

# **PROGRAMMABLE BARGRAPH OCB 200**

**Owner's Manual**

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### BARGRAPH OCB 200

**OCB 200** is a programmable Bargraph for visualising of process analogue signals. The instrument has 20 LED red, orange and green. The colour can be free selected across the entire display length. The Bargraph is designed for panel mount. One Set Point Relay is optionally available. The programming of the signal input, the measuring range, the display mode and the set points is accessible via five keys below the front lens.

A variety of process signals can be connected:

<b>PM</b>	Process Monitor	0/4-20mA, 2V, 5V and 10V DC
<b>RTD</b>	RTD Platinum Thermometer	Pt-1000
<b>RTD-Ni</b>	RTD Nickel Thermometer	Ni-1000
<b>POT</b>	Linear Potentiometer	> 500 Ohm

The instrument is supplied from 10...30VDC or optionally from 10 ... 30V AC and is enclosed in a 24x72mm DIN cabinet for panel mount. It confirms with EMC regulations.

EI Safety	EN61010-1
EMC	EN50131-1, Ch. 14 and 15
	EN50130-4, Ch. 7 EN61000-4-11
	EN50130-4, Ch. 8 EN61000-4-11
	EN50130-4, Ch. 9 EN61000-4-2
	EN50130-4, Ch.10 EN61000-4-3
	EN50130-4, Ch. 11 EN61000-4-6
	EN50130-4, Ch. 12 EN61000-4-4
	EN50130-4, Ch. 13 EN61000-4-5
	EN50130-4, Ch. 20
	prEN 50131-2-1, par. 9.3.1
	EN61000-4-8
	EN61000-4-9
	EN61000-3-2 ed.2.2001
	EN61000-3-3; 1997, Cor. 1:1998, Z1:2002
	EN55022, Ch. 5 and 6

# 1 SPECIFICATIONS OCB 200

## INPUTS

Ranges	0/4-20mA < 400mV	Input 1
	± 2V      1MΩ	Input 2
	± 5V      1MΩ	Input 2
	± 10V     1MΩ	Input 2

Pt- xxx	- 200 ... 850 °C
Ni- xxx	-30.0 ... 199.9 °C
Type Pt-	1000 Ω, 3850 ppm/K
Type Ni-	1000 Ω, 5000 ppm/K
Termination	Two wire terminals

Potentiometer      Excitation 2.5V/6mA

## SCALING

Bargraph            20 LED, red-green-orange  
Intensity            programmable in steps 25, 50, 75, 100%

## OC-LINK

Option: Communication Port for setting parameters from a PC.  
This option contains a software program and an OCL connecting cable for USB.  
Linearizing in 25 points can be performed.

## ACCURACY

TC                    100 ppm/K  
Accuracy            ± 1 LED  
Overload            10x during < 100ms, 2x continuous

## SET POINT

Limit                999  
Hysteresis         0 ... 999  
Time Delay         0 ... 99.9 sec.  
Outputs             Relay with a closing contact 230V-3A AC or 50VDC

## SUPPLY

Standard            10 ...30V DC isolated  
Option               10 ... 30V AC isolated

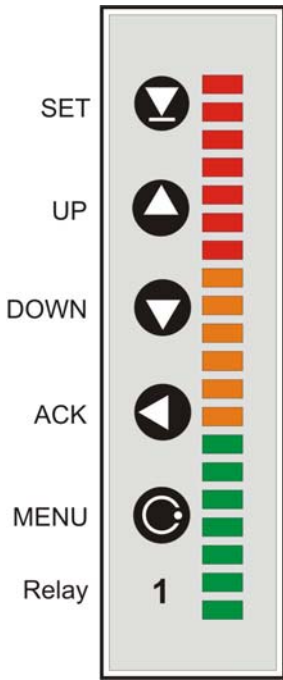
## MECHANICAL

Material            Noryl GFN2 SE1 according to UL 94 V-I  
Dimensions        24 x 72 x 100mm  
Panel cut-out      22.5 x 68mm

## OPERATION

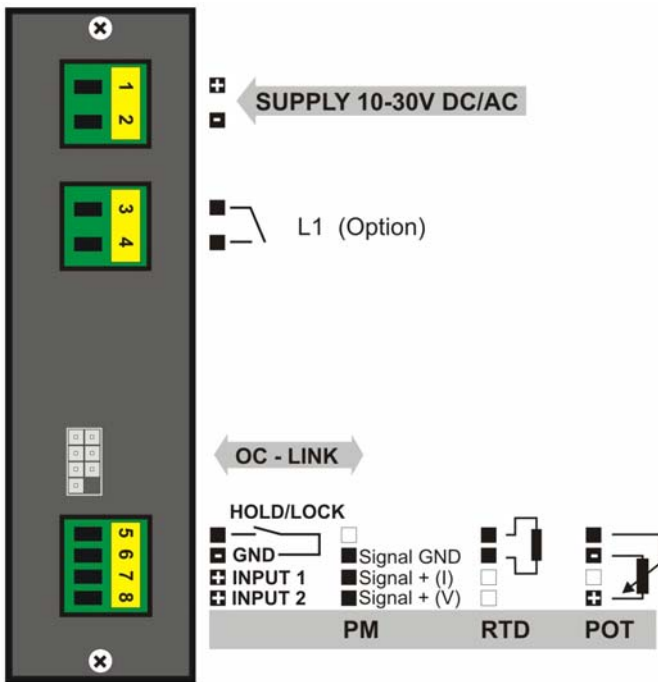
Terminals          Pluggable Screw Terminals  
Warm-up Time     15 minutes  
Temperature       Working: 0 ... 60 °C  
                         Storing: -10 ... 85 °C  
Cover               IP40 (front panel)  
El. Class            Security Class 1, EN 61010-1, A2  
EMC                 EN 61000-3-2+A12; EN 61000-4-2, 3, 4, 5, 8,11;  
                         EN 550222, A1, A2.

## 2 KEYS - Behind the Front Lens



KEY	MEASURING MODE	MENU	SETTING of VALUES
	Selection of Range	Exit Menu	Quit Editing
	Setting of Limits	Back to previous level	Move to higher decade
	Setting the projection range -Begin	Move to previous item	Move Down
	Setting the projection range -End	Move to next item	Move Up
	Setting the display projection	Confirm Selection	Confirm Setting/Selection
	Access into LIGHT - PROFI Menu		
	Direct access into PROFI - Menu		
	Restorint the manufacturer Settings		

## 3 TERMINALS - Rear of the Instrument



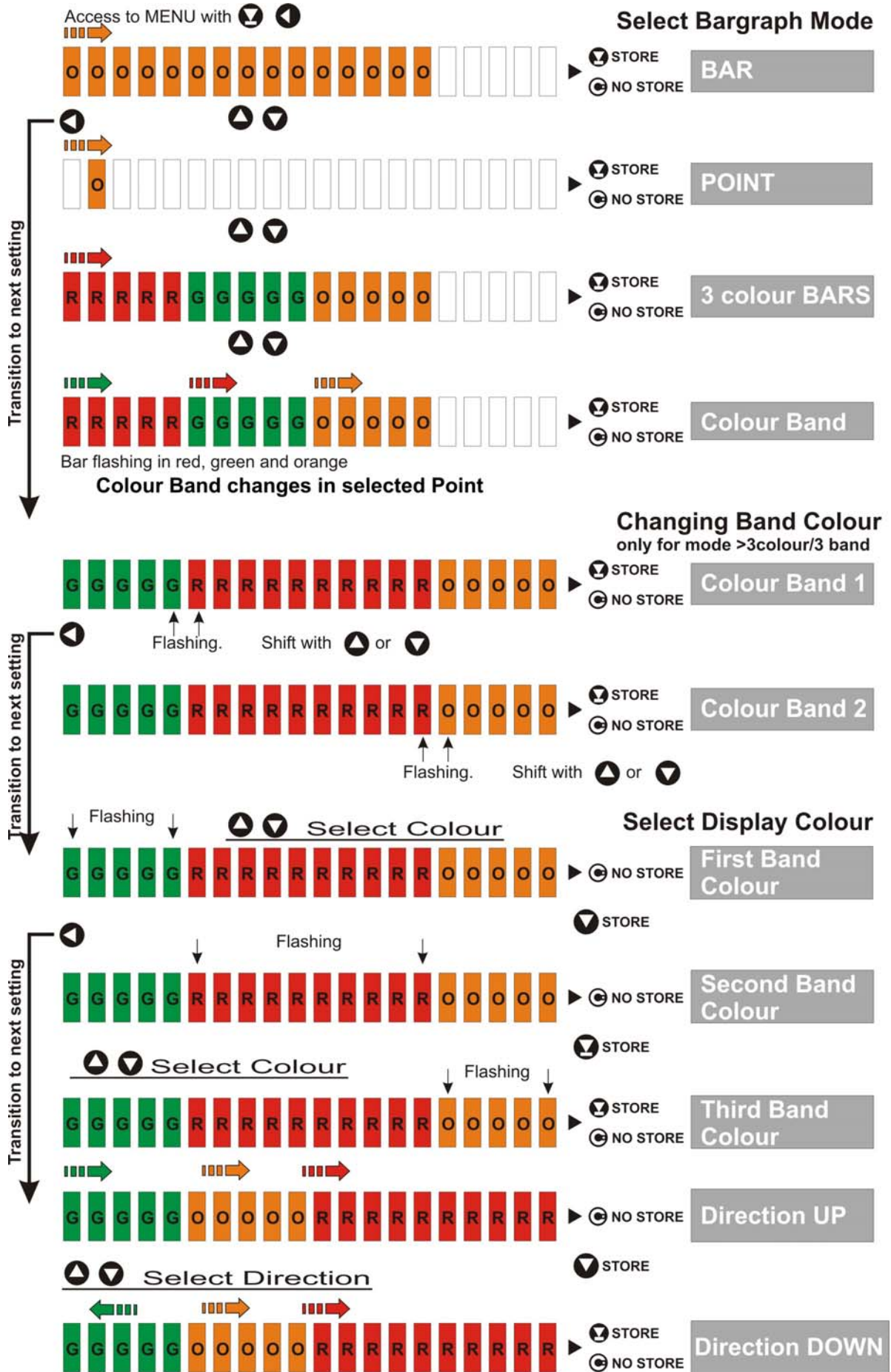
TYPE	INPUT 1	INPUT 2
PM	0 - 20mA, 4 - 20mA	0 - 2V / 0 - 5V / 0 - 10V
OHM	0 ... 100 kOhm	
RTD - Pt	Pt-1000	
RTD - Ni	Ni-1000	
RTD	KTY 81-210	
THERMISTOR	R25-2200	
POTENTIOMETER	500 Ohm - 100 kOhm	

# 4 MEASURING MODE

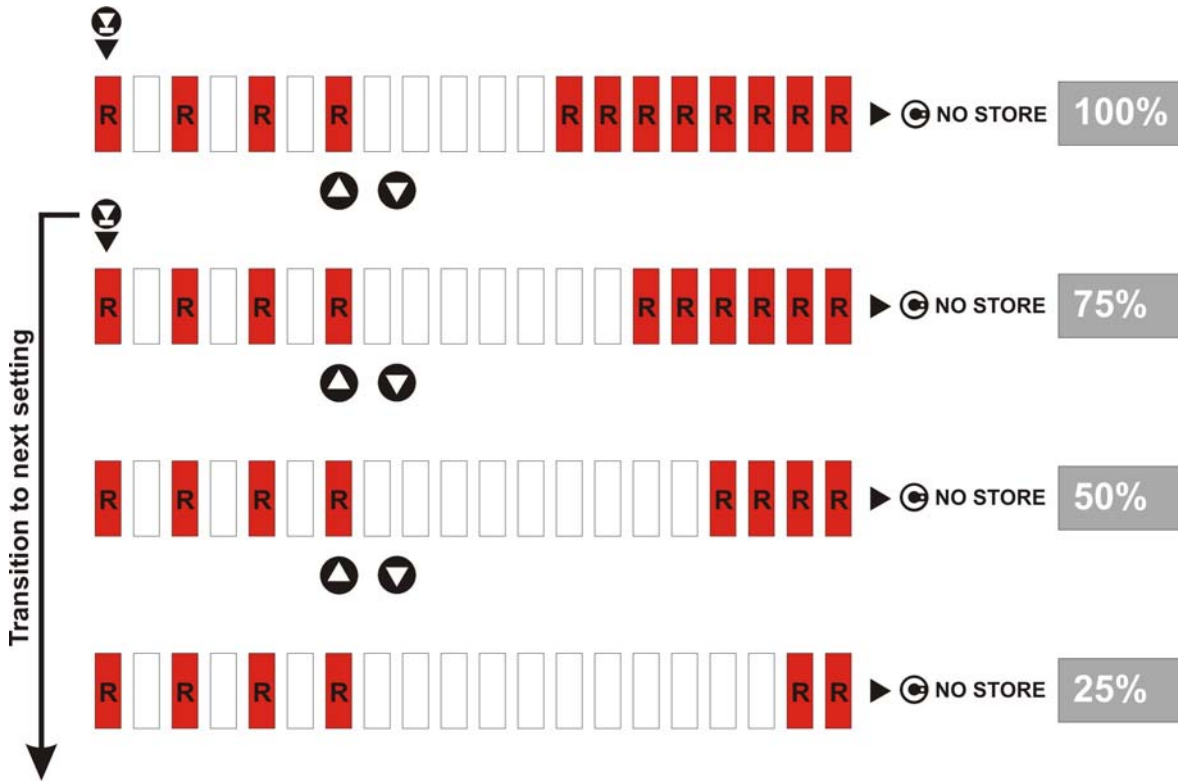
The image displays 11 measuring modes, each with a unique sequence of colored boxes (R, G, O) and a corresponding label in a grey box. Each mode includes 'STORE' and 'NO STORE' options with radio buttons and up/down arrow icons.

- 4-20mA**: 15 red boxes (R), 10 white boxes. STORE (selected), NO STORE.
- Potentiometer**: 1 red box (R), 10 white boxes, 1 green box (G), 10 white boxes, 1 red box (R). STORE (selected), NO STORE.
- Pt - 100**: 10 white boxes, 1 orange box (O), 10 white boxes. STORE (selected), NO STORE.
- Ni - 1000**: 10 white boxes, 2 orange boxes (O), 10 white boxes. STORE (selected), NO STORE.
- KTY 81-210**: 10 white boxes, 3 orange boxes (O), 10 white boxes. STORE (selected), NO STORE.
- Thermistor R26-2200**: 10 white boxes, 4 orange boxes (O), 10 white boxes. STORE (selected), NO STORE.
- Ohmmeter**: 10 white boxes, 1 orange box (O), 10 white boxes. STORE (selected), NO STORE.
- 0 ... 2VDC**: 2 green boxes (G), 10 white boxes. STORE (selected), NO STORE.
- 0 ... 5VDC**: 4 green boxes (G), 10 white boxes. STORE (selected), NO STORE.
- 0 ... 10VDC**: 8 green boxes (G), 10 white boxes. STORE (selected), NO STORE.
- 0 ... 20mA**: 20 red boxes (R). STORE (selected), NO STORE.

# 5 TYPE of DISPLAY

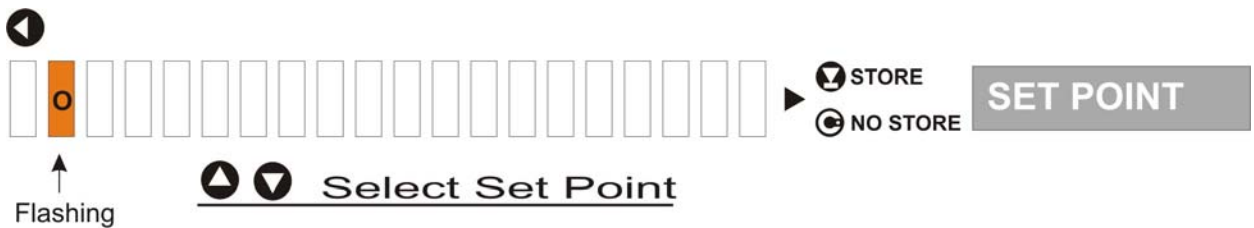


## 6 DISPLAY INTENSITY



## 7 SET POINT

The Set Point can be accessed after ACK key has been pressed. With UP or DOWN the Set Point moves across the bargraph. Optional Relay is activated when the Bargraph arrives at the Set Point.



To switch-off the Set Point, press to store, select ON or OFF with

**The display returns into the measuring mode**



## 8 CALIBRATION

The input signal will be assigned to the length of the bargraph with the keyboard below the front lens.

Low value input signal

Input the low signal value e.g. 4mA and position the green point with UP or DOWN. Confirm with SET.

Confirmation of the Setting

High value input signal

Input the high signal value e.g. 20mA and position the green point with UP or DOWN. Confirm with SET.

Confirmation of the Setting

## 9 ERRORS

Errors will be displayed when the instrument is non-correctly operated or damaged.

	Display value too small (negative value too large). Select the DP or perform a new calibration.
	Display value too large. Select the DP or perform a new calibration.
	Display value out of Table range. Enlarge the table or change the range.
	Display value out of Table range. Enlarge the table or change the range.
	Input signal smaller than the permitted range. Change the input signal or the range.
	Input signal larger than the permitted range. Change the input signal or the range.
	Part of the electronic circuitry is not correctly operational. The instrument has to be send for repair.
	Data in the Memory are damaged. The instrument has to be send for repair.
	Data in the Memory are out of range. Perform the Factory Setting or send the instrument for repair.
	The memory is empty, possibly due to the calibration. The instrument has to be send for repair.