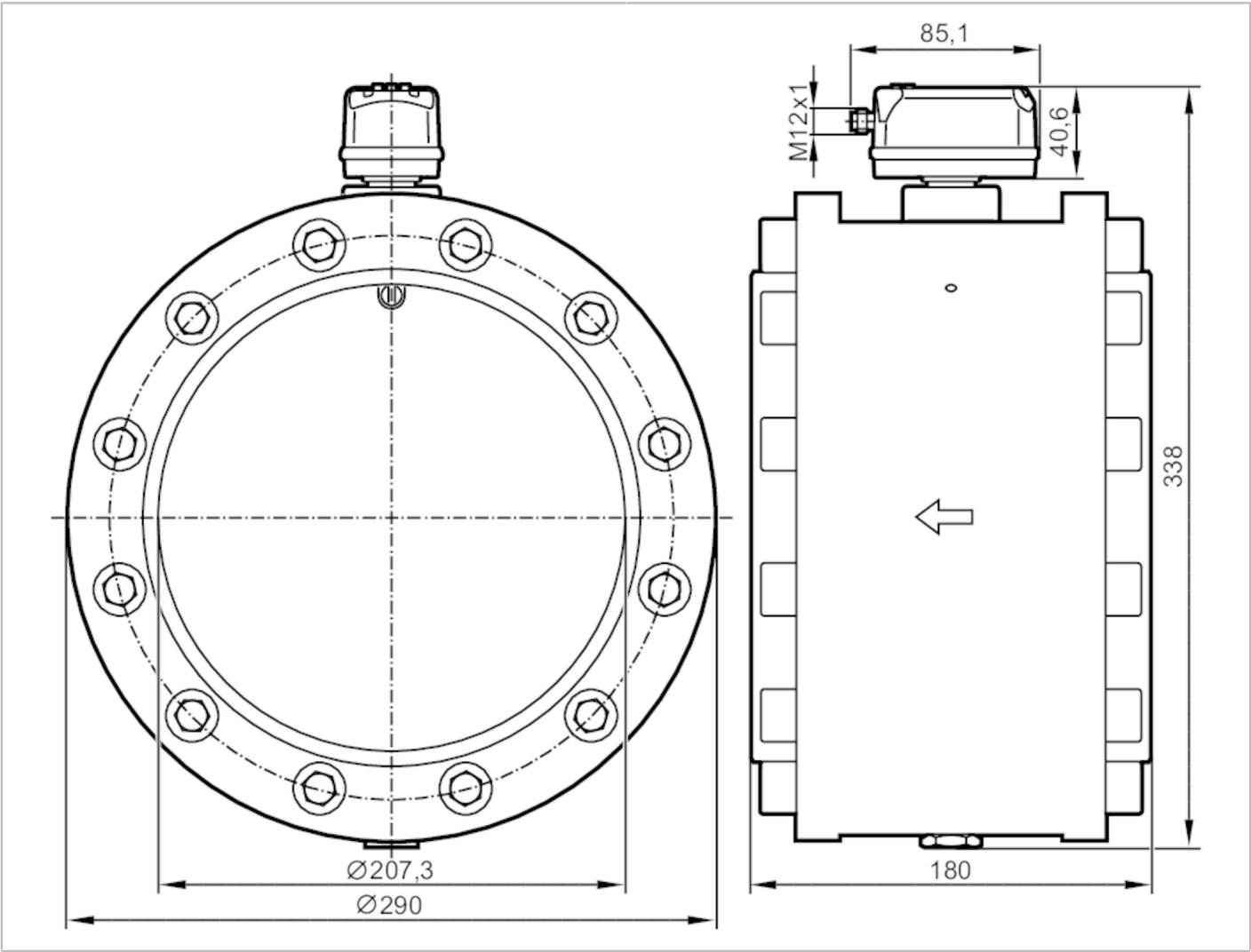


SDG850



Compressed air meter

SDG8"/METRIS PB DN200



Product characteristics		
Number of inputs and outputs	Number of digital outputs: 2; Number of analogue outputs: 1	
Measuring range	0.6...143.9 m/s	73...17480 m³/h
Process connection	flange DN200 according to:DIN EN 10220	
Application		
Application	for industrial applications	
Media	compressed air	
Medium temperature [°C]	-10...60	
Min. bursting pressure	64 bar	6.4 MPa
Pressure rating	16 bar	1.6 MPa
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	



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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	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	
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



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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: $\pm (3 \% \text{ MW} + 0,3 \% \text{ MEW})$; class 344: $\pm (6 \% \text{ MW} + 0,6 \% \text{ MEW})$; air quality to ISO 8573-1:2010; reference conditions: inlet pipe length $\geq 302 \text{ cm}$ outlet pipe length $\geq 51 \text{ cm}$; 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.)
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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)
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Response times

Response time [s]	0.1; (dAP = 0)
Damping process value dAP [s]	0...5

Pressure monitoring

Response time [s]	0.05
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Temperature monitoring

Dynamic response T05 / T09 [s]	T09 = 0,5
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Software / programming

Parameter setting options	hysteresis / window; normally open / normally closed; current/pulse output; display can be rotated and switched off; Display unit; totaliser
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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	<table> <tr> <th>Type of operation</th><th>DeviceID</th></tr> <tr> <td>default</td><td>1545</td></tr> </table>	Type of operation	DeviceID	default	1545
Type of operation	DeviceID				
default	1545				



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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
Housing		rectangular
Dimensions	[mm]	180 x 290 x 338
Materials		PBT+PC-GF30; PPS GF40; stainless steel (304/1.4301); stainless steel (303/1.4305); stainless steel (316L/1.4404); FKM
Materials (wetted parts)		stainless steel (304/1.4301); stainless steel (316L/1.4404); FKM; ceramics glass passivated; PPS GF40; Al2O3 (ceramics); acrylate; pipe section: steel galvanised
Process connection		flange DN200 according to:DIN EN 10220

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