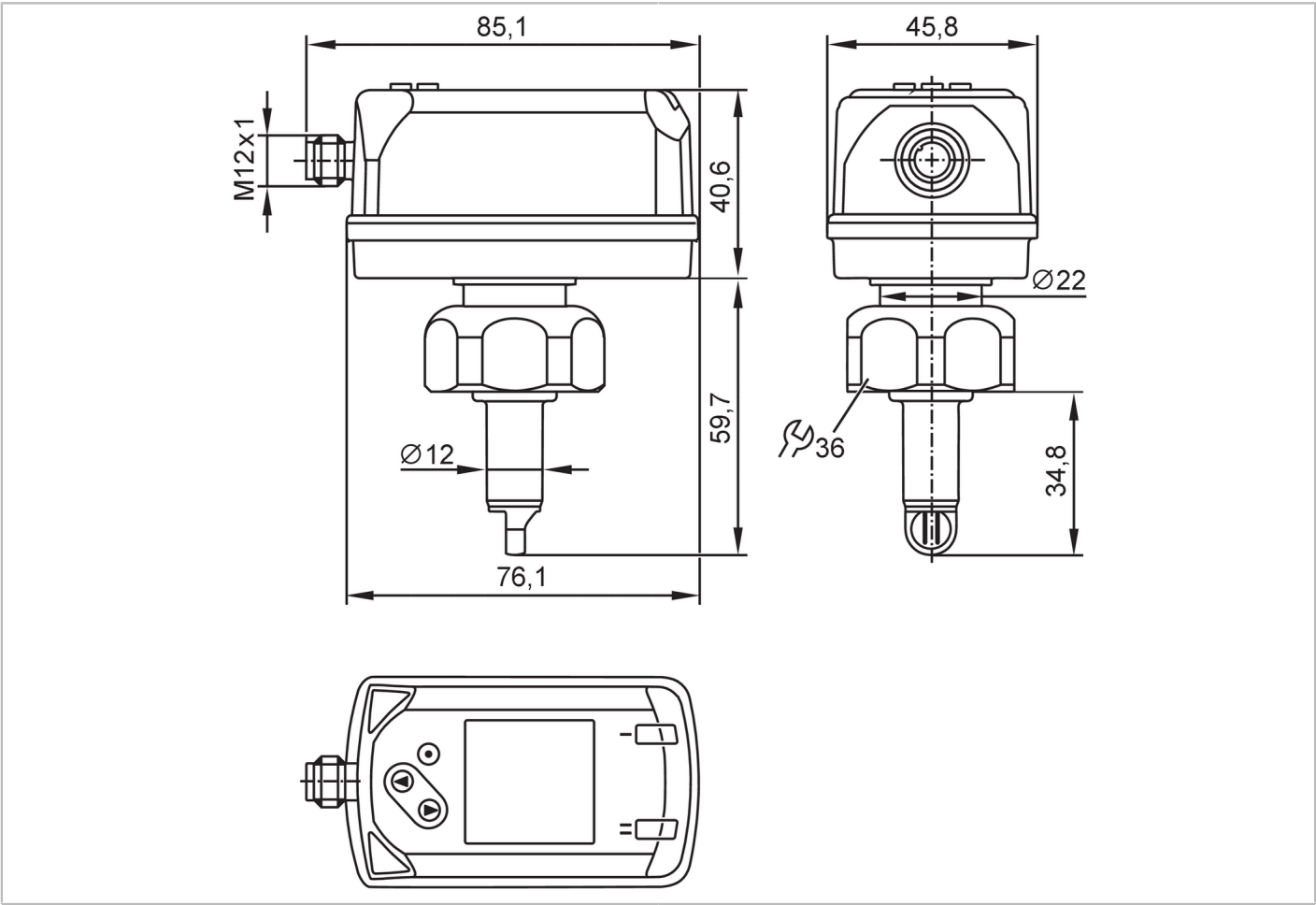


SD1440

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
Power-on delay time [s]	1



Compressed air meter

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Inputs / outputs			
Number of inputs and outputs		Number of digital outputs: 2; Number of analog outputs: 1	
Inputs			
Inputs		counter reset	
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
In steps of		0.1 °C	0.1 °F

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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, T09)
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
UL approval	UL approval number	I013
	File number UL	E174189
Mechanical data		
Weight	[g]	372.6
Housing		rectangular

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Dimensions	[mm]	85.1 x 45.8 x 100.3
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

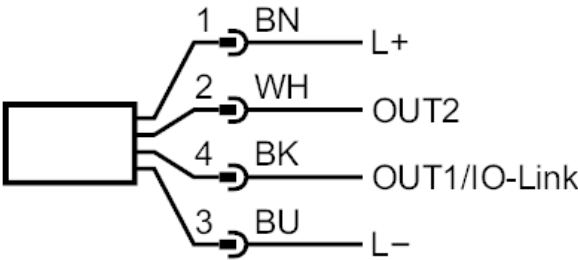
Remarks		
Remarks		MW = Measured value
		MEW = Final value of the measuring range
		D = inside pipe diameter
		Measuring, display and setting ranges refer to standard volume flow according to DIN ISO 2533.
		For information about installation and operation please see the operating instructions.
Pack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

Electrical connection

Connector: 1 x M12; coding: A; Contacts: 4



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