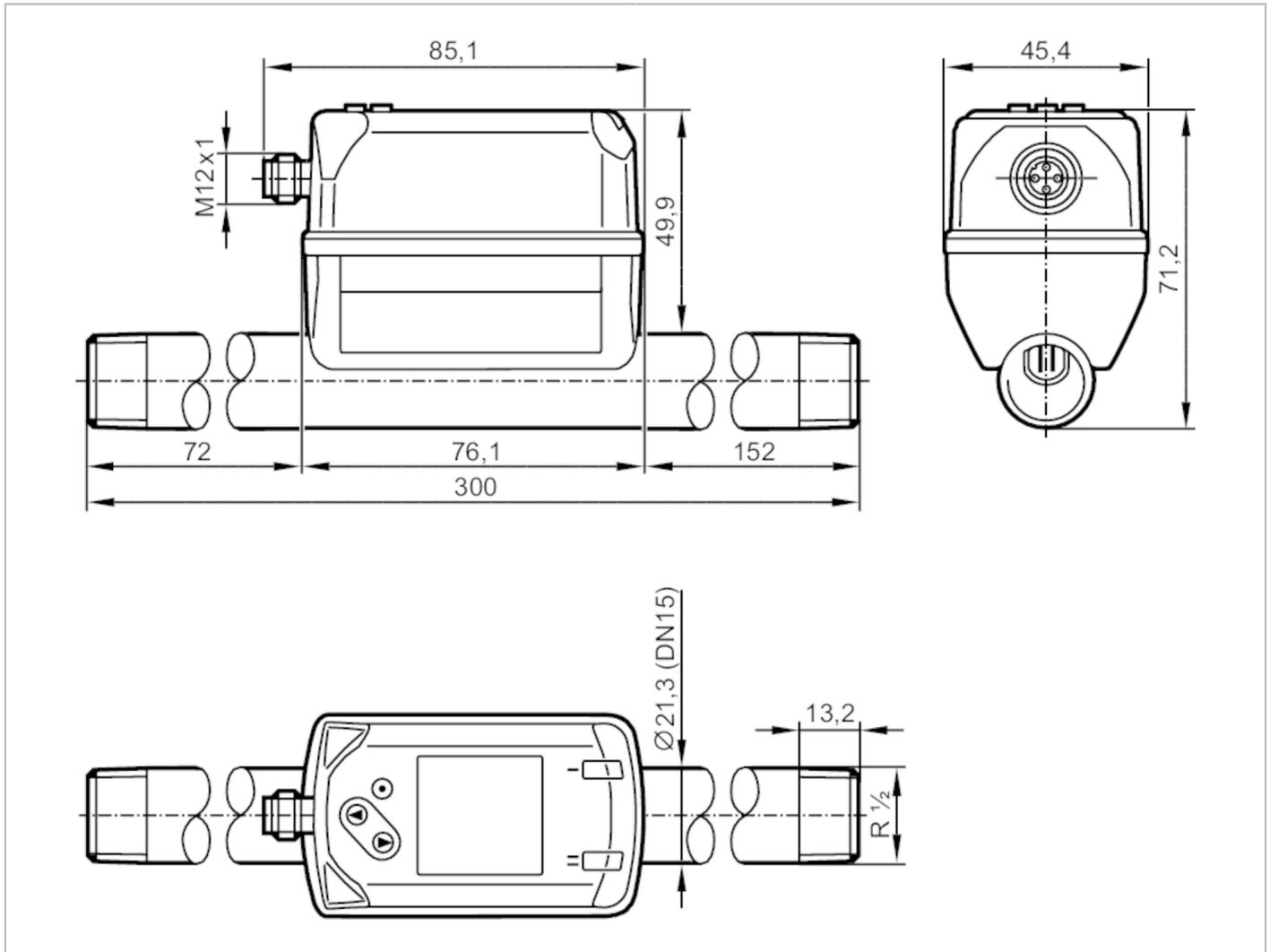


# SD6600



## Industrial gas counter

SDR12DGXFRKG/US-100



### Product characteristics

Number of inputs and outputs	Number of digital outputs: 2; Number of analogue outputs: 1		
Measuring range	4...1250 l/min	0.3...99.8 m/s	0.25...75 m <sup>3</sup> /h
Process connection	threaded connection R 1/2 external thread DN15		

### 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	64 bar	6.4 MPa	
Pressure rating	16 bar	1.6 MPa	
MAWP (for applications according to CRN) [bar]	9.7		

### Electrical data

Operating voltage [V]	18...30 DC; (to SELV/PELV)		
Current consumption [mA]	< 80		
Protection class	III		

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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	4...1250 l/min	0.3...99.8 m/s	0.25...75 m <sup>3</sup> /h
Display range	0...1500 l/min	0...119.8 m/s	0...90 m <sup>3</sup> /h
Resolution	1 l/min	0.1 m/s	0.05 m <sup>3</sup> /h
Set point SP	11...1250 l/min	0.9...99.8 m/s	0.65...74.97 m <sup>3</sup> /h
Reset point rP	5...1243 l/min	0.4...99.3 m/s	0.28...74.6 m <sup>3</sup> /h
Analogue start point ASP	0...1000 l/min	0...79.8 m/s	0...60 m <sup>3</sup> /h
Analogue end point AEP	250...1250 l/min	20...99.8 m/s	15...75 m <sup>3</sup> /h
Low flow cut-off LFC	1...13 l/min	0.1...1.1 m/s	0.09...0.8 m <sup>3</sup> /h
In steps of	1 l/min	0.1 m/s	0.01 m <sup>3</sup> /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
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

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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]	0.002...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 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 / 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)	

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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	<b>Type of operation</b>	<b>DeviceID</b>
	default	864

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	003TG
	accuracy class	-
	maximum allowable error	± 7 % FS
	Q (min)	0,25 m³/h
	Q (t)	-
	Q (max)	75 m³/h
Vibration resistance	DIN EN 68000-2-6	5 g (10...2000 Hz)
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]	730
Housing		rectangular
Dimensions	[mm]	300 x 45.4 x 71.2
Materials		PBT+PC-GF30; PPS GF40; stainless steel (304/1.4301); stainless steel (303/1.4305); steel (1.5523) galvanised; 2.0401 (brass / CW614N); FKM
Materials (wetted parts)		stainless steel (304/1.4301); stainless steel (303/1.4305); FKM; ceramics glass passivated; PPS GF40; Al2O3 (ceramics); acrylate
Process connection		threaded connection R 1/2 external thread DN15

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.

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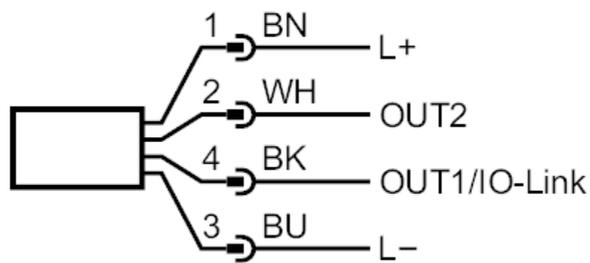
SDR12DGXFRKG/US-100

### 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

OUT2/InD:  
signal output Preset counter  
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