NA6 (DIGITAL METER With Bargraph)

- 3 or 7-colour bargraph with programmable colour switching over,
- Recording of 750 measuring segments, released temporarily,
- Universal input,
- Programmable indication characteristic and bargraph magnifier,
- Up to 8 programmable alarm outputs,
- Communication in SCADA systems (RS485/Modbus interface),
- Conversion of measured quantity into an analog standard signal for automation systems.

### Outputs

**Kind of output**

- **Analog output**
  - galvanically isolated with resolution 0.025% of range; current programmable 0/4...20 mA, load resistance ≤ 500 Ω or voltage programmable 0...10 V, load resistance ≥ 500 Ω, output response time: 100 ms.

- **Relay output**
  - 4 electromagnetic relays; NOC voltageless contacts, maximal load-carrying capacity:
    - voltage: 250 V a.c., 150 V d.c.
    - current: 5 A, 30 V d.c., 250 V a.c.
    - resistance load: 1250 VA, 150 W

- **Open collector (OC) type**
  - voltageless of OC type with npn transistor, maximal load: 25 mA, range of appended voltages: 5...30 V d.c.

- **Digital**
  - interface type: RS-485, transmission protocol: MODBUS ASCII (BN1, 7E1, 7D1), RTU (BN2, BE1, 8D1, 8N1);
  - baud rate: 2400, 4800, 9600 bit/s

- **Additional supply output**
  - 24 V d.c., maximal load 20 mA

### External features

- **2 X 4 LED displays**
  - 7-segment digits of 7 mm high, measuring range -1999...9999

- **Bargraph**
  - bargraph of 88 mm length;
  - 48 segments in three-colour version;
  - 27 segments in seven-colour version

- **Bargraph resolution:** programmable

- **Bargraph accuracy:** ± 0.5 segment

### Inputs

**Kind of input**

- **Pt100**
  - measuring range: -200...850°C
- **Pt500**
  - measuring range: -200...850°C
- **Pt1000**
  - measuring range: -200...850°C
- **J (Fe-CuNi)**
  - measuring range: -100...1100°C
- **K (NiCr-NiAl)**
  - measuring range: -100...1370°C
- **N (NiCrSi-NiSi)**
  - measuring range: -100...1300°C
- **E (NiCr-CuNi)**
  - measuring range: 0...1760°C
- **R (PtRh13-Pt)**
  - measuring range: 0...1760°C
- **S (PtRh10-Pt)**
  - measuring range: 0...1760°C
- **T (Cu-CuNi)**
  - measuring range: -50...400°C

- **Resistance**
  - ± 0.1 Ω
  - ± 0...10 kΩ;
  - ± 110 Ω, 350 Ω, 750 Ω, 950 Ω, 2100 Ω, 5000 Ω

- **Voltage**
  - ± 300 mV, Rinp. > 9 MΩ
  - ± 0...600 V, Rinp. > 4.2 MΩ
  - ± 15 mV, 5 V, 22 V, 45 V, 90 V, 180 V, 360 V

- **Current**
  - ± 40 mA, Rinp. > 4 Ω
  - ± 5 mA, Rinp. > 10 mΩ ± 10%
  - ± 3.8 mA, 3.8 A

- **Intensity of current flowing through the resistance thermometer:** < 400 µA

- **Resistance of wires connecting the resistance thermometer with the meter:** < 20 Ω/Ω wire

### Example of application

Measurement of level and temperature in a tank

**Inputs**

- **Kind of input**
  - Measuring range
  - Measurement subrange

- **Pt100**
  - -200...850°C
  - 320°C

- **Pt500**
  - -200...850°C
  - 420°C

- **Pt1000**
  - -200...850°C
  - 370°C

- **J (Fe-CuNi)**
  - -200...1100°C
  - 350°C, 700°C

- **K (NiCr-NiAl)**
  - -100...1370°C
  - 450°C, 950°C

- **N (NiCrSi-NiSi)**
  - -100...1300°C
  - 550°C, 1000°C

- **E (NiCr-CuNi)**
  - -200...850°C
  - 250°C, 520°C

- **R (PtRh13-Pt)**
  - 0...1760°C

- **S (PtRh10-Pt)**
  - 0...1760°C

- **T (Cu-CuNi)**
  - 50...400°C

- **Resistance**
  - ± 0...10 kΩ
  - ± 0...220 kΩ

- **Voltage**
  - ± 300 mV, ± 600 V
  - ± 15 mV, ± 5 V, ± 22 V
  - ± 45 V, ± 90 V, ± 180 V, ± 360 V

- **Current**
  - ± 40 mA
  - ± 5 mA

- **Resistance of wires connecting the resistance thermometer with the meter:** < 20 Ω/Ω wire
Table 1. Execution code

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* - in case of meters without displays, one must order an RS-485 digital output
** - after agreeing with the manufacturer

Ordering Example:
The code: NA6 - M GB U 1 4 1 0 00 8 means:
NA6 - digital meter with bargraph of NA6 type,
M - with a seven color bargraph,
GB - green-blue display color on channel 1 and 2,
U - with an universal input signal,
1 - analog programmable output signal: 0/4...20 mA,
1 - RS-485 output signal,
4 - with additional 4 relays digital output signal,
0 - terminals of plug-in socket type,
00 - standard version,
8 - without extra quality requirements.