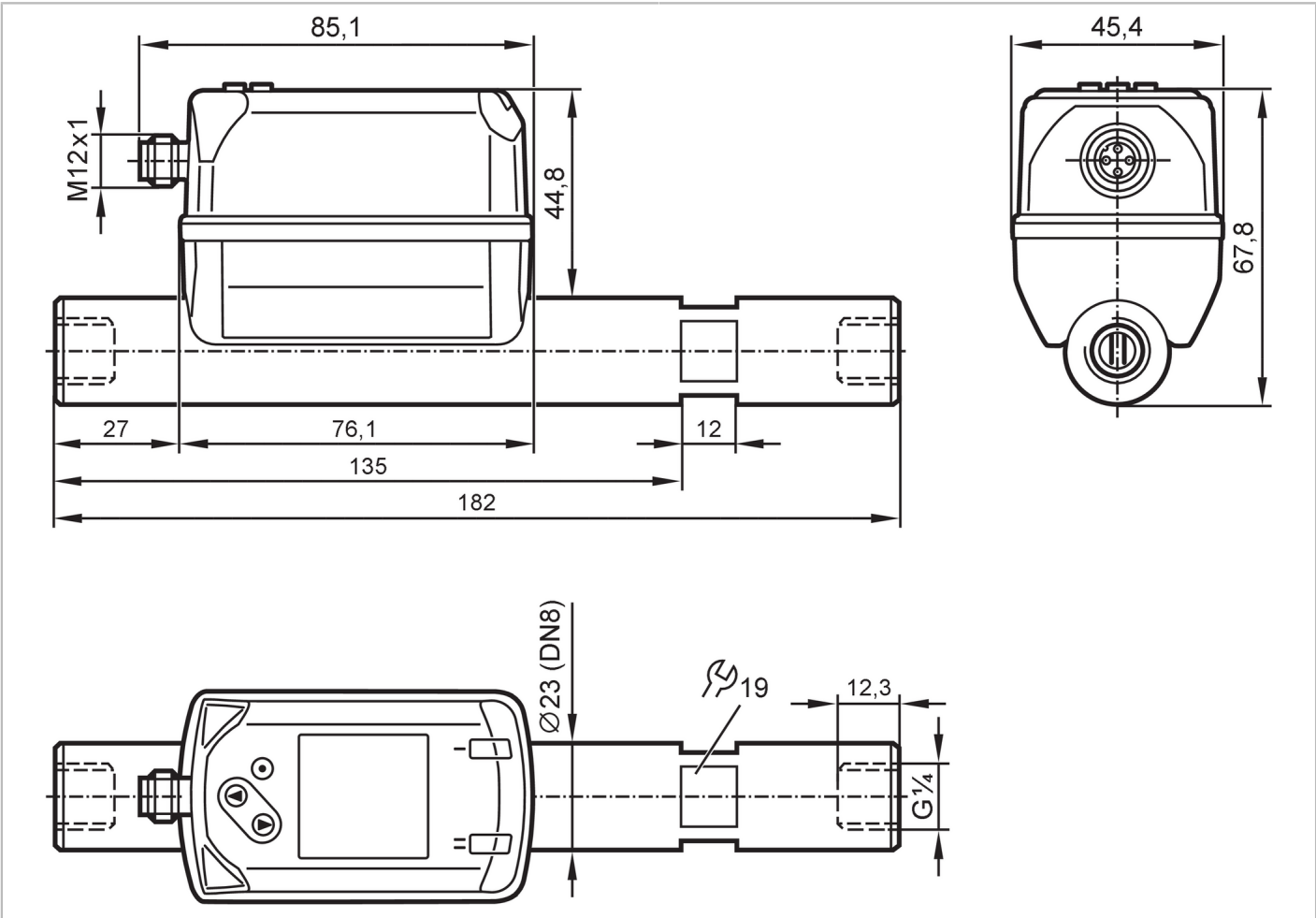


SD5500



Compressed air meter

SDR14DGXFRKG/US-100



CRN



DNV
DNV.COM/AF

IO-Link



UK
CA

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. burst 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		



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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, T09)
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	Common - I&D	Identification and Diagnosis
	Function	Measurement data, standard resolution
SIO mode		yes

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Required master port class	A	
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.

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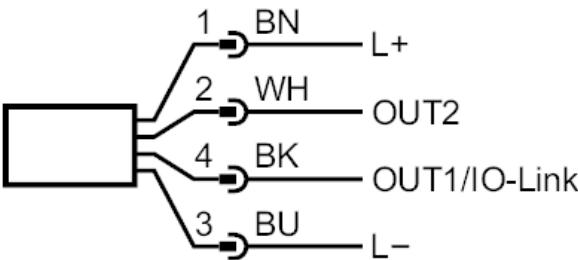
SDR14DGXFRKG/US-100

Electrical connection

Connector: 1 x M12; coding: A; Contacts: 4



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