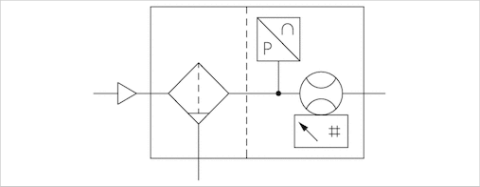
Series AF2

AVENTICS™ Series AF2

EMERSON.

Flow sensor, IO-Link, Series AF2

- 2 analog outputs, 2 switch outputs, 1 frequency output, 1 pulse output, IO-Link, With mounting
- Flow measuring principle: calorimetric
- Qn min. 0.005 Cv
- Qn max. 1.62 Cv
- Electrical connection Plug, M12x1, 5-pin



Certificates	CE declaration of conformity, RoHS
Working pressure min./max.	0 ... 232 psi
Ambient temperature min./max.	-4 ... 140 °F
Medium temperature min./max.	-4 ... 140 °F
Medium	Compressed air, Argon, Nitrogen, Helium, Carbon dioxide
filter porosity	5 µm
Display	OLED
Flow display unit	l/sec, l/min, m³/min, m³/h, ft³/s, m³/min
Pressure display unit	bar, psi
Temperature display unit	°C, °F
DC operating voltage min.	17 V DC
DC operating voltage max.	30 V DC
Max. power consumption *)	175 mA
Response time	10 ms
Protection class	IP65, IP67 according to IEC 60529
Short circuit resistance	short circuit resistant
Shock resistance max.	30 g, 11 ms
Vibration resistance	1 g (10 - 2000 Hz) IEC 60068 - 2-6
Reproducibility	± 1.5% of the measured value
Weight	2.71 lbs
*)	Current consumption without load The delivered product may vary from that in the illustration.

Technical data

Part No.	for series	Compressed air connection	Nominal flow Qn	Nominal flow Qn	Nominal flow Qn
			Min., standard	Max., standard	Min., extended
R412026834	AS2	G 3/8	0.005 Cv	1.07 Cv	1.08 Cv

Part No.	Nominal flow Qn
	Max., extended
R412026834	1.62 Cv

Standard measurement range for flow measurement: compressed air 0.5 ... 100 m/s, extended measurement range: compressed air >100 ... 150 m/s, in accordance with ISO 8778, Flow display range: 0 ... 3.18 Cv

Technical information

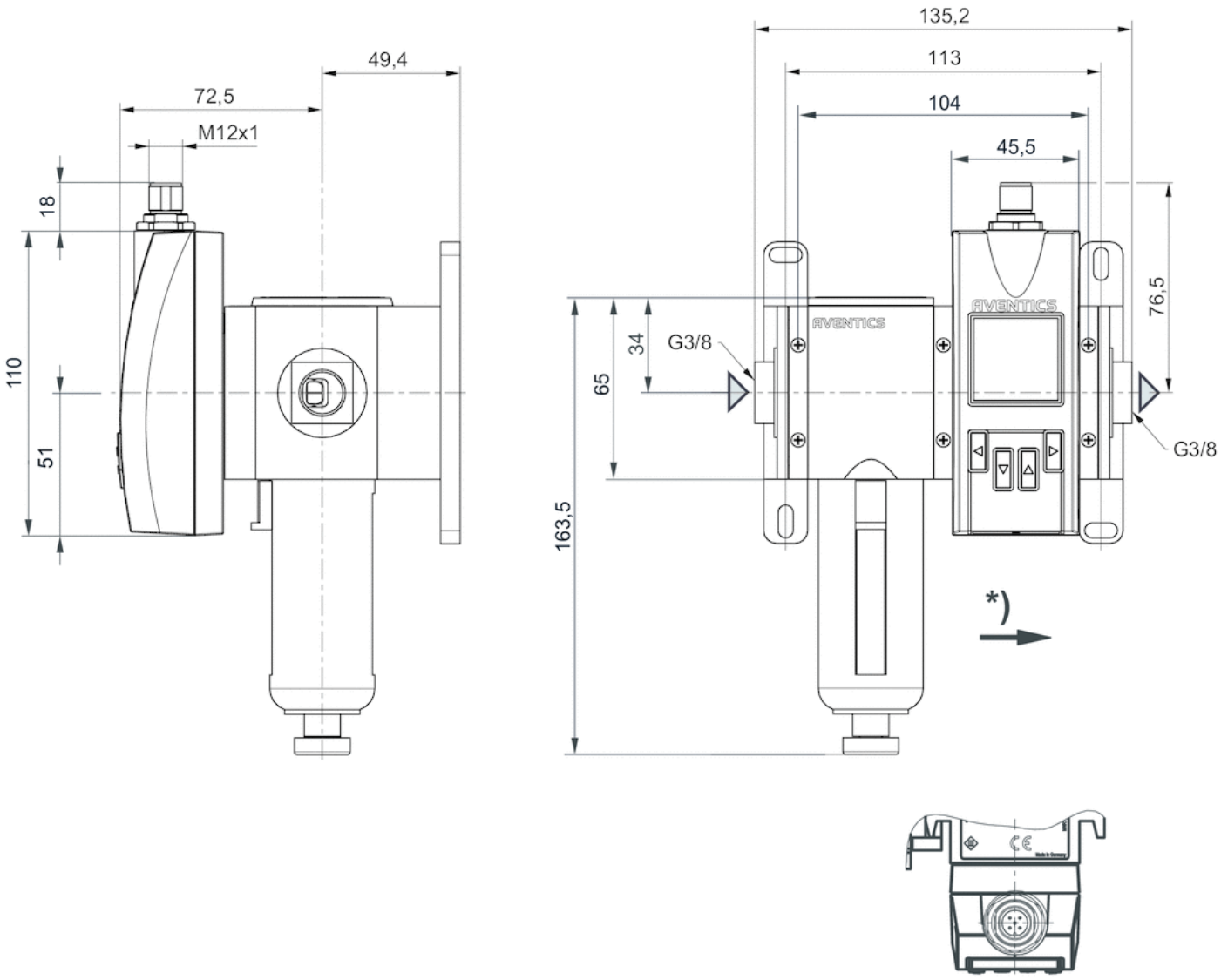
The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .
The protection class is only ensured when the plug is mounted properly. For detailed information, see operating instructions.
The device is designed to be installed in AS series air preparation units or to be fitted as a stand-alone device using a W05 block assembly kit.
Liquid oil or water must be separated via prefiltering. If it is not separated sufficiently, drifting may result.
Precision- Standard measurement range: ±3% of measured value, + 0.3% of final value- Extended measurement range: ±8% of measured value, + 1% of final value
The IO-Link device description (IODD) for the AF2 flow rate sensor is available for download in the Media Center.

Technical information

Material	
Housing	Polyamide, Polycarbonate
Seals	Fluorocaoutchouc

Dimensions

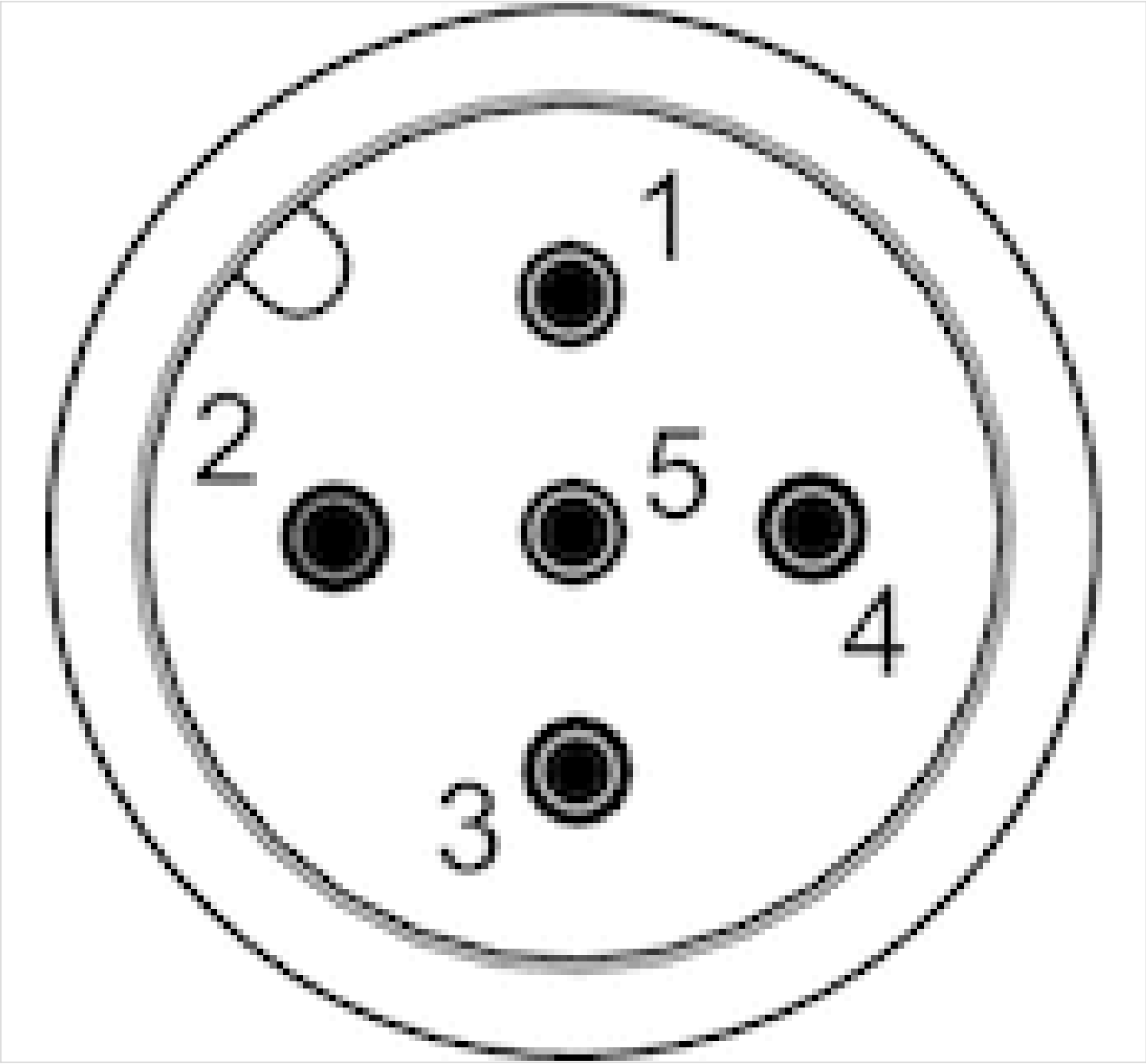
Dimensions in mm



* Flow direction

Pin assignments

Pin assignments, M12x1, 5-pin

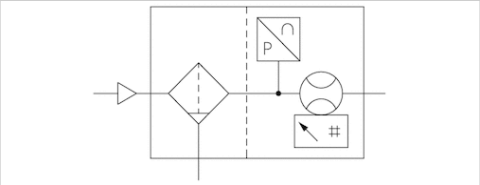


Pin	1	2	3
Allocation	L+	QA (output 4 ... 20 mA)	m = mass

4	5
C/Q1 (IO-Link/switch output)	Analog output 4 ... 20 mA

Flow sensor, Ethernet, Series AF2

- Ethernet, With mounting
- Flow measuring principle: calorimetric
- Qn min. 0.005 Cv
- Electrical connection Plug, M12x1, 8-pin



Certificates	CE declaration of conformity, RoHS
Working pressure min./max.	0 ... 232 psi
Ambient temperature min./max.	-4 ... 140 °F
Medium temperature min./max.	-4 ... 140 °F
Medium	Compressed air, Argon, Nitrogen, Helium, Carbon dioxide
filter porosity	5 µm
Display	OLED
Flow display unit	l/sec, l/min, m³/min, m³/h, ft³/s, m³/min
Pressure display unit	bar, psi
Temperature display unit	°C, °F
DC operating voltage min.	36 V DC
DC operating voltage max.	57 V DC
Power consumption max.	5 W
Response time	10 ms
Protection class	IP65, IP67 according to IEC 60529
Shock resistance max.	30 g, 11 ms
Vibration resistance	1 g (10 - 2000 Hz) IEC 60068 - 2-6
Reproducibility	± 1.5% of the measured value
Weight	2.71 lbs
*)	The delivered product may vary from that in the illustration.

Technical data

Part No.	for series	Compressed air connection	Nominal flow Qn	Nominal flow Qn	Nominal flow Qn
			Min., standard	Max., standard	Min., extended
R412026837	AS2	G 3/8	0.005 Cv	1.07 Cv	1.08 Cv

Standard measurement range for flow measurement: compressed air 0.5 ... 100 m/s, extended measurement range: compressed air >100 ... 150 m/s, in accordance with ISO 8778, Flow display range: 0 ... 3.18 Cv

Technical information

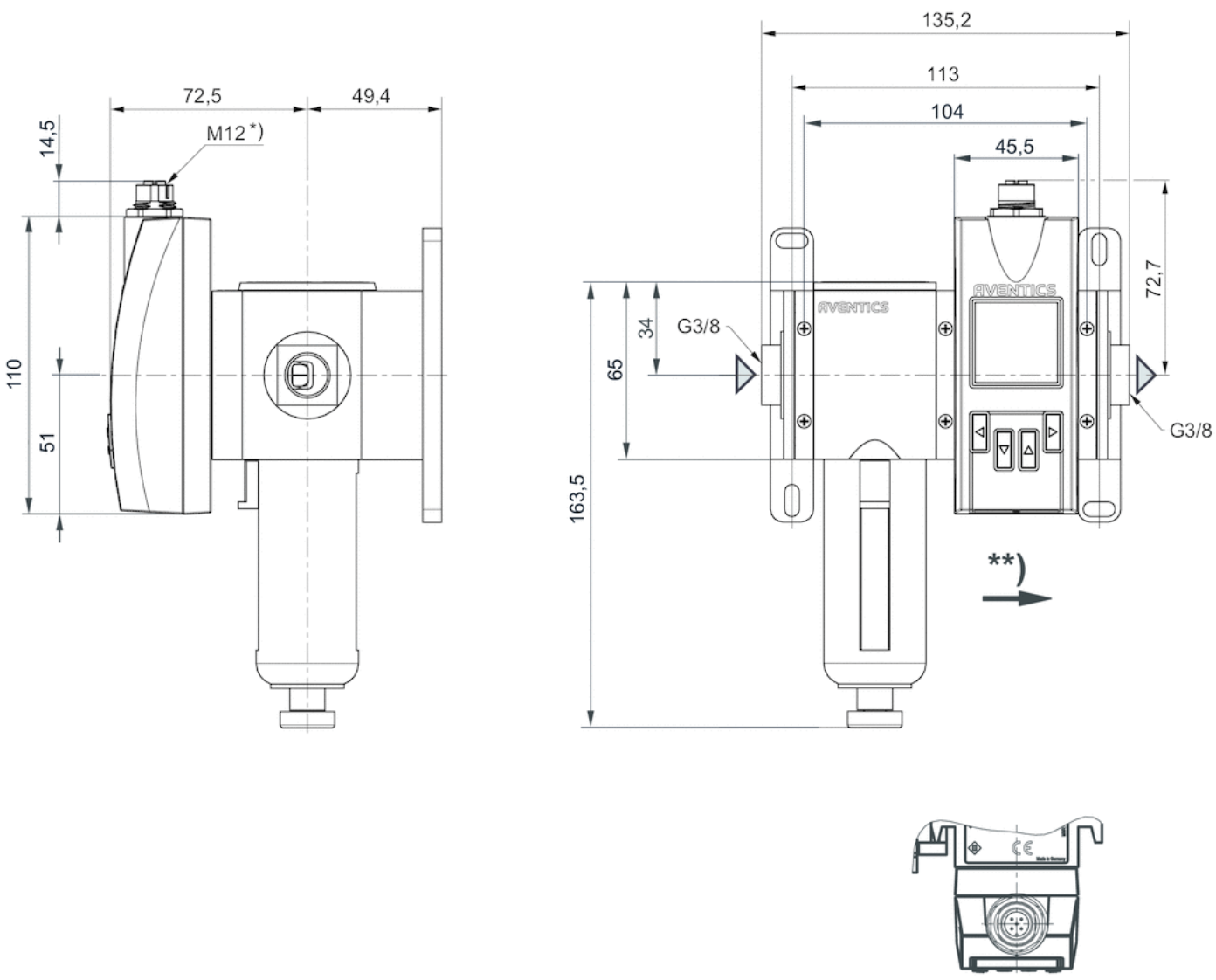
The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .
The protection class is only ensured when the plug is mounted properly. For detailed information, see operating instructions.
The device is designed to be installed in AS series air preparation units or to be fitted as a stand-alone device using a W05 block assembly kit.
Liquid oil or water must be separated via prefiltering. If it is not separated sufficiently, drifting may result.
Precision- Standard measurement range: ±3% of measured value, + 0.3% of final value- Extended measurement range: ±8% of measured value, + 1% of final value
Operating voltage via PoE (in accordance with IEEE 802.3af)

Technical information

Material	
Housing	Polyamide, Polycarbonate
Seals	Fluorocaoutchouc

Dimensions

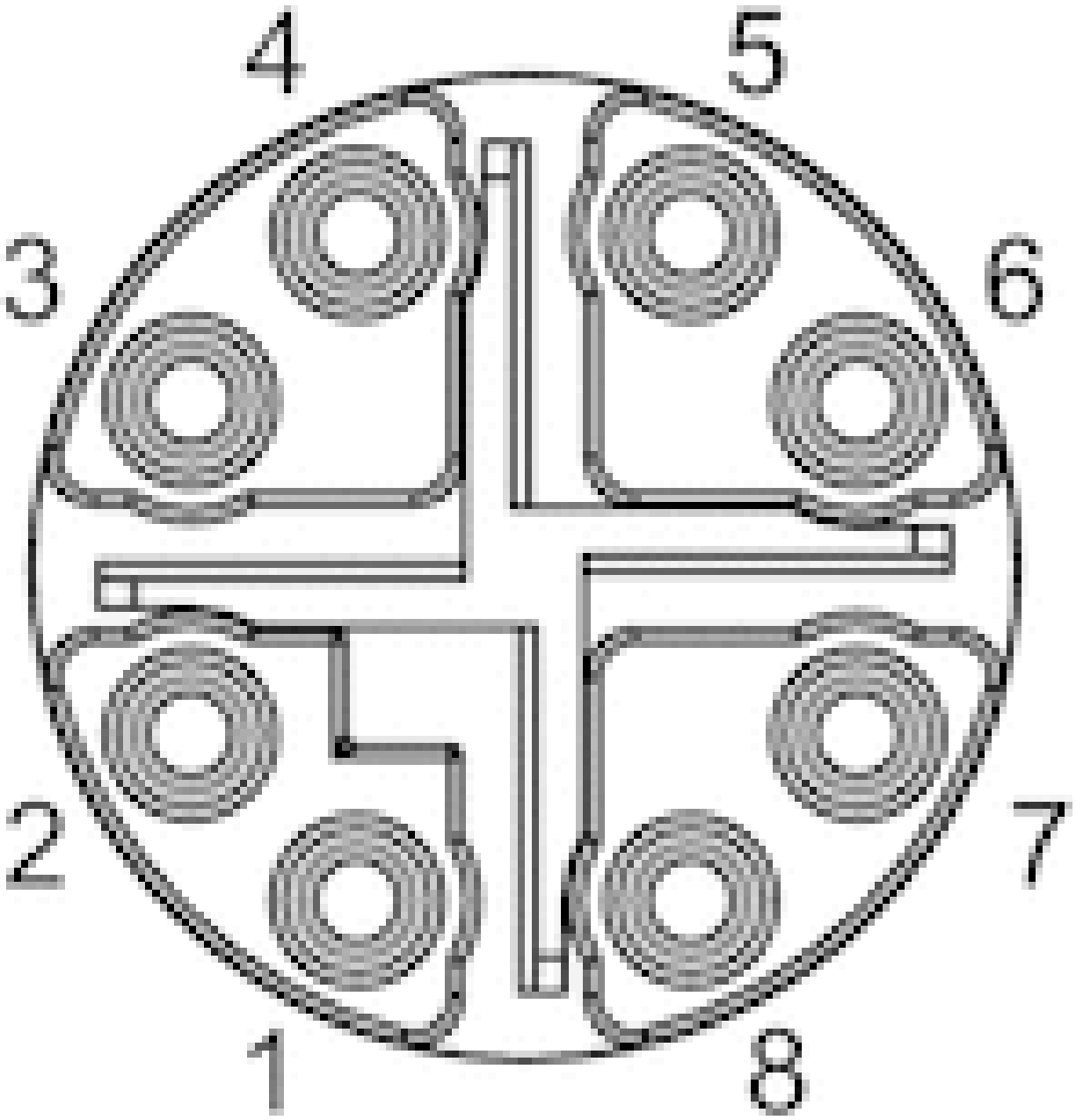
Dimensions in mm



* Internal thread
** Flow direction

Pin assignments

Pin assignments, M12, X-coded

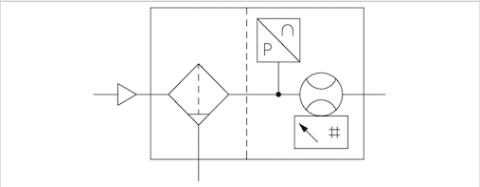


Pin	1	2	3	4	7	8	5
Color	WH / OG	OG	WH / GN	GN	WH / BU	BU	WH / BN
Function	TX(+) + POE	TX(-) + POE	RX(+) - POE	RX(-) - POE	POE+	POE+	POE-

6
BN
POE-

Flow sensor, IO-Link, Series AF2

- 2 analog outputs, 2 switch outputs, 1 frequency output, 1 pulse output, IO-Link, Without mounting
- Flow measuring principle: calorimetric
- Qn min. 0.005 Cv
- Qn max. 1.62 Cv
- Electrical connection Plug, M12x1, 5-pin



Certificates	CE declaration of conformity, RoHS
Working pressure min./max.	0 ... 232 psi
Ambient temperature min./max.	-4 ... 140 °F
Medium temperature min./max.	-4 ... 140 °F
Medium	Compressed air, Argon, Nitrogen, Helium, Carbon dioxide
filter porosity	5 µm
Display	OLED
Flow display unit	l/sec, l/min, m³/min, m³/h, ft³/s, m³/min
Pressure display unit	bar, psi
Temperature display unit	°C, °F
DC operating voltage min.	17 V DC
DC operating voltage max.	30 V DC
Max. power consumption *)	175 mA
Response time	10 ms
Protection class	IP65, IP67 according to IEC 60529
Short circuit resistance	short circuit resistant
Shock resistance max.	30 g, 11 ms
Vibration resistance	1 g (10 - 2000 Hz) IEC 60068 - 2-6
Reproducibility	± 1.5% of the measured value
Weight	1.87 lbs
*)	Current consumption without load The delivered product may vary from that in the illustration.

Technical data

Part No.	for series	Compressed air connection	Nominal flow Qn	Nominal flow Qn	Nominal flow Qn
			Min., standard	Max., standard	Min., extended
R412027176	AS2	G 3/8	0.005 Cv	1.07 Cv	1.08 Cv

Part No.	Nominal flow Qn
	Max., extended
R412027176	1.62 Cv

Standard measurement range for flow measurement: compressed air 0.5 ... 100 m/s, extended measurement range: compressed air >100 ... 150 m/s, in accordance with ISO 8778, Flow display range: 0 ... 3.18 Cv

Technical information

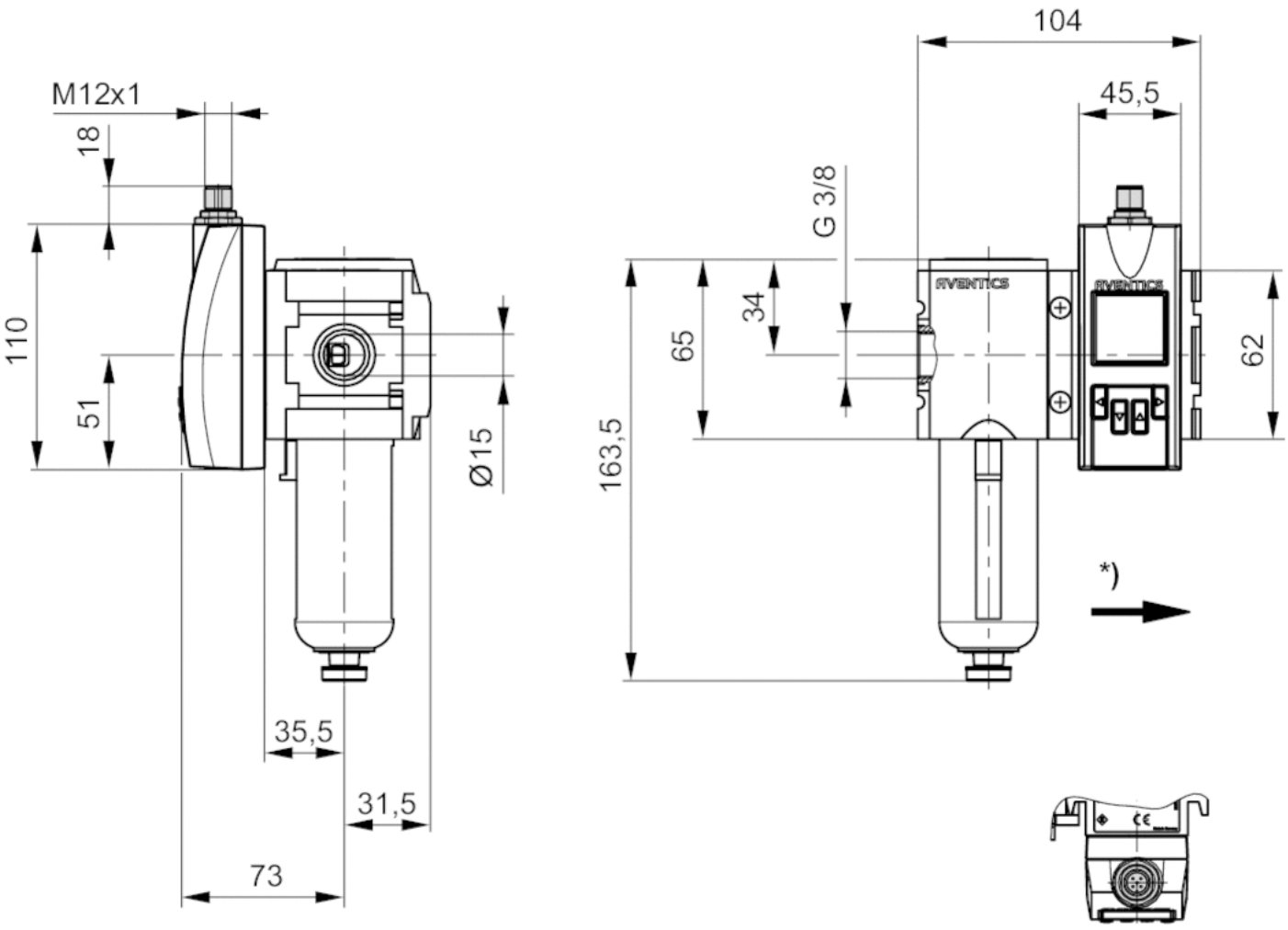
The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .
The protection class is only ensured when the plug is mounted properly. For detailed information, see operating instructions.
The device is designed to be installed in AS series air preparation units or to be fitted as a stand-alone device using a W05 block assembly kit.
Liquid oil or water must be separated via prefiltering. If it is not separated sufficiently, drifting may result.
Precision- Standard measurement range: ±3% of measured value, + 0.3% of final value- Extended measurement range: ±8% of measured value, + 1% of final value
The IO-Link device description (IODD) for the AF2 flow rate sensor is available for download in the Media Center.

Technical information

Material	
Housing	Polyamide, Polycarbonate
Seals	Fluorocaoutchouc

Dimensions

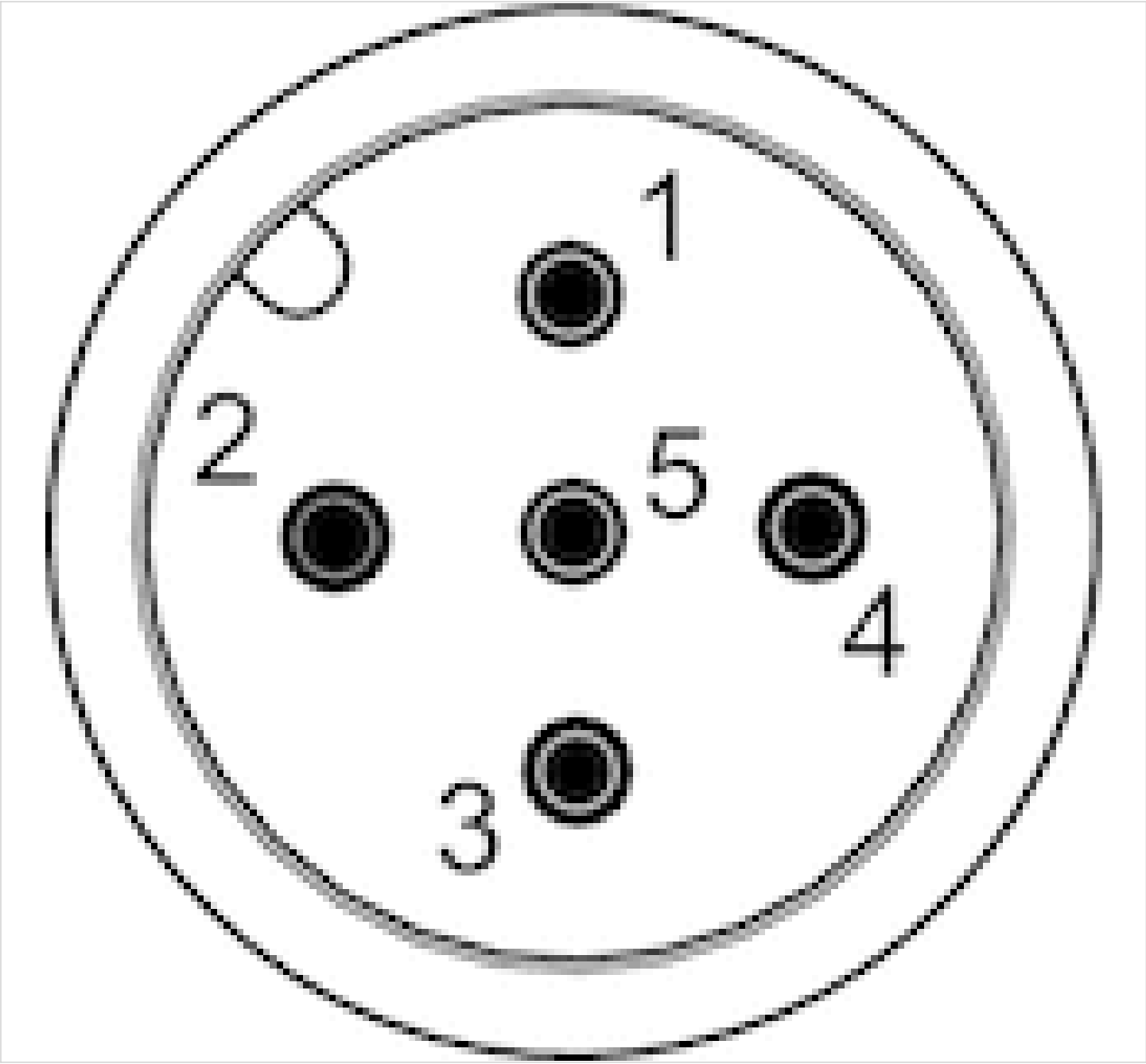
Dimensions in mm



* Flow direction

Pin assignments

Pin assignments, M12x1, 5-pin

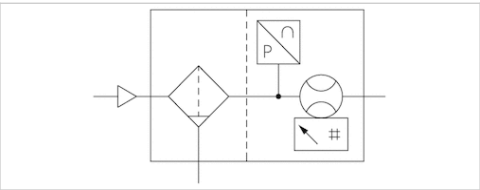


Pin	1	2	3
Allocation	L+	QA (output 4 ... 20 mA)	m = mass

4	5
C/Q1 (IO-Link/switch output)	Analog output 4 ... 20 mA

Flow sensor, Ethernet, Series AF2

- Ethernet, Without mounting
- Flow measuring principle: calorimetric
- Electrical connection Plug, M12x1, 8-pin



Certificates	CE declaration of conformity, RoHS
Working pressure min./max.	0 ... 232 psi
Ambient temperature min./max.	-4 ... 140 °F
Medium temperature min./max.	-4 ... 140 °F
Medium	Compressed air, Argon, Nitrogen, Helium, Carbon dioxide
filter porosity	5 µm
Display	OLED
Flow display unit	l/sec, l/min, m³/min, m³/h, ft³/s, m³/min
Pressure display unit	bar, psi
Temperature display unit	°C, °F
DC operating voltage min.	36 V DC
DC operating voltage max.	57 V DC
Power consumption max.	5 W
Response time	10 ms
Protection class	IP65, IP67 according to IEC 60529
Shock resistance max.	30 g, 11 ms
Vibration resistance	1 g (10 - 2000 Hz) IEC 60068 - 2-6
Reproducibility	± 1.5% of the measured value
Weight	0.375 lbs
*)	The delivered product may vary from that in the illustration.

Technical data

Part No.	for series	Compressed air connection
R412027179	AS2	G 3/8

Standard measurement range for flow measurement: compressed air 0.5 ... 100 m/s, extended measurement range: compressed air >100 ... 150 m/s, in accordance with ISO 8778, Flow display range: 0 ... 3.18 Cv

Technical information

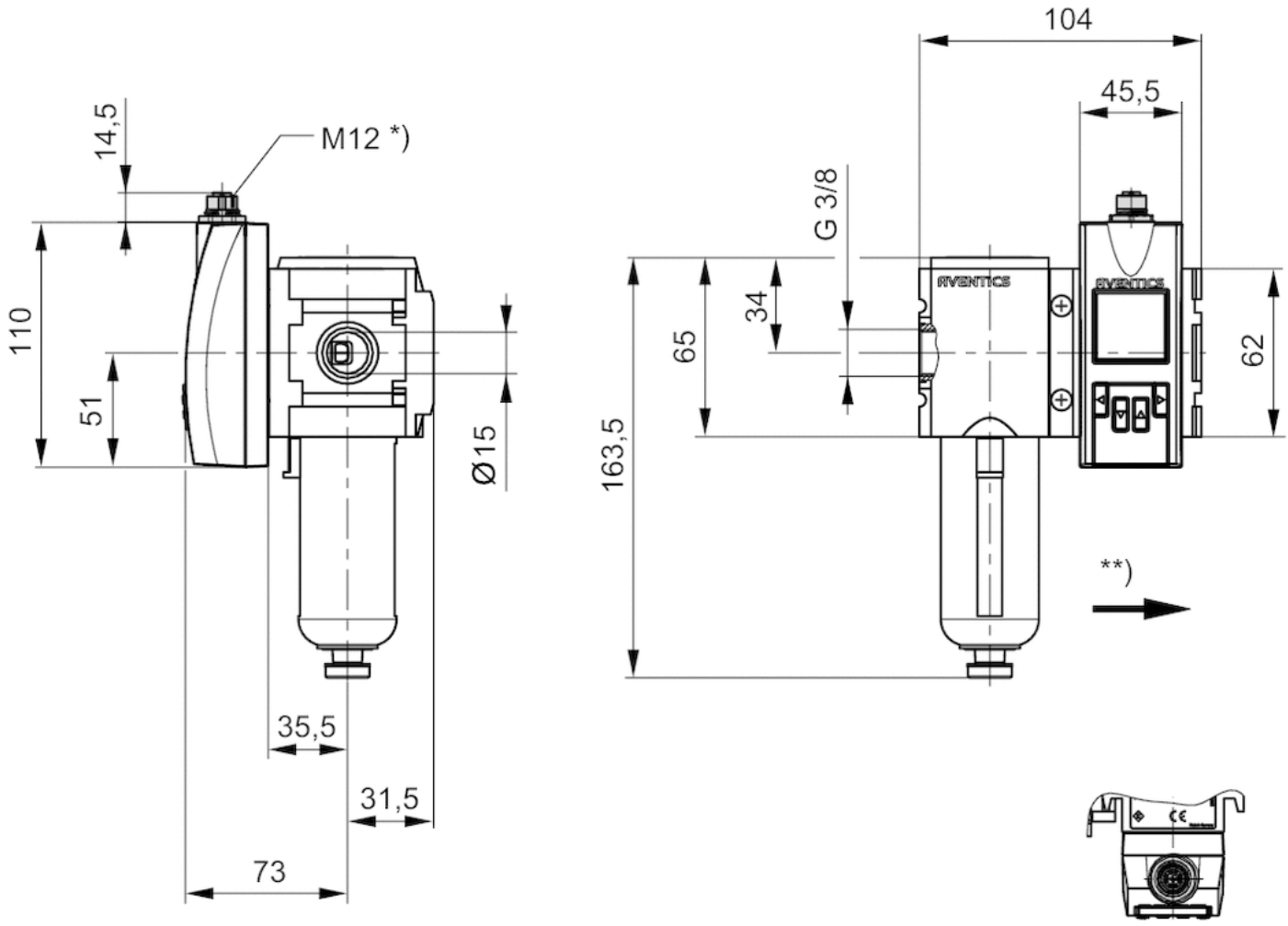
The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .
The protection class is only ensured when the plug is mounted properly. For detailed information, see operating instructions.
The device is designed to be installed in AS series air preparation units or to be fitted as a stand-alone device using a W05 block assembly kit.
Liquid oil or water must be separated via prefiltering. If it is not separated sufficiently, drifting may result.
Precision- Standard measurement range: ±3% of measured value, + 0.3% of final value- Extended measurement range: ±8% of measured value, + 1% of final value
Operating voltage via PoE (in accordance with IEEE 802.3af)

Technical information

Material	
Housing	Polyamide, Polycarbonate
Seals	Fluorocaoutchouc

Dimensions

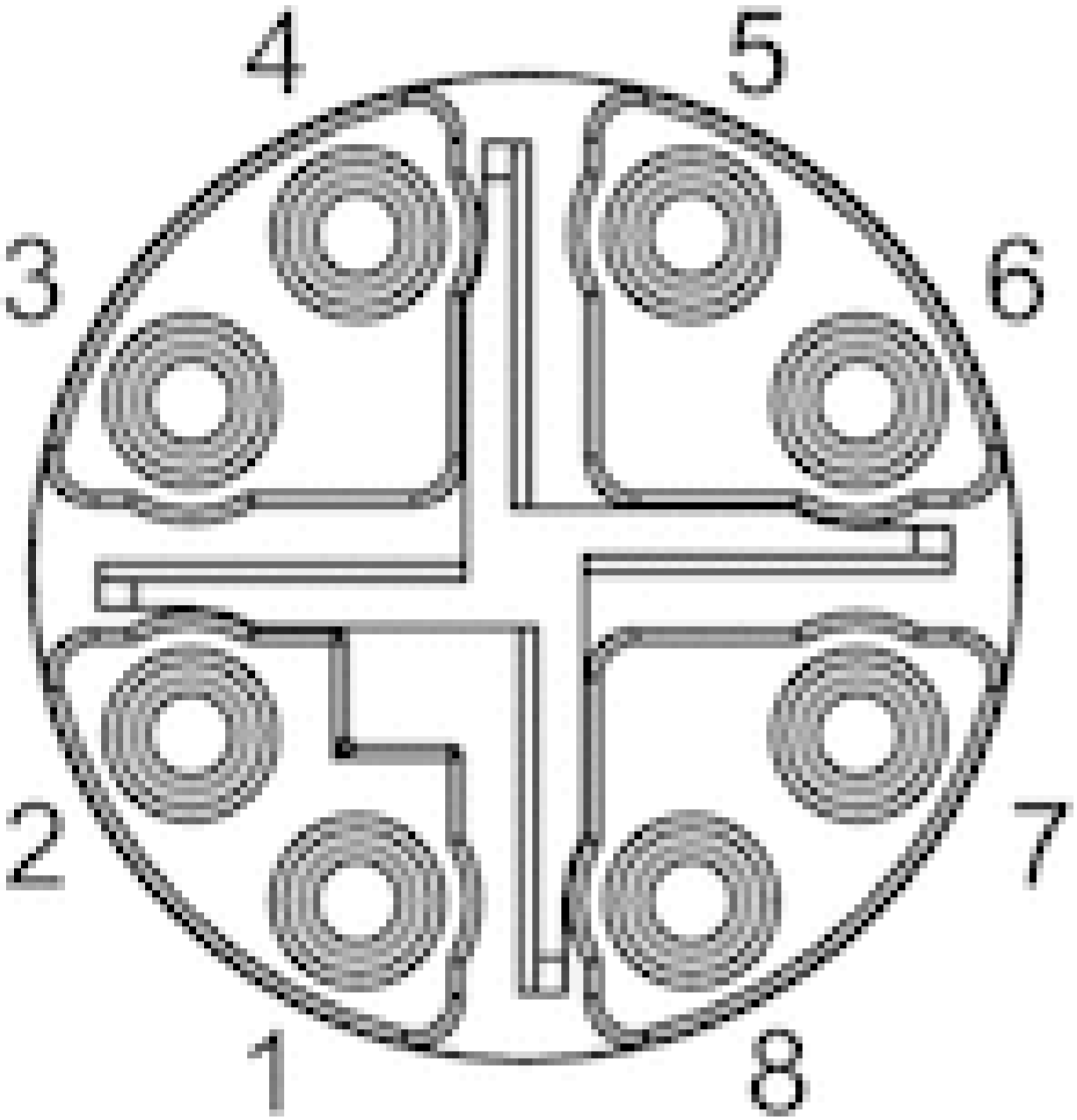
Dimensions in mm



* Internal thread
** Flow direction

Pin assignments

Pin assignments, M12, X-coded

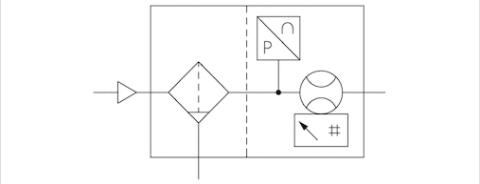


Pin	1	2	3	4	7	8	5
Color	WH / OG	OG	WH / GN	GN	WH / BU	BU	WH / BN
Function	TX(+) + POE	TX(-) + POE	RX(+) - POE	RX(-) - POE	POE+	POE+	POE-

6
BN
POE-

Flow sensor, IO-Link, Series AF2

- 2 analog outputs, 2 switch outputs, 1 frequency output, 1 pulse output, IO-Link, With mounting
- Flow measuring principle: calorimetric
- Qn min. 0.008 Cv
- Qn max. 2.48 Cv
- Electrical connection Plug, M12x1, 5-pin



Certificates	CE declaration of conformity, RoHS
Working pressure min./max.	0 ... 232 psi
Ambient temperature min./max.	-4 ... 140 °F
Medium temperature min./max.	-4 ... 140 °F
Medium	Compressed air, Argon, Nitrogen, Helium, Carbon dioxide
filter porosity	5 µm
Display	OLED
Flow display unit	l/sec, l/min, m³/min, m³/h, ft³/s, m³/min
Pressure display unit	bar, psi
Temperature display unit	°C, °F
DC operating voltage min.	17 V DC
DC operating voltage max.	30 V DC
Max. power consumption *)	175 mA
Response time	10 ms
Protection class	IP65, IP67 according to IEC 60529
Short circuit resistance	short circuit resistant
Shock resistance max.	30 g, 11 ms
Vibration resistance	1 g (10 - 2000 Hz) IEC 60068 - 2-6
Reproducibility	± 1.5% of the measured value
Weight	4.33 lbs
*)	Current consumption without load

Technical data

Part No.	for series	Compressed air connection	Nominal flow Qn	Nominal flow Qn	Nominal flow Qn
			Min., standard	Max., standard	Min., extended
R412026835	AS3	G 1/2	0.008 Cv	1.65 Cv	1.66 Cv

Part No.	Nominal flow Qn
	Max., extended
R412026835	2.48 Cv

Standard measurement range for flow measurement: compressed air 0.5 ... 100 m/s, extended measurement range: compressed air >100 ... 150 m/s, in accordance with ISO 8778, Flow display range: 0 ... 4.89 Cv

Technical information

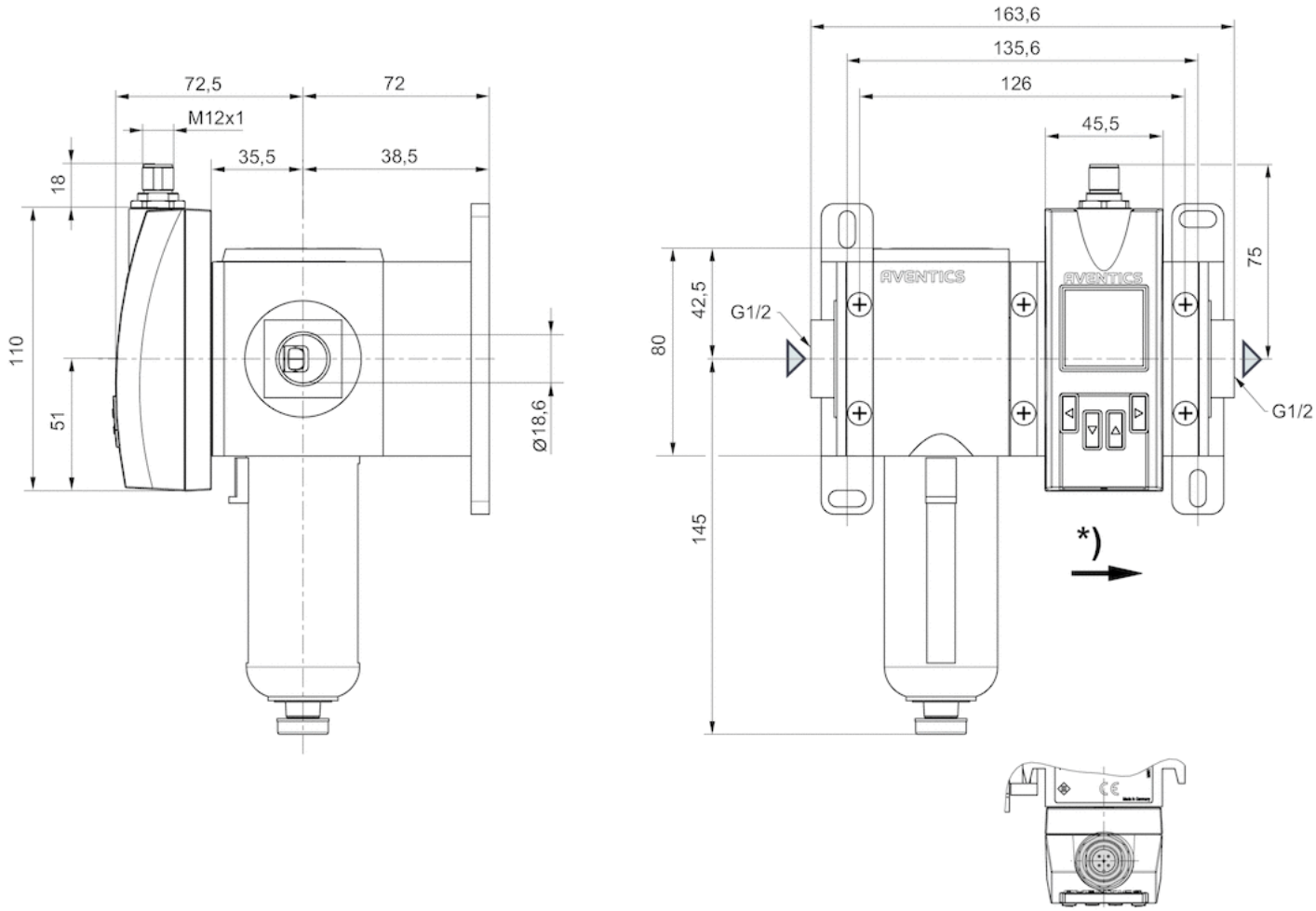
The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .
The protection class is only ensured when the plug is mounted properly. For detailed information, see operating instructions.
The device is designed to be installed in AS series air preparation units or to be fitted as a stand-alone device using a W05 block assembly kit.
Liquid oil or water must be separated via prefiltering. If it is not separated sufficiently, drifting may result.
Precision- Standard measurement range: ±3% of measured value, + 0.3% of final value- Extended measurement range: ±8% of measured value, + 1% of final value
The IO-Link device description (IODD) for the AF2 flow rate sensor is available for download in the Media Center.

Technical information

Material	
Housing	Polyamide, Polycarbonate
Seals	Fluorocaoutchouc

Dimensions

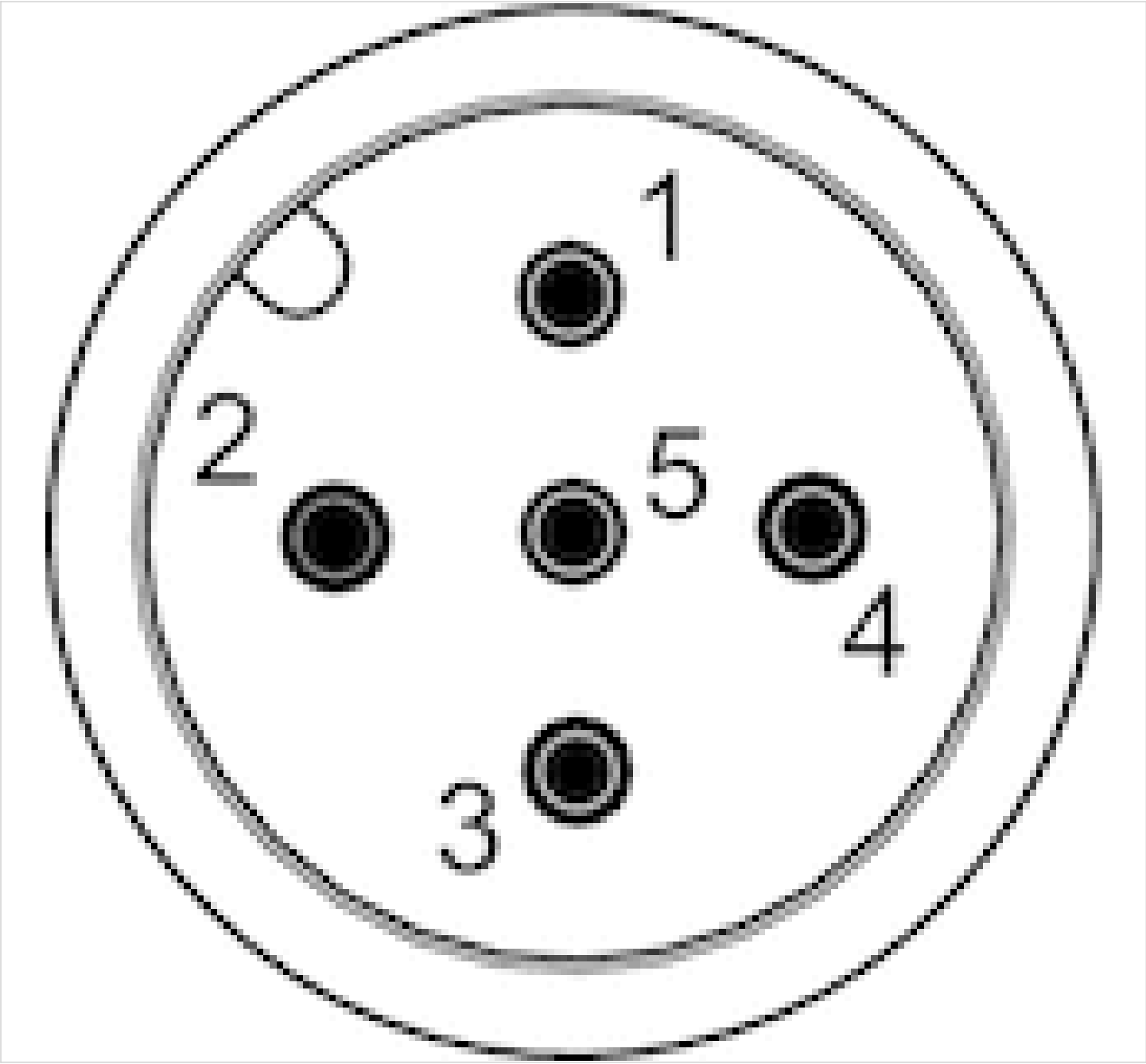
Dimensions in mm



* Flow direction

Pin assignments

Pin assignments, M12x1, 5-pin

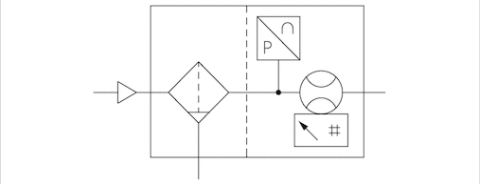


Pin	1	2	3
Allocation	L+	QA (output 4 ... 20 mA)	m = mass

4	5
C/Q1 (IO-Link/switch output)	Analog output 4 ... 20 mA

Flow sensor, Ethernet, Series AF2

- Ethernet, With mounting
- Flow measuring principle: calorimetric
- Qn min. 0.008 Cv
- Qn max. 2.48 Cv
- Electrical connection Plug, M12x1, 8-pin



Certificates	CE declaration of conformity, RoHS
Working pressure min./max.	0 ... 232 psi
Ambient temperature min./max.	-4 ... 140 °F
Medium temperature min./max.	-4 ... 140 °F
Medium	Compressed air, Argon, Nitrogen, Helium, Carbon dioxide
filter porosity	5 µm
Display	OLED
Flow display unit	l/sec, l/min, m³/min, m³/h, ft³/s, m³/min
Pressure display unit	bar, psi
Temperature display unit	°C, °F
DC operating voltage min.	36 V DC
DC operating voltage max.	57 V DC
Power consumption max.	5 W
Response time	10 ms
Protection class	IP65, IP67 according to IEC 60529
Shock resistance max.	30 g, 11 ms
Vibration resistance	1 g (10 - 2000 Hz) IEC 60068 - 2-6
Reproducibility	± 1.5% of the measured value
Weight	4.33 lbs

Technical data

Part No.	for series	Compressed air connection	Nominal flow Qn	Nominal flow Qn	Nominal flow Qn
			Min., standard	Max., standard	Min., extended
R412026838	AS3	G 1/2	0.008 Cv	1.65 Cv	1.66 Cv

Part No.	Nominal flow Qn
	Max., extended
R412026838	2.48 Cv

Standard measurement range for flow measurement: compressed air 0.5 ... 100 m/s, extended measurement range: compressed air >100 ... 150 m/s, in accordance with ISO 8778, Flow display range: 0 ... 4.89 Cv

Technical information

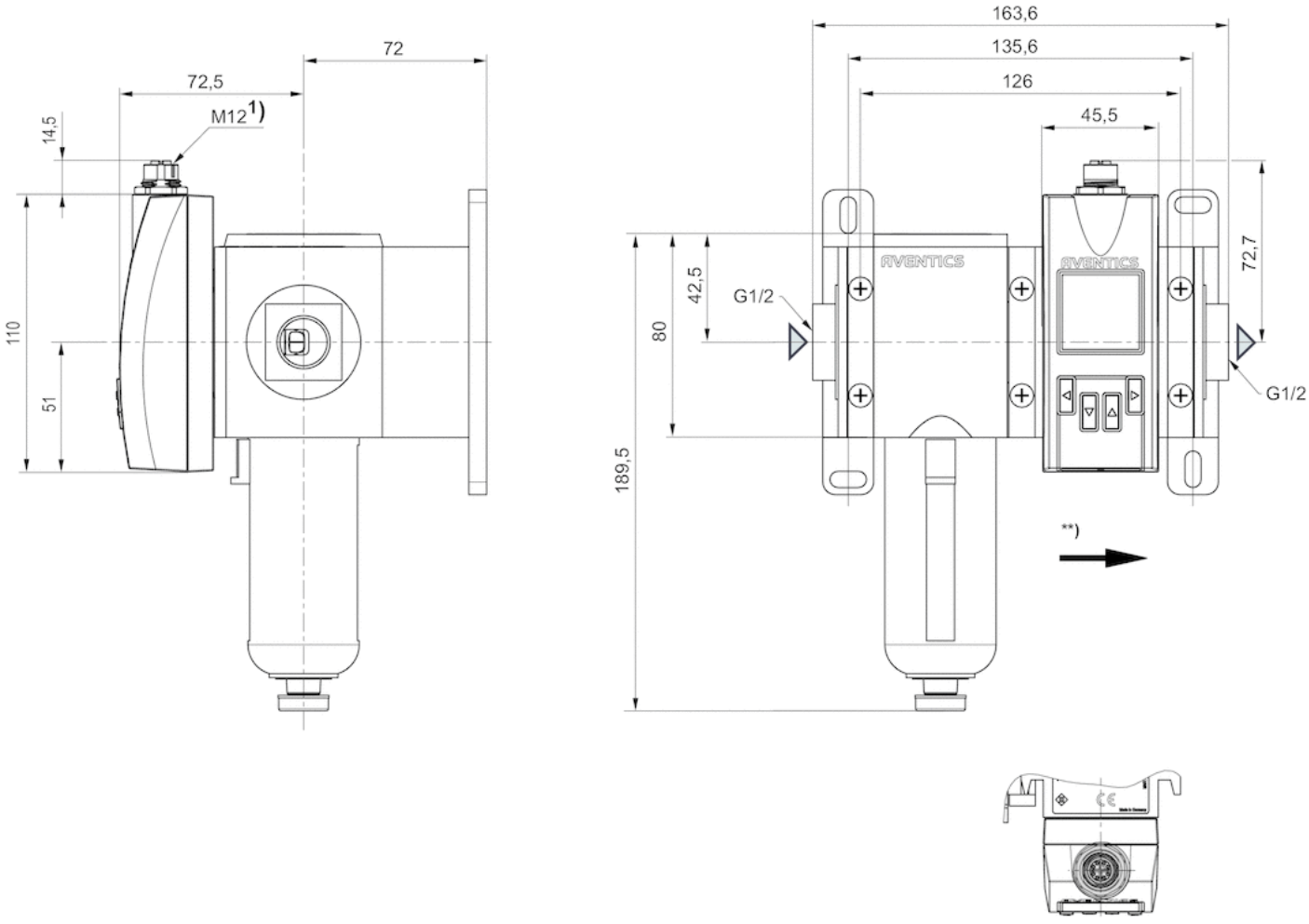
The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .
The protection class is only ensured when the plug is mounted properly. For detailed information, see operating instructions.
The device is designed to be installed in AS series air preparation units or to be fitted as a stand-alone device using a W05 block assembly kit.
Liquid oil or water must be separated via prefiltering. If it is not separated sufficiently, drifting may result.
Precision- Standard measurement range: ±3% of measured value, + 0.3% of final value- Extended measurement range: ±8% of measured value, + 1% of final value
Operating voltage via PoE (in accordance with IEEE 802.3af)

Technical information

Material	
Housing	Polyamide, Polycarbonate
Seals	Fluorocaoutchouc

Dimensions

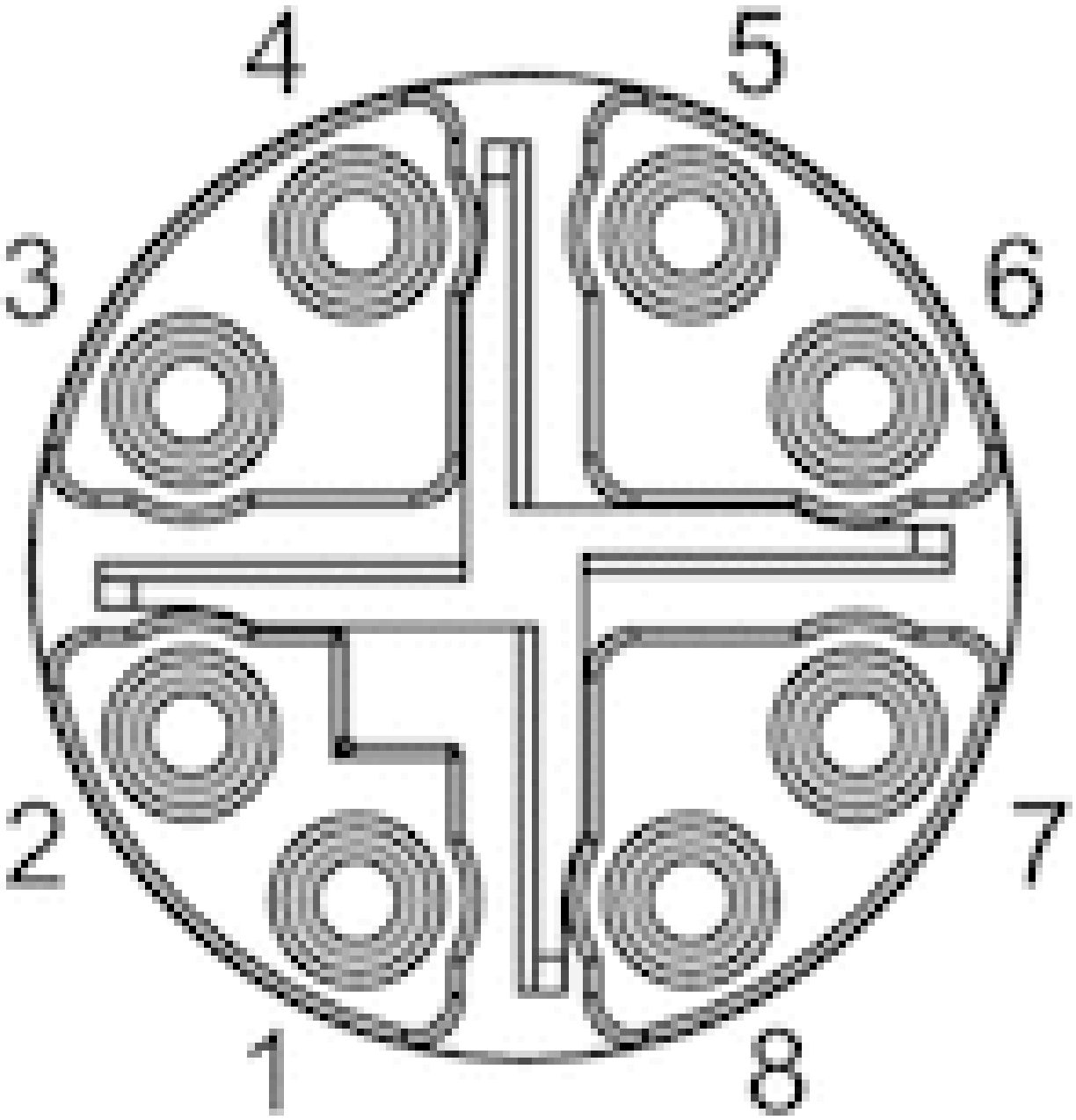
Dimensions in mm



* Internal thread
** Flow direction

Pin assignments

Pin assignments, M12, X-coded

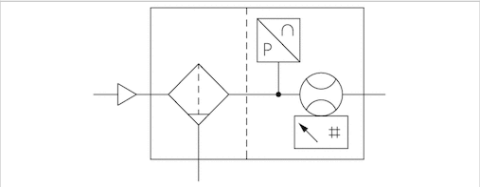


Pin	1	2	3	4	7	8	5
Color	WH / OG	OG	WH / GN	GN	WH / BU	BU	WH / BN
Function	TX(+) + POE	TX(-) + POE	RX(+) - POE	RX(-) - POE	POE+	POE+	POE-

6
BN
POE-

Flow sensor, IO-Link, Series AF2

- 2 analog outputs, 2 switch outputs, 1 frequency output, 1 pulse output, IO-Link, Without mounting
- Flow measuring principle: calorimetric
- Qn min. 0.008 Cv
- Qn max. 2.48 Cv
- Electrical connection Plug, M12x1, 5-pin



Certificates	CE declaration of conformity, RoHS
Working pressure min./max.	0 ... 232 psi
Ambient temperature min./max.	-4 ... 140 °F
Medium temperature min./max.	-4 ... 140 °F
Medium	Compressed air, Argon, Nitrogen, Helium, Carbon dioxide
filter porosity	5 µm
Display	OLED
Flow display unit	l/sec, l/min, m³/min, m³/h, ft³/s, m³/min
Pressure display unit	bar, psi
Temperature display unit	°C, °F
DC operating voltage min.	17 V DC
DC operating voltage max.	30 V DC
Max. power consumption *)	175 mA
Response time	10 ms
Protection class	IP65, IP67 according to IEC 60529
Short circuit resistance	short circuit resistant
Shock resistance max.	30 g, 11 ms
Vibration resistance	1 g (10 - 2000 Hz) IEC 60068 - 2-6
Reproducibility	± 1.5% of the measured value
Weight	2.76 lbs
*)	Current consumption without load

Technical data

Part No.	for series	Compressed air connection	Nominal flow Qn	Nominal flow Qn	Nominal flow Qn
			Min., standard	Max., standard	Min., extended
R412027177	AS3	G 1/2	0.008 Cv	1.65 Cv	1.66 Cv

Part No.	Nominal flow Qn
	Max., extended
R412027177	2.48 Cv

Standard measurement range for flow measurement: compressed air 0.5 ... 100 m/s, extended measurement range: compressed air >100 ... 150 m/s, in accordance with ISO 8778, Flow display range: 0 ... 4.89 Cv

Technical information

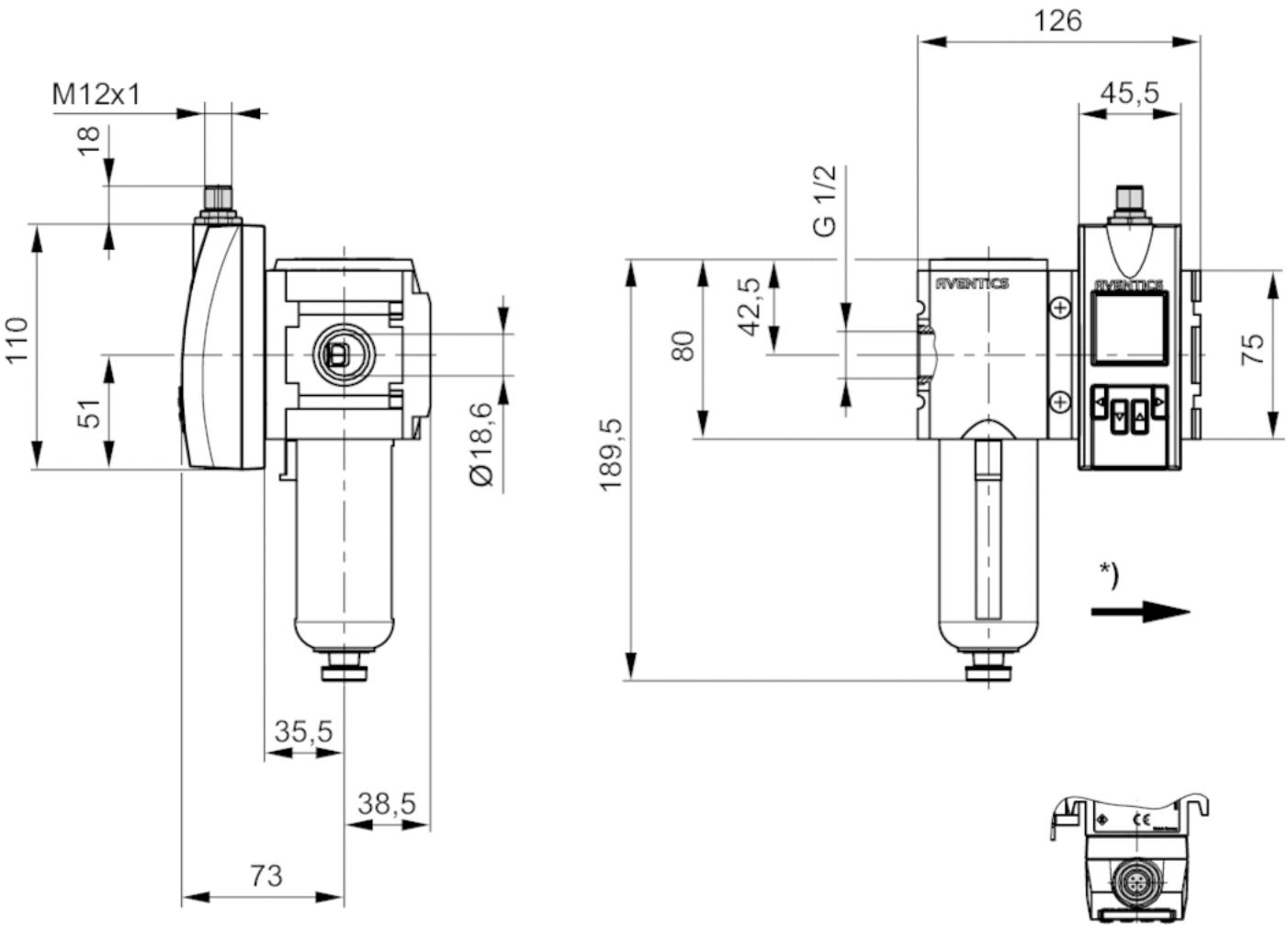
The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .
The protection class is only ensured when the plug is mounted properly. For detailed information, see operating instructions.
The device is designed to be installed in AS series air preparation units or to be fitted as a stand-alone device using a W05 block assembly kit.
Liquid oil or water must be separated via prefiltering. If it is not separated sufficiently, drifting may result.
Precision- Standard measurement range: ±3% of measured value, + 0.3% of final value- Extended measurement range: ±8% of measured value, + 1% of final value
The IO-Link device description (IODD) for the AF2 flow rate sensor is available for download in the Media Center.

Technical information

Material	
Housing	Polyamide, Polycarbonate
Seals	Fluorocaoutchouc

Dimensions

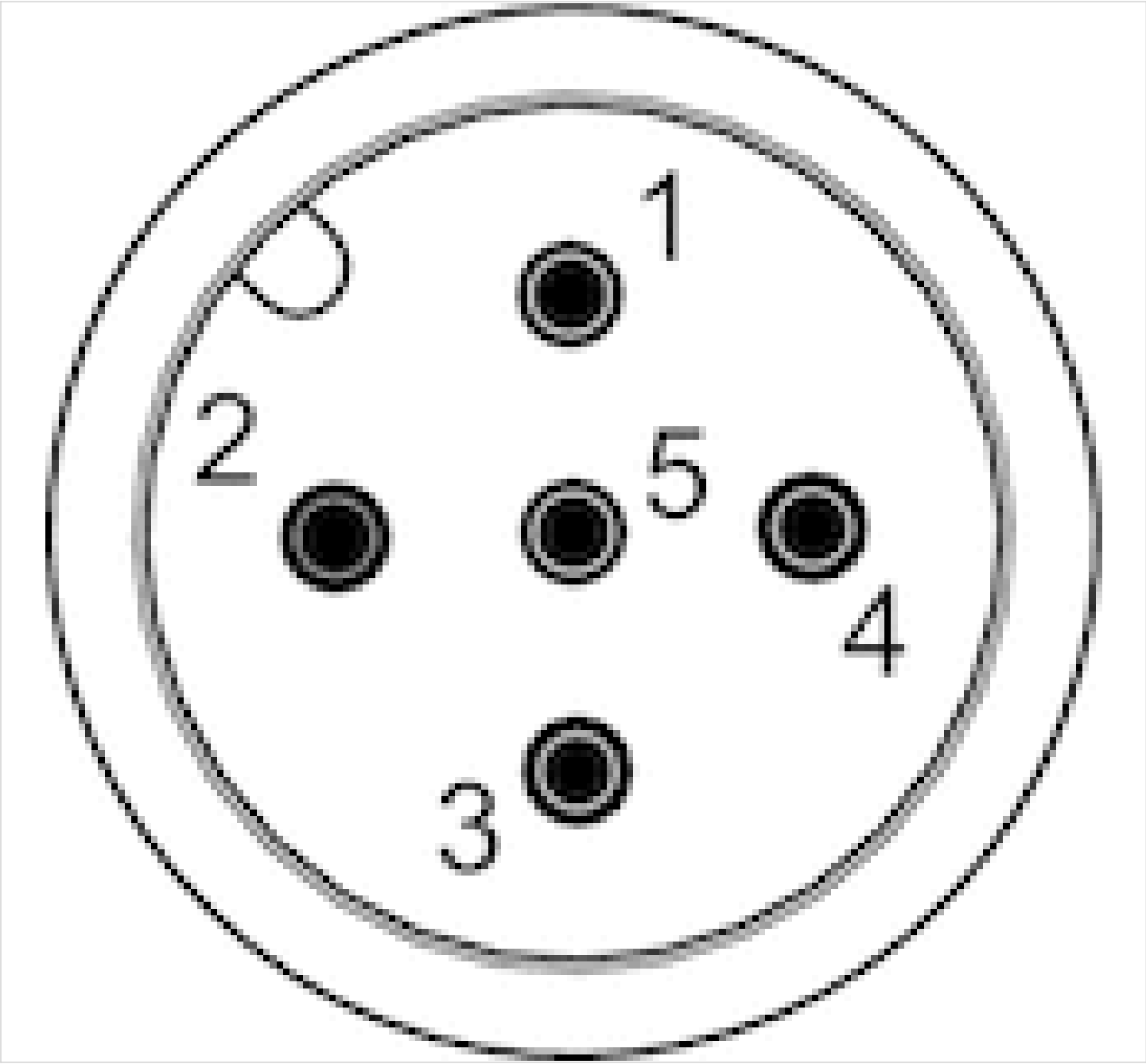
Dimensions in mm



* Flow direction

Pin assignments

Pin assignments, M12x1, 5-pin

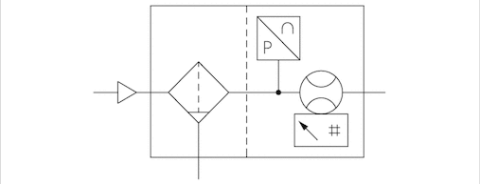


Pin	1	2	3
Allocation	L+	QA (output 4 ... 20 mA)	m = mass

4	5
C/Q1 (IO-Link/switch output)	Analog output 4 ... 20 mA

Flow sensor, Ethernet, Series AF2

- Ethernet, Without mounting
- Flow measuring principle: calorimetric
- Qn min. 0.008 Cv
- Qn max. 2.48 Cv
- Electrical connection Plug, M12x1, 8-pin



Certificates	CE declaration of conformity, RoHS
Working pressure min./max.	0 ... 232 psi
Ambient temperature min./max.	-4 ... 140 °F
Medium temperature min./max.	-4 ... 140 °F
Medium	Compressed air, Argon, Nitrogen, Helium, Carbon dioxide
filter porosity	5 µm
Display	OLED
Flow display unit	l/sec, l/min, m³/min, m³/h, ft³/s, m³/min
Pressure display unit	bar, psi
Temperature display unit	°C, °F
DC operating voltage min.	36 V DC
DC operating voltage max.	57 V DC
Power consumption max.	5 W
Response time	10 ms
Protection class	IP65, IP67 according to IEC 60529
Shock resistance max.	30 g, 11 ms
Vibration resistance	1 g (10 - 2000 Hz) IEC 60068 - 2-6
Reproducibility	± 1.5% of the measured value
Weight	2.76 lbs

Technical data

Part No.	for series	Compressed air connection	Nominal flow Qn	Nominal flow Qn	Nominal flow Qn
			Min., standard	Max., standard	Min., extended
R412027180	AS3	G 1/2	0.008 Cv	1.65 Cv	1.66 Cv

Part No.	Nominal flow Qn
	Max., extended
R412027180	2.48 Cv

Standard measurement range for flow measurement: compressed air 0.5 ... 100 m/s, extended measurement range: compressed air >100 ... 150 m/s, in accordance with ISO 8778, Flow display range: 0 ... 4.89 Cv

Technical information

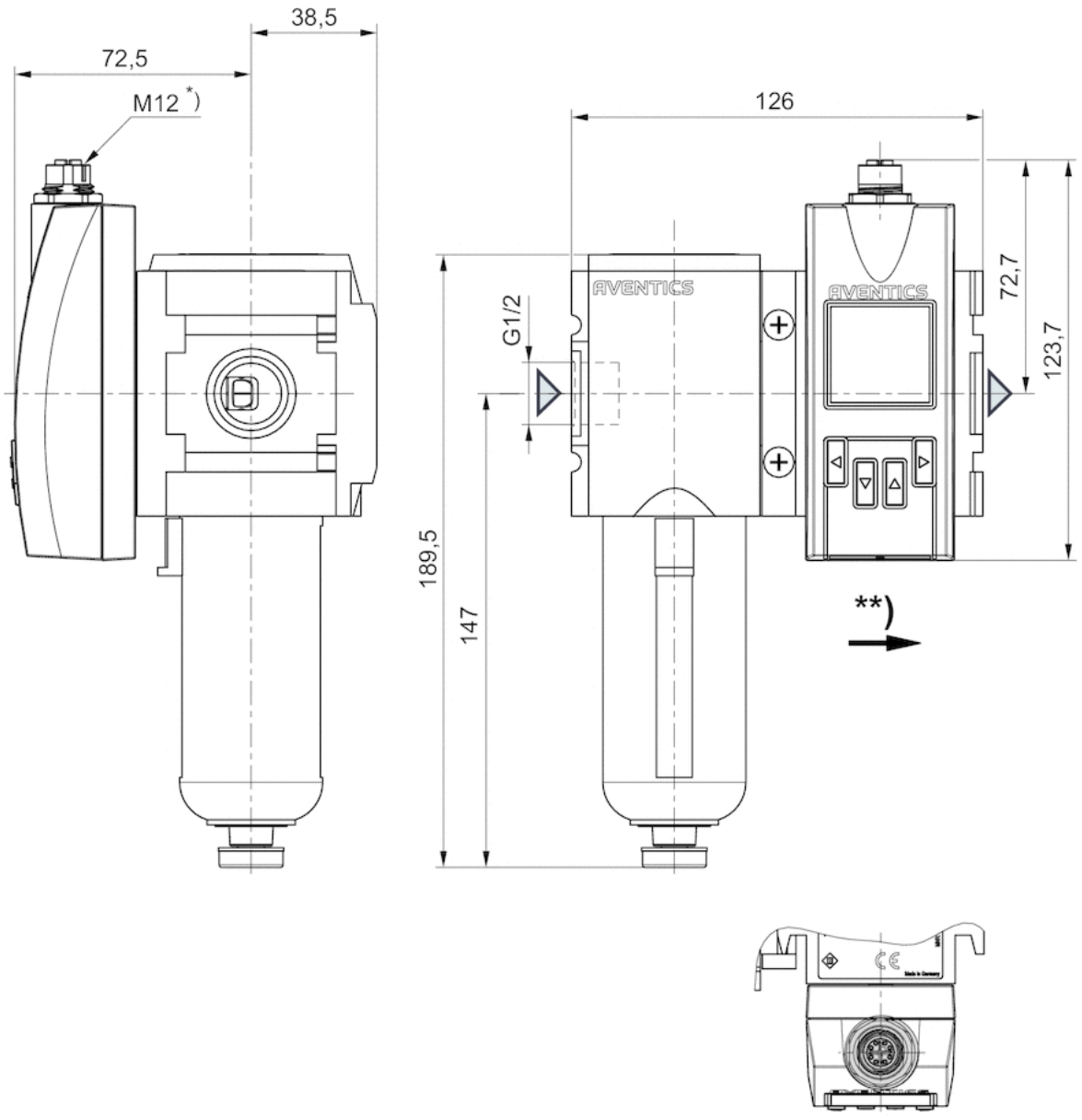
The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .
The protection class is only ensured when the plug is mounted properly. For detailed information, see operating instructions.
The device is designed to be installed in AS series air preparation units or to be fitted as a stand-alone device using a W05 block assembly kit.
Liquid oil or water must be separated via prefiltering. If it is not separated sufficiently, drifting may result.
Precision- Standard measurement range: ±3% of measured value, + 0.3% of final value- Extended measurement range: ±8% of measured value, + 1% of final value
Operating voltage via PoE (in accordance with IEEE 802.3af)

Technical information

Material	
Housing	Polyamide, Polycarbonate
Seals	Fluorocaoutchouc

Dimensions

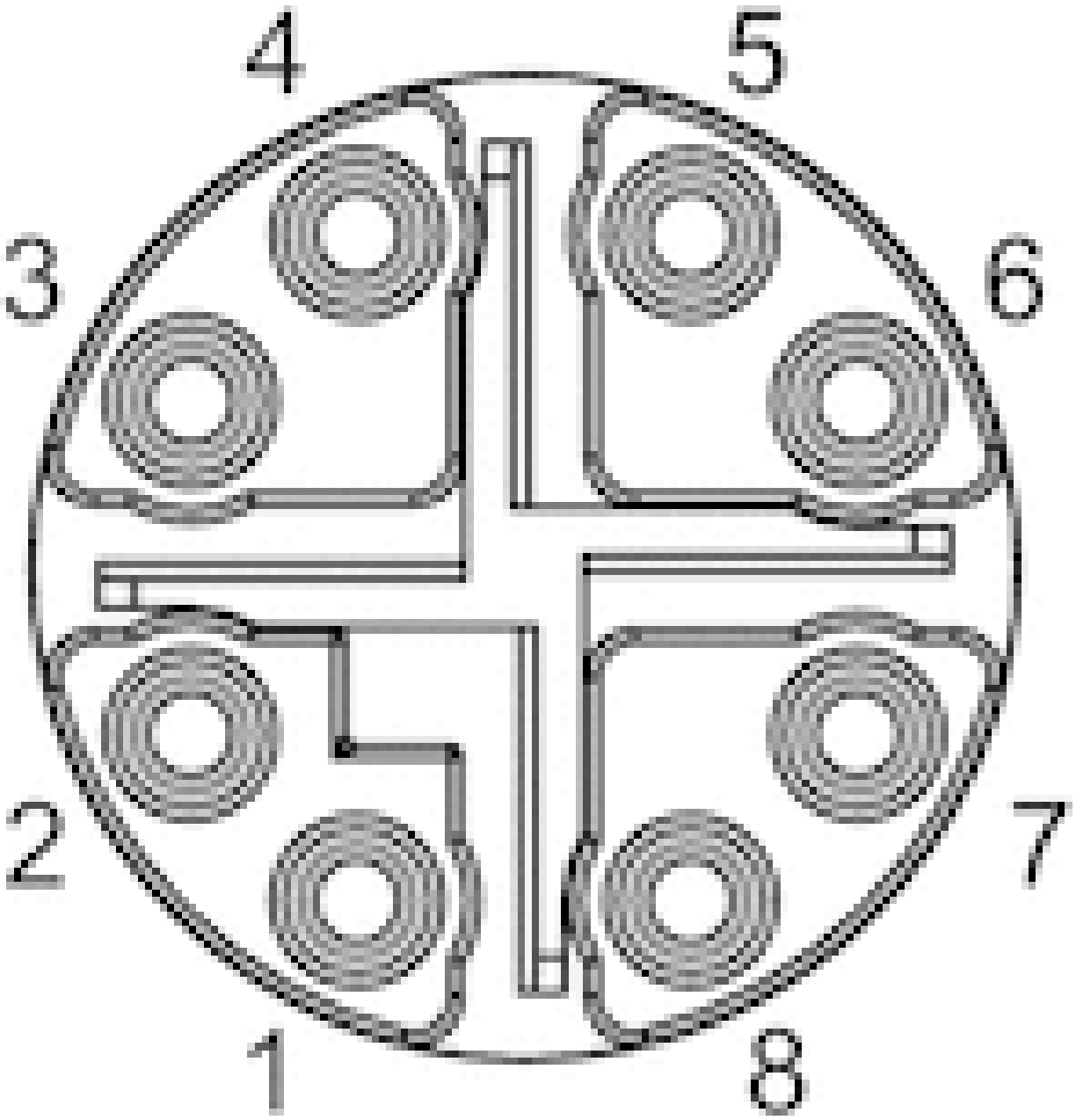
Dimensions in mm



* Internal thread
** Flow direction

Pin assignments

Pin assignments, M12, X-coded

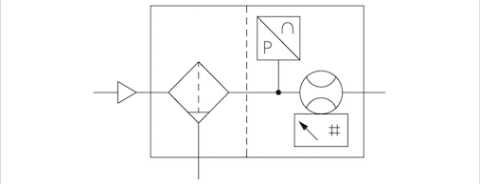


Pin	1	2	3	4	7	8	5
Color	WH / OG	OG	WH / GN	GN	WH / BU	BU	WH / BN
Function	TX(+) + POE	TX(-) + POE	RX(+) - POE	RX(-) - POE	POE+	POE+	POE-

6
BN
POE-

Flow sensor, IO-Link, Series AF2

- 2 analog outputs, 2 switch outputs, 1 frequency output, 1 pulse output, IO-Link, With mounting
- Flow measuring principle: calorimetric
- Qn min. 0.022 Cv
- Qn max. 6.6 Cv
- Electrical connection Plug, M12x1, 5-pin



Certificates	CE declaration of conformity, RoHS
Working pressure min./max.	0 ... 232 psi
Ambient temperature min./max.	-4 ... 140 °F
Medium temperature min./max.	-4 ... 140 °F
Medium	Compressed air, Argon, Nitrogen, Helium, Carbon dioxide
filter porosity	5 µm
Display	OLED
Flow display unit	l/sec, l/min, m³/min, m³/h, ft³/s, m³/min
Pressure display unit	bar, psi
Temperature display unit	°C, °F
DC operating voltage min.	17 V DC
DC operating voltage max.	30 V DC
Max. power consumption *)	175 mA
Response time	10 ms
Protection class	IP65, IP67 according to IEC 60529
Short circuit resistance	short circuit resistant
Shock resistance max.	30 g, 11 ms
Vibration resistance	1 g (10 - 2000 Hz) IEC 60068 - 2-6
Reproducibility	± 1.5% of the measured value
Weight	6.21 lbs
*)	Current consumption without load The delivered product may vary from that in the illustration.

Technical data

Part No.	for series	Compressed air connection	Nominal flow Qn	Nominal flow Qn	Nominal flow Qn
			Min., standard	Max., standard	Min., extended
R412026836	AS5	G 1	0.022 Cv	4.39 Cv	4.4 Cv

Part No.	Nominal flow Qn
	Max., extended
R412026836	6.6 Cv

Standard measurement range for flow measurement: compressed air 0.5 ... 100 m/s, extended measurement range: compressed air >100 ... 150 m/s, in accordance with ISO 8778, Flow display range: 0 ... 12.98 Cv

Technical information

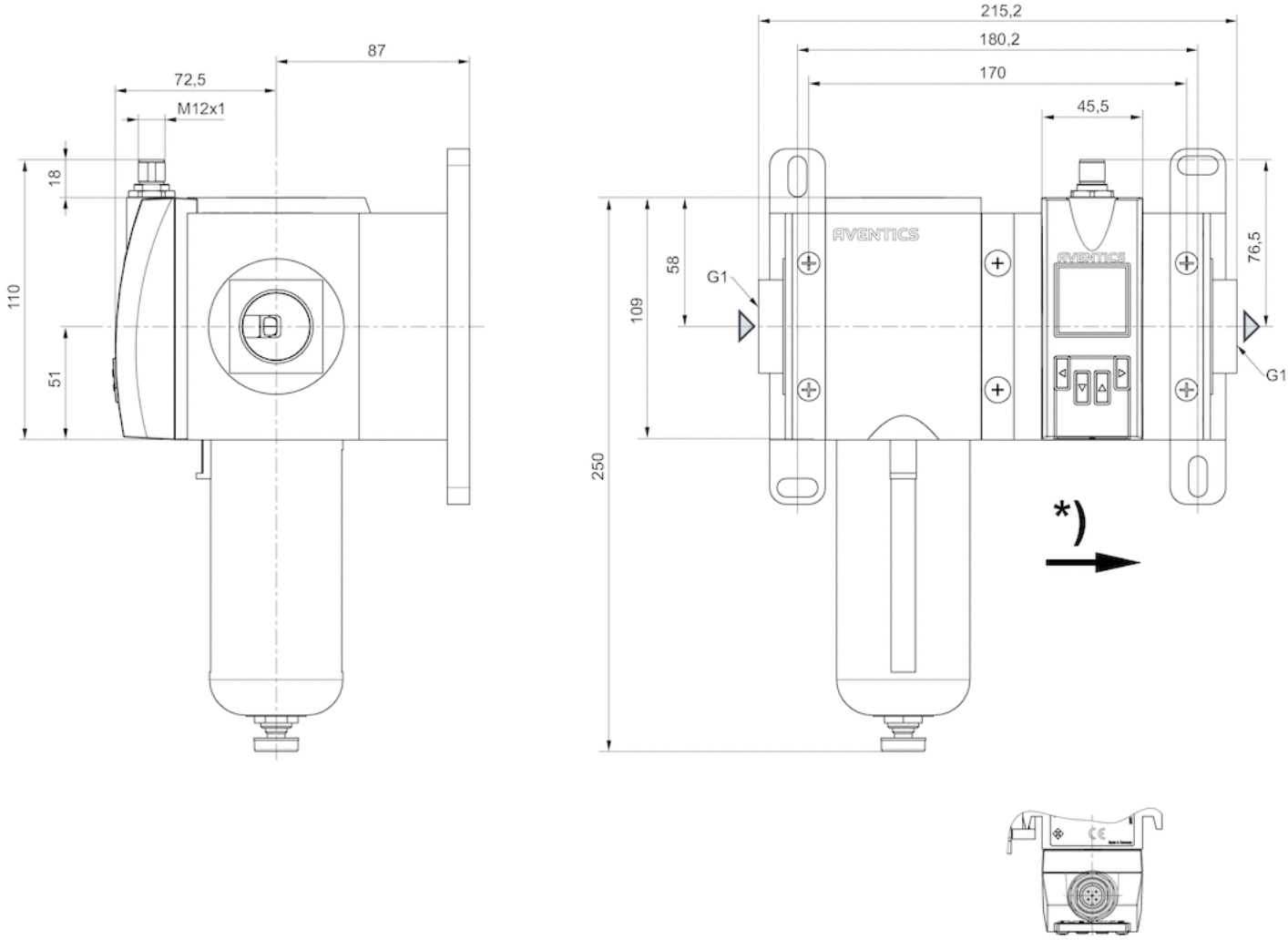
The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .
The protection class is only ensured when the plug is mounted properly. For detailed information, see operating instructions.
The device is designed to be installed in AS series air preparation units or to be fitted as a stand-alone device using a W05 block assembly kit.
Liquid oil or water must be separated via prefiltering. If it is not separated sufficiently, drifting may result.
Precision- Standard measurement range: ±3% of measured value, + 0.3% of final value- Extended measurement range: ±8% of measured value, + 1% of final value
The IO-Link device description (IODD) for the AF2 flow rate sensor is available for download in the Media Center.

Technical information

Material	
Housing	Polyamide, Polycarbonate
Seals	Fluorocaoutchouc

Dimensions

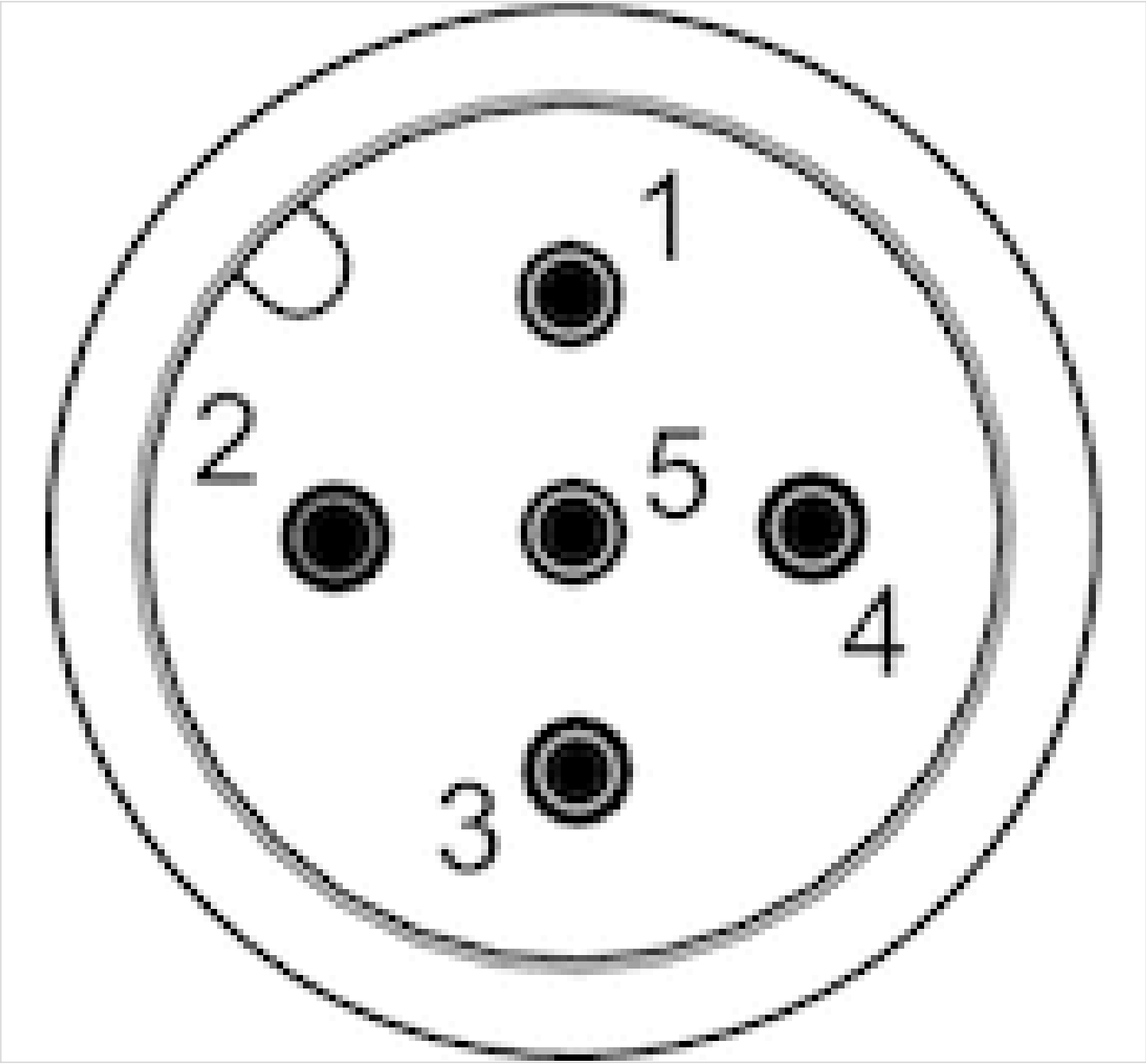
Dimensions in mm



* Flow direction

Pin assignments

Pin assignments, M12x1, 5-pin

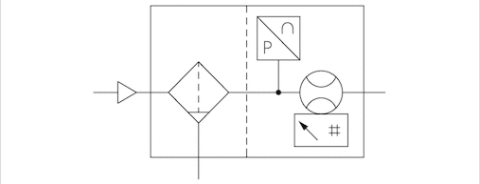


Pin	1	2	3
Allocation	L+	QA (output 4 ... 20 mA)	m = mass

4	5
C/Q1 (IO-Link/switch output)	Analog output 4 ... 20 mA

Flow sensor, Ethernet, Series AF2

- Ethernet, With mounting
- Flow measuring principle: calorimetric
- Qn min. 0.022 Cv
- Qn max. 6.6 Cv
- Electrical connection Plug, M12x1, 8-pin



Certificates	CE declaration of conformity, RoHS
Working pressure min./max.	0 ... 232 psi
Ambient temperature min./max.	-4 ... 140 °F
Medium temperature min./max.	-4 ... 140 °F
Medium	Compressed air, Argon, Nitrogen, Helium, Carbon dioxide
filter porosity	5 µm
Display	OLED
Flow display unit	l/sec, l/min, m³/min, m³/h, ft³/s, m³/min
Pressure display unit	bar, psi
Temperature display unit	°C, °F
DC operating voltage min.	36 V DC
DC operating voltage max.	57 V DC
Power consumption max.	5 W
Response time	10 ms
Protection class	IP65, IP67 according to IEC 60529
Shock resistance max.	30 g, 11 ms
Vibration resistance	1 g (10 - 2000 Hz) IEC 60068 - 2-6
Reproducibility	± 1.5% of the measured value
Weight	6.21 lbs
*)	The delivered product may vary from that in the illustration.

Technical data

Part No.	for series	Compressed air connection	Nominal flow Qn	Nominal flow Qn	Nominal flow Qn
			Min., standard	Max., standard	Min., extended
R412026839	AS5	G 1	0.022 Cv	4.39 Cv	4.4 Cv

Part No.	Nominal flow Qn
	Max., extended
R412026839	6.6 Cv

Standard measurement range for flow measurement: compressed air 0.5 ... 100 m/s, extended measurement range: compressed air >100 ... 150 m/s, in accordance with ISO 8778, Flow display range: 0 ... 12.98 Cv

Technical information

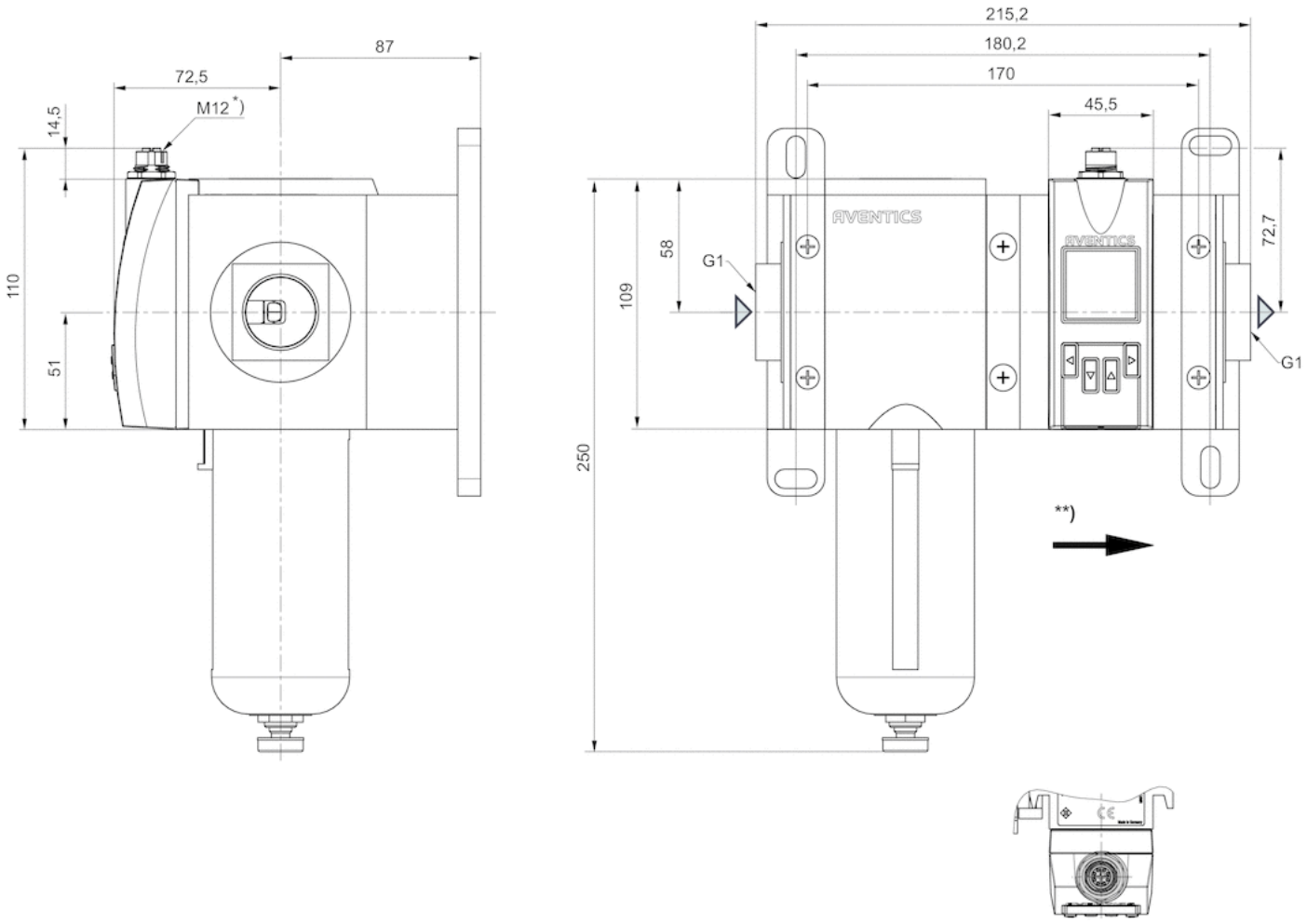
The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .
The protection class is only ensured when the plug is mounted properly. For detailed information, see operating instructions.
The device is designed to be installed in AS series air preparation units or to be fitted as a stand-alone device using a W05 block assembly kit.
Liquid oil or water must be separated via prefiltering. If it is not separated sufficiently, drifting may result.
Precision- Standard measurement range: ±3% of measured value, + 0.3% of final value- Extended measurement range: ±8% of measured value, + 1% of final value
Operating voltage via PoE (in accordance with IEEE 802.3af)

Technical information

Material	
Housing	Polyamide, Polycarbonate
Seals	Fluorocaoutchouc

Dimensions

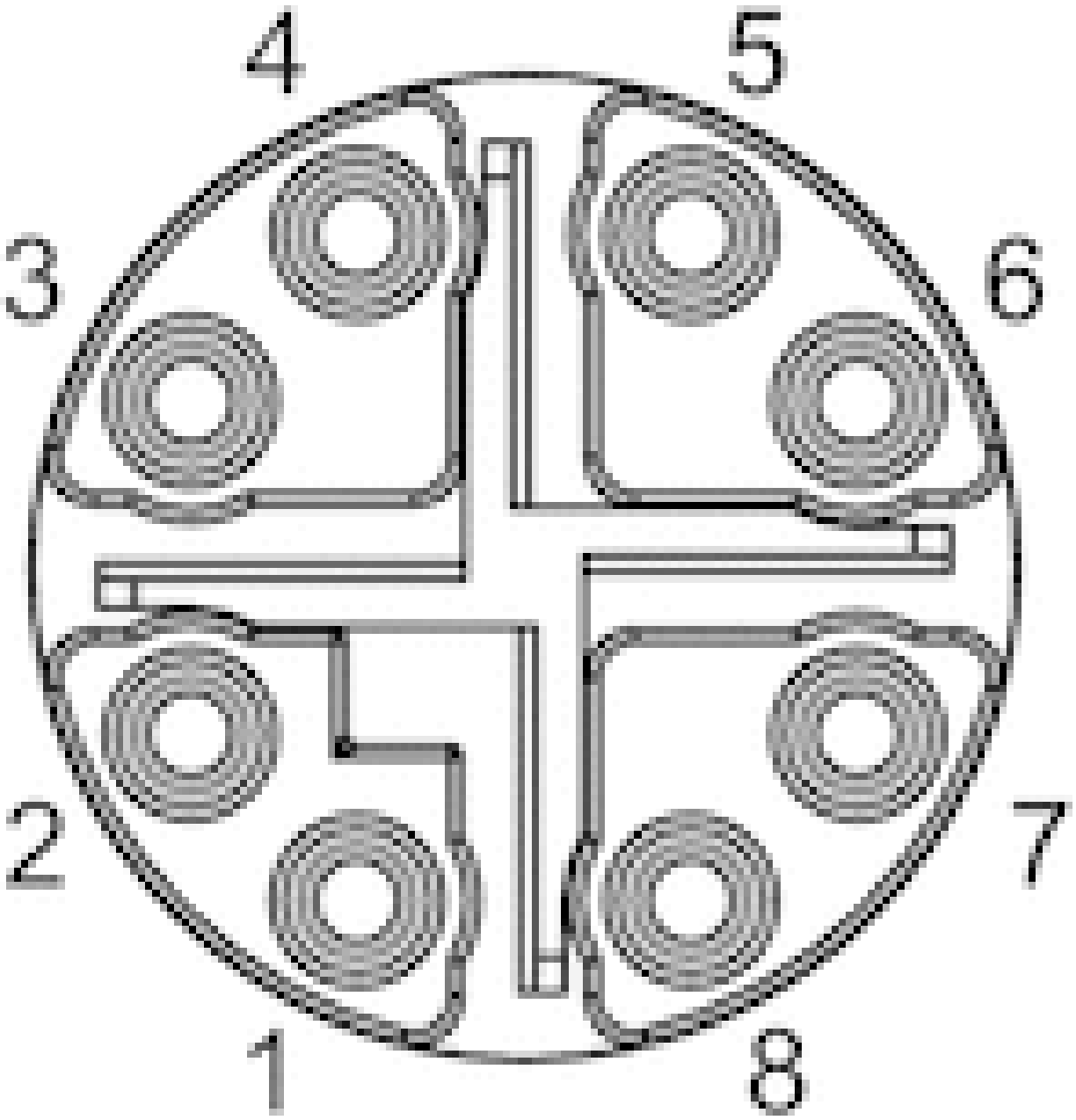
Dimensions in mm



* Internal thread
** Flow direction

Pin assignments

Pin assignments, M12, X-coded

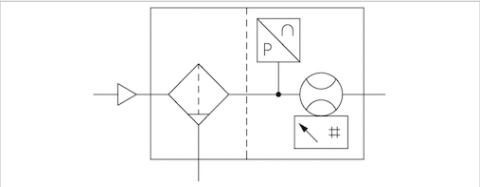


Pin	1	2	3	4	7	8	5
Color	WH / OG	OG	WH / GN	GN	WH / BU	BU	WH / BN
Function	TX(+) + POE	TX(-) + POE	RX(+) - POE	RX(-) - POE	POE+	POE+	POE-

6
BN
POE-

Flow sensor, IO-Link, Series AF2

- 2 analog outputs, 2 switch outputs, 1 frequency output, 1 pulse output, IO-Link, Without mounting
- Flow measuring principle: calorimetric
- Qn min. 0.022 Cv
- Qn max. 6.6 Cv
- Electrical connection Plug, M12x1, 5-pin



Certificates	CE declaration of conformity, RoHS
Working pressure min./max.	0 ... 232 psi
Ambient temperature min./max.	-4 ... 140 °F
Medium temperature min./max.	-4 ... 140 °F
Medium	Compressed air, Argon, Nitrogen, Helium, Carbon dioxide
filter porosity	5 µm
Display	OLED
Flow display unit	l/sec, l/min, m³/min, m³/h, ft³/s, m³/min
Pressure display unit	bar, psi
Temperature display unit	°C, °F
DC operating voltage min.	17 V DC
DC operating voltage max.	30 V DC
Max. power consumption *)	175 mA
Response time	10 ms
Protection class	IP65, IP67 according to IEC 60529
Short circuit resistance	short circuit resistant
Shock resistance max.	30 g, 11 ms
Vibration resistance	1 g (10 - 2000 Hz) IEC 60068 - 2-6
Reproducibility	± 1.5% of the measured value
Weight	5.07 lbs
*)	Current consumption without load The delivered product may vary from that in the illustration.

Technical data

Part No.	for series	Compressed air connection	Nominal flow Qn	Nominal flow Qn	Nominal flow Qn
			Min., standard	Max., standard	Min., extended
R412027178	AS5	G 1	0.022 Cv	4.39 Cv	4.4 Cv

Part No.	Nominal flow Qn
	Max., extended
R412027178	6.6 Cv

Standard measurement range for flow measurement: compressed air 0.5 ... 100 m/s, extended measurement range: compressed air >100 ... 150 m/s, in accordance with ISO 8778, Flow display range: 0 ... 12.98 Cv

Technical information

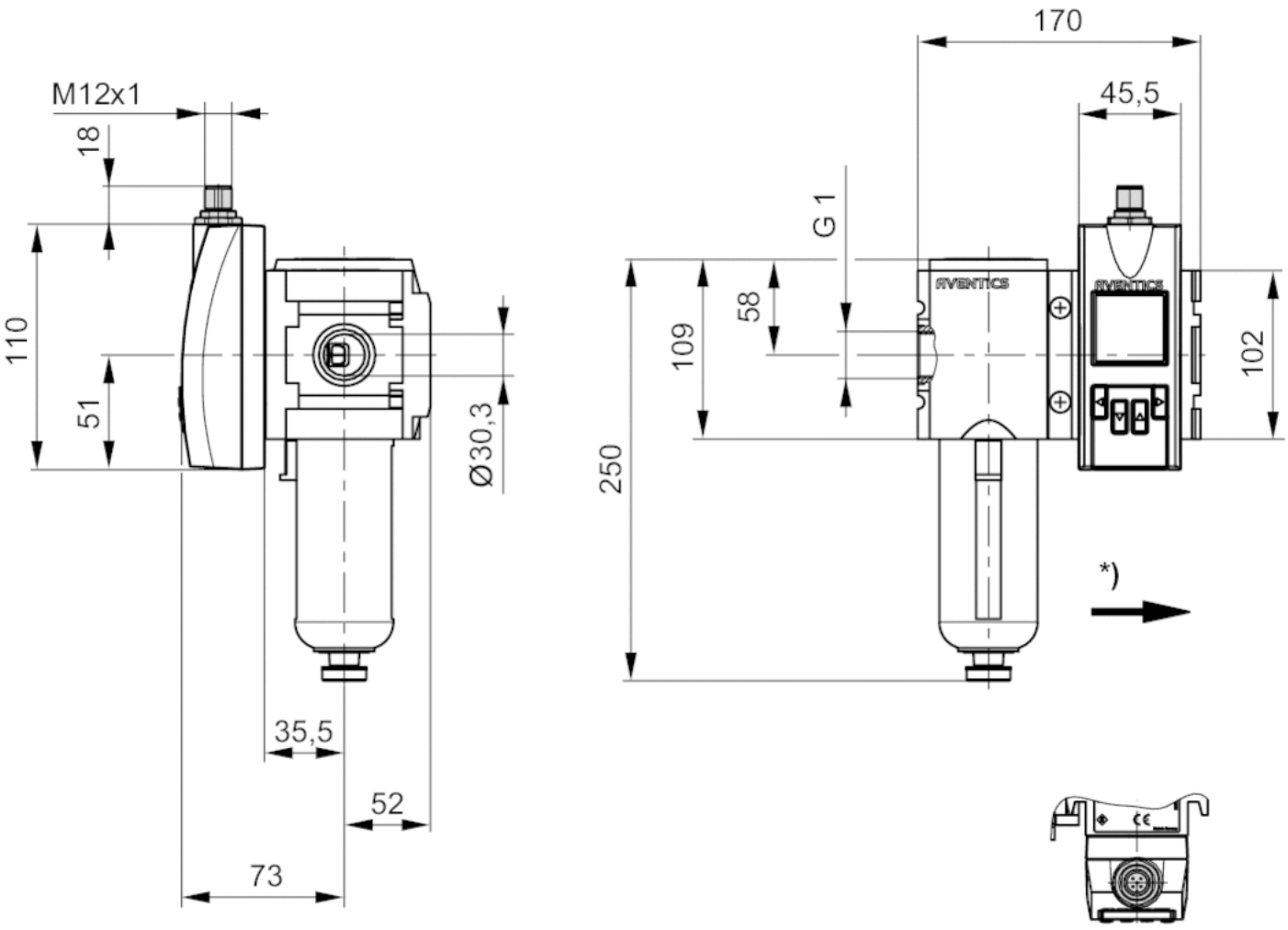
The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .
The protection class is only ensured when the plug is mounted properly. For detailed information, see operating instructions.
The device is designed to be installed in AS series air preparation units or to be fitted as a stand-alone device using a W05 block assembly kit.
Liquid oil or water must be separated via prefiltering. If it is not separated sufficiently, drifting may result.
Precision- Standard measurement range: ±3% of measured value, + 0.3% of final value- Extended measurement range: ±8% of measured value, + 1% of final value
The IO-Link device description (IODD) for the AF2 flow rate sensor is available for download in the Media Center.

Technical information

Material	
Housing	Polyamide, Polycarbonate
Seals	Fluorocaoutchouc

Dimensions

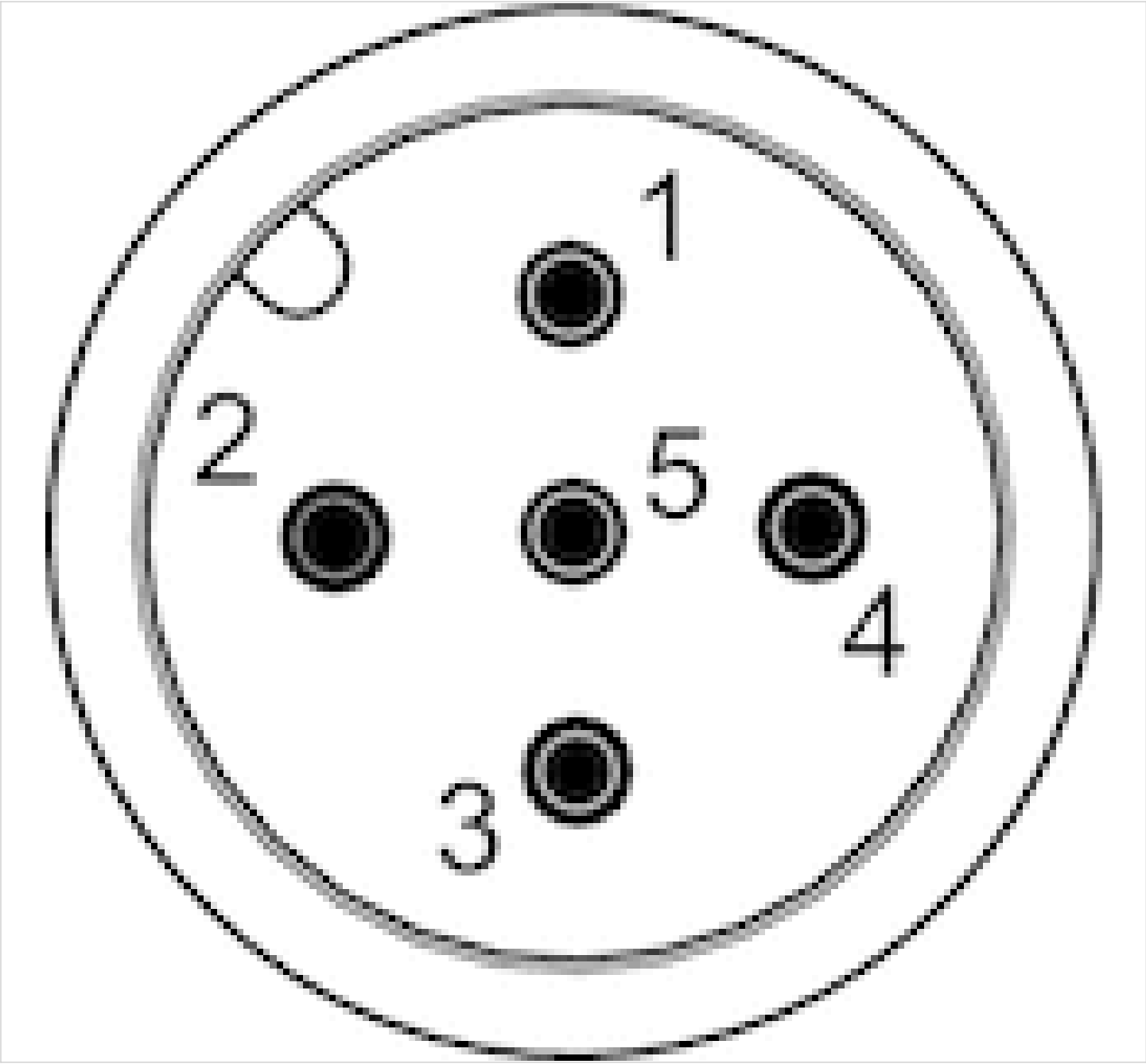
Dimensions in mm



* Flow direction

Pin assignments

Pin assignments, M12x1, 5-pin

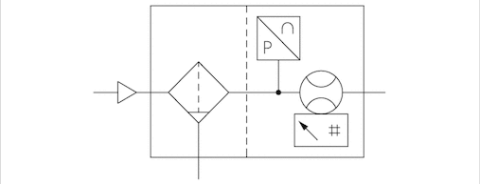


Pin	1	2	3
Allocation	L+	QA (output 4 ... 20 mA)	m = mass

4	5
C/Q1 (IO-Link/switch output)	Analog output 4 ... 20 mA

Flow sensor, Ethernet, Series AF2

- Ethernet, Without mounting
- Flow measuring principle: calorimetric
- Qn min. 0.022 Cv
- Qn max. 6.6 Cv
- Electrical connection Plug, M12x1, 8-pin



Certificates	CE declaration of conformity, RoHS
Working pressure min./max.	0 ... 232 psi
Ambient temperature min./max.	-4 ... 140 °F
Medium temperature min./max.	-4 ... 140 °F
Medium	Compressed air, Argon, Nitrogen, Helium, Carbon dioxide
filter porosity	5 µm
Display	OLED
Flow display unit	l/sec, l/min, m³/min, m³/h, ft³/s, m³/min
Pressure display unit	bar, psi
Temperature display unit	°C, °F
DC operating voltage min.	36 V DC
DC operating voltage max.	57 V DC
Power consumption max.	5 W
Response time	10 ms
Protection class	IP65, IP67 according to IEC 60529
Shock resistance max.	30 g, 11 ms
Vibration resistance	1 g (10 - 2000 Hz) IEC 60068 - 2-6
Reproducibility	± 1.5% of the measured value
Weight	5.07 lbs
*)	The delivered product may vary from that in the illustration.

Technical data

Part No.	for series	Compressed air connection	Nominal flow Qn	Nominal flow Qn	Nominal flow Qn
			Min., standard	Max., standard	Min., extended
R412027181	AS5	G 1	0.022 Cv	4.39 Cv	4.4 Cv

Part No.	Nominal flow Qn
	Max., extended
R412027181	6.6 Cv

Standard measurement range for flow measurement: compressed air 0.5 ... 100 m/s, extended measurement range: compressed air >100 ... 150 m/s, in accordance with ISO 8778, Flow display range: 0 ... 12.98 Cv

Technical information

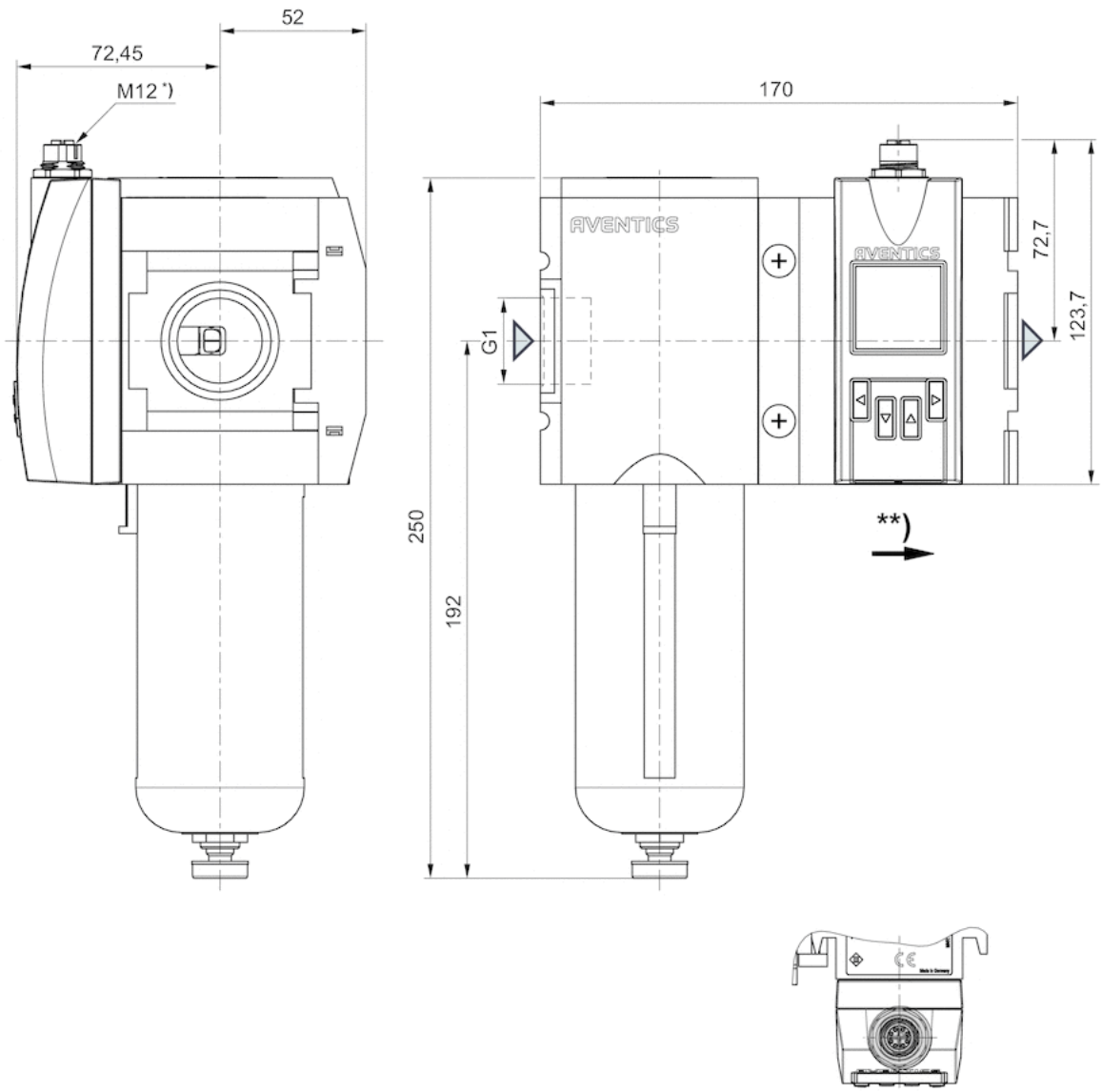
The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .
The protection class is only ensured when the plug is mounted properly. For detailed information, see operating instructions.
The device is designed to be installed in AS series air preparation units or to be fitted as a stand-alone device using a W05 block assembly kit.
Liquid oil or water must be separated via prefiltering. If it is not separated sufficiently, drifting may result.
Precision- Standard measurement range: ±3% of measured value, + 0.3% of final value- Extended measurement range: ±8% of measured value, + 1% of final value
Operating voltage via PoE (in accordance with IEEE 802.3af)

Technical information

Material	
Housing	Polyamide, Polycarbonate
Seals	Fluorocaoutchouc

Dimensions

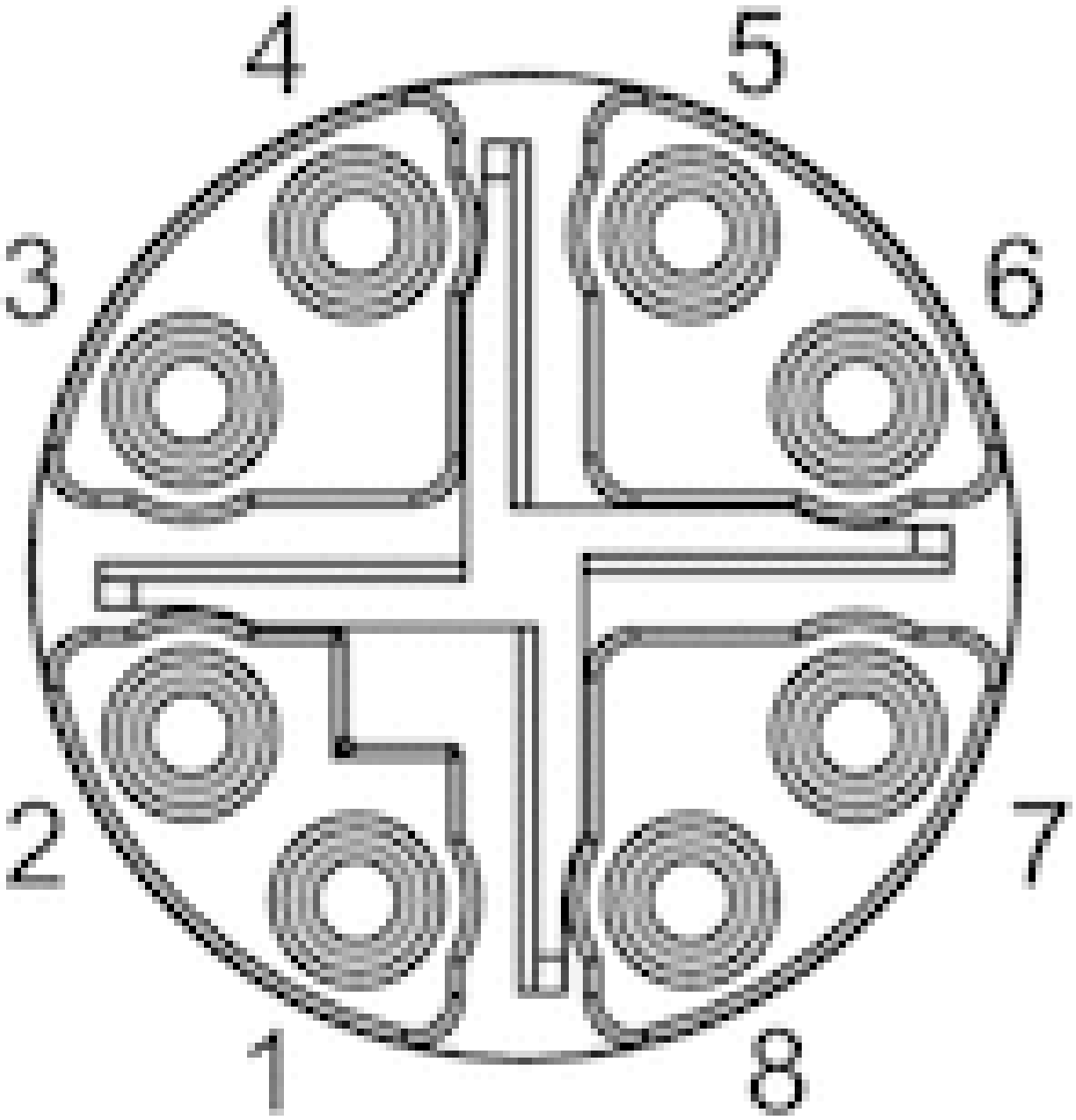
Dimensions in mm



* Internal thread
** Flow direction

Pin assignments

Pin assignments, M12, X-coded

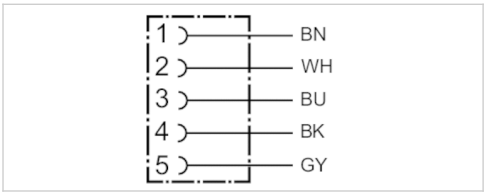


Pin	1	2	3	4	7	8	5
Color	WH / OG	OG	WH / GN	GN	WH / BU	BU	WH / BN
Function	TX(+) + POE	TX(-) + POE	RX(+) - POE	RX(-) - POE	POE+	POE+	POE-

6
BN
POE-

Round plug connector, Series CON-RD

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



Ambient temperature min./max.	-13 ... 176 °F
Operational voltage	48 V AC/DC
Protection class	IP67
Wire cross-section	0 in²
Weight	See table below

Technical data

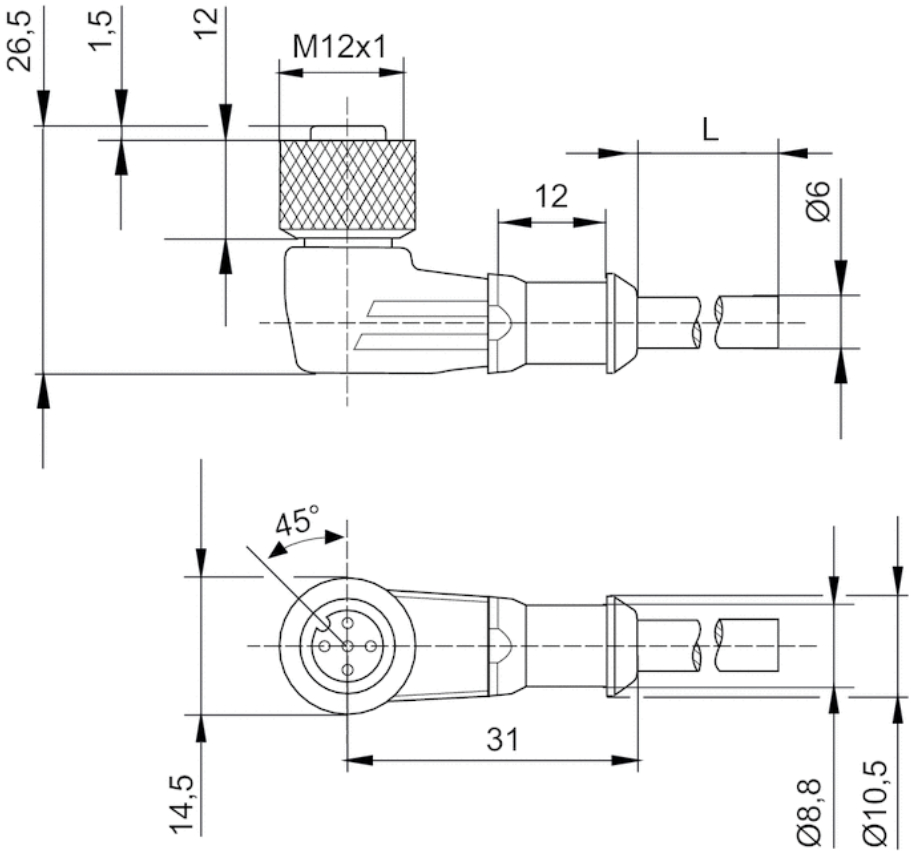
Part No.	Max. current	Number of wires	Cable-Ø	Cable length	Weight
R419800109	4 A	5	0.24 inch	8.2 ft.	0.337 lbs
R419800110	4 A	5	0.24 inch	16.4 ft.	0.628 lbs
R419800546	4 A	5	0.24 inch	32.81 ft.	1.19 lbs

Technical information

Material	
Housing	Thermoplastic elastomer
Cable sheath	Polyurethane

Dimensions

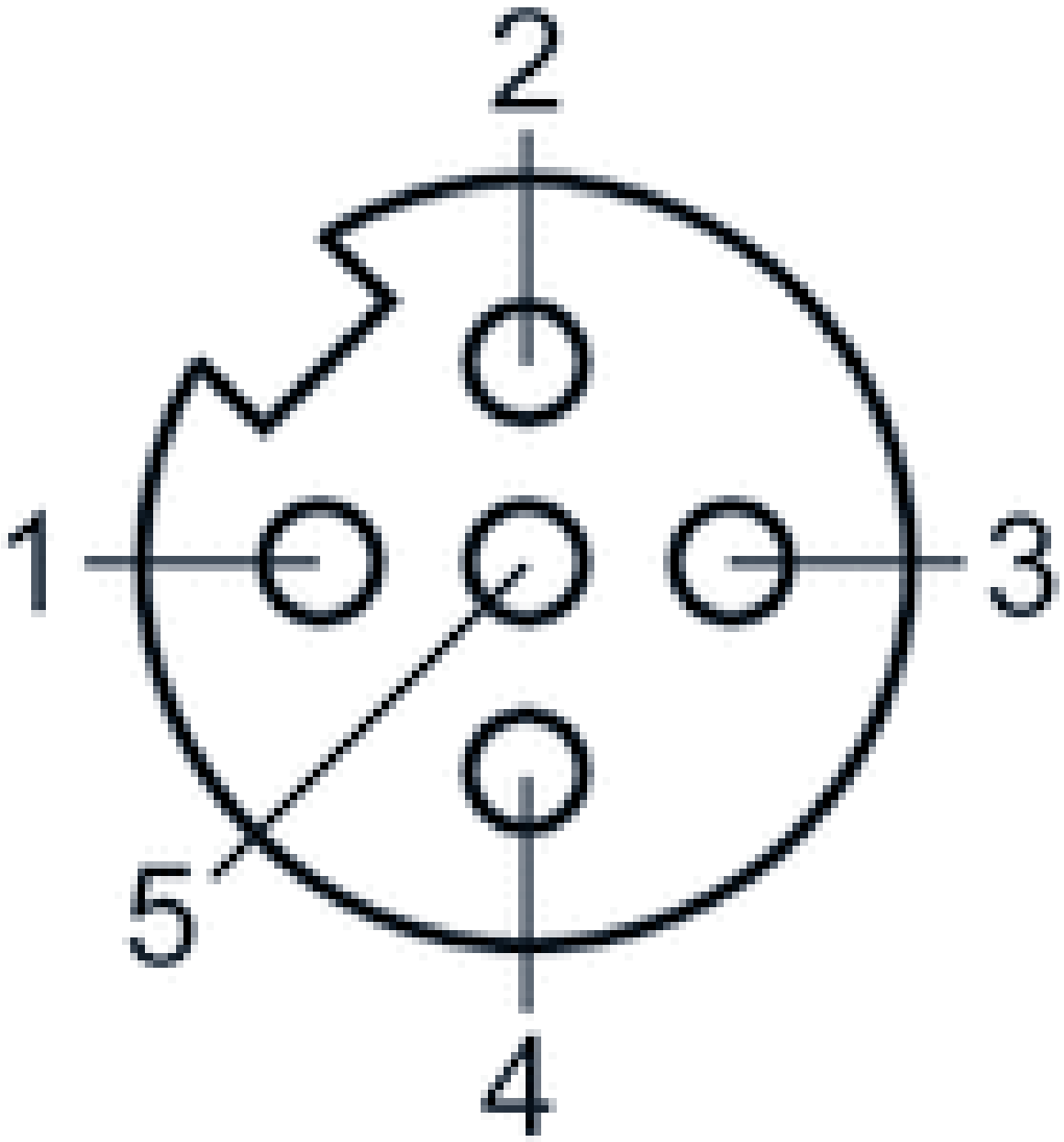
Dimensions



L = length

Pin assignments

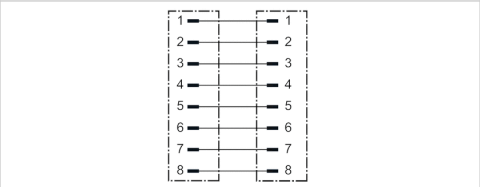
Pin assignment, socket



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

Round plug connectors with cable, Series CON-RD

- Plug M12x1 8-pin X-coded angled 90°
- Plug RJ45 8-pin X-coded straight
- shielded



Ambient temperature min./max.	-13 ... 185 °F
Protection class	IP66K
Wire cross-section	0 in²

Technical data

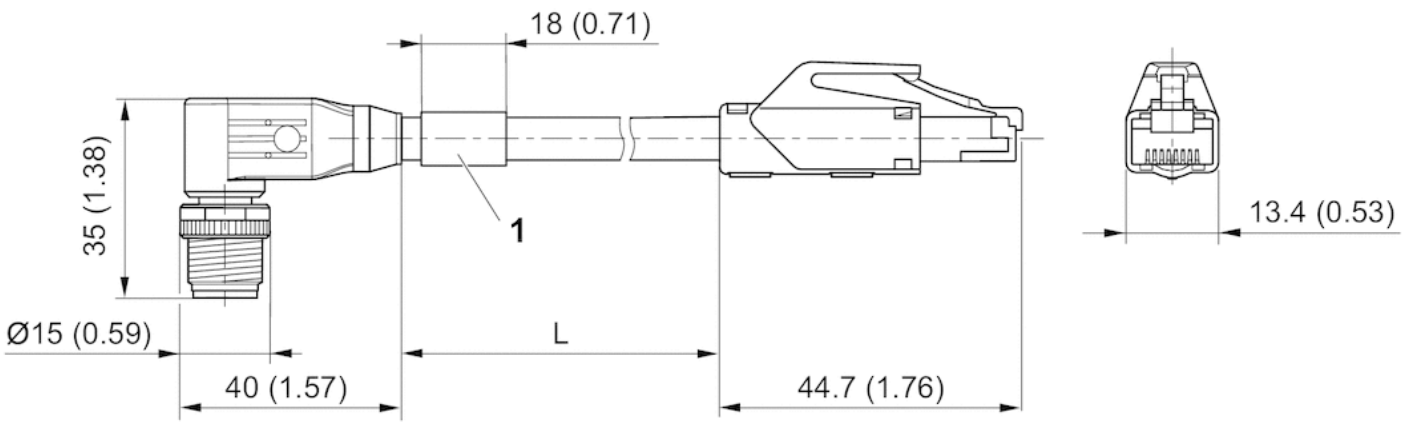
Part No.	Max. current	Cable length
R412027647	0.5 A	16.4 ft.

Technical information

Material	
Cable sheath	Polyurethane

Dimensions

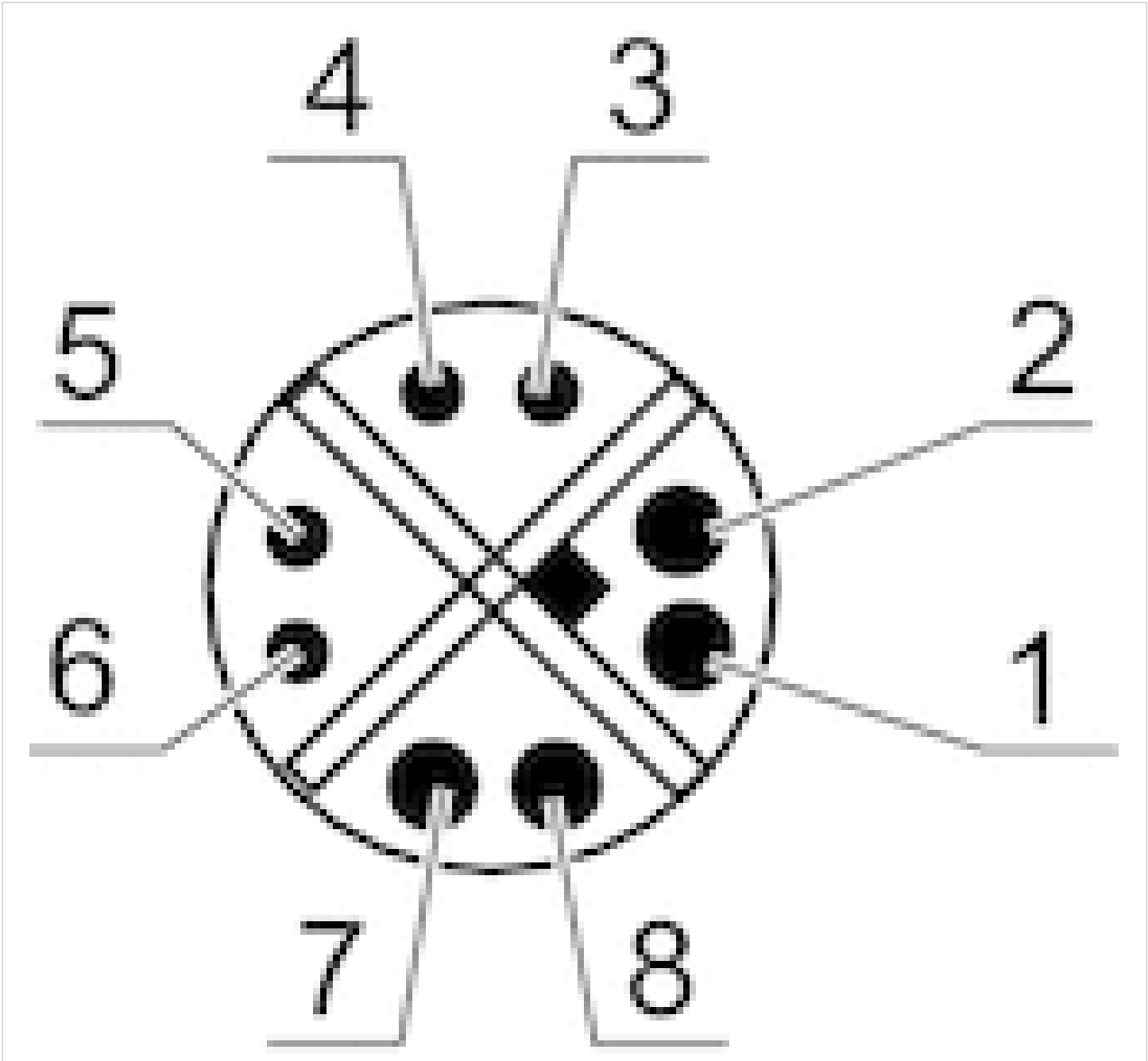
Dimensions



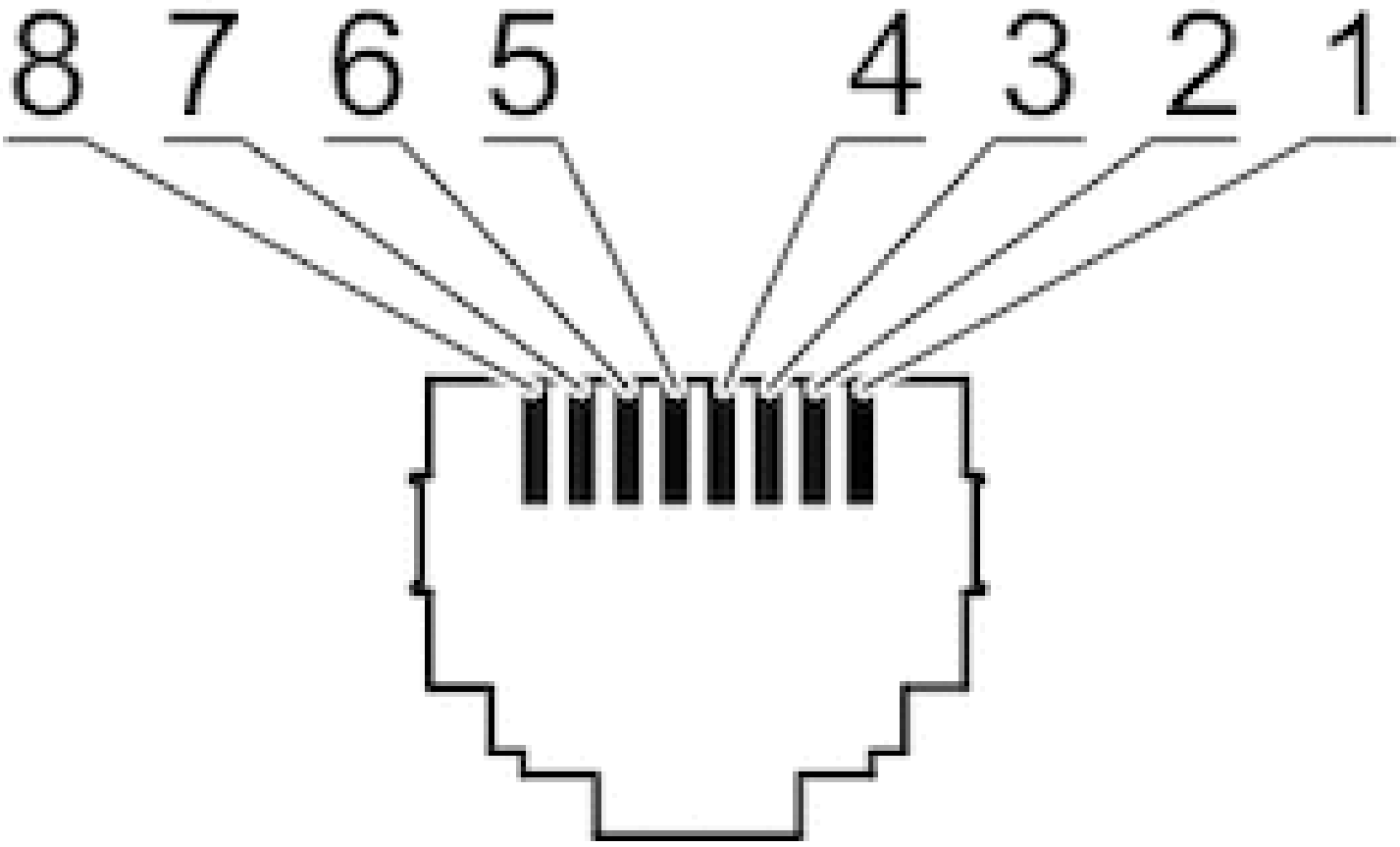
1) Name plate

Pin assignments

Plug pin assignment



Plug pin assignment



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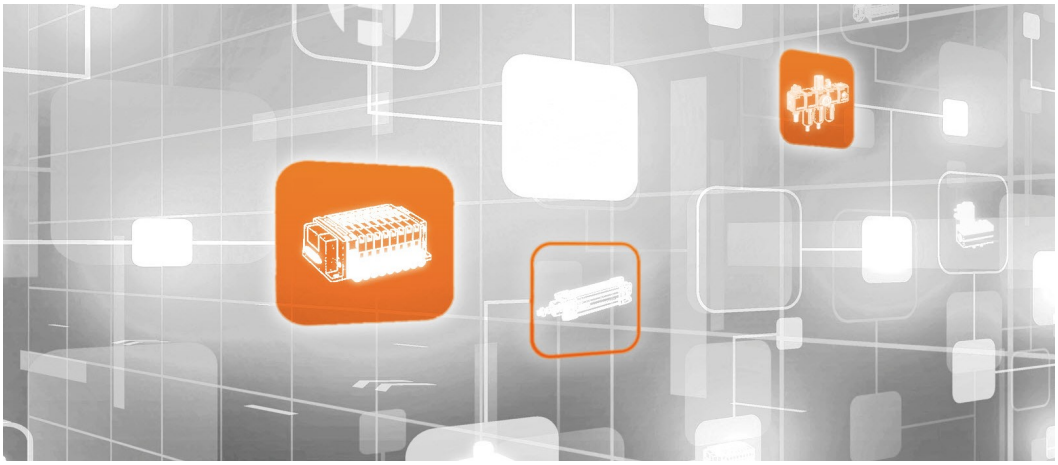

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