

## OM 621BCD



- 6-digit programmable projection
- Input BCD/transformer tapping leads
- Mathematic functions, Digital filters
- Size of DIN 96 x 48 mm
- Power supply 9...50 V AC/DC; 80...250 V AC/DC

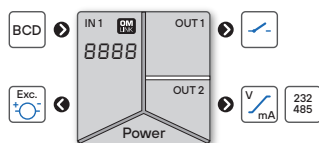
### Option

Excitation ● Comparators ● Data output ● Analog output

Model OM 621BCD is a 6-digit panel monitor of serial or parallel BCD/BIN signal and monitor of active transformer tapping leads, allowing for projection of transitional status and servomotor running.

The instrument is based on a single-chip microprocessor, which guarantees accuracy, stability and easy control.

### BCD MONITOR



### OPERATION

The instrument is set and controlled by five buttons located on the front panel.

**CONFIGURATION MENU** is protected by an optional number code and contains complete instrument setting.

All settings are stored in the EEPROM memory (settings hold even after the instrument is switched off).

### OPTION

**EXCITATION** is suitable for feeding sensors and transmitters. It is continuously adjustable within the range of 5...24 VDC.

**COMPARATORS** are assigned to monitor one, two, three or four limit values with relay output. As a user you can select the mode limit: LIMIT/BATCH/FROM-TO. The limits have adjustable hysteresis within the full range of the display as well as selectable delay of the switch-on in the range of 0...99.9 s. Reaching the preset limits is signalled by LED and simultaneously by the switch-on of the relevant relay.

**DATA OUTPUTS** are for their rate and accuracy suitable for transmission of the measured data for further projection or directly into the control systems. We offer an isolated RS232 and RS485 with the ASCII/PROFIBUS protocols.

**ANALOG OUTPUTS** will find their place in applications where further evaluating or processing of measured data is required in external devices. We offer universal analog output with the option of selection of the type of output - voltage/current. The value of analog output corresponds with the displayed data. Its type and range are selectable in menu.

### STANDARD FUNCTIONS

#### PROGRAMMABLE PROJECTION

**Calibration:** the type of BCD/transformer lead input may be set in menu  
**Projection:** -99999...999999

#### OUTPUT

**Relays' functions:** for the tapping leads display device it is possible to set the regime of relay switching (10=10000)/BIN (10=01010)

#### FUNCTIONS

**Min./max. value:** registration of min./max. value reached during measurement

**Mathemat. operations:** polynom, 1/x, logarithm, exponential, power, root, sin x

#### DIGITAL FILTERS

**Floating average:** from 2...30 measurements

**Exponential average:** from 2...100 measurements

**Rounding:** setting the projection step for display

## TECHNICAL DATA

### INPUT

BCD - monitor	
Range	5...24 VDC 10...60 VDC
Serial BCD	4 data + 6 strobe 8 data + 3 strobe 12 data + 2 strobe 4 data + 3 pozice + 1 strobe
Parallel BIN/BCD	20 data/24 data
Addressing	up to 8 monitors
BCD - transformer tapping leads monitor	
Range	5...24 VDC 10...60 VDC 90...130 VDC 190...250 VDC
Tap, leads number	24 + 1 signalling <i>on request 27</i>
Input resistance	5.5 kΩ/V
Outputs	relay BIN/BCD 5 relay (250 VAC/50 VDC, 3 A) Mode: BIN 10 = 01010 / BCD 10 = 10000

### PROJECTION

Display	.99999...999999, single color 14-segment LED
Digit height	14 mm
Display color	red or green
Decimal point	adjustable - in menu
Brightness	adjustable - in menu

### INSTRUMENT SPECIFICATION

TC	50 ppm/°C
Watch-dog	reset after 400 ms
Calibration	at 25°C and 40 % r.h.

### RELAYS / OC OUTPUT

No. of outputs	up to 5
Type	digital, menu adjustable
Mode	HYSTER active above set value WINDOW active in the set window / band BATCH active in set period
Function Relays/OC	CLOSE is closed in active mode OPEN is open in active mode
Limits	.99999...999999
Hysteresis	0...999999
Delay	0...99.9 s
Outputs	1...3x relay with switch-on contact (Form A) (250 VAC/30 VDC, 3 A)* 1...2x relay with switching contact (Form C) (250 VAC/50 VDC, 3 A)*
Relays	1/8 HP 277 VAC, 1/10 HP 125 V, Pilot Duty D300

\* values apply for resistance load

### ANALOG OUTPUTS

No. of outputs	1
Type	isolated, adjustable with resolution of max. 10 000 points, analog output corresponds with the displayed data, type and range are selectable in menu
TC	50 ppm/°C
Non-linearity	0.2 % from FS
Rate	response to change of value < 40 ms
Ranges	0...2 / 5 / 10 V, resistive load ≥ 1 kΩ 0...20 mA / 4...20 mA, compensation < 600 Ω/12 V

### EXCITATION

Adjustable	5/12/17/17/24 VDC, <2.5 W, isolated
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### POWER SUPPLY

Range	10...30 VAC/DC, ±10 %, PF ≥ 0.4, I <sub>typ</sub> < 40 A / 1 ms, isolated 80...250 VAC/DC, ±10 %, PF ≥ 0.4, I <sub>typ</sub> < 40 A / 1 ms, isolated <i>Protection by fuse inside the device</i>
Consumption	< 8.0 W / 7.8 VA

### MECHANIC PROPERTIES

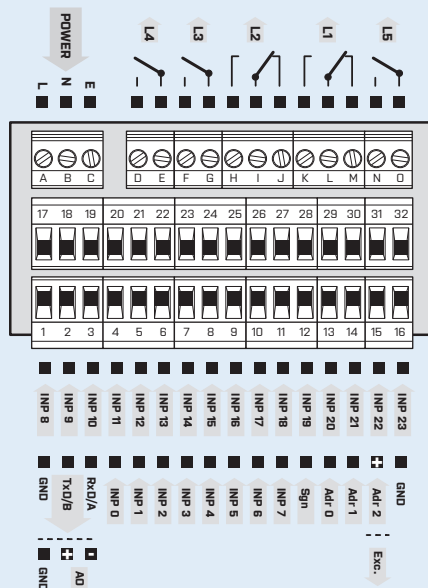
Material	Noryl GFN2 SE1, incombustible UL 94 V-1, black
Dimensions	96 x 48 x 120 mm (w x h x d)
Panel cutout	90.5 x 45 mm (w x h)

### OPERATING CONDITIONS

Connection	connector terminal blocks, section < 1.5 / 2.5 mm <sup>2</sup>
Stabilization period	within 5 minutes after switch-on
Working temperat.	-20°...60°C
Storage temperat.	-20°...85°C
Working humidity	< 95 % r.v., non condensing
Protection	IP64, front panel only
Construction	safety class I
El. safety	EN 61010-1, A2
Dielectric strength	4 kVAC per 1 min test between supply and input 4 kVAC per 1 min test between supply and data/ analog output 4 kVAC per 1 min test between input and relay output 2.5 kVAC per 1 min test between input and data/ analog output
Insulation resist.*	for pollution degree II, measuring cat. III power supply, input > 670 V (PI), 300 (DI) input, output, excitation > 300 V (PI), 150 V (DI)
EMC	EN 61326-1, Industrial area
Seismic qualification	IEC/IEEE 60980-344 Edition 1.0, 2020, par. 6, 9
Mechanical resistance	EN 60068-2-6 ed. 2.2008

\* PI - Primary insulation, DI - Double insulation

## CONNECTION



## ORDER CODE

### OM 621BCD

Power supply	9...50 V AC/DC 80...250 V AC/DC	<b>0</b>				
Input	5...25 VDC 10...60 VDC 90...130 VDC (110 VDC) 190...250 VDC (230 VDC)	<b>A</b>				
Comparators	none		<b>0</b>			
	1 relays		<b>1</b>			
	2 relays		<b>2</b>			
	3 relays		<b>3</b>			
	4 relays		<b>3</b>			
	5 relays BCD/BIN (monitor of tapping leads)		<b>5</b>			
Output	none			<b>0</b>		
	Analog output			<b>1</b>		
	RS 232			<b>2</b>		
	RS 485			<b>3</b>		
Excitation	no				<b>0</b>	
	yes				<b>1</b>	
Display color	red					<b>1</b>
	green					<b>2</b>

Basic configuration of the instrument is indicated in bold.