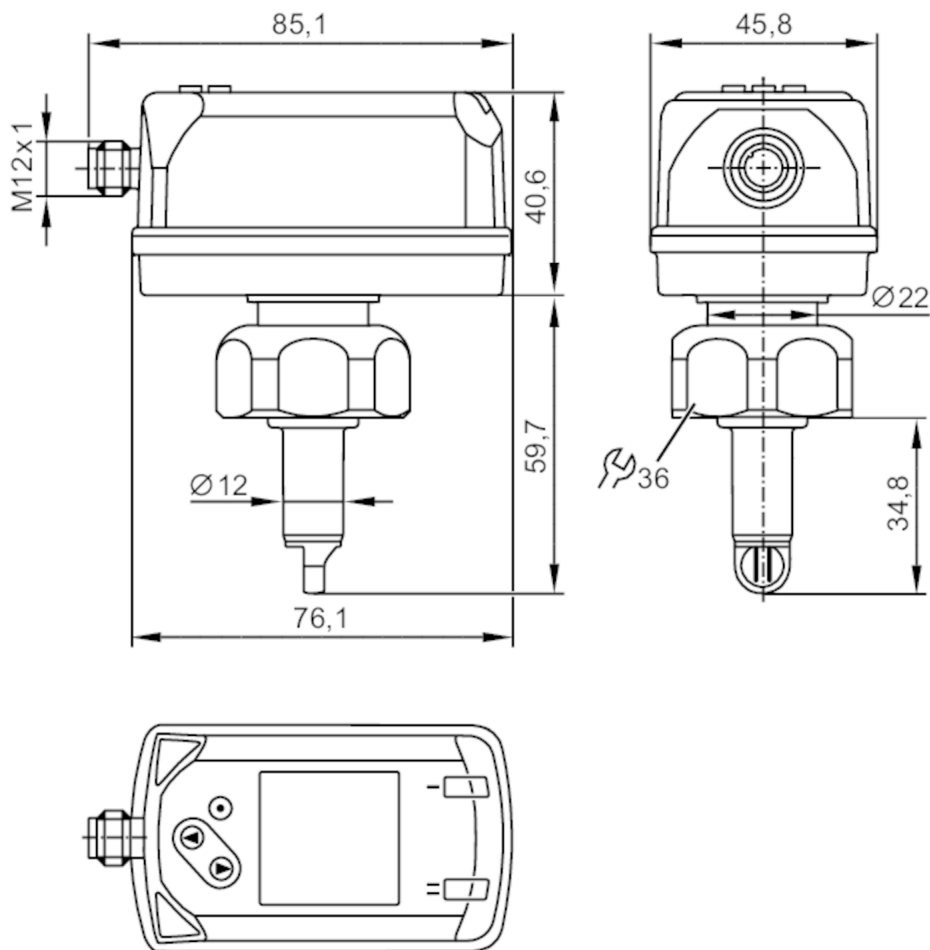


SD1440

Compressed air meter

SDD11DXXFRKG/US-100



Product characteristics			
Number of inputs and outputs	Number of digital outputs: 2; Number of analog outputs: 1		
Measuring range	0.6...143.9 m/s	0.3...26260 m³/h	0.005...437.6 m³/min
Process connection	threaded connection G 1 Internal thread		
Application			
Application	for industrial applications		
Installation	Adjustable to inside pipe diameters; (14...254 mm)		
Media	compressed air; nitrogen (N2)		
Medium temperature [°C]	-10...60		
Min. burst pressure	100 bar	10 MPa	
Pressure rating	50 bar	5 MPa	
MAWP (for applications according to CRN) [bar]	10		
Electrical data			
Operating voltage [V]	18...30 DC; (to SELV/PELV)		
Current consumption [mA]	< 80		
Protection class	III		
Reverse polarity protection	yes		

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Power-on delay time	[s]	1
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Inputs / outputs

Number of inputs and outputs	Number of digital outputs: 2; Number of analog outputs: 1
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Inputs

Inputs	counter reset
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Outputs

Output signal	switching signal; analog signal; pulse signal; IO-Link; (configurable)
Electrical design	PNP/NPN
Number of digital outputs	2
Output function	normally open / closed; (configurable)
Max. voltage drop switching output DC [V]	2.5
Permanent current rating of switching output DC [mA]	150; (per output)
Number of analog outputs	1
Analog current output [mA]	4...20; (scalable)
Max. load [Ω]	500
Pulse output	consumed quantity meter
Short-circuit protection	yes
Type of short-circuit protection	yes (non-latching)
Overload protection	yes

Measuring/setting range

Measuring range	0.6...143.9 m/s	0.3...26260 m³/h	0.005...437.6 m³/min
Display range	0...172.7 m/s	0...31520 m³/h	0...525.2 m³/min
Resolution	0.1 m/s	0.05 m³/h	0.01 m³/min
Set point SP	1.4...143.9 m/s	0.8...26260 m³/h	0.013...437.6 m³/min
Reset point rP	0.7...143.2 m/s	0.4...26140 m³/h	0.007...435.6 m³/min
Analog start point ASP	0...115.1 m/s	0...21000 m³/h	0...350 m³/min
Analog end point AEP	28.8...143.9 m/s	422...26260 m³/h	7.04...437.6 m³/min
Low flow cut-off LFC	0.2...1.4 m/s	0.1...260 m³/h	0.002...4.4 m³/min
In steps of	0.1 m/s	0.01 m³/h	0.001 m³/min

Volumetric flow quantity monitoring

Measuring range	0...1000000000 m³	0...35314666721 scf
Display range	0...1000000000 m³	0...35314666721 scf
Set point SP	0.01...100000000 m³	0.35...3531466672.1 scf
Pulse value	0.01...100000000 m³	0.35...3531466672.1 scf
In steps of	0.001 m³	0.05 scf
Pulse length [s]	0.001...2	

Temperature monitoring

Measuring range	-10...60 °C	14...140 °F
Display range	-24...74 °C	-11.2...165.2 °F
Resolution	0.2 °C	0.5 °F
Set point SP	-9.7...60 °C	14.6...140 °F
Reset point rP	-10...59.7 °C	14...139.4 °F
Analog start point	-10...46 °C	14...114.8 °F
Analog end point	4...60 °C	39.2...140 °F

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In steps of	0.1 °C	0.1 °F
Accuracy / deviations		
Temperature coefficient [1/K]	± 0,07 % MW	
Accuracy (in the measuring range)	± (6 % MW + 0,6 % MEW); (reference conditions: diA = 73 mm; inlet pipe length >= 3 m; outlet pipe length >= 0,5 m; reference temperature: 20...25 °C; standard volume flow: 50...850 Nm³/h)	
Repeatability	± 1,5 % MW	
Temperature monitoring		
Accuracy [K]	± 0,5; (medium flow in the limit area of the flow measurement range)	
Reaction times		
Response time [s]	0.1; (dAP = 0)	
Damping process value dAP [s]	0...5	
Temperature monitoring		
Dynamic response T05 / T09 [s]	T09 = 0,5	
Software / programming		
Parameter setting options	hysteresis / window; normally open / closed; current/pulse output; display can be rotated and switched off; Display unit; totalizer	
Interfaces		
Communication interface	IO-Link	
Transmission type	COM2 (38,4 kBaud)	
IO-Link revision	1.1	
SDCI standard	IEC 61131-9 CDV	
Profiles	Common - I&D	Identification and Diagnosis
	Function	Measurement data, standard resolution
SIO mode	yes	
Required master port class	A	
Process data analog	8	
Process data binary	2	
Min. process cycle time [ms]	6.8	
Supported DeviceIDs	Type of operation	DeviceID
	default	1592
Operating conditions		
Ambient temperature [°C]	0...60	
Storage temperature [°C]	-20...85	
Max. relative air humidity [%]	90	
Protection	IP 65; IP 67	
Tests / approvals		
EMC	DIN EN 60947-5-9	
Vibration resistance	DIN EN 68000-2-6	5 g (10...2000 Hz)
MTTF [years]	190	
Mechanical data		
Weight [g]	372.6	
Housing	rectangular	
Dimensions [mm]	85.1 x 45.8 x 100.3	

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Compressed air meter

SDD11DXXFRKG/US-100

Material	PBT+PC-GF30; PPS GF40; stainless steel (1.4301 / 304); stainless steel (1.4305 / 303); stainless steel (1.4404 / 316L); FKM
Materials (wetted parts)	stainless steel (1.4301 / 304); stainless steel (1.4404 / 316L); FKM; ceramics glass passivated; PPS GF40; acrylate
Process connection	threaded connection G 1 Internal thread

Displays / operating elements

Display	Color display 1,44", 128 x 128 pixels
	2 x LED, yellow

Remarks

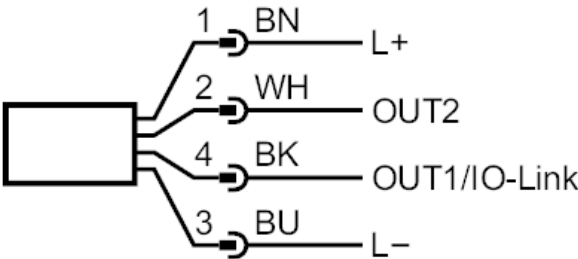
Remarks	MW = Measured value
	MEW = Final value of the measuring range
	D = inside pipe diameter
	Measuring, display and setting ranges refer to standard volume flow according to DIN ISO 2533.
	For information about installation and operation please see the operating instructions.
Pack quantity	1 pcs.

Electrical connection

Connector: 1 x M12; coding: A



Connection



OUT1/IO-Link:	Switching output flow Switching output temperature Pulse output quantity meter signal output Preset counter
OUT2/InD:	Switching output flow Switching output temperature analog output flow analog output temperature signal output Preset counter Pulse output quantity meter Input counter reset