

PRESSURE
TRANSMITTER
WITH DATALOGGER
DL



Features

- Piezoresistive measuring element
- All pressure ranges between 0...50 mbar and 0...1000 bar available
- Calibration available for all common pressure units
- High reliability
- Measuring interval programmable from 2s to 24h
- Non volatile data memory for 130'000 measurement values
- Data transfer to a PC/Notebook/Pocket PC

Typical applications

- Process monitoring
- Environmental monitoring
- Food industry
- Water distribution
- Test and monitoring

Specifications

| Pressure ranges | [bar] | 0.05 ... 0.5 | > 0.5 ... 2 | > 2 ... 25 | > 25 ... 600 | > 600 ... 1000 |
|--|-------------|--------------------|-----------------------|---------------------|--|---------------------|
| Overpressure | | 3bar | 3 x FS (min. 3bar) | 3 x FS | 3 x FS (max. 850 bar, optional up to 1500 bar) | 1500bar |
| Burst pressure | [bar] | ≥ 200 | ≥ 200 | ≥ 200 | ≥ 850 (optional up to 1500bar) | ≥ 1500 |
| Accuracy ¹⁾ | [± % FS] | ≤ 0.25 | ≤ 0.1 | ≤ 0.1 | ≤ 0.1 | ≤ 0.1 |
| Thermal shift | [± % FS/°C] | | | | | |
| Zero | 0...70°C | ≤ 0.06 2) | ≤ 0.03 | ≤ 0.015 | ≤ 0.015 | ≤ 0.015 |
| | -25...85°C | ≤ 0.08 3) | ≤ 0.04 | ≤ 0.02 | ≤ 0.02 | ≤ 0.02 |
| Span | 0...70°C | ≤ 0.015 | ≤ 0.015 | ≤ 0.015 | ≤ 0.015 | ≤ 0.015 |
| | -25...85°C | ≤ 0.02 | ≤ 0.02 | ≤ 0.02 | ≤ 0.02 | ≤ 0.02 |
| Long term stability (1 year) - (typ./max) | | ≤ 0.5% FS/< 4 mbar | ≤ 0.2% FS/< 4 mbar | ≤ 0.1% FS/< 0.2% FS | ≤ 0.1% FS/< 0.2% FS | ≤ 0.1% FS/< 0.2% FS |

Datalogger

| | | |
|-----------------------------|--|----------------------------|
| Measurand/Resolution | Pressure < 0.01% FS | Temperature 0.1°C (option) |
| Data memory | 130'000 measurement values, non volatile, data kept in memory even without battery | |
| Real time clock | Quartz clock with date; each measurement value is correlated with time and date | |
| Interface | RS232C (V24, three wire) | |
| Identification | Serial number and programmable Id. number | |
| Power supply | Lithium battery 3.6 V / size AA (on site battery change) | |
| Protection class | IP 67 (cap closed) | |

Configuration and Data Transfer

PC-Software for Configuration and Data Transfer

| | |
|----------------------------|---|
| System Requirements | IBM compatible Notebook or PC, Windows™ 95/98/NT/2000, XP or STS-Pocket PC with Windows™ CE 2002 (see Pocket PC datasheet) |
| Data Transfer | data transfer of all data, of last data set, or a predefined time-period |
| Configuration | storage and sampling rate timer on/off time and date identification; e.g. name of location tare; the actual pressure value can be set threshold value (option) density of medium (option) |
| Data Format | Data are stored in an ASCII format file and can be processed with Excel™, Lotus™ or similar |

Materials

| | |
|--------------------------------------|---|
| Process connection, diaphragm | Stainless steel 1.4435 (316L), other materials (e.g. titanium) on request |
| Housing | Aluminium AlMgSi1 (colorless, anodized) |
| Cap | Plastic TEKA Form ELS |
| Seals (standard) | Viton (other materials see ordering information) |

Electromagnetic compatibility

| Standard | Level | Typical interference | |
|-------------------|---------------------------------------|----------------------------------|-----------------------------|
| Emissions: | | | |
| EN 61000-6-3 | Generic emission standard | | |
| EN 55022 | Emission, class B | | |
| Immunity: | | | |
| EN 61000-6-2 | Generic immunity standard | | |
| EN 61000-4-2 | Electrostatic discharge | 4 kV kontakt, 8 kV air | |
| EN 61000-4-3 | Radiated electro-magnetic field | 10 V/m, 80-1000 MHz, 80% AM 1kHz | Cellular phones, radio sets |
| EN 61000-4-3 | Radiated electro-magnetic field (GSM) | 10 V/m, 950 MHz, 200 Hz on/off | Digital portable phones |
| EN 61000-4-4 | Fast transients (burst) | 2 kV | Motors, valves |
| EN 61000-4-6 | Conducted radio-frequency | 10 V, 0.15-80 MHz, 80% AM 1 kHz | Cellular phones, radio sets |

¹⁾ Zero based non-conformity according to DIN 16086, including hysteresis and repeatability

²⁾ 50 - 99mbar: ≤ 0.12

³⁾ 50 - 99mbar: ≤ 0.16

Ordering Information

| | | 63 | X | XXXX | XXXX | XX | XXX | |
|------------------------------|---|------------------|----|------|------|----|-----|---|
| Type | DL | 63 | | | | | | |
| Pressure type | Gauge | 1 | | | | | | |
| | Absolute | 2 | | | | | | |
| | Sealed gauge | 3 | | | | | | |
| Pressure range | All pressure ranges between 0...50mbar and 0...100bar available | | XX | | | | | |
| Process connection | G 1/4 female (Fig. 1) | | | | 00 | | | |
| | G 1/4 M (Fig. 2) | | | | 11 | | | |
| | G 1/2 M (Fig. 3) | | | | 13 | | | |
| | G 1/2 M, frontal diaphragm (Fig. 4) | | | | 14 | | | |
| | G 1/2 M, flush diaphragm (Fig. 5) | | | | 15 | | | |
| | other process connector available | | | | XX | | | |
| Electrical connection | Connector RSF 4, 4-pins ²⁾ | | | | | 07 | | |
| Interface | RS232C | | | | | | 61 | |
| Accuracy | ≤ ± 0.25% FS (for pressure ranges ≤ 500mbar) | | | | | | 1 | |
| | ≤ ± 0.1 % FS (for pressure ranges > 500mbar) | | | | | | 2 | |
| Temperature range | 0...70°C compensated (medium temperature 0...80°C) | | | | | | 0 | |
| | -25...85°C compensated (medium temperature -25...100°C) | | | | | | 1 | |
| | Special temperature range | | | | | | 9 | |
| Options | Throttle ¹⁾ | | | | | | A | |
| | Version titanium | | | | | | K | |
| | Special oil filling in the TD: ASEOL Food | Halocarbon | | | | | | G |
| | | | | | | | | H |
| | Seals: | Viton (standard) | | | | | | U |
| | | EPDM | | | | | | S |
| | | Kalrez | | | | | | T |
| Special options | | | | | | Z | | |

¹⁾ Possible with pressure connection Fig. 2 or Fig. 3 only

²⁾ Data transfer cable and PC-Software not included
 2m: ordering code VART009
 5m: ordering code VART211

Fig. 1

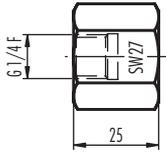


Fig. 2

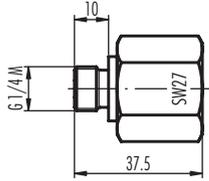


Fig. 3

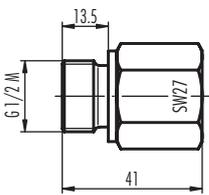


Fig. 4

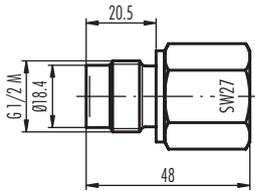
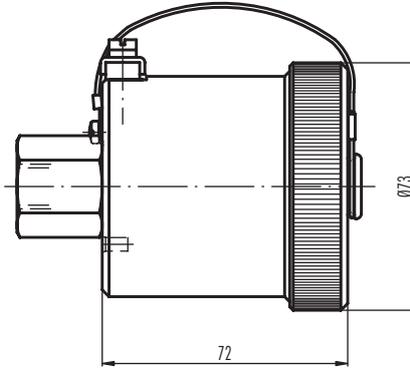
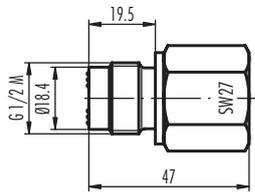
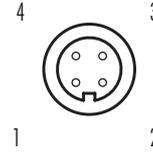


Fig. 5



Cable socket connector



| Pin | RS232C |
|-----|--------|
| 1 | TxD |
| 2 | RxD |
| 3 | GND |



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