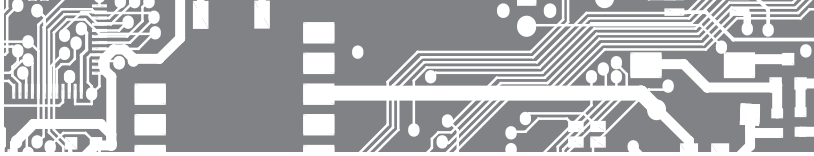


OML 643RS

OMLINK

Type OML 643RS is a 6-digit data display from the serial line RS 485 with a box depth of only 30 mm.
The instrument is based on a single-chip microcontroller, which secures good accuracy, stability and easy operation of the instrument.

DATA DISPLAY RS 485

- 6-DIGIT PROGRAMMABLE PROJECTION
- INPUT: RS 485
- DIGITAL FILTERS
- SIZE OF DIN 96 x 48 MM
- POWER SUPPLY 10...30 VDC/24 VAC
- Option
  Comparator

OML 643RS
DATA DISPLAY RS 485

OPERATION

The instrument is set and controlled by five buttons accessible from the rear. All programmable settings of the instrument may be performed in three adjusting modes:

LIGHT MENU is protected by optional number code and contains solely items necessary for instrument setting.

PROFI MENU is protected by optional number code and contains complete instrument setting.

USER MENU may contain arbitrary items from the programming menu (LIGHT/PROFI), which determine the right (see, change). Access w/o password.

Standard equipment is the OM Link interface, which together with operation program enables modification and filing of all instrument settings as well as performing firmware updates (with OML cable). The program is also designed for visualization and filing of measured values from more instruments.

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

OPTION

COMPARATOR is assigned to monitor one limit value with relay output. 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.

STANDARD FUNCTIONS

PROGRAMMABLE PROJECTION
Input: RS 485
Protocol: ASCII - Master/Slave/Universal or MODBUS RTU
Projection: -99999...999999

FUNCTIONS
Linearization: through linear interpolation in 25 points (solely via OM Link)

DIGITAL FILTERS
Exponential average: from 2...100 measurements
Rounding: setting the projection step for display

TECHNICAL DATA

INPUT

RS	**Input**	RS 485
	Protocol	ASCII - Master - the instrument controls data sending from the slave system - „COMM" can be used to select the received data - the instrument asks with the rate of 10 queries/s ASCII - Slave - Passive bus display where other devices or computers communicate in „MAST." mode. If the „COMM" and the requested data are correctly received, they will be displayed by the instrument ASCII - Universal - in dynamic menu items (Stat, Ad.Un, Sign, Data, Stop, Req.) you can build your own communication protocol format MODBUS RTU
	Format	8 bit + no parity + 1 stop bit
	Rate	300...230 400 Baud
Line termination		short-circuit jumper on the connector

PROJECTION

Display: -99999...999999, single color 7-segment LED
Digit height: 14 mm
Display color: red or green
Decimal point: adjustable - in menu
Brightness: adjustable or automatically controllable

INSTRUMENT ACCURACY

TK: 50 ppm/°C
Watch-dog: reset after 500 ms
Digital filters: exponential average, rounding
OM Link: Company communication interface for operation, setting and update of instruments.
Calibration: at 25°C and 40 % r.h.

COMPARATOR

Type: digital, menu adjustable, contact switch-on < 50 ms
Hysteresis mode: switching limit, hysteresis band „Lim ±1/2 Hys." and time (0...99,9 s) determining the switching delay
Output: 1x Form A relay (250 VAC/30 VDC, 3 A);
1x open collector (30 VDC/100 mA)

POWER SUPPLY

Range: 10...30 VDC/24 VAC, ±10 %, PF≥0,4, I_{STP}< 45 A/1,1 ms
10...30 VDC/24 VAC, ±10 %, PF≥0,4, I_{STP}< 45 A/1,1 ms, isolated
Consumption: < 1,8 W/1,9 VA

MECHANIC PROPERTIES

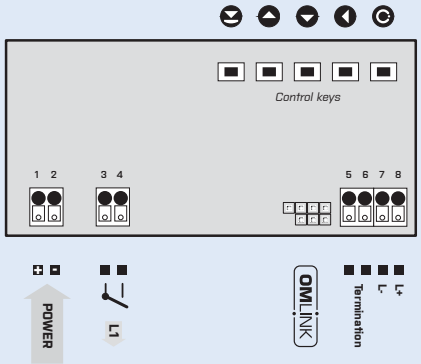
Material: Polycarbonate, incombustible UL 94 V-0
Dimensions: 96 x 48 x 30 mm (w x h x d)
Panel cutout: 92 x 44 mm (w x h)

OPERATING CONDITIONS

Connection: connector terminal blocks, section < 1,5 mm²
Stabilization period: within 15 minutes after switch-on
Working temperature: -20°...60°C
Storage temperature: -20°...85°C
Protection: IP65 (front panel only with a gasket)
El. safety: EN 61010-1, A2
Dielectric strength: 2,5 kVAC per 1 min test between supply and input
4 kVAC per 1 min test between input and relay output
Insulation resistance: for pollution degree II, measuring cat. III
power supply > 300 V (PI)
input, output > 300 V (DI)
EMC: EN 61326-1

PI - Primary insulation, DI - Double insulation

CONNECTION



ORDER CODE

OML 643RS - [ ][ ][ ][ ][ ] - [ ]

Power supply	**10...30 VDC/24 VAC**	**0**						
	10...30 VDC/24 VAC, isolated	**1**						
Protocol	**ASCII**		**A**					
	MODBUS RTU		**B**					
Comparator	**no**			**0**				
	1x relay (Form A)			**1**				
	1x open collector			**2**				
Display color	**red**				**1**			
	green				**2**			
Gasket	**no**					**0**		
Silicone gasket between instrument and panel	yes					**1**		
Specification	**customized version, do not fill in**							**00**

Basic configuration of the instrument is indicated in bold.