

## DIGITAL-PANEL-MOUNTED DISPLAY MODULES for all applications

- 2 temperature modules (covering temperature ranges from -50 up to +1150° C)
- 4 pressure modules for barometer, vacuum meter, manometer for absolute pressure, over/under pressure and pressure difference measurements. Pressure range up to 10 bar
- one voltmeter module with 3 integrated voltage ranges

### Common specification for all modules:

**Display:** 3½-digit LCD display, 13mm high ( $\pm 1999$  digit), **scan rate:** 3 meas. per second, **operating temperature:** 0 to 50°C, **atmospheric humidity:** 0 to 85%RH (non-condensing), **storage temperature:** -10 to +70°C, **current supply:** 9 - 12 V DC, **electrical connection:** via soldering pin, **dimensions:** 38 x 76 x 22 mm (H x W x D), **panel-cutout:** 36<sup>±0.5</sup> x 73.2<sup>±0.5</sup>mm (H x W), **panel thickness:** max. up to 9.5mm. snap-on frame protruding only 1mm over front plate - professional design, 3mm thick anti-reflex screen

### TEMPERATURE

#### GPT 180

TEMPERATURE MODULE for semiconductor sensor KTY 83-110

**Range:** -50.0 up to +175.0° C / **Resolution:** 0.1° C

**Accuracy:** approx. 1% f.s. / **Power consumption:** approx. 1 mA

**Suitable sensors** KTY 83-110: please refer to pages 97 and 99

#### GPT 1155

TEMPERATURE MODULE for thermocouple NiCr-Ni (type K)

**Range:** -50 up to +1150° C / **Resolution:** 1° C

**Accuracy:** (at nominal temperature = 25°C) better than 1 % from -20 up to +550 and from 920 up to 1150° C, 550 up to 920 better than 1.5%

**Power consumption:** approx. 0.35 mA

**Suitable sensors type NiCr-Ni (type K)** p.r.t. pages 81 - 95, 100 - 101

GTU 300/152 wire sensor with soldering pin plug

### Pressure

#### GPD 15 ABS

DIGITAL BAROMETER / VACUUM METER MODULE (sensor not included)

**Range:** 0 to 1100 mbar (hPa) absolute / **Resolution:** 1 mbar

**Accuracy module:** 1 mbar  $\pm 1$  digit

**Accuracy sensor:** (sensor not included in scope of supply):

$\pm 0.2\%$  (typical) for linearity and hysteresis,  $\pm 0.4\%$  for temperature drift from 0 to 50° C (typ. values for sensors compensated to module)

**Power consumption** (incl. sensor) approx. 3.5 mA

**Suitable sensors:** (please order separately)

SCX 15 ANC (pressure sensor, loose)

SCX 15 ANC/G (pressure sensor with housing, 1m connection cable)

#### GPD 05 REL

DIGITAL MANOMETER for over/under pressure and pressure difference (sensor not included)

**Meas. range:** -100,0 to +199,9 mbar relative (referring to ambient pressure)

**Resolution** 0,1 mbar / **Accuracy module** 0,1 mbar  $\pm 1$  digit

**Accuracy sensor and power consumption** as above

**Suitable sensors:** (please order separately)

SCX 05 DNC (pressure sensor, loose)

SCX 05 DNC/G (pressure sensor with housing, 1m connection cable)

#### GPD 30 REL

DIGITAL MANOMETER for over/under pressure and pressure difference (sensor not included)

**Meas. range:** -1000 to +1999 mbar relative (referring to ambient pressure)

**Resolution** 1 mbar / **Accuracy module** 1 mbar  $\pm 1$  digit

**Accuracy sensor and power consumption** as above

**Suitable sensors:** (please order separately)

SCX 30 DNC (pressure sensor, loose)

SCX 30 DNC/G (pressure sensor with housing, 1m connection cable)

#### GPD 150 REL

DIGITAL MANOMETER for over/under pressure and pressure difference (sensor not included)

**Range:** -1.00 up to 10.00 bar relative (referring to ambient pressure)

**Resolution** 0.01 bar **Accuracy module** 1 mbar  $\pm 1$  digit

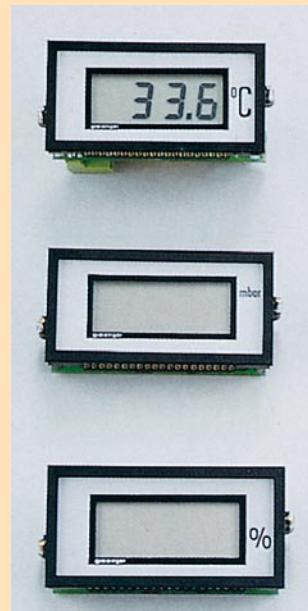
**Accuracy sensor and power consumption** as above

**Suitable sensors:** (please order separately)

SCX 150 DNC (pressure sensor, loose)

SCX 150 DNC/G (pressure sensor with housing, 1m connection cable)

## DIGITAL DISPLAY for all measuring transducers 4 to 20 mA 2-wire, no auxiliary power required



Digital panel module without auxiliary energy

- for use in 4 to 20 mA output circuits of measuring transducers
- **WITHOUT EXTERNAL AUXILIARY SUPPLY**
- high operating reliability
- Cost reduction as power supplies and their cables are no longer required

#### GTA 0420 (standard range)

Large, high-contrast 3 1/2 digit LCD, 12.7 mm high; to either directly display loop current or convert it into any desired value such as temperature, pressure, fill level, humidity, travel, weight, height, liquid flow, ppm, mg/l, % sat., etc..

Snap-on, industrial panel-mounting type, anti-reflex screen 3 mm thick (not to be compared with unprotected glass covered display as used with cheap modules!)

Minimum size: 38 x 76 x 22 mm (H x W x D). Devices can be stack-mounted at a distance of 38 mm.

Standard printings available, eg. °C, %, V, mbar, bar, otherwise neutral.

### Specification:

**Input signal:** 4 .. 20 mA, 2-wire

**Display ranges:** 0,0 ... 100,0; 0,0 ... 199,9; -50,0 ... +50,0 (standard); any display range desired against upcharge (p.r.t. options)

**Decimal point:** any place (soldering jumper)

**Fine tuning:** starting point at 4 mA and end point at 20 mA can each be shifted by  $\pm 50$  digits

**Display:** 3½ digit LCD with  $\pm 1999$  digits, 13 mm high

**Scanning rate:** 3 measurements per second

**Voltage load:** approx. 4,7 V (standard - connection wrong-polarity protected) optional: approx. 3,5 V (without polarity protection) - upon request

**Accuracy:** (at nominal temperature = 25°C)  $\pm 0.1\% \pm 1$  digit

**Temperature coefficient:** 100 ppm / K

**Operating temperature:** 0 to 50 °C

**Atmospheric humidity:** 0 to 85 %RH (non-condensing)

**Storage temperature:** -10 to +70°C

**Dimensions:** 38 x 76 x 22 mm (H x W x D)

**Panel cutout:** 36<sup>±0.5</sup> x 73.2<sup>±0.5</sup> mm (H x W)

**Panel thickness:** max. up to 9.5mm.

### Options:

Any measuring range desired (against upcharge)  
(no upcharge for orders as of 10 pieces of the same range)

**Further displays without auxiliary supply:** p.r.t. page 41, 52, 53

### VOLTAGE

#### GPV 220

DIGITAL VOLTmeter, 3 integrated voltage ranges - others can be realised by means of an external voltage divider (eg for mains voltage 230 V etc.)

**Ranges:**  $\pm 199.9$  mV DC,  $\pm 1999$  mV DC,  $\pm 19.99$  V DC integrated; ( $\pm 199.9$  V DC or 1999 V DC can be realised by means of an external voltage divider)

**Decimal point:** any place selectable

**Resolution:** up to 100µV / **Input impedance:** 100MΩ resp. 1MΩ

**Accuracy:** 0.1%  $\pm 1$  digit / **T.C. value:** 100 ppm/K

**Power consumption:** approx. 100µA only (approx. 3000 hours with normal 9V-battery)