



IOTAFLOW
SYSTEMS PVT. LTD.

Radial-Blade Turbine Gas Meter

TRZ obligatory for verification

EQZ for internal measurement

EQZK for Sewer gas



Technical characteristics Radial-Blade Turbine Gas Meter

Primary

- Principle of velocity measurement
- For measurements requiring obligatory verification
- Sizes G 16 up to G 400
- Dimensions DN 50, 80 and 100
- Different G-sizes per nominal width:
 - DN 50: G 16 up to G 100
 - DN 80: G 65 up to G 250
 - DN 100: G 160 up to G 400
- Operating pressure max. 6 bar
- Meter element can be calibrated without monopipe fitting
- Pressure extraction connection inside the meter
- Counting device is in a gas-free space
- Low starting value
- High measurement stability and operational security due to high-quality, wear-resistant components; self-lubricating ball bearings
- Designed for simple servicing

(measurement-cartridge principle)

- LF-pulse generator (standard)
- Standard integrated flow strainer
- Short straight inlet lengths (2 × DN)
- Operation temperature range:
 - gas temperature -10°C up to +60°C
 - ambient temperature -20°C up to +70°C

Options

- Over-run brake: Mechanical over-run brake without measuring range for intermitting operation
- Pulse generator:
 - 2nd LF-IPG, can be retrofitted without breaking the verification seal
 - MF-IPG
 - HF-IPG
- Temperature sensor pockets in monopipe fitting

Mounting and maintenance

- Mounting /dismounting of the meter element possible without disconnecting the monopipe fitting
- The monopipe fitting remaining in the pipe network enables mounting /dismounting of the meter element without tension from the pipe network
- Can be installed in any position from horizontal to vertical (turbine axis not suspended and roller counter axis always horizontal)

Norms and approvals

- Developed and produced according to Quality Standard ISO 9001
- International and national type approvals

Technical data quanto monopipe TRZ / EQZ / EQZK

DN (mm)	Size	Load range		Pressure p_{max} (bar)	Pulse generators (option)			
		Q_{min} (m ³ /h)	Q_{max} (m ³ /h)		LF 1pulse = m ³	2nd LF 1pulse = m ³	MF 1pulse = m ³	HF approx.f at Q_{max} (Hz)
40/50	Q 16	3	25	6	1	1	0,01	350
40/50	Q 25	4	40	6	1	1	0,01	550
40/50	Q 40	5	65	6	1	1	0,01	850
40/50	Q 65	6	100	6	1	1	0,01	1300
50	Q 100	10	160	6	1	1	0,01	1300
80	Q 65	10	100	6	1	1	0,01	200
80	Q 100	12	160	6	1	1	0,01	320
80	Q 160	15	250	6	1	1	0,01	500
80	Q 250	20	400	6	1	1	0,01	800
100	Q 100	13	160	6	1	1	0,01	280
100	Q 160	15	250	6	1	1	0,01	440
100	Q 250	20	400	6	1	1	0,01	380
100	Q 400	25	650	6	1	1	0,01	610

Over-run brake

Quanto monopipe without over-run brake

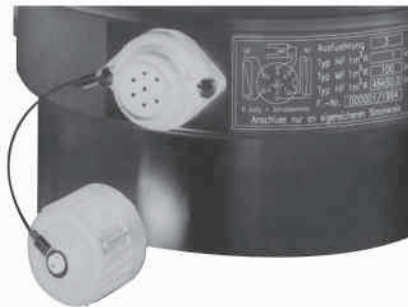


Quanto monopipe with over-run brake NLB



Pulse generators

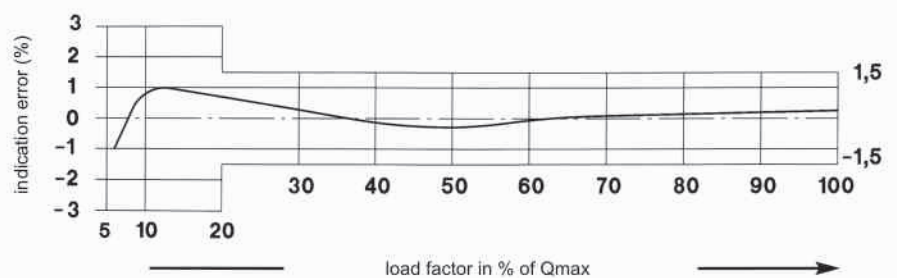
Connection of LF-, MF- as well as HF-pulse generators



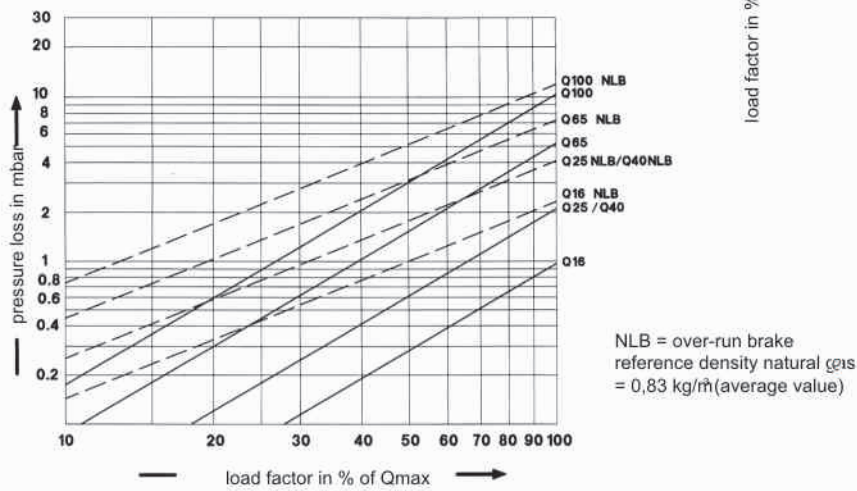
LF-pulse generator can be fitted by user without breaking the manufacturing seal



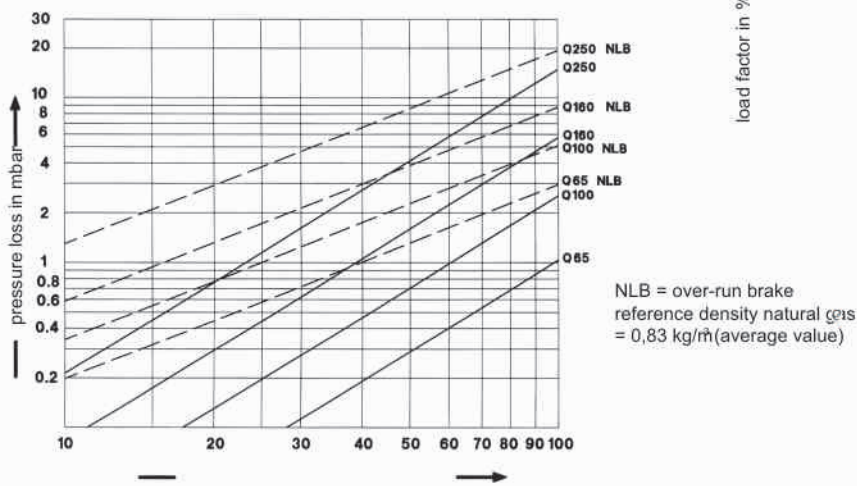
Error curve



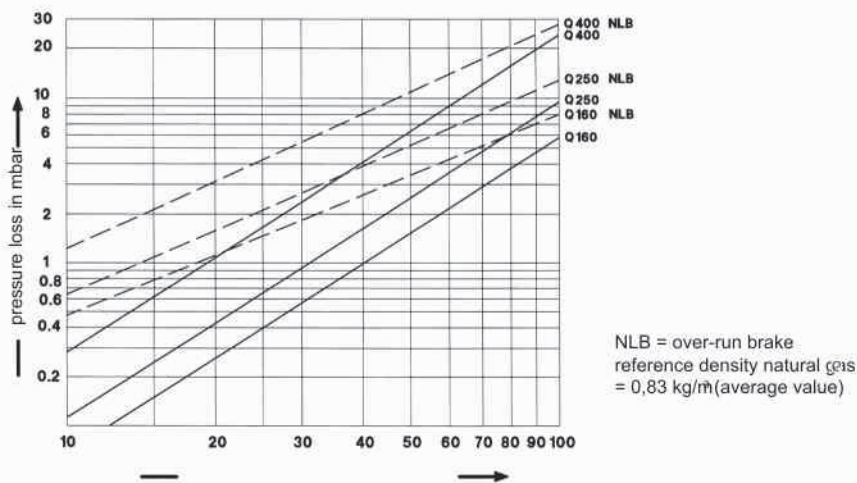
Pressure loss meter DN 40/50



Pressure loss meter - EQZ 2 DN 80

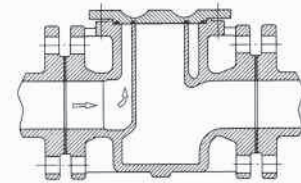


Pressure loss meter - EQZ 2 DN 100

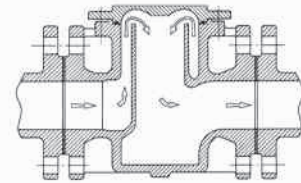


Application fields

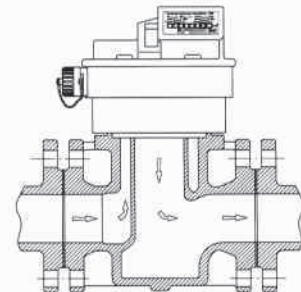
lid cap:
→ no gas flow!



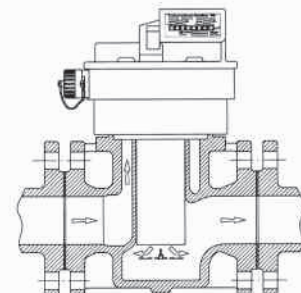
Prepared measuring point with overflow cap:
→ gas is flowing!



Operative measuring point with gas meter without over-run brake:



Operative measuring point with gas meter with over-run brake:



BATTERY POWERED GAS VOLUME CONVERSION DEVICE with option of external power supply

miniElcor

Complex solution for custody transfer measuring and telemetric data collecting



- ▶ High performance valuable product
- ▶ Basic telemetric functions
- ▶ Battery lifetime more than 6 years
- ▶ Error under reference conditions < 0.15 % of actual value
- ▶ Graphical LCD display with backlighting
- ▶ Possibility to connect 2nd pressure or temperature sensor
- ▶ Basic parameters setting via keypad
- ▶ Large capacity of different type of archives
- ▶ Designed for hazardous area ZONE 1 and ZONE 2
- ▶ EC certificate FTZU 08 ATEX 0324X
- ▶ Microsoft Windows compatible software
- ▶ Remote reading option

Technical specifications

Housing	polycarbonate	Measuring temperature range	-25 °C to +60 °C	
Dimensions (w x h x d)	193 x 160 x 73 mm	Measuring pressure ranges (absolute)	MID certified	non MID
Weight	1.2 kg	standard range (bar):	0.8 - 5.2 2 - 10 4 - 20 7 - 35 14 - 70	0.8 - 5.2 0.8 - 10 0.8 - 20 0.8 - 35 0.8 - 70
Protection class	IP 66 (EN 60529)	enhanced range (bar):	0.8- 10 4 - 70	
Working temperature	-25 °C to +70 °C	Accuracy	<0.5 % from measured value (MID) <0.15 % typically from measured value	
Power supply	Lithium battery, operating time is more than 6 years in defined condition with option of intrinsic safe power supply JBZ-02	Communication interface	RS-232 / RS-485 serial interface Optical interface IEC -1107 GSM/GPRS modem	
Type of battery	SAFT standard lithium battery (D size 3.6V/17Ah)	Communication speed	RS232/RS485: 9.6 - 57.6 kbit/sec Optical interface: 9.6 - 38.4 kbit/sec	
Control panel	6 button keypad	Analog output	external CL1 module (4 - 20mA)	
Display	Graphical LCD display with backlighting (also in battery mode), 128 x 64 pixels	Digital input	4 digital inputs (configurable as LF, HF or binary)	
Communication and service software	TELVES software for Windows	Digital output	4 digital outputs (configurable as pulse or binary output)	

Approvals

Approved according to the European metrology standard EN 12405-01 and 2004/22/EC (MID)	TCM 143/09 - 4664
ATEX approval for installation into hazardous area	FTZÚ 08 ATEX 0324X
Classification (according to EN 60 079 -0, EN 60 079-11)	II 2G Ex ia IIC T4/T3



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