



- Insulation monitoring and Earth Fault Protection of live non-grounded low or high tension AC supplies
- Direct connection to Neutral in up to 690VAC supply networks
- Triple relay operation gives more flexibility
- Very fast analogue output signal proportional to meter reading (<50mS), (F-version)

Specifications

Auxiliary Voltage:	100-120, 200-240, 380-415 or 440-460VAC, 40-70Hz (Fuse 0,5A)
Optional aux. Voltage	12, 24, 48 or 110VDC (Fuse 2A)
Input (nom.):	115, 230, 440 or 690VAC
Supply tolerance:	± 10%
Power rating:	1,5VA
Contact rating:	AC: 100VA - 250V/2A max. DC: 50W - 100V/1A max.
Adjustments:	<u>Trip level:</u> <u>Delay:</u>
Warning:	0-100% of alarm level 0-30 sec.
Alarm:	0-100% of FSD 0-30 sec.
Scaling (typical range):	0-100V, 0-200V, 0-400V or 0-500V Other ranges on request.
Analogue Output:	Up to 20mA, max 500R Up to 10V min 100kohm
Temperature:	-20 to +70°C
Weight:	0.64kgs
Front protection:	IP52 (IP65 optional)

Description

KPV12x is a digitally controlled two-level trip relay monitoring the insulation status of a live AC system, by detecting the displacement of the voltage between the supply system neutral point and PE.

The level of neutral point voltage will depend on the level of earth fault between each line voltage and PE. In a fault free system the voltage will be nil, if one line voltage is grounded to PE the voltage may increase to $V_n/\sqrt{3}$ (approx. 400V for a 690V system).

KPV12x is available for direct connection to nominal 115, 230, 440 or 690VAC system voltage, with 100, 200, 400 or 500V meter range respectively. Use 115V input for transformer connection to higher voltage.

An auxiliary voltage is required for the unit. A green LED indicates POWER on. Start of monitoring function is delayed when power is switched on (default 2 secs delay). In this way false tripping during power up is avoided. The meter reads the neutral point voltage, and has low-reflection glass to ease reading at a distance.

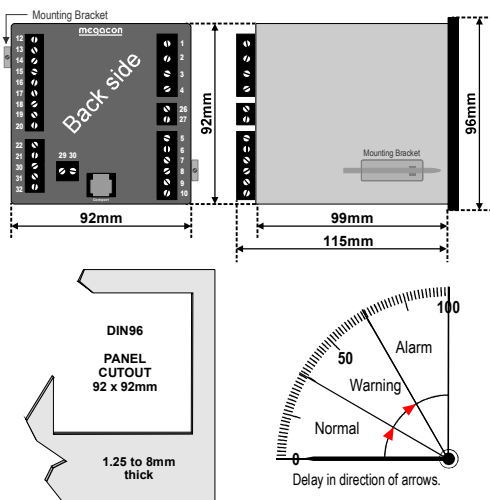
The triple-zone status LEDs at a glance gives the clear safety message: NORMAL / WARNING / ALARM.

The standard E-version has no analogue output. The optional F-version has an isolated analogue output signal proportional to meter deflection.

The units three C/O relay outputs are configured for Warning trip (R2), Alarm trip (R1) and trip Status (R3). The trip levels and trip delays are user settable on unit rear to suit most applications. The Status relay is fail to safety configured, and operates when either R1 or R2 trips. Operation of the status trip relay is inverted (fail safe), i.e. the relay is energised during normal conditions.

Red relay trip lamps flash instantly (approx. 1 flash per second) on passing a trip. The lamp changes state and the trip relay operates after the pre-set delay. If a trip condition ends during the delay interval, the timer will automatically reset. As standard the unit is supplied for automatic reset.

Dimensions

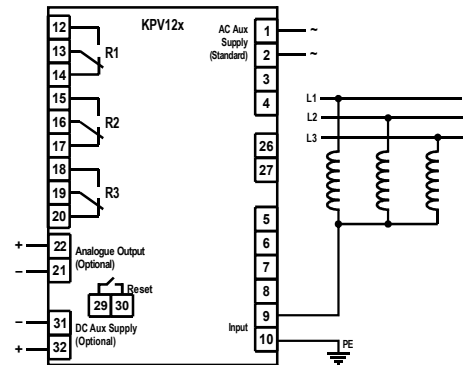


	Warning	Alarm	Fail safe	Latch
R1				✓
R2	✓			
R3	✓	✓	✓	✓

Relays shown de-energised.
R3 is fail-safe and energises when unit is powered.
(E is the standard)

Models	Latch	Output
KPV12E	-	-
KPV12F	-	X
KPV112G*	X	-
KPV12GF*	X	X

Relay Reset
Any latched relay is reset by linking terminals 29 and 30 or by interrupting the voltage input to terminal 1.



The unit meets EN 61010-1 Cat. III, Pollution degree 2 and the relevant environmental and EMC tests specified in EN 61326-2-4 to comply with the requirements of the major Classification Societies.

The MEGAICON policy is one of continuous improvement, consequently equipment supplied may vary in detail from this publication.

ORDERING EXAMPLE:
 Type: KPV12F
 Aux. Supply: 200-240V
 Input: 0-500V
 Range: 0-500V
 Analogue O/P: 4-20mA

