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

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.

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 kΩ/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/°C
Watch-dog: reset after 1,2 s
Calibration: at 25°C and 40 % r.h.

COMPARATOR

Type: digital, menu adjustable, contact switch-on < 15 ms
Hysteresis mode: switching limit, hysteresis band (Lim and ±1/2 Hys.) and time (±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/°C
Rate: response to change of value < 40 ms
Ranges: 0...2/5/10 V, 0...5 mA, 0/4...20 mA (comp. < 600 Ω)

EXCITATION

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

POWER SUPPLY

Range: 9...50 V AC/DC, ±10 %, PF ≥ 0,4, I_{STP} < 40 A/1 ms, isolated
80...250 V AC/DC, ±10 %, PF ≥ 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

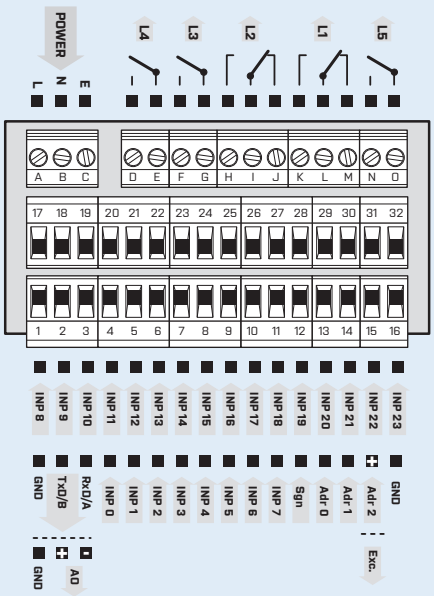
Material: Noryl GFN2 SE1, incombustible UL 94 V-I
Dimensions: 96 x 48 x 154 mm (w x h x d)
Panel cutout: 90,5 x 45 mm (w x h)

OPERATING CONDITIONS

Connection: connector terminal blocks, section < 2,5 mm²
Stabilization period: within 5 minutes after switch-on
Working temperature: -20°...60°C
Storage temperature: -20°...85°C
Protection: IP64 (front panel only)
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 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	**0**					
	80...250 V AC/DC	**1**					
Input	5...25 VDC		**A**				
	10...60 VDC		**B**				
	90...130 VDC (110 VDC)		**C**				
	190...250 VDC (230 VDC)		**D**				
Comparators	**none**			**0**			
	1 relays			**1**			
	2 relays			**2**			
	3 relays			**3**			
	4 relays			**3**			
	5 relays BCD/BIN (monitor of tapping leads)			**5**			
Output	**none**				**0**		
	Analog output				**1**		
	RS 232				**2**		
	RS 485				**3**		
Excitation	**no**					**0**	
	yes					**1**	
Display color	**red**						**1**
	green						**2**

Basic configuration of the instrument is indicated in bold.