

PM-CTR

4-20mA, 0-5Vdc & 0-10Vdc Current Transducers



Features:

- Load trending
- Voltage output versions self-powered, no supply required
- 3 selectable ranges on 0-10Vdc version

Benefits:

- Unique wire clamp, for easy installation
- Split core versions for fast retrofit installation with no need to remove conductor

Technical Overview

Sontay's range of current transducers provides accurate load trending information with a choice of 4-20mA, 0-5Vdc and 0-10Vdc output signals. They provide accurate, reliable and maintenance-free operation.

Solid and split-core versions are available with current ratings up to 100A. Current versions are supplied with pre-wired 400mm (15.75") tails and voltage versions have screw terminals.

All versions have a unique self-gripping feature which allows the switch to literally clip on to a cable without the need for a base mounting plate.

Specification:

Supply:		
Current output	Loop-powered (9 to 35Vdc)*	
Voltage output	Self-powered	
Maximum sensed voltage	600Vac	
Accuracy:		
Current types		
Split core	99% (20-100% span)	
Solid core	96.4% f.s	
Voltage types	96.8% f.s	
Dimensions:		
Split core	65 x 50 x 30mm (2.56 x 1.97 x 1.18")	
Solid core	53 x 37 x 24mm (20.9 x 1.46 x 0.94")	
Aperture:		
Split core	13 x 13mm (0.51 x 0.51")	
Solid core	13mm (0.51") dia.	
Ambient:		
Temperature	-35 to +60°C (-31 to +140°F)	
Humidity	5 to 95% non-condensing	
Conformity	CE marked, UL listed	
Protection	IP10	
Country of origin	U.S.A	

Part Codes:

4-20mA;
PM-CTR01 Split core 0 to 20A current transducer
PM-CTR02 Split core 0 to 50A current transducer
PM-CTR03 Split core 0 to 100A current transducer
PM-CTR04 Solid core 0 to 20A current transducer
PM-CTR05 Solid core 0 to 50A current transducer
PM-CTR06 Solid core 0 to 100A current transducer
0-5Vdc;
PM-CTR07 Solid core 0 to 10A current transducer
PM-CTR08 Solid core 0 to 20A current transducer
PM-CTR09 Solid core 0 to 50A current transducer
PM-CTR10 Solid core 0 to 100A current transducer
0-10Vdc;
PM-CTR11 Split core range selectable 0-20 / 0-50 / 0-100A current transducer



The products referred to in this data sheet meet the requirements of EU Directive 2004/108/EC

Installation:

1. The PM-CTR range of current transducers should only be installed by a competent, suitably trained technician, experienced in installation with hazardous voltages. (>50Vac & <1000Vac or >75Vdc & 1500Vdc).
2. Ensure that all power is disconnected before carrying out any work on the PM-CTR range. Never rely on status indicating devices only to determine if power is present in a conductor.
3. When installing the split-core version ensure that there are no dirt particles that will prevent good contact between the core pieces when the device is closed.
4. Mount the sensor in a suitable location using the removable mounting tab provided with a suitable screw or use the unique wire clamp which eliminates the need for drill mounting.
5. Maximum output cable size is 2.5mm², care must be taken not to over tighten the screw terminals.
6. Insure that the range selection of the product is correct for the current being monitored. Excessive current can damage the sensor.

Notes;

1/ Low conductor current:

If the load is low you can loop the conductor through the sensor to provide adequate current and ensure accuracy.

Example:-

Load is 2.5A, pass the cable through the aperture 3 times and you will have a total load of 7.5A and select the product with the right range (PM-CTR01 for example) or set the amp range selector switch to 20A (PM-CRT11).

2/ High conductor current and large diameter cables:

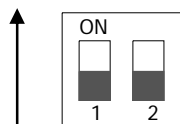
If the load is greater than the maximum specified for the transformer or the cable diameter is greater than the aperture of the current switch, you must use a suitable current transformer.

Example:-

When monitoring loads greater than 100A, install a suitable CT with a 5A secondary. Pass a cable connected to the secondary winding of the current transformer through the aperture ten times and select the product with the right range (PM-CTR02 for example) or set the amp range selector switch to 50A (PM-CRT11).

Dip-Switch Settings for PM-CTR11

	Dip-Switch	
	1	2
0-20A	OFF	OFF
0-50A	OFF	ON
0-100A	ON	OFF



Note, the shaded part is the raised section of the dip-switch, example shown range 0-20A

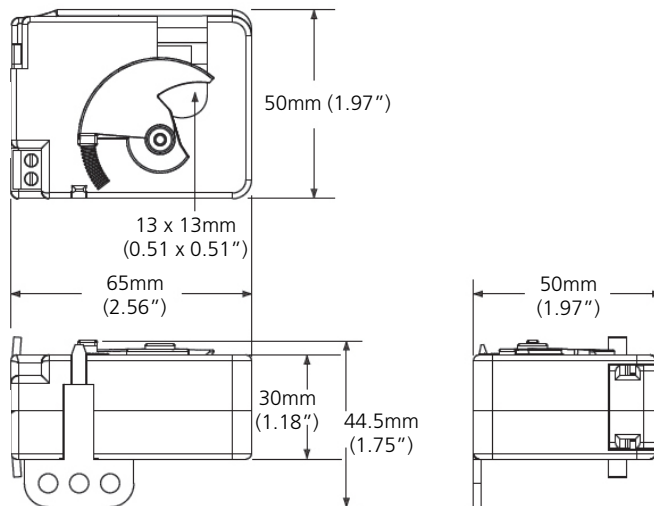
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Load Resistance (4-20mA types only):

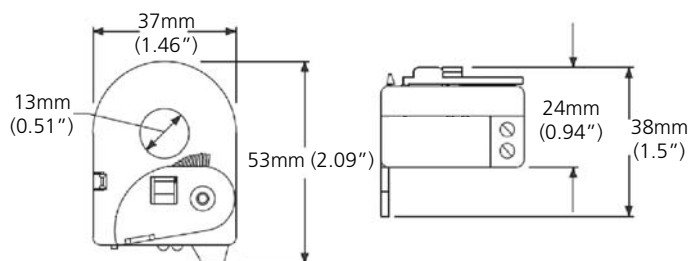
Max. output load resistance	Supply voltage	
	Min.	Max.
800 ohms	24Vdc	35Vdc
500 ohms	18Vdc	35Vdc
350 ohms	15Vdc	35Vdc
250 ohms	13Vdc	35Vdc
200 ohms	12Vdc	35Vdc
100 ohms	10Vdc	35Vdc
50 ohms	9Vdc	35Vdc

Dimensions:

Split core:



Solid core:



Whilst every effort has been made to ensure the accuracy of this specification, Sontay cannot accept responsibility for damage, injury, loss or expense from errors or omissions. In the interest of technical improvement, this specification may be altered without notice.