

# NA3 digital meters with bargraph

## Features:



## Input:



## Outputs:



## Galvanic isolation:



- Universal input for the measurement of d.c. current, d.c. voltage or temperature,
- 7 colour bargraph, Programming of bargraph colour depending on the measured quantity value, set alarm
- Signalling of value overflow, measured signal in programmed time
- Storage of segments (750 samples), analog current or voltage,
- Communication in SCADA systems (RS485/Modbus interface and 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)	-50...1370°C
K (NiCr-NiAl)	-100...1300°C
N (NiCrSi-NiSi)	-20...850°C
E (NiCr-CuNi)	0...1760°C
R (PtRh13-Pt)	0...1760°C
S (PtRh10-Pt)	-50...400°C
T (Cu-CuNi)	0...400 Ω, 0...4000 Ω
Resistance	Ω
Voltage	0...60 mV, 9 Rinp. MΩ
	0...3 V, 4 Rinp. MΩ
Current	0...10 mA, 4 Rinp. MΩ
	0...200 mA, 4 Rinp. MΩ
	0...600 mA, 4 Rinp. MΩ

## Outputs

Kind of output	Features
Analog output	• galvanic isolation with programmable load resistance ≤ 500 Ω; response time: 250 ms; voltage: 5 V; current: 20 mA; type: PNP; load: 1250 VA; range of resistance: 5...24 Ω
Relay output	• 1 output; voltageless; current: 5 mA; type: PNP; d.c.; voltageless; current: 5 mA; type: PNP; d.c.
Open collector type (OC)	• voltageless; current: 5 mA; type: PNP; d.c.; voltageless; current: 5 mA; type: PNP; d.c.
Digital	• interface type: RS-485; transmission protocol: MODBUS ASCII (8N1, 7E1, 7O1), baud rate: 2400, 4800, 9600 bit/s.

## external features

Readout field	NA3-F	NA3-B	NA3-D
4 LED displays with high, 7 indication segments, digits of	-1999...9999	multicoloured bargraph of 82 mm long, 45 segments in a 3-colour version	multicoloured bargraph as above
Weight	< 0.3 kg	4 LED displays with high, 7 indication segments, digits of	4 LED displays with high, 7 indication segments, digits of
Overall dimensions	96 mm	125 mm	125 mm
Protection grade (acc. to EN 60529)	IP40	IP40	IP40

Rate of operation conditions			
Supply voltage	95...253 V 20...40 V	a.c./d.c., 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	noise immunity	acc. to	EN 61000-6-2
	noise emissions		
Compatibility requirements		acc. to	EN 61000-6-4

Table 1. Execution			
Meter version:	with a bargraph and digital display	X X X X X X X X X X	
	with a bargraph*B and digital display		
Bargraph colour:	without bargraph (NA3D)0		
	3-colour bargraph (R, G, R+G)T		
	7-colour bargraph (R, G, B, R+G, R+B, G+B, R+G+B)M		
Display colour:	without display0		
	redR		
	greenG		
	blueB		
Input signal:	universal input		U
Analog output signal:	lack		0
	current programmable	0/4...20 mA	1
	voltage programmable	0...10 V	2
Additional output:	lack*		0
	RS-485 digital output	+	1
	RS-485 digital output	+	2
	2 output relays*	of OC type	3
	2 outputs of OC type*		4
Supply:	95...253 V a.c./d.c.		1
	20...40 V a.c./d.c.		2
	on order**		X
Kind of terminals:	socket-screw plug		0
Version:	standard		00
	custom-made**		XX
Acceptance tests:	without an certificate	extra quality inspection	8 7
	with an certificate	extra quality inspection	X

acc. to customers's request\*\*

\* - in case of a NA3-B X X X (0, 3 or 4), one must fill the table 2

\*\* - after agreeing with the manufacturer

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

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

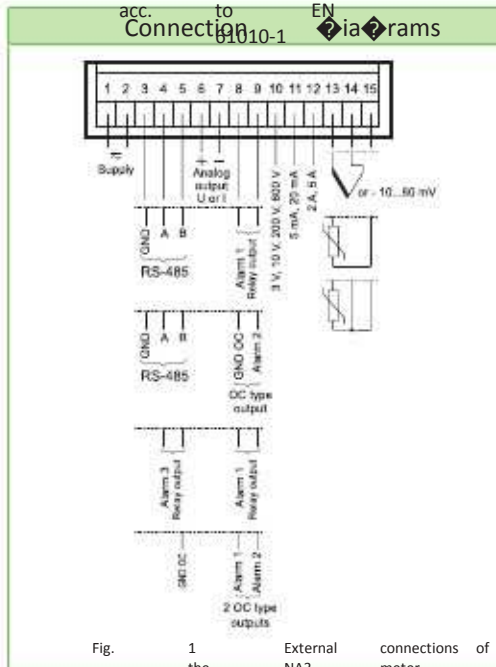


Fig. 1 the External connections of the NA3 meter.

Table 2. Programmable parameters of the NA3 meter

Parameter	Code	Default
Input type	tYP	
Mathematical functions	Func	
Kind of compensation	Con	
Measuring averaging time	Cnt	
Displayed characteristic	Indi	
Measured value	d_H1	
Displayed value	d_Y1	
Measured value	d_H2	
Displayed value	d_Y2	
Bargraph type	tYPb	
Bargraph colour	colr	
Lower bargraph threshold	brL	
Upper bargraph threshold	brH	
Lower alarm thresholdPrL		
Upper alarm thresholdPrH		
Alarm typeYPA		
Delay of alarm operationdLY		
Support of alarm signallingHOLD		
Colour of the lower threshold alarm index CurL		
Colour of the upper threshold alarm index CurH		
Lower alarm thresholdPrL		
Upper alarm thresholdPrH		
Alarm typeYPA		
Delay of alarm operationdLY		
Support of alarm signallingHOLD		
Colour of the lower threshold alarm index CurL		
Colour of the upper threshold alarm index CurH		
Output characteristic	IndO	
Displayed value	d_H1	
Value on the analog output	O_Y1	
Displayed value	d_H2	
Value on the analog output	O_Y2	
RS-485 baud rate	bAud	
Kind of RS-485 transmission	trYb	
Device address	Adr	

See also:



Temperature and

humidity transducers P18 i types. P18L



Programmable transducer of temperature, resistance, voltage and from shunt signals standard P20.



N30 digital meters with a 3-colour display and free LPConfig

program.



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