

# DPT100: single phase

multi-function transducers



Accurate  
class 0.2, 0.5 & 1



USB  
programming



Response time  
~100-220 ms



Compact size

compact, configurable multiple measurand transducers

DPT100 is a range of compact, configurable multiple measurand transducers designed to meet the demanding needs of supply utilities and industrial applications. It offers accurate true-RMS measurements for high efficiency and quick response time. It is equipped with two load-independent, galvanically-isolated analogue outputs that can be configured for different measurands, input range and output curves.

- Best in class response time
- Long range, site-configurable inputs, outputs and measurands
- Load-independent accuracy on all outputs
- 2-in-1 programmable transducers
- Diagnostic LEDs
- Compact footprint



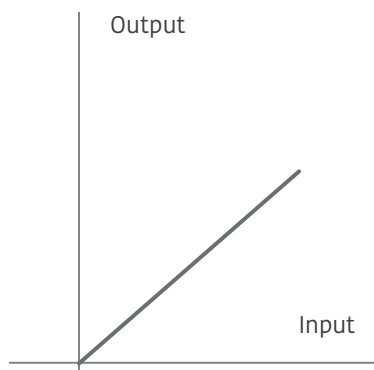
Measurement function (Measurand)	Output type	Output range	No of output	Accuracy class
Voltage, current, frequency, active power	Option for mA or V	0-20 mA, 4-20 mA, 0-10 mA, 0-5 mA* 0-2 mA*, 0-1 mA*, 0-5 V, 0-10 V	2	0.2, 0.5, 1.0

\*available in accuracy class 1.0 only

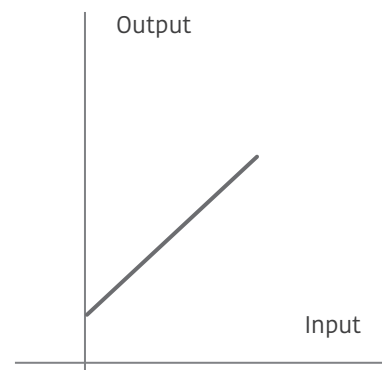
# DPT100: single phase

## Output cuves

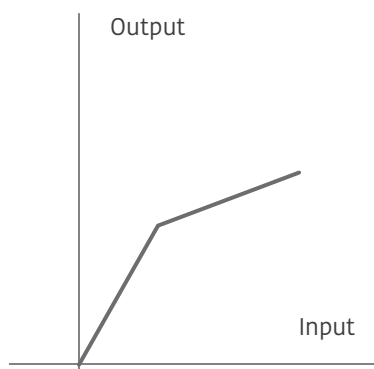
Curve A  
Linear



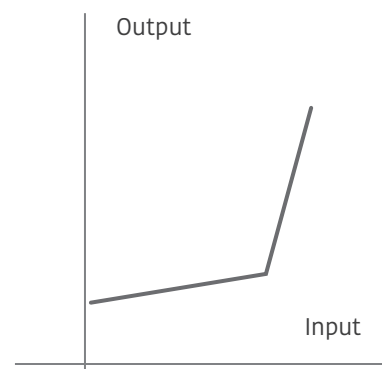
Curve B  
Linear with live zero



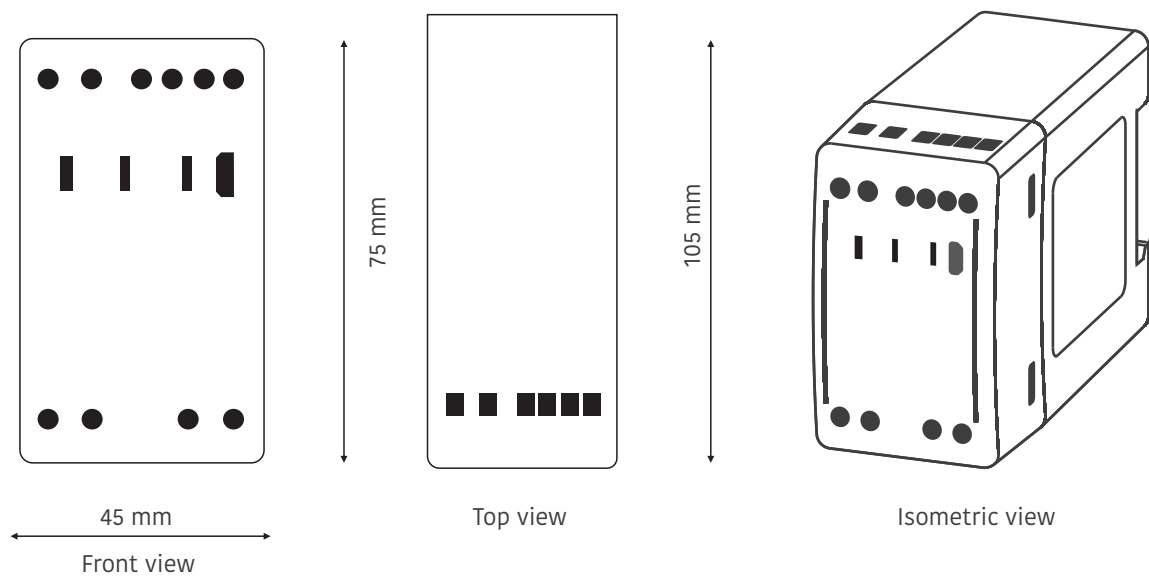
Curve F  
Compressed upper region



Curve F  
Compressed lower region



## Mechanical dimensions





## Technical specifications

### Site-configurable measurement functions (measurands)

#### AC/DC voltage

Nominal input ( $U_n$ )	57.7 to 415 V
Measuring range	0 to 130 % $U_n$ (up to 500 V)
Measurement frequency	50/60 Hz ( $\pm 5\%$ )
Burden	$\leq 0.2$ VA
Maximum overload voltage	1.3 x $U_n$ continuously (500 V max.) 2 x $U_n$ for 1 s, with up to 10 repetitions at 10 s intervals
Scale factor	0.8 to 1.3 $U_n$

#### AC current

Nominal input ( $I_n$ )	1 A to 5 A
Measuring current range	0 to 150 % $I_n$
Scale factor	0.6 to 1.5 of $I_n$
Burden	$\leq 0.2$ VA
Maximum overload current	2 x $I_n$ continuously 20 x $I_n$ for 1 s, with up to 10 repetitions at 100 s intervals

#### Frequency

Nominal input voltage ( $U_n$ )	57.7 to 415 V
Measurement range	45 Hz to 55 Hz or 55 Hz to 65 Hz
Accuracy	$\pm 0.2\%$

#### Active Power

Nominal input voltage ( $U_n$ )	57.7 to 415 V
Input voltage range	0 to 130 % $U_n$ (up to 500 V)
Nominal input current ( $I_n$ )	1 A to 5 A
Input current range	0 to 150 % $I_n$
Measurement frequency	50/60 Hz ( $\pm 5\%$ )
Scale factor	0.5 to 1.5 of $U_n \times I_n$ (at unity power factor)

#### High auxiliary

Nominal voltage range	80 to 276 V AC/DC ( $\pm 10\%$ )
Frequency	50/60 Hz
Maximum burden	$\leq 6$ VA, 3W with one output at 750 $\Omega$ $\leq 7$ VA, 3.5W 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 or V
Maximum load resistance	$\leq 750$ $\Omega$ for 20 mA, $\geq 2$ k $\Omega$ for 10 V (for each output)
Response time	5 cycles measurement ( $\leq 100$ -220 ms)
Ripple	$< 0.4\%$ peak to peak

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## Technical specifications

### Temperature range

Operating range	-5 °C to +55 °C
Storage range	-25 °C to +70 °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 for terminals	≤4 mm <sup>2</sup>

### Environmental

Protection class	II (double insulation) EN 61010-1
Pollution degree	2
Installation category	CAT III for ≤ 300V AC and CAT II for ≤ 600V AC
Protection degree	Protection housing: IP 40, terminals: IP 20

### Compliance

Standards	IEC 60688, IEC 61010-1, IEC 61010-2-30, IEC 61326-1, DIN 50022
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### Communication ports

Micro USB	For on-site configuration (can be configured without auxiliary power)
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### Configuration software tool

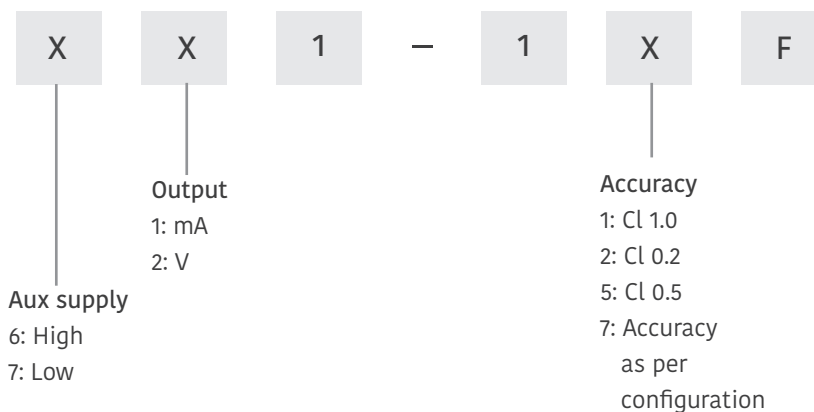
ConfigView  
For on-site configuration of measurement inputs, measurands, output curve and online parameter reading. It can be freely downloaded from [www.cewesecure.se](http://www.cewesecure.se)

## Ordering key

### DPT XX1-1XF

#### Example

DPT 611-12F  
where high auxiliary (6),  
mA output (1), accuracy class 0.2



Specifications are subject to change without prior notice

#### Australia

[sales\\_australia@securemeters.com](mailto:sales_australia@securemeters.com)  
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