



Delivery with f/I-converter for output signal 4...20 mA***

HySense QG 100 / QG 110

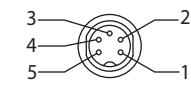
Gear volume flow sensor

Qualities

Measuring principle	displacement
Viscosity range	5 ... 500 mm ² /s (cSt)
Medium temperature	-20 ... +120 °C
Environmental temperature	max. +80 °C
Storage temperature	-20 ... +85 °C
Output signal	frequency (rectangle) / 4 ... 20 mA
Supply voltage U _b	12 ... 24 VDC
Electrical measuring connector	5 pole device connector, M16 x 0.75
Protection type (EN 60529 / IEC 529)	IP 40
Tightening torque	< 0.5 Nm, thread pin (clamping piece) T 3362000
Calibration viscosity	30 mm ² /s (cSt)
Material casing cover	1.4305
Material middle / bottom part	0.7060
Material sealings	FKM
Material gear wheels	1.7131
Suitable measuring cable	MK 01

The volume flow sensor QG 100 with frequency output signal allows detection of the medium flow direction and impulse duplication when used with Hydrotechnik measuring instruments. A possible application is the positioning during cylinder traverse paths.

Pin assignment

	QG 100 (frequency)	QG 110 (4 ... 20 mA)
	Pin 1 = signal +	Pin 1 = signal +
	Pin 2 = - U _b / signal - / GND	Pin 2 = signal - / GND
	Pin 3 = + U _b	Pin 3 = + U _b
	Pin 4 = free	Pin 4 = free
	Pin 5 = free	Pin 5 = free

Measuring range	Non-linearity	Geometric gear volume	Allowed working pressure		Impulses per liter	Hydraulic connector	Error limit*
			bar	MPa			
0.05 ... 5.0	± 0.5 %	~ 0.191	630	63	5,250	ISO 228-G1/4	± 0.5 %
0.2 ... 30.0**		~ 0.609	160	16	1,640	ISO 228-G3/8	
0.2 ... 30.0	± 0.4 %	~ 2.222	630	63	450	ISO 228-G3/4	± 0.4 %
0.7 ... 70.0	± 0.4 %	~ 2.222	420	42	100	SAE-Flansch 1 1/4	± 0.5 %
3 ... 300	± 0.5 %	~ 8.750					

*: for QG 100 and factory calibrated viscosity

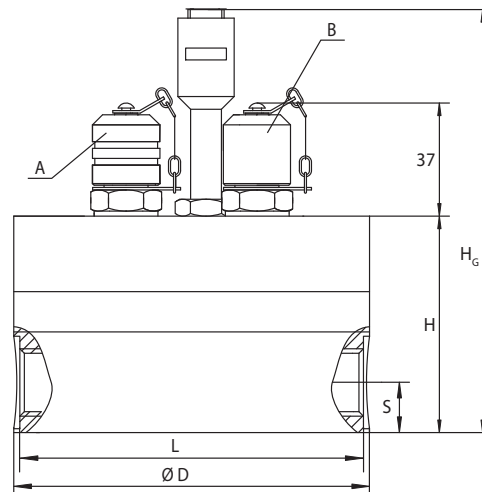
**.: casing material AlCuMgPb F37

***: for QG 110 additional ± 0.2 % of final value (error of f/I-converter)

Factory standard calibration for mineral oil at 30 cSt. Other calibration viscosity optional.

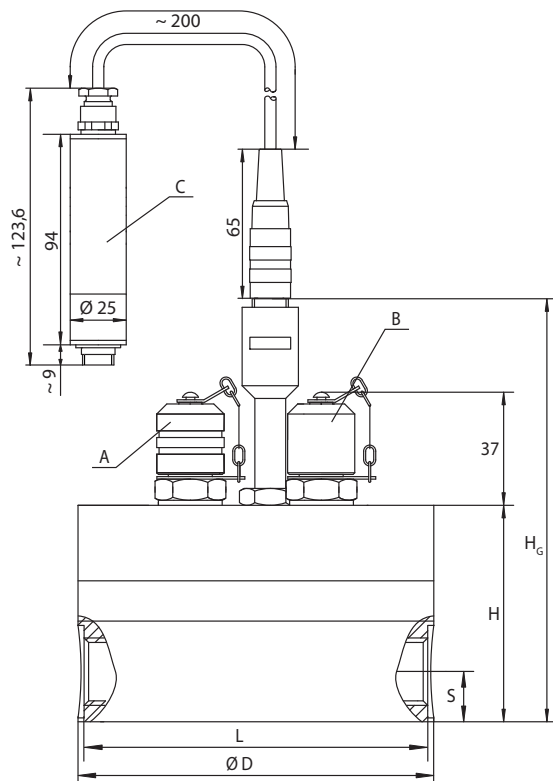
Measuring range	Order number / weight			
	QG 100 (frequency)	g	QG 110 (4 ... 20 mA)	g
0.05 ... 5.00	3143-02-35.030	3,000	3185-02-35.030	3,155
0.2 ... 30.0	3843-03-35.030**	1,481	3885-03-35.030**	1,641
0.2 ... 30.0	3143-03-35.030	4,074	3185-03-35.030	4,186
0.7 ... 70.0	3143-04-35.030	9,000	3185-04-35.030	9,100
3 ... 300	3143-05-35.030	32,330	3185-05-35.030	32,490

QG 100



- A MINIMESS® p/T test point, series 1620
- B MINIMESS® test point, series 1620

QG 110



- A MINIMESS® p/T test point, series 1620
- B MINIMESS® test point, series 1620
- C f/l-converter

Measuring range	D	H	H _G	L	S	Type
l/min	mm					see below
0.05 ... 5.00	96	59	125	93	13	A
0.2 ... 30.0	106	67	133	102,5	15	A
0.7 ... 70.0	136	93	153	131	20	A
3 ... 300	210	145	190	210	42	B

