



Technical Data Sheet

flowguardPRO compact and flowguardPRO flex

Measuring value

Flow

Measurand

Volumetric flow at standard conditions acc. DIN 1343
 $P_0 = 1013,25 \text{ mbar}; t_0 = 0 \text{ }^\circ\text{C} (273,15 \text{ K})$

Measuring range	FGP-x1xx	FGP-x2xx	
standardized volumetric flow in air	DN15: 0,32...63 Nm ³ /h	0,19...37,1 SCFM	
	DN20: 0,57...113 Nm ³ /h	0,34...66,5 SCFM	
	DN25: 0,90...176 Nm ³ /h	0,53...103,5 SCFM	
	DN32: 1,45...289 Nm ³ /h	0,85...170,0 SCFM	
	DN40: 2,26...452 Nm ³ /h	1,33...265,9 SCFM	
standardized flow in air	DN50: 3,50...700 Nm ³ /h	2,06...411,8 SCFM	
	≤DN50: 0,5...100 Nm/s	100...19685 SFCM	
	nitrogen	≤DN50: 0,5...100 Nm/s	100...19685 SFCM
	CO ₂	≤DN50: 0,5...100 Nm/s	100...19685 SFCM
	helium	≤DN50: 0,5...100 Nm/s	100...19685 SFCM
oxygen	≤DN25: 0,5...100 Nm/s	100...19685 SFCM	

Accuracy in air at 7bar (abs) and 23°C (73°F)¹⁾ ± (2,5% of measuring value + 0,15% of full scale)

Accuracy of temperature compensation ± (0,1% of measuring value/°C)

Response time t_{90} typ. 1 sec.

Sample rate 0,5 sec.

Temperature

Measuring range -20...80 °C (-4...176 °F)

Accuracy at 20°C (68°F) ± 0,7 °C (1,26 °F)

Outputs

Output signal and display ranges are freely scalable

Analogue output voltage 0 - 10 V max. 1 mA
 current (3-wire) 0 - 20 mA and 4 - 20 mA $R_L < 500 \text{ Ohm}$

Switching output potential-free max. 44 VDC, 500 mA switching capacity

Pulse output Totalizator, pulse length: 0,02...2 sec.

Digital interface USB (for configuration)

Input

Optional pressure compensation 4 - 20 mA (2-wire; 12 V) for pressure sensor

General

Supply voltage 18 - 30 V AC/DC

Current consumption max. 200 mA (with display)

Temperature range ambient temperature: -20...60 °C (-4...140 °F)
 medium temperature: -20...80 °C (-4...176 °F)
 storage temperature: -20...60 °C (-4...140 °F)

Nominal pressure up to 16 bar (232 Psi)

Humidity no condensation

Medium compressed air or none corrosive gases

Connection cable gland M16x1,5 (optional connector M12x1 8pol.)

Electromagnetic compatibility EN61326-1 EN61326-2-3



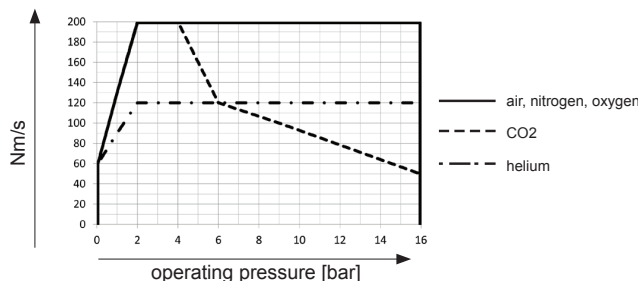
Industrial Environment

Material housing metal (AlSi3Cu)
 probe stainless steel
 sensor head plastic (PBT)
 ball valve brass

Housing protection class IP65 / Nema 4

¹⁾ The accuracy statement includes the uncertainty of the factory calibration with an enhancement factor k=2 (2-times standard deviation). The accuracy was calculated in accordance with EA-4/02 and with regard to GUM (Guide to the Expression of Uncertainty in Measurement).

Flow measuring range in dependence on operating pressure



Formula for calculating the standardized volumetric flow:

$$Q_N = V_N \cdot id^2 \cdot \pi/4 \cdot 3600$$

Q_N ... standardized volumetric flow [m³/h]

V_N ... standardized flow [m/s]

id ... inner pipe diameter [m]

π ... 3,1415