



## OM 621BCD

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

- 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

### OM 621BCD

MONITOR BCD AND ACTIVE TRANSFORMER TAPPING LEADS

#### 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 positions + 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 (on request 27)
Input resistance	5.5 k $\Omega$ /V
Output	relay BIN/BCD 5 relays (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  
**Description:** the last two characters on the display can be used to describe the measured quantities  
**Decimal point:** adjustable - in menu  
**Brightness:** adjustable - in menu

### INSTRUMENT ACCURACY

**TC:** 60 ppm/ $^{\circ}$ C  
**Watch-dog:** reset after 1,2 s  
**Calibration:** at 25 $^{\circ}$ C and 40 % r.h.

### COMPARATOR

**Type:** digital, menu adjustable, contact switch-on < 15 ms  
**Hysteresis mode:** switching limit, hysteresis band (Lim and  $\pm 1/2$  Hys.) and time ( $\pm 99,9$  s) determining the switching delay  
**Mode Batch:** period, its multiples and time (0...99,9 s), within which the output is active  
**Output:** 1...2x relays Form C and 1...3x relays Form A (250 VAC/50 VDC, 3 A)

### DATA OUTPUTS

**Data format:** 7 bit + even parity + 1 stop bit (DIN Messbus)  
 8 bit + no parity + 1 stop bit (ASCII)  
**Rate:** 600...115 200 Baud  
**RS 232:** isolated  
**RS 485:** isolated, addressing (max. 31 instruments)

### ANALOG OUTPUTS

**Type:** isolated, programmable with resolution of max. 10 000 points, analog output corresponds to the data on display, output type and range are optional in menu  
**Non-linearity:** 0,2% of range  
**TC:** 50 ppm/ $^{\circ}$ C  
**Rate:** response to change of value < 40 ms  
**Ranges:** 0...2,5/10 V, 0...5 mA, 0/4...20 mA (comp. < 600  $\Omega$ )

### EXCITATION

**Adjustable:** 2...24 VDC/50 mA, isolated

### POWER SUPPLY

**Range:** 9...50 V AC/DC,  $\pm 10$  %, PF  $\geq 0,4$ ,  $I_{STP}$  < 40 A/1 ms, isolated  
 80...250 V AC/DC,  $\pm 10$  %, PF  $\geq 0,4$ ,  $I_{STP}$  < 40 A/1 ms, isolated  
**Consumption:** < 6,5 W/6 VA  
**Power supply is protected by a fuse inside the instrument.**

### MECHANIC PROPERTIES

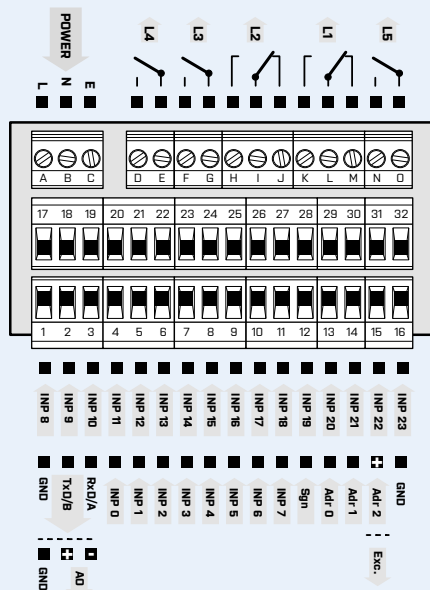
**Material:** Noryl GFN2 SE1, incombustible UL 94 V-1  
**Dimensions:** 96 x 48 x 154 mm (w x h x d)  
**Panel cutout:** 90,5 x 45 mm (w x h)

### OPERATING CONDITIONS

**Connection:** connector terminal blocks, section < 2,5 mm<sup>2</sup>  
**Stabilization period:** within 5 minutes after switch-on  
**Working temperature:** -20 $^{\circ}$ ...60 $^{\circ}$ C  
**Storage temperature:** -20 $^{\circ}$ ...85 $^{\circ}$ C  
**Protection:** IP64 (front panel only)  
**EI. 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 resistance:** for pollution degree II, measuring cat. III  
 power supply > 600 V (PI), 300 V (DI)  
 Input, output, PN > 300 V (PI), 150 V (DI)  
**EMC:** EN 61326-1

PI - Primary insulation, DI - Double insulation

## CONNECTION



## ORDER CODE

### OM 621BCD

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

Basic configuration of the instrument is indicated in bold.