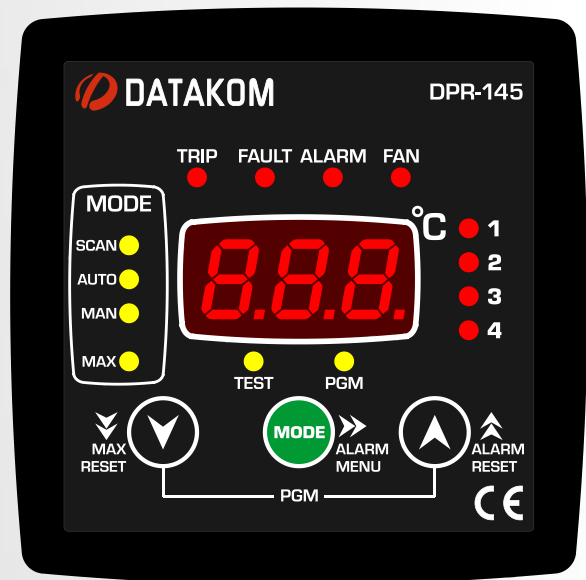


DPR-145

TEMPERATURE PROTECTION RELAY

- **PT100 INPUTS: 4**
- **RELAY OUTPUTS: 4**
- **RS-485 MODBUS PORT**
- **19-150VDC SUPPLY**



DESCRIPTION

DPR-145 is a precision unit designed for the temperature protection of dry type or resin filled MV transformers. The unit offers a high degree of protection against electromagnetic disturbances.

The unit has 4 temperature inputs of PT100 type. Three of them are used for the transformer protection. The fourth input may be used as core temperature protection or ambient temperature monitoring.

Alarm and trip levels of the unit are independently adjustable for first 3 sensors and the fourth sensor input.

Alarm levels are adjusted using the program mode. If no operation is performed, then the unit will exit program mode in 3 minutes.

The unit offers a cable compensation function in order to prevent long cables from impairing the measurement precision.

The unit has 4 dry contact relay outputs rated 6A.

FAN: provides cooler fan control

TRIP: high temperature failure relay

ALARM: pre-alarm relay

FAULT: sensor or internal failure indicator

The unit offers an automatic self test feature. The self test consists on the verification of sensor inputs and internal memory integrity.

The standard isolated RS-485 MODBUS RTU communication port is not affected by ground potential differences and allows safe transfer of information to remote management and automation systems.

The supply input is isolated from sensor connections. The unit has 2 supply options, being 19-150VDC or 85-305VAC.

FEATURES

1 degrees C measurement precision

4 x PT100 analog inputs

Allows cable length compensation

Automatic detection of sensor failures

Automatic and manual self test

4 x relay outputs, 5A/250Vac

Fully isolated RS-485 serial port

MODBUS-RTU communication

Recording of maximum temperatures

Front panel programmable

2 alarm thresholds for channels 1-2-3

2 alarm thresholds for channel 4

Easy to read, 3 digit 14mm led display

Wide supply voltage range: 19-150VDC

AC supply version available (85-305VAC)

Reduced panel depth, easy to install

Wide operating temperature range, -20 to +70°C

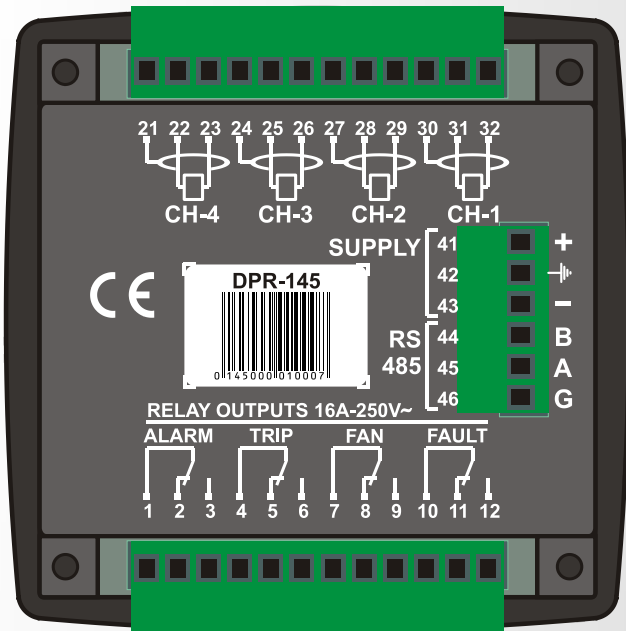
Sealed front panel (IP65 with gasket)

2 part connection system

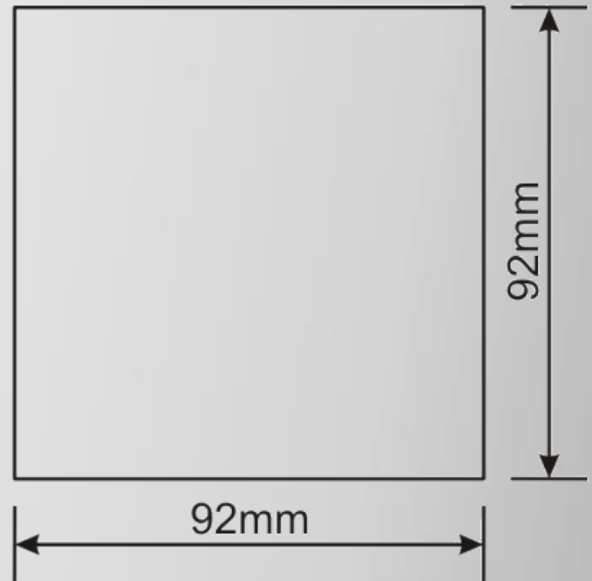


EAC CE

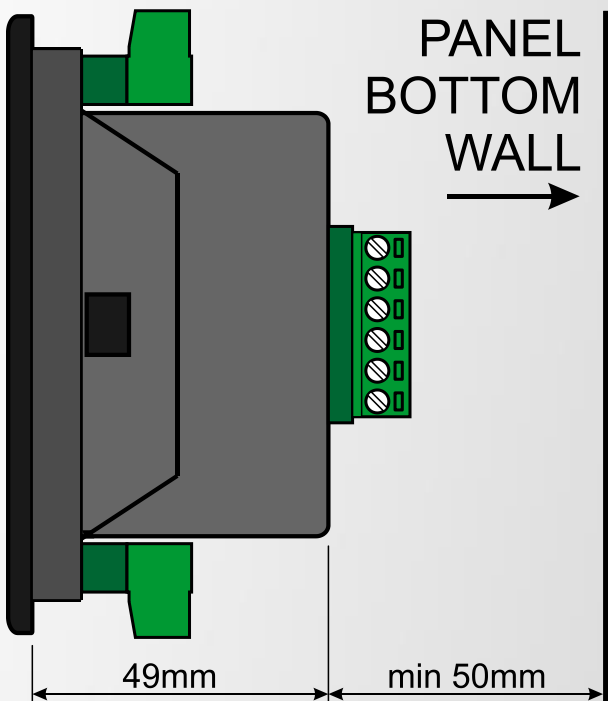
BACK PANEL



PANEL CUT-OUT



INSTALLATION TOLERANCES



TECHNICAL SPECIFICATIONS

Supply Input:

DC version: 19-150VDC

AC version: 85-305VAC (88-450VDC)

Measuring Inputs: 4 x PT100 (3 terminals)

Accuracy: 1% + 1 digit

Measurement Range: -40 to +250°C

Power Consumption: < 4 VA

Relay Outputs: 5A @ 250V AC

Serial Port:

Signal type: RS-485

Protocol: Modbus RTU

Data Rate: 2400-115200b, adjustable

Isolation: 1000V AC, 1 minute

Operating Temperature range: -20°C to +70 °C

Max Relative Humidity: 95% non condensing

Protection: IP 65 (front panel, with gasket)

IP 30 (back panel)

Enclosure: Flame retardant, ROHS compliant, high temperature ABS/PC (UL94-V0)

Installation: Panel mount, rear retaining plastic brackets.

Dimensions: 102x102x53mm (WxHxD)

Panel Cut-out: 92x92mm

Weight: 200 gr (approx)

EU Directives:

2006/95/EC (LVD)

2004/108/EC (EMC)

Reference Standards:

EN 61010 (safety)

EN 61326 (EMC)