

NA6PLUS - DIGITAL METER WITH BARGRAPH

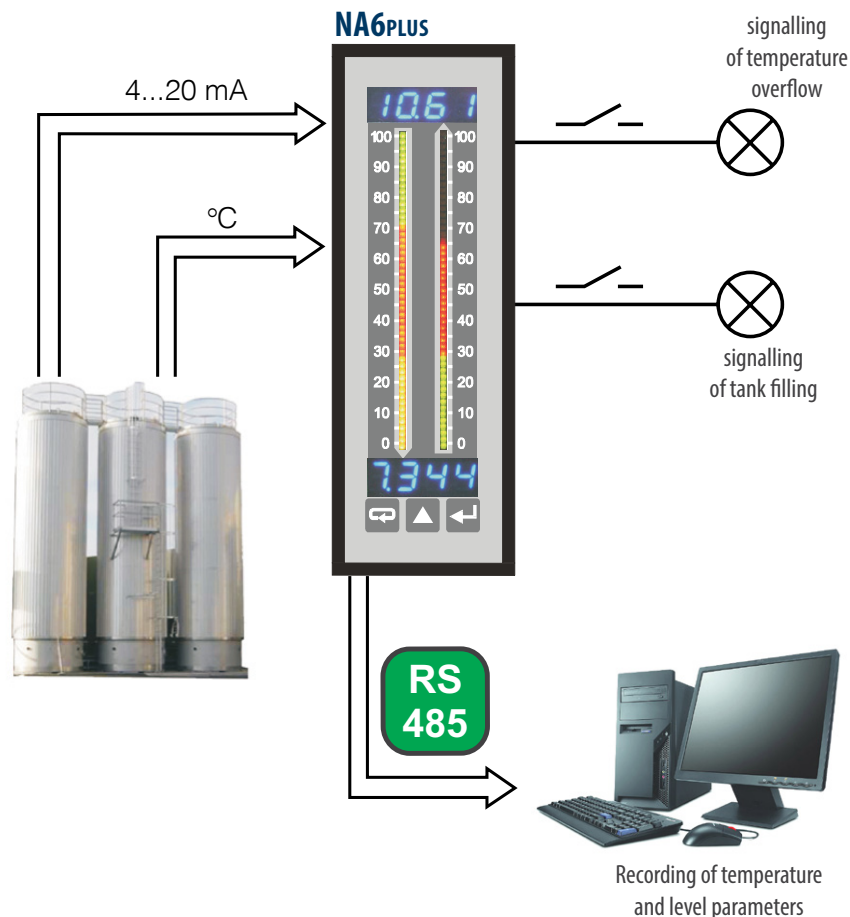
- 3 or 7-colour bargraph with programmable colour switching over.
- Logging of the measured signal in programmed time intervals (800 samples).
- 2 independent measuring channels with universal input.
- Programmable indication characteristic (21-point rescaling) and bargraph magnifier.
- Up to 8 programmable alarm outputs.
- Alarm triggered by the rate of change of the measured signal over time.
- Mathematical operations on channels.
- Communication in SCADA systems (RS485/Modbus interfaces).
- Conversion of any measured value into a current or voltage analog signal.



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EXAMPLE OF APPLICATION

Level and temperature measurement in the tank.



| FEATURES | INPUTS | OUTPUTS | GALVANIC ISOLATION |
|----------|--------|---------|--------------------|
| | | | |

TECHNICAL DATA

| INPUTS | | | | OUTPUTS | | | |
|-----------------|--|-------------|---|-----------------------|--|--------------------------|--|
| Input type | Measurement range | Basic error | Additional error | Output type | Features | | |
| Pt100 | -200...850°C | 0.1% | compensation of temperature changes of reference welds $\leq \pm 1^\circ\text{C}$ | Current analog output | 1 or 2 programmable 0/4...20 mA; load resistance $\leq 500 \Omega$ | | |
| Pt500 | -200...850°C | | | Voltage analog output | 1 or 2 programmable 0-10 V; load resistance $\geq 500 \Omega$ | | |
| Pt1000 | -200...850°C | | | Relay output | 4 relays; NOC voltageless contacts, maximal load: - voltage: 250 V a.c., 150 V d.c. - current: 5 A 30 V d.c., 250 V a.c. | | |
| J (Fe-CuNi) | -100...1100°C | | | 0.2% | compensation of cable resistance changes - when changing the resistance of wires $< 10 \Omega$ the error is $\leq \pm 0.5^\circ\text{C}$ - when changing the resistance of wires $< 20 \Omega$ the error is $\leq \pm 1^\circ\text{C}$ | Open collector (OC) type | 8 outputs of OC type: maximal load: - voltage: 5...30V d.c. - current: 25mA d.c. |
| K (NiCr-NiAl) | -100...1370°C | | | | | Digital interface | interface type: RS-485; transmission protocol: MODBUS, RTU (8N2, 8E1, 8O1, 8N1) baud rate: 2400, 4800, 9600, 19200, 57600, 115200 b/s |
| N (NiCrSi-NiSi) | -100...1300°C | | | | | Additional supply output | 24 V d.c., maximal load 30 mA |
| E (NiCr-CuNi) | -100...850°C | 0.1% | change in ambient temperature $\leq \pm 0.1\%$ of the range | | | | |
| R (PtRh13-Pt) | 0...1760°C | | | | | | |
| S (PtRh10-Pt) | 0...1760°C | | | | | | |
| T (Cu-CuNi) | -50...400°C | | | | | | |
| Resistance | 0...10 kΩ | | | | | | |
| Voltage | $\pm 75 \text{ mV}$, $R_{\text{inp.}} > 100 \text{ k}\Omega$ $\pm 300 \text{ mV}$, $R_{\text{inp.}} > 100 \text{ k}\Omega$ $\pm 0...600 \text{ V}$, $R_{\text{inp.}} > 3.5 \text{ M}\Omega$ | | | | | | |
| Current | $\pm 40 \text{ mA}$, $R_{\text{inp.}} < 4 \Omega$ $\pm 5 \text{ A}$, $R_{\text{inp.}} = 10 \text{ m}\Omega \pm 10\%$ | | | | | | |

Intensity of current flowing through the resistance thermometer: $< 400 \mu\text{A}$
Resistance of wires connecting the resistance thermometer with the meter: $< 20 \Omega/1 \text{ wire}$

EXTERNAL FEATURE

| | | |
|-------------------------------------|---|--|
| Readout field | 2 x 4 -digits LED display bargraph | 7-segment digits of 7 mm high, measuring range -1999...9999 bargraph of 100 mm length: - 55 segments in three-colour version - 28 segments in seven-colour version Bargraph resolution: programmable |
| Overall dimensions | 48 x 144 x 100 mm | |
| Weight | $< 0.4 \text{ kg}$ | panel cut-out: 44+0.5 x 137.5+0.5 mm |
| Protection grade (acc. to EN 60529) | from frontal side: IP50 | from terminal side: IP20 |

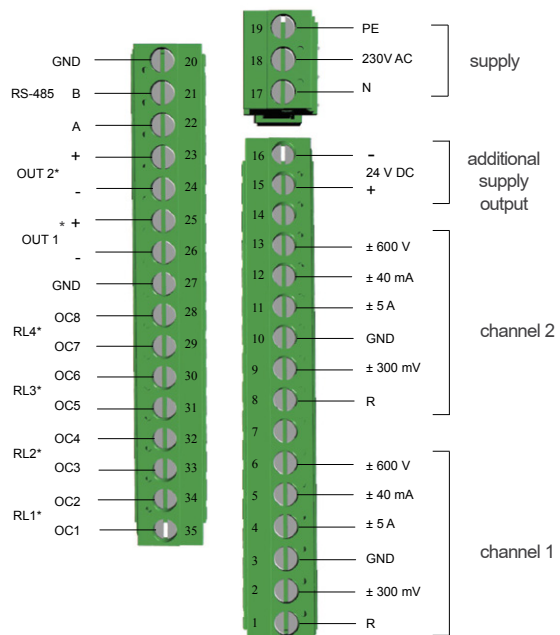
RATED OPERATING CONDITIONS

| | | |
|-------------------|--|--|
| Supply voltage | 95...253 V a.c. 40...400 Hz; 90...300 V d.c. 20...40 V a.c. 40...400 Hz, 20...60 V d.c. | power consumption $\leq 13 \text{ VA}$ |
| Temperature | ambient: -10...23...55°C | storage: -25...85°C |
| Relative humidity | $< 95\%$ | Condensation inadmissible |

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 | acc. to EN 61010-1 |
| Installation category | III | |
| Maximal phase-to-earth operating voltage | <ul style="list-style-type: none"> for input circuit: 600 V for supply circuit: 300 V for other circuits: 50 V | |
| Altitude above sea level | $< 2000 \text{ m}$ | |

ELECTRICAL CONNECTIONS



*-optional elements depend on the meter's version

Fig. 1 Description of the terminal strip.

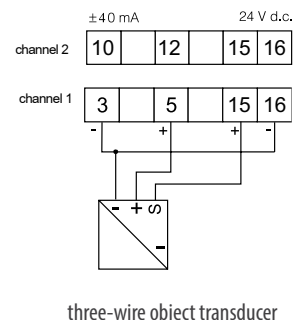
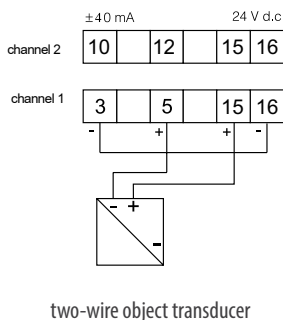
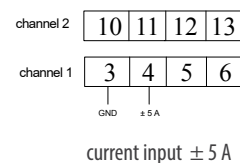
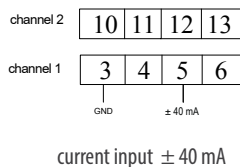
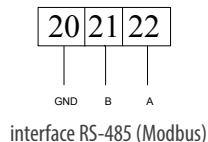
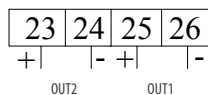
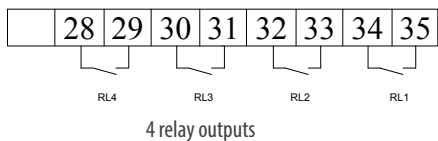
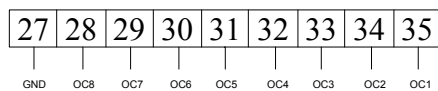
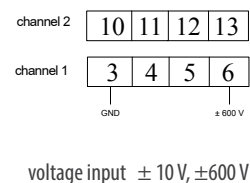
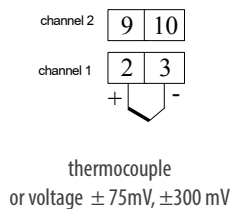
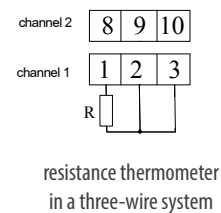
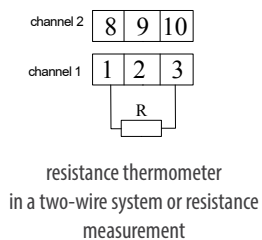


Fig.3. Connection way of output signals depending on the execution code.

Fig. 2 Connection way of input signals.

ORDERING

| | | | | | | | | | |
|--|----|----|---|---|---|---|----|---|---|
| NA6PLUS - | X | XX | X | X | X | X | XX | X | X |
| Bargraph colour: | | | | | | | | | |
| 3-colour(R, G, R+G) | T | | | | | | | | |
| 7-colour (R, G, B, R+G, R+B, G+B, R+G+B) | M | | | | | | | | |
| Display colour on channels 1 and 2: | | | | | | | | | |
| red-red | RR | | | | | | | | |
| red-green | RG | | | | | | | | |
| green-red | GR | | | | | | | | |
| green-green | GG | | | | | | | | |
| Input signal: | | | | | | | | | |
| universal input | U | | | | | | | | |
| custom-made* | X | | | | | | | | |
| Analog output: | | | | | | | | | |
| lack | 0 | | | | | | | | |
| 0/4...20mA | 1 | | | | | | | | |
| 0...10 V | 2 | | | | | | | | |
| 2 x 0/4...20 mA | 3 | | | | | | | | |
| 2 x 0...10 V | 4 | | | | | | | | |
| 1 x 0/4...20 mA, 1 x 0...10 V | 5 | | | | | | | | |
| Additional output: | | | | | | | | | |
| lack | 0 | | | | | | | | |
| 4 relays | 4 | | | | | | | | |
| 8 outputs of OC type | 8 | | | | | | | | |
| Supply voltage: | | | | | | | | | |
| 95...253 V a.c./d.c. | 1 | | | | | | | | |
| 20...40 V a.c., 20...60 V d.c. | 3 | | | | | | | | |
| Version: | | | | | | | | | |
| standard | 00 | | | | | | | | |
| custom-made** | XX | | | | | | | | |
| Language: | | | | | | | | | |
| Polish | P | | | | | | | | |
| English | E | | | | | | | | |
| other* | X | | | | | | | | |
| Acceptance tests: | | | | | | | | | |
| without extra requirements | 0 | | | | | | | | |
| with an extra quality inspection certificate | 1 | | | | | | | | |
| acc. to customer's request** | X | | | | | | | | |

* - after agreeing with the manufacturer

Ordering example:

The code **NA6PLUS- TRRU18100E0** means:

- NA6PLUS** - NA6PLUS meter
- T** - bargraph RG
- RR** - red display colour
- U** - universal inputs
- 1** - current output 0/4...20 mA
- 8** - 8 outputs of OC type
- 1** - supply 95...253V a.c./ 90...300 V d.c.
- 00** - standard version
- E** - english version
- 0** - without extra requirements

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EVERYTHING COUNTS

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