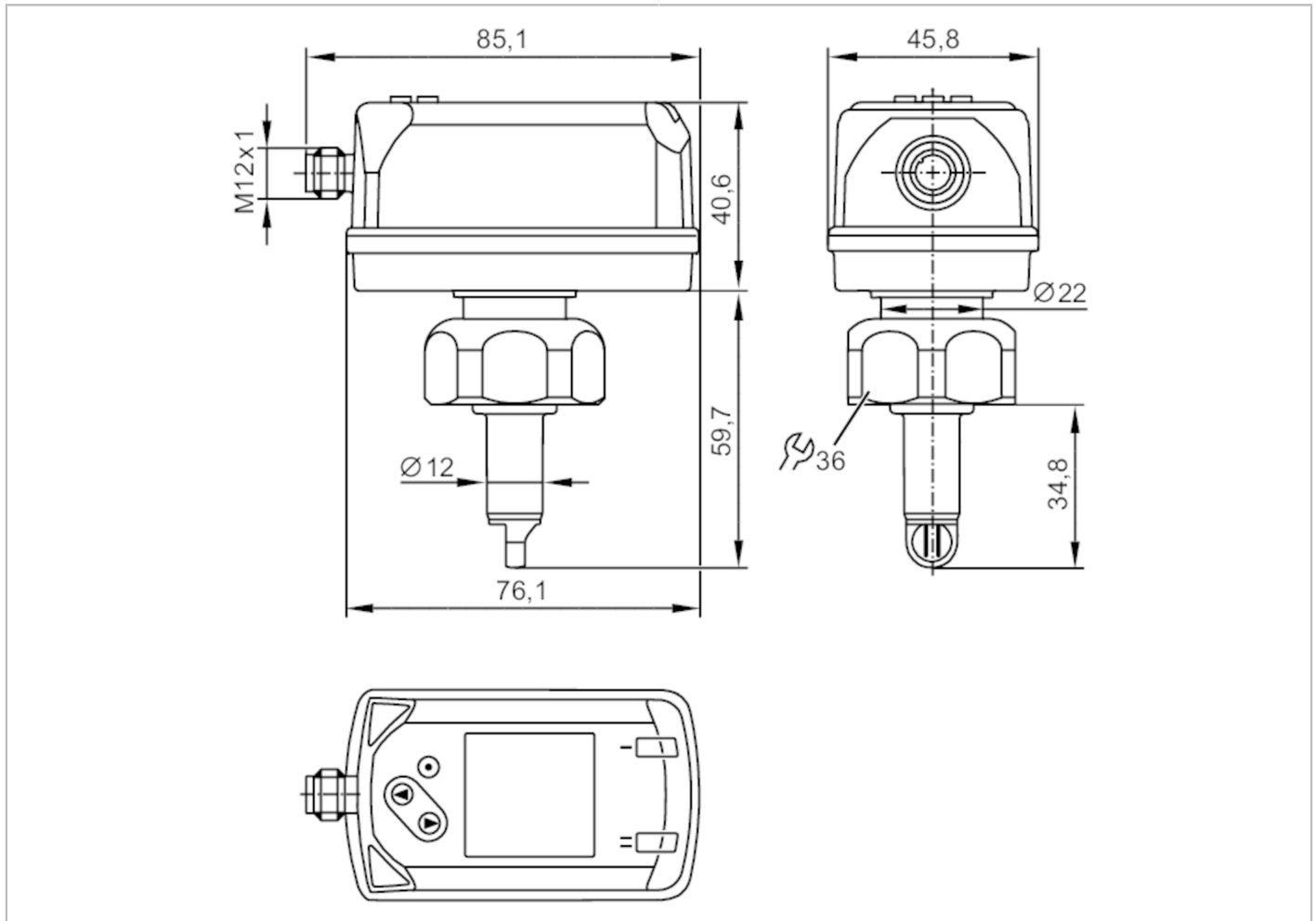


# SD1440



## Compressed air meter

SDD11DXXFRKG/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 <sup>3</sup> /h	0.005...437.6 m <sup>3</sup> /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 (N <sub>2</sub> )		
Medium temperature [°C]	-10...60		
Min. bursting 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		

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Power-on delay time	[s]	1
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### 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
Analogue end point	4...60 °C	39.2...140 °F

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## Compressed air meter

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In steps of	0.1 °C	0.1 °F
<b>Accuracy / deviations</b>		
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	
<b>Temperature monitoring</b>		
Accuracy [K]	± 0,5; (medium flow in the limit area of the flow measurement range)	
<b>Response times</b>		
Response time [s]	0.1; (dAP = 0)	
Damping process value dAP [s]	0...5	
<b>Temperature monitoring</b>		
Dynamic response T05 / T09 [s]	T09 = 0,5	
<b>Software / programming</b>		
Parameter setting options	hysteresis / window; normally open / normally closed; current/pulse output; display can be rotated and switched off; Display unit; totaliser	
<b>Interfaces</b>		
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 type	A	
Process data analogue	8	
Process data binary	2	
Min. process cycle time [ms]	6.8	
Supported DeviceIDs	<b>Type of operation</b> default	<b>DeviceID</b> 1592
<b>Operating conditions</b>		
Ambient temperature [°C]	0...60	
Storage temperature [°C]	-20...85	
Max. relative air humidity [%]	90	
Protection	IP 65; IP 67	
<b>Tests / approvals</b>		
EMC	DIN EN 60947-5-9	
Vibration resistance	DIN EN 68000-2-6	5 g (10...2000 Hz)
MTTF [years]	190	
<b>Mechanical data</b>		
Weight [g]	372.6	
Housing	rectangular	
Dimensions [mm]	85.1 x 45.8 x 100.3	

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## Compressed air meter

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Materials	PBT+PC-GF30; PPS GF40; stainless steel (304/1.4301); stainless steel (303/1.4305); stainless steel (316L/1.4404); FKM
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
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### 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.

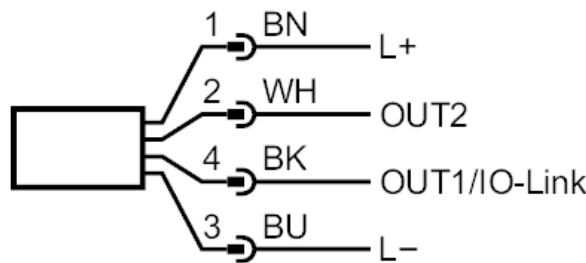
Pack quantity	1 pcs.
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### Electrical connection

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