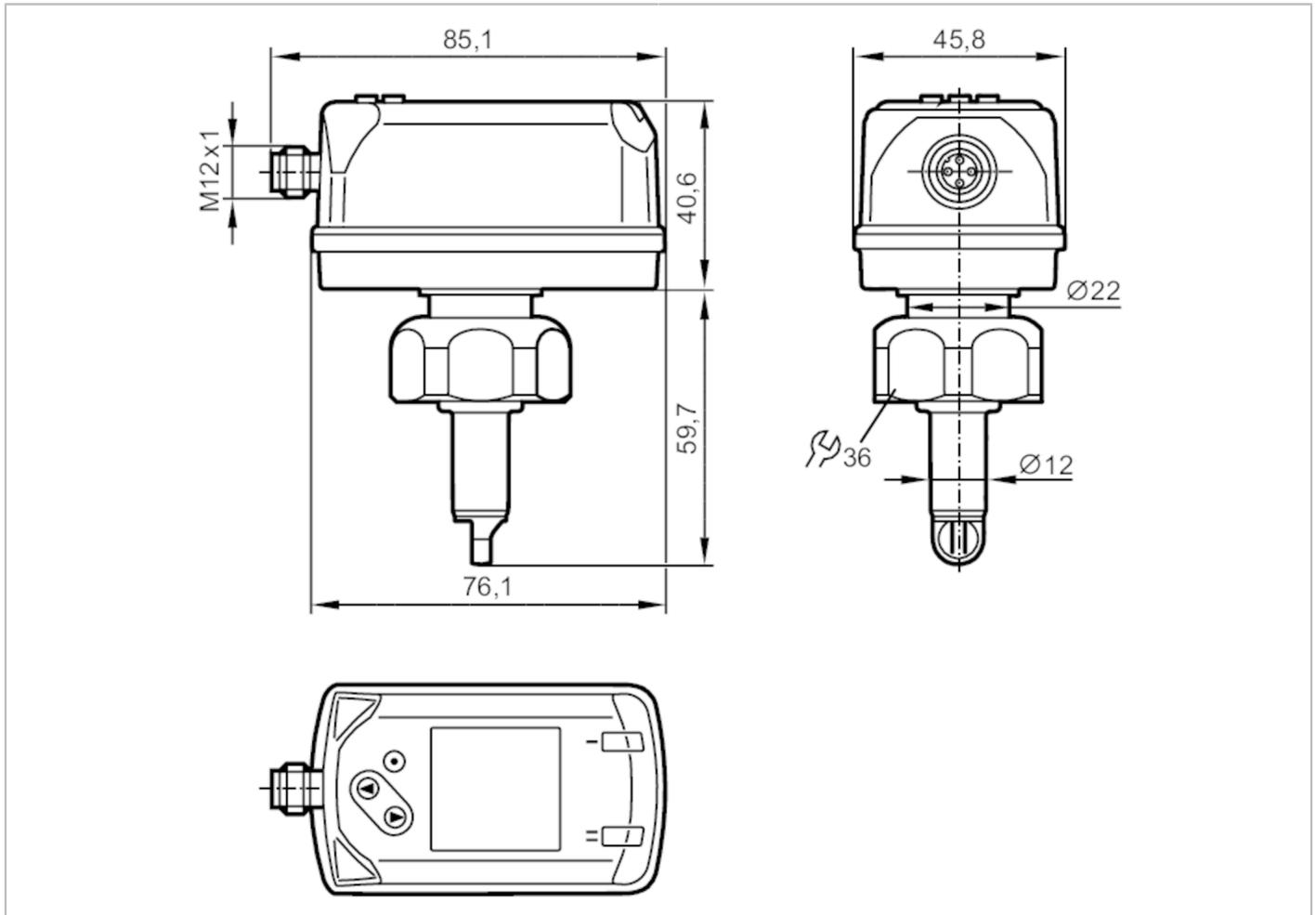


# SD1540



## 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. bursting pressure [bar]	64
Min. bursting pressure [MPa]	6.4
Pressure rating [bar]	16
Pressure rating [MPa]	1.6
MAWP (for applications according to CRN) [bar]	10
Electrical data	
Operating voltage [V]	18...30 DC; (to SELV/PELV)
Current consumption [mA]	< 80

# SD1540



## Compressed air meter

SDD11DGXFRKG/US-100

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 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
-----------------	-------------------	---------------------

# SD1540



## Compressed air meter

SDD11DGXFRKG/US-100

Display range	0...1000000000 m <sup>3</sup>	0...35314666721 scf
Set point SP	0.01...100000000 m <sup>3</sup>	0.35...3531466672.1 scf
Pulse value	0.01...100000000 m <sup>3</sup>	0.35...3531466672.1 scf
In steps of	0.001 m <sup>3</sup>	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

### 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 <sup>3</sup> /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)
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

# SD1540



## Compressed air meter

SDD11DGXFRKG/US-100

SDCI standard	IEC 61131-9 CDV	
Profiles	Digital Measuring Sensor (0x800A), Identification and Diagnosis (0x4000)	
SIO mode	yes	
Required master port class	A	
Process data analog	8	
Process data binary	2	
Min. process cycle time [ms]	7.2	
Supported DeviceIDs	<b>Type of operation</b>	<b>DeviceID</b>
	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	
CPA approval	model number	-
	accuracy class	-
	maximum allowable error	± 7 % FS
	Q (min)	0,3 m³/h
	Q (t)	-
Vibration resistance	Q (max)	26260 m³/h
	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	
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.	

# SD1540



## Compressed air meter

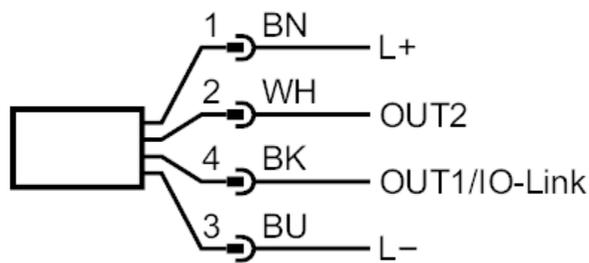
SDD11DGXFRKG/US-100

### Electrical connection

Connector: 1 x M12; coding: A



### 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