

PT1: resistance transducer

compact, configurable resistance transducers



Accurate class 0.2, 0.5 & 1



USB programming



Response time ~100-220 ms



Compact size

PT1 is a compact, configurable resistance transducer designed to meet the demanding needs of supply utilities and industrial applications. It provides accurate measurement of resistance values with high efficiency and quick response time. PT1 is equipped with two load-independent, galvanically-isolated analogue outputs that can be configured for resistance range and output curves.

- Best-in-class response time
- Site-configurable inputs and outputs
- Load-independent accuracy on all outputs
- Diagnostic LEDs
- Compact footprint



Measurement function (Measurand)	Output type	Output range	No of output	Accuracy class
Resistance	mA	0-10 mA, 0-20 mA, 4-20 mA 0-1 mA**, 0-2 mA*, 0-5 mA*	2	0.2, 0.5, 1

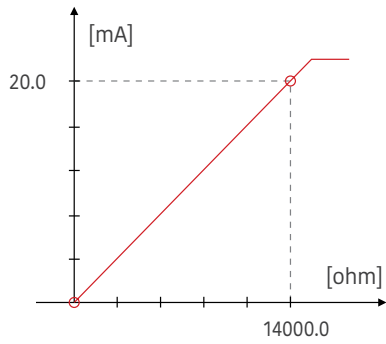
*available in accuracy class 0.5 and 1

**available in accuracy class 1

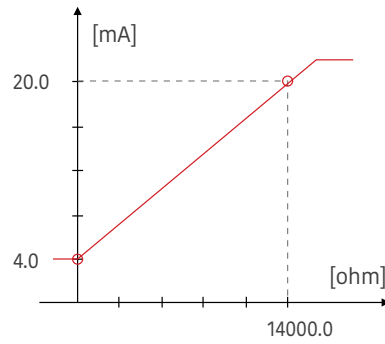


Output curves

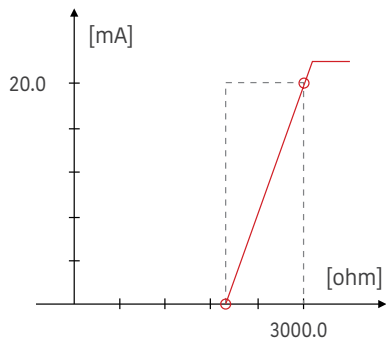
Curve A
linear



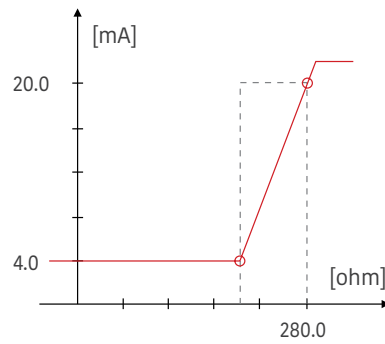
Curve B
linear with live zero



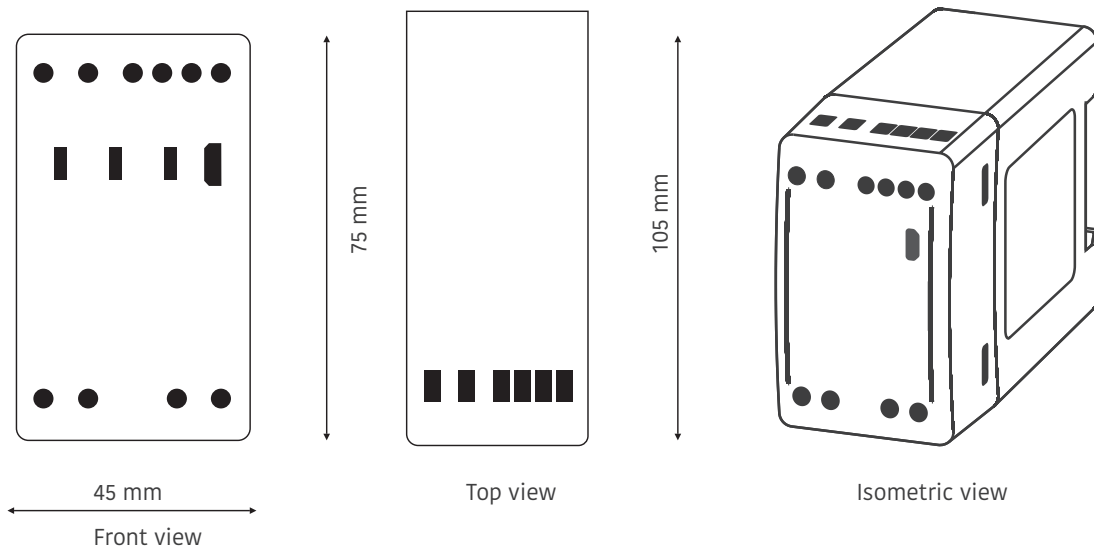
Curve F



Curve F



Mechanical dimensions





Technical specifications

Resistance sensor type

Measuring range 0-100 Ω ... 0-14 k Ω

High auxiliary

Nominal voltage range 80 to 276 V AC/DC ($\pm 10\%$) Frequency 50/60 Hz
Maximum burden ≤ 6 VA, 3 W with one output at 750 Ω
 ≤ 7 VA, 3.5 W with two outputs at 750 Ω each

Low auxiliary

Nominal voltage range 24 to 80 V DC ($\pm 10\%$)
Maximum burden ≤ 3 W with one output at 750 Ω
 ≤ 4 W with two outputs 750 Ω each

Analogue outputs

Output type mA
Maximum load resistance ≤ 750 Ω for 20 mA
Response time ≤ 100 -220 ms
Ripple < 0.4 % peak to peak

Temperature range

Operating range -5 $^{\circ}\text{C}$ to $+55$ $^{\circ}\text{C}$
Storage range -25 $^{\circ}\text{C}$ to $+70$ $^{\circ}\text{C}$
Usage Group 1

Mechanical

Dimension (W x H x D) 45 x 75 x 105 mm
Weight 0.4 kg (approx.)
Material Fire-retardant polycarbonate (PC-FR), UL94 V-0
Mounting DIN (EN 50022)
Connector type Screw terminals
Conductor size ≤ 4 mm²

Environmental

Protection class II (double insulation) EN 61010-1
Pollution degree 2
Installation category CAT III
Protection degree Housing: IP 40, front panel: IP 20



Technical specifications

Compliance

Standards

IEC 61010-1, IEC 61010-2-30, IEC 61326-1, DIN 50022

Communication ports

Micro USB

For on-site configuration

Can be configured through USB port, without auxiliary supply

Configuration software tool

ConfigView

For on-site configuration of measurement inputs, output curves and online parameter reading.

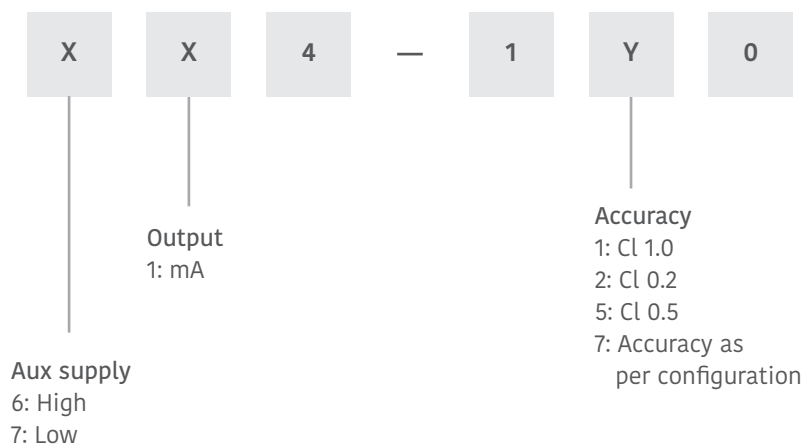
It is free to download from www.securemeters.com

Ordering key

PT1 XX4-1Y0

Example

PT1 614-120
where high auxiliary (6),
accuracy class 0.2



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