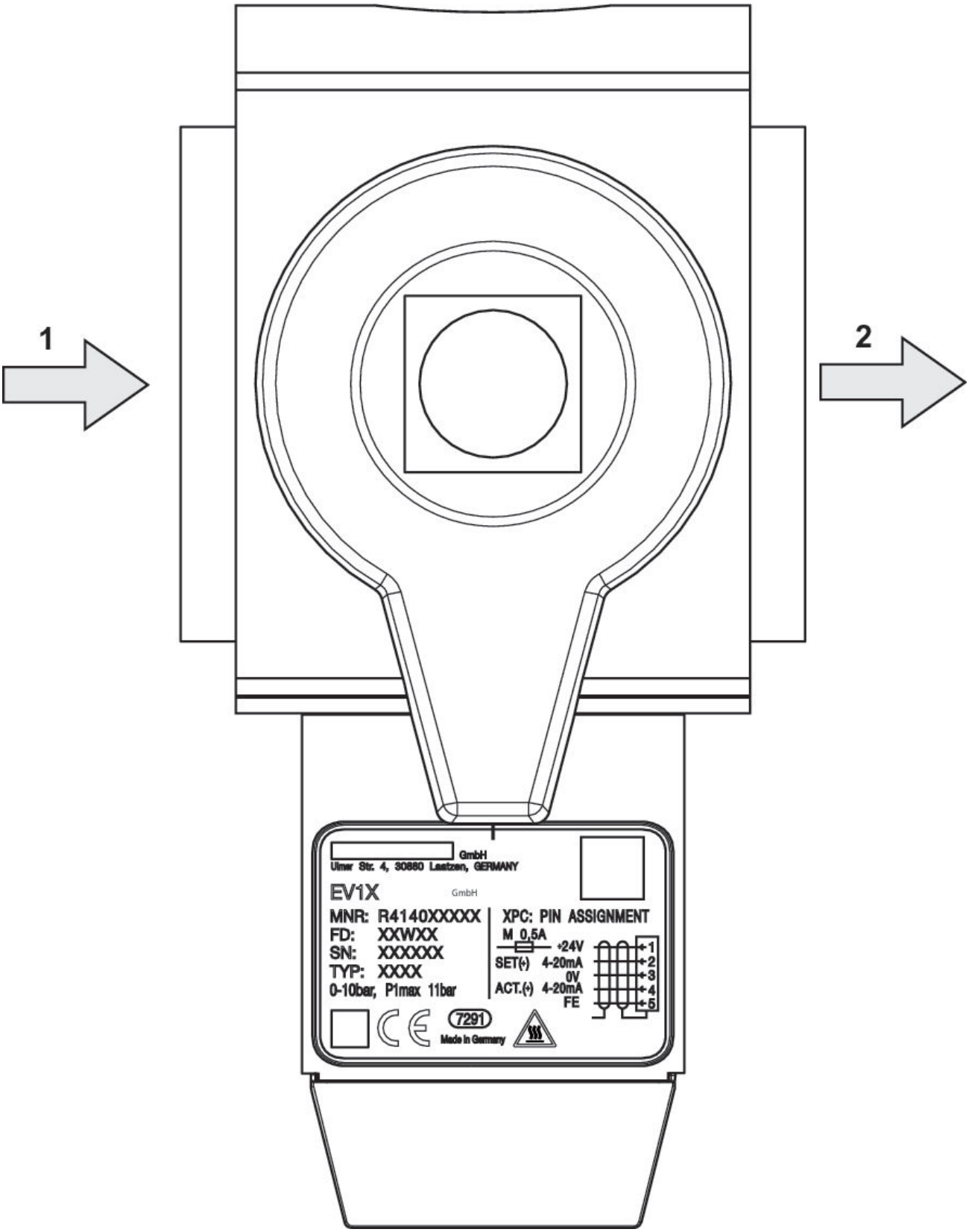
Dimensions

Pressure supply, left

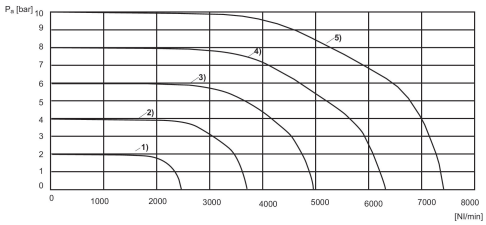


A1 = input
A2 = output

Pressure supply, left

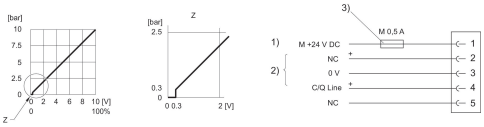


Flow characteristic curve



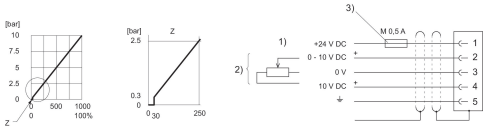
1) Pv = [[3] bar] 2)Pv = [[5] bar] 3)Pv = [[7] bar] 4) Pv = [[9] bar] 5)Pv = [[11] bar]
Pv = Supply pressure
Pa = Working pressure
Pv = Pa + 1

Characteristic curve and plug assignment for IO-Link version



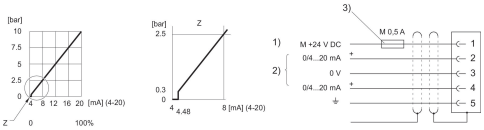
1) power supply
2) C/Q Line (pin 4) Not connected (NC) (pin 2) are related to 0 V (pin 3).
3) The power supply must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.

Characteristic and pin assignment for voltage control with actual output value



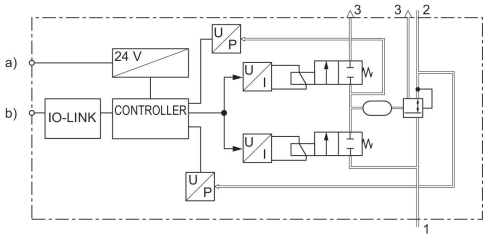
1) power supply
2) Actual value (pin 4) and nominal value (pin 2) are related to 0 V (pin 3). Nominal input value (R = 1 MΩ), actual output value: min. load resistance > 10 KΩ. If the power supply is switched off, the nominal input value is high-ohmic.
3) The power supply must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.

Characteristic and pin assignment for current control with actual output value



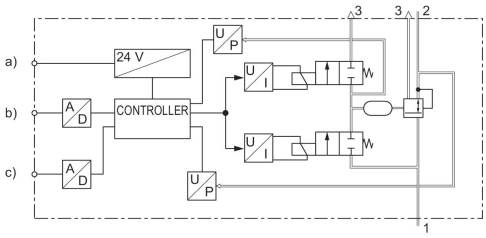
1) power supply
2) Actual value (pin 4) and nominal value (pin 2) are related to 0 V (pin 3). Nominal input value (ohmic load 100 Ω), actual output value: external ohmic load < 300 Ω. If the power supply is switched off, the nominal input value is high-ohmic.
3) The power supply must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.

Functional diagram
IO-Link



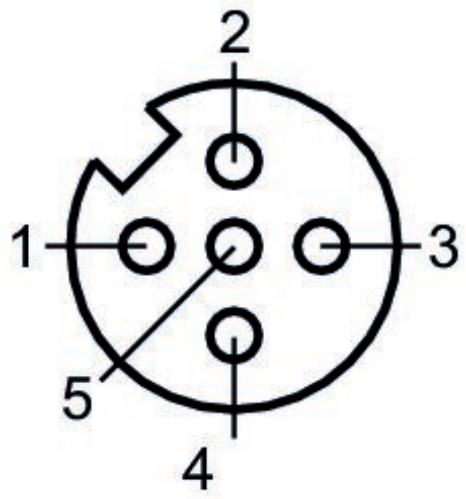
a) Supply Voltage
b) C/Q Line

Functional diagram



a) Voltage supply b) Nominal value
c) Actual output value

Plug assignment



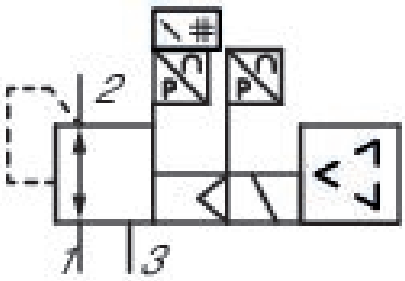
1) 24 V DC
2) Nominal input value
3) GND
4) Actual output value
5) Ground

E/P pressure regulator, Series EV12

R414011396

General series information
Series EV12

- The AVENTICS EV12 high flow proportional pressure control valve with its compact design hides its large flow capacity. It can be used as a stand-alone solution (high flow valve), as a battery for block assembly with consistently controlled pressure, or integrated into a maintenance unit.



Technical data

Type	Pressure supply, left Display: display
Control	Externally piloted
Air supply	left
Regulation range min.	0 bar
Regulation range max.	10 bar
Working pressure min.	0 bar
Working pressure max	10 bar
Hysteresis	0,12 bar
Medium	Compressed air
Nominal flow Qn	6500 l/min
Min. ambient temperature	0 °C

Max. ambient temperature	50 °C
Min. medium temperature	0 °C
Max. medium temperature	50 °C
DC operating voltage	24 V
Permissible ripple	5%
Max. current consumption	220 mA
Max. particle size	50 µm
Oil content of compressed air min.	0 mg/m³
Oil content of compressed air max.	5 mg/m³
Frame size	AS3
Type	Poppet valve
Compressed air connection input	G 3/8
Compressed air connection output	G 3/8
Electrical connection size	M12
Electrical connection number of poles	5-pin
Actual output value	0 ... 10 V
Nominal input value	0 ... 10 V
Industry	Industrial
Weight	1.4 kg

Material

Housing material	Polyamide
Seal material	Nitrile butadiene rubber
Material base plate	Aluminum
Part No.	R414011396

Technical information

Power outage: maintain pressure

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

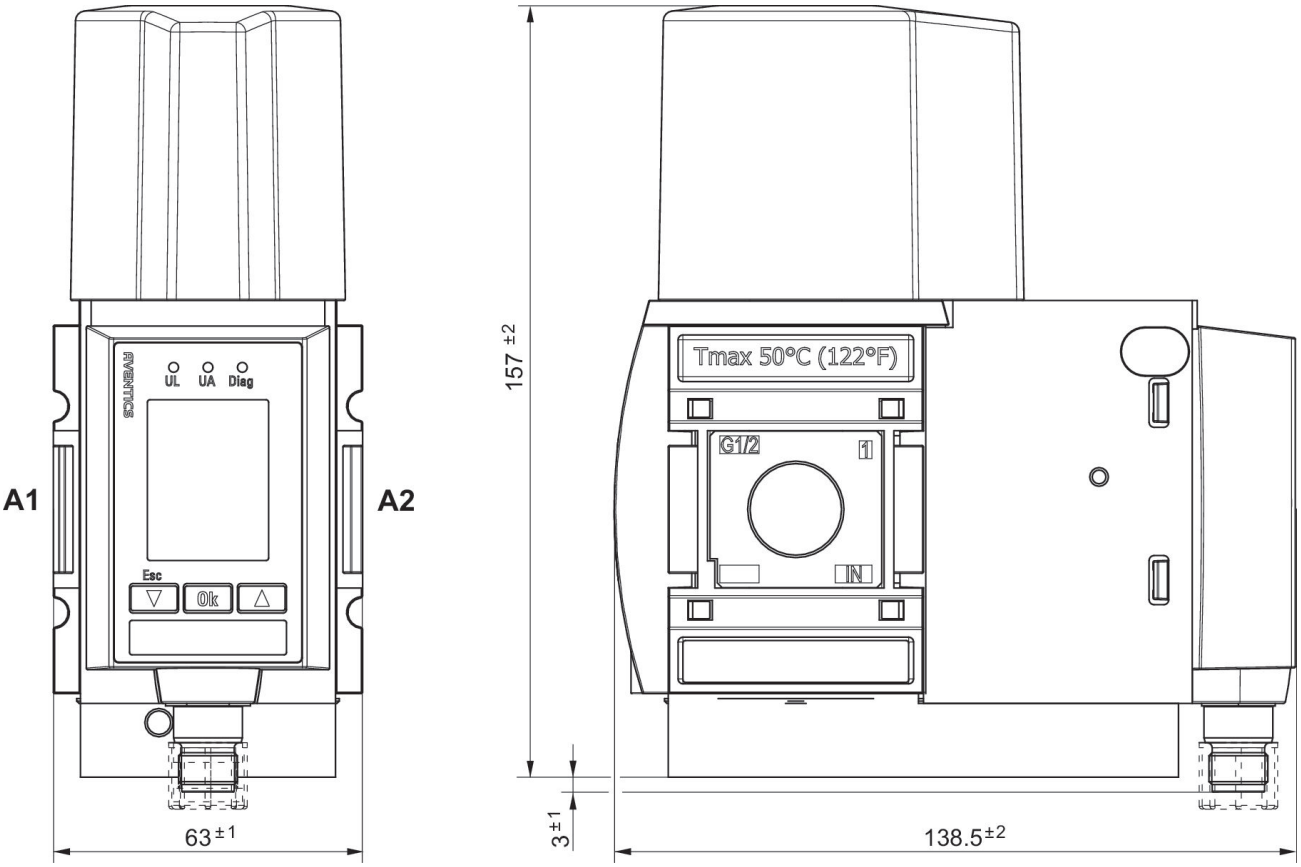
The pressure dew point must be at least 15 °C less than ambient and medium temperature and may not exceed 3 °C.

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).

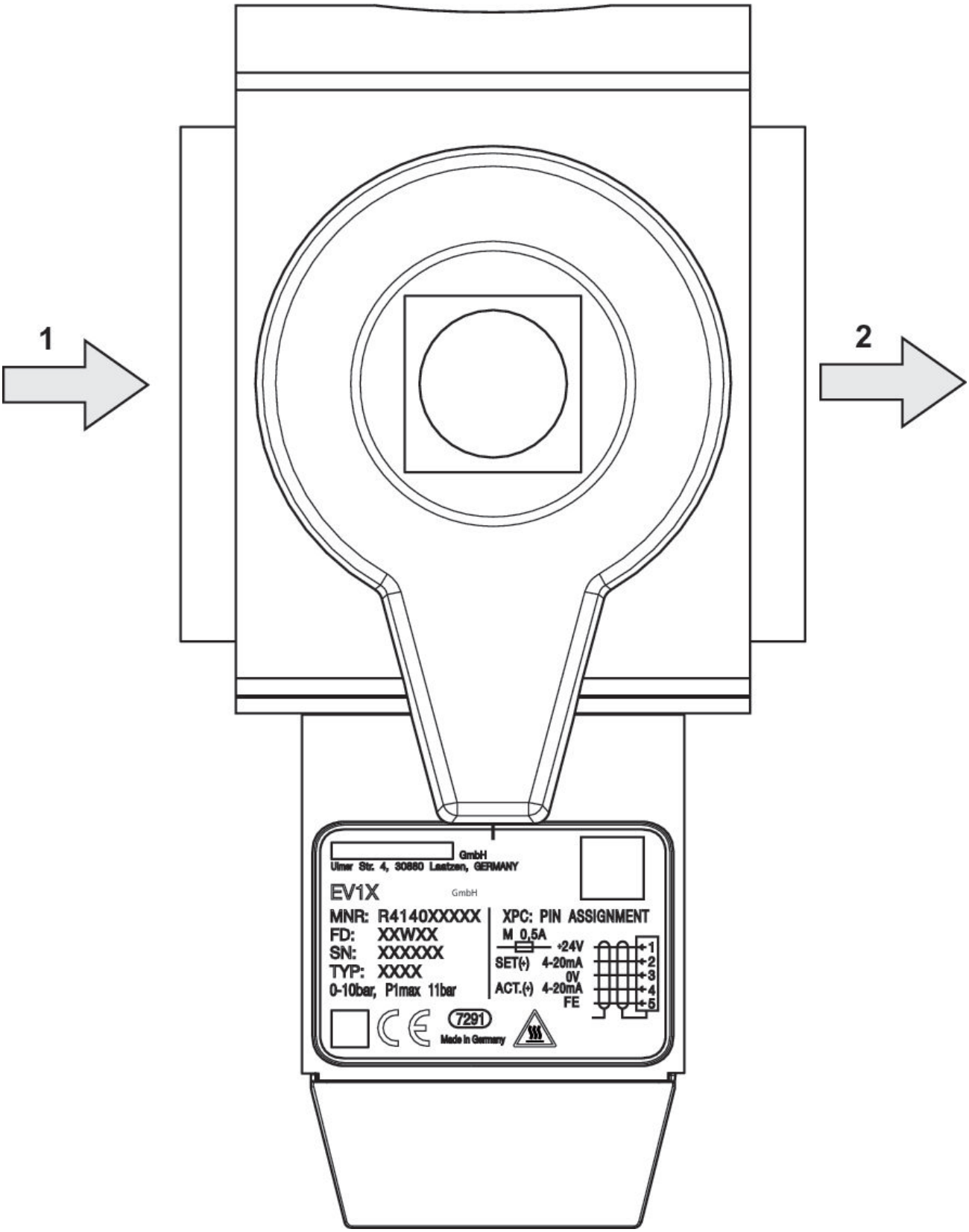
Dimensions

Pressure supply, left

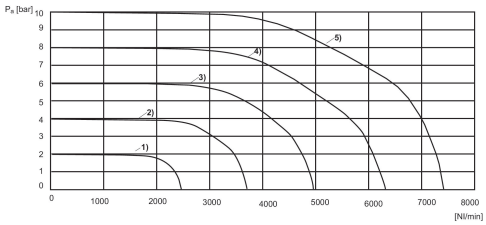


A1 = input
A2 = output

Pressure supply, left

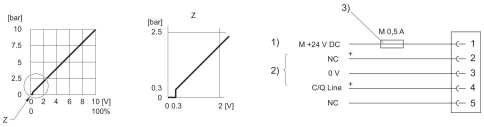


Flow characteristic curve



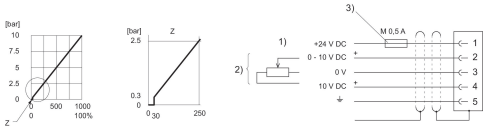
1) Pv = [[3] bar] 2)Pv = [[5] bar] 3)Pv = [[7] bar] 4) Pv = [[9] bar] 5)Pv = [[11] bar]
Pv = Supply pressure
Pa = Working pressure
Pv = Pa + 1

Characteristic curve and plug assignment for IO-Link version



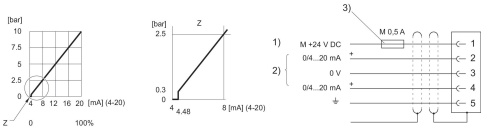
1) power supply
2) C/Q Line (pin 4) Not connected (NC) (pin 2) are related to 0 V (pin 3).
3) The power supply must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.

Characteristic and pin assignment for voltage control with actual output value



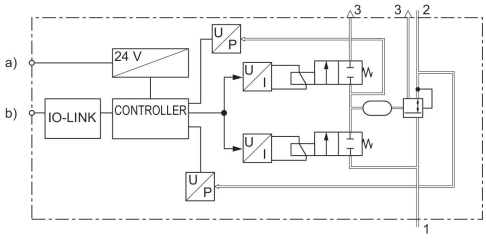
1) power supply
2) Actual value (pin 4) and nominal value (pin 2) are related to 0 V (pin 3). Nominal input value (R = 1 MΩ), actual output value: min. load resistance > 10 KΩ. If the power supply is switched off, the nominal input value is high-ohmic.
3) The power supply must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.

Characteristic and pin assignment for current control with actual output value



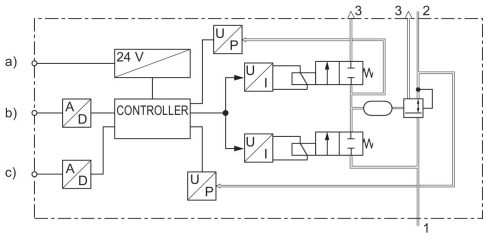
1) power supply
2) Actual value (pin 4) and nominal value (pin 2) are related to 0 V (pin 3). Nominal input value (ohmic load 100 Ω), actual output value: external ohmic load < 300 Ω. If the power supply is switched off, the nominal input value is high-ohmic.
3) The power supply must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.

Functional diagram
IO-Link



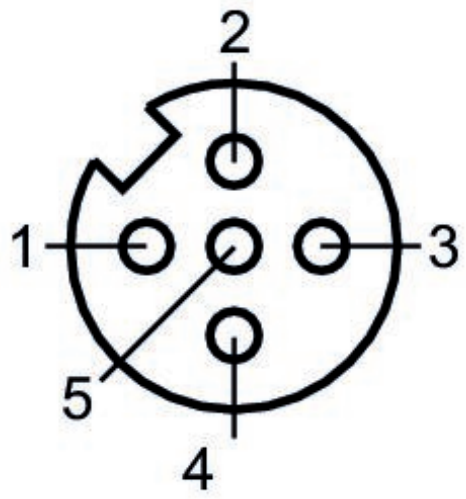
a) Supply Voltage
b) C/Q Line

Functional diagram



a) Voltage supply b) Nominal value
c) Actual output value

Plug assignment



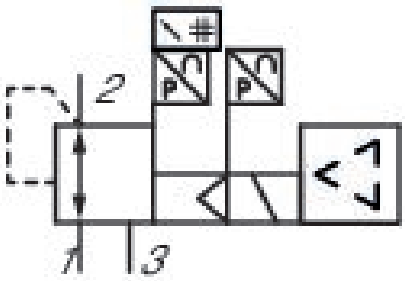
1) 24 V DC
2) Nominal input value
3) GND
4) Actual output value
5) Ground

E/P pressure regulator, Series EV12

R414011397

General series information
Series EV12

- The AVENTICS EV12 high flow proportional pressure control valve with its compact design hides its large flow capacity. It can be used as a stand-alone solution (high flow valve), as a battery for block assembly with consistently controlled pressure, or integrated into a maintenance unit.



Technical data

Type	Pressure supply, left Display: display
Control	Externally piloted
Air supply	left
Regulation range min.	0 bar
Regulation range max.	10 bar
Working pressure min.	0 bar
Working pressure max	10 bar
Hysteresis	0,12 bar
Medium	Compressed air
Nominal flow Qn	6500 l/min
Min. ambient temperature	0 °C

Max. ambient temperature	50 °C
Min. medium temperature	0 °C
Max. medium temperature	50 °C
DC operating voltage	24 V
Permissible ripple	5%
Max. current consumption	220 mA
Max. particle size	50 µm
Oil content of compressed air min.	0 mg/m³
Oil content of compressed air max.	5 mg/m³
Frame size	AS3
Type	Poppet valve
Compressed air connection input	G 3/8
Compressed air connection output	G 3/8
Electrical connection size	M12
Electrical connection number of poles	5-pin
Actual output value	4 ... 20 mA
Nominal input value	4 ... 20 mA
Industry	Industrial
Weight	1.4 kg

Material

Housing material	Polyamide
Seal material	Nitrile butadiene rubber
Material base plate	Aluminum
Part No.	R414011397

Technical information

Power outage: maintain pressure

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

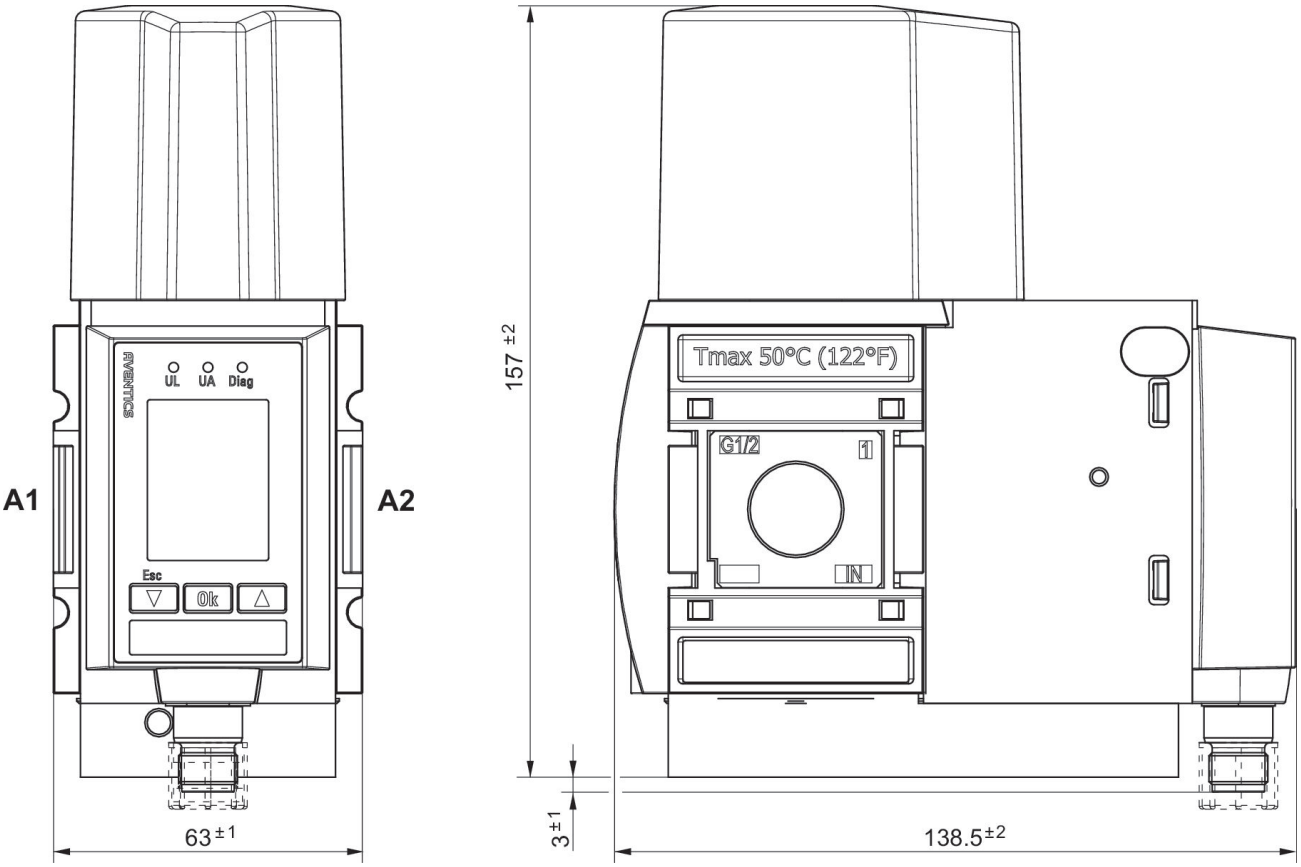
The pressure dew point must be at least 15 °C less than ambient and medium temperature and may not exceed 3 °C.

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).

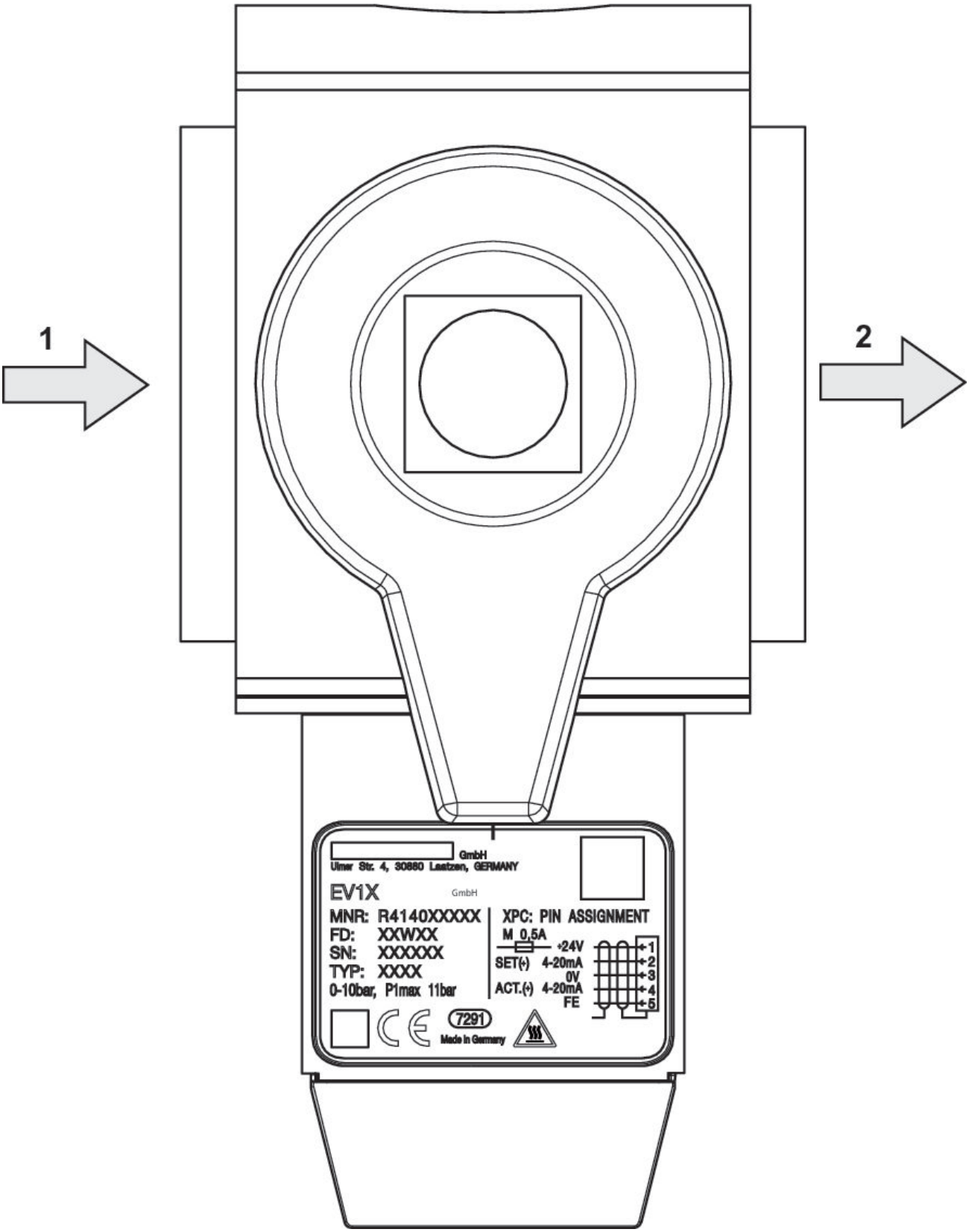
Dimensions

Pressure supply, left

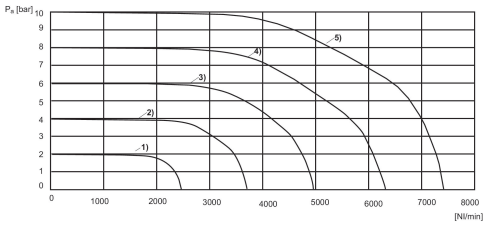


A1 = input
A2 = output

Pressure supply, left

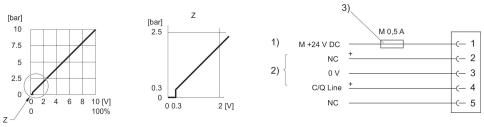


Flow characteristic curve



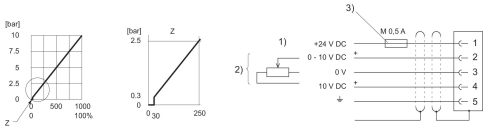
1) Pv = [[3] bar] 2)Pv = [[5] bar] 3)Pv = [[7] bar] 4) Pv = [[9] bar] 5)Pv = [[11] bar]
Pv = Supply pressure
Pa = Working pressure
Pv = Pa + 1

Characteristic curve and plug assignment for IO-Link version



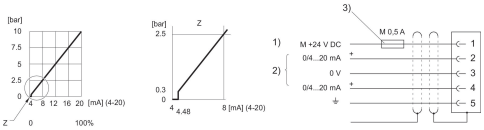
1) power supply
2) C/Q Line (pin 4) Not connected (NC) (pin 2) are related to 0 V (pin 3).
3) The power supply must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.

Characteristic and pin assignment for voltage control with actual output value



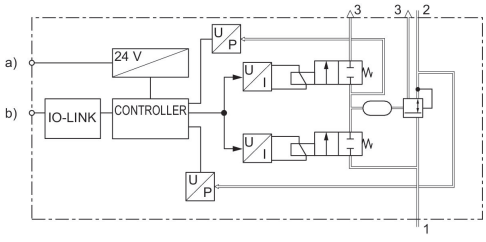
1) power supply
2) Actual value (pin 4) and nominal value (pin 2) are related to 0 V (pin 3). Nominal input value (R = 1 MΩ), actual output value: min. load resistance > 10 KΩ. If the power supply is switched off, the nominal input value is high-ohmic.
3) The power supply must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.

Characteristic and pin assignment for current control with actual output value



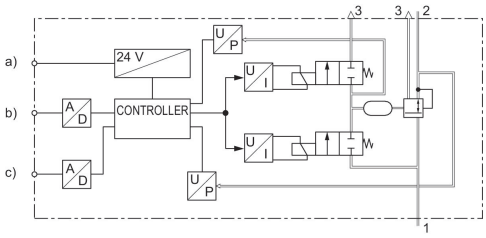
1) power supply
2) Actual value (pin 4) and nominal value (pin 2) are related to 0 V (pin 3). Nominal input value (ohmic load 100 Ω), actual output value: external ohmic load < 300 Ω. If the power supply is switched off, the nominal input value is high-ohmic.
3) The power supply must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.

Functional diagram
IO-Link



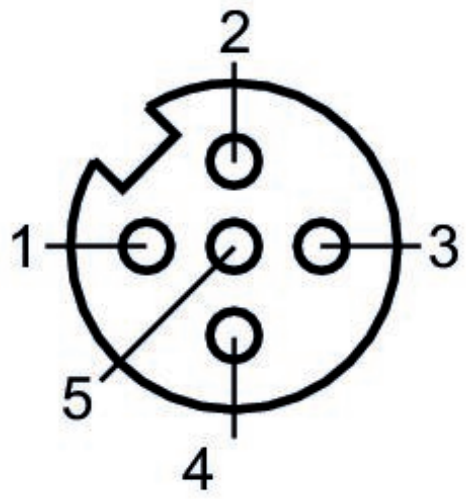
a) Supply Voltage
b) C/Q Line

Functional diagram



a) Voltage supply b) Nominal value
c) Actual output value

Plug assignment



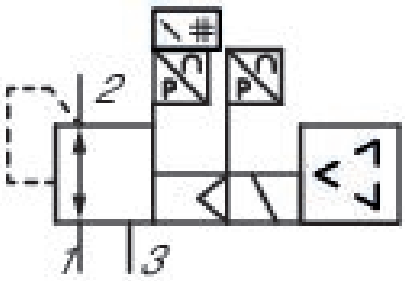
1) 24 V DC
2) Nominal input value
3) GND
4) Actual output value
5) Ground

E/P pressure regulator, Series EV12

R414011400

General series information
Series EV12

- The AVENTICS EV12 high flow proportional pressure control valve with its compact design hides its large flow capacity. It can be used as a stand-alone solution (high flow valve), as a battery for block assembly with consistently controlled pressure, or integrated into a maintenance unit.



Technical data

Type	Pressure supply, left Display: display
Control	Externally piloted
Air supply	left
Regulation range min.	0 bar
Regulation range max.	10 bar
Working pressure min.	0 bar
Working pressure max	10 bar
Hysteresis	0,12 bar
Medium	Compressed air
Nominal flow Qn	6500 l/min
Min. ambient temperature	0 °C

Max. ambient temperature	50 °C
Min. medium temperature	0 °C
Max. medium temperature	50 °C
DC operating voltage	24 V
Permissible ripple	5%
Max. current consumption	220 mA
Max. particle size	50 µm
Oil content of compressed air min.	0 mg/m³
Oil content of compressed air max.	5 mg/m³
Frame size	AS3
Type	Poppet valve
Compressed air connection input	G 3/8
Compressed air connection output	G 3/8
Electrical connection size	M12
Electrical connection number of poles	5-pin
Industry	Industrial
Weight	1.4 kg

Material

Housing material	Polyamide
Seal material	Nitrile butadiene rubber
Material base plate	Aluminum
Part No.	R414011400

Technical information

Power outage: maintain pressure

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

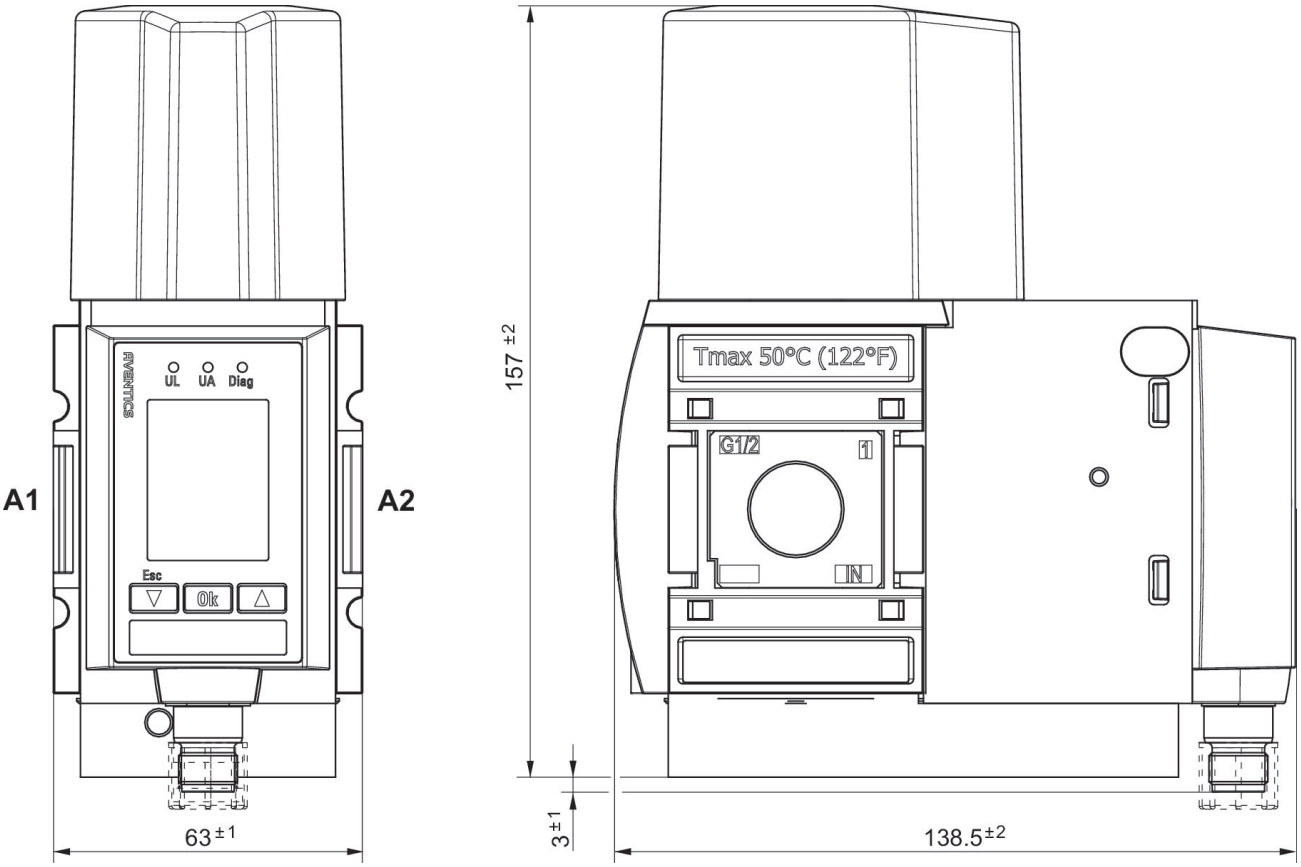
The pressure dew point must be at least 15 °C less than ambient and medium temperature and may not exceed 3 °C.

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).

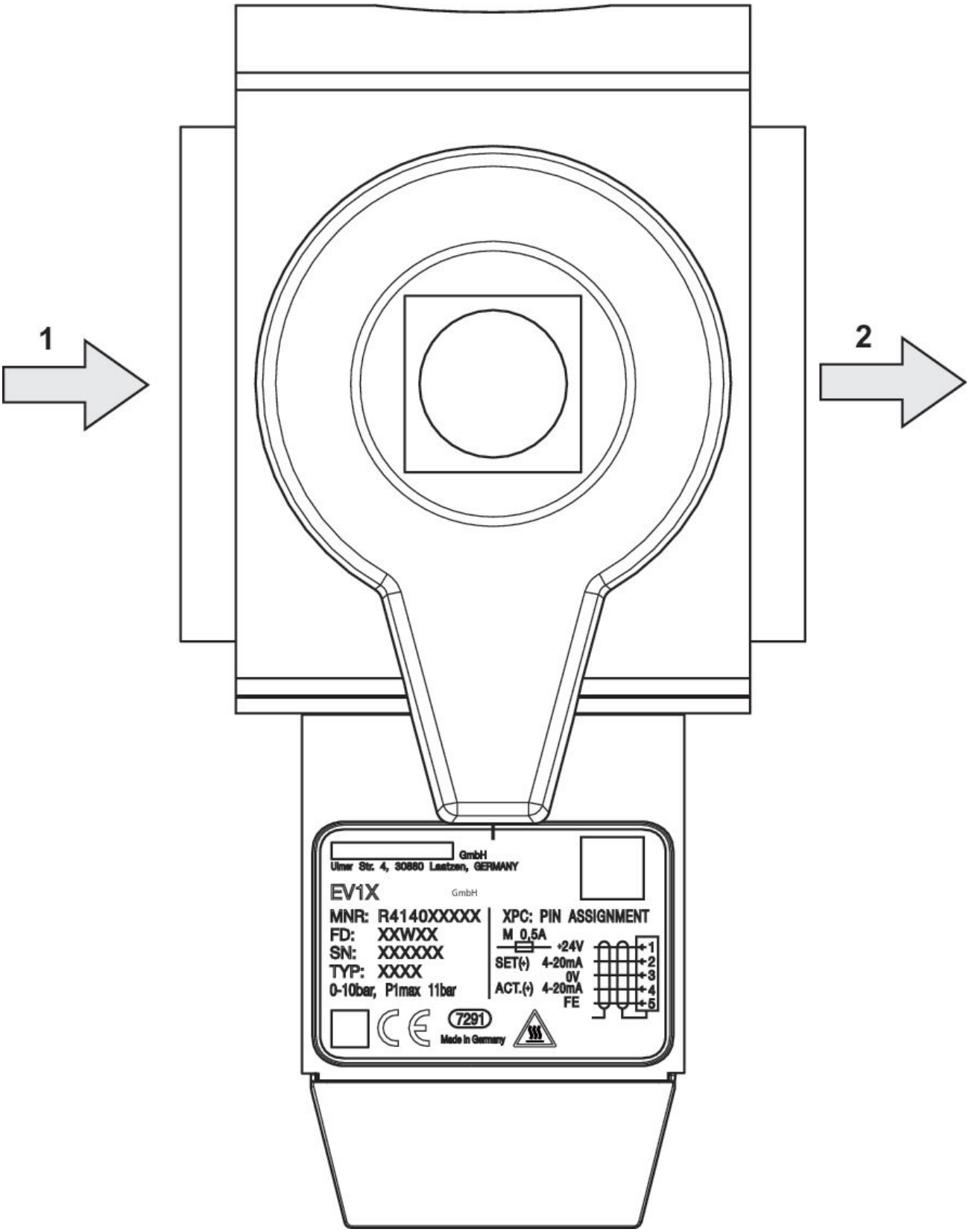
Dimensions

Pressure supply, left

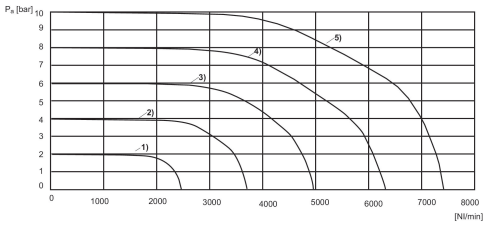


A1 = input
A2 = output

Pressure supply, left

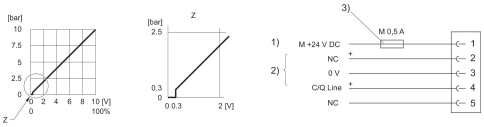


Flow characteristic curve



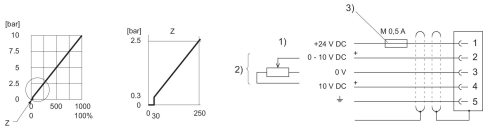
1) Pv = [[3] bar] 2)Pv = [[5] bar] 3)Pv = [[7] bar] 4) Pv = [[9] bar] 5)Pv = [[11] bar]
Pv = Supply pressure
Pa = Working pressure
Pv = Pa + 1

Characteristic curve and plug assignment for IO-Link version



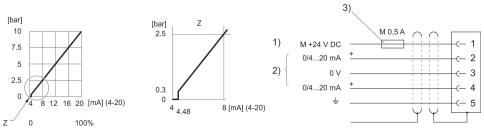
1) power supply
2) C/Q Line (pin 4) Not connected (NC) (pin 2) are related to 0 V (pin 3).
3) The power supply must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.

Characteristic and pin assignment for voltage control with actual output value



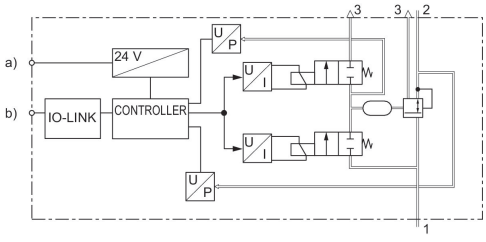
1) power supply
2) Actual value (pin 4) and nominal value (pin 2) are related to 0 V (pin 3). Nominal input value (R = 1 MΩ), actual output value: min. load resistance > 10 KΩ. If the power supply is switched off, the nominal input value is high-ohmic.
3) The power supply must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.

Characteristic and pin assignment for current control with actual output value



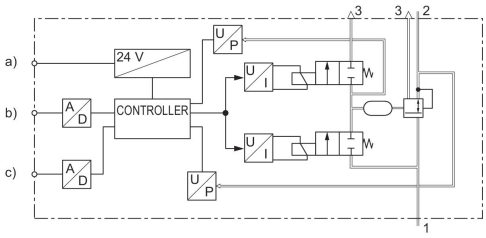
1) power supply
2) Actual value (pin 4) and nominal value (pin 2) are related to 0 V (pin 3). Nominal input value (ohmic load 100 Ω), actual output value: external ohmic load < 300 Ω. If the power supply is switched off, the nominal input value is high-ohmic.
3) The power supply must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.

Functional diagram
IO-Link



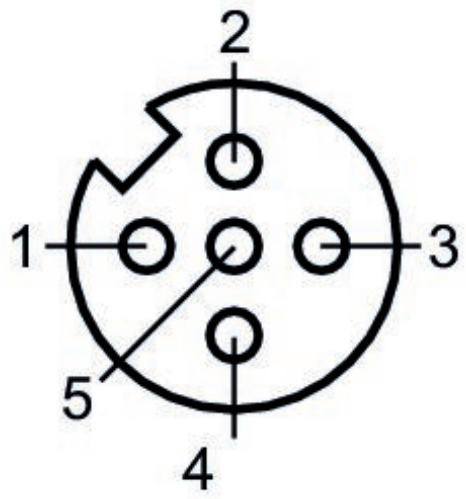
a) Supply Voltage
b) C/Q Line

Functional diagram



a) Voltage supply b) Nominal value
c) Actual output value

Plug assignment



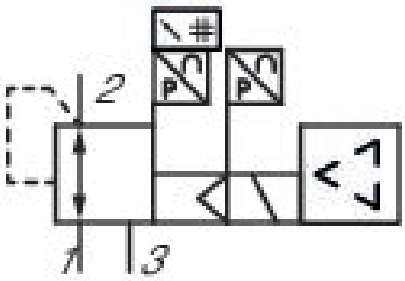
1) 24 V DC
2) Nominal input value
3) GND
4) Actual output value
5) Ground

E/P pressure regulator, Series EV12

R414011390

General series information
Series EV12

- The AVENTICS EV12 high flow proportional pressure control valve with its compact design hides its large flow capacity. It can be used as a stand-alone solution (high flow valve), as a battery for block assembly with consistently controlled pressure, or integrated into a maintenance unit.



Technical data

Type	Continuous pressure supply Display: display
Control	Externally piloted
Air supply	through
Regulation range min.	0 bar
Regulation range max.	10 bar
Working pressure min.	0 bar
Working pressure max	10 bar
Hysteresis	< 0,12 bar < 0,12 bar
Nominal flow Qn	6500 l/min
Min. ambient temperature	0 °C

Max. ambient temperature	50 °C
Min. medium temperature	0 °C
Max. medium temperature	50 °C
DC operating voltage	24 V
Permissible ripple	5%
Max. current consumption	220 mA
Max. particle size	50 µm
Oil content of compressed air min.	0 mg/m³
Oil content of compressed air max.	5 mg/m³
Frame size	AS3
Type	Poppet valve
Compressed air connection input	G 1/2
Compressed air connection output	G 3/8
Electrical connection size	M12
Electrical connection number of poles	5-pin
Electrical connection coding	A-coded
Actual output value	0 ... 10 V
Nominal input value	0 ... 10 V
Industry	Industrial
Weight	1.4 kg

Material

Housing material	Polyamide
Seal material	Nitrile butadiene rubber
Material base plate	Aluminum
Part No.	R414011390

Technical information

Power outage: maintain pressure

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

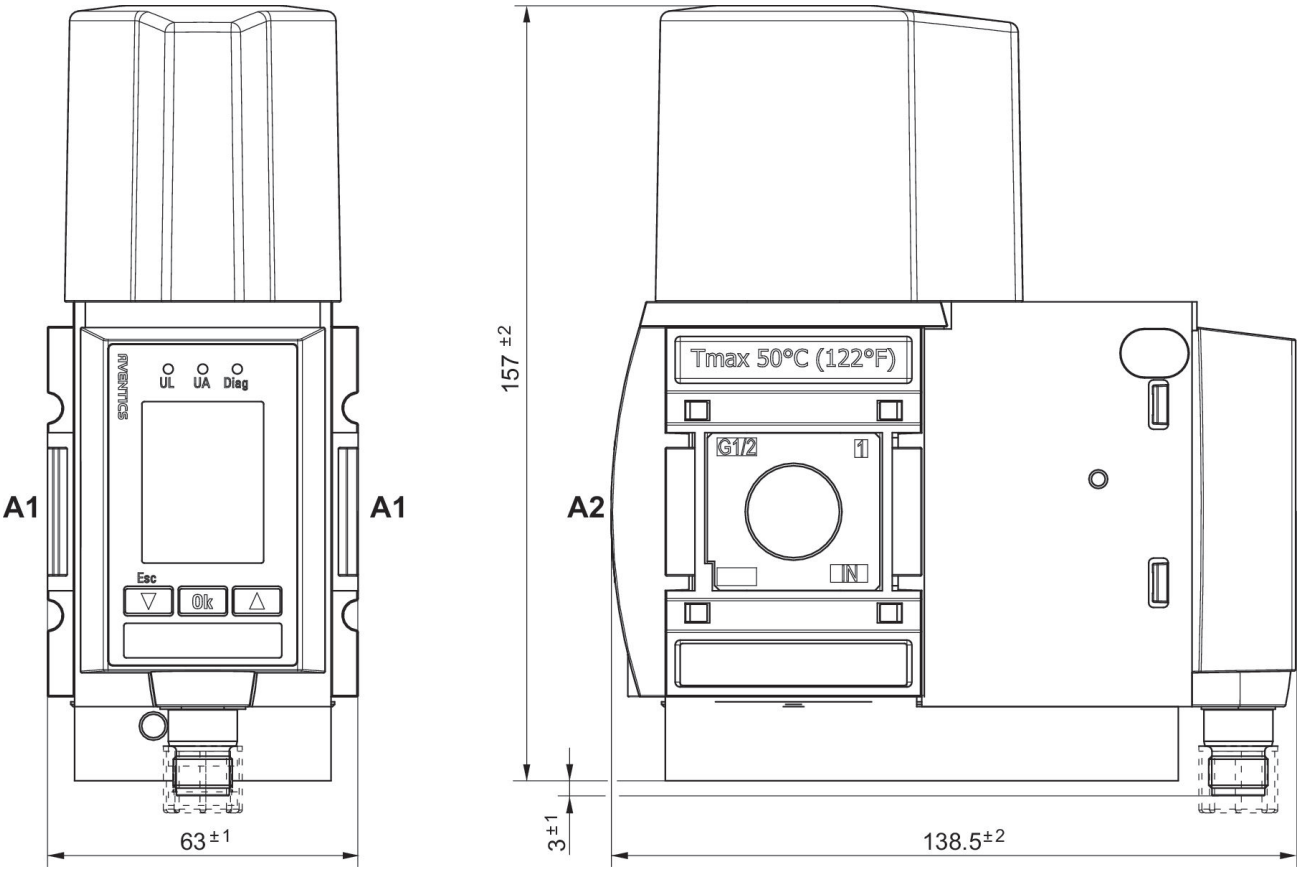
The pressure dew point must be at least 15 °C less than ambient and medium temperature and may not exceed 3 °C.

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).

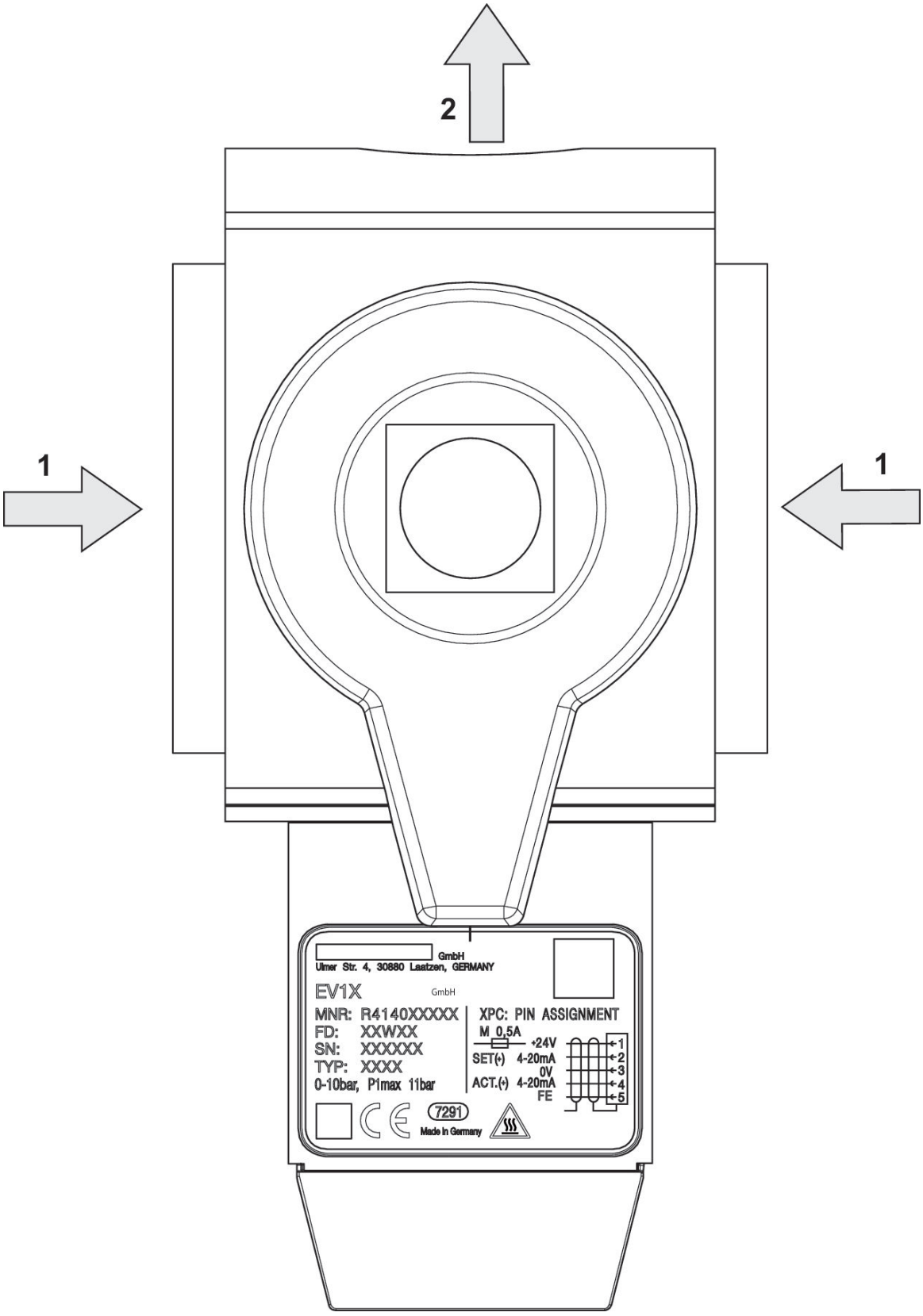
Dimensions

Continuous pressure supply

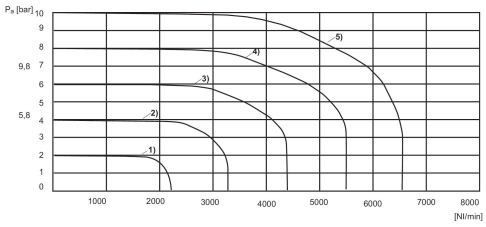


A1 = input
A2 = output

Continuous pressure supply

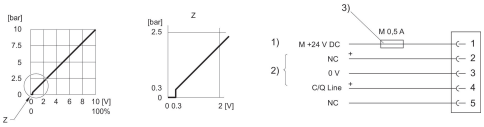


Flow characteristic curve



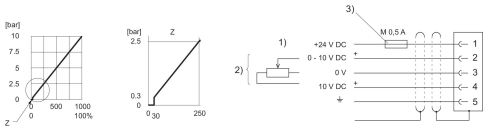
1) Pv = [[3] bar] 2)Pv = [[5] bar] 3)Pv = [[7] bar] 4) Pv = [[9] bar] 5)Pv = [[11] bar]
Pv = Supply pressure
Pa = Working pressure
Pv = Pa + 1

Characteristic curve and plug assignment for IO-Link version



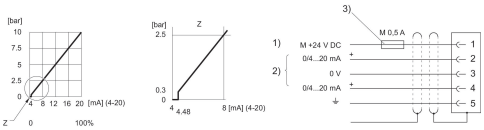
1) power supply
2) C/Q Line (pin 4) Not connected (NC) (pin 2) are related to 0 V (pin 3).
3) The power supply must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.

Characteristic and pin assignment for voltage control with actual output value



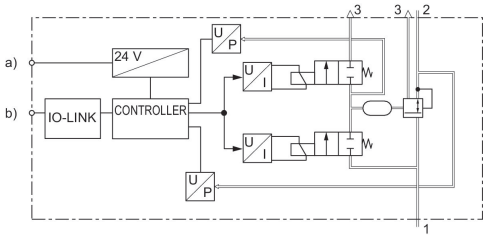
1) power supply
2) Actual value (pin 4) and nominal value (pin 2) are related to 0 V (pin 3). Nominal input value (R = 1 MΩ), actual output value: min. load resistance > 10 KΩ. If the power supply is switched off, the nominal input value is high-ohmic.
3) The power supply must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.

Characteristic and pin assignment for current control with actual output value



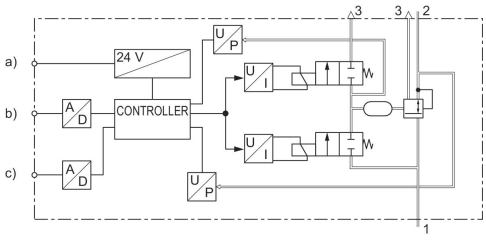
1) power supply
2) Actual value (pin 4) and nominal value (pin 2) are related to 0 V (pin 3). Nominal input value (ohmic load 100 Ω), actual output value: external ohmic load < 300 Ω. If the power supply is switched off, the nominal input value is high-ohmic.
3) The power supply must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.

Functional diagram
IO-Link



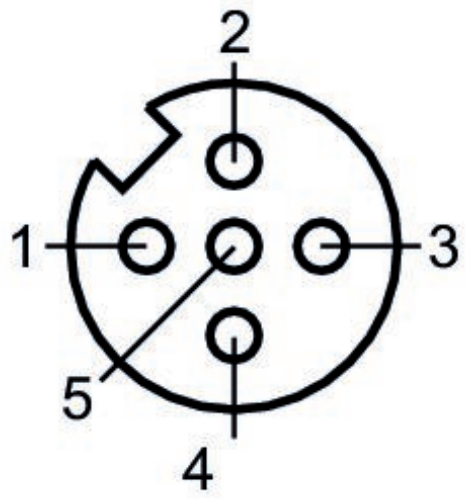
a) Supply Voltage
b) C/Q Line

Functional diagram



a) Voltage supply b) Nominal value
c) Actual output value

Plug assignment



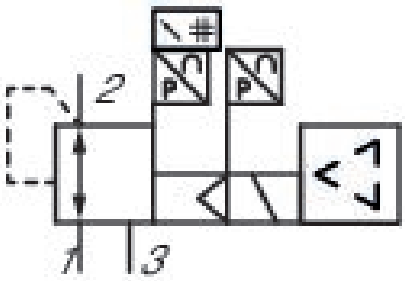
1) 24 V DC
2) Nominal input value
3) GND
4) Actual output value
5) Ground

E/P pressure regulator, Series EV12

R414011391

General series information
Series EV12

- The AVENTICS EV12 high flow proportional pressure control valve with its compact design hides its large flow capacity. It can be used as a stand-alone solution (high flow valve), as a battery for block assembly with consistently controlled pressure, or integrated into a maintenance unit.



Technical data

Type	Continuous pressure supply Display: display
Control	Externally piloted
Air supply	through
Regulation range min.	0 bar
Regulation range max.	10 bar
Working pressure min.	0 bar
Working pressure max	10 bar
Hysteresis	< 0,12 bar < 0,12 bar
Nominal flow Qn	6500 l/min
Min. ambient temperature	0 °C

Max. ambient temperature	50 °C
Min. medium temperature	0 °C
Max. medium temperature	50 °C
DC operating voltage	24 V
Permissible ripple	5%
Max. current consumption	220 mA
Max. particle size	50 µm
Oil content of compressed air min.	0 mg/m³
Oil content of compressed air max.	5 mg/m³
Frame size	AS3
Type	Poppet valve
Compressed air connection input	G 1/2
Compressed air connection output	G 3/8
Electrical connection size	M12
Electrical connection number of poles	5-pin
Electrical connection coding	A-coded
Actual output value	4 ... 20 mA
Nominal input value	0 ... 20 mA
Industry	Industrial
Weight	1.4 kg

Material

Housing material	Polyamide
Seal material	Nitrile butadiene rubber
Material base plate	Aluminum
Part No.	R414011391

Technical information

Power outage: maintain pressure

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

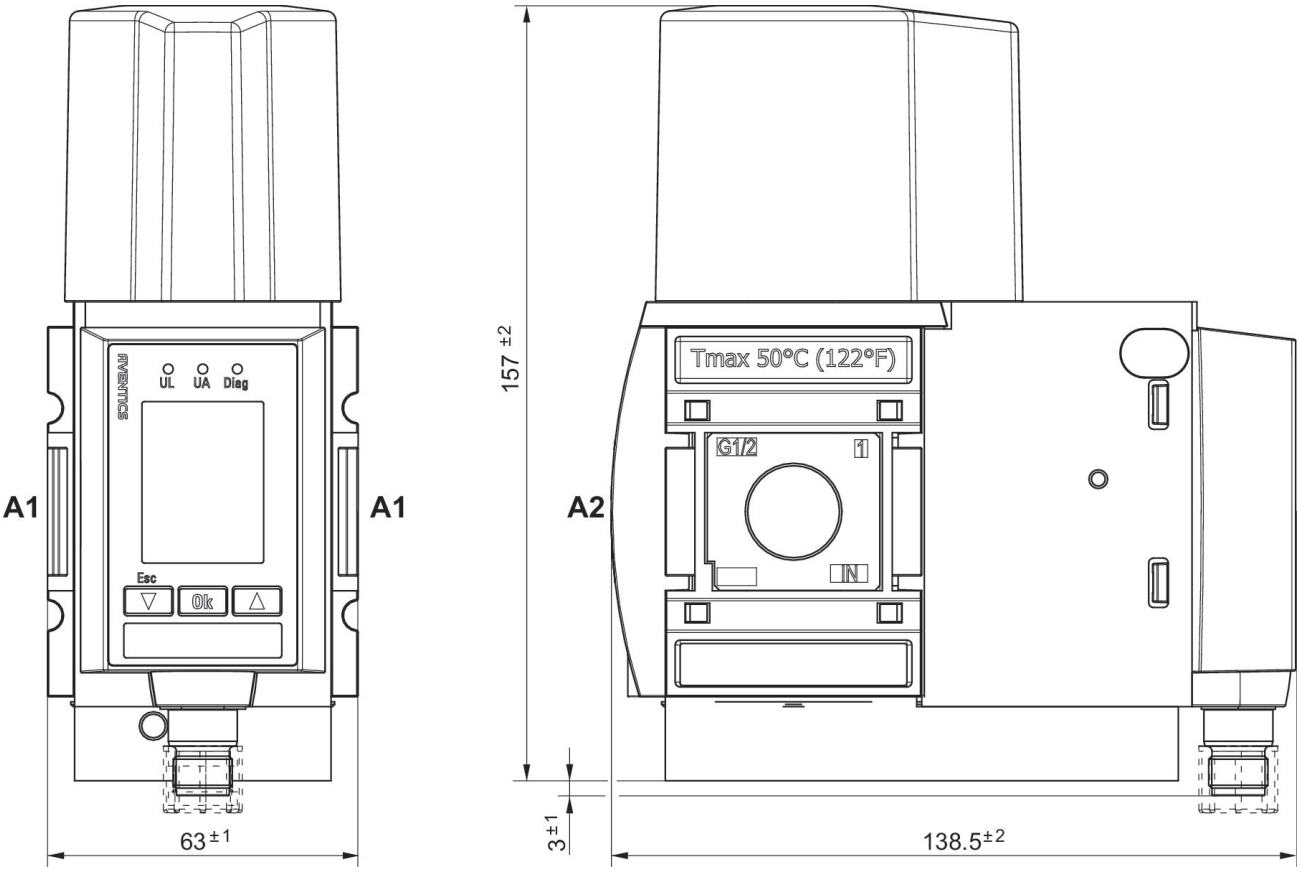
The pressure dew point must be at least 15 °C less than ambient and medium temperature and may not exceed 3 °C.

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).

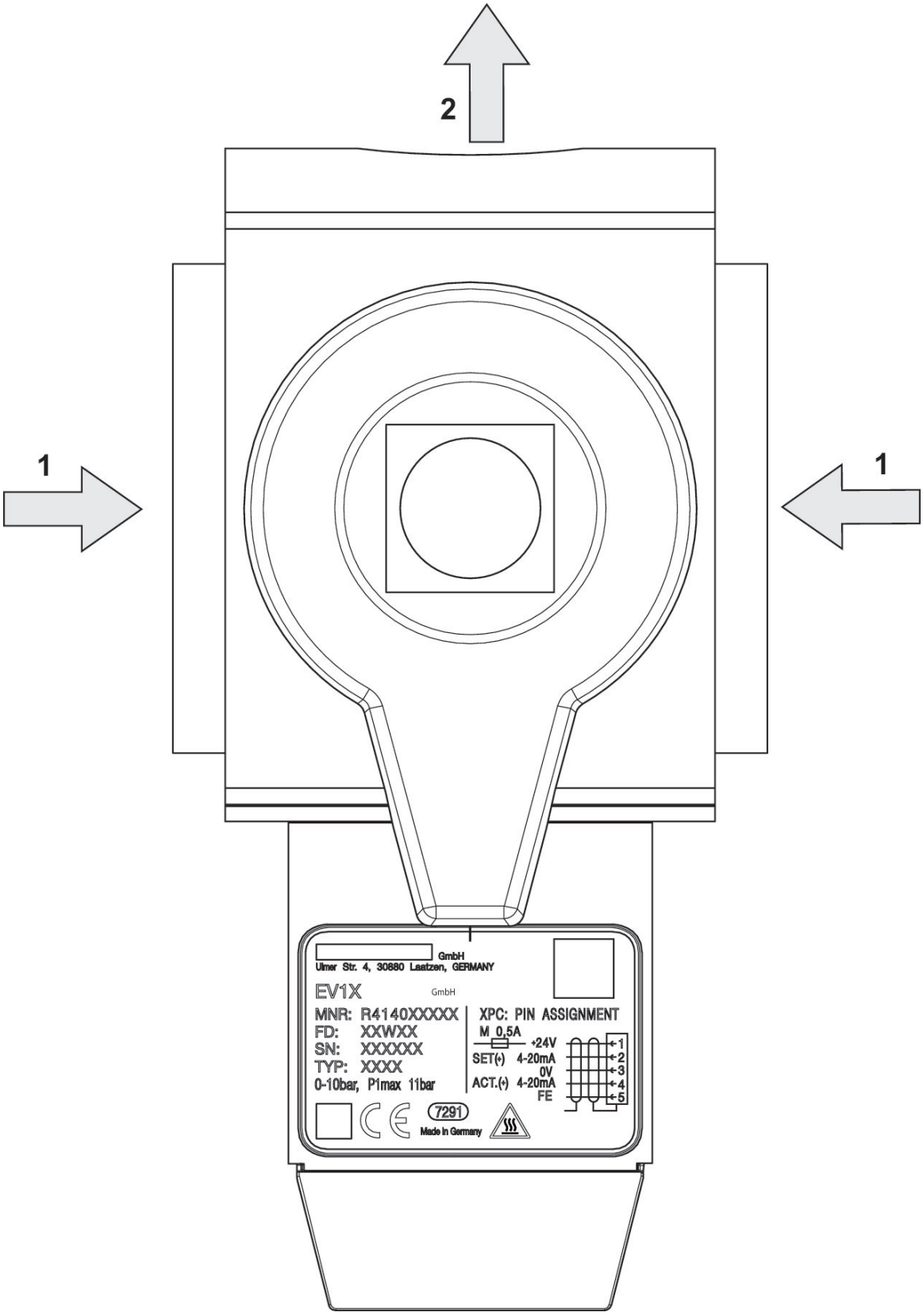
Dimensions

Continuous pressure supply

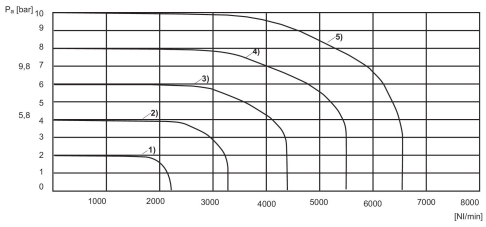


A1 = input
A2 = output

Continuous pressure supply

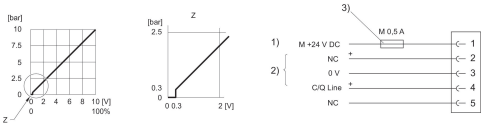


Flow characteristic curve



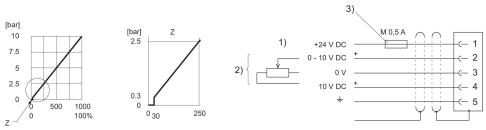
1) Pv = [[3] bar] 2)Pv = [[5] bar] 3)Pv = [[7] bar] 4) Pv = [[9] bar] 5)Pv = [[11] bar]
Pv = Supply pressure
Pa = Working pressure
Pv = Pa + 1

Characteristic curve and plug assignment for IO-Link version



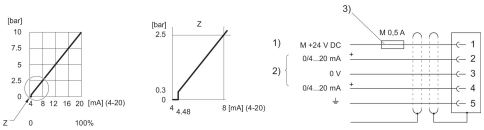
1) power supply
2) C/Q Line (pin 4) Not connected (NC) (pin 2) are related to 0 V (pin 3).
3) The power supply must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.

Characteristic and pin assignment for voltage control with actual output value



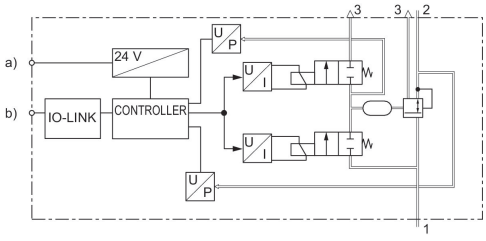
1) power supply
2) Actual value (pin 4) and nominal value (pin 2) are related to 0 V (pin 3). Nominal input value (R = 1 MΩ), actual output value: min. load resistance > 10 KΩ. If the power supply is switched off, the nominal input value is high-ohmic.
3) The power supply must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.

Characteristic and pin assignment for current control with actual output value



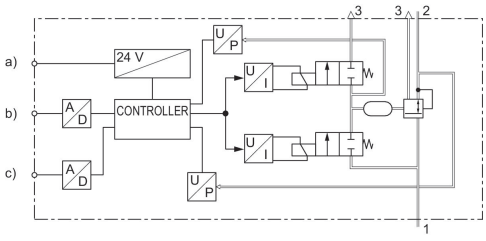
1) power supply
2) Actual value (pin 4) and nominal value (pin 2) are related to 0 V (pin 3). Nominal input value (ohmic load 100 Ω), actual output value: external ohmic load < 300 Ω. If the power supply is switched off, the nominal input value is high-ohmic.
3) The power supply must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.

Functional diagram
IO-Link



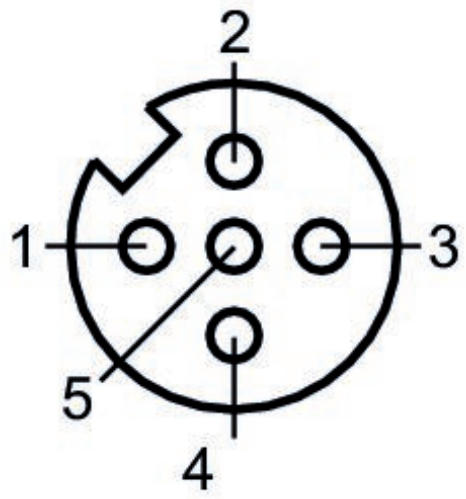
a) Supply Voltage
b) C/Q Line

Functional diagram



a) Voltage supply b) Nominal value
c) Actual output value

Plug assignment



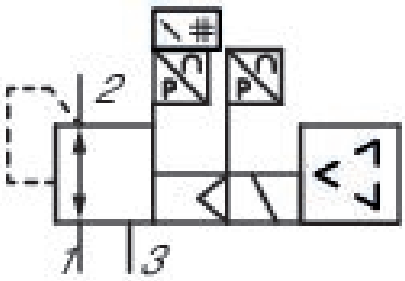
1) 24 V DC
2) Nominal input value
3) GND
4) Actual output value
5) Ground

E/P pressure regulator, Series EV12

R414011394

General series information
Series EV12

- The AVENTICS EV12 high flow proportional pressure control valve with its compact design hides its large flow capacity. It can be used as a stand-alone solution (high flow valve), as a battery for block assembly with consistently controlled pressure, or integrated into a maintenance unit.



Technical data

Type	Continuous pressure supply Display: display
Control	Externally piloted
Air supply	through
Regulation range min.	0 bar
Regulation range max.	10 bar
Working pressure min.	0 bar
Working pressure max	10 bar
Hysteresis	< 0,12 bar < 0,12 bar
Nominal flow Qn	6500 l/min
Min. ambient temperature	0 °C

Max. ambient temperature	50 °C
Min. medium temperature	0 °C
Max. medium temperature	50 °C
DC operating voltage	24 V
Permissible ripple	5%
Max. current consumption	220 mA
Max. particle size	50 µm
Oil content of compressed air min.	0 mg/m³
Oil content of compressed air max.	5 mg/m³
Frame size	AS3
Type	Poppet valve
Compressed air connection input	G 1/2
Compressed air connection output	G 3/8
Electrical connection size	M12
Electrical connection number of poles	5-pin
Electrical connection coding	A-coded
Industry	Industrial
Weight	1.4 kg

Material

Housing material	Polyamide
Seal material	Nitrile butadiene rubber
Material base plate	Aluminum
Part No.	R414011394

Technical information

Power outage: maintain pressure

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

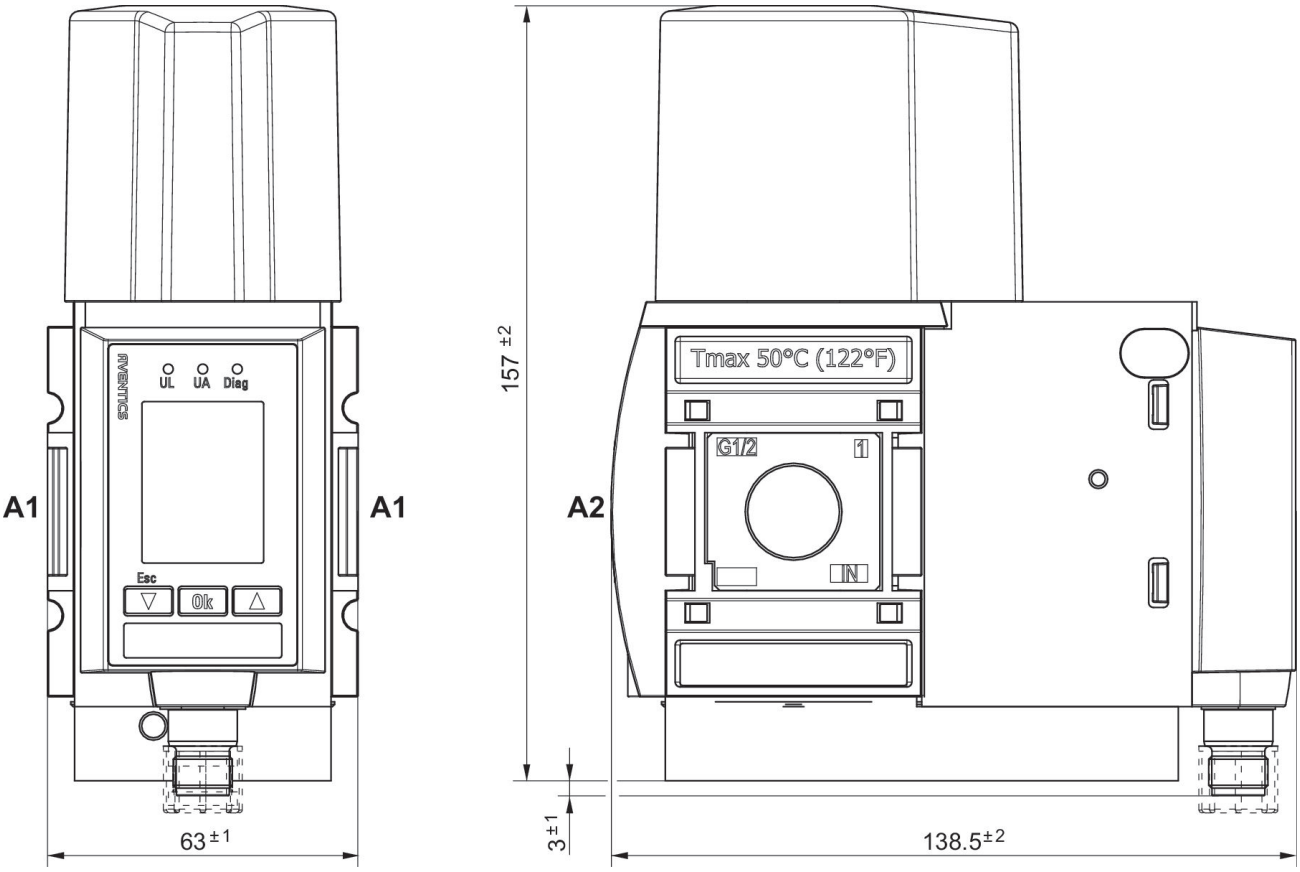
The pressure dew point must be at least 15 °C less than ambient and medium temperature and may not exceed 3 °C.

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).

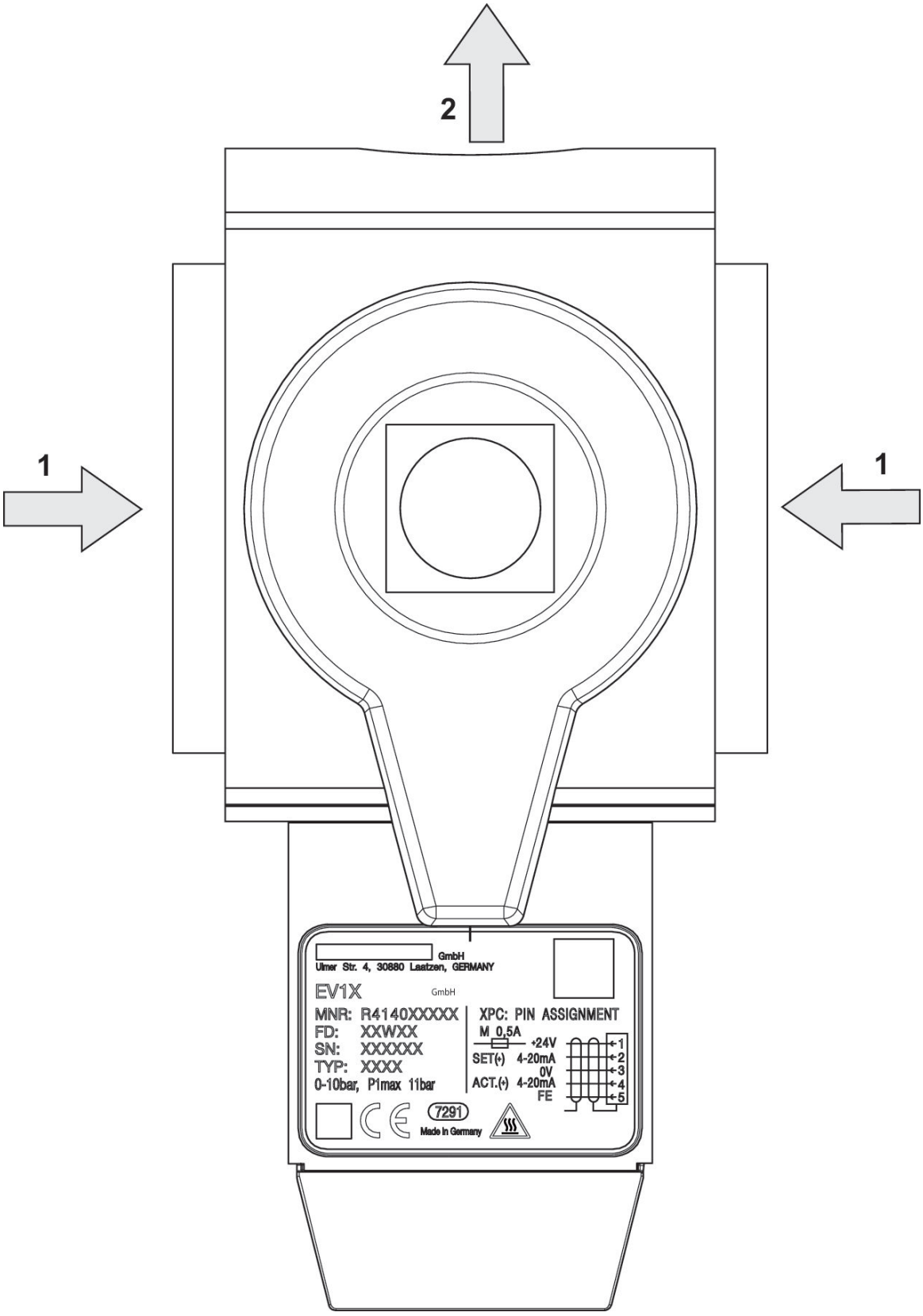
Dimensions

Continuous pressure supply

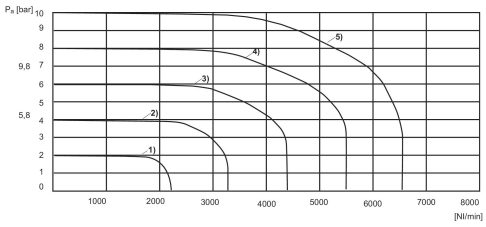


A1 = input
A2 = output

Continuous pressure supply

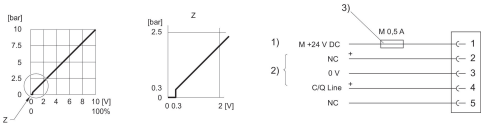


Flow characteristic curve



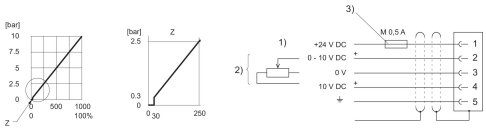
1) Pv = [[3] bar] 2)Pv = [[5] bar] 3)Pv = [[7] bar] 4) Pv = [[9] bar] 5)Pv = [[11] bar]
Pv = Supply pressure
Pa = Working pressure
Pv = Pa + 1

Characteristic curve and plug assignment for IO-Link version



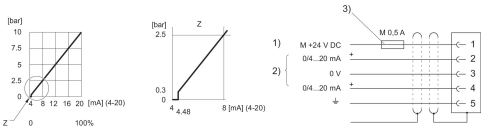
1) power supply
2) C/Q Line (pin 4) Not connected (NC) (pin 2) are related to 0 V (pin 3).
3) The power supply must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.

Characteristic and pin assignment for voltage control with actual output value



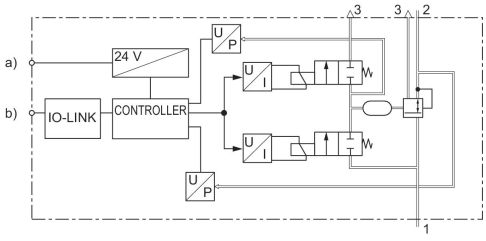
1) power supply
2) Actual value (pin 4) and nominal value (pin 2) are related to 0 V (pin 3). Nominal input value (R = 1 MΩ), actual output value: min. load resistance > 10 KΩ. If the power supply is switched off, the nominal input value is high-ohmic.
3) The power supply must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.

Characteristic and pin assignment for current control with actual output value



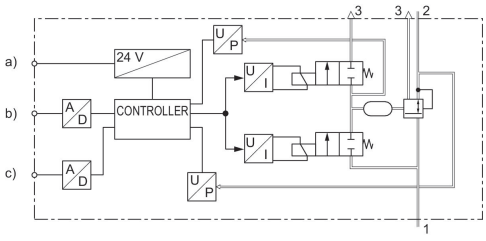
1) power supply
2) Actual value (pin 4) and nominal value (pin 2) are related to 0 V (pin 3). Nominal input value (ohmic load 100 Ω), actual output value: external ohmic load < 300 Ω. If the power supply is switched off, the nominal input value is high-ohmic.
3) The power supply must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.

Functional diagram
IO-Link



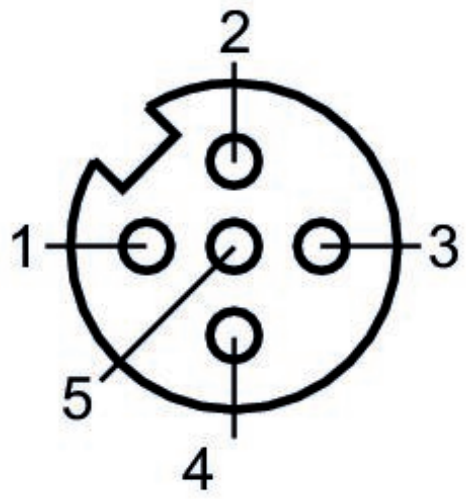
a) Supply Voltage
b) C/Q Line

Functional diagram



a) Voltage supply b) Nominal value
c) Actual output value

Plug assignment



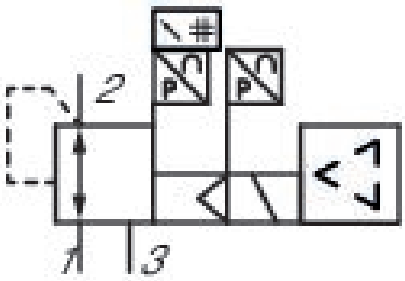
1) 24 V DC
2) Nominal input value
3) GND
4) Actual output value
5) Ground

E/P pressure regulator, Series EV12

R414011402

General series information
Series EV12

- The AVENTICS EV12 high flow proportional pressure control valve with its compact design hides its large flow capacity. It can be used as a stand-alone solution (high flow valve), as a battery for block assembly with consistently controlled pressure, or integrated into a maintenance unit.



Technical data

Type	Continuous pressure supply Display: display
Control	Externally piloted
Air supply	through
Regulation range min.	0 bar
Regulation range max.	10 bar
Working pressure min.	0 bar
Working pressure max	10 bar
Hysteresis	< 0,12 bar < 0,12 bar
Nominal flow Qn	6500 l/min
Min. ambient temperature	0 °C

Max. ambient temperature	50 °C
Min. medium temperature	0 °C
Max. medium temperature	50 °C
DC operating voltage	24 V
Permissible ripple	5%
Max. current consumption	220 mA
Max. particle size	50 µm
Oil content of compressed air min.	0 mg/m³
Oil content of compressed air max.	5 mg/m³
Frame size	AS3
Type	Poppet valve
Compressed air connection input	G 3/8
Compressed air connection output	G 3/8
Electrical connection size	M12
Electrical connection number of poles	5-pin
Electrical connection coding	A-coded
Actual output value	0 ... 10 V
Nominal input value	0 ... 10 V
Industry	Industrial
Weight	1.4 kg

Material

Housing material	Polyamide
Seal material	Nitrile butadiene rubber
Material base plate	Aluminum
Part No.	R414011402

Technical information

Power outage: maintain pressure

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

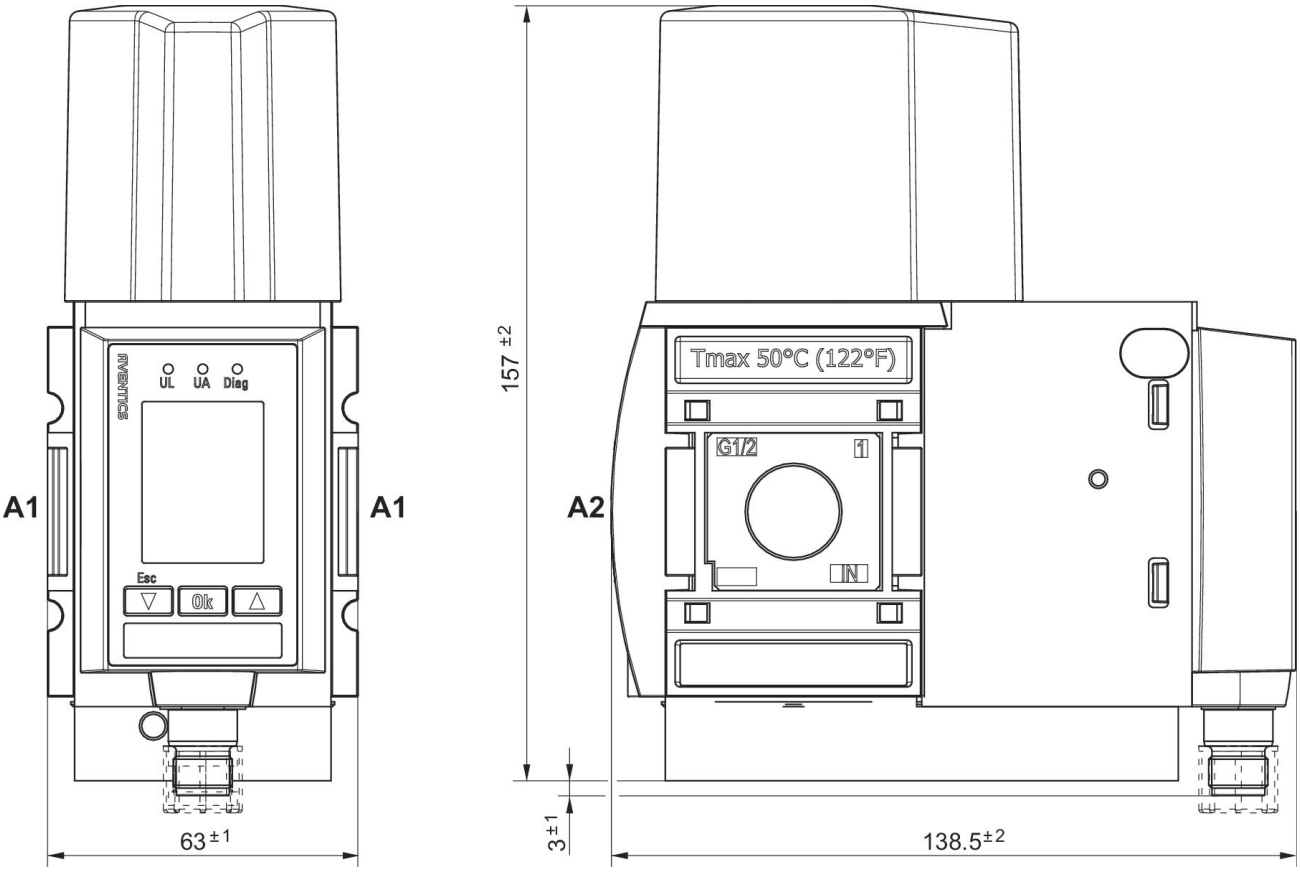
The pressure dew point must be at least 15 °C less than ambient and medium temperature and may not exceed 3 °C.

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).

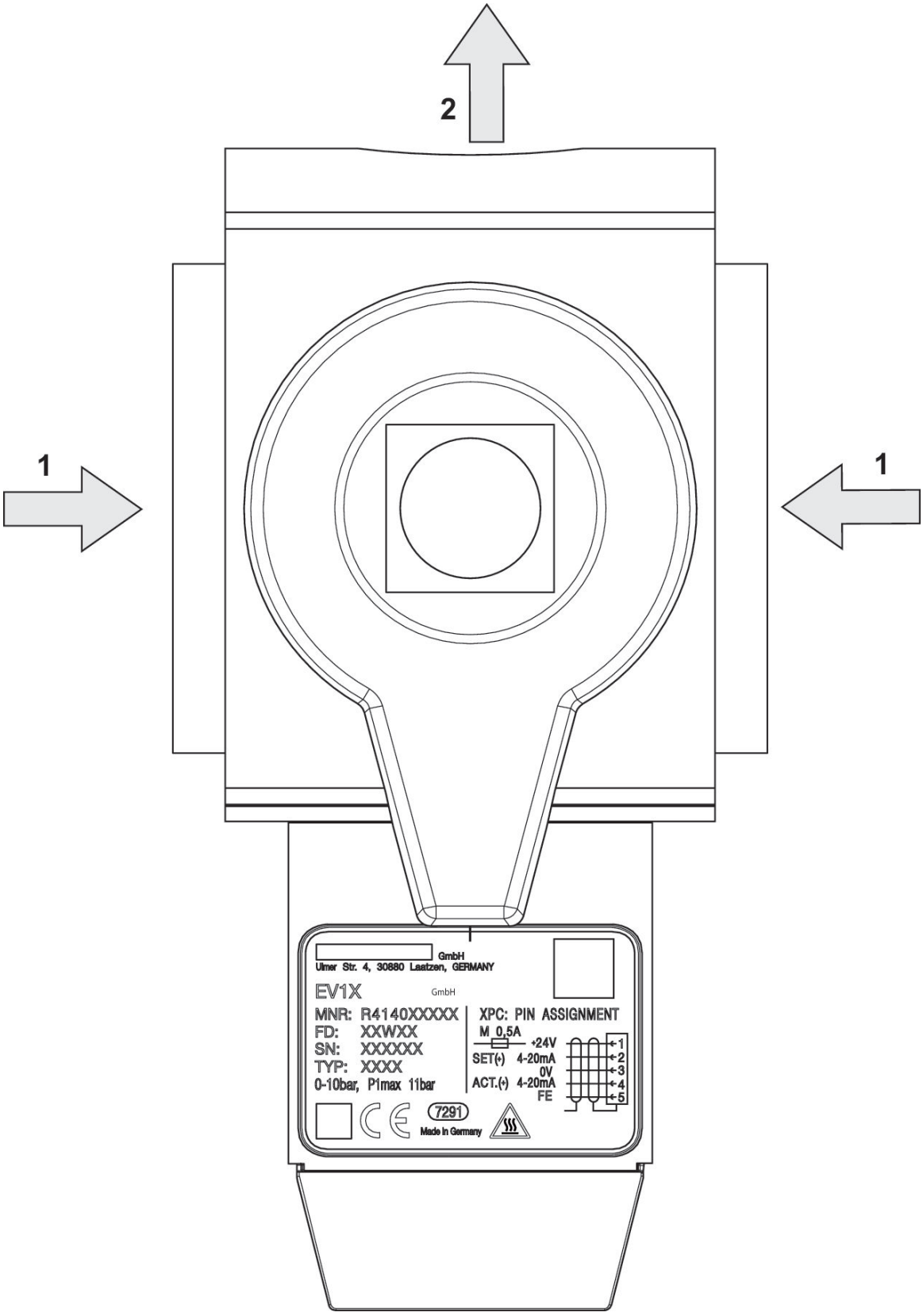
Dimensions

Continuous pressure supply

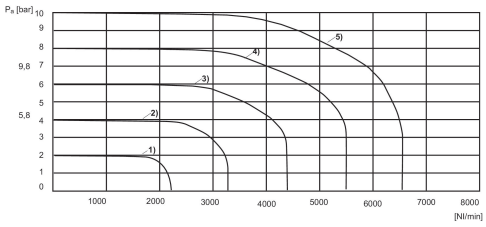


A1 = input
A2 = output

Continuous pressure supply

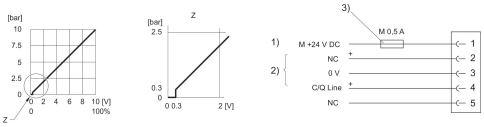


Flow characteristic curve



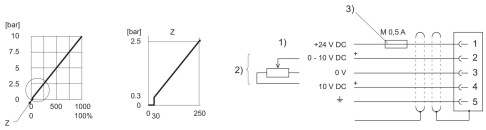
1) Pv = [[3] bar] 2)Pv = [[5] bar] 3)Pv = [[7] bar] 4) Pv = [[9] bar] 5)Pv = [[11] bar]
Pv = Supply pressure
Pa = Working pressure
Pv = Pa + 1

Characteristic curve and plug assignment for IO-Link version



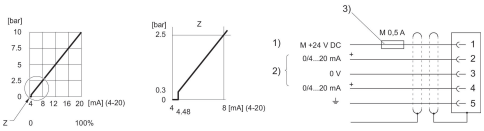
1) power supply
2) C/Q Line (pin 4) Not connected (NC) (pin 2) are related to 0 V (pin 3).
3) The power supply must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.

Characteristic and pin assignment for voltage control with actual output value



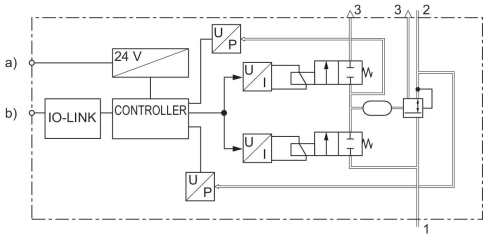
1) power supply
2) Actual value (pin 4) and nominal value (pin 2) are related to 0 V (pin 3). Nominal input value (R = 1 MΩ), actual output value: min. load resistance > 10 KΩ. If the power supply is switched off, the nominal input value is high-ohmic.
3) The power supply must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.

Characteristic and pin assignment for current control with actual output value



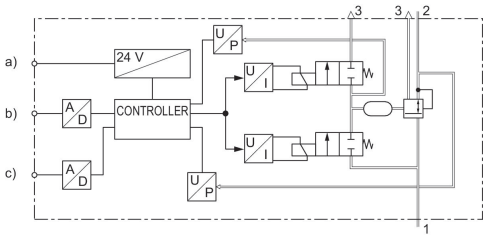
1) power supply
2) Actual value (pin 4) and nominal value (pin 2) are related to 0 V (pin 3). Nominal input value (ohmic load 100 Ω), actual output value: external ohmic load < 300 Ω. If the power supply is switched off, the nominal input value is high-ohmic.
3) The power supply must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.

Functional diagram
IO-Link



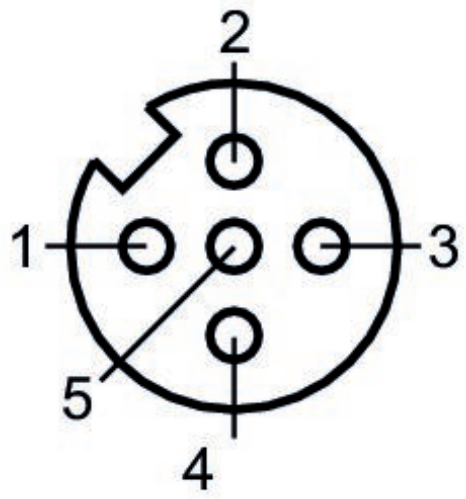
a) Supply Voltage
b) C/Q Line

Functional diagram



a) Voltage supply b) Nominal value
c) Actual output value

Plug assignment



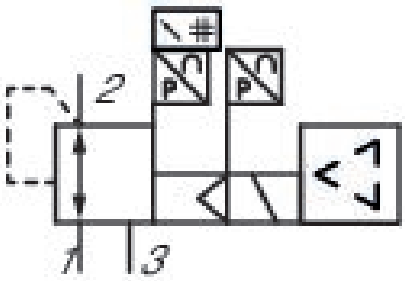
1) 24 V DC
2) Nominal input value
3) GND
4) Actual output value
5) Ground

E/P pressure regulator, Series EV12

R414011403

General series information
Series EV12

- The AVENTICS EV12 high flow proportional pressure control valve with its compact design hides its large flow capacity. It can be used as a stand-alone solution (high flow valve), as a battery for block assembly with consistently controlled pressure, or integrated into a maintenance unit.



Technical data

Type	Continuous pressure supply Display: display
Control	Externally piloted
Air supply	through
Regulation range min.	0 bar
Regulation range max.	10 bar
Working pressure min.	0 bar
Working pressure max	10 bar
Hysteresis	< 0,12 bar < 0,12 bar
Nominal flow Qn	6500 l/min
Min. ambient temperature	0 °C

Max. ambient temperature	50 °C
Min. medium temperature	0 °C
Max. medium temperature	50 °C
DC operating voltage	24 V
Permissible ripple	5%
Max. current consumption	220 mA
Max. particle size	50 µm
Oil content of compressed air min.	0 mg/m³
Oil content of compressed air max.	5 mg/m³
Frame size	AS3
Type	Poppet valve
Compressed air connection input	G 3/8
Compressed air connection output	G 3/8
Electrical connection size	M12
Electrical connection number of poles	5-pin
Electrical connection coding	A-coded
Actual output value	4 ... 20 mA
Nominal input value	4 ... 20 mA
Industry	Industrial
Weight	1.4 kg

Material

Housing material	Polyamide
Seal material	Nitrile butadiene rubber
Material base plate	Aluminum
Part No.	R414011403

Technical information

Power outage: maintain pressure

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

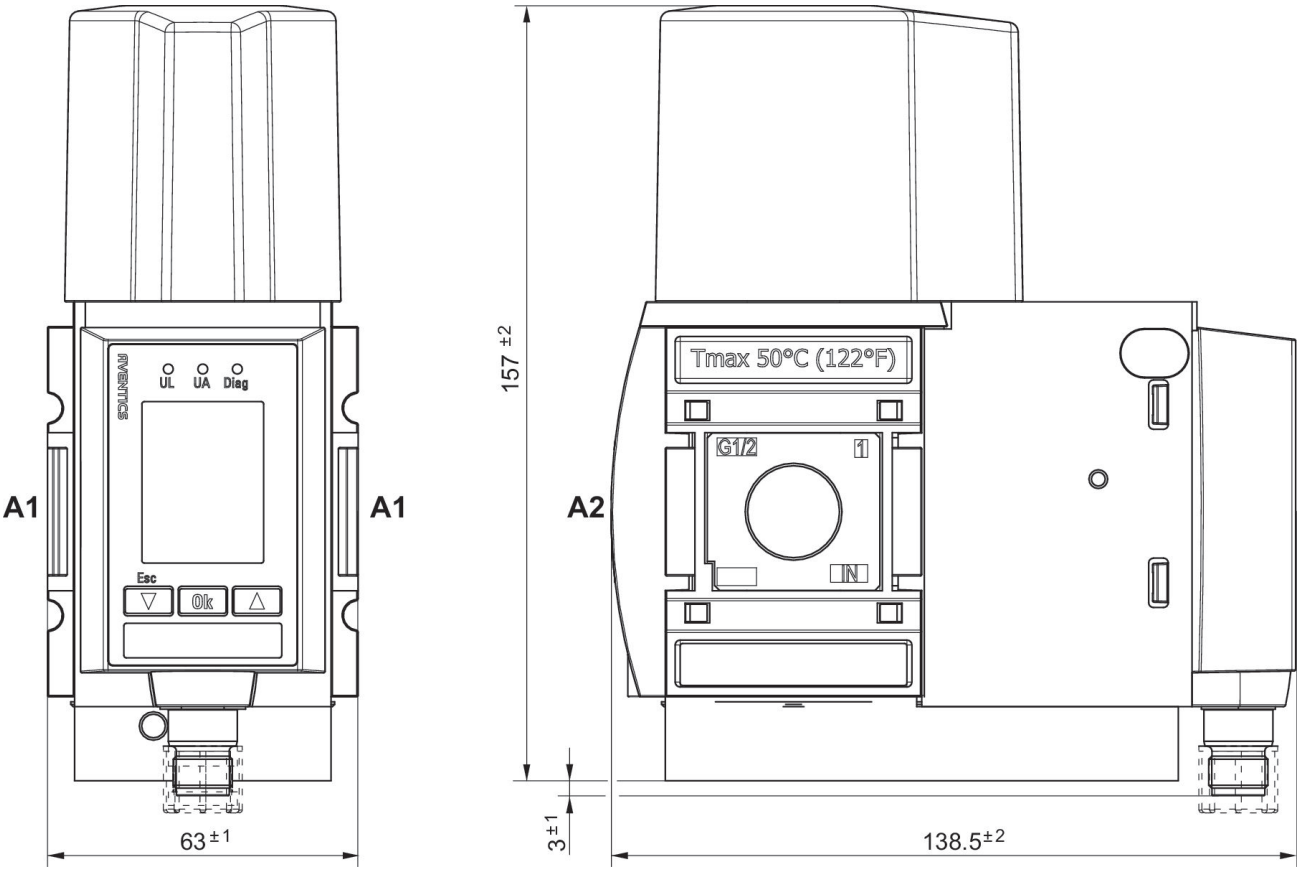
The pressure dew point must be at least 15 °C less than ambient and medium temperature and may not exceed 3 °C.

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).

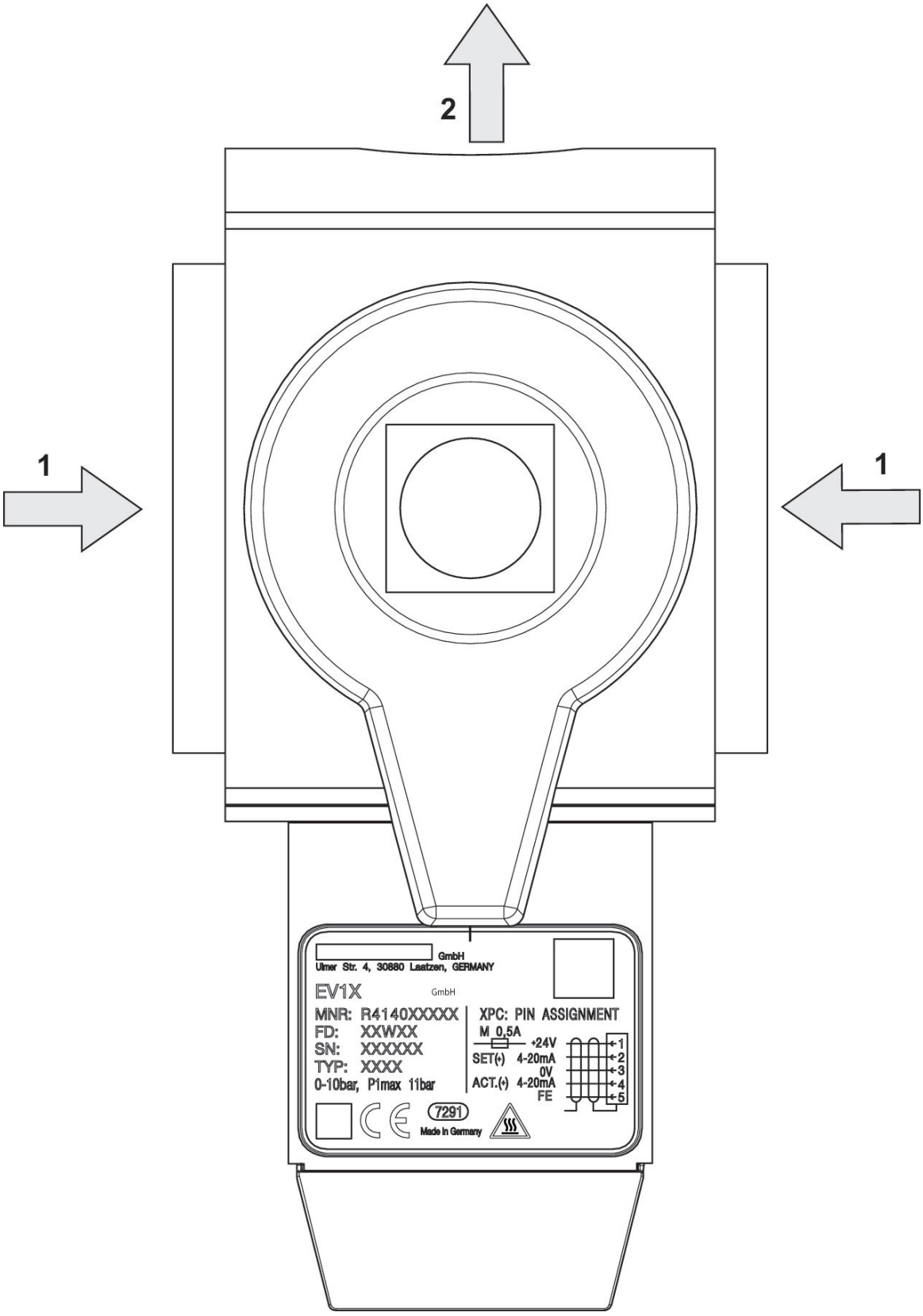
Dimensions

Continuous pressure supply

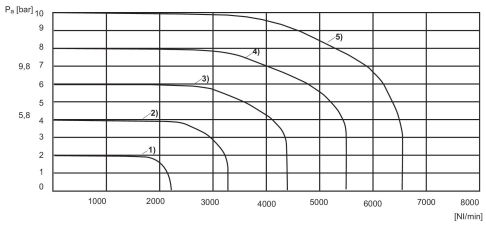


A1 = input
A2 = output

Continuous pressure supply

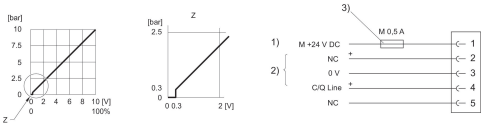


Flow characteristic curve



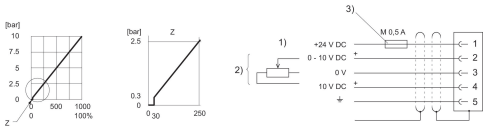
1) Pv = [[3] bar] 2)Pv = [[5] bar] 3)Pv = [[7] bar] 4) Pv = [[9] bar] 5)Pv = [[11] bar]
Pv = Supply pressure
Pa = Working pressure
Pv = Pa + 1

Characteristic curve and plug assignment for IO-Link version



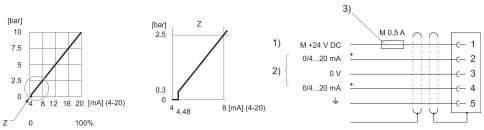
1) power supply
2) C/Q Line (pin 4) Not connected (NC) (pin 2) are related to 0 V (pin 3).
3) The power supply must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.

Characteristic and pin assignment for voltage control with actual output value



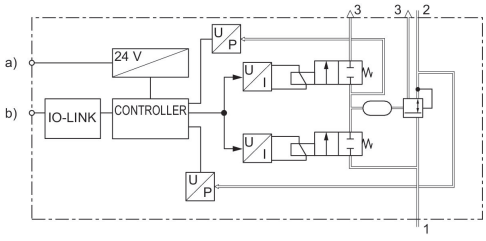
1) power supply
2) Actual value (pin 4) and nominal value (pin 2) are related to 0 V (pin 3). Nominal input value (R = 1 MΩ), actual output value: min. load resistance > 10 KΩ. If the power supply is switched off, the nominal input value is high-ohmic.
3) The power supply must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.

Characteristic and pin assignment for current control with actual output value



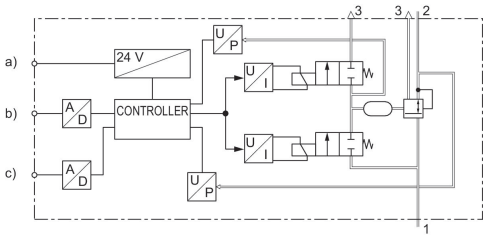
1) power supply
2) Actual value (pin 4) and nominal value (pin 2) are related to 0 V (pin 3). Nominal input value (ohmic load 100 Ω), actual output value: external ohmic load < 300 Ω. If the power supply is switched off, the nominal input value is high-ohmic.
3) The power supply must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.

Functional diagram
IO-Link



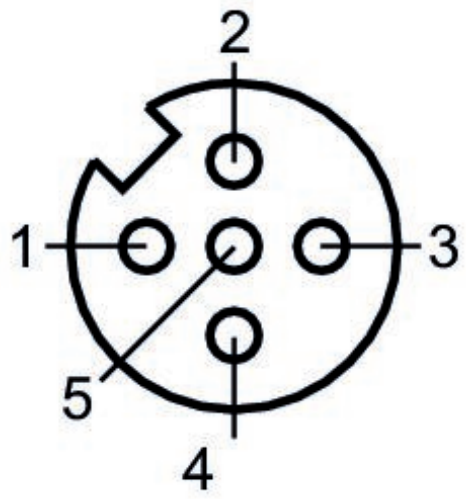
a) Supply Voltage
b) C/Q Line

Functional diagram



a) Voltage supply b) Nominal value
c) Actual output value

Plug assignment



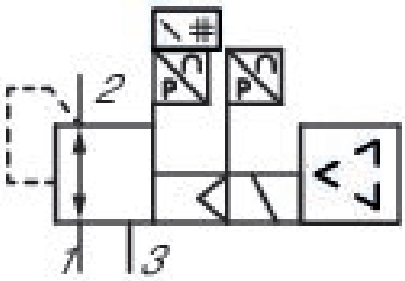
1) 24 V DC
2) Nominal input value
3) GND
4) Actual output value
5) Ground

E/P pressure regulator, Series EV12

R414011406

General series information
Series EV12

- The AVENTICS EV12 high flow proportional pressure control valve with its compact design hides its large flow capacity. It can be used as a stand-alone solution (high flow valve), as a battery for block assembly with consistently controlled pressure, or integrated into a maintenance unit.



Technical data

Type	Continuous pressure supply Display: display
Control	Externally piloted
Air supply	through
Regulation range min.	0 bar
Regulation range max.	10 bar
Working pressure min.	0 bar
Working pressure max	10 bar
Hysteresis	< 0,12 bar < 0,12 bar
Nominal flow Qn	6500 l/min
Min. ambient temperature	0 °C

Max. ambient temperature	50 °C
Min. medium temperature	0 °C
Max. medium temperature	50 °C
DC operating voltage	24 V
Permissible ripple	5%
Max. current consumption	220 mA
Max. particle size	50 µm
Oil content of compressed air min.	0 mg/m³
Oil content of compressed air max.	5 mg/m³
Frame size	AS3
Type	Poppet valve
Compressed air connection input	G 3/8
Compressed air connection output	G 3/8
Electrical connection size	M12
Electrical connection number of poles	5-pin
Electrical connection coding	A-coded
Industry	Industrial
Weight	1.4 kg

Material

Housing material	Polyamide
Seal material	Nitrile butadiene rubber
Material base plate	Aluminum
Part No.	R414011406

Technical information

Power outage: maintain pressure

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

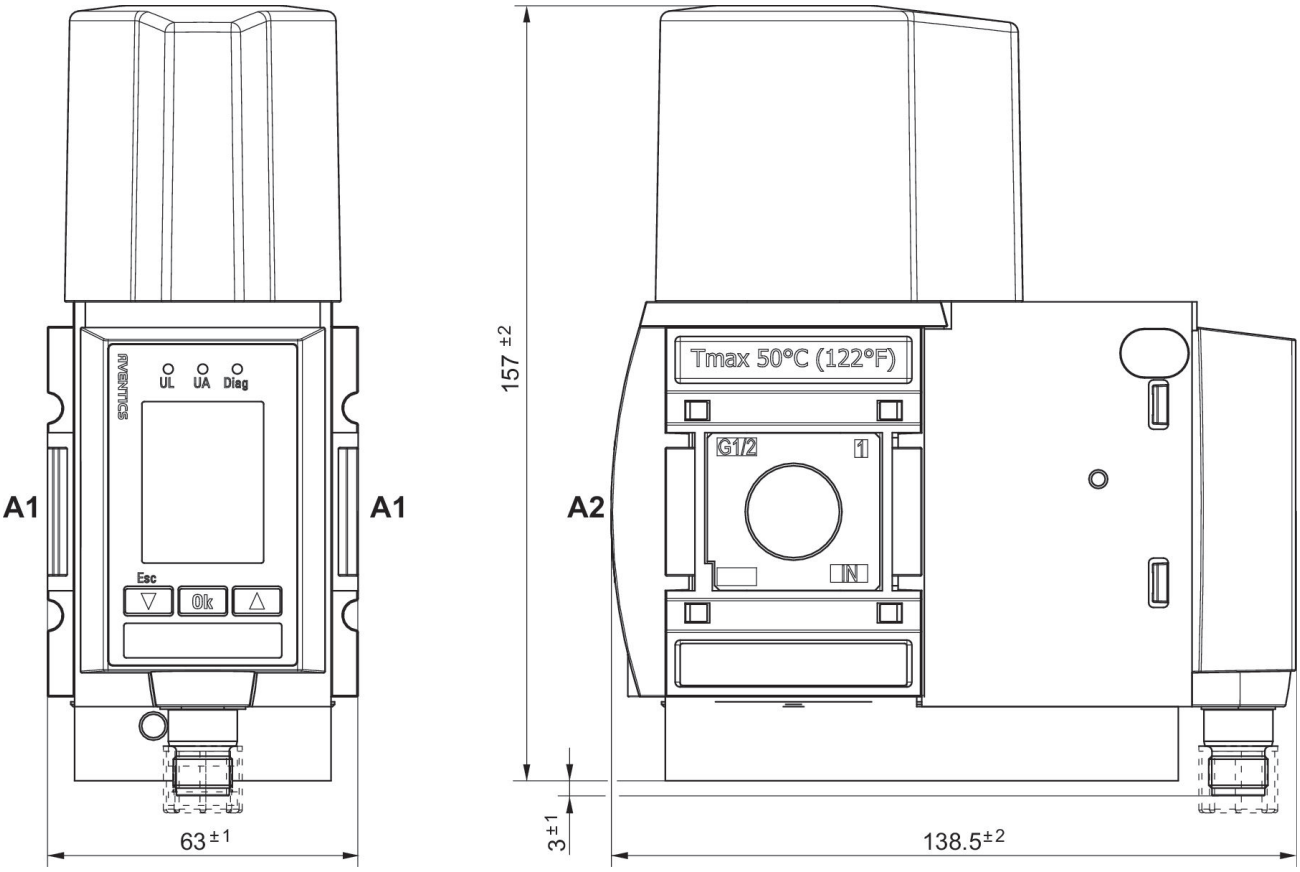
The pressure dew point must be at least 15 °C less than ambient and medium temperature and may not exceed 3 °C.

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).

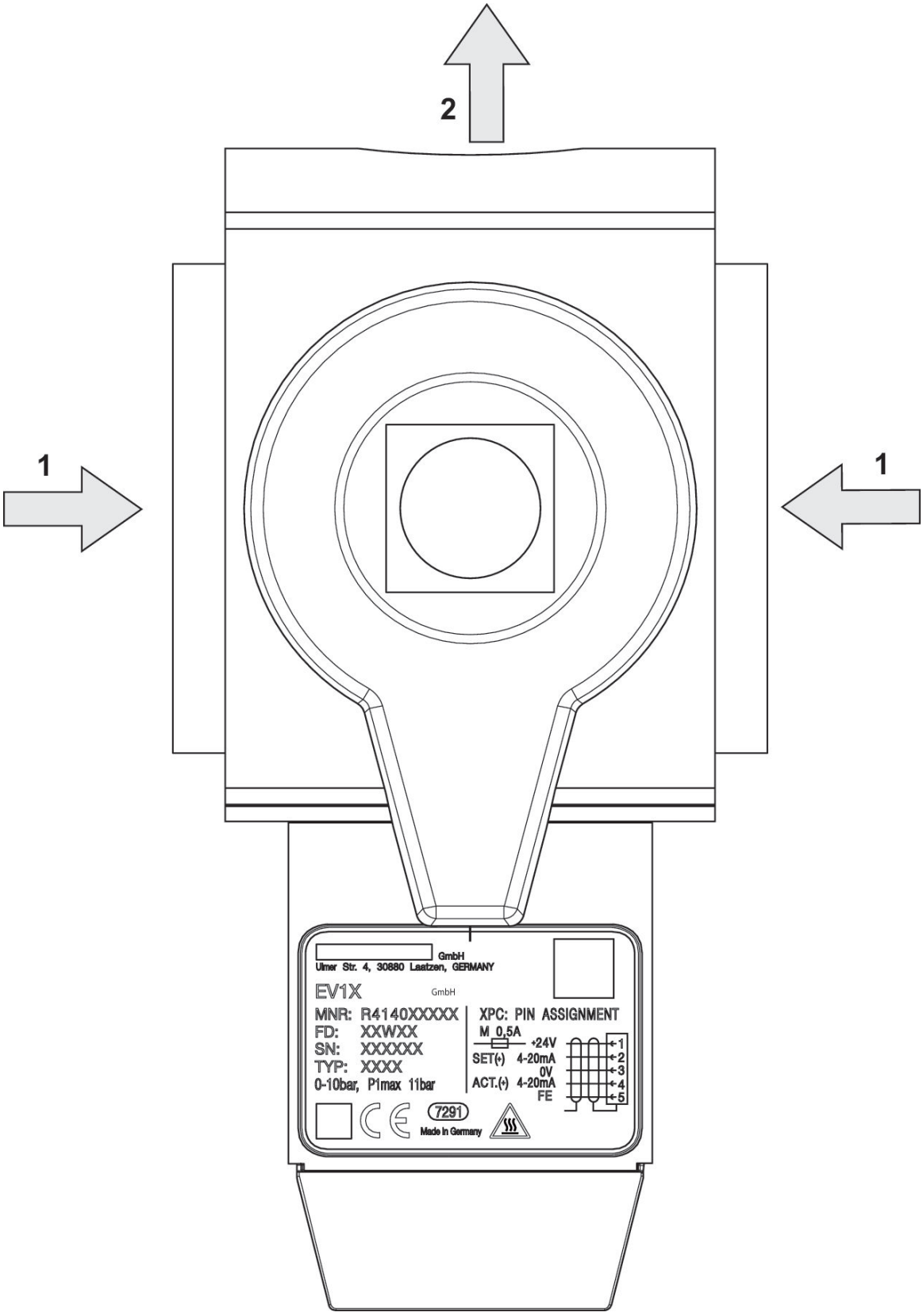
Dimensions

Continuous pressure supply

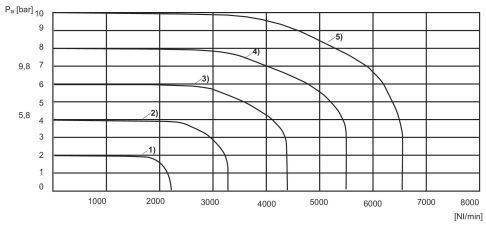


A1 = input
A2 = output

Continuous pressure supply

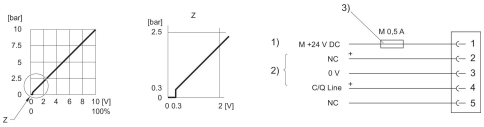


Flow characteristic curve



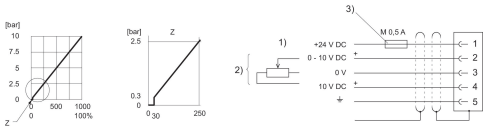
1) Pv = [[3] bar] 2)Pv = [[5] bar] 3)Pv = [[7] bar] 4) Pv = [[9] bar] 5)Pv = [[11] bar]
Pv = Supply pressure
Pa = Working pressure
Pv = Pa + 1

Characteristic curve and plug assignment for IO-Link version



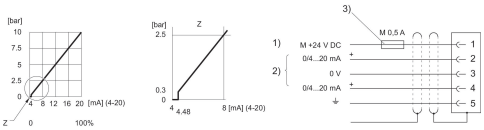
1) power supply
2) C/Q Line (pin 4) Not connected (NC) (pin 2) are related to 0 V (pin 3).
3) The power supply must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.

Characteristic and pin assignment for voltage control with actual output value



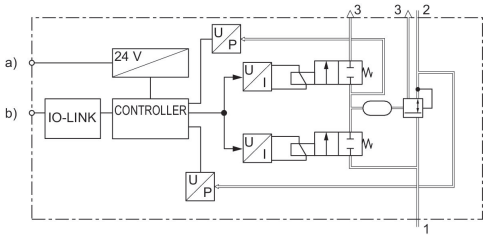
1) power supply
2) Actual value (pin 4) and nominal value (pin 2) are related to 0 V (pin 3). Nominal input value (R = 1 MΩ), actual output value: min. load resistance > 10 KΩ. If the power supply is switched off, the nominal input value is high-ohmic.
3) The power supply must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.

Characteristic and pin assignment for current control with actual output value



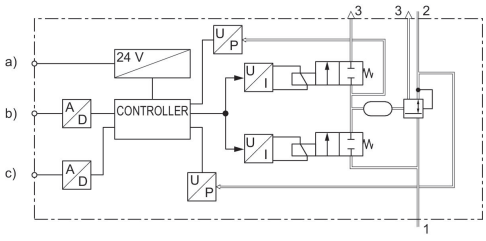
1) power supply
2) Actual value (pin 4) and nominal value (pin 2) are related to 0 V (pin 3). Nominal input value (ohmic load 100 Ω), actual output value: external ohmic load < 300 Ω. If the power supply is switched off, the nominal input value is high-ohmic.
3) The power supply must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.

Functional diagram
IO-Link



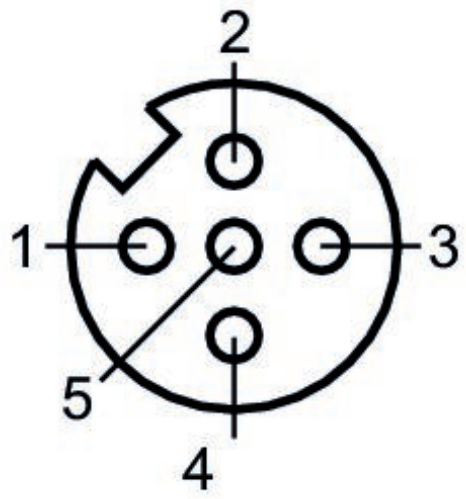
a) Supply Voltage
b) C/Q Line

Functional diagram



a) Voltage supply b) Nominal value
c) Actual output value

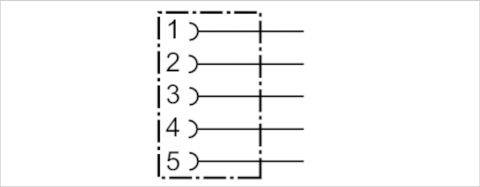
Plug assignment



1) 24 V DC
2) Nominal input value
3) GND
4) Actual output value
5) Ground

Round plug connector, Series CON-RD

- Socket, M12x1, 5-pin, A-coded, angled, 90°
- for CANopen
- UL (Underwriters Laboratories)
- shielded



Connection type	Screws
Ambient temperature min./max.	-40 ... 85 °C
Operational voltage	48 V AC/DC
Protection class	IP67
Weight	0.072 kg

Technical data

Part No.	Max. current	suitable cable-Ø min./max
1824484029	4 A	6 / 8 mm

Technical information

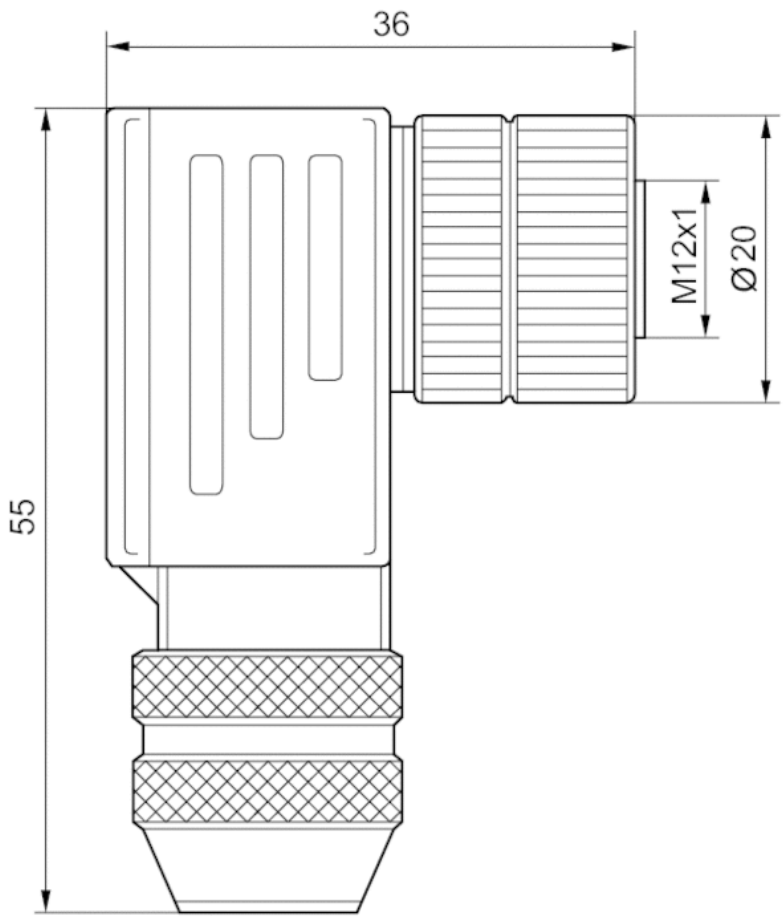
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Housing	Die cast zinc

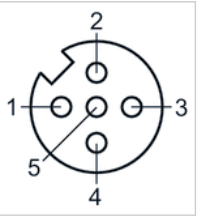
Dimensions

Dimensions



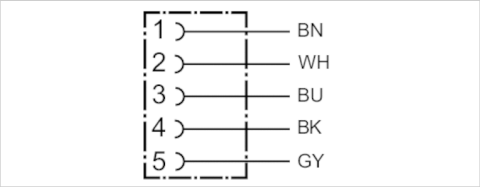
Pin assignments

Pin assignment, socket



Round plug connector, Series CON-RD

- Socket M12x1 5-pin A-coded angled 90°
- open cable ends
- with cable
- shielded



Ambient temperature min./max.	-25 ... 80 °C
Operational voltage	48 V AC/DC
Protection class	IP67
Wire cross-section	0.34 mm²
Weight	See table below

Technical data

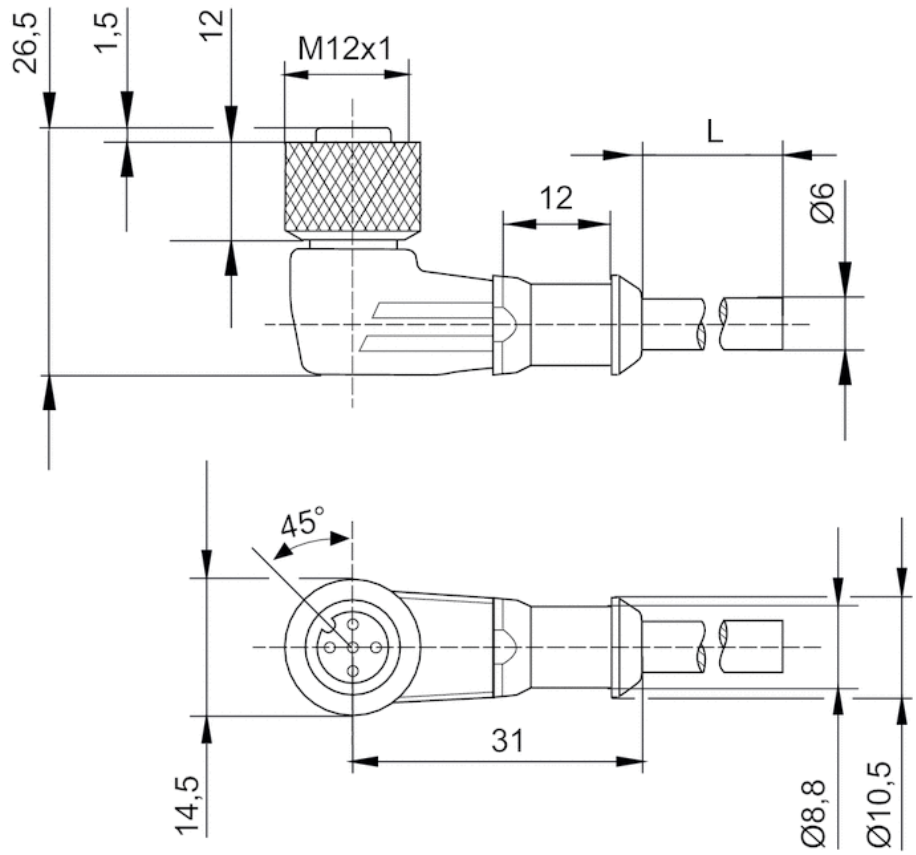
Part No.	Max. current	Number of wires	Cable-Ø	Cable length	Weight
R419800109	4 A	5	6 mm	2.5 m	0.145 kg
R419800110	4 A	5	6 mm	5 m	0.27 kg
R419800546	4 A	5	6 mm	10 m	0.514 kg

Technical information

Material	
Housing	Thermoplastic elastomer
Cable sheath	Polyurethane

Dimensions

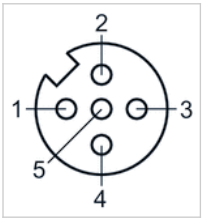
Dimensions



L = length

Pin assignments

Pin assignment, socket



(1) BN=brown
(2) WH=white
3) BU=blue
(4) BK=black
(5) GY=grey

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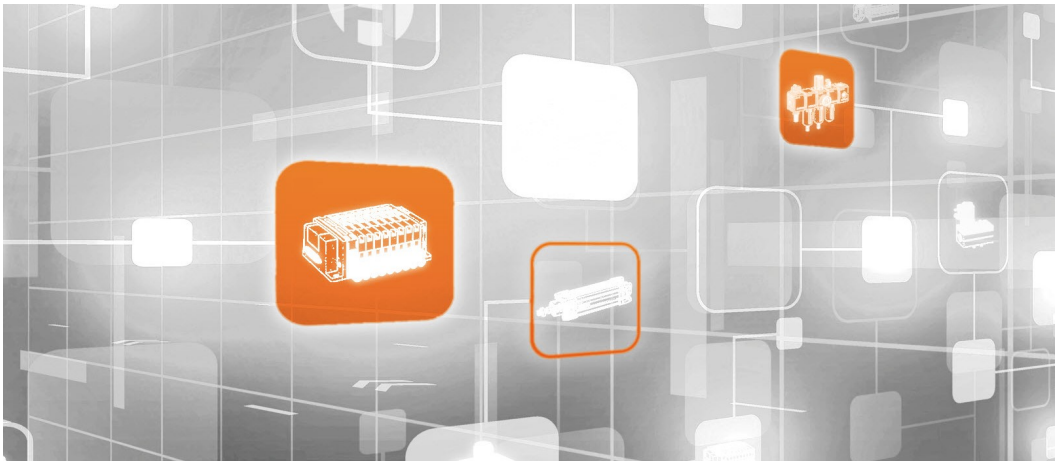

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