

DIAPHRAGM GAS METERS

For domestic, commercial and industrial applications



General Information

Diaphragm meters have a tradition for an extended service life, a wide measuring range, long term measurement stability and maintenance free operation.

Main Elements

All diaphragm gas meters have pressed steel casings with an internal and external protective coating against corrosion. A measuring module is inserted into the casing to form a complete unit. There is a magnetic coupling that transmits the meter movement to the 8-digit index counter on the front panel. The meters have a maximum allowable working pressure (WP) of 0.1 bar.

Principle Advantages

- Fire safe to DIN 3374 and EEC requirements
- Synthetic diaphragms
- Unrestrained mounting of the measuring module
- Temperature range of -20°C to $+60^{\circ}\text{C}$
- 4 pole suspended magnetic coupling
- Repeatable error curve
- Ease of installation – no upstream or downstream pipe requirements
- Low noise level
- Low pressure loss

LF Pulse Output Option

All meters may be supplied with an optional LF pulse output with reed contact (volt free). This facility enables remote totalisation and is ideally suitable for energy management systems. For connection details see "LF Pulse Output Details" Data Sheet 2 which is supplied with each meter.

Installation

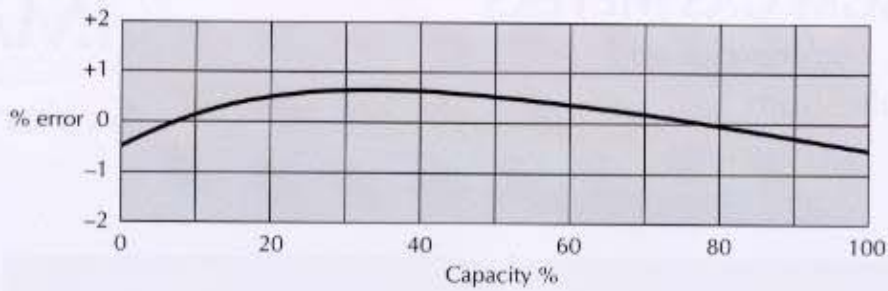
The gas must flow through the meter in the direction indicated on the meter. When viewed from the front looking at the index counter the gas flow is from left to right and the pipe connections should be:

- inlet connection – left hand side
- outlet connection – right hand side

When bringing the meter into operation care must be taken that any flow control devices in the line, before or after the meter, are opened slowly. This prevents meter overload due to excessive starting speeds. The line should always be shut off gradually.

Note: Diaphragm gas meters are precision measuring instruments manufactured to exacting tolerances and should be treated accordingly. Rough handling must be avoided. Excess pressure or any impact can cause damage to the metering unit, even if the casing shows no visible damage. Note that the maximum working pressure is 0.1 bar.

Typical Accuracy Curve



Diaphragm Meter Technical Details and Dimensions

| Type | Q max m ³ /hr | Q min m ³ /hr | Max WP bar | LF Output m ³ /pulse | Size mm | Dimensions mm | | | | | Weight Kg |
|-------|-----------------------------|-----------------------------|---------------|------------------------------------|---------------|---------------|------|-----|-----|-----|--------------|
| | | | | | | A | B | C | D | E | |
| GT2.5 | 4 | 0.025 | 0.1 | 0.01 | 20 Screwed | 110 | 222 | 69 | 208 | 162 | 1.9 |
| GT4 | 6 | 0.04 | 0.1 | 0.01 | 25 Screwed | 250 | 248 | 72 | 327 | 167 | 3.1 |
| G6 | 10 | 0.06 | 0.1 | 0.01 | 25 Screwed | 250 | 248 | 72 | 327 | 167 | 3.1 |
| G10 | 16 | 0.10 | 0.1 | 0.1 | 40 Screwed | 280 | 330 | 108 | 405 | 234 | 5.7 |
| G16 | 25 | 0.16 | 0.1 | 0.1 | 40 Screwed | 280 | 330 | 108 | 405 | 234 | 5.7 |
| G25 | 40 | 0.25 | 0.1 | 0.1 | 50 Screwed | 335 | 398 | 138 | 465 | 289 | 10.0 |
| G40 | 65 | 0.40 | 0.1 | 1.0 | 65/80 Flanged | 510 | 675 | 172 | 684 | 376 | 66 |
| G65 | 100 | 0.65 | 0.1 | 1.0 | 80 Flanged | 640 | 870 | 197 | 840 | 426 | 90 |
| G100 | 160 | 1.00 | 0.1 | 1.0 | 100 Flanged | 710 | 1000 | 265 | 920 | 562 | 142 |

