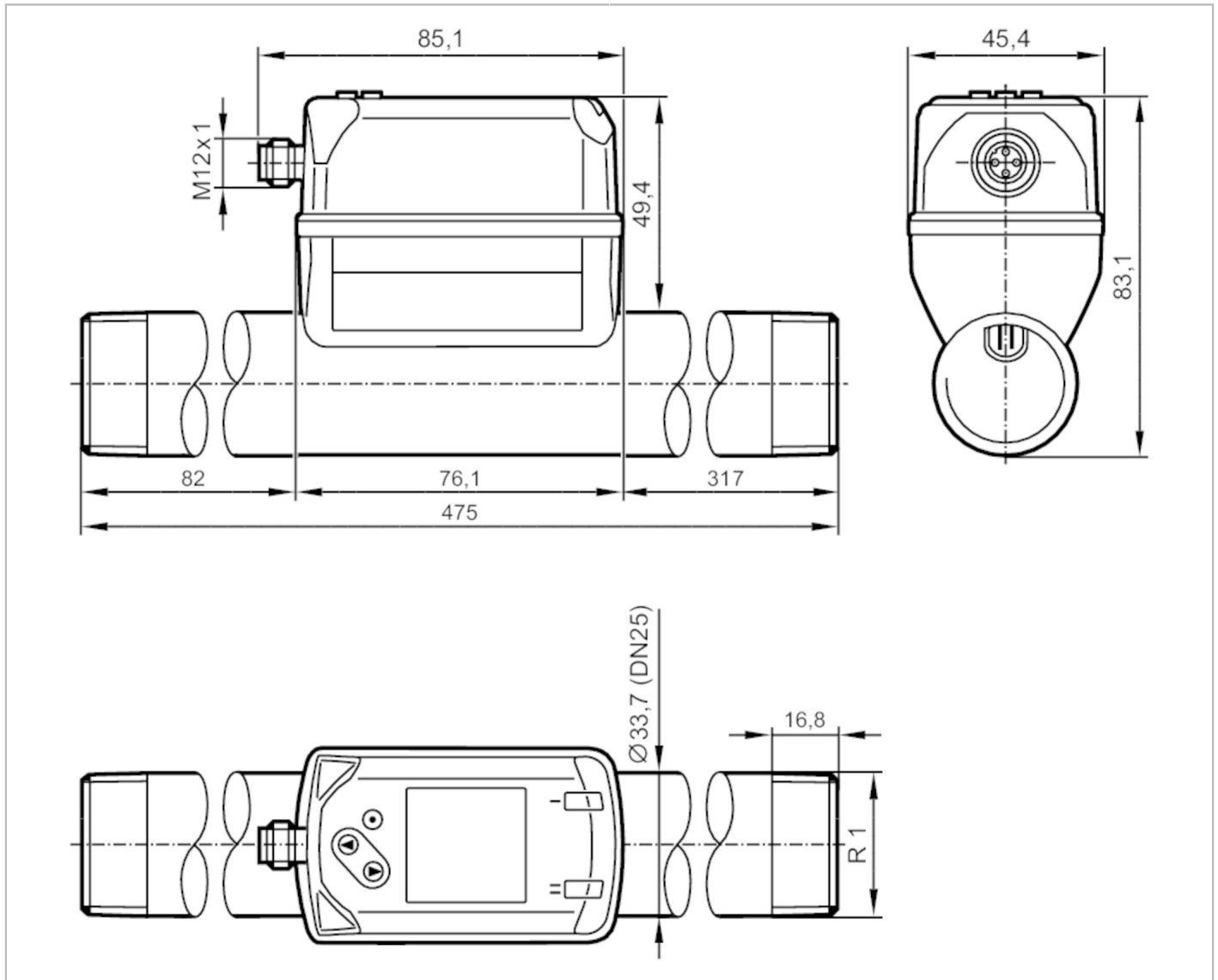


# SD8600



## Industrial gas counter

SDR11DGXFRKG/US-100



### Product characteristics

Number of inputs and outputs	Number of digital outputs: 2; Number of analogue outputs: 1
Process connection	threaded connection R 1 DN25

### Pressure monitoring

Measuring range	[bar]	-1...16
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### Application

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



## Industrial gas counter

SDR11DGXFRKG/US-100

Electrical data				
Operating voltage	[V]	18...30 DC; (according to EN 50178 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 analogue outputs: 1		
Inputs				
Inputs		counter reset		
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		14...3750 l/min	0.4...103.7 m/s	0.8...225 m <sup>3</sup> /h
Display range		0...4500 l/min	0...124.4 m/s	0...270 m <sup>3</sup> /h
Resolution		2 l/min	0.1 m/s	0.1 m <sup>3</sup> /h
Set point SP		32...3749 l/min	0.9...103.7 m/s	1.9...224.9 m <sup>3</sup> /h
Reset point rP		14...3730 l/min	0.4...103.2 m/s	0.8...223.8 m <sup>3</sup> /h
Analogue start point ASP		0...3000 l/min	0...83 m/s	0...180 m <sup>3</sup> /h
Analogue end point AEP		750...3750 l/min	20.7...103.7 m/s	45...225 m <sup>3</sup> /h
Low flow cut-off LFC		4...40 l/min	0.1...1.1 m/s	0.3...2.4 m <sup>3</sup> /h
In steps of		1 l/min	0.1 m/s	0.1 m <sup>3</sup> /h

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## Industrial gas counter

SDR11DGXFRKG/US-100

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
Analogue start point	[bar]	-1...12.8
Analogue end point	[bar]	2.2...16
In steps of	[bar]	0.01
Volumetric flow quantity monitoring		
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
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
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)
Response times		
Response time	[s]	0.1; (dAP = 0)
Damping for the switching output dAP	[s]	0...5

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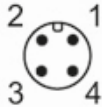
Pressure monitoring		
Response time	[s]	0.05
Temperature monitoring		
Dynamic response T05 / T09	[s]	T09 = 0,5
Software / programming		
Parameter setting options	hysteresis / window; normally open / normally closed; current/pulse output; display can be rotated and switched off; Display unit; totaliser	
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 type	A	
Process data analogue	8	
Process data binary	2	
Min. process cycle time	[ms]	7.2
Supported DeviceIDs	Type of operation Default	DeviceID 868
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)	0,8 m³/h
CPA approval	Q (t)	-
	Q (max)	225 m³/h
	DIN EN 68000-2-6	5 g (10...2000 Hz)
Vibration resistance		
MTTF	[years]	183
UL approval	UL Approval no.	I012
	File number UL	E174189
Pressure Equipment Directive	Sound engineering practice; can be used for stable gases fluid group 2	
Mechanical data		
Weight	[g]	1609
Materials	PBT+PC-GF30; PPS GF40; stainless steel (1.4301 / 304); stainless steel (1.4305 / 303); steel (1.5523) galvanised; 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	

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Displays / operating elements	
Display	colour 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	
	

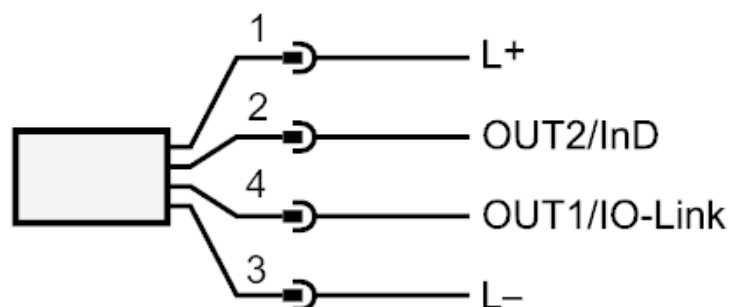
# SD8600



## Industrial gas counter

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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  
                      analogue output flow  
                      analogue output temperature  
                      analogue output pressure  
                      signal output Preset counter  
                      Pulse output quantity meter  
                      input counter reset