# IN.05
## 5x INPUT FOR Pt xxxx, Cu xxx, Ni xxxx

**INPUT FOR RESISTIVE SENSORS**

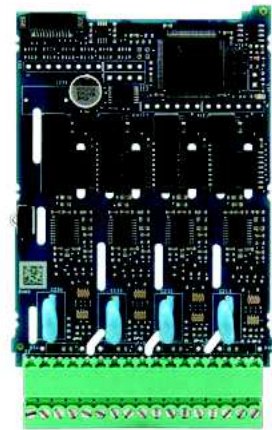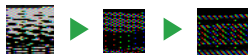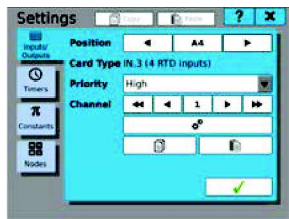| | |
|---|---|
| **OHM** | 0…100 Ω / 0…300 Ω / 0…1 kΩ / 0…3 kΩ / 0…10 kΩ / 0…30 kΩ |
| **Pt** | Pt 50 / Pt 100 / Pt 500 / Pt 1 000 |
| **Ni** | Ni 1 000 / Ni 10 000 |
| **Cu** | Cu 50 / Cu 100 |

**RATE**
< 320 measurements / s

**ACCURACY**
0,2 % of range

## CARD SETTINGS

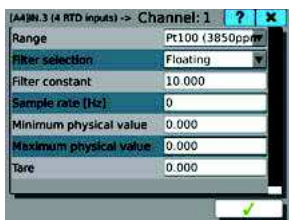## THE FOLLOWING PARAMETERS ARE EDITED IN THE SETTING

Select the **Position of the card** to be set. Use buttons ◀ ▶ to scroll among the fitted cards.

**Type of the card** fitted in the specified position

Data transfer **priority** of the selected card. Bigger number of plugged-in cards slows down data flow on the bus. It can be optimized by setting priorities. The real value of the data flow can be then controlled in diagnostics. The maximum achievable data flow in slots A is 1100 frames / s, in slots B 550 frames / s.

**Channel** to be set. Use buttons ◀◀ ◀ ▶ ▶▶ to scroll among the channels. Number of possible selectable channels is determined by the card, which is being set

Button is used to navigate to the settings of the selected channel.

| Type | Ohmmeter ▸ Thermom. Pt xxx ▸ Thermom. Cu xxx ▸ Thermometer Ni xxxx | | |
|---|---|---|---|
| Range | **OHM** | 100 Ω ▸ 300 Ω ▸ 1 kΩ ▸ 3 kΩ ▸ 10 kΩ ▸ 30 kΩ | |
| | **Pt** | Pt 50-3580 ▸ Pt 100-3580 ▸ Pt 500-3580 ▸ Pt 1 000-3580 | |
| | **Cu** | Cu 50-4280 ▸ Cu 100-4280 | |
| | **Ni** | Ni 1000-6180 ▸ Ni 10000-6180 | |
| Filter selection | Floating floating arithmetic average of the number of measured values | | |
| | Exponential integration filter of the first order with a time constant measurement | | |
| Filtr constant | Indicates the size of the filter | | |
| Sampling frequency | 5…320 Hz sampling frequency of A/D transmitter | | |
| Min. physic. values* | value that corresponds to the minimum selected range of the input values | | |
| Max. physic. values* | value that corresponds to the maximum selected range of the input values | | |
| Tare* | to reset the values by non-zero input signals | | |

* In temperature measurements (Pt, Ni, Cu, T/C) the conversion to a physical value (temperature) is carried out by the sensor regardless of the values.

## INSTALLATION OF A NEW CARD

**When installing a new card, always make sure the device is disconnected from the power supply!**

1. Remove the back cover and break off the blinder of a vacant card position. It is recommended to place analogue cards into faster slots in column „A" (Speed of the bus: Slot „A" 1 ms, Slot „B" 2 ms).

2. Remove the card from the shipping container and from the ESD packaging and insert it carefully into the selected slot until you feel a gentle snap

3. Replace the back cover and turn the device on

4. Setting of the card is described in the preceding paragraph

# IN.05
## TECHNICAL DATA

### INPUTS

| Number | | 5 |
|---|---|---|
| **OHM** | Range | 0...100 Ω / 0...300 Ω |
| | | 0...1 kΩ / 0...1 kΩ / 0...3 kΩ / 0...10 kΩ / 0...30 kΩ |
| | Connection* | 2 or 3 wire |
| **Pt** | Type | Pt 100/500/1 000 Ω, s 3 850 ppm   -50°...450°C |
| | Connection* | 2 or 3 wire |
| **Ni** | Type | Ni 1 000 / Ni 10 000 s 6 180 ppm/°C  -200°...250°C |
| | Connection* | 2 or 3 wire |
| **Cu** | Type | Cu 50 / Cu 100 s 4 280 ppm/°C        -200°...200°C |
| | Connection* | 2 or 3 wire |

\* In case of measurements with 2- or 3-wire connection it is necessary to connect the unused inputs [2d • E+/S+, E-/S-, 3d • E-/S-].

### TECHNICAL SPECIFICATION

| TC | 50 ppm/°C |
|---|---|
| Accuracy | ±0,2 % of range (valid for 10 measur./s) |
| Rate | 5...320 measurements/s |
| Overload capacity | 10x (t < 100 ms), 2x |
| Digital filters | Floating average, Exponential average |
| Compen. of conduct | max. 40 Ω/100 Ω |
| Watch-dog | reset after 500 ms |
| Calibration | at 25°C and 40 % r.h. |

### POWER SUPPLY

| Power supply | 5 VDC, 24 VDC |
|---|---|
| Consumption | max. 150 mA |

### MECHANIC PROPERTIES

| Dimensions | 65 x 98 mm |
|---|---|
| Installation | to OMR 700 |

### OPERATING CONDITIONS

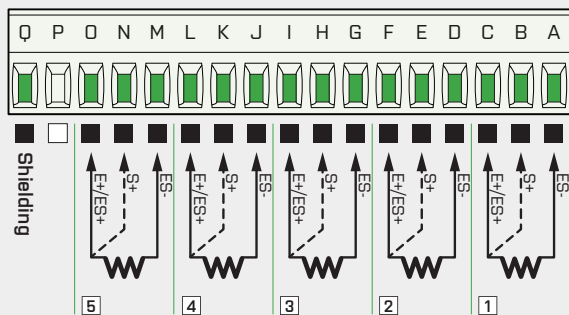| Connection | connector terminal board, cross section < 1,5 mm$^2$ |
|---|---|
| Working temperature | -20°...60°C |
| Storage temperature | -20°...85°C |
| IP rating | IP00 |
| Construction | safety class I |
| El. safety | EN 61010-1, A2 |
| Dielectric strength | 2,5 kVAC over 1 min between bus and inputs |
| Insulation resistance* | for pollution degree II, measuring cat. III. Input/Bus - 300 V (PI), 150 (DI) |
| EMC | EN 61326-1 (industrial use) |
| Seismic resistance | IEC 980: 1993, čl.6 |

\* PI - Primary insulation, DI - Double insulation

# IN.05
## CONNECTION



IN.5

**OHM:** 0...0,1/0,3/1/3/10/30 kΩ
**RTD:** Pt 50/100/500/1 000
**Cu:** Cu 50/100
**Ni:** Ni 1 000/10 000

# IN.05
## ORDER CODE

### IN.05                                    - ☐

| Specifications | Used only for customised versions | 00 |
|---|---|---|