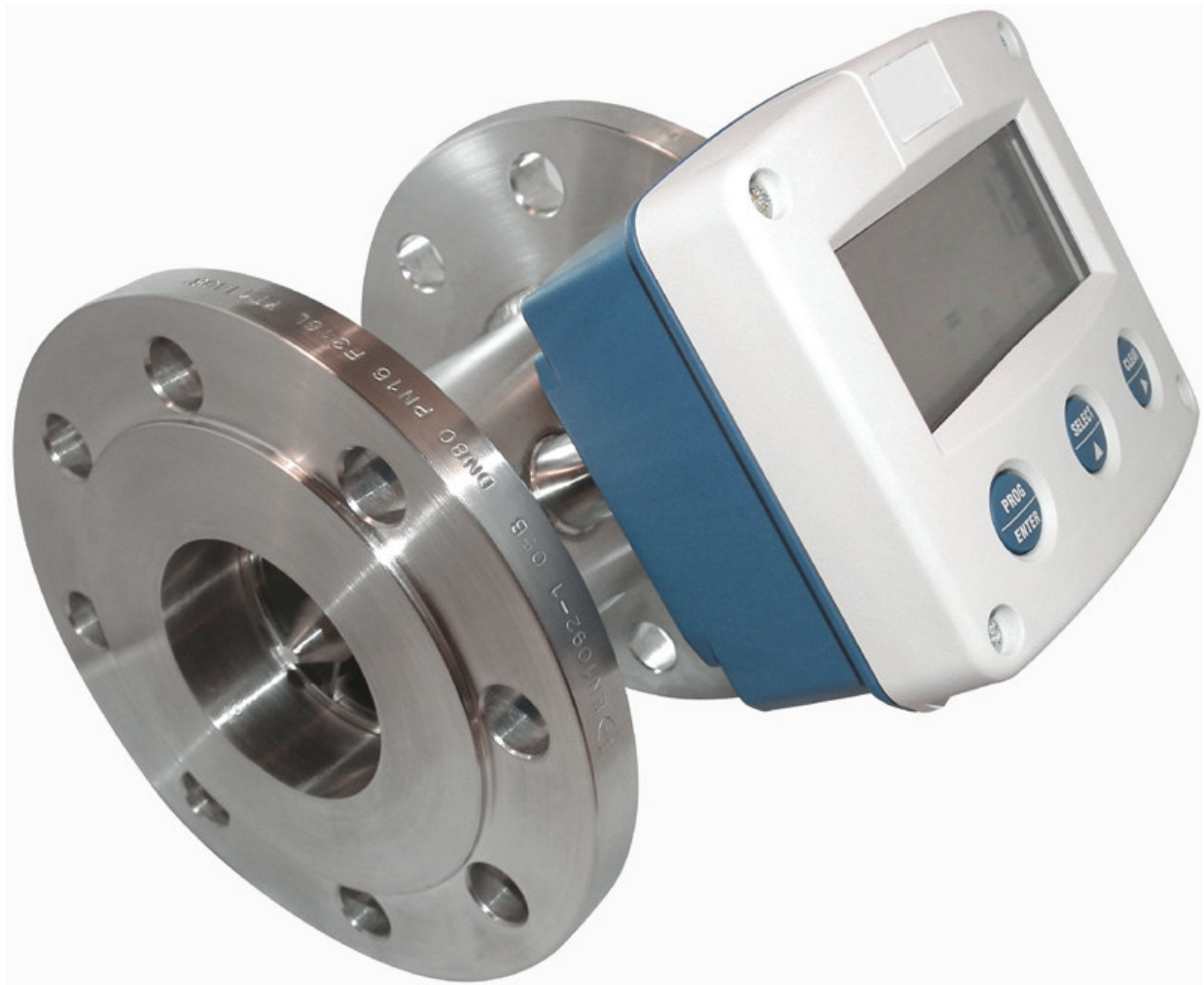


STAINLESS STEEL TURBINE FLOWMETERS FOR GAS Serie Gz



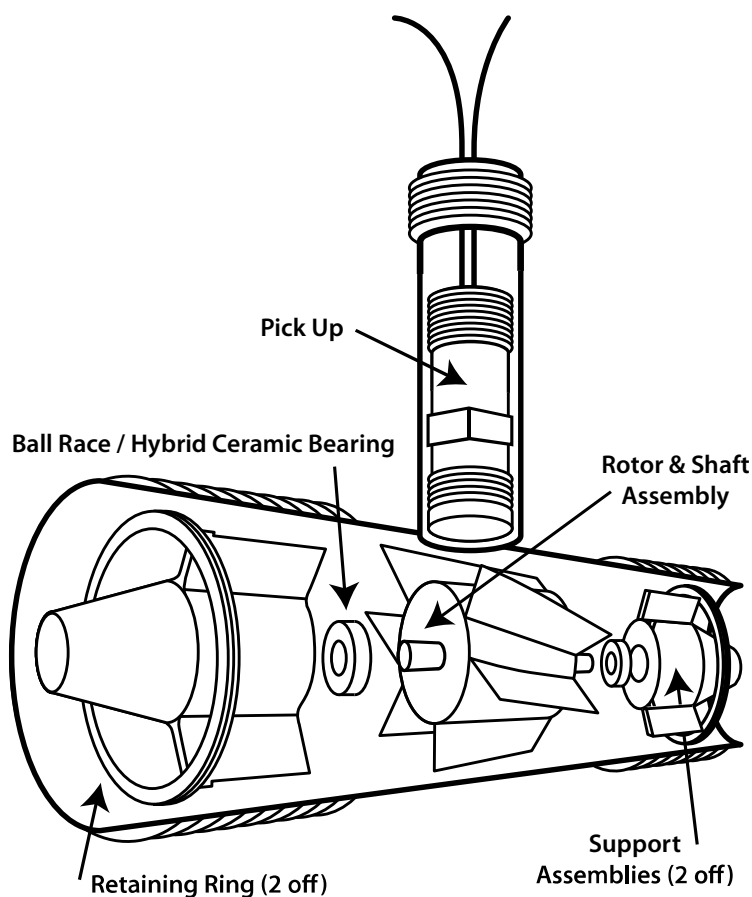
HIGH PRESSURE AND HIGH TEMPERATURE

The Gz range of Turbine Flowmeters are suitable for the measurement of dry gases (inert and flammable) and are designed to operate at line pressures down to 15 mbar .

Principle of Operation

The Gz range of Turbine Flowmeters meet the demand of most gas measurement applications.

They basically consist of three component assemblies, fitted inside a stainless steel body (locked with retaining rings), which has a Pick Up (variable reluctance sensor) fitted and come in a range of threaded and flanged styles.



The Rotor and shaft assembly (1 off) which is mounted in ball race bearings, fitted inside Support assemblies (2 off) is turned by the kinetic energy of the flowing gas at an angular velocity, which in the linear range of the Flowmeter is proportional to the mean axial velocity of the gas.

The Rotor blades sweep out the full bore of the Flowmeter except for a small tip clearance space. As the blade tips pass the magnetic Pick Up (through the housing wall) they initiate a pulse. Flow rate is determined by the frequency of the pulses and Totalised Flow is obtained by summation of the pulsing electrical signal.

Specifications

Model

	Gz13	Gz16	Gz19	Gz25	Gz40	Gz50	Gz80	Gz100
Flow Range	1 - 8	2 - 16	4 - 32	7 - 56	14 - 112	26 - 208	42 - 336	86 - 688

Flow Range

m3 / h

Connections

Threaded

BSPP Male

T1	1/2"	3/4"	3/4"	1"	1 1/2"	2"		
T2	1/2"	3/4"	3/4"	1"	1 1/2"	2"		
Overall Length	70mm	76mm	76mm	76mm	114mm	133mm		
Maximum Pressure	250 bar							



NPT Male

Overall Length

Maximum Pressure

Flanged

ANSI 150

F1	-	3/4"	3/4"	1"	1 1/2"	2"	3"	4"
F2	-	3/4"	3/4"	1"	1 1/2"	2"	3"	4"
F3	-	20mm	20mm	25mm	40mm	50mm	80mm	100mm
F4	-	20mm	20mm	25mm	40mm	50mm	80mm	100mm
Overall Length	-	140mm	140mm	152mm	165mm	165mm	165mm	210mm
Maximum Pressure	F1 = 20 bar F2 = 50 bar F3 = 16 bar F4 = 40 bar							

ANSI 300

DIN PN 16

DIN PN 40

Overall Length

Maximum Pressure



Working Temperature

Accuracy

Repeatability

Pressure Drop

Materials

Bearings

- 50 °C to +160 °C

+/- 2% of reading over Flow Range

+/- 0.15 % of reading

12 mbar at Maximum Flow

All 316 Stainless Steel with ANC1A Rotor

Ball Race / Hybrid Ceramic

Pick Up

S	Standard Variable Reluctance Coil from 10mV to 1V peak to peak
I	Intrinsically Safe Variable Reluctance Coil ATEX Ex ia IIC T6 to T3

Electronics

101 a	Totaliser / Flowrate indicator with pulse output and 4 - 20 mA output
101 ai	Intrinsically safe version ATEX Ex ia IIC T4
101 b	Batch Controller
101 bi	Intrinsically safe version ATEX Ex ia IIC T4
101 c	Totaliser / Flowrate Indicator with high and low Alarms
101 ci	Intrinsically safe version ATEX Ex ia IIC T4
101 d	Bi Directional Flow Indication (Lxb Model only)
101 di	Intrinsically safe version ATEX Ex ia IIC T4
AMP	Amplifier Board
SCALER	Scaler Board
4 - 20 mA	4 - 20 mA Board

Ordering Code:

Model	-	Connections	-	Pick Up	-	Electronics
or						
				Pick Up	-	Electronics

e.g. Gz 25 - T1 - S - 101 a
 Gz 25 - T1 - I - 101 ai

Meter Protection

In Line Strainers (Filters) are recommended for meter protection.

The degree of filtration required depends on the size of the Flowmeter.

The following Table is a guide to assist in the choice of filtration.

Model	Recommended Mesh Size
Gz 13	200 microns (0.2 mm)
Gz 16	200 microns (0.2 mm)
Gz 19	200 microns (0.2 mm)
Gz 25	300 microns (0.3 mm)
Gz 40	300 microns (0.3 mm)
Gz 50	300 microns (0.3 mm)
Gz 80	500 microns (0.5 mm)
Gz 100	500 microns (0.5 mm)

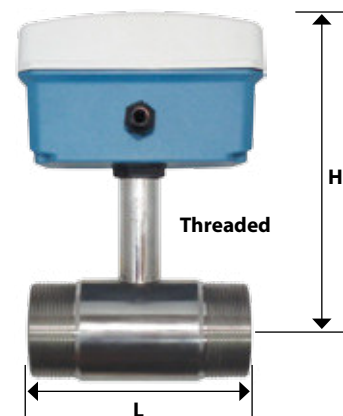
Installation Dimensions

Lx 40 & Lxb 40

114mm

170mm

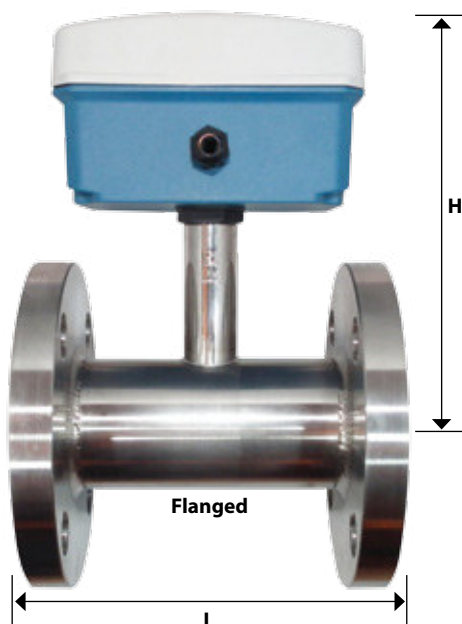
Threaded Model	L	H (max)
Gz 13	70mm	160mm
Gz 16	76mm	160mm
Gz 19	76mm	160mm
Gz 25	76mm	160mm
Gz 40	114mm	170mm
Gz 50	133mm	180mm



Lx 50 & Lxb 50

133mm

180mm



Flanged Model	L	H (max)
Gz 16	140mm	160mm
Gz 19	140mm	160mm
Gz 25	152mm	160mm
Gz 40	165mm	170mm
Gz 50	165mm	180mm
Gz 80	165mm	190mm
Gz 100	210mm	220mm

Electronics

101a and 101ai (Intrinsically safe version)

Features: Totaliser and Flowrate indication with Linearisation
Pulse output in relation to Total
4 - 20 mA output in relation to Flowrate

Power: 3.6 V Lithium Battery
8 - 30 V D.C. or 4 - 20 mA loop



101b and 101bi (Intrinsically safe version)

Features: Preset Batch value indication
Over run Correction
Pulse output mirroring count on display
One or Two Stage Batch Control

Power: 115 - 230 V A.C.

101c and 101ci (Intrinsically safe version)

Features: Totaliser and Flowrate indication
High and Low Alarm Flowrate monitoring
Two Alarm Outputs
4 - 20 mA output in relation to Flowrate

Power: 3.6 V Lithium Battery
8 - 30 V D.C. or 4 - 20 mA loop

101d and 101di (Intrinsically safe version)

Features: Quadrature input for bi-directional measurement
4 - 20 mA output in relation to Flowrate
Pulse output in relation to Total
Flow Direction Output

Power: 3.6 V Lithium Battery
8 - 30 V D.C. or 4 - 20 mA loop



Amplifier Board

Features: 5 V square wave pulse output with same frequency as the input signal

Power: 8 - 30 V D.C.

Scaler Board

Features: Scaled pulse output

Power: 8 - 30 V D.C.

4 - 20 mA Board

Features: 4 - 20 mA output

Power: 8 - 30 V D.C.