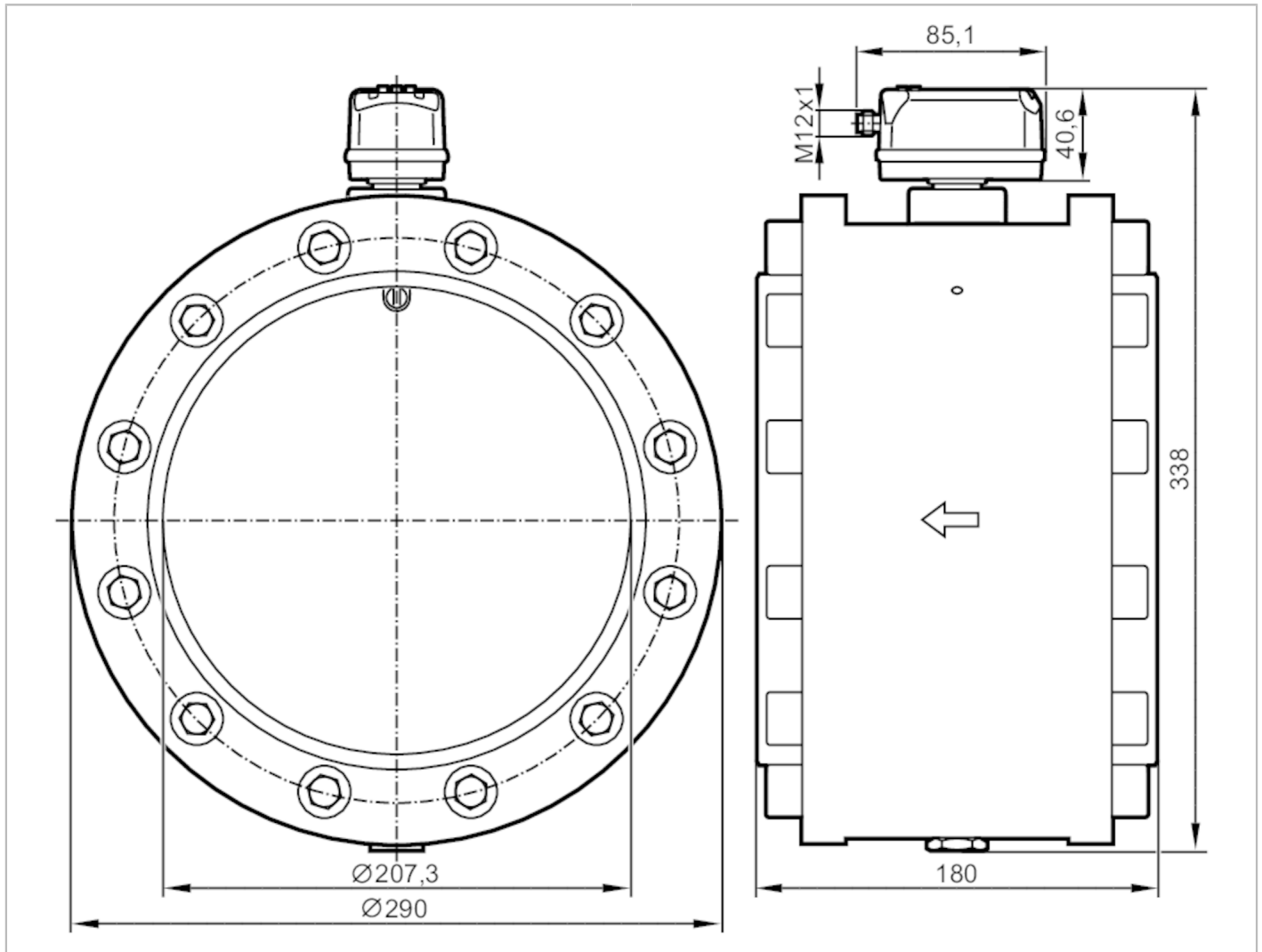


SDG850



Compressed air meter

SDG8"/METRIS PB DN200



Product characteristics	
Number of inputs and outputs	Number of digital outputs: 2; Number of analogue outputs: 1
Process connection	flange DN200 DIN 2448
Pressure monitoring	
Measuring range [bar]	-1...16
Application	
Application	for industrial applications
Media	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
Electrical data	
Operating voltage [V]	18...30 DC; (to SELV/PELV)

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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
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Inputs

Inputs	counter reset
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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	0.6...143.9 m/s	73...17480 m³/h
Display range	1.2...172.7 m/s	146...20976 m³/h
In steps of	0.1 m/s	1 m³/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 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]	0.002...2



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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		
Accuracy (in the measuring range)	class 141: $\pm (3 \% MW + 0,3 \% MEW)$; class 344: $\pm (6 \% MW + 0,6 \% MEW)$; air quality to ISO 8573-1:2010; reference conditions: inlet pipe length ≥ 302 cm outlet pipe length ≥ 51 cm; reference temperature: 18..26 °C; standard volume flow 73...7896 m ³ /h; (standard volume flow DIN_ISO_2533 15 °C , 1013,25 mbar, 0 % r.H.)	
Pressure monitoring		
Repeatability [% of the final value]	$\pm 0,2$	
Characteristics deviation [% of the final value]	$< \pm 0,5$; (BFSL = Best Fit Straight Line)	
Greatest TEMPCO of the span [% MEW / 10 K]	$\pm 0,3$	
Greatest TEMPCO of the zero point [% MEW / 10 K]	$\pm 0,1$	
Temperature monitoring		
Accuracy [K]	$\pm 0,5$; (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	

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Min. process cycle time [ms]	7.2	
Supported DeviceIDs	Type of operation	DeviceID
	Default	1545

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	
Vibration resistance	DIN EN 68000-2-6	5 g (10...2000 Hz)
MTTF [years]	167	
Pressure Equipment Directive	Modul A; can be used for group 2 fluids; group 1 fluids on request	

Mechanical data	
Weight [g]	37790
Materials	PBT+PC-GF30; PPS GF40; stainless steel (1.4301 / 304); stainless steel (1.4305 / 303); stainless steel (1.4404 / 316L); FKM
Materials (wetted parts)	stainless steel (1.4301 / 304); stainless steel (1.4404 / 316L); FKM; ceramics glass passivated; PPS GF40; Al2O3 (ceramics); acrylate; pipe section: steel galvanised
Process connection	flange DN200 DIN 2448

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
	D = inside pipe diameter
	Measuring, display and setting ranges refer to the standard volume flow according to DIN ISO 2533.
	For information about installation and operation please see the operating instructions.
Pack quantity	1 pcs.

Electrical connection

Connector: 1 x M12; coding: A



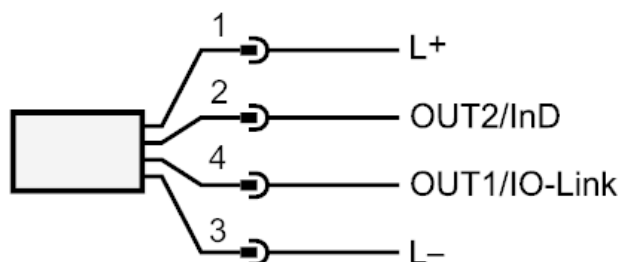
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Connection



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