

# DPT100: resistance transducer

compact, configurable resistance transducers



Accurate  
class 0.2,  
0.5 & 1



USB  
programming



Response time  
~100-220 ms



Compact size

DPT100 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. DPT100 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

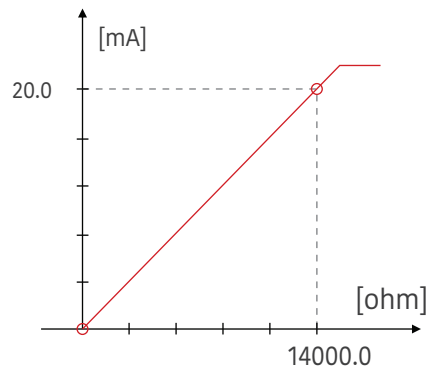
\*available in accuracy class 0.5 and 1

\*\*available in accuracy class 1

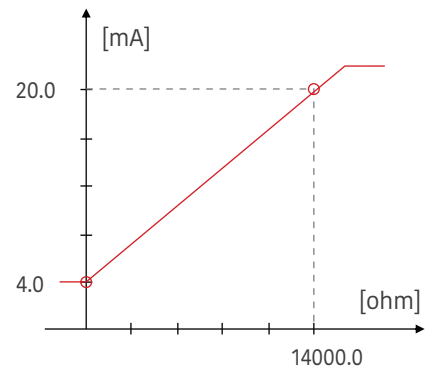
# DPT100: resistance transducer

## Output curves

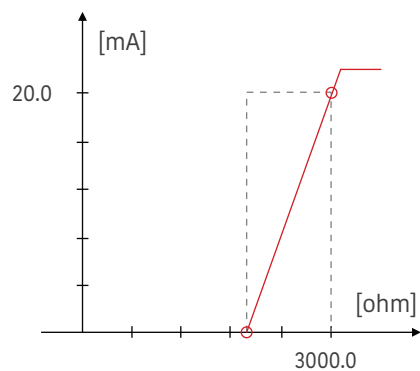
Curve A  
linear



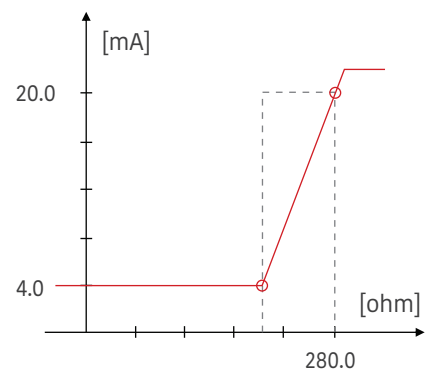
Curve B  
linear with live zero



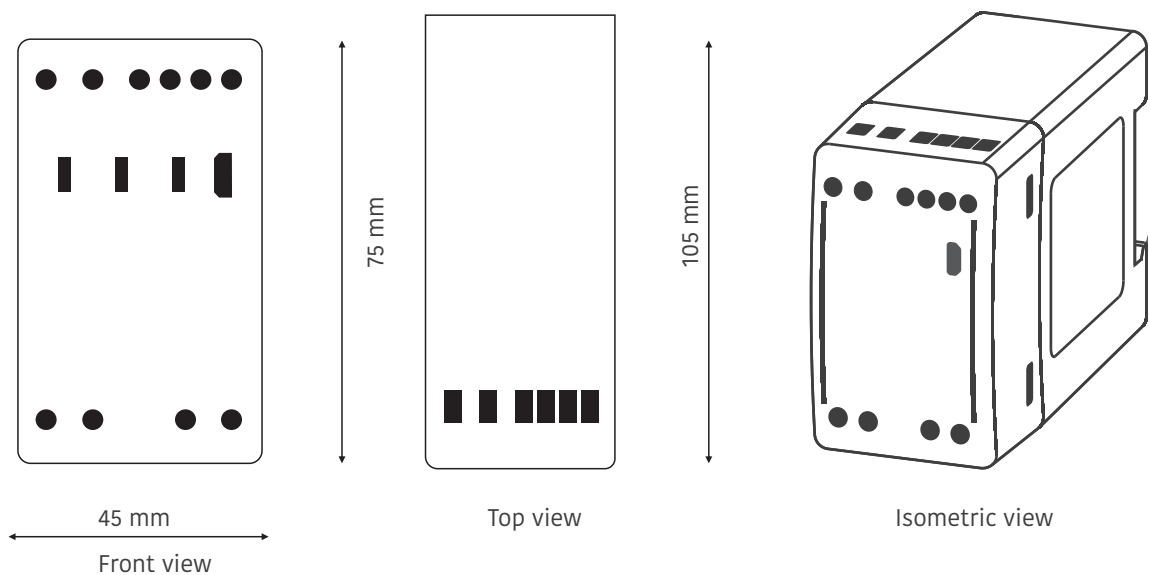
Curve F



Curve F



## Mechanical dimensions





## Technical specifications

### Resistance sensor type

Measuring range 0-100  $\Omega$  ... 0-14 k $\Omega$

---

### High auxiliary

Nominal voltage range 80 to 276 V AC/DC ( $\pm 10\%$ ) Frequency 50/60 Hz

Maximum burden  $\leq 6$  VA, 3 W with one output at 750  $\Omega$

$\leq 7$  VA, 3.5 W with two outputs at 750  $\Omega$  each

---

### Low auxiliary

Nominal voltage range 24 to 80 V DC ( $\pm 10\%$ )

Maximum burden  $\leq 3$  W with one output at 750  $\Omega$

$\leq 4$  W with two outputs 750  $\Omega$  each

---

### Analogue outputs

Output type mA

Maximum load resistance  $\leq 750$   $\Omega$  for 20 mA

Response time  $\leq 100$ -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  $\leq 4$  mm<sup>2</sup>

---

### 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

# DPT100: resistance transducer



## Technical specifications

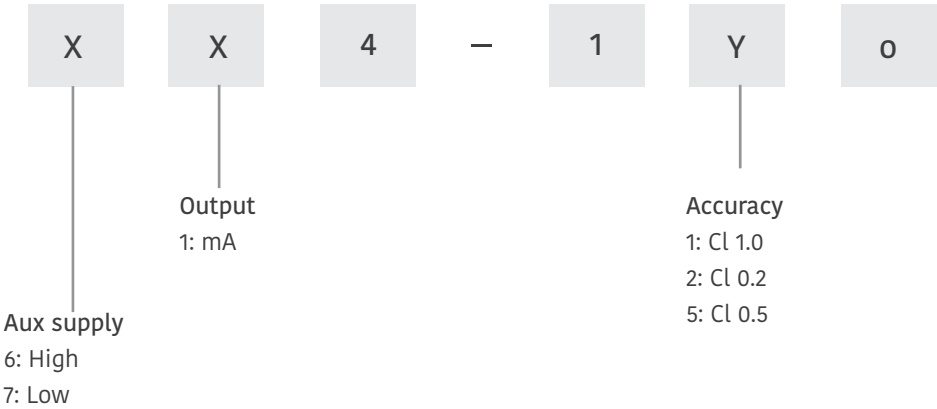
<b>Compliance</b>	
Standards	IEC 61010-1, IEC 61010-2-30, IEC 61326-1, DIN 50022
<b>Communication ports</b>	
Micro USB	For on-site configuration Can be configured through USB port, without auxiliary supply
<b>Configuration software tool</b>	
	ConfigView For on-site configuration of measurement inputs, output curves and online parameter reading. It is free to download from <a href="http://www.cewesecure.se">www.cewesecure.se</a>

## Ordering key

### DPT XX4-1Y0

#### Example

DPT100 614-120  
where high auxiliary (6),  
accuracy class 0.2



<b>Australia</b> sales_australia@securemeters.com <a href="http://www.securemeters.com/au">www.securemeters.com/au</a>	<b>Europe</b> sales_europe@securemeters.com <a href="http://www.securemeters.com/eu">www.securemeters.com/eu</a>	<b>India, SE Asia, Africa</b> sales_india@securemeters.com <a href="http://www.securemeters.com/in">www.securemeters.com/in</a>	<b>UAE</b> sales_middleeast@securemeters.com <a href="http://www.securemeters.com/me">www.securemeters.com/me</a>	<b>UK</b> sales_uk@securemeters.com <a href="http://www.securemeters.com/uk">www.securemeters.com/uk</a>
--	--	---	---	--