Panels ESP7

General Description

Panel ESP7 – Basic Version

This panel is fitted with 22 LEDs, where the function can be configured using the standard parameterizing software supplied with RTU (RTU User center). The parameterization is carried out in the expressions editor. The RTU FW must be 105.02 or higher. The function of the individual LED can be set on the basis of the internal statuses of the RTU (digital inputs, digital outputs, analog inputs, virtual analog and digital inputs, internal statuses, etc.). Permanent on or off, fast or slow flashing, response delay, etc. can be set for each LED. The description of the LED functions on the front panel can be changed by the user using insert labels. This signaling panel is powered by the voltage which is available on RS-485 connector of the communication interface on the RTU7M. Therefore it is not necessary to solve the backup of the power supply for the signaling panel. Interconnection is via a direct cable with RJ-45 terminals on the rear of the panel.

Panel ESP7-2ETH/F-xxx

This version of signaling panel contains the same number of signaling LEDs as the basic version, but it communicates with RTU via an Ethernet interface. The same options for individual LED setting and displaying are valid as in basic version. Unlike the basic version, this panel has the option of configuration via the web interface. The panel has two RJ-45 communication connectors – from the front part of the panel, the other from the rear (the panel works as a 2-port Ethernet switch). In the rear of the panel are a power supply connector and a reset button for the initial parameters setting of the Ethernet interface. The panel can be connected to all RTU7M, RTU7K/KL and RTU7.4 units that have an Ethernet communication interface.

Panel ESP7-2ETH/F-LCD-xxx

Against previous, a third version of signaling panel contains only 12 signaling LEDs. However, is equipped with an LCD display for displaying of measured values and control buttons for possible changes of selected parameters. Panel can be powered by DC voltage, see table below.

Panel ESP7-2ETH-GR-xxx

The most important feature of this panel is graphic LCD display, which allows the visualization of controlled element and more detailed data reading. The panel is also equipped with 10 x indication LEDs (8 x LEDs have user definable 2 colors) and control buttons usually used in power distribution applications, like OK, HOME, BACK, REMOTE/LOCAL, On (1), Off (0).

Panel ESP7-60-DTS

This panel was designed as an extension of previous types and offers direct status displaying and control of up to 4 feeders in switching stations and substations. It indicates the states of load break switch in feeder, earthing knife and any fault. Each feeder can be controlled by pushing button OK and button On or Off simultaneously, which ensures safe operation. These panels can be connected more in chain, so more feeders can be indicated and controlled. It is equipped with wide range power supply for 24 V and 48 V system support.

Panel ESP7 – serial line version

Panel ESP7-2ETH/F-xxx

Panel ESP7-2ETH/F-LCD-xxx

Panel ESP7-2ETH-GR

Panel ESP7-60-DTS

Technical specification

Panel	ESP7	ESP7-2ETH/F-230	ESP7-2ETH/F-60
Status signaling	22 × LED (ø 3 mm, green)	22 × LED (ø 3 mm, green)	22 × LED (ø 3 mm, green)
Display	–	–	–
Keyboard	–	–	-4x navigation button, 1x OK Buttons OK, Home, Back, Remote/Local, On (1), Off (0)
Communication with RTU	1 × RS-485	2 × Ethernet 10/100 Mbps (front + rear)	
External power supply	5 V DC	90−260 V AC / 90−270 V DC	10-60 V DC
Consumption	Max. 1 W	Max. 3 W	Max. 3 W
Communication connector	1 x RJ-45	2 × RJ-45	
Powering connector	–	1× WAGO 231-302/026-000	
Power supply wire cross-section	–	0.08 ÷ 2.5 mm^2	
Dimensions	144 × 144 × 71 mm (W × H × D)		
Mounting hole dimensions	138 × 138 mm		
Max. thickness of the mounting sub-panel	Max. 5.5 mm		
Installation depth	64 mm (without connectors)		
Operating temperature	-20 ÷ +55 °C		
Storage temperature	-30 ÷ +75 °C		
Ambient relative humidity	5% ÷ 95 % non-condensing		
Ingress protection	IP20 (optionally IP54 on front panel)		

Panel	ESP7-2ETH/F-60-LCD	ESP7-2ETH-GR-60	ESP7-60-DTS
Status signaling	12 × LED (ø 3 mm, green)	8 x bi-color LED user definable 1x bi-color LED STATE 1 x bi-color LED REMOTE/LOCAL	8 x LED,4 x cross LED (green and red)
Display	Alphanumeric LCD, 4x16 characters	Graphic LCD 480x272 pixels	–
Keyboard	4x navigation button, 1x OK	Buttons OK, Home, Back, Remote/Local, On (1), Off (0)	12 × control buttons (3 × button for each feeder)
Communication with RTU	2 × Ethernet 10/100 Mbps (front + rear)	2 × Ethernet 10/100 Mbps rear	
External power supply	10−60 V DC		
Consumption	Max. 3 W	Max. 5 W	Max. 2 W
Communication connector	2 × RJ-45		
Powering connector	1× WAGO 231-302/026-000		
Power supply wire cross-section	0.08 ÷ 2.5 mm^2		
Dimensions	144 × 144 × 71 mm (W × H × D)		
Mounting hole dimensions	138 × 138 mm		
Max. thickness of the mounting sub-panel	Max. 5.5 mm		
Installation depth	64 mm (without connectors)		
Operating temperature	-20 ÷ +55 °C		
Storage temperature	-30 ÷ +75 °C		
Ambient relative humidity	5% ÷ 95 % non-condensing		
Ingress protection	IP20 (optionally IP54 on front panel)		