

Multi-Colour bargraphs - NA3, NA5 and NA6 series



- Independent scaling of bargraph & digital display
- Wide choice of formats
- Accept many common industrial signals
- Inter-channel Maths functions $\times + - /$ in NA6

INPUTS:	NA3	NA5, NA6
Pt100	-200...+850 °C	-200...+850 °C
Pt500	-200...+850 °C	-200...+850 °C
Pt1000	-200...+850 °C	-200...+850 °C
RTD excitation current	<170 uA	<400 uA
Max cable ohms	<20 Ohm/wire	<20 Ohm/wire
J (Fe-CuNi)	-30...+1100 °C	-100...+1100 °C
K (NiCr-NiAl)	-50...+1370 °C	-100...+1370 °C
N (NiCrSi-NiSi)	-100...+1300 °C	-100...+1300 °C
E (NiCr-CuNi)	-20...+850 °C	-100...+850 °C
R (PtRh13-Pt)	0...+1760 °C	0...+1760 °C
S (PtRh10-Pt)	0...+1760 °C	0...+1760 °C
T (Cu-CuNi)	-50...+400 °C	-50...+400 °C
Resistance measurement	0-400 Ohms 0-4000 Ohms	0 to 10 kilOhms sub ranges 110, 220, 460, 950, 2100 and 5000 Ohms
DC Voltage measurement	60mV, 3v, 10v, 200V, 600V	19mV, 35mV, 75mV, 155mV, 5V, 11V, 22V, 45V, 180V, 360V, 600V
DC Current measurement	5mA, 20mA, 2A, 5A	5mA, 11mA, 23mA, 1.8A, 3.8A, 5A

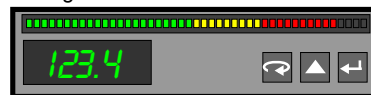
Analogue outputs (optional):

Galvanically isolated, resolution 0.025% of the range.
 Current scalable: 0/4...20 mA, load resistance <500 Ohms
 Voltage scalable: 0...10 V, load resistance >500 Ohms
 Output response time 100 ms
 Output error 0.2% of the range
 Thermal stability (0.1% of the range/10K)

The NA Series offers a wide choice of display formats and functions in space-saving formats, as follows:-

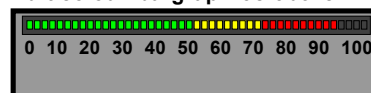
NA3-F 4 seven-segment LED displays
 digit height: 7 mm
 indication range: -1999...9999
multicolour bargraph of 82 mm length
 45 segments in 3-colour version
 25 segments in 7-colour version

96mm x 24mm



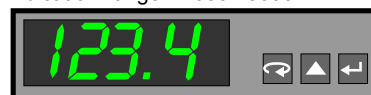
NA3-B Multicolour bargraph as above

96mm x 24mm



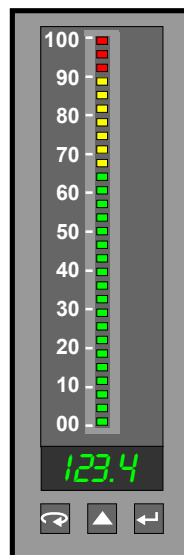
NA3-D 4 seven-segment LED displays
 digit height: 14 mm
 indication range: -1999...9999

96mm x 24mm

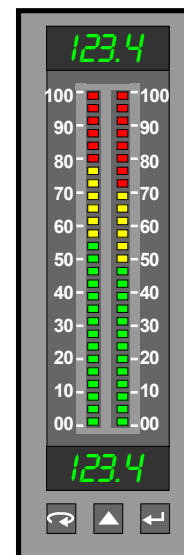


NA5
 4 seven-segment LED display
 digit height: 7 mm
 indication range: -1999...9999
multicolour bargraph
 88 mm length
 55 segments (3-colour)
 29 segments (7-colour)

NA6
 2 x 4 seven-segment LED displays
 digit height: 7 mm
 indication range: -1999...9999
multicolour bargraph
 88 mm length
 48 segments (3-colour)
 27 segments (7-colour)



144mm x 48mm



144mm x 48mm

Depth only 100mm behind panel

Relay outputs (optional) See over for solid-state types

2 relays (NA3) or 4 relays (NA5, NA6),
 Volt-free contacts - maximal load: 250 Va.c., 150 Vdc, 5A
 Programmable alarm limits
 Three types of alarms
 Hysteresis defined by means of the lower and upper limit
 Signalling of alarm operation on the bargraph.

Solid State alarms:

2 (NA3) or 8 (NA5, NA6) outputs open collector:
NPN transistor max. load 25 mA, 24V DC

Communication outputs:

Interface RS-485
Transmission protocol MODBUS,
ASCII 8N1, 7E1, 7O1,
RTU 8N2, 8E1, 8O1, 8N1,
Baud rate 2400, 4800 or 9600
Response time to the query frame 300 ms

Excitation voltage in NA5 and NA6 only

24 V d.c., max. load 20 mA

Memory parameters:

Meter memory (recording):
NA3 750 samples
NA5, NA6 750 samples (channel 1 or 2)
or 375 samples (channel 1)
+ 375 samples (channel 2)
Minimal recording interval 1 s

Basic error:

NA3 0.2% +/- 1 digit
NA5, NA6 0.1% +/- 1 digit

Additional error from ambient temperature changes:

NA3 0.1% of range/10C
NA5, NA6 0.05% of the range/10C

Averaging time min 200 mS

min 500 mS (temp. ranges)

Rated operation conditions:

Supply voltage depending on
version ordered 95...230...253 V a.c./d.c.
or 20...24...40 V a.c./d.c.

Supply frequency 40 to 440 Hz
Ambient temperature - 10 to 55.C
Storage temperature - 25 to + 85.C
Relative humidity < 95% (non-condensing)
Warmup time 10 minutes

Sustained input overload:

Thermocouples, resistance thermometers 100%
Voltage, current and resistance measurement 110%

Short duration overload (3 s):

Inputs of temperature sensors 30 V
Voltage input > 2.5 V 10 times nominal voltage (< 1000 V)
Current input: 10 times nominal current

Bargraph resolution programmable

Bargraph accuracy +/- 0.5 segment

Sealing:

The front housing:
NA3 IP 40
NA5, NA6 IP 50
From terminal side IP 20

Dimensions:

NA3 96 x 24 x 125 mm (with terminals)
NA5, NA6 48 x 144 x 100 mm (with terminals)

Cut-out dimensions in the panel:

NA3 22.2 \pm 0.5 x 92 \pm 0.5 mm
NA5, NA6 44 \pm 0.5 x 137.5 \pm 0.5 mm

Weight < 0.4 kg

Power consumption:

NA3 < 8 VA
NA5, NA6 < 12 VA

Resistance against supply interruption

According EN 61000-6-2

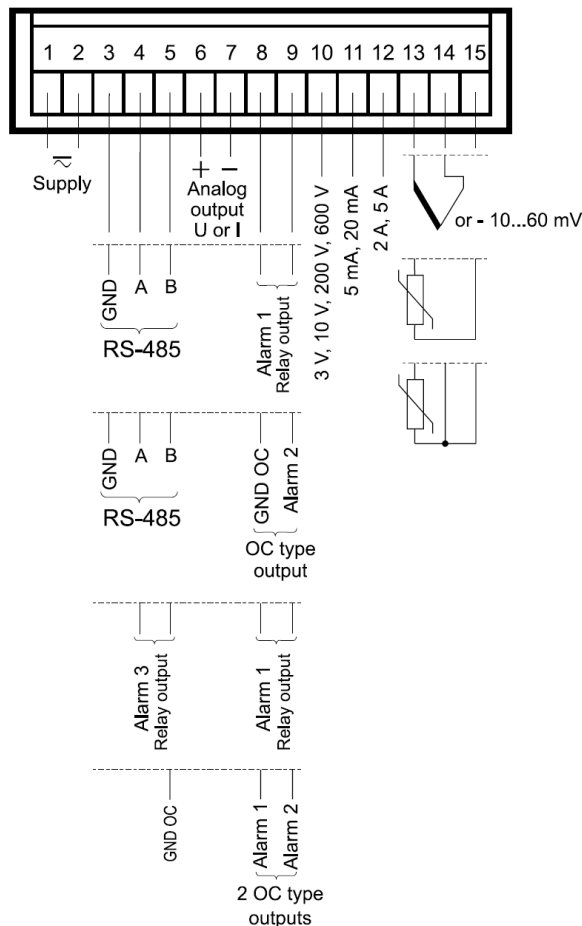
Electromagnetic compatibility:

Immunity EN 61000-6-2
Emission EN 61000-6-4

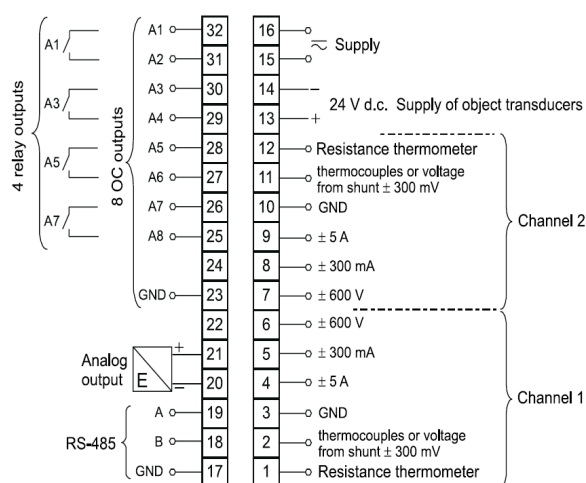
Safety requirements according EN 61010-1:

Installation category III
Pollution level 2
Working voltage in relation to ground 600 V a.c. max

NA3 connections



NA5 and NA6 connections:



Ordering Code

See http://www.london-electronics.com/pl_na.htm
for a detailed ordering guide and pricing tool