

B 14 Compressed air counter 0699 6445

14.4 Technical data

Sensor	Thermal silicon chip sensor, mass flow principle
Media	Compressed air, air, nitrogen, non-corrosive gases (attention: not approved for use in explosive areas)
Display	Optional, order no. 0699 6445/3, two-line
Measuring range	0 to 80 Nm/s, min. 1 Nm/s (0699 6445/1) or 0 to 150 Nm/s, min. 2 Nm/s (0699 6445/2)
Accuracy	+/- 3 % of reading +/- 0.4 % of final value
Pressure dependency	Measuring principle independent of pressure (mass flow measurement). For flow rates < 10 Nm/s: pressure influence 0.3 % of reading per bar
Temperature dependency	Compensated at 25 °C, for deviating temperatures: 0.1 % of reading/Kelvin
Reaction time	t90 approx. 5 seconds
Voltage supply	12 to 24 VDC +/- 10 %, power consumption < 100 mA (starting current briefly 500 mA)
Electrical connection	Precision plug connection for distributor box,(0699 6445/4) or for cable (0699 6445/5)
Analog output	4 to 20 mA = 0 to 80 Nm/s (1) or 0 to 150 Nm/s (2), 4-wire, max. load = 500 W, max. length 250 m (use shielded cable!)
Impulse output	Floating contact, 12 to 24 V DC switching voltage from external meter, corresponding to S0 meter signal (DIN 43864). Pulse rate is preset, depending on the internal diameters
Digital output	RS232, max. cable length 15 meters, easily accessible in conjunction with distributor box 0699 6445/4
Process conditions	+50 °C (ideal at 20 to 30 °C), PN 16 (max. 16 bar), rel. humidity < 90 % RH (no remaining effect after re-drying), air quality (ISO 8573: Classes 1/4/1)
Ambient temperature	-10 to +60°C
Storage temperature	-40 to +80°C. Avoid ice formation
Normalization reference	Standard flow rate (e.g. Nm/s) and normalized volume flow rate (e.g. Nm/s) are in reference to DIN ISO 2533 15 °C, 1013.25 mbar, 0 % RH
Weight	Compressed air meter: 840 g, display: 140 g, 10 meter cable: 640 g, clamping screw connection: 100 g
Housing	Aluminium, enamelled. IP 65, however only permitted for use in indoor installations
EMV	EN 50082-1

14.5 Ordering data

Compressed air counter

① Compressed air counter to 80 Nm/s	0699 6445/1
② Compressed air counter to 150 Nm/s	0699 6445/2

Accessories

③ Display with sum indicator (directly on compressed air counter), order together with no. 1 or 2	0699 6445/3
④ Distribution box for programming (via RS-232), with software CD and 10 m cable	0699 6445/4
⑤ 10 m cable with precision plug connection (on device)	0699 6445/5
⑥ Parameterization in factory, according to the adjusted inner diameter r (please state physical units and inner diameter)	0699 6445/6
Process display testo 54-2AC, 2 relay outputs (up to 250 VAC/open wire ends)	5400 7553
Process display, testo 54-7AC, 2 relay outputs (to 250 VAC/300 VDC, 3A), power supply 90 to 260 V AC, with RS485 output for online monitoring and with totaliser display	5400 7555
Mains unit (desktop unit) 100 to 240 VAC/24 V DC (350 mA)	0554 1748
Mains unit (DIN rail mounting) 90 to 264 VAC/24 V DC (3 A)	0554 1749
ISO calibration at 5 measurement points, to 250 Nm ³ /h	0520 0174
DKD calibration at 5 measurement points, to 250 Nm ³ /h	0520 0274
ISO calibration at 5 measurement points, to 1600 Nm ³ /h	0520 0184
DKD calibration at 5 measurement points, to 1600 Nm ³ /h	0520 0284

Additional options (upon request)

Calibration in industrial gases (e.g. CO ₂ , argon, nitrogen etc.)
Version for low flow rate (max. 20 Nm/s) or higher pressures (>16 bar)
Probe lengths 300 or 600 mm
Cable input instead of precision connector at compressed air counter

14.6 Selection aid for accessories

Customer request	Products 0699 6445/..									
	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
0 to 80 Nm/s	●	●	●				●	●		
0 to 150 Nm/s				●	●	●			●	●
without display	●		●	●		●		●		●
with display		●			●		●		●	
4 to 20 mA = flow velocity (Nm/s)	●	●	●	●	●	●	●	●	●	●
4 to 20 mA = Norm volume flow (Nm ³ /h)	●	●	●	●	●	●	●	●	●	●
Pulse output for ext. counters		●	●		●	●	●	●	●	●
Customer-perf. parameterisation		●	●		●	●				
Parameterisation in factory							●	●	●	●

- Example order:
Compressed air meter 0 to 150 Nm/s with display; one analog output with parameters velocity or volume flow; pulse output; customer-performed parameterisation.
Order no.: 0699 6445/2 + 0699 6445/3 + 0699 6445/4
- If 0699 6445/4 is ordered, the customer can additionally perform a totaliser reset or enter the correct internal diameter