

HySense QG100 / QG 110 Gear Flow Meter



QG100/QG110 (formerly known as GFM)



4...20mA output models supplied with f/i converter

The HySense QG range (formerly known as GFM) measuring system works accordingly to the positive displacement principle. The measuring accuracy is largely independent of the fluid viscosity and provides further measuring possibilities with high accuracy vs an axial turbine or similar. Low flow rates are easily measured with this design. The QG range is useful for accurate measurement of pump case drains or leakage flows or example.

- Positive displacement Gear wheel volume flow rate sensor
- Output signal analog or frequency
- Broad viscosity range
- Direction detection and impulse doubling possible
- Optionally with Hydrotechnik ISDS
- High Temperature version available on request

Features

Viscosity range / calibration viscosity ¹	5 ... 500 mm ² /s (cSt) / 30 mm ² /s (cSt)
Output signal	frequency (square wave) / 4 ... 20 mA
Electrical meas. connector	6-pole (ISDS) or 5-pole device plug, M16 x 0.75
Protection type (EN 60529 / IEC 529)	IP 40
Material casing / cogs	1.4305, 0.7060 / 1.7131
Material sealing	FKM
Tightening torque sensor	< 0.5 Nm, thread pin (collet) T 3362000

Technical data

Mounting orientation	arbitrary
Supply voltage U _b	12 ... 24 VDC
Current consumption	15 mA (frequency) / 27 ... 31 mA (4 ... 20 mA)
Over-voltage protection	36 VDC
Response time	2 kHz (frequency) / 2.5 sec. (4 ... 20 mA)
Medium / environmental / storage temp.	-20 ... +120 °C / -20 ... +80 °C / -20 ... +85 °C

Options & Ordering Information with ISDS sensors

Output signal	Measuring range	Geom. cog volume	Measuring connector	Allowed working pressure			Error limits	Weight	Order number
	(l/min)	cm ³		bar	MPa	PSI		g	
QG 100 frequency (square wave)	0.05 ... 5	~ 0,191	ISO228-G¼"	630	63	9,100	± 0.5 % ²	3,000	3143-02-S-35.030
	0.2 ... 30	~ 0,609	ISO228-G3/8"				± 0.4 % ²	4,075	3143-03-S-35.030
	0.7 ... 70	~ 2,222	ISO228-G¾"					9,000	3143-04-S-35.030
	3 ... 300	~ 8,750	SAE flange 1¼"	420	42	6,000	± 0.5 % ²	32,330	3143-05-S-35.030
QG 110 Analogue 4 ... 20 mA	0.05 ... 5	~ 0,191	ISO228-G¼"	630	63	9,100	± 0.7 % ³	3,110	3185-02-S-35.030
	0.2 ... 30	~ 0,609	ISO228-G3/8"				± 0.6 % ³	4,185	3185-03-S-35.030
	0.7 ... 70	~ 2,222	ISO228-G¾"					9,110	3185-04-S-35.030
	3 ... 300	~ 8,750	SAE flange 1¼"	420	42	6,000	± 0.7 % ³	32,440	3185-05-S-35.030

Options & Ordering Information with standard sensors

QG 100 frequency (square wave)	0.05 ... 5	~ 0,191	ISO228-G¼"	630	63	9,100	± 0.5 % ²	3,000	3143-02-35.030
	0.2 ... 30	~ 0,609	ISO228-G3/8"				± 0.4 % ²	4,075	3143-03-35.030
	0.7 ... 70	~ 2,222	ISO228-G¾"					9,000	3143-04-35.030
	3 ... 300	~ 8,750	SAE flange 1¼"	420	42	6,000	± 0.5 % ²	32,330	3143-05-35.030
QG 110 Analogue 4 ... 20 mA	0.05 ... 5	~ 0,191	ISO228-G¼"	630	63	9,100	± 0.7 % ³	3,110	3185-02-35.030
	0.2 ... 30	~ 0,609	ISO228-G3/8"				± 0.6 % ³	4,185	3185-03-35.030
	0.7 ... 70	~ 2,222	ISO228-G¾"					9,110	3185-04-35.030
	3 ... 300	~ 8,750	SAE flange 1¼"	420	42	6,000	± 0.7 % ³	32,440	3185-05-35.030

² of current reading³ of final value