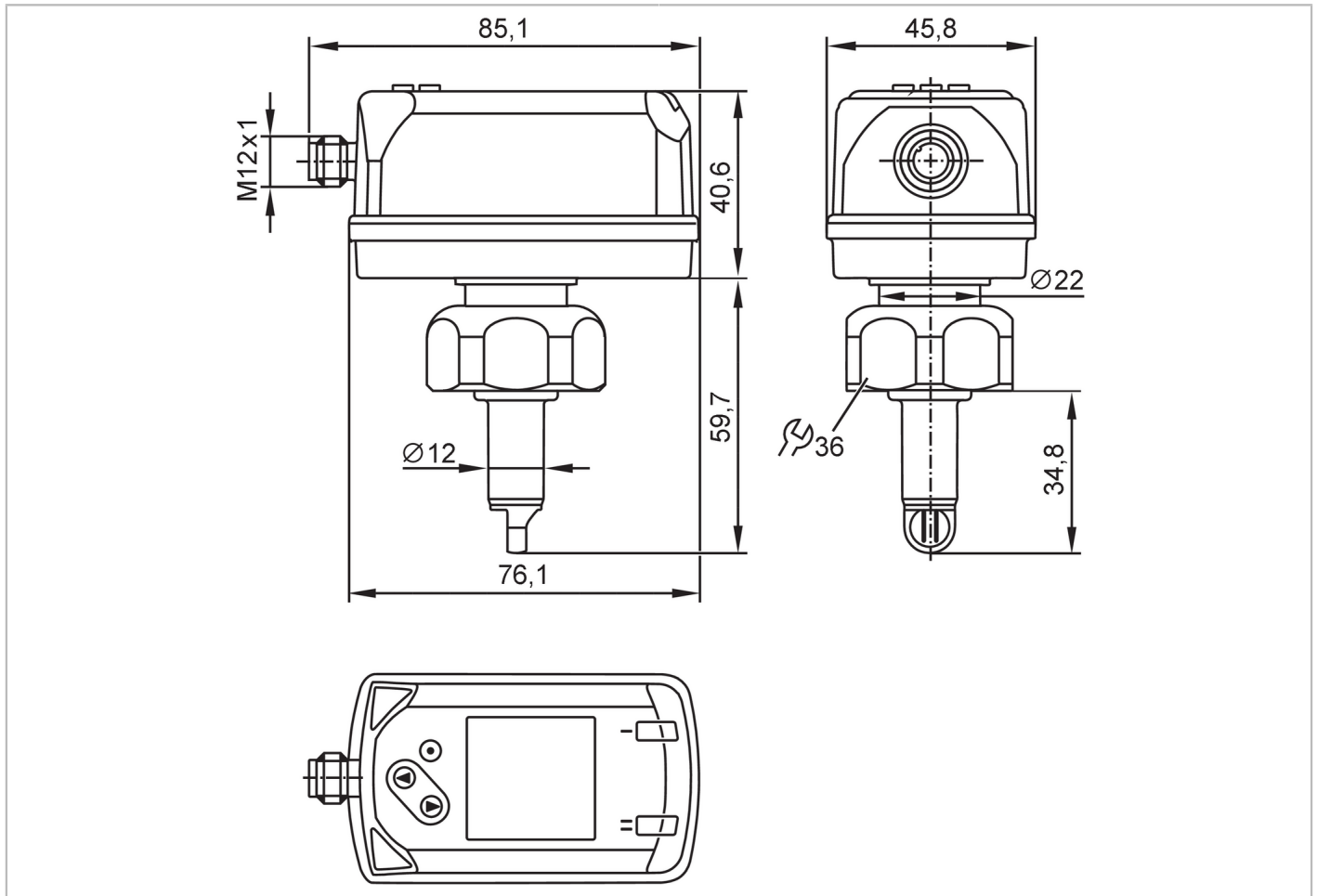


SD1540



Compressed air meter

SDD11DGXFRKG/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
Medium temperature [°C]	-10...60
Min. burst pressure	64 bar 6.4 MPa
Pressure rating	16 bar 1.6 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

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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
Pressure monitoring			
Measuring range [bar]	-1...16		
Display range [bar]	-1...20		
Resolution [bar]	0.05		
Set point SP [bar]	-0.92...16		
Reset point rP [bar]	-1...15.92		
Analog start point [bar]	-1...12.8		
Analog end point [bar]	2.2...16		
In steps of [bar]	0.01		
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	

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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
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 Nm ³ /h)
Repeatability		± 1,5 % MW
Pressure monitoring		
Repeatability	[% of the final value]	± 0,2
Characteristics deviation	[% of the final value]	< ± 0,5; (BFSL = Best Fit Straight Line)
Greatest TEMPCO of the span	[% MEW / 10 K]	± 0,3
Greatest TEMPCO of the zero point	[% MEW / 10 K]	± 0,1
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
Pressure monitoring		
Response time	[s]	0.05
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

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SIO mode	yes	
Required master port class	A	
Process data analog	8	
Process data binary	2	
Min. process cycle time [ms]	8	
Supported DeviceIDs	Type of operation default	DeviceID 872

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	
CPA approval	model number	-
	accuracy class	-
	maximum allowable error	± 7 % FS
	Q (min)	0,3 m³/h
	Q (t)	-
	Q (max)	26260 m³/h
Vibration resistance	DIN EN 68000-2-6	5 g (10...2000 Hz)
MTTF [years]		167
UL approval	UL approval number	I013
	File number UL	E174189

Mechanical data		
Weight [g]		408.3
Housing		rectangular
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; Al2O3 (ceramics); 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.

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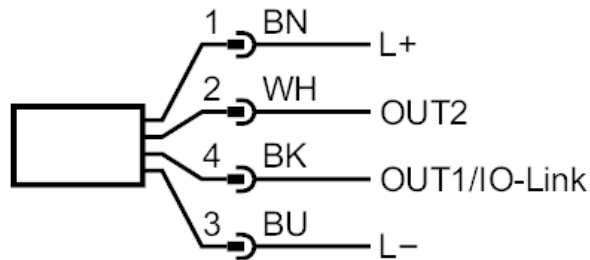
SDD11DGXFRKG/US-100

Electrical connection

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



Connection



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