Three-phase voltmeter WP-3CP

Description

WP-3CP is a three-phase digital measuring indicator – in practice a three-phase digital voltmeter in a single-module housing made of self-extinguishing material, designed for mounting on a TH35 rail.

The device is equipped with three three-digit green LED displays that present the voltage value on each phase (L1, L2, L3) relative to the neutral wire.

Additionally, the WP-3CP model has **an output relay** with a maximum load of 5 A 250 V AC AC-1 (0.8 A 250 V AC AC-15), which enables fault signalling or protection of three-phase receivers:

- The output contact is closed when the three-phase network is normal.
- If a fault is detected, the contact opens.
- To avoid false alarms, the contact response is intentionally delayed by 3 seconds.

Signaling functions:

- **Voltage drop below 195 V** – the digits on the corresponding display flash.
- **Voltage increase above 253 V** – the digits on the appropriate display flash.
- **Voltage measurement** - TRMS
- **Phase loss** – the display goes blank.
- **Incorrect phase sequence** – one digit segment in each display is spinning counterclockwise.
- **Phase short circuit** – horizontal display segments flash to indicate which phases are shorted.

Principle of operation

The WP-3CP three-phase voltmeter monitors voltages on all three phases relative to the neutral conductor and displays them in real time on LED displays. If permissible parameters are exceeded or a fault occurs, the indicator signals the problem by flashing segments or blanking the display. Additionally, the output relay changes state, enabling user notification and, in the event of a fault, enabling automatic disconnection of loads, for example, via contactors.

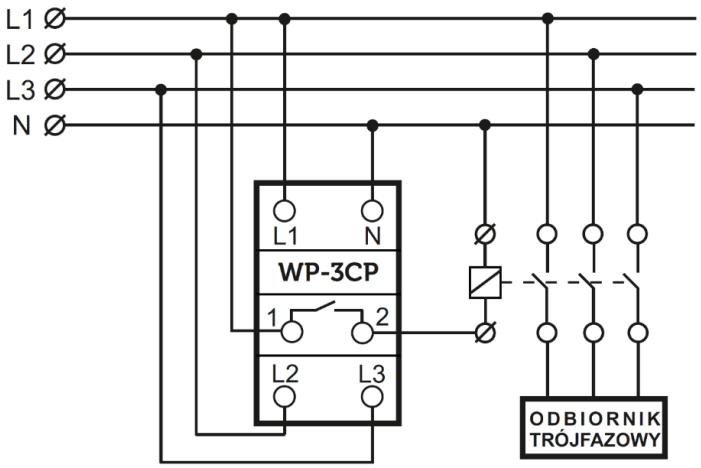
Technical data

Parameter name	Value
Rated supply voltage	3 x 400 / 230 V AC + N
Operating temperature range	-20 to 50 °C
Max power consumption	1.1 VA
Executive element	Relay
Number of relay outputs	1
Contact arrangement	NO
Maximum load current AC-1	5A / 250V AC
Maximum load current AC-15	0.8 A / 250V AC
Upper threshold U in a given phase	253V AC
Lower threshold U in a given phase	195V AC
Measurement accuracy	± 1%

Parameter name	Value
Voltage measurement method	TRMS
Case	modular housing (1 DIN module)
Degree of protection	IP20
Installation	TH35 rail
Clamp type	Elevator
Wire stripping length	6.5 mm
Single-wire conductor	0.25 to 2.5 mm ^{2}
Multi-stranded conductor (stranded wire) without ferrule	0.25 to 2.5 mm ^{2}
Stranded wire with square crimp sleeve	0.25 to 2.5 mm ^{2}
Stranded wire with trapezoidal crimp sleeve	0.25 to 1.5 mm ^{2}
Tighten to maximum torque	0.5 Nm

Full technical specifications are available on the website www.pollin.pl/do-pobrania or by scanning the QR code provided in the warranty and guarantee section.

Connection diagram



Installation

The WP-3CP automatic phase switch must be installed in accordance with applicable electrical installation standards and regulations. The following guidelines are intended to ensure the installer's safety and the proper operation of the device:

1. **Authorizations** - The device may only be installed by a person with appropriate qualifications and authorizations to work on electrical installations.
2. **Disconnecting the power supply** - Before starting any work, it is essential to disconnect the power supply at the distribution board and make sure that the circuit is voltage-free (e.g. using a voltage indicator).
3. **Personal Protection** - The installer should use personal protective equipment such as electrically insulating gloves and safety glasses.
4. **Mechanical installation** - The device should be mounted on a standard TH35 rail in the distribution board, ensuring stable mounting and adequate ventilation space.
5. **Connecting Wires** - Connections should be made according to the wiring diagram provided by the manufacturer. Ensure that terminals are tightened with the correct torque and that wires of the appropriate cross-section are used. Only one wire may be inserted into each terminal – regardless of whether it is solid or stranded with a crimped ferrule.
6. **Checking the connections** - After completing the installation, carefully check the correctness of all connections, make sure that the terminals are securely tightened and that there are no exposed wires that could cause a short circuit or a shock hazard.
7. **Restoring Power** - After completing the installation and inspection, turn on the power and check the operation of the device according to the instructions.
8. **Tests** - After completing the installation, check the correct operation of the device, e.g. by successively simulating the loss of phases "L1", "L2", "L3" or comparing the readings with the voltmeter readings.

No Modifications - Any modifications to the device or its components are prohibited. This may result in malfunctions and a safety hazard.

Warranty and guarantee – short information

The warranty applies to every purchaser, including consumers. Warranty claims should be directed to the seller from whom the purchase was made.

If a defect is found in the device, the customer has the right to choose: he or she can use the statutory warranty (in accordance with the provisions of the Civil Code) or the manufacturer's warranty.

Pollin Guarantee

Pollin devices are covered by a 10-year manufacturer's warranty – Zakład Elektroniczny POLLIN Wojciech Polak. The warranty applies only to devices purchased by businesses and covers material and manufacturing defects.

Warranty claims should be submitted by e-mail to: pollin@pollin.pl , in accordance with the procedure described in the full version of the document.

The warranty does not cover, among other things, mechanical damage, unauthorized modifications, installation by unqualified persons and natural wear and tear of consumables.

The full text of the warranty terms is available at: https://pollin.pl/do-pobrania or via the attached QR code.

Markings

This symbol on a device indicates that the used equipment should not be disposed of with other household waste. Used equipment should be taken to one of the designated electronic waste collection points or returned to the store when purchasing new equipment. Improper disposal of electronic waste poses a threat to the environment and human health.

The CE marking confirms that the product meets the essential requirements of all applicable European Union directives and regulations.

This marking indicates that installation, connection and all servicing of the device may only be performed by qualified personnel with electrical qualifications.

Technical support – the fastest help from Pollin experts

If you have any questions regarding the operation, configuration or installation of the device, **please contact us by email – this is the fastest way to obtain technical support** .

Send a message to: support@pollin.pl , describe the problem in detail and leave your contact number and the hours when we can call you.

Our engineers will review your request and make every effort to provide you with professional assistance as quickly as possible.

Want to talk to the sales department?

Use the telephone contact – the number can be found at https://pollin.pl/ .

Discover the world of Pollin automation – more than one product!

Thank you for your trust and for choosing Pollin technology – solutions that work for you. This is just the beginning of the possibilities Pollin technology offers! Our brand is synonymous with reliability, innovation, and safety in electrical installations.

On the website https://www.pollin.pl you will find:

- **A full product catalog** – from automation and security to modern solutions supporting renewable energy sources and Smart Home installations.
- **Downloadable materials** – manuals, diagrams, catalog cards and warranty documents in one place.

Don't wait – scan the QR code from the manual or visit our website and discover solutions that are changing industry standards.

Pollin is more than just a product

It is a trusted partner in your work !

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