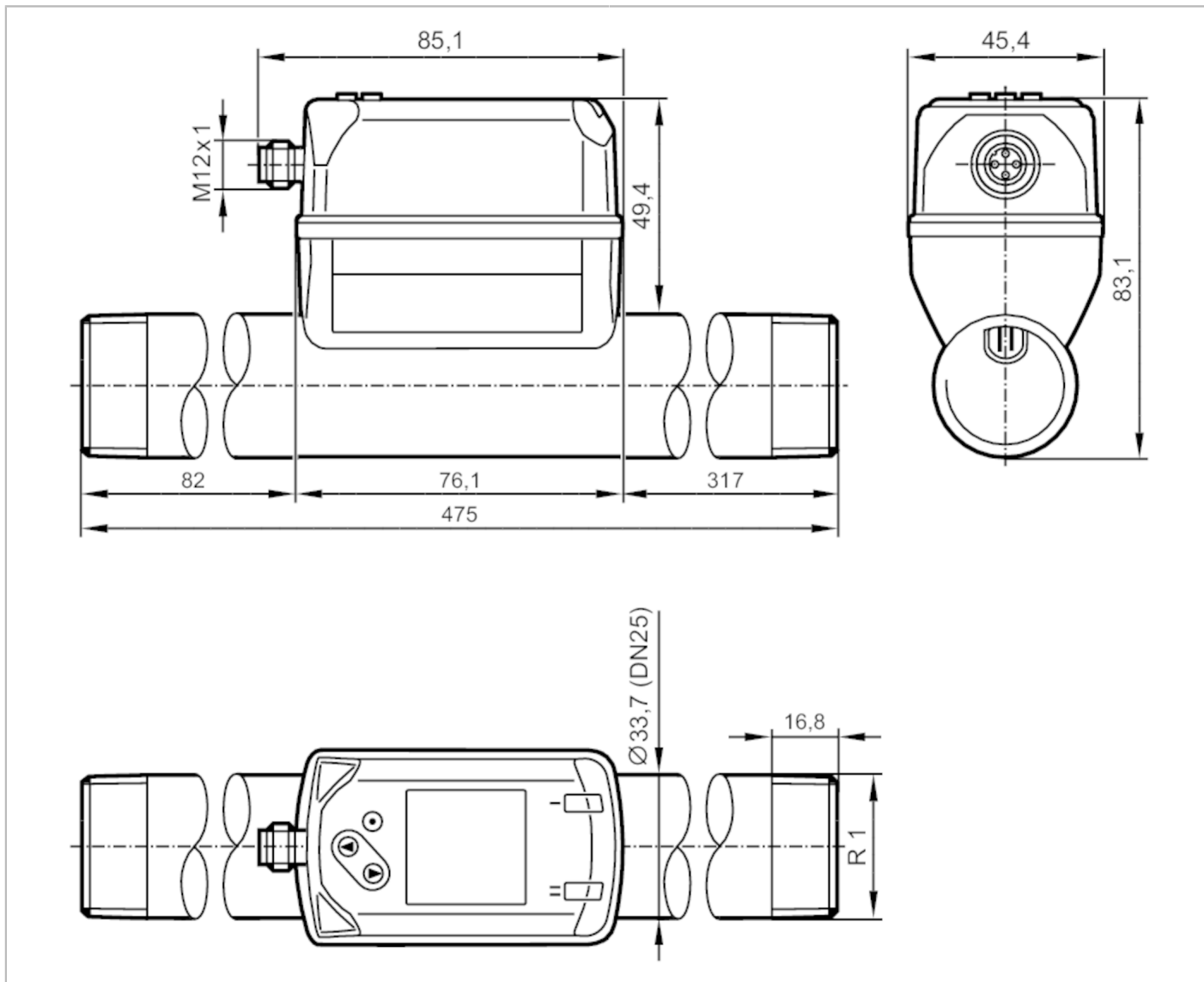


# SD8500



## Compressed air meter

SDR11DGXFRKG/US-100



### Product characteristics

Number of inputs and outputs	Number of digital outputs: 2; Number of analog outputs: 1		
Measuring range	14...3750 l/min	0.4...103.7 m/s	0.8...225 m³/h
Process connection	threaded connection R 1 DN25		

### Application

Application	for industrial applications		
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]	10.5		

# SD8500



## Compressed air meter

SDR11DGXFRKG/US-100

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	
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		14...3750 l/min	0.4...103.7 m/s
Display range		0...4500 l/min	0...124.4 m/s
Resolution		2 l/min	0.1 m/s
Set point SP		32...3749 l/min	0.9...103.7 m/s
Reset point rP		14...3730 l/min	0.4...103.2 m/s
Analog start point ASP		0...3000 l/min	0...83 m/s
Analog end point AEP		750...3750 l/min	20.7...103.7 m/s
Low flow cut-off LFC		4...40 l/min	0.1...1.1 m/s
In steps of		1 l/min	0.1 m/s
0.1 m³/h			0.1 m³/h
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	

# SD8500



## Compressed air meter

SDR11DGXFRKG/US-100

In steps of	[bar]	0.01
<b>Volumetric flow quantity monitoring</b>		
Measuring range	0...100000000 m <sup>3</sup>	0...353146667.2 scf
Display range	0...100000000 m <sup>3</sup>	0...353146667.2 scf
Set point SP	0.001...10000000 m <sup>3</sup>	0.05...353146667.2 scf
Pulse value	0.001...10000000 m <sup>3</sup>	0.05...353146667.2 scf
In steps of	0.0001 m <sup>3</sup>	0.005 scf
Pulse length	[s]	0.007...2
<b>Temperature monitoring</b>		
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
<b>Accuracy / deviations</b>		
Temperature coefficient	[1/K]	± 0,07 % MW
Accuracy (in the measuring range)		class 141: ± (2 % MW + 0,5 % MEW); class 344: ± (6 % MW + 0,6 % MEW) ; air quality to ISO 8573-1:2010; at medium temperature 23 °C
Repeatability		± (0,4 % MW + 0,1 % MEW)
<b>Pressure monitoring</b>		
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
<b>Temperature monitoring</b>		
Accuracy	[K]	± 0,5; (medium flow in the limit area of the flow measurement range)
<b>Reaction times</b>		
Response time	[s]	0.1; (dAP = 0)
Damping process value dAP	[s]	0...5
<b>Pressure monitoring</b>		
Response time	[s]	0.05
<b>Temperature monitoring</b>		
Dynamic response T05 / T09	[s]	T09 = 0,5
<b>Software / programming</b>		
Parameter setting options		hysteresis / window; normally open / closed; current/pulse output; display can be rotated and switched off; Display unit; totalizer

# SD8500



## Compressed air meter

SDR11DGXFRKG/US-100

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 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	866
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	001TG
	accuracy class	-
	maximum allowable error	± 2,5 % FS
	Q (min)	0,8 m³/h
	Q (t)	-
	Q (max)	225 m³/h
Vibration resistance	DIN EN 68000-2-6	
MTTF [years]	183	
UL approval	UL approval number	I012
	File number UL	E174189
Pressure equipment directive	sound engineering practice; can be used for stable gases fluid group 2	
Mechanical data		
Weight [g]	1598.5	
Material	PBT+PC-GF30; PPS GF40; stainless steel (1.4301 / 304); stainless steel (1.4305 / 303); steel (1.5523) galvanized; 2.0401 (brass / CW614N); FKM	
Materials (wetted parts)	stainless steel (1.4301 / 304); stainless steel (1.4305 / 303); FKM; ceramics glass passivated; PPS GF40; Al2O3 (ceramics); acrylate	
Process connection	threaded connection R 1 DN25	
Displays / operating elements		
Display	Color display 1,44", 128 x 128 pixels	
	2 x LED, yellow	

# SD8500



## Compressed air meter

SDR11DGXFRKG/US-100

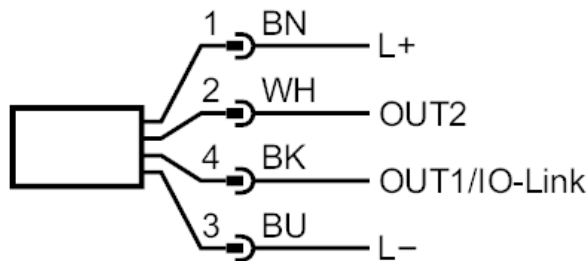
Remarks	
Remarks	MW = Measured value MEW = Final value of the measuring range Measuring, display and setting ranges refer to standard volume flow according to DIN ISO 2533. For information about installation and operation please see the operating instructions.
Pack quantity	1 pcs.

### Electrical connection

Connector: 1 x M12; coding: A



### 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