### 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 (±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 solder-ing 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 128

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 123 - 127, 132 - 133 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 ±1 digit Accuracy sensor: (sensor not included in scope of supply): ±0.2% (typical) for linearity and hysteresis, ±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 ±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 ±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 ±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** 

 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:  $38 \times 76 \times 22$  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 ±50 digits

Display: 3½ digit LCD with ±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) ±0.1% ±1digit

**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 x D

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 64, 76, 77

## VOLTAGE

## **GPV 220**

**DIGITAL VOLTMETER**, 3 integrated voltage ranges - others can be realised by means of an external voltage divider **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:** 100M $\Omega$  resp. 1M $\Omega$ **Accuracy:** 0.1%  $\pm$ 1 digit / **T.C. value:** 100 ppm/K **Power consumption:** approx. 100µA only (approx. 3000 hours with normal 9V-battery)

Handheld instrument

**Femperature** probe

**Protection** 

arm /