



- Grounded neutral earth current Protection
- Definite Time Trip Delay
- Two individually settable alarm relays
- For use with 1A or 5A current transformers or CBCT
- Non-resistive earth current offset function
- Very fast analogue output (<50mS), (F-version)

Specifications

Auxiliary Voltage:	100-120, 200-240, 380-415 or 440-460VAC, 40-70Hz	
Optional Auxiliary Voltage:	24, 48 or 110VDC	
Current Input:	1A or 5A C.T. (Preferred class 0.5 or better)	
Range	Any percentage of the CT rating	
Contact rating:	AC: 100VA - 250V/2A max. DC: 50W - 100V/1A max.	
Adjustments:	Trip level:	Delay:
ALARM:	0-100% of FSD	0-30secs
WARNING:	0-100% of FSD	0-30secs
Offset:	0-25%	
Analogue Output:	Up to 20mA, max 500R Up to 10V, min 100kohm (other on request)	
Temperature:	-20 to +70°C	
Weight:	0.6kgs	
Front protection:	IP54 (IP65 optional)	

The unit meets IEC60092-504 and the relevant environmental and EMC tests specified in IEC60068/60092 and IEC61000/60533 respectively, to comply with the requirements of the major Classification Societies.

Description

KOC105x monitors leakage current in a grounded neutral network and provides earth current protection.

True RMS measurement not affected by heavily distorted waveforms (1.0%) protection. Less than 50mS current detection time. R1 energises when trip level one (Warning) is exceeded and R2 trips when trip level two (Alarm) is exceeded. R3 is an extra status relay that energises if either alarm relay 1 or 2 is active and can be used for local indication, PMS input, alarm system input etc.

Fast response mA output signal proportional to a range (KOC105F).

Safety

The instrument measuring input is overload protected against high current <15xCT/(1A) or <3xCT/(5A). If unit is used for tripping it is recommended to use manual reset.

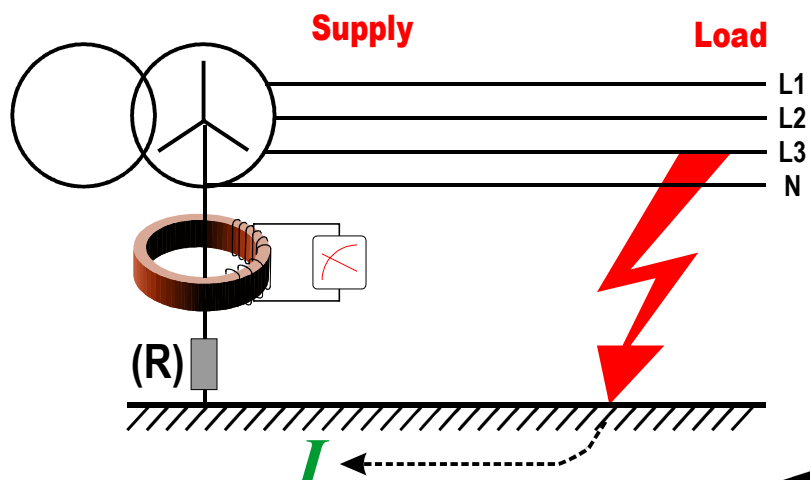
User settable trip levels and delays. Colour of LEDs indicates alarm status. LEDs flash during count-down.

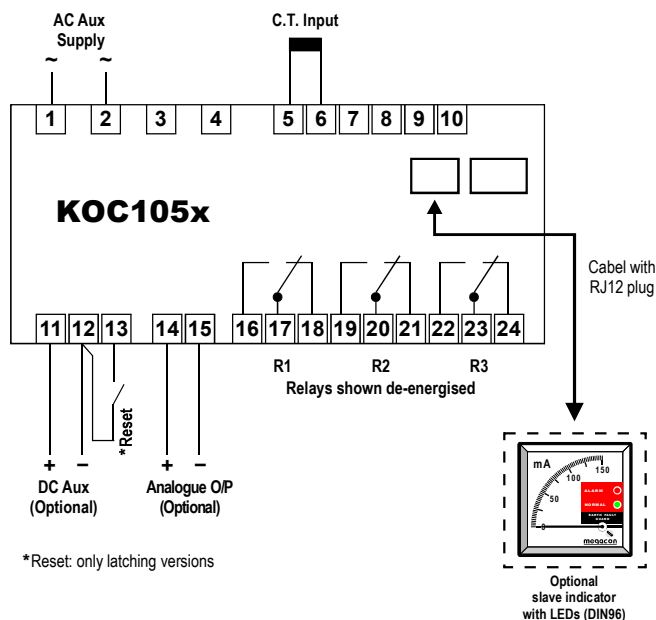
OFFSET FUNCTION

Only the resistive (ohmic) earth leakage current is a measure for the insulation condition between the AC supply and its protective earth. Any reading of leakage current in a fault free network will be caused by the networks spread capacitance. An offset potentiometer on the rear allows normal reactive (capacitive) currents to be ignored.

Protective Earth (PE) Grounding

The neutral grounding point is monitored by a Core Balanced Current Transformer (CBCT) or a standard current transformer (preferable class 1 or better). The ground connection can be directly or through a neutral earth resistor to reduce the maximum earth current in the network.





Analogue Output

KOC105F and KOC105GF have an analogue output proportional to meter reading. (Special outputs are 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 - 10VDC
O/P4	N/A	O/P9	N/A

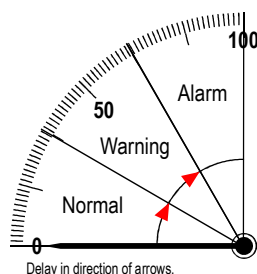
Relay Reset

Any latched relay is reset by linking terminals 12 and 13.

Relay Operation

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

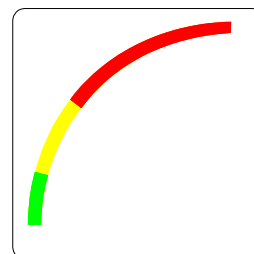
Model	Latch	Output
KOC105E	-	-
KOC105F	-	X
KOC105G*	X	-
KOC105GF*	X	X



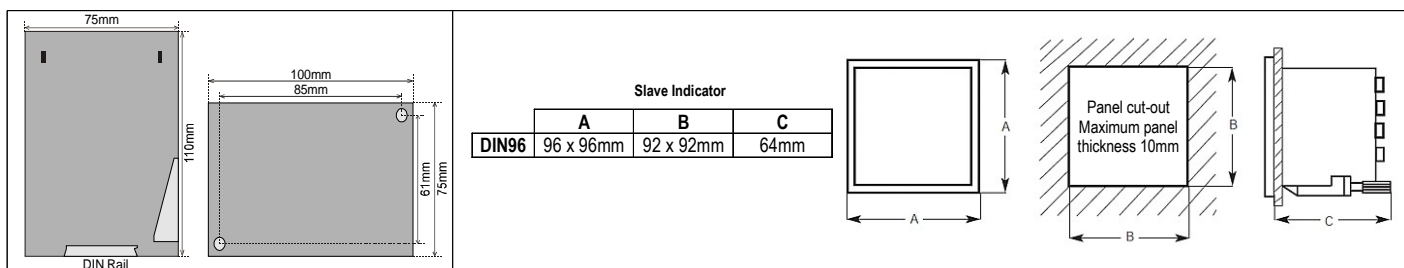
Settings

Coloured sectors show recommended areas of settings:

- Red indicates alarm trip zone
- Yellow indicates warning trip zone
- Green indicates healthy zone



Dimensions



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

ORDERING EXAMPLE:

Type: KOC105E
 Aux. Supply: 24VDC
 CT: 100/5A
 Analogue O/P: 0-10A
 Range: 0-10A

IS
range