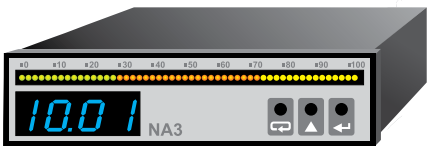
NA3 DIGITAL METER WITH BARGRAPH



- 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).

FEATURES:

MOD BUS · RTC · Linear char. · Password protection · IP40

INPUT:

DC · 0...20 mA · 60 mV · Password protection · 0..10 V

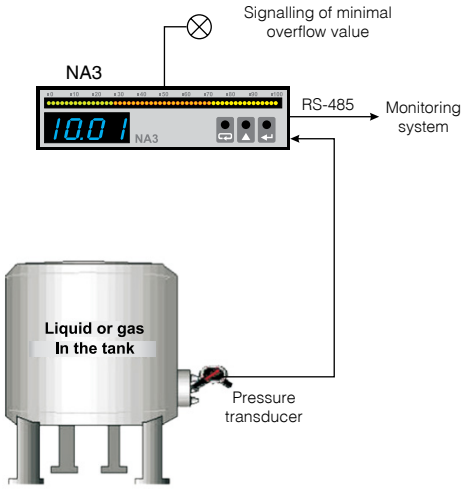
OUTPUTS:

0..20 mA · 0..10 V · RS 485

GALVANIC ISOLATION:

Supply · RS 485

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 0...600 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	• **interface type**: RS-485; **transmission protocol:** MODBUS ASCII (8N1, 7E1, 7O1), RTU (8N2, 8E1, 8O1, 8N1); **baud rate:** 2400, 4800, 9600 bit/s.

EXTERNAL FEATURES

Readout field	**NA3-F**	**4 LED displays** with 7 segments, digits of 7 mm high, indication range -1999...9999 **multicoloured bargraph** 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: $92^{+0,5} \times 22.2^{+0,5}$ mm
Protection grade (acc. to EN 60529)	IP40 from frontal side	IP20 from terminal side

Export department:
+48 68 45 75 139 /233/ 321 / 386

e-mail: export@lumel.com.pl

LUMEL S.A.
ul. Sulechowska 1
65-022 Zielona Góra
POLAND
WWW.LUMEL.COM.PL

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
Meter version:										
with a bargraph and digital display	F									
Bargraph colour:										
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:										
red			R							
green			G							
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 relay						1				
RS-485 digital output + 1 output of OC type						2				
2 relays*						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 extra quality inspection certificate										8
with an extra quality inspection certificate										7
acc. to customers's request*										X

CONNECTION DIAGRAMS

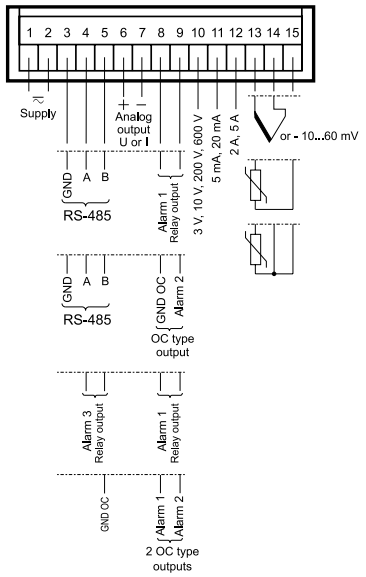


Fig. 1 External connections of the NA3 meter.

* - 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.

Castel Maggiore (BO) 40013
Via Lirone 60/i

e-mail: info@eurotecsrl.com
Tel: +39 051/6321595
Website: www.eurotecsrl.com

C.F.: 04103780377
P.I.: 01596581205