



- 3-channel Temperatur Guard for PT-100 element (RTD)
- 2, 3 or 4-wire PT 100 connection via mini MCR Converter
- Triple relay for more flexibility
- A wide range of scaling available
- Very fast analogue output (<50mS), (F-version)
- "Highest up function"

## Specifications

| Auxiliary Voltage:          | 100-120, 200-240, 380-415V, 440-460 or 480VAC<br>40-70Hz (Fuse 0,5A)  |            |       |               |                         |             |                         |
|-----------------------------|---|------------|-------|---------------|-------------------------|-------------|-------------------------|
| Optional Auxiliary Voltage: | 24, 48 or 110VDC (Fuse 2A)  |            |       |               |                         |             |                         |
| DC Input signal:            | 0-10, 0-20 or 4-20mA  |            |       |               |                         |             |                         |
| Scale Range:                | Variation of ranges between:<br>-150 °C to +850 °C<br>Can also be scaled in Fahrenheit:<br>-238 °F to +1562 °F  |            |       |               |                         |             |                         |
| Contact rating:             | AC: 100VA -250V/2A max.<br>DC: 50W -100V/1A max.  |            |       |               |                         |             |                         |
| Supply tolerance:           | ± 10%   |            |       |               |                         |             |                         |
| Power rating:               | 1,5VA   |            |       |               |                         |             |                         |
| Adjustments                 | <table border="1"> <tr> <th>Trip level</th><th>Delay</th></tr> <tr> <td>Trip Warning:</td><td>0-100% of FSD 0-30 secs</td></tr> <tr> <td>Trip Alarm:</td><td>0-100% of FSD 0-30 secs</td></tr> </table> | Trip level | Delay | Trip Warning: | 0-100% of FSD 0-30 secs | Trip Alarm: | 0-100% of FSD 0-30 secs |
| Trip level                  | Delay   |            |       |               |                         |             |                         |
| Trip Warning:               | 0-100% of FSD 0-30 secs   |            |       |               |                         |             |                         |
| Trip Alarm:                 | 0-100% of FSD 0-30 secs   |            |       |               |                         |             |                         |
| Analogue outputs:           | Up to 20mA, max 500ohm  |            |       |               |                         |             |                         |
| F-Versions                  | Up to 10V, min 100kohm  |            |       |               |                         |             |                         |
| Temperature:                | -20 to +70°C  |            |       |               |                         |             |                         |
| Weight:                     | 0.6kgs  |            |       |               |                         |             |                         |
| Front protection:           | IP52 (IP65 optional)  |            |       |               |                         |             |                         |

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.

## Temperature Measuring Transducer Mini MCR Converter

See page 2 for connection and setting.



## Application

The KPM303x is a digitally controlled temperature guard/controller for monitoring of temperature of machine bearings, windings etc.

The warning relay can be used to trip non-essential load or start a cooling fan and the alarm relay may be used to trip the total load.

KPM303x can be scaled for a wide variation of ranges between -150 and up to +850 Degrees Celsius or to a Fahrenheit scale.

An AC or DC 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 precision DIN96 moving coil meter reads the monitored parameter, and has low-reflection glass to ease reading at a distance.

The triple-zone status LEDs at a glance gives the clear safety message:

- ALARM
- WARNING
- NORMAL

KPM303C is the standard version with no analogue output. The optional F-versions has an isolated analogue output signal proportional to meter deflection.

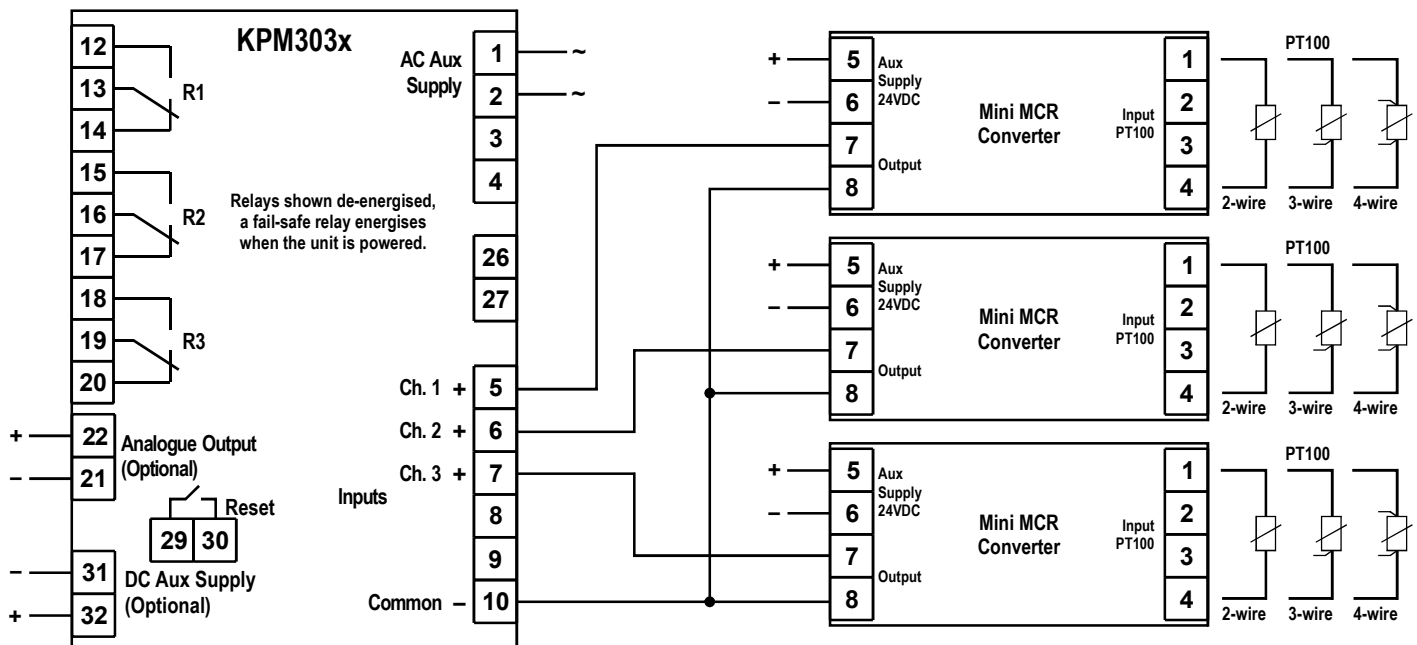
The units three C/O relay outputs and trip levels and trip delays are user settable on unit rear to suit most applications.

Relay trip lamps (Red LED) flash instantly (approx. 1 flash per second) when the trip level is passed, the relay trips after elapsed delay. 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. Manual reset (latching relays) is optional (All G-versions).

The "highest up" function highlights the highest level of hazard in the system, and only alerts the

## Connection diagram



### Relay Reset

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

### Relay Operation

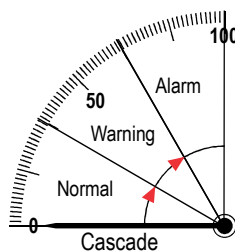
Relay Configuration: Cascade

|    | Warning | Alarm | Fail Safe | Latch |
|----|---------|-------|-----------|-------|
| R1 |         | ✓     | ✓         | *✓    |
| R2 | ✓       |       |           | *✓    |
| R3 | ✓       |       | ✓         | *✓    |

### Models

| Models    | Latch | Output |
|-----------|-------|--------|
| KPM303C   | -     | -      |
| KPM303CF  | -     | X      |
| KPM303G*  | X     | -      |
| KPM303GF* | X     | X      |

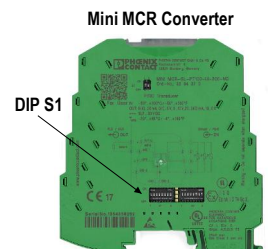
The relay operation is delayed in the arrow direction, the reset is instantaneous. Both trip levels can, independently, individually set over the scale range (0-100% FSD).



### Customer setting

PT 100 type must be set by customer.

| DIP S1 | 1 | 2 | Connection System |
|--------|---|---|-------------------|
| ON     | 1 | 2 | 2-wire            |
| OFF    | 1 | 2 | 2-wire            |
| ON     | 1 | 3 | 3-wire            |
| OFF    | 1 | 3 | 3-wire            |
| ON     | 1 | 4 | 4-wire            |
| OFF    | 1 | 4 | 4-wire            |



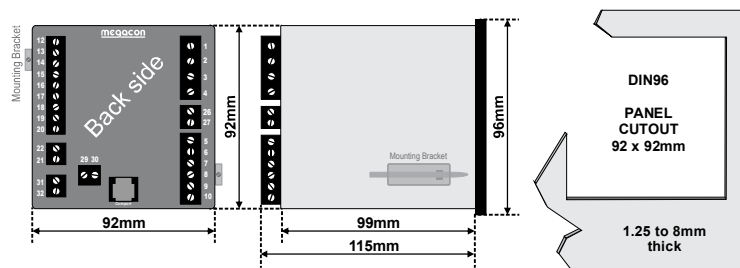
### Analogue Output

All F-versions have an analogue output proportional to meter reading. The signal is specifically intended as input to a control system or for remote monitoring of the measured parameter. Other outputs available on request.

Add suffix from table below to type designation to specify output required:

|      |          |       |            |
|------|----------|-------|------------|
| O/P1 | 0 - 10mA | O/P6  | N/A        |
| O/P2 | 0 - 20mA | O/P7  | N/A        |
| O/P3 | 4 - 20mA | O/P8  | 0 - 10V    |
| O/P4 | N/A      | O/P9  | 0.2 - 10V  |
| O/P5 | N/A      | O/P10 | 4.3 - 20mA |

## Dimensions



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

### ORDERING INFORMATION

|                  |                                    |
|------------------|------------------------------------|
| Product type     | : KPM303C                          |
| Auxiliary supply | : 230VAC                           |
| Temp range       | : 0-300 Degrees C                  |
| Output signal    | : 4-20mA                           |
| Example          | : KPM303C, 230VAC, 0-300 Degrees C |

**IS**  
range