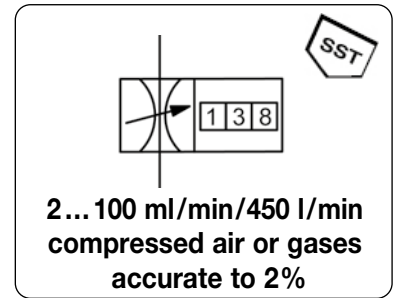


PORTABLE MASS FLOW METER, WITH AND WITHOUT MANUAL CONTROL VALVE

VGR

| | | | |
|-----------------------------|--|---------------------------|---|
| Description | Thermal mass flow meter based on high precision MEMS technology (CMOS sensor). Pressure and temperature-insensitive according to the CTA constant temperature principle. Also insensitive to pressure surges. | | |
| Media | compressed air or non-corrosive gases | Operating pressure | max. 10 bar |
| Supply voltage | Standard AA battery or Micro-USB power supply (DIN62684), optionally external power +12 ...+30 V DC (max. 200 mA) | | |
| Display | Touch-display 128 x 64 px, backlit only with external power supply (Micro-USB or 24 V DC) | | |
| Electrical connector | optionally length 2.0 m, with free ends at 24 V DC | Function | totalisator included, physical units can be changed |
| Alarm functions | 3 configurable alarms, programmable as : low alarm, high alarm, window alarm and totalizer alarm. The alarms can be configured with different parameters: delay and alarm duration. Relais: switching current up to 1A, switching voltage 30 V DC | | |
| Accuracy | ± 2% FS, from 200 l/min ± 3% FS | Response time | 500 ms at 99% accuracy |
| Turndown ratio | 1:50 (Eco) or 1:1000 (Special) | Protection class | IP 50 |
| Flow regulation | manual fine adjustment by 15 turns | Mounting position | any, horizontal from 5 bar on |
| Temperature range | 0 °C to 50 °C / 32 °F to 122 °F | Warm-up time | < 1 sec. for full accuracy |
| Material | Body: aluminium, optionally electropolished stainless steel 316 Elastomer: FKM, optionally EPDM | | |



Prop.-V.
11

| Dimensions | | | Operating pressure | Accuracy | Connection thread | Flow rate | Order number |
|------------|----|----|--------------------|----------|-------------------|----------------|--------------|
| A | B | C | | | | | |
| mm | mm | mm | max. bar | % | G | ml/min / l/min | |

| Mass flow meter | | | with manual control valve, LCD-Display, needle valve battery mode, portable, aluminium, FKM | | | VGR*1 | |
|-----------------|----|------|---|---|-----------------|-------------------|--------|
| 114 | 44 | 12.5 | 10 | 2 | G $\frac{1}{4}$ | 2 ... 100 ml/min | VGR-A1 |
| | | | | 2 | | 4 ... 200 ml/min | VGR-A2 |
| | | | | 2 | | 10 ... 500 ml/min | VGR-A5 |
| | | | | 2 | | 0.02 ... 1 l/min | VGR-B1 |
| | | | | 2 | | 0.04 ... 2 l/min | VGR-B2 |
| | | | | 2 | | 0.1 ... 5 l/min | VGR-B5 |
| 160 | 54 | 17.5 | 10 | 2 | G $\frac{1}{2}$ | 2 ... 100 l/min | VGR-C1 |
| | | | | 2 | | 4 ... 200 l/min | VGR-C2 |
| | | | | 2 | | 0.4 ... 20 l/min | VGR-C5 |
| | | | | 3 | | 1 ... 50 l/min | VGR-D1 |
| | | | | 3 | | 2 ... 100 l/min | VGR-D2 |
| | | | | 3 | | 4 ... 300 l/min | VGR-D3 |
| | | | 3 | | 9 ... 450 l/min | VGR-D4 | |



VGR-G $\frac{1}{4}$
mass flow meter
with manual control valve

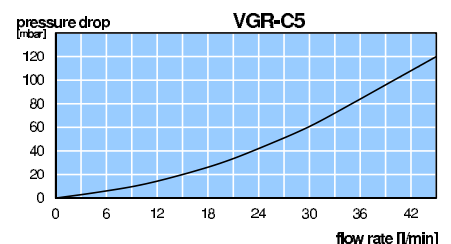
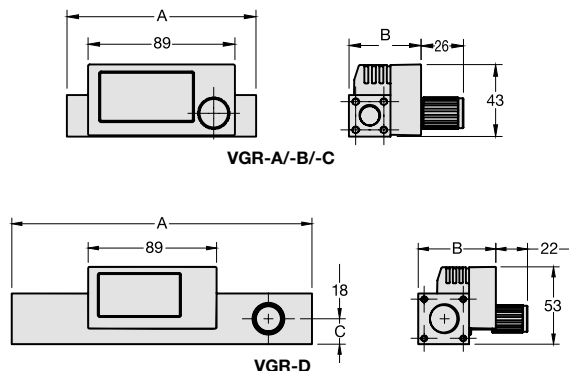


VGR-G $\frac{1}{2}$
mass flow meter

Special options, add the appropriate letter oder number

| | | |
|-----------------------------|--|----------|
| deviant volume flow | indicate on order | VGR-XX |
| limit switch | min. / max.-alarm, 1 A SPDT switch, incl. 24 V DC supply | VGR-..G2 |
| stainless steel body | electropolished throughout | VGR-..S |
| EPDM elastomer | for VGR-A1 to -C5 | VGR-..E |
| 24 V DC supply | cable attached on the device, length 2 m, with free ends | VGR-..2 |
| panel mounting | cut-out 48 x 96 mm, protection class IP50 in the front | VGR-..T |
| 1% accuracy | for G $\frac{1}{4}$ | VGR-..H |
| carbon dioxide | CO ₂ | VGR-..03 |
| argon | Ar | VGR-..05 |
| nitrogen | N ₂ | VGR-..07 |
| helium | He | VGR-..09 |
| hydrogen | H ₂ | VGR-..11 |
| methane | CH ₄ | VGR-..13 |
| oxygen | O ₂ | VGR-..15 |
| propane | C ₃ H ₈ | VGR-..16 |
| nitrous oxide | N ₂ O | VGR-..17 |
| gases | see above | VGR-D... |

| Specific gas calibration | | | |
|--------------------------|----|-------------------------------|------------|
| gas species | | | max. l/min |
| nitrogen | 07 | N ₂ | 450 |
| oxygen | 15 | O ₂ | 450 |
| argon | 05 | Ar | 300 |
| helium | 09 | He | 450 |
| hydrogen | 11 | H ₂ | 300 |
| carbon dioxide | 03 | CO ₂ | 150 |
| propane | 16 | C ₃ H ₈ | 80 |
| methane | 13 | CH ₄ | 100 |



* Product group

Calibration or test chart: see chapter for technical informations
*1 Note: indicate media, supply and outlet pressure on order

PDF CAD
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Order example:
VGR-A1