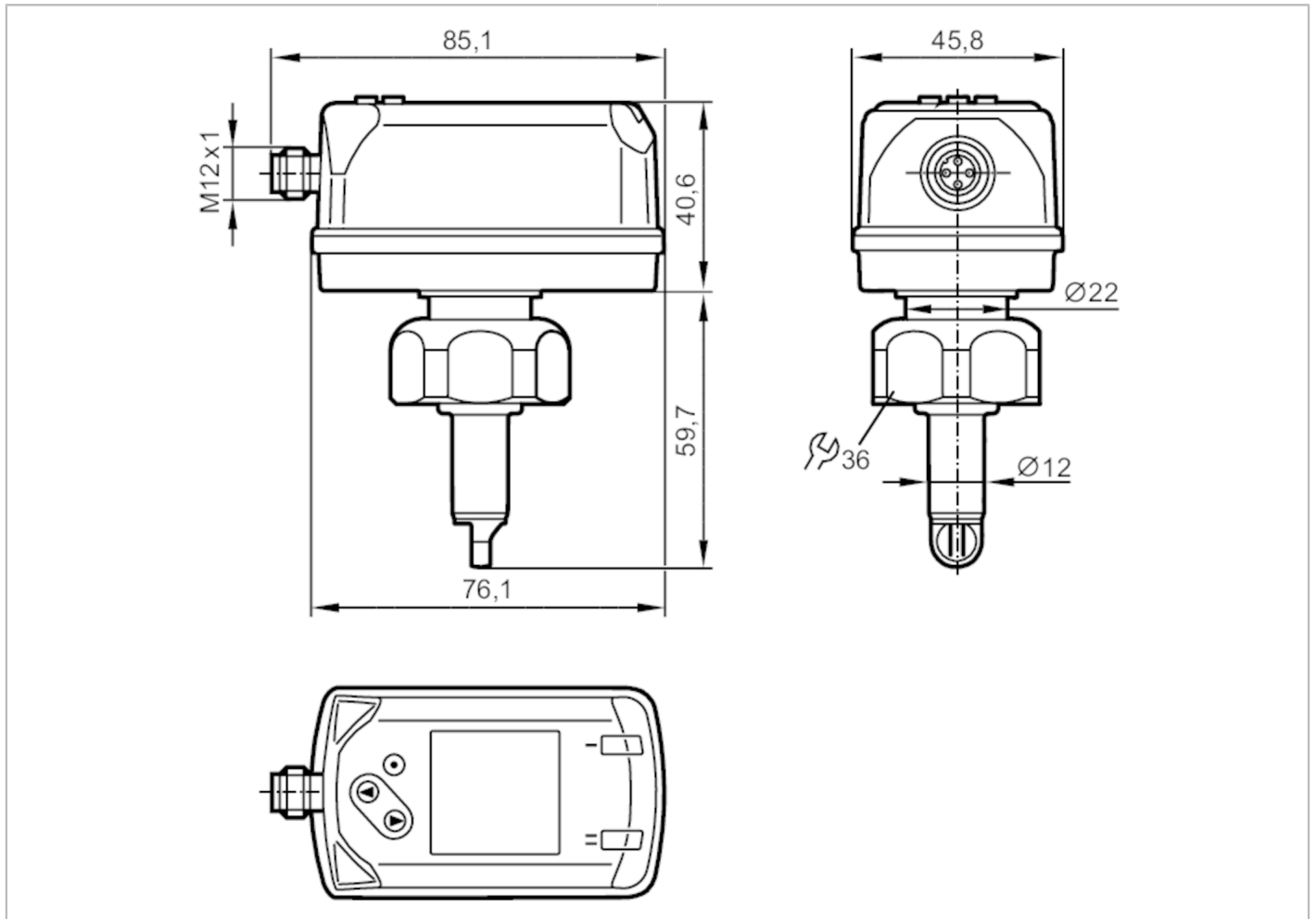


SD1540



Compressed air meter

SDD11DGXFRKG/US-100



Product characteristics

Number of inputs and outputs	Number of digital outputs: 2; Number of analogue outputs: 1		
Measuring range	0.6...143.9 m/s	0.3...26260 m ³ /h	0.005...437.6 m ³ /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. bursting pressure [bar]	64	
Min. bursting pressure [MPa]	6.4	
Pressure rating [bar]	16	
Pressure rating [Mpa]	1.6	

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Electrical data				
Operating voltage	[V]	18...30 DC; (according to EN 50178 SELV/PELV)		
Current consumption	[mA]	< 80		
Protection class		III		
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		
Inputs				
Inputs		counter reset		
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 m ³ /h	0.005...437.6 m ³ /min
Display range		0...172.7 m/s	0...31520 m ³ /h	0...525.2 m ³ /min
Resolution		0.1 m/s	0.05 m ³ /h	0.01 m ³ /min
Set point SP		1.4...143.9 m/s	0.8...26260 m ³ /h	0.013...437.6 m ³ /min
Reset point rP		0.7...143.2 m/s	0.4...26140 m ³ /h	0.007...435.6 m ³ /min
Analogue start point ASP		0...115.1 m/s	0...21000 m ³ /h	0...350 m ³ /min
Analogue end point AEP		28.8...143.9 m/s	422...26260 m ³ /h	7.04...437.6 m ³ /min
Low flow cut-off LFC		0.2...1.4 m/s	0.1...260 m ³ /h	0.002...4.4 m ³ /min
In steps of		0.1 m/s	0.01 m ³ /h	0.001 m ³ /min

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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
Analogue start point	[bar]	-1...12.8
Analogue end point	[bar]	2.2...16
In steps of	[bar]	0.01
Volumetric flow quantity monitoring		
Measuring range		0...1000000000 m ³ 0...35314666721 scf
Display range		0...1000000000 m ³ 0...35314666721 scf
Set point SP		0.01...100000000 m ³ 0.35...3531466672.1 scf
Pulse value		0.01...100000000 m ³ 0.35...3531466672.1 scf
In steps of		0.001 m ³ 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
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 Nm ³ /h)
Repeatability		± 1,5 % MW
Pressure monitoring		
Repeatability		± 0,2
	[% of the final value]	
Characteristics deviation		< ± 0,5; (BFSL = Best Fit Straight Line)
	[% of the final value]	
Greatest TEMPCO of the span		± 0,3
	[% MEW / 10 K]	
Greatest TEMPCO of the zero point		± 0,1
	[% MEW / 10 K]	
Temperature monitoring		
Accuracy	[K]	± 0,5; (medium flow in the limit area of the flow measurement range)

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Response times		
Response time	[s]	0.1; (dAP = 0)
Damping for the switching output 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 / 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]	7.2
Supported DeviceIDs	Type of operation	DeviceID
	Default	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	
	model number	-
	accuracy class	-
	maximum allowable error	± 7 % FS
CPA approval	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]	180
UL approval	UL Approval no.	I013
	File number UL	E174189

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Mechanical data	
Weight [g]	408.3
Materials	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; Al ₂ O ₃ (ceramics); 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



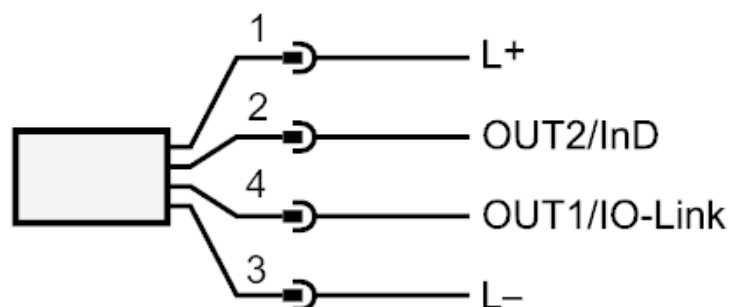
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Connection



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
 analogue output flow
 analogue output temperature
 analogue output pressure
 signal output Preset counter
 Pulse output quantity meter
 input counter reset