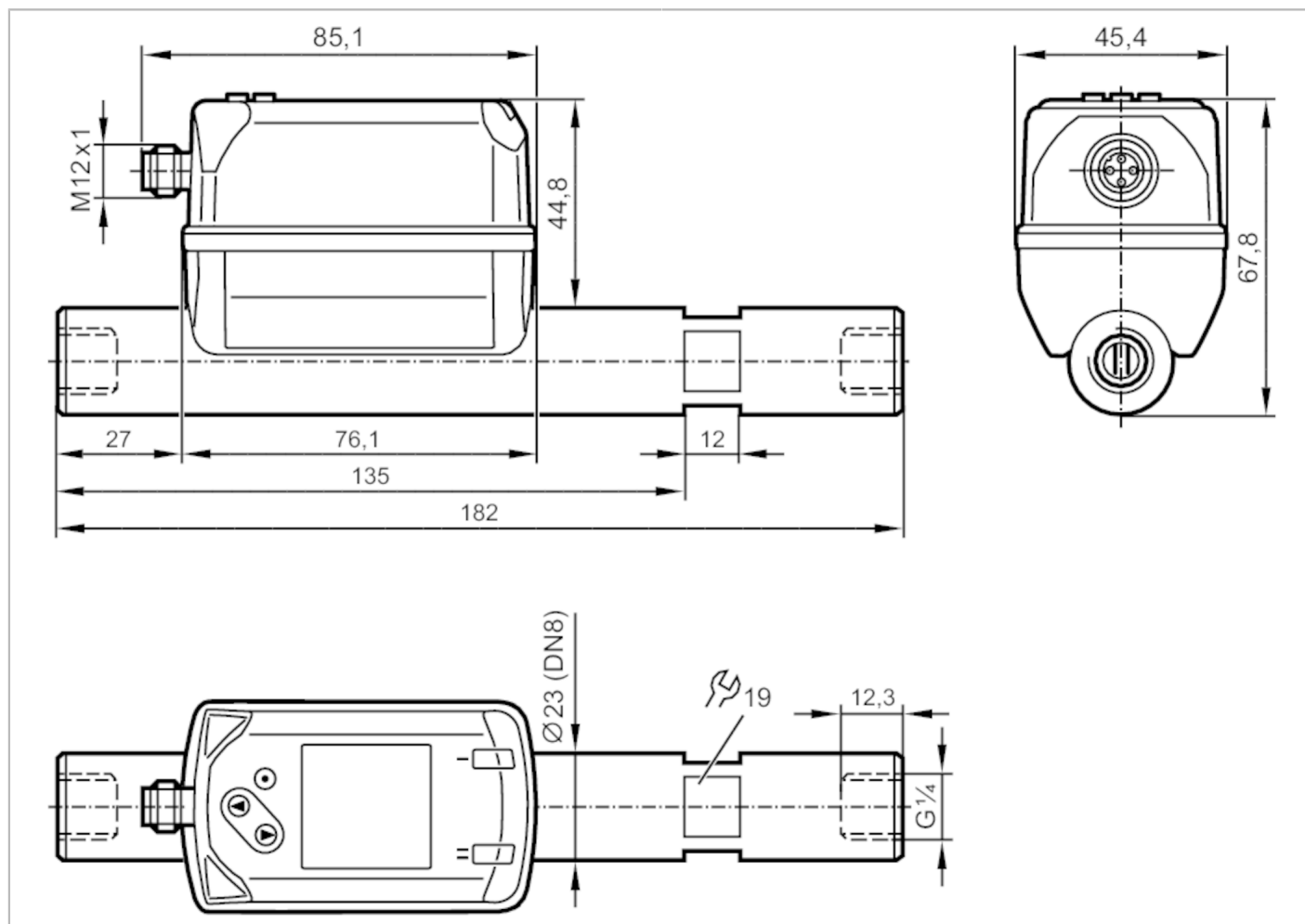


SD5500



Compressed air meter

SDR14DGXFRKG/US-100



Product characteristics

Number of inputs and outputs	Number of digital outputs: 2; Number of analog outputs: 1		
Measuring range	0.8...250 l/min	0.3...82.9 m/s	0.05...15 m³/h
Process connection	threaded connection G 1/4 Internal thread DN8		

Application

Application	for industrial applications	
Media	compressed air	
Medium temperature [°C]	-10...60	
Min. bursting pressure	64 bar	6.4 MPa
Pressure rating	16 bar	1.6 MPa
MAWP (for applications according to CRN) [bar]	9.5	

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



Compressed air meter

SDR14DGXFRKG/US-100

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		0.8...250 l/min	0.3...82.9 m/s
Display range		0...300 l/min	0...99.5 m/s
Resolution		0.2 l/min	0.1 m/s
Set point SP		2.2...249.9 l/min	0.7...82.9 m/s
Reset point rP		0.9...248.7 l/min	0.3...82.5 m/s
Analog start point ASP		0...200 l/min	0...66.3 m/s
Analog end point AEP		50...250 l/min	16.6...82.9 m/s
Low flow cut-off LFC		0.3...2.7 l/min	0.1...0.9 m/s
In steps of		0.1 l/min	0.1 m/s
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...100000000 m³	0...353146667.2 scf
Display range		0...100000000 m³	0...353146667.2 scf
Set point SP		0.001...10000000 m³	0.05...353146667.2 scf
Pulse value		0.001...10000000 m³	0.05...353146667.2 scf
In steps of		0.0001 m³	0.005 scf

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Pulse length	[s]	0.01...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)		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)
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)
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
SDCI standard		IEC 61131-9 CDV
Profiles		Digital Measuring Sensor (0x800A), Identification and Diagnosis (0x4000)
SIO mode		yes
Required master port class		A

SD5500



Compressed air meter

SDR14DGXFRKG/US-100

Process data analog	8	
Process data binary	2	
Min. process cycle time [ms]	7.2	
Supported DeviceIDs	Type of operation	DeviceID
	default	860

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)	0,05 m³/h
	Q (t)	-
	Q (max)	15 m³/h
Vibration resistance	DIN EN 68000-2-6	5 g (10...2000 Hz)
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]		556
Housing		rectangular
Dimensions [mm]		182 x 45.4 x 67.8
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)	EN AW-6082 (aluminium); stainless steel (1.4305 / 303); FKM; ceramics glass passivated; PPS GF40; Al2O3 (ceramics); acrylate	
Process connection	threaded connection G 1/4 Internal thread DN8	

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	
	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.	

SD5500



Compressed air meter

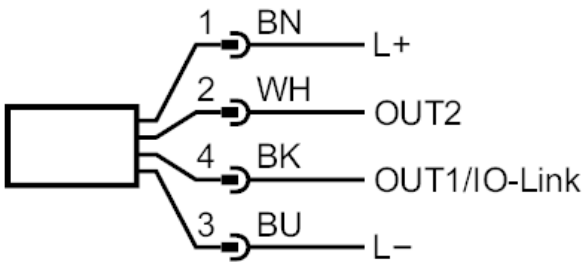
SDR14DGXFRKG/US-100

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 |