## NA6 DIGITAL METER WITH BARGRAPH

### FEATURES:
- **MODBUS**
- **RTC**
- **RS 485**
- **IP50**

### INPUTS:
- **DC**
- **0..20 mA**
- **0..10 V**

### OUTPUTS:
- **0..20 mA**
- **0..10 V**
- **RS 485**

### GALVANIC ISOLATION:
- **Lack of galvanic isolation between channels**

### EXAMPLE OF APPLICATION
**Measurement of level and temperature in a tank**

### KINDS OF INPUT
- **Pt100**
  - Measuring range: -200...850°C
  - Measurement subrange: 320°C

- **Pt500**
  - Measuring range: -200...850°C
  - Measurement subrange: 230°C

- **Pt1000**
  - Measuring range: -200...850°C
  - Measurement subrange: 290°C

- **J (Fe-CuNi)**
  - Measuring range: -100...1100°C
  - Measurement subranges: 350°C, 700°C

- **K (NiCr-NiAl)**
  - Measuring range: -100...1370°C
  - Measurement subranges: 450°C, 950°C

- **N (NiCrSi-NiSi)**
  - Measuring range: -100...1300°C
  - Measurement subranges: 550°C, 1000°C

- **E (NiCr-CuNi)**
  - Measuring range: -100...850°C
  - Measurement subranges: 250°C, 520°C

- **R (PtRh13-Pt)**
  - Measuring range: 0...1760°C

- **S (PtRh10-Pt)**
  - Measuring range: 0...1760°C

### INPUTS:
- **Kind of input**
- **Measuring range**
- **Measurement subrange**

### OUTPUTS:

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

#### Relay output
- **Features:**
  - 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
- **Features:**
  - Voltageless OC type with npn transistor, maximal load: 25 mA, range of appended voltages: 5...30 V d.c.

#### Digital
- **Features:**
  - Interface type: RS-485; transmission protocol: MODBUS ASCII (8N1, 7E1, 7O1), RTU (8N2, 8E1, 8O1, 8N1); baud rate: 2400, 4800, 9600 bit/s

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

### EXTERNAL FEATURES
- **Readout field**: 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

- **Weight**: < 0.4 kg
- **Overall dimensions**: 48 x 144 x 100 mm
- **Protection grade (acc. to EN 60529)**: IP50 from frontal side, IP20 from terminal side
### Table 1. Execution code:

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<td>BarGraph colour:</td>
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<td>seven-colour (R, G, B, R+B, G+B, R+G+B)</td>
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<td>Display colour on channels 1 and 2:</td>
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### Connection diagrams

**Fig. 1 Description of the terminal strip.**

**Fig. 2 Connection way of input signals.**

### Ordering Example:
The code: NA6 - M GB U 1 1 4 1 0 0 0 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 - input voltage: 95...253 V a.c./d.c.,
0 - terminals of plug-in socket type,
00 - standard version,
8 - without extra quality requirements.

### Rated Operating Conditions

- Supply voltage: 95...253 V a.c./d.c., 20...40 V a.c./d.c.
- Power consumption: < 13 VA
- Temperature: ambient: -10...23°C, 55°C
- Storage: -25...85°C
- Relative humidity: < 95%

### Safety and Compatibility Requirements

- Electromagnetic compatibility: noise immunity, acc. to EN 61000-6-2, noise emissions, acc. to EN 61000-6-4
- Pollution grade: 2
- Installation category: III
- Maximal phase-to-earth operating voltage:
  - input: 600 V
  - supply: 300 V
  - relays: 300 V
  - analog output: 50 V
  - RS-485: 50 V

### Additional Information

- N30 digital meters with a 3-colour display and free LPConfig program.
- Visualization programs enabling to build distributed control and measuring systems like: LUMEL-CONTROL, LUMEL-PROCES, LUMEL3000.
- Temperature and humidity transducers P18 i P18L types.
- For more information about LUMEL’s products please visit our website: www.lumel.com.pl