QUALITY ELECTRONIC DESIGN



The QI-50-I is a AC/DC current transformer, galvanically isolated from the

measuring circuit. The device is in the function and appearance very similar

to a standard active TA, however, able to measure the DC component and

AC **TRMS**. The transformer is powered **4-20mA current loop** and therefore

does not require a direct power supply. It's the first Hall's effect current

transformer loop-powered with 0.5% accuracy on the market.



CURRENT TRANSFORMER AC/DC TRMS LOOP POWERED

QI-50-I



POWER SUPPLY Passive loop powered, 11...30V, Protections against polarity reversal and overtemperature. ABSORPTION Less then 3,5mA PROTECTION INDEX

ACCURACY 0,5% F.S. RESOLUTION 12 bit

TEMPERATURE COEFFICIENT < 200 ppm/°C WORKING TEMPERATURE -15...+65°C

STORAGE TEMPERATURE -40°C... +85°C

RESPONSE TIME 1000 ms

TYPE OF MEASURE TRMS (monopolar)

RANGE 50 Arms o 25 Arms dip-switch setting,

bipolar (+/- 50A DC o +/-25A DC)

OUTPUT 4...20 mA

BAND WIDTH AT -3dB DC or 20...2000 Hz

ISOLATION 3 kV on bare wire

OVERLOAD 2000 A pulse, 300A continuos

CREST FACTOR 2

HYSTERESIS 0,15% f.s.

HUMIDITY 10...90% not condensing

ALTITUDE Up to 2000 m s.l.m.

WEIGHT 72 g.

FILLING Epoxy Resins

BOX MATERIAL PBT, gray

MOUNTING Screw predisposition for vertical/ horizontal mounting, DIN Rail clips (included) for vertical/horizontal mounting

TERMINAL Removable terminals 5,08mm

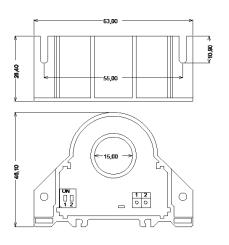
DIP-SWITCH 2 poles

LED N°1 yellow (Power on)

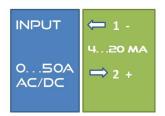
STANDARDS CE EN61000-6-4/2006 + A1 2011;

EN64000-6-2/2005; EN61010-1/2010

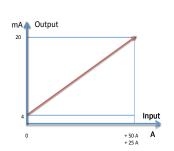
DIMENSIONS 46,1x 63x 26,4 mm (terminal excluded)



ISOLATION AND CONNECTIONS

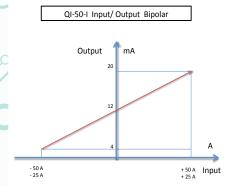


QI-50-I Input / Output





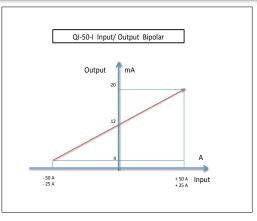
CURRENT TRANSFORMER AC/DC TRMS LOOP POWERED

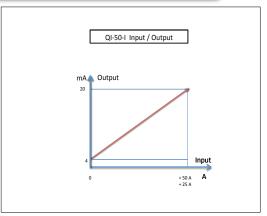


QUALITY ELECTRONIC DESIGN

CURRENT TRANSFORMER **AC/DC TRMS LOOP POWERED**

QI-50-I





The QI-50-I has two dip-switches through which you can set the scale to 25 or 50A and select the monopolar or bipolar (see charts), the yellow led near the terminal will indicate the presence of the power supply. If you are using bipolar function on AC current, the value read will be 0 A (12 mA) because you are reading the average value.

Any changes made by dip-switch required to switch off the power supply. It's a safety condition in order to prevent any manumission on the device.

MOUNTING:

QI-50-I

The current transformer QI can be mounted in any position (see photo below), horizontal or vertical mounting, horizontal or vertical through the two hooks for DIN rail included in the box.

Dip-Switch Table:

DESCRIPTION	1	2
MONOPOLAR (TRMS)		0
BIPOLAR (MEAN VALUE)		1
50 A	0	
25 A	1	

CAUTION: Magnetic fields of high intensity can vary the values measured by the transformer. Avoid installation near permanent magnets, electromagnets or iron masses that induce strong changes in the magnetic field. If any irregularity recommend reorient or move the transformer in the area most appropriate.

DIN rail mounting instructions:





To mount the hooks on QI. If you want to mount horizontally, use the flexibility of hook to catch into prepared by pressing the center of the clip (Fig. 1).

For vertical mounting, slide the hooks into the slots, external holding the two tabs on the clip (Fig. 2)





For mounting on DIN rail horizontally, once hooked on the bottom, push with both hands as shown in fig.3.

For vertical mounting on DIN rail, once hooked on the bottom, push with both hands on the hooks as shown in fig.4





To release from DIN rail, use a screwdriver and lever up to release the fins (Figure 5 or Figure 6)



CURRENT TRANSFORMER AC/DC TRMS LOOP POWERED

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