



- 1: 4-digit alphanumeric display
2: Programming buttons



Product characteristics

Compressed air meter

Quick disconnect

Process connection: R1 (DN25)

Function programmable

2 outputs

OUT1: flow monitoring (binary), quantity meter (pulse), preset counter (binary)

OUT2: flow or temperature monitoring (analogue or binary)

flow monitoring

Display range

0.0...270 Nm³/h

Measuring range

0.7...225.0 Nm³/h

Temperature monitoring

Display range

-12...72 °C

Application

Application

Compressed air

Air quality(ISO 8573-1):

Class 141 (measuring error: see below, value A)

Class 344 (measuring error: see below, value B)

Pressure rating [bar]

16

Medium temperature [°C]

0...60

Electrical data

Electrical design

DC PNP

Operating voltage [V]

18...30 DC ¹⁾

Current consumption [mA]

< 110

Protection class

III

Reverse polarity protection

yes

Outputs

Output function

OUT1: normally open / closed programmable or pulse
OUT2: normally open / closed programmable or analog (4...20 mA scaleable)

Current rating [mA]

2 x 250

Voltage drop [V]

< 2

Short-circuit protection

yes (non-latching)

Overload protection

yes

Analog output

4...20 mA

Max. load [Ω]

< 500

SD8000 - Compressed air meter - eclass: 27273101 / 27-27-31-01

Pulse output	consumed quantity meter		
Measuring / setting range			
Flow monitoring			
Measuring range	0.7...225.0 Nm ³ /h	12.5 (13)...3750 *) NI/min	0.35 (0.4)...109.2 *) Nm/s
Display range	0.0...270 Nm ³ /h	0...4500 NI/min	0.0...131.0 Nm/s
Set point, SP	1.8...225.0 Nm ³ /h	30...3750 NI/min	0.9...109.2 Nm/s
Reset point, rP	0.7...223.9 Nm ³ /h	12...3732 NI/min	0.4...108.7 Nm/s
Analog start point, ASP	0.0...168.8 Nm ³ /h	0...2813 NI/min	0.0...81.9 Nm/s
Analog end point, AEP	56.2...225.0 Nm ³ /h	937...3750 NI/min	27.3...109.2 Nm/s
in steps of	0.1 Nm ³ /h	1 NI/min	0.1 Nm/s
Volumetric flow quantity monitoring			
Pulse value	0.003...3000000 m ³		
in steps of	0.001 m ³		
Pulse length [s]	≥ 0.02 / ≤ 2		
Temperature monitoring			
Measuring range [°C]	0...60		
Display range [°C]	-12...72		
Accuracy / deviations			
Flow monitoring			
Accuracy (within measuring range)	A): ± (3% MW + 0.3% MEW) / B): ± (6% MW + 0.6% MEW) ***)		
Repeatability[% of the measured value]	± 1.5		
Temperature monitoring			
Accuracy [K]	± 2 **)		
Reaction times			
Power-on delay time [s]	1		
Flow monitoring			
Response time [s]	< 0.1 (dAP = 0)		
Damping, dAP [s]	0 - 0.2 - 0.4 - 0.6 - 0.8 - 1		
Software / programming			
Programming options	hysteresis / window function; N.O. / N.C; current / pulse output; display can be rotated / deactivated; display unit, totalizer		
Interfaces			
IO-Link Device			
Transfer type	COM2 (38.4 kBaud)		
IO-Link revision	1.1		
SDCI standard	IEC 61131-9 CDV		
IO-Link Device ID	267 d / 00 01 0B h		
Profiles	no profile		
SIO mode	yes		
Required master port class	A		
Process data analogue	3		
Process data binary	2		
Min. process cycle time [ms]	4.1 ms		
Environment			
Ambient temperature [°C]	0...60		
Storage temperature [°C]	-20...85		
Max. relative air humidity [%]	90		
Protection	IP 65		
Tests / approvals			
Pressure equipment directive	article 3, section 3 - sound engineering practice		
EMC	DIN EN 61000-6-2 DIN EN 61000-6-3		
Vibration resistance	DIN EN 68000-2-6: 5 g (55...2000 Hz)		
MTTF [Years]	227		
Mechanical data			
Process connection	R1 (DN25)		
Materials (wetted parts)	stainless steel (304S15); FKM; ceramics glass passivated; PEEK GF30; polyester; aluminum		

SD8000 - Compressed air meter - eclass: 27273101 / 27-27-31-01

Housing materials	PBT-GF 20; NBR; PC (polycarbonate); stainless steel (304S15); PTFE; brass coated; FKM; aluminum powder-coated	
Weight [kg]	2.065	
Displays / operating elements		
Display	Display unit 5 x LED green (NI/min, Nm ³ /h, Nm/s, Nm ³ , °C) Function display 1 x LED green Switching status 2 x LED yellow Measured values 4-digit alphanumeric display Programming 4-digit alphanumeric display	
Electrical connection		
Connection	M12 connector	
Wiring		
OUT1/IO-Link: 3 selection options - switching output flow rate monitoring - pulse output quantity meter - signal output preset counter OUT2/InD: 5 selection options - switching output flow rate monitoring - switching output temperature monitoring - analogue output flow rate - analogue output temperature - input signal counter reset		
Remarks	1) to EN50178, SELV, PELV *) in brackets: displayed value **) medium flow in the limit area of the flow measurement range ***) under conditions acc. to DIN ISO 2533 and when installed in DN25 pipes MW = measured value MEW = final value of the measuring range Measuring, display and setting ranges refer to standard volume flow according to DIN ISO 2533. For information about installation and operation please see the operating instructions.	
Pack quantity [piece]	1	