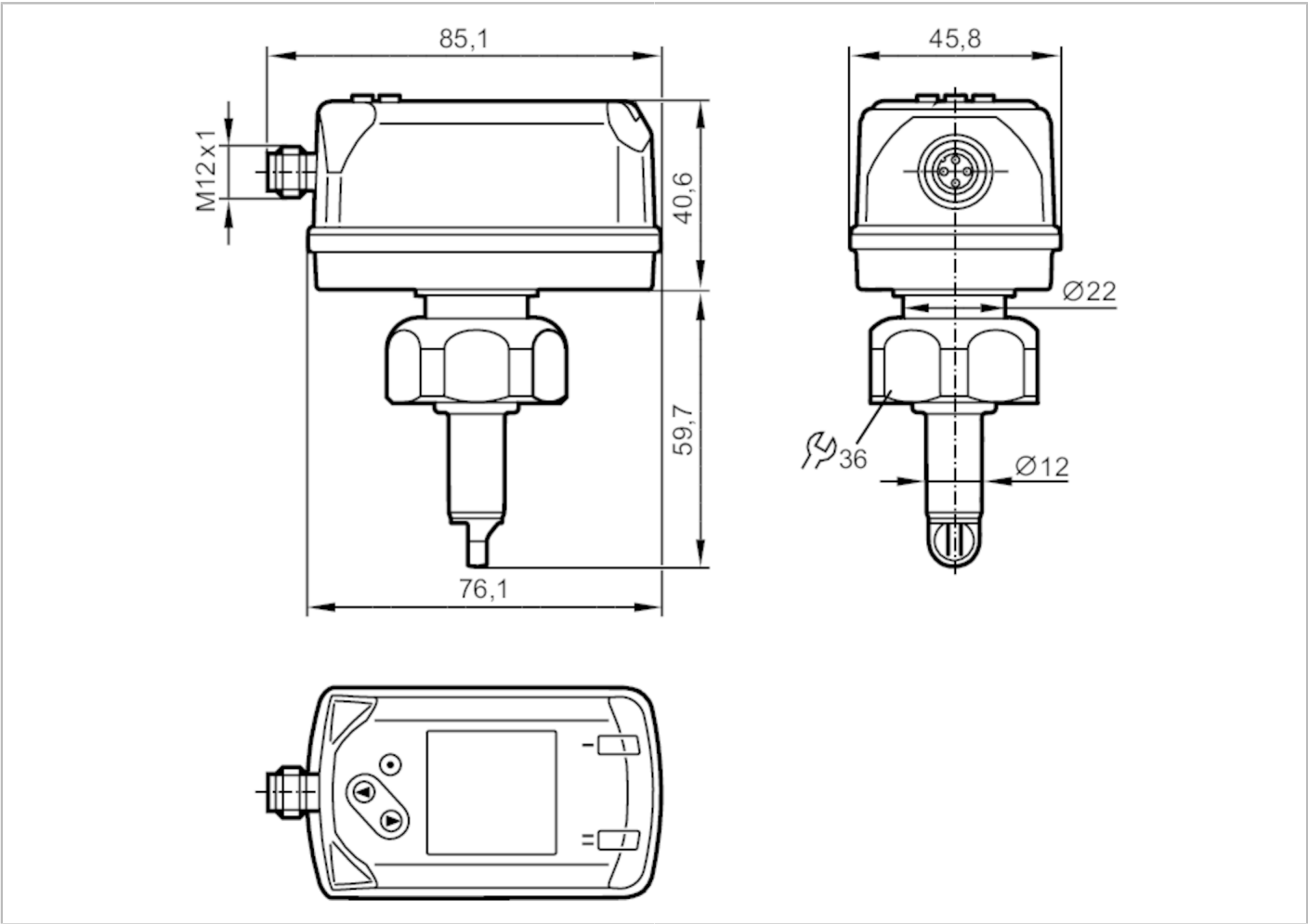


SD1440

Compressed air meter

SDD11DXXFRKG/US-100



Product characteristics		
Number of inputs and outputs		Number of digital outputs: 2; Number of analogue outputs: 1 threaded connection G 1 internal thread
Process connection		
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. bursting pressure	[bar]	100
Min. bursting pressure	[MPa]	10
Pressure rating	[bar]	50
Pressure rating	[MPa]	5
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



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Reverse polarity protection	yes
Power-on delay time [s]	1

Inputs / outputs

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

Inputs	counter reset
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Outputs

Output signal	switching signal; analogue signal; pulse signal; IO-Link; (configurable)
Electrical design	PNP/NPN
Number of digital outputs	2
Output function	normally open / normally closed; (parameterisable)
Max. voltage drop switching output DC [V]	2.5
Permanent current rating of switching output DC [mA]	150; (per output)
Number of analogue outputs	1
Analogue current output [mA]	4...20; (scalable)
Max. load [Ω]	500
Pulse output	consumed quantity meter
Short-circuit protection	yes
Type of short-circuit protection	pulsed
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
Analogue start point ASP	0...115.1 m/s	0...21000 m³/h	0...350 m³/min
Analogue 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
Analogue start point	-10...46 °C	14...114.8 °F

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Analogue end point		4...60 °C	39.2...140 °F
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)	
Response 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 / normally closed; current/pulse output; display can be rotated and switched off; Display unit; totaliser	
Interfaces			
Communication interface		IO-Link	
Transmission type		COM2 (38,4 kBaud)	
IO-Link revision		1.1	
SDCI standard		IEC 61131-9 CDV	
Profiles		Digital Measuring Sensor (0x800A), Identification and Diagnosis (0x4000)	
SIO mode		yes	
Required master port type		A	
Process data analogue		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	
Materials		PBT+PC-GF30; PPS GF40; stainless steel (304/1.4301); stainless steel (303/1.4305); stainless steel (316L/1.4404); FKM	

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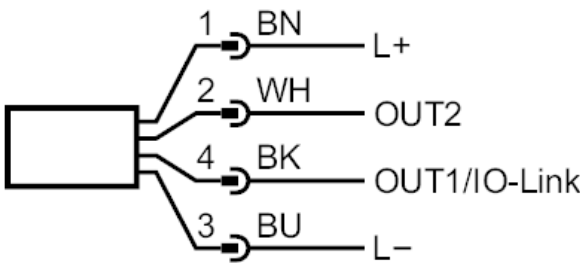
Materials (wetted parts)	stainless steel (304/1.4301); stainless steel (316L/1.4404); FKM; ceramics glass passivated; PPS GF40; acrylate	
Process connection	threaded connection G 1 internal thread	
Displays / operating elements		
Display		colour display 1,44", 128 x 128 pixels
		2 x LED, yellow
Remarks		
Remarks	MW = measured value	
	MEW = Final value of the measuring range	
	D = inside pipe diameter	
	Measuring, display and setting ranges refer to the 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 analogue output flow analogue output temperature signal output Preset counter Pulse output quantity meter input counter reset