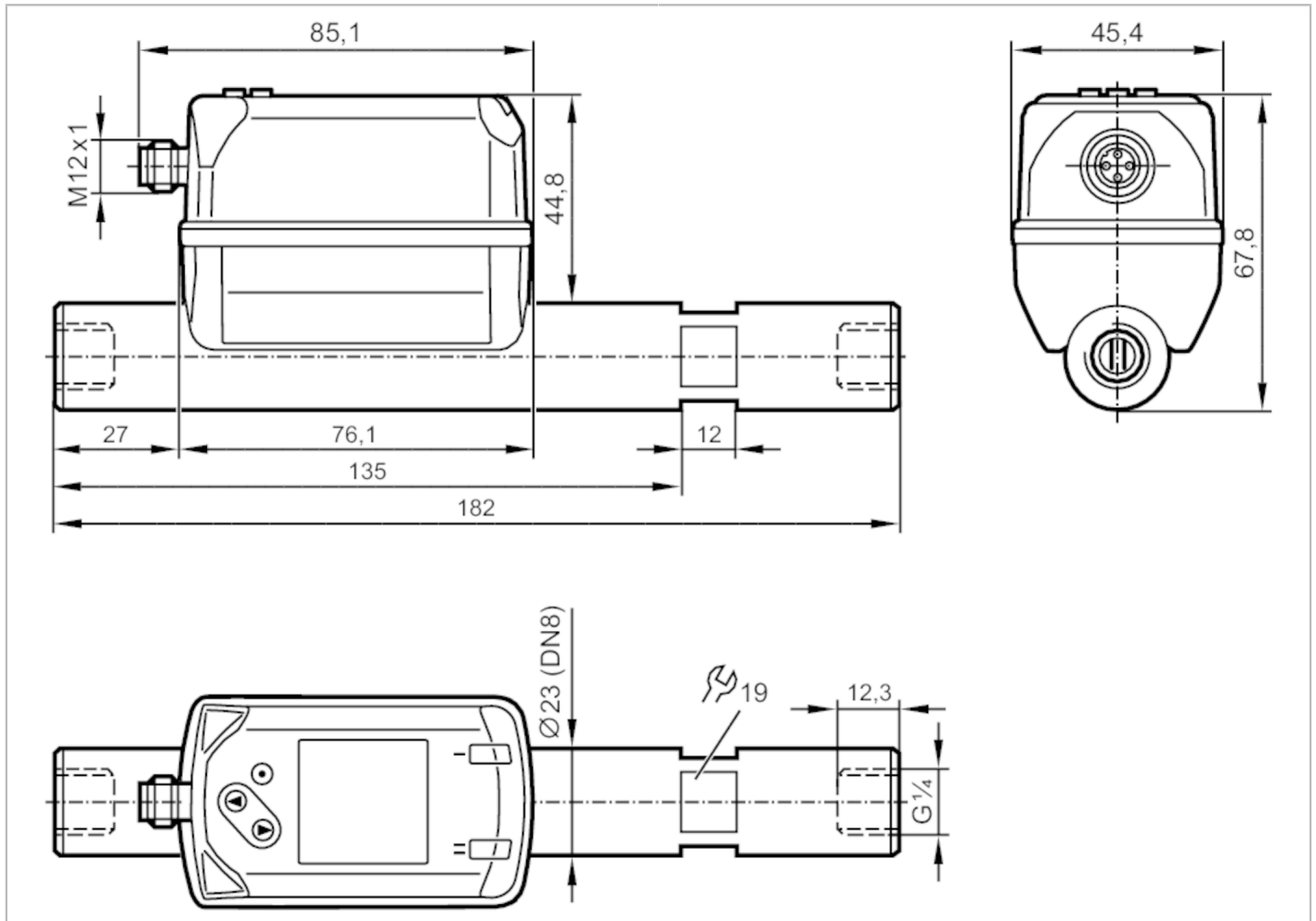


SD5600



Industrial gas counter

SDR14DGXFRKG/US-100



Product characteristics

Number of inputs and outputs	Number of digital outputs: 2; Number of analog outputs: 1
Process connection	threaded connection G 1/4 DN8
Pressure monitoring	
Measuring range [bar]	-1...16

Application

Application	for industrial applications
Media	Argon (Ar); carbon dioxide (CO ₂); nitrogen (N ₂); 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

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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		0.8...250 l/min	0.3...82.9 m/s	0.05...15 m ³ /h
Display range		0...300 l/min	0...99.5 m/s	0...18 m ³ /h
Resolution		0.2 l/min	0.1 m/s	0.01 m ³ /h
Set point SP		2.2...249.9 l/min	0.7...82.9 m/s	0.13...14.99 m ³ /h
Reset point rP		0.9...248.7 l/min	0.3...82.5 m/s	0.06...14.92 m ³ /h
Analog start point ASP		0...200 l/min	0...66.3 m/s	0...12 m ³ /h
Analog end point AEP		50...250 l/min	16.6...82.9 m/s	3...15 m ³ /h
Low flow cut-off LFC		0.3...2.7 l/min	0.1...0.9 m/s	0.02...0.16 m ³ /h
In steps of		0.1 l/min	0.1 m/s	0.01 m ³ /h

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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 m ³ 0...353146667.2 scf
Display range		0...100000000 m ³ 0...353146667.2 scf
Set point SP		0.001...10000000 m ³ 0.05...353146667.2 scf
Pulse value		0.001...10000000 m ³ 0.05...353146667.2 scf
In steps of		0.0001 m ³ 0.005 scf
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)		± (6 % MW + 0,6 % MEW); at medium temperature 23 °C
Repeatability		± (0,4 % MW + 0,1 % MEW)
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

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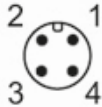
Pressure monitoring		
Response time	[s]	0.05
Temperature monitoring		
Dynamic response T05 / T09	[s]	T09 = 0,5
Software / programming		
Parameter setting options	hysteresis / window; normally open / closed; current/pulse output; display can be rotated and switched off; Display unit; totalizer	
Interfaces		
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	
Process data analog	8	
Process data binary	2	
Min. process cycle time	[ms]	7.2
Supported DeviceIDs	Type of operation	DeviceID
	default	861
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	
	model number	003TG
	accuracy class	-
	maximum allowable error	± 7 % FS
	Q (min)	0,05 m³/h (Air)
	Q (t)	-
CPA approval	Q (max)	15 m³/h (Air)
	DIN EN 68000-2-6	5 g (10...2000 Hz)
	MTTF	[years]
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]	558
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 DN8	

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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 Standard conditions: 1013.25 mbar / 15 °C / 0 % relative humidity For information about installation and operation please see the operating instructions.
Pack quantity	1 pcs.
Electrical connection	
Connector: 1 x M12; coding: A	
	

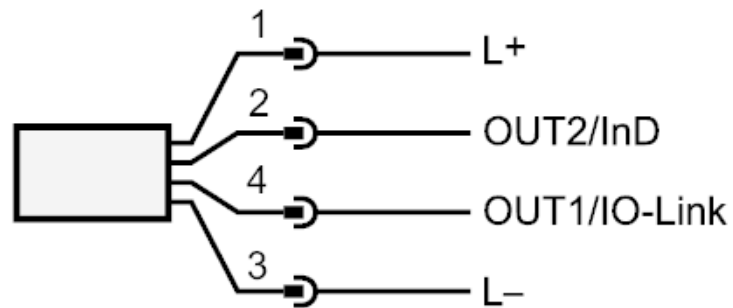
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Connection



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