



- 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 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: -150 °C to +850 °C Can also be scaled in Fahrenheit: -238 °F to +1562 °F
Contact rating:	AC: 100VA -250V/2A max. DC: 50W -100V/1A max.
Supply tolerance:	± 10%
Power rating:	1,5VA
<b>Adjustments</b>	<b>Trip level</b> <b>Delay</b>
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)

**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

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.

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).

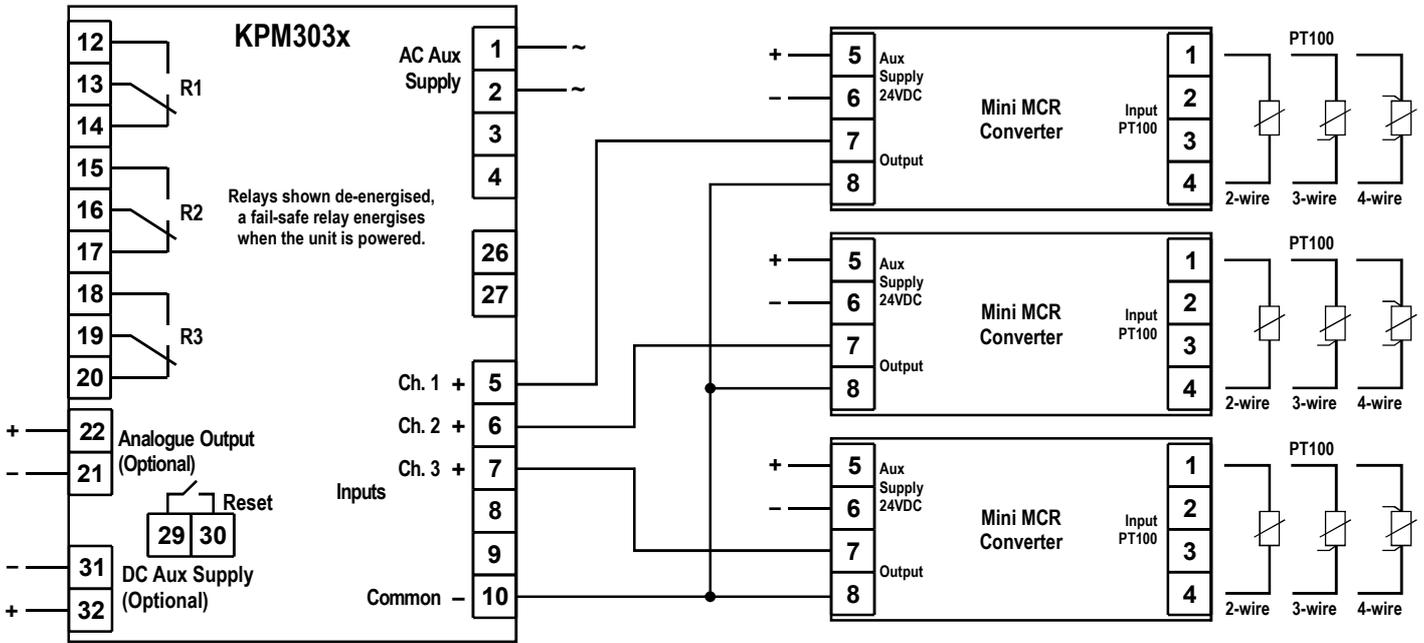
The “highest up” function highlights the highest level of hazard in the system, and only alerts the operator when conditions for an impending danger are present.

**Temperature Measuring Transducer  
Mini MCR Converter**

See page 2 for connection and setting.



Connection diagram



Relay Reset

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

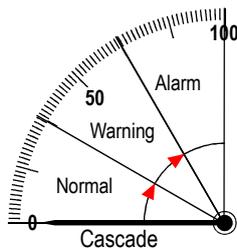
Relay Operation

Relay Configuration: Cascade

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

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

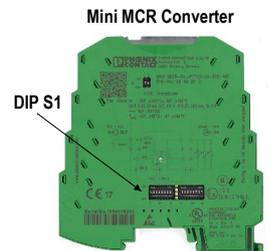
The relay operation is delayed in the arrow direction, the reset is instantaneous. Both trip levels can, independently, individually set over the scale range (0-100% FSD).



Customer setting

PT 100 type must be set by customer.

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



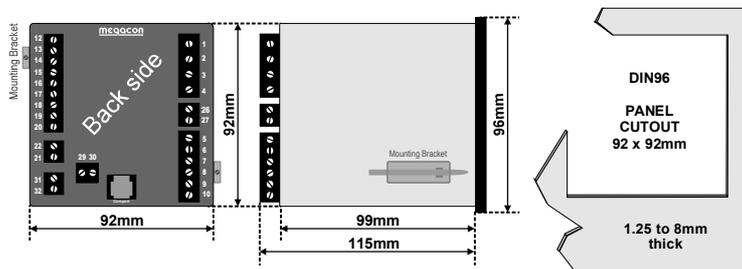
Analogue Output

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 MEGACON 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

