

# NA3 DIGITAL METER WITH BARGRAPH

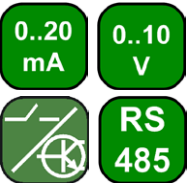
## FEATURES:



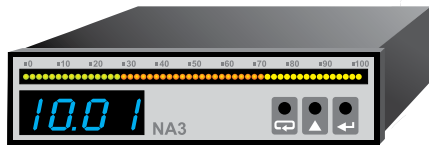
## INPUT:



## OUTPUTS:

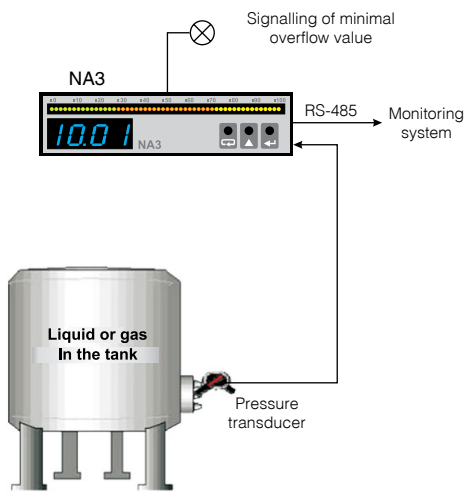


## GALVANIC ISOLATION:



- Universal input for the measurement of d.c. current, d.c. voltage and temperature,
- 3 or 7-colour bargraph,
- Programming of bargraph colour depending on the measured quantity value,
- Signalling of set alarm value overflow,
- Storage of measured signal in programmed time segments (750 samples),
- Current or voltage analog output,
- Communication in SCADA systems (RS485/Modbus interface RTU and ASCII).

## EXAMPLE OF APPLICATION



## INPUTS

Kind of input	Measuring range
Pt100	-200...850°C
Pt500	-200...850°C
Pt1000	-200...850°C
J (Fe-CuNi)	-30...1100°C
K (NiCr-NiAl)	-50...1370°C
N (NiCrSi-NiSi)	-100...1300°C
E (NiCr-CuNi)	-20...850°C
R (PtRh13-Pt)	0...1760°C
S (PtRh10-Pt)	0...1760°C
T (Cu-CuNi)	-50...400°C
Resistance	0...400 Ω, 0...4000 Ω
Voltage	0...60 mV, Rinp. > 9 MΩ
	0...3 V, Rinp. > 4 MΩ
	0...10 V, Rinp. > 4 MΩ
	0...200 V, Rinp. > 4 MΩ
Current	0...5 mA, Rinp. = 4 Ω
	0...20 mA, Rinp. = 4 Ω
	0...2 A, Rinp. = 10 mΩ ± 10%
	0...5 A, Rinp. = 10 mΩ ± 10%

## OUTPUTS

Kind of output	Features
Analog output	• galvanic isolation 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	• 1 or 2 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...24 V d.c.
Digital	• <b>interface type:</b> RS-485; <b>transmission protocol:</b> MODBUS ASCII (8N1, 7E1, 7O1), RTU (8N2, 8E1, 8O1, 8N1); <b>baud rate:</b> 2400, 4800, 9600 bit/s.

## EXTERNAL FEATURES

	NA3-F	
Readout field		<b>4 LED displays</b> with 7 segments, digits of 7 mm high, indication range -1999...9999 <b>multicoloured bargraph</b> of 82 mm long, 45 segments in a 3-colour version or with 25 segments in 7-colour version
Weight	< 0.3 kg	
Overall dimensions	96 × 24 × 125 mm	panel cut-out: 92 <sup>+0.5</sup> × 22.2 <sup>+0.5</sup> mm
Protection grade (acc. to EN 60529)	IP40 from frontal side	IP20 from terminal side

# NA3 DIGITAL METER WITH BARGRAPH

## RATED OPERATING CONDITIONS

Supply voltage	95...253 V a.c./d.c., 20...40 V a.c./d.c.	Power consumption < 8 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
Safety requirements		acc. to EN 61010-1

TABLE 1. EXECUTION CODE:

	NA3 -	X	X	X	X	X	X	X	X	XX	X								
<b>Meter version:</b> with a bargraph and digital display		F																	
<b>Bargraph colour:</b> 3-colour bargraph (R, G, R+G) 7-colour bargraph (R, G, B, R+G, R+B, G+B, R+G+B)										T	M								
<b>Display colour:</b> red green											R	G							
<b>Input signal:</b> universal input												U							
<b>Analog output signal:</b> lack current programmable 0/4...20 mA voltage programmable 0...10 V											0	1	2						
<b>Additional output:</b> lack RS-485 digital output + 1 relay RS-485 digital output + 1 output of OC type 2 relays* 2 outputs of OC type											0	1	2	3	4				
<b>Supply:</b> 95...253 V a.c./d.c. 20...40 V a.c./d.c. on order*												1	2		X				
<b>Kind of terminals:</b> socket-screw plug															0				
<b>Version:</b> standard custom-made*																00	XX		
<b>Acceptance tests:</b> without an extra quality inspection certificate with an extra quality inspection certificate acc. to customers' request*																	8	7	X

## CONNECTION DIAGRAMS

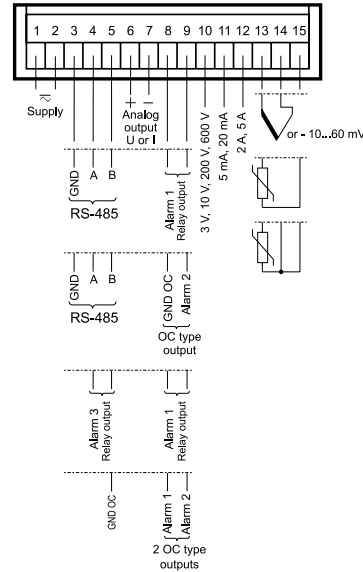


Fig. 1 External connections of the NA3 meter.

\* - after agreeing with the manufacturer

### Ordering Example:

The code: **NA3 - F T R U 0 1 1 0 00 8** means:

- NA3** - digital meter with bargraph of NA3 type,
- F** - with a bargraph and digital display,
- T** - with a 3-colour display,
- R** - red display colour,
- U** - universal input,
- 0** - lack of analog output signal,
- 1** - additional output: RS-485 digital output + 1 relay,
- 1** - supply voltage: 95...253 V a.c./d.c.,
- 0** - socket-screw plug,
- 00** - standard version,
- 8** - without extra quality requirements.