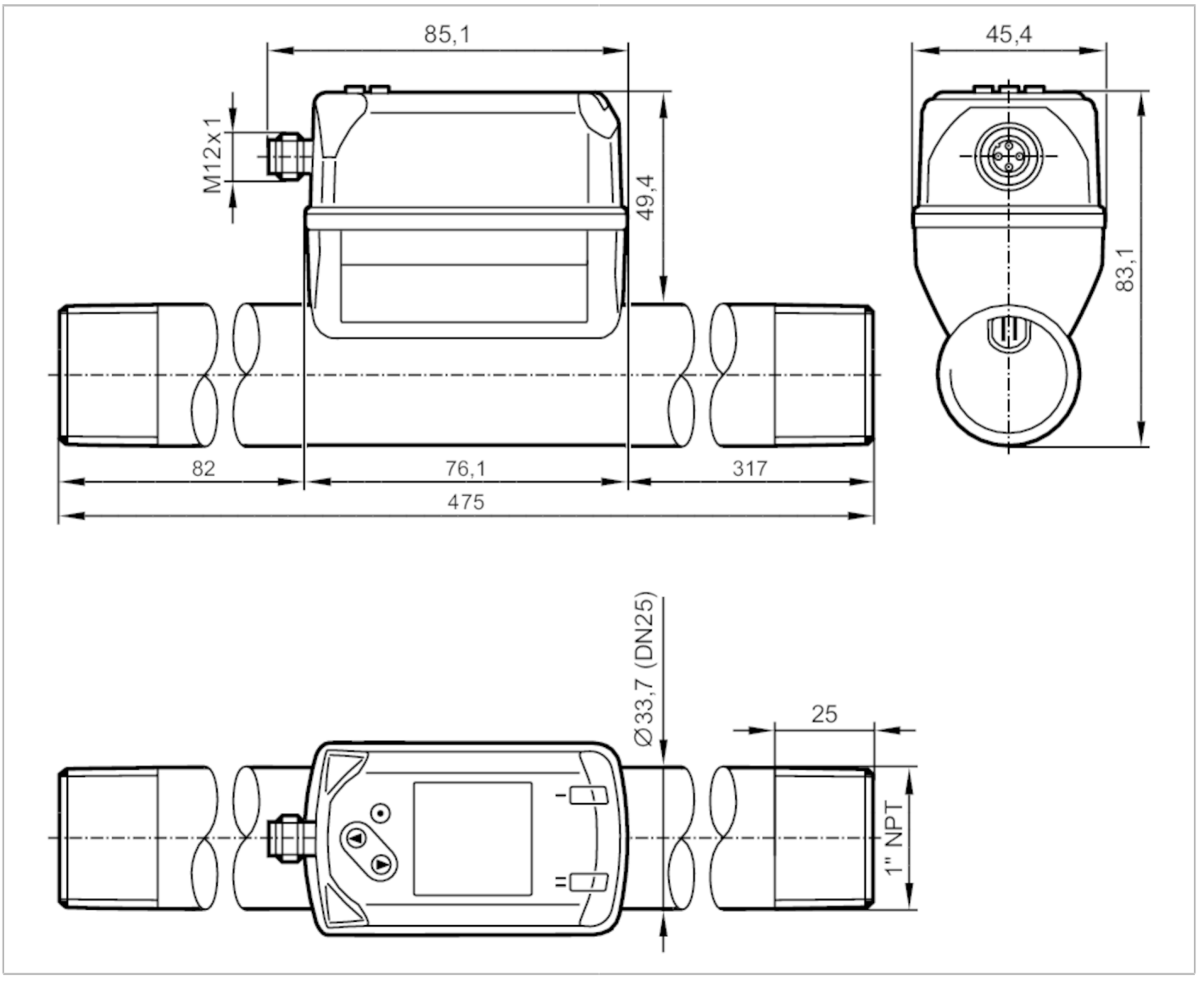
SD8601

Industrial gas counter

SDN11DGXFRKG/US-100



Product characteristics		
Number of inputs and outputs		Number of digital outputs: 2; Number of analogue outputs: 1
Measuring range	[scfh]	25...7945
Measuring range	[scfm]	0.4...132.4
Measuring range	[ft/s]	1.2...340.2
Process connection		threaded connection 1" NPT DN25
Application		
Application		for industrial applications
Media		Argon (Ar); carbon dioxide (CO2); nitrogen (N2); compressed air
Medium temperature	[°F]	14...140
Min. bursting pressure	[psi]	928
Pressure rating	[psi]	232
MAWP (for applications according to CRN)	[bar]	10.5

SD8601

Industrial gas counter

SDN11DGXFRKG/US-100

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 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	[scfh]	25...7945
Measuring range	[scfm]	0.4...132.4
Measuring range	[ft/s]	1.2...340.2
Display range	[scfh]	0...9535
Display range	[scfm]	0...158.9
Display range	[ft/s]	0...408.2
Resolution	[scfh]	5
Resolution	[scfm]	0.1
Resolution	[ft/s]	0.2
Set point SP	[scfh]	69...7943
Set point SP	[scfm]	1.1...132.4
Set point SP	[ft/s]	3...340.1
Reset point rP	[scfh]	30...7904
Reset point rP	[scfm]	0.5...131.7
Reset point rP	[ft/s]	1.3...338.4
Analogue start point ASP	[scfh]	0...6357

SD8601

Industrial gas counter

SDN11DGXFRKG/US-100

Analogue start point ASP	[scfm]	0...105.9	
Analogue start point ASP	[ft/s]	0...272.2	
Analogue end point AEP	[scfh]	1589...7946	
Analogue end point AEP	[scfm]	26.5...132.4	
Analogue end point AEP	[ft/s]	68...340.2	
Low flow cut-off LFC	[scfh]	9...85	
Low flow cut-off LFC	[scfm]	0.2...1.4	
Low flow cut-off LFC	[ft/s]	0.4...3.6	
In steps of	[scfh]	1	
In steps of	[scfm]	0.1	
In steps of	[ft/s]	0.1	
Pressure monitoring			
Measuring range	[psi]	-15...232	
Display range	[psi]	-15...290	
Resolution	[psi]	1	
Set point SP	[psi]	-13...232	
Reset point rP	[psi]	-15...231	
Analogue start point	[psi]	-15...186	
Analogue end point	[psi]	32...232	
In steps of	[psi]	1	
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
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 73 °F)	
Repeatability		± (0,4 % MW + 0,1 % MEW)	
Pressure monitoring			
Repeatability	[X16]	± 0,2	
Characteristics deviation	[X16]	< ± 0,5; (BFSL = Best Fit Straight Line)	
Greatest TEMPCO of the span		± 0,3	

SD8601

Industrial gas counter

SDN11DGXFRKG/US-100

	[% MEW / 10 K]		
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)	
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**	**DeviceID**
		default	1292
Operating conditions			
Ambient temperature	[°F]	32...140	
Storage temperature	[°C]	-4...185	
Max. relative air humidity	[%]	90	
Protection		IP 65; IP 67	
Tests / approvals			
EMC		DIN EN 60947-5-9	
Vibration resistance		DIN EN 68000-2-6	5 g (10...2000 Hz)
MTTF	[ANN]	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]	1608.8	

SD8601

Industrial gas counter

SDN11DGXFRKG/US-100

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 1" NPT DN25	
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		

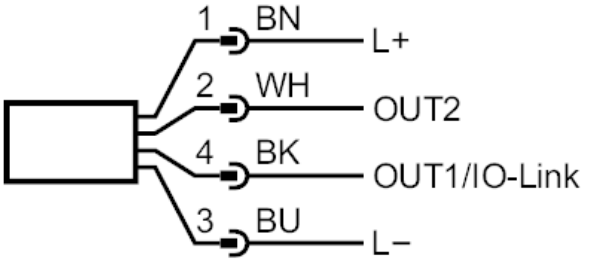
Connector: 1 x M12; coding: A

SD8601

Industrial gas counter

SDN11DGXFRKG/US-100

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