

FLAWSIC600-XT

Fiscal CO₂ measurement in gaseous and supercritical phases

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The transport and precise measurement of CO₂ is increasingly important to achieve world's decarbonization goals and to comply with international and national requirements on emissions-reduction regulations. Endress+Hauser offers a robust and reliable flowmeter for fiscal measurement of CO₂

Fiscal CO₂ flow measurement

Reliable and proven solution

Fiscal accuracy

≤ ±0.5%

Purity indication

Gas composition surveillance (surveillance indicator accuracy depends on the composition)

Low maintenance

automated diagnostics, self-monitoring

Fields of application

- Custody transfer measurement of CO₂
- Transport and storage of CO₂
- Offshore and onshore applications
- Measurement at compressor stations with liquid and impurities content indication
- Applications where a continuous gas supply must be ensured



Technical data^{1,2}

Measured values	Volumetric flow a. c., volume a. c., gas velocity, speed of sound
Meter sizes	DN50...DN600 [2" ... 24"]
Flow rates	5 m ³ /h (DN50) ... 17,000 m ³ /h gas, 28,000 m ³ /h supercritical phase (DN600) (175 ft ³ /h (DN50) ... 600,350 ft ³ /h gas, 988,810 ft ³ /h supercritical phase (DN600))
Number of measuring paths	4 paths ≥ DN80 [3"], 2 paths – DN50 [2"]
Typical Uncertainty in the range 0.1 Q _{min} ... Q _{max}	≤ ±0.5% (dry calibration)
Min. piping requirements	4 paths – straight inlet section ≥10 DN, outer section ≥3 DN
Operating pressure	Standard: 3 bar(a) ... 250 bar(a) (43 psi(a) ... 3625 psi(a))
Operating temperature	-46 °C ... 180 °C (-50,8 °F ... 356 °F)
Ex marking	CSA, ATEX, IECEx, Zone 1 and Zone 2 Classification according IIA or IIC T4, intrinsically safe transducers
Enclosure rating	IP 66/67
Analog outputs	1 output: 4 mA ... 20 mA, ≤ 250 Ω Active/passive, galvanically isolated
Digital Outputs	4 outputs: 2 x status, 2 x pulse; ≤ 30 V, 50 mA Passive, galvanically isolated, open collector or conforming to NAMUR (DIN EN 60947-5-6), f _{max} = 10 kHz
Interfaces	RTU RS-485 (3x), ASCII RS-485, TCP Service interface: (IR, according to IEC 62056-21) Optionally: ethernet
Power supply	24 V DC, ± 20%

Flow rate

DN (inch)	Q _{min} (m ³ /h [ft ³ /h])	Gas Q _{max} (m ³ /h [ft ³ /h])	Supercritical Q _{max} (m ³ /h [ft ³ /h])
2"	5 (180)	250 (8,828)	400 (14,125)
3"	8 (280)	390 (13,770)	650 (22,955)
4"	13 (460)	610 (21,540)	1000 (35,315)
6"	30 (1,060)	1,500 (52,970)	2,500 (88,285)
8"	50 (1,765)	2,400 (84,755)	4,000 (141,260)
10"	80 (2,825)	3,900 (137,730)	6,500 (229,545)
12"	105 (3,710)	4,700 (165,980)	7,800 (275,455)
16"	185 (6,530)	7,900 (278,985)	13,000 (459,090)
20"	285 (10,065)	12,200 (430,840)	20,000 (706,290)
24"	415 (14,655)	17,000 (600,350)	28,000 (988,810)

¹ The final performance parameters are subject of validation and verification according to country specific guidelines and recommendations.

² Product available upon request.

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