

AF2



AVENTICS™

AVENTICS Series AF2 Sensors



Series AF2

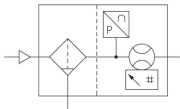
The AVENTICS Series AF2 are flow sensors that monitor air consumption in pneumatic systems, enabling rapid intervention in the event of leakage. The Series AF2 helps to optimize energy consumption, prevent machine downtime and cut costs.

- IIoT-enabled flow sensor
- Suitable for standard applications
- Easy to assemble and operate
- Small size for optimal use of installation space
- Coloured and rotatable OLED display
- Measures flow, pressure and temperature
- Easy integration into maintenance units or as a stand-alone version
- Integrated data logger
- Communication options: I/O-link and Ethernet



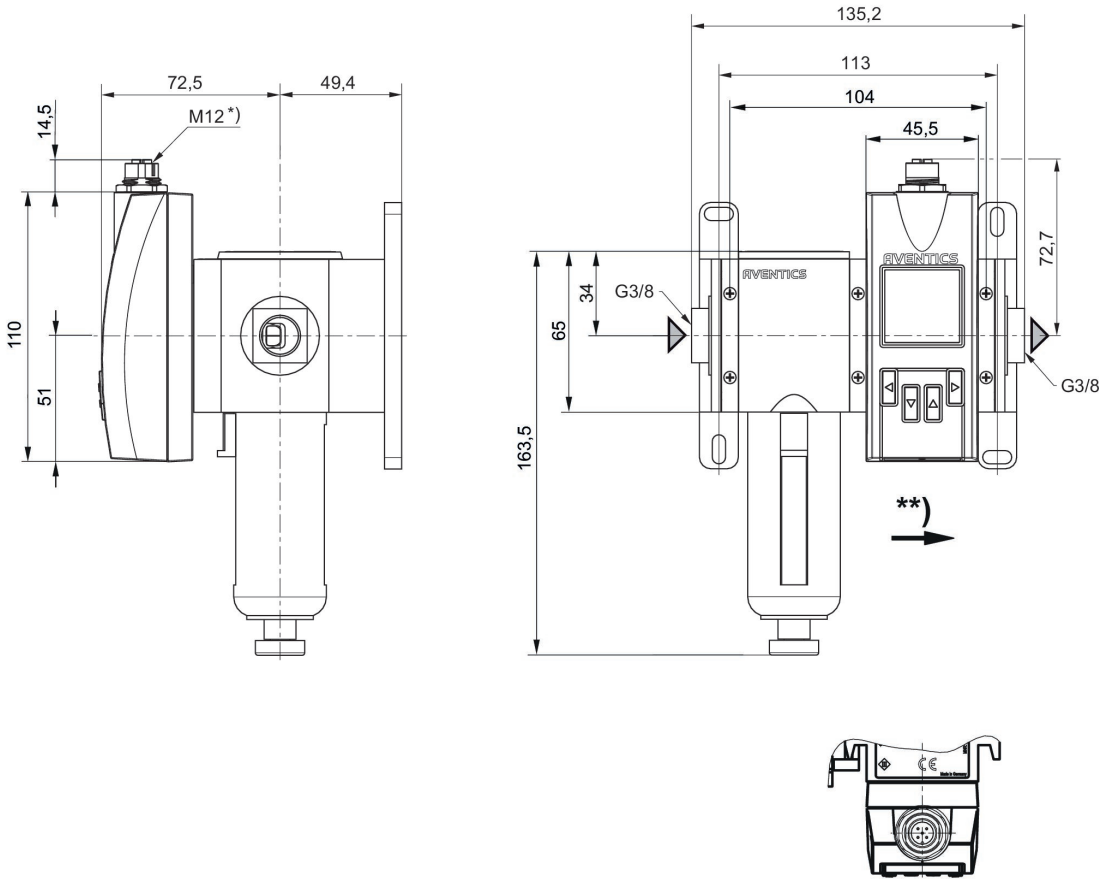
AF2 series flow rate sensor, Ethernet

Plug
M12x1
AS2
CE declaration of conformity
RoHS
UL (Underwriters Laboratories)
8-pin



Frame size	Protocol	Output signal	Operational voltage	Port	Flow [l/min]	Part No.
AS2	Ethernet, TCP/IP, OPC UA, MQTT	OPC UA, MQTT, Integrated web server	24 V DC	G 3/8	1060	R412026837

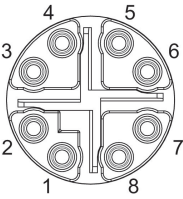
Dimensions in mm



* Internal thread
** Flow direction

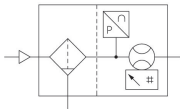
R412026837

Pin assignments



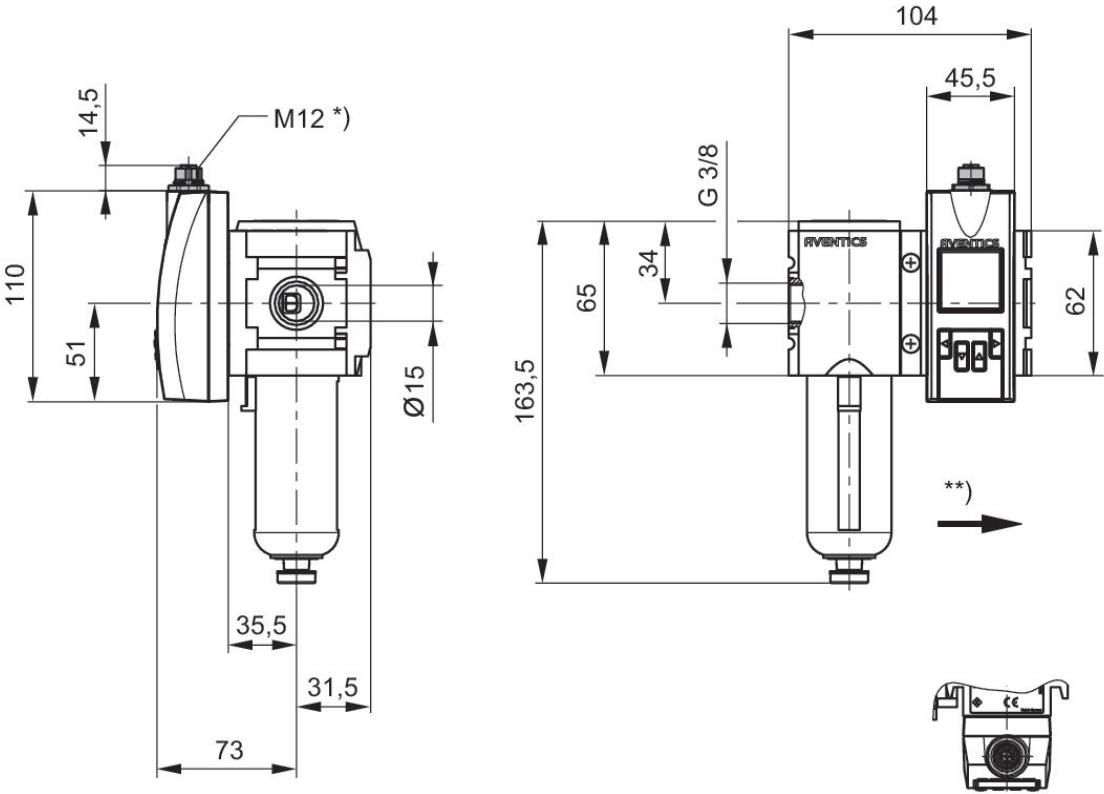
AF2 series flow rate sensor, Ethernet

Plug
M12x1
AS2
CE declaration of conformity
RoHS
UL (Underwriters Laboratories)
8-pin



Frame size	Protocol	Output signal	Operational voltage	Port	Flow [l/min]	Part No.
AS2	Ethernet, TCP/IP, OPC UA, MQTT	OPC UA, MQTT, Integrated web server	24 V DC	G 3/8	1060	R412027179

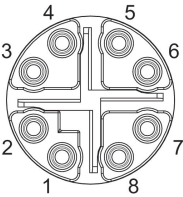
Dimensions in mm



* Internal thread
** Flow direction

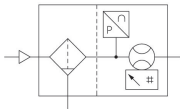
R412027179

Pin assignments



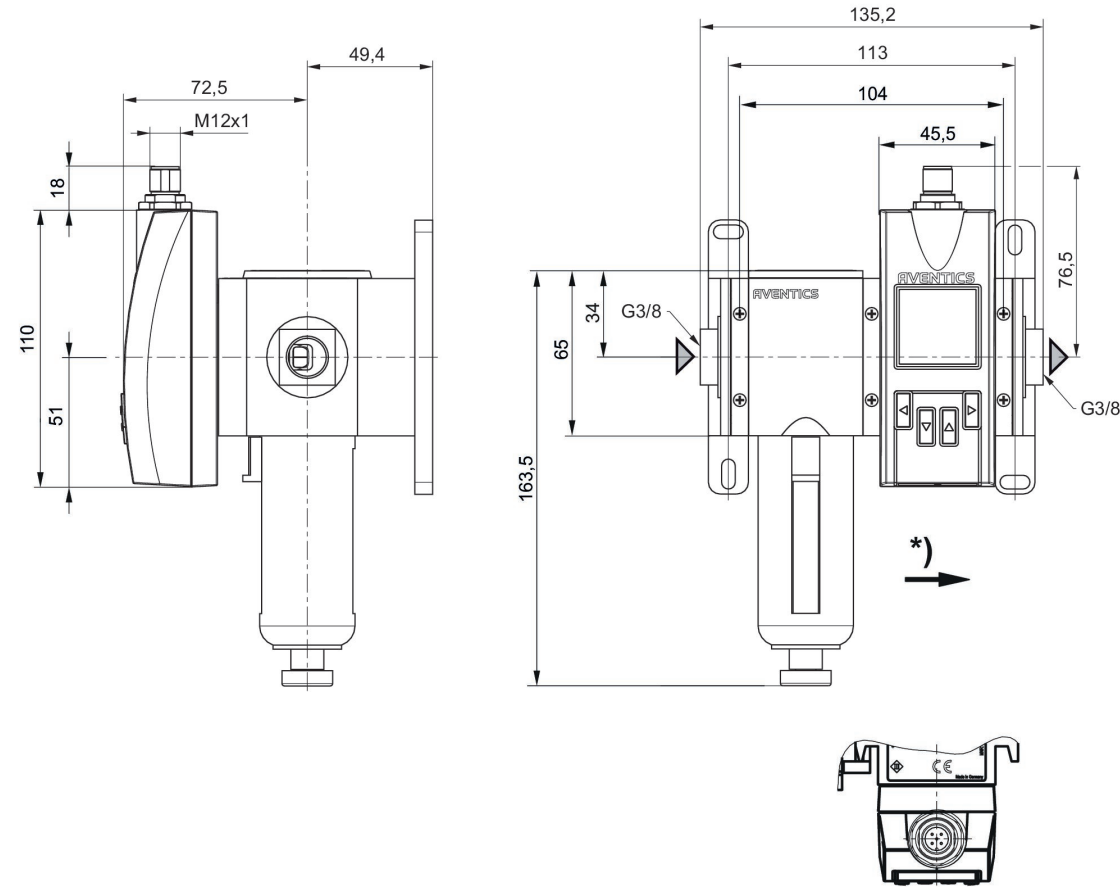
Series AF2 flow rate sensor, IO-Link

Plug
M12x1
AS2
CE declaration of conformity
RoHS
UL (Underwriters Laboratories)
5-pin



Frame size	Protocol	Output signal	Operational voltage	Port	Flow [l/min]	Part No.
AS2	IO-Link, Analog	PNP, NPN, push-pull, 1x IO-Link	17-30 V DC	G 3/8	1060	R412026834

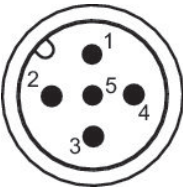
Dimensions in mm



* Flow direction

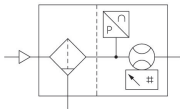
R412026834

Pin assignments



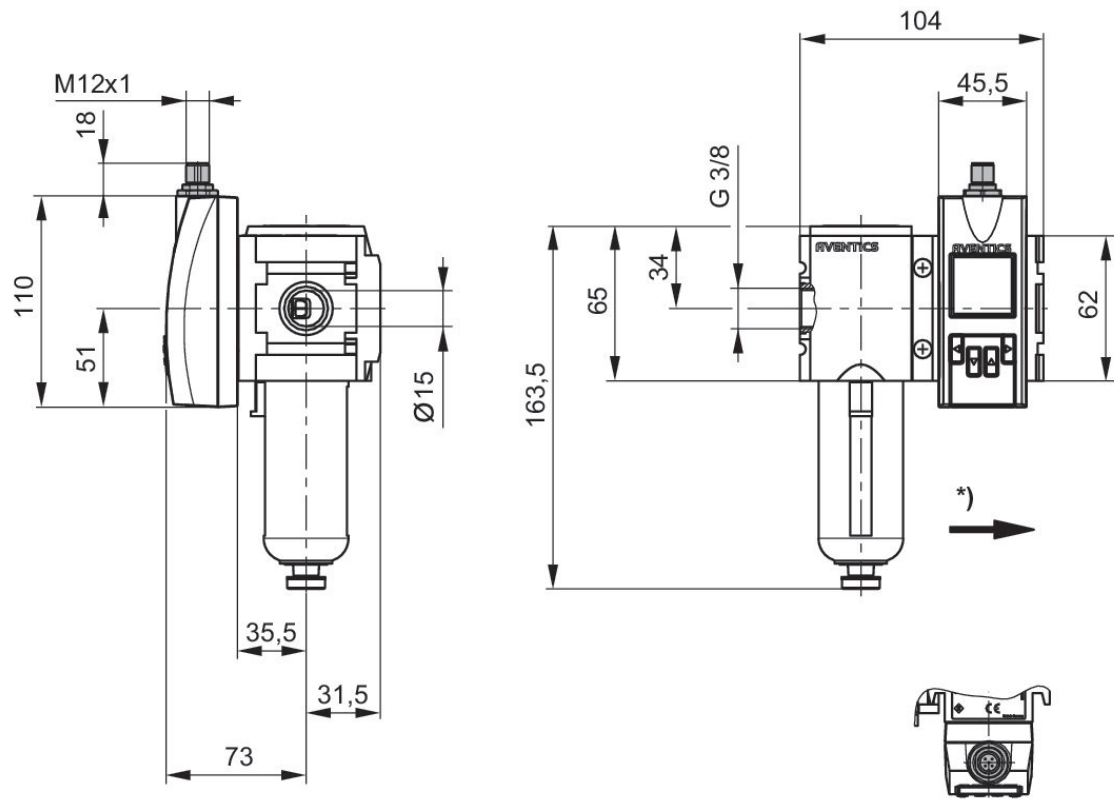
Series AF2 flow rate sensor, IO-Link

Plug
M12x1
AS2
CE declaration of conformity
RoHS
UL (Underwriters Laboratories)
5-pin



Frame size	Protocol	Output signal	Operational voltage	Port	Flow [l/min]	Part No.
AS2	IO-Link, Analog	PNP, NPN, push-pull, 1x IO-Link	17-30 V DC	G 3/8	1060	R412027176

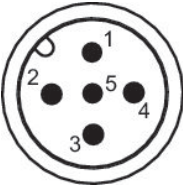
Dimensions in mm



* Flow direction

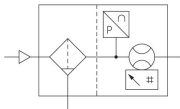
R412027176

Pin assignments



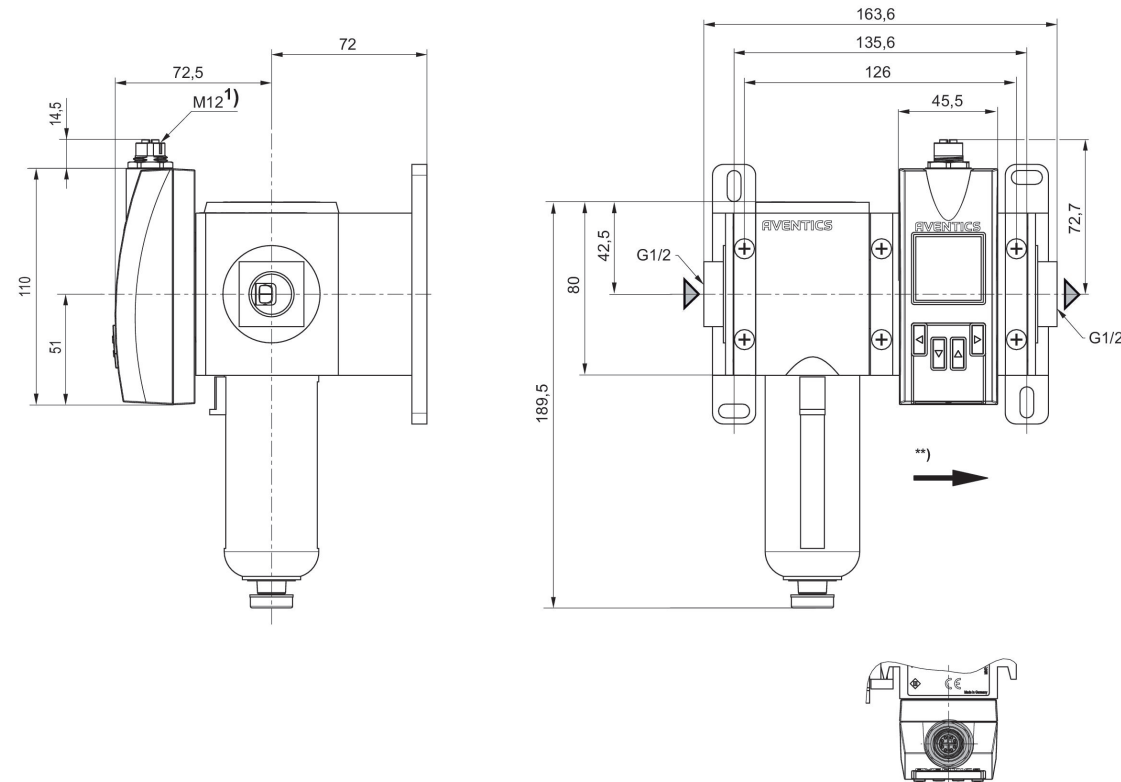
AF2 series flow rate sensor, Ethernet

Plug
M12x1
AS3
CE declaration of conformity
RoHS
UL (Underwriters Laboratories)
8-pin



Frame size	Protocol	Output signal	Operational voltage	Port	Flow [l/min]	Part No.
AS3	Ethernet, TCP/IP, OPC UA, MQTT	OPC UA, MQTT, Integrated web server	24 V DC	G 1/2	1630	R412026838

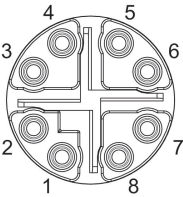
Dimensions in mm



* Internal thread
** Flow direction

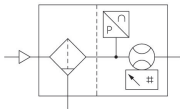
R412026838

Pin assignments



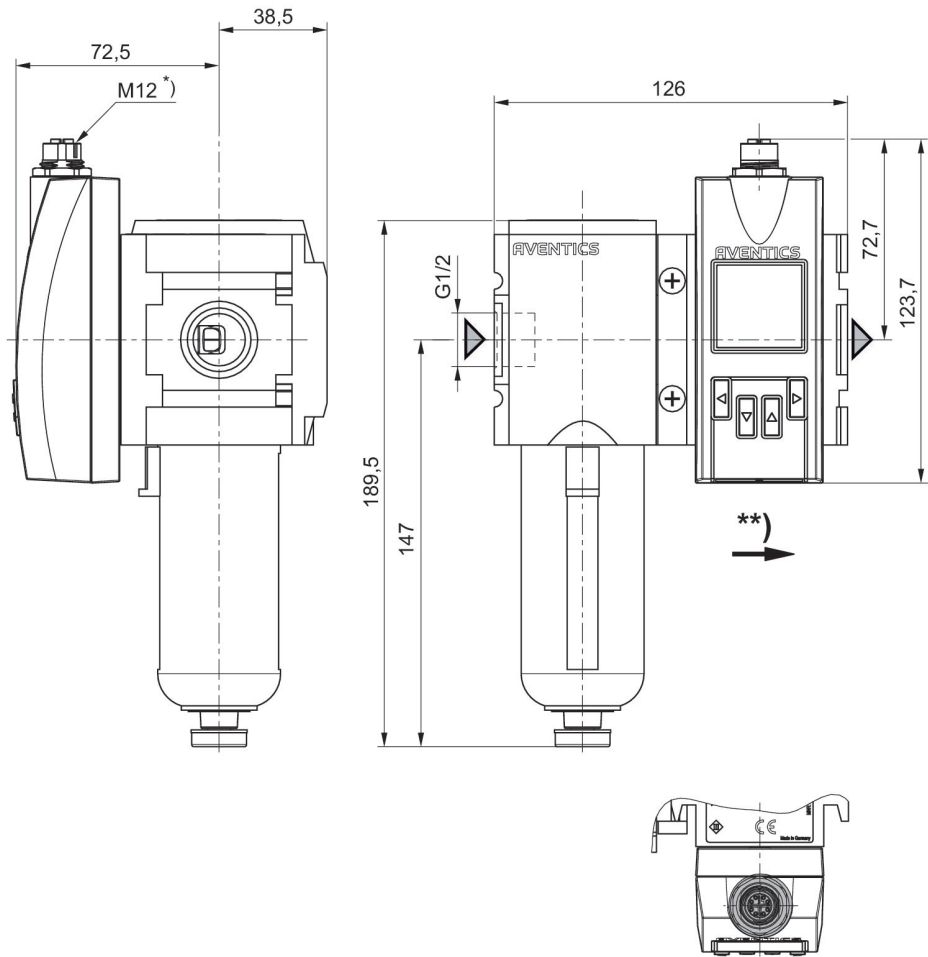
AF2 series flow rate sensor, Ethernet

Plug
M12x1
AS3
CE declaration of conformity
RoHS
UL (Underwriters Laboratories)
8-pin



Frame size	Protocol	Output signal	Operational voltage	Port	Flow [l/min]	Part No.
AS3	Ethernet, TCP/IP, OPC UA, MQTT	OPC UA, MQTT, Integrated web server	24 V DC	G 1/2	1630	R412027180

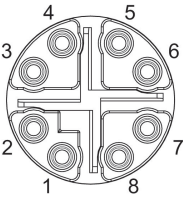
Dimensions in mm



* Internal thread
** Flow direction

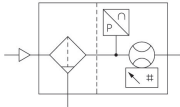
R412027180

Pin assignments



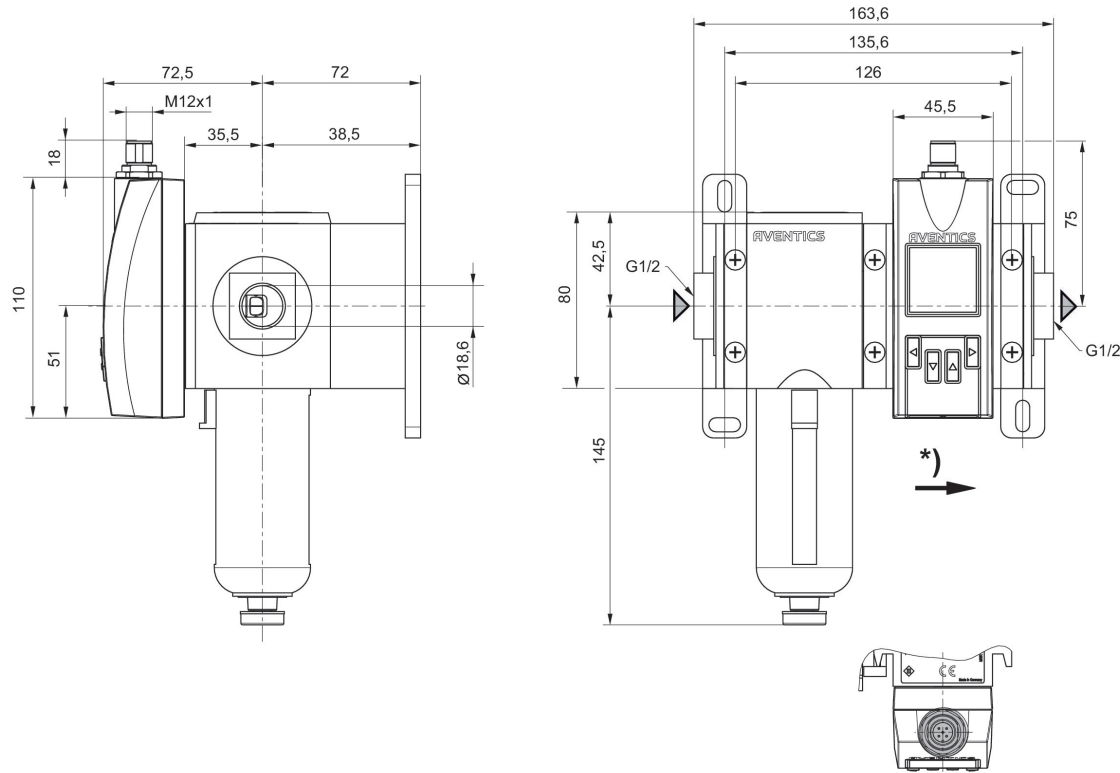
Series AF2 flow rate sensor, IO-Link

Plug
M12x1
AS3
CE declaration of conformity
RoHS
UL (Underwriters Laboratories)
5-pin



Frame size	Protocol	Output signal	Operational voltage	Port	Flow [l/min]	Part No.
AS3	IO-Link, Analog	PNP, NPN, push-pull, 1x IO-Link	17-30 V DC	G 1/2	1630	R412026835

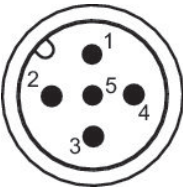
Dimensions in mm



* Flow direction

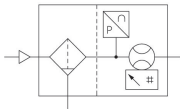
R412026835

Pin assignments



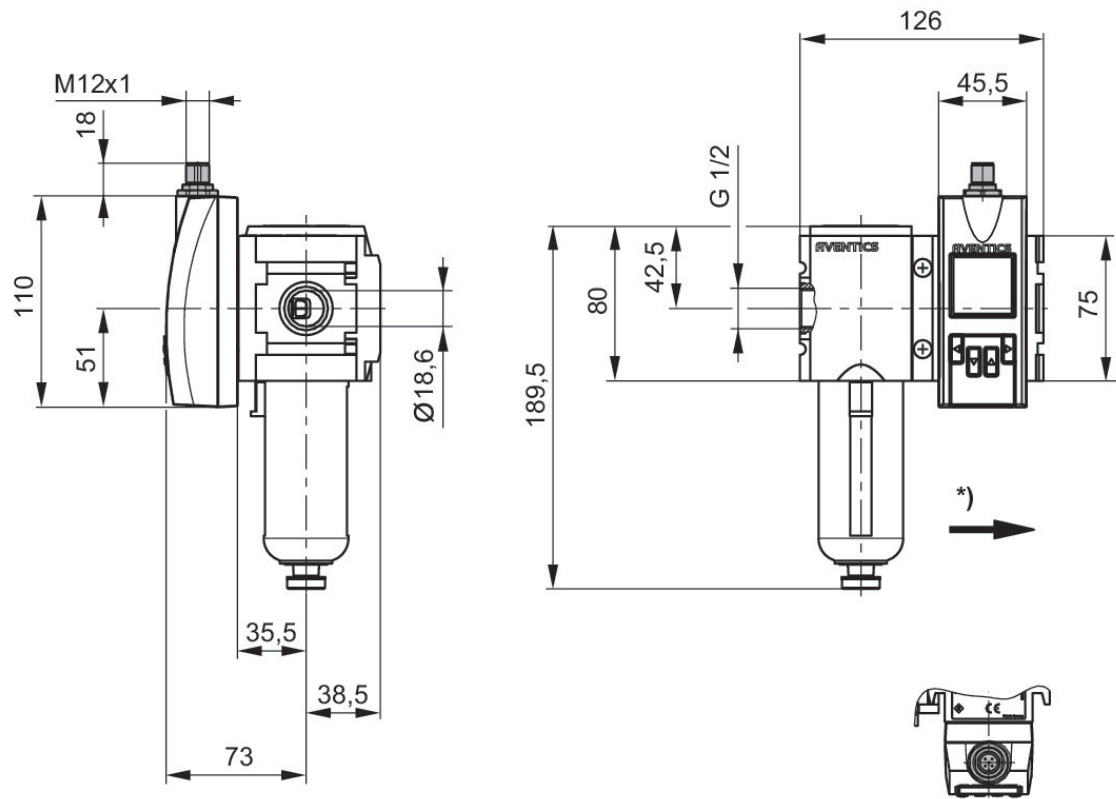
Series AF2 flow rate sensor, IO-Link

Plug
M12x1
AS3
CE declaration of conformity
RoHS
UL (Underwriters Laboratories)
5-pin



Frame size	Protocol	Output signal	Operational voltage	Port	Flow [l/min]	Part No.
AS3	IO-Link, Analog	PNP, NPN, push-pull, 1x IO-Link	17-30 V DC	G 1/2	1630	R412027177

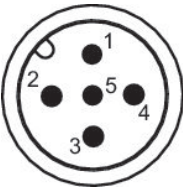
Dimensions in mm



* Flow direction

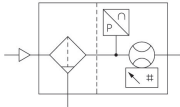
R412027177

Pin assignments



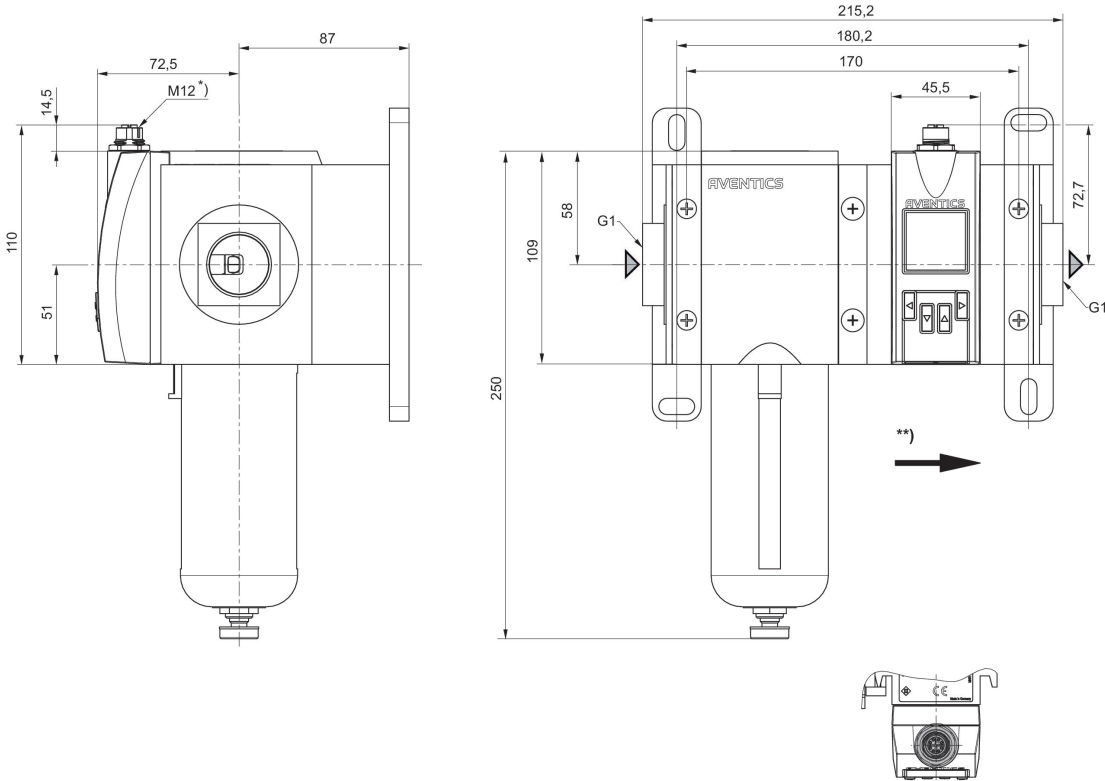
AF2 series flow rate sensor, Ethernet

Plug
M12x1
AS5
CE declaration of conformity
RoHS
UL (Underwriters Laboratories)
8-pin



Frame size	Protocol	Output signal	Operational voltage	Port	Flow [l/min]	Part No.
AS5	Ethernet, TCP/IP, OPC UA, MQTT	OPC UA, MQTT, Integrated web server	24 V DC	G 1	4326	R412026839

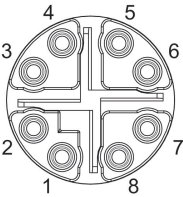
Dimensions in mm



* Internal thread
** Flow direction

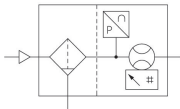
R412026839

Pin assignments



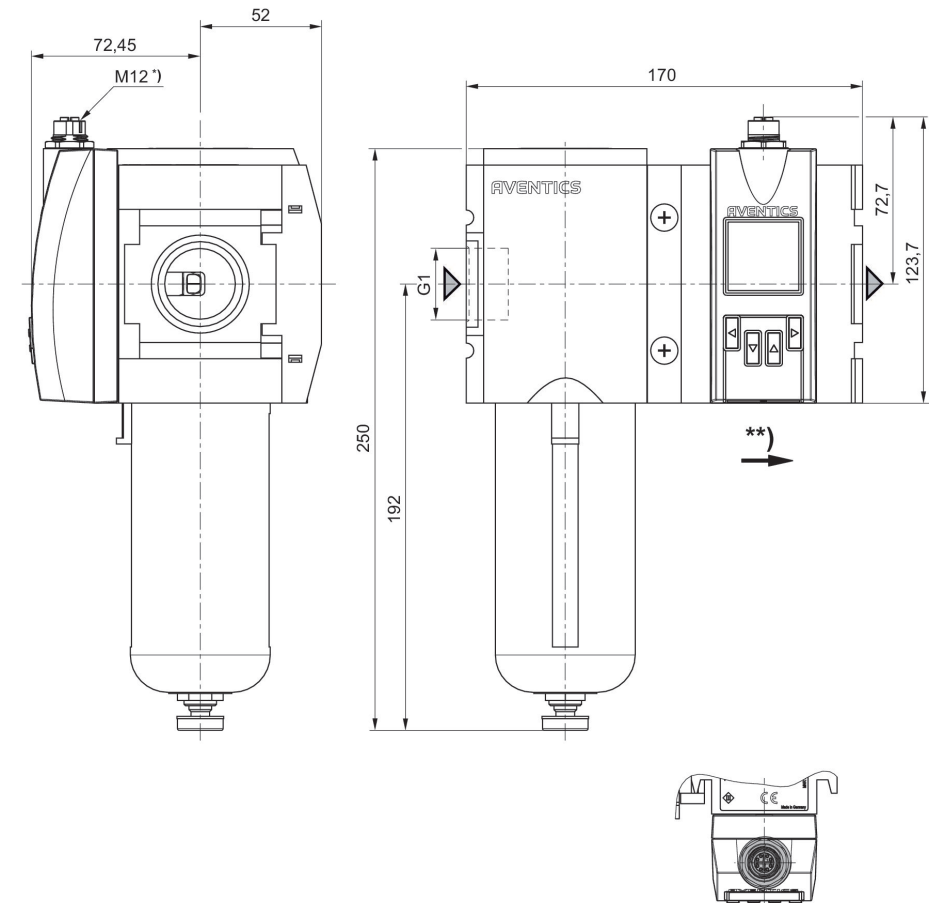
AF2 series flow rate sensor, Ethernet

Plug
M12x1
AS5
CE declaration of conformity
RoHS
UL (Underwriters Laboratories)
8-pin



Frame size	Protocol	Output signal	Operational voltage	Port	Flow [l/min]	Part No.
AS5	Ethernet, TCP/IP, OPC UA, MQTT	OPC UA, MQTT, Integrated web server	24 V DC	G 1	4326	R412027181

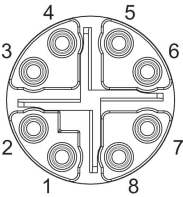
Dimensions in mm



* Internal thread
** Flow direction

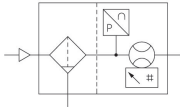
R412027181

Pin assignments



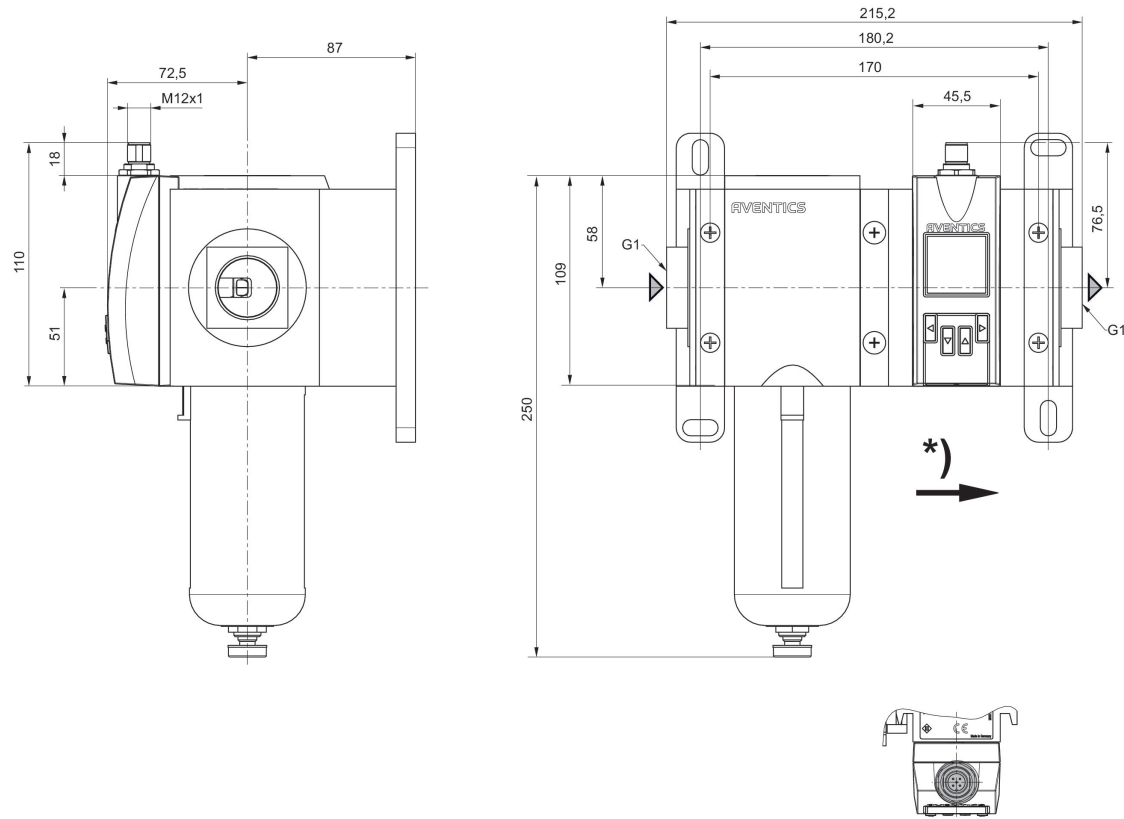
Series AF2 flow rate sensor, IO-Link

Plug
M12x1
AS5
CE declaration of conformity
RoHS
UL (Underwriters Laboratories)
5-pin



Frame size	Protocol	Output signal	Operational voltage	Port	Flow [l/min]	Part No.
AS5	IO-Link, Analog	PNP, NPN, push-pull, 1x IO-Link	17-30 V DC	G 1	4326	R412026836

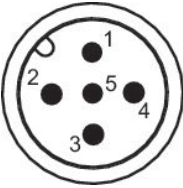
Dimensions in mm



* Flow direction

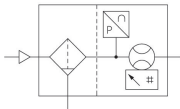
R412026836

Pin assignments



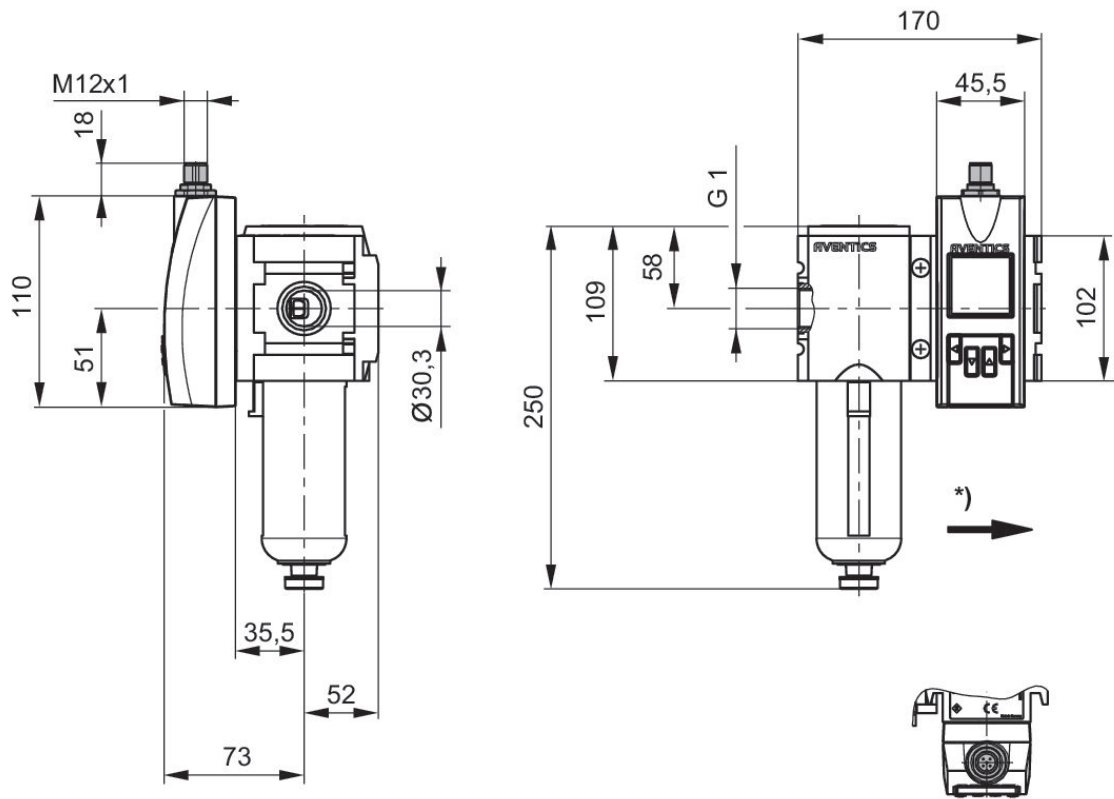
AF2 series flow rate sensor, Ethernet

Plug
M12x1
AS5
CE declaration of conformity
RoHS
UL (Underwriters Laboratories)
5-pin



Frame size	Protocol	Output signal	Operational voltage	Port	Flow [l/min]	Part No.
AS5	IO-Link, Analog	PNP, NPN, push-pull, 1x IO-Link	17-30 V DC	G 1	4326	R412027178

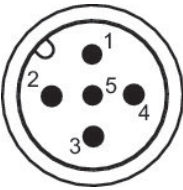
Dimensions in mm



* Flow direction

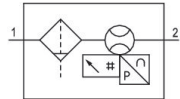
R412027178

Pin assignments



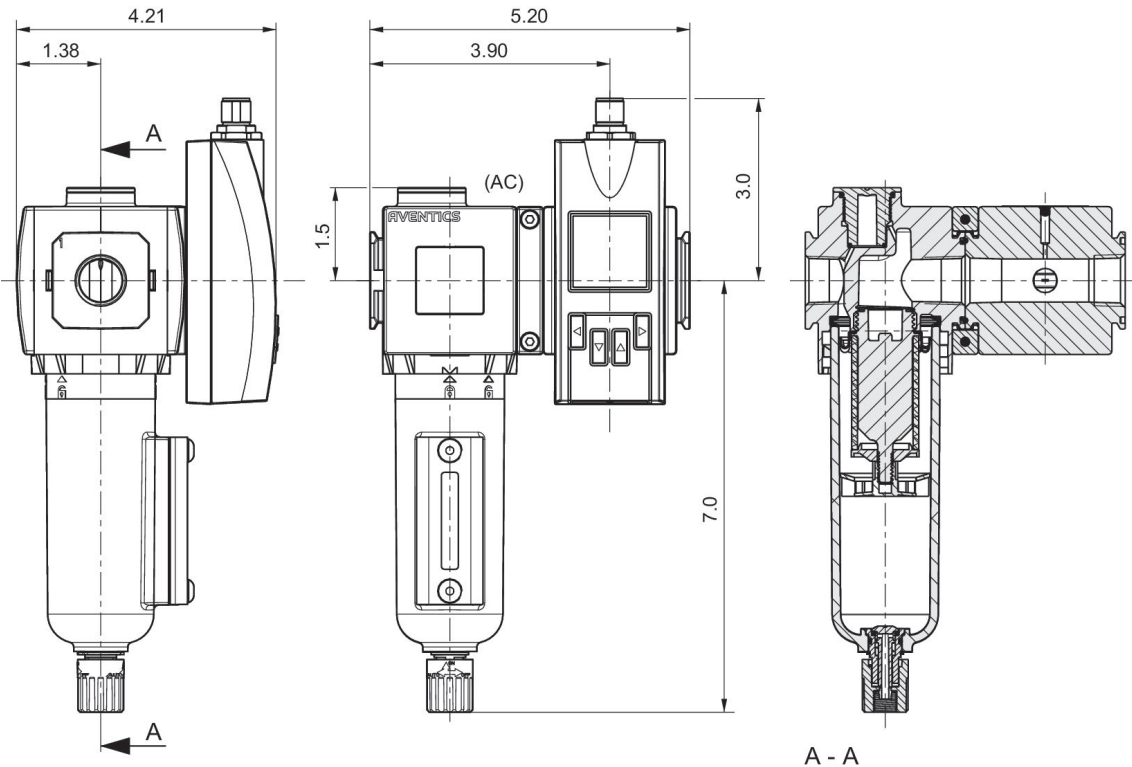
AF2 series flow rate sensor, Ethernet

Plug
M12x1
652
CE declaration of conformity
RoHS
UL (Underwriters Laboratories)
8-pin



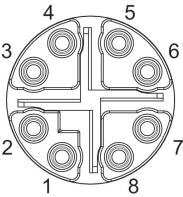
Frame size	Protocol	Output signal	Operational voltage	Port	Flow [l/min]	Part No.
652	Ethernet, TCP/IP, OPC UA, MQTT	OPC UA, MQTT, Integrated web server	24 V DC	G 1/2	1630	G652AVBP4JA001N
652	Ethernet, TCP/IP, OPC UA, MQTT	OPC UA, MQTT, Integrated web server	24 V DC	1/2 NPT	1630	8652AVBP4JA001N

Dimensions in inches



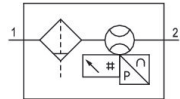
G652AVBP4JA001N, 8652AVBP4JA001N

Pin assignments



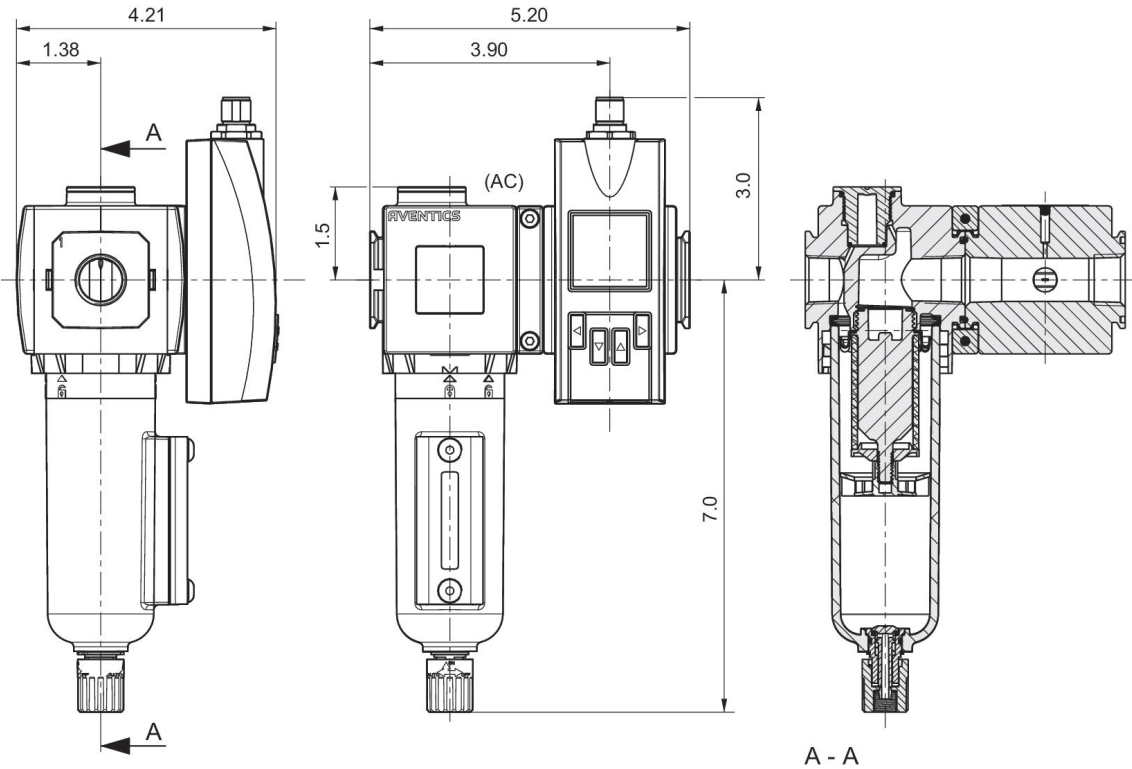
Series AF2 flow rate sensor, IO-Link

1630 l/min
Plug
M12x1
652
CE declaration of conformity
RoHS
UL (Underwriters Laboratories)
5-pin



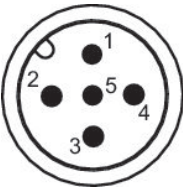
Frame size	Protocol	Output signal	Operational voltage	Port	Flow [l/min]	Part No.
652	IO-Link, Analog	PNP, NPN, push-pull, 1x IO-Link	17-30 V DC	G 1/2	1630	G652AVBP4JA000N
652	IO-Link, Analog	PNP, NPN, push-pull, 1x IO-Link	17-30 V DC	1/2 NPT	1630	8652AVBP4JA000N

Dimensions in inches



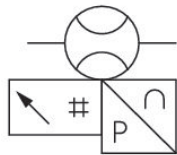
G652AVBP4JA000N, 8652AVBP4JA000N

Pin assignments



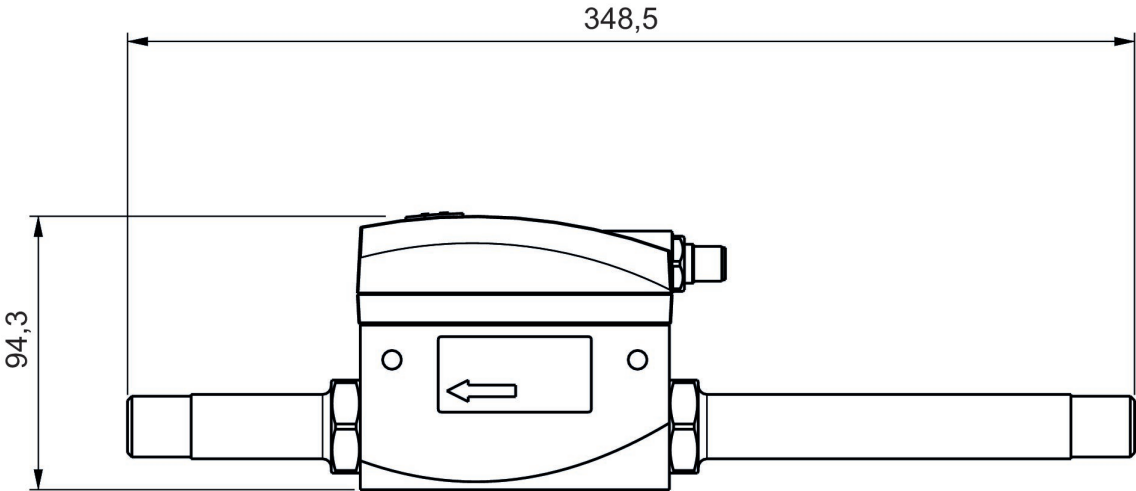
AF2 series flow rate sensor, Ethernet

Plug
M12x1
DN15
CE declaration of conformity
RoHS
UL (Underwriters Laboratories)
8-pin



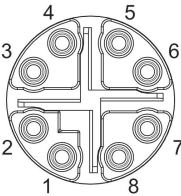
Frame size	Protocol	Output signal	Operational voltage	Port	Flow [l/min]	Part No.
DN15	Ethernet, TCP/IP, OPC UA, MQTT	OPC UA, MQTT, Integrated web server	24 V DC	G 1/2	1060	G652AV004JA0010
DN15	Ethernet, TCP/IP, OPC UA, MQTT	OPC UA, MQTT, Integrated web server	24 V DC	1/2 NPT	1060	8652AV004JA0010

Dimensions in mm



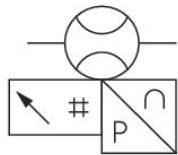
G652AV004JA0010, 8652AV004JA0010

Pin assignments



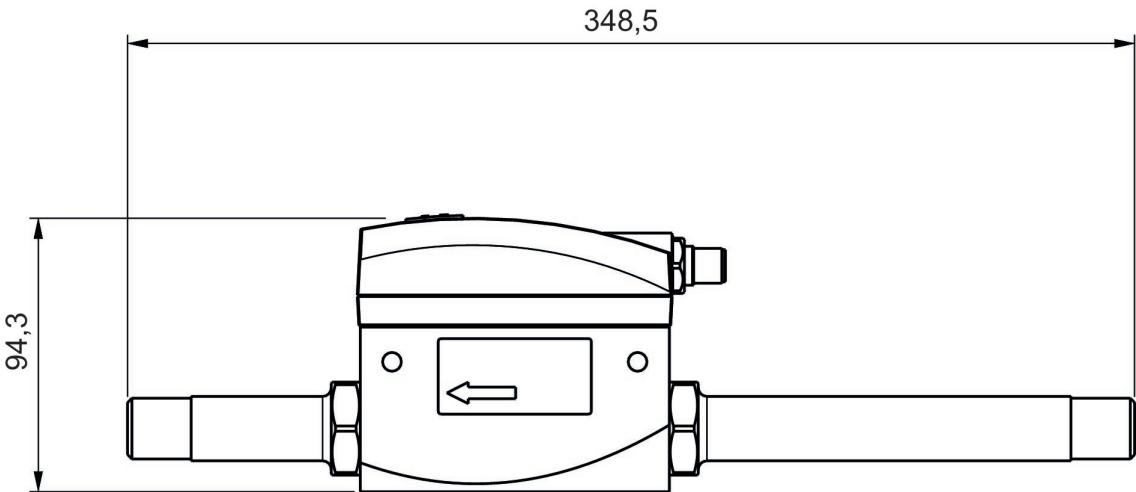
Series AF2 flow rate sensor, IO-Link

Plug
M12x1
DN15
CE declaration of conformity
RoHS
UL (Underwriters Laboratories)
5-pin



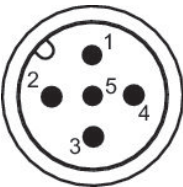
Frame size	Protocol	Output signal	Operational voltage	Port	Flow [l/min]	Part No.
DN15	IO-Link, Analog	PNP, NPN, push-pull, 1x IO-Link	17-30 V DC	G 1/2	1060	G652AV004JA0000
DN15	IO-Link, Analog	PNP, NPN, push-pull, 1x IO-Link	17-30 V DC	1/2 NPT	1060	8652AV004JA0000

Dimensions in mm



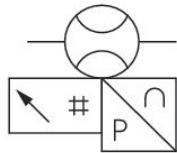
G652AV004JA0000, 8652AV004JA0000

Pin assignments



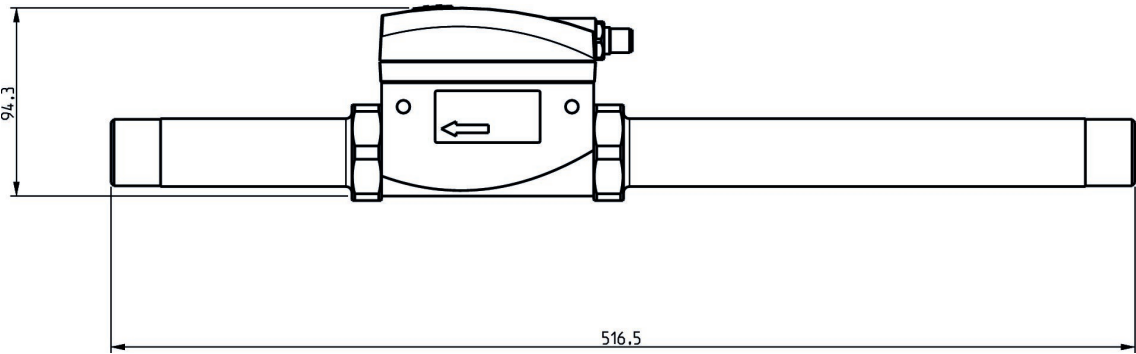
AF2 series flow rate sensor, Ethernet

2945 l/min
Plug
M12x1
DN25
CE declaration of conformity
RoHS
UL (Underwriters Laboratories)
8-pin



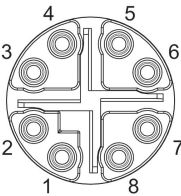
Frame size	Protocol	Output signal	Operational voltage	Port	Flow [l/min]	Part No.
DN25	TCP/IP, OPC UA, MQTT	OPC UA, MQTT, Integrated web server	24 V DC	G 1	2945	G653AV006JA0010
DN25	TCP/IP, OPC UA, MQTT	OPC UA, MQTT, Integrated web server	24 V DC	1 NPT	2945	8653AV006JA0010

Dimensions in mm



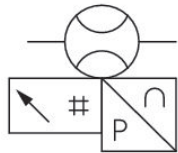
G653AV006JA0010, 8653AV006JA0010

Pin assignments

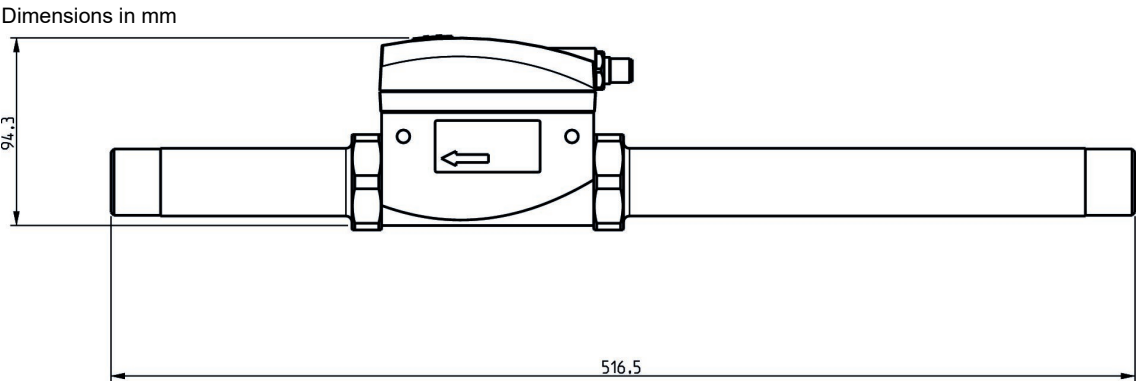


Series AF2 flow rate sensor, IO-Link

2945 l/min
Plug
M12x1
DN25
CE declaration of conformity
RoHS
UL (Underwriters Laboratories)
5-pin

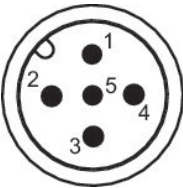


Frame size	Protocol	Output signal	Operational voltage	Port	Flow [l/min]	Part No.
DN25	IO-Link, Analog	PNP, NPN, push-pull, 1x IO-Link	17-30 V DC	G 1	2945	G653AV006JA0000
DN25	IO-Link, Analog	PNP, NPN, push-pull, 1x IO-Link	17-30 V DC	1 NPT	2945	8653AV006JA0000



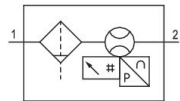
G653AV006JA0000, 8653AV006JA0000

Pin assignments



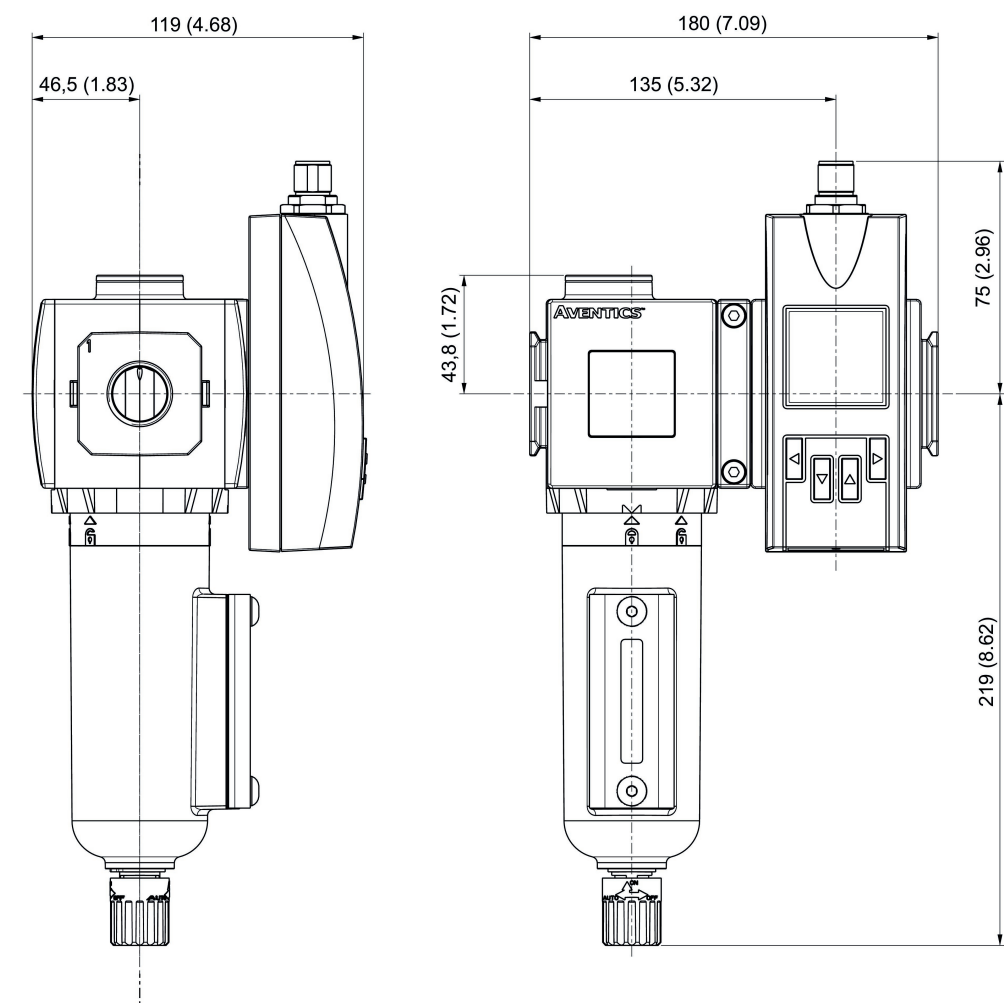
Series AF2 flow rate sensor, IO-Link

653



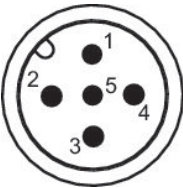
Frame size	Protocol	Output signal	Operational voltage	Port	Flow [l/min]	Part No.
653	IO-Link	PNP/NPN/push-pull, switchable	17-30 V DC	G 1	4328	G653AVBP6JA000N
653	IO-Link	PNP/NPN/push-pull, switchable	17-30 V DC	1 NPT	4328	8653AVBP6JA000N

Dimensions



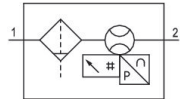
G653AVBP6JA000N, 8653AVBP6JA000N

Pin assignments



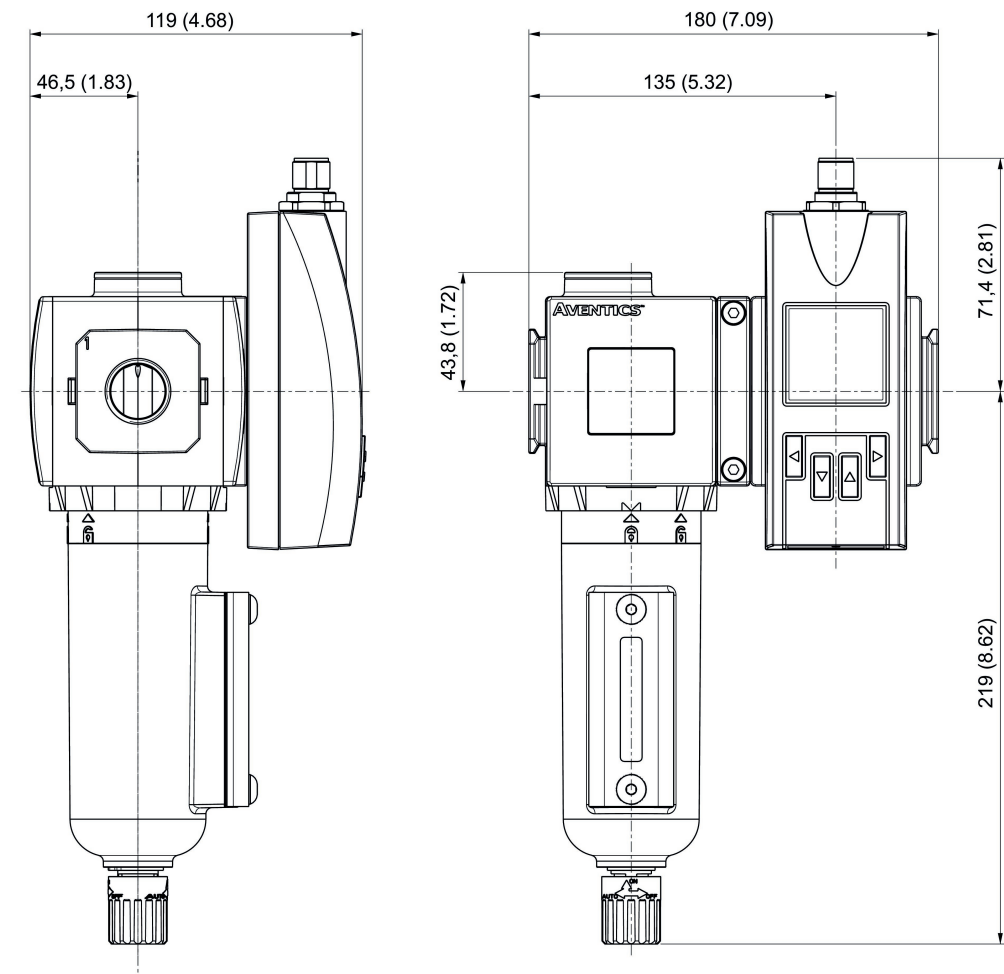
AF2 series flow rate sensor, Ethernet

Plug
M12x1
653
CE declaration of conformity
RoHS
8-pin



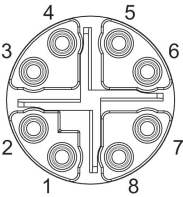
Frame size	Protocol	Output signal	Operational voltage	Port	Flow [l/min]	Part No.
653	TCP/IP, OPC UA, MQTT	OPC UA, MQTT, Integrated web server	24 V DC	G 1	4328	G653AVBP6JA001N
653	TCP/IP, OPC UA, MQTT	OPC UA, MQTT, Integrated web server	24 V DC	1 NPT	4328	8653AVBP6JA001N

Dimensions



G653AVBP6JA001N, 8653AVBP6JA001N

Pin assignments



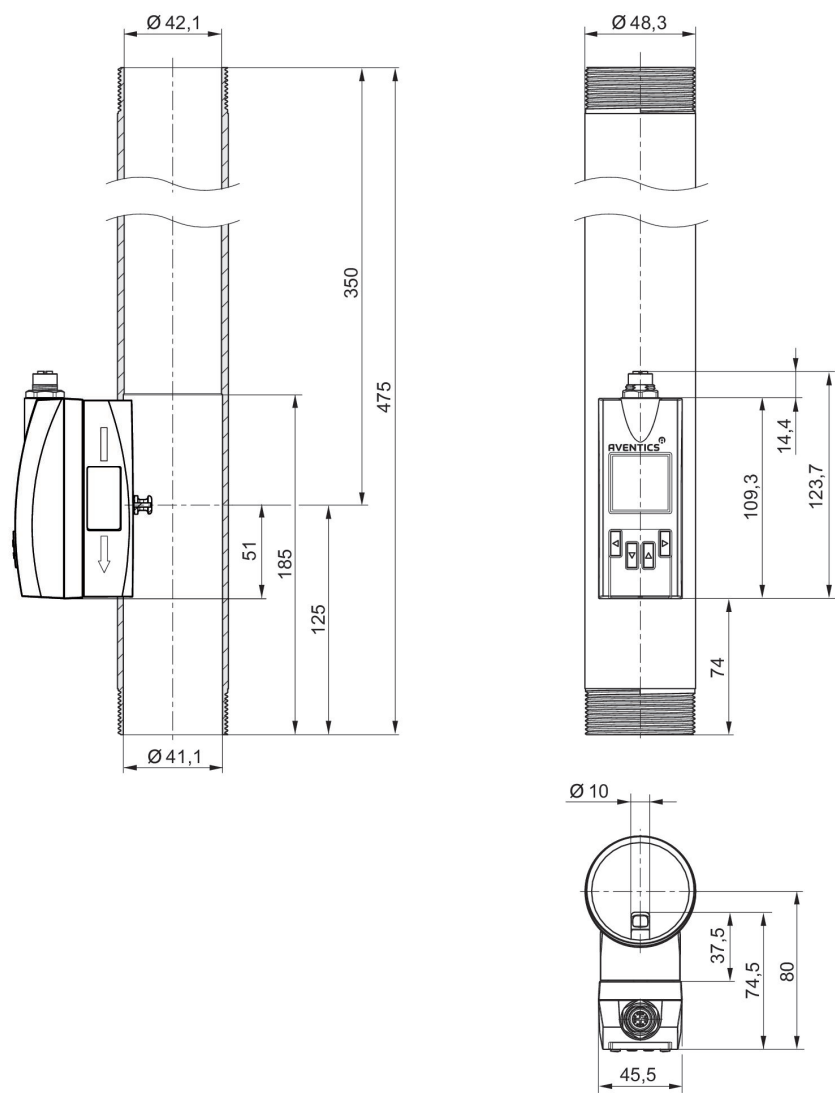
AF2 series flow rate sensor, Ethernet

7540 l/min
Plug
M12x1
DN40
CE declaration of conformity
RoHS
UL (Underwriters Laboratories)
8-pin



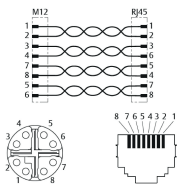
Frame size	Protocol	Output signal	Operational voltage	Port	Flow [l/min]	Part No.
DN40	Ethernet, TCP/IP, OPC UA, MQTT	OPC UA, MQTT, Integrated web server	24 V DC	R 1 1/2	7540	R412028643
DN40	Ethernet, TCP/IP, OPC UA, MQTT	OPC UA, MQTT, Integrated web server	24 V DC	1 1/2 NPT	7540	R412028645

Dimensions in mm



R412028643, R412028645

Pin assignments



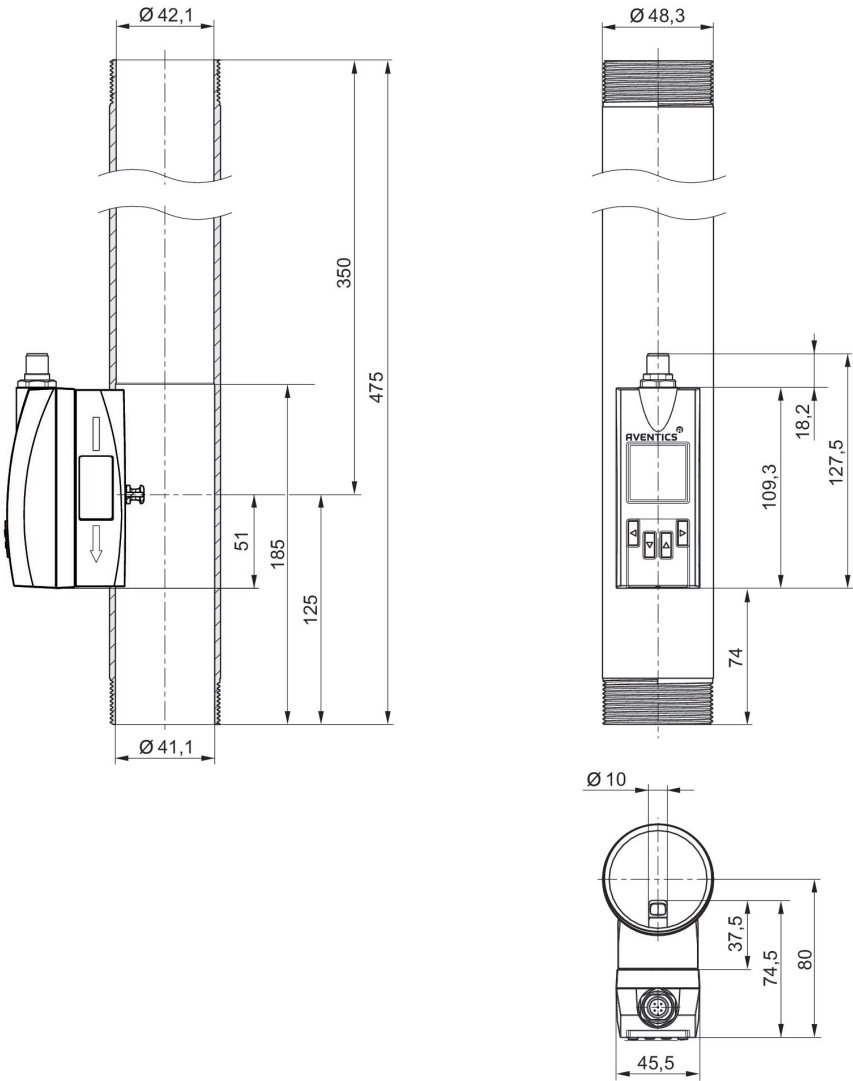
Series AF2 flow rate sensor, IO-Link

7540 l/min
Plug
M12x1
DN40
CE declaration of conformity
RoHS
UL (Underwriters Laboratories)
5-pin



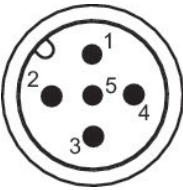
Frame size	Protocol	Output signal	Operational voltage	Port	Flow [l/min]	Part No.
DN40	IO-Link, Analog	PNP, NPN, push-pull, 1x IO-Link	17-30 V DC	1 1/2 NPT	7540	R412028644
DN40	IO-Link, Analog	PNP, NPN, push-pull, 1x IO-Link	17-30 V DC	R 1 1/2	7540	R412028642

Dimensions in mm



R412028644, R412028642

Pin assignments



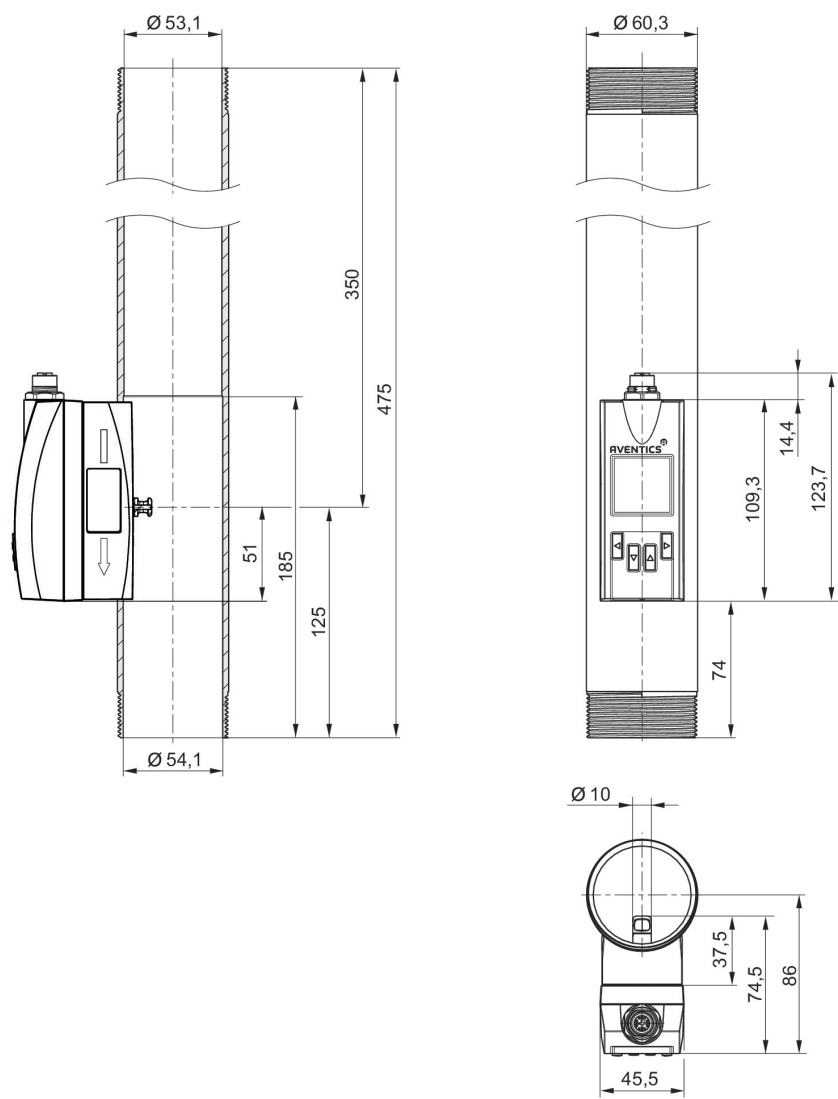
AF2 series flow rate sensor, Ethernet

11780 l/min
Plug
M12x1
DN50
CE declaration of conformity
RoHS
UL (Underwriters Laboratories)
8-pin



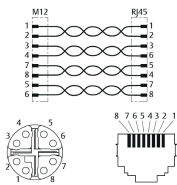
Frame size	Protocol	Output signal	Operational voltage	Port	Flow [l/min]	Part No.
DN50	Ethernet, TCP/IP, OPC UA, MQTT	OPC UA, MQTT, Integrated web server	24 V DC	R 2	11780	R412028647
DN50	Ethernet, TCP/IP, OPC UA, MQTT	OPC UA, MQTT, Integrated web server	24 V DC	R 2 NPT	11780	R412028649

Dimensions in mm



R412028647, R412028649

Pin assignments



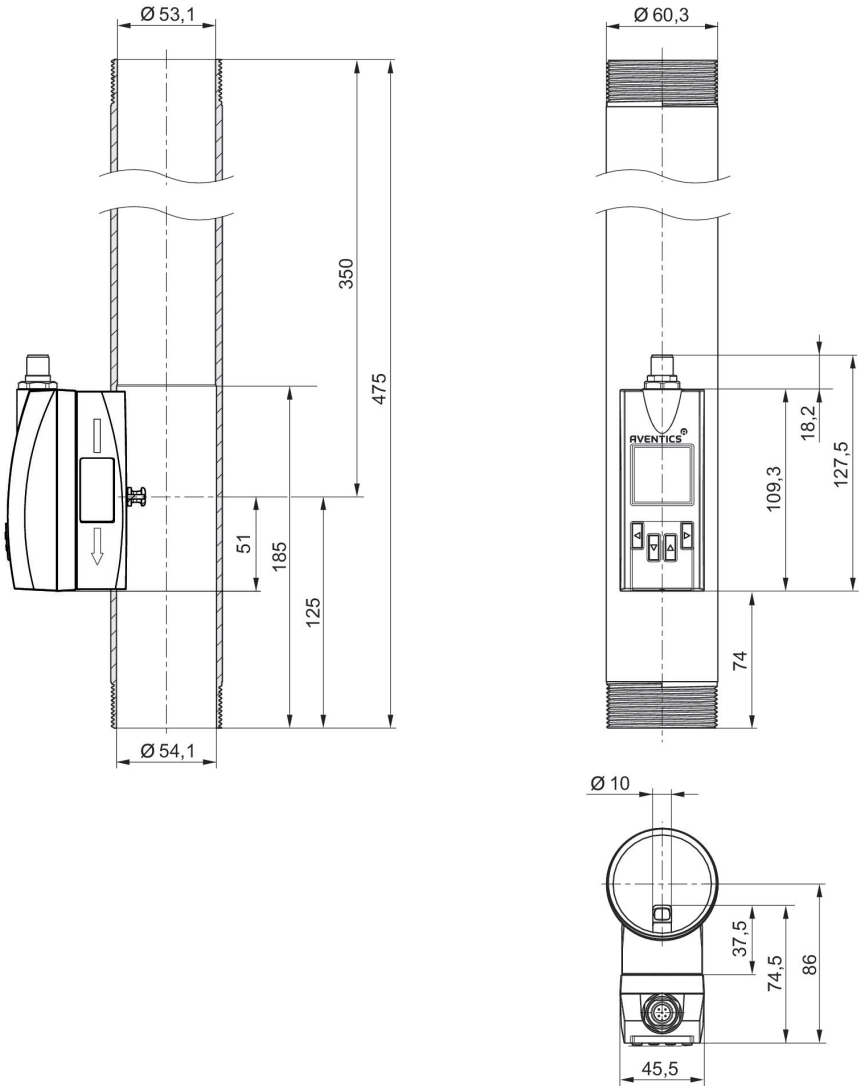
Series AF2 flow rate sensor, IO-Link

11780 l/min
Plug
M12x1
DN50
CE declaration of conformity
RoHS
UL (Underwriters Laboratories)
5-pin



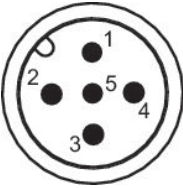
Frame size	Protocol	Output signal	Operational voltage	Port	Flow [l/min]	Part No.
DN50	IO-Link, Analog	PNP, NPN, push-pull, 1x IO-Link	17-30 V DC	R 2	11780	R412028646
DN50	IO-Link, Analog	PNP, NPN, push-pull, 1x IO-Link	17-30 V DC	R 2 NPT	11780	R412028648

Dimensions in mm



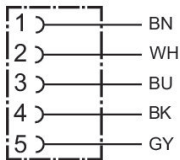
R412028646, R412028648

Pin assignments



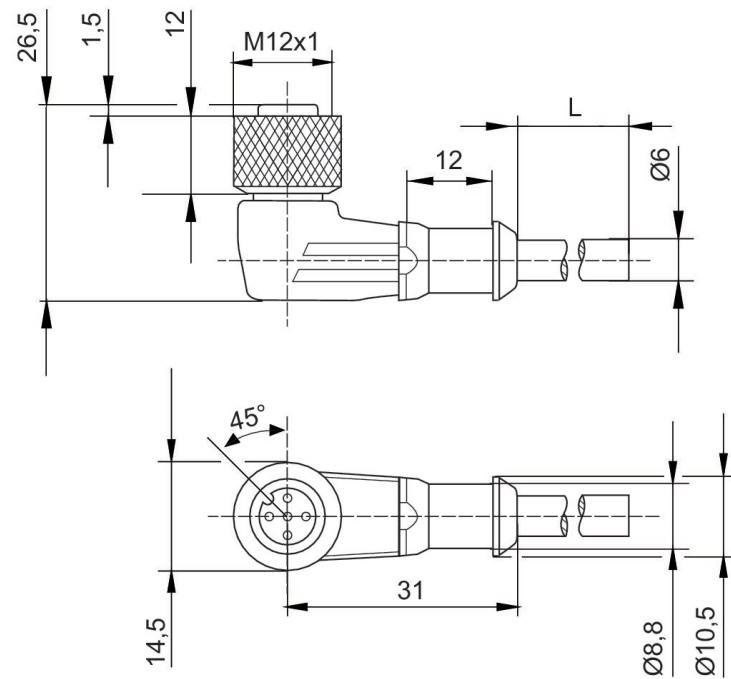
Round plug connector, Series CON-RD

Socket
M12x1
5-pin



Operational voltage	Current [A]	Shielding	Electrical connection 1, type	Electrical connection 1, thread size	Electrical connection 1, coding	Electrical connection 2, type	Cable length [m]	Cable-Ø [mm]	Wire cross-section [mm²]	Min. ambient temperature [°C]	Max. ambient temperature [°C]	Part No.
48 V AC/DC	4	shielded	Socket	M12x1	A-coded	open cable ends	2.5	6	0.34	-25	80	R419800109
48 V AC/DC	4	shielded	Socket	M12x1	A-coded	open cable ends	5	6	0.34	-25	80	R419800110
48 V AC/DC	4	shielded	Socket	M12x1	A-coded	open cable ends	10	6	0.34	-25	80	R419800546

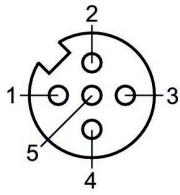
Dimensions



L = length

R419800109, R419800110, R419800546

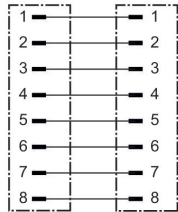
Pin assignment, socket



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

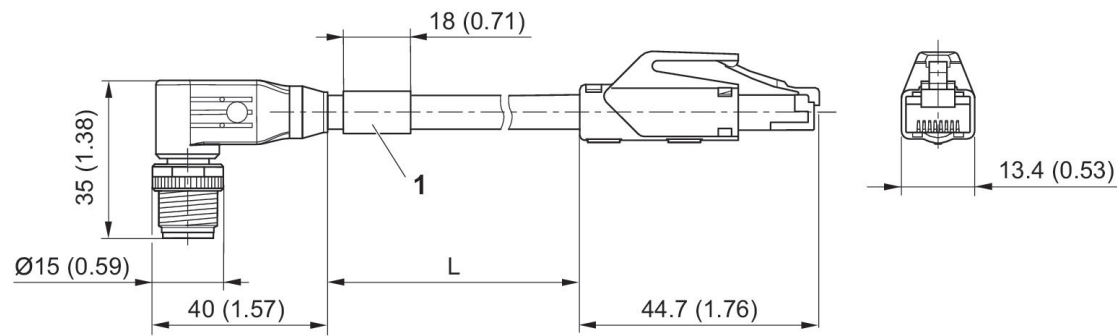
Round plug connectors with cable, Series CON-RD

Plug
Plug
M12x1
RJ45
8-pin
8-pin



Opera-tional voltage	Current [A]	Shield-ing	Elec-trical con-nection 1, type	Elec-trical con-nection 1, thread size	Elec-trical con-nection 1, coding	Elec-trical con-nection 2, type	Elec-trical con-nection 2, thread size	Elec-trical con-nection 2, coding	Cable length [m]	Wire cross-section [mm²]	Min. ambi-ent tem-perature [°C]	Max. ambi-ent tem-perature [°C]	Part No.
60 V AC/DC	0.5	shield-ed	Plug	M12x1	X-cod-ed	Plug	RJ45	X-cod-ed	5	0.14	-25	85	R412027647

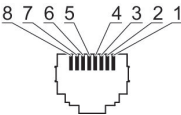
Dimensions



1) Name plate

R412027647

Plug pin assignment



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