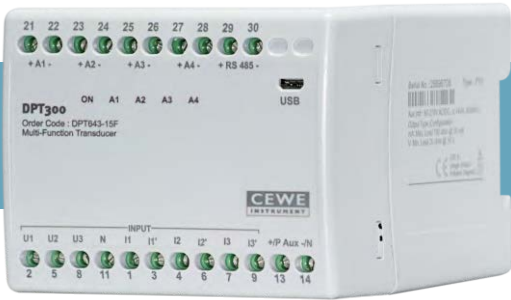


DPT300: three phase

multi-function transducers

compact, configurable multiple measurand transducers





Accurate
class 0.2 or 0.5 & 1



USB
programming



Response time
~100-220 ms



Modbus RTU

DPT300 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 up to four load-independent, galvanically-isolated analogue outputs that can be configured for desired measurands, input range and different curves. PT₃ transducers comply with IEC 60688.

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

Measurement functions (Measurands)	Output type	Output range	No. of outputs	Accuracy class
Voltage, current, active power, reactive power, power factor	mA or V	±20 mA, 4-20 mA, 0-20 mA, ±10mA, ±5mA*, ±2mA**, ±5V, ±10V	2 or 4	0.2, 0.5, 1.0

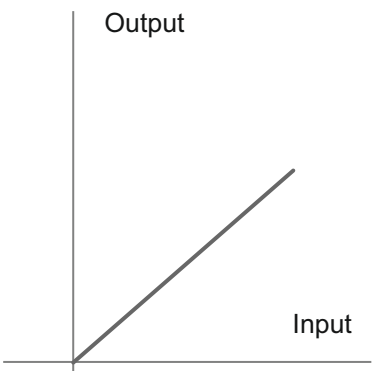
*available in accuracy class 1.0
Power factor accuracy- ± 0.2 degree at nominal input range

DPT300: three phase

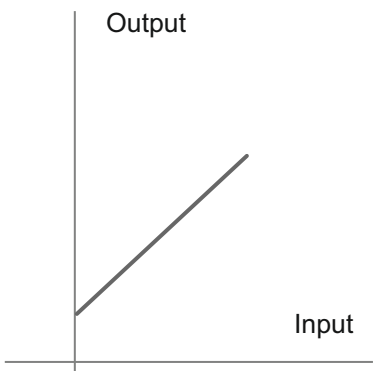
multi-function transducers

Output cuves

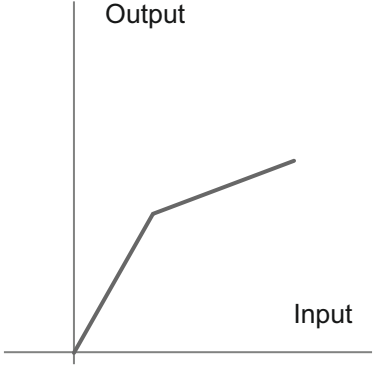
Curve A
Linear



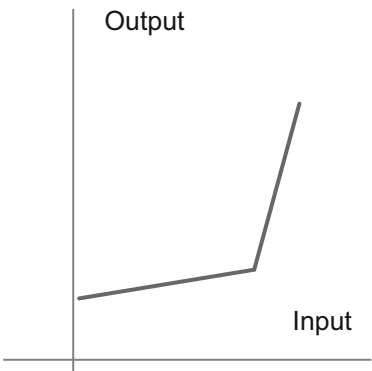
Curve B
Linear with live zero



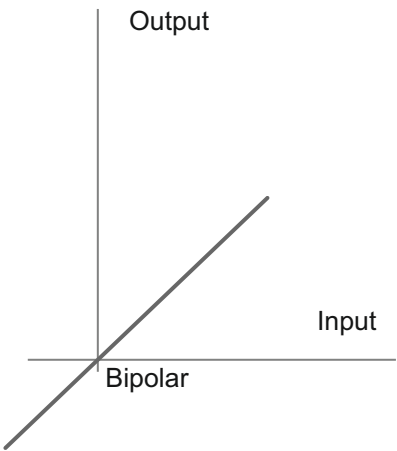
Curve F
Compressed upper region



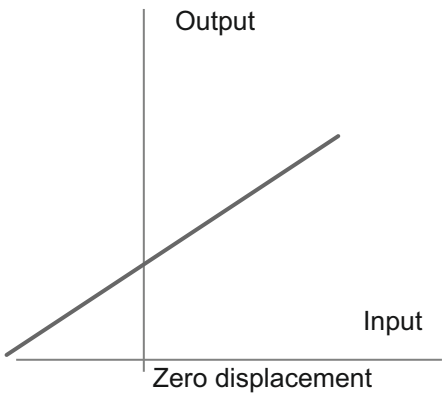
Curve F
Compressed lower region



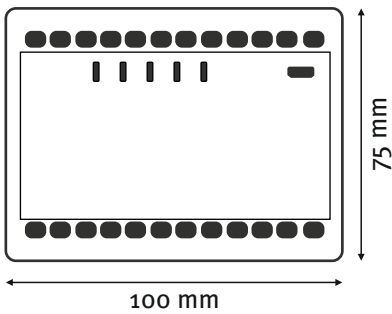
Curve C
Bipolar



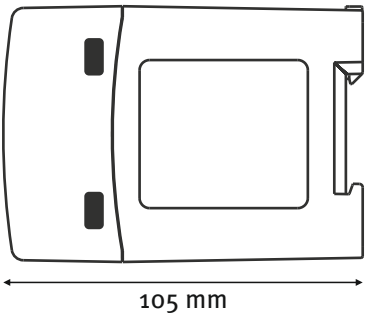
Curve D
bipolar with live zero



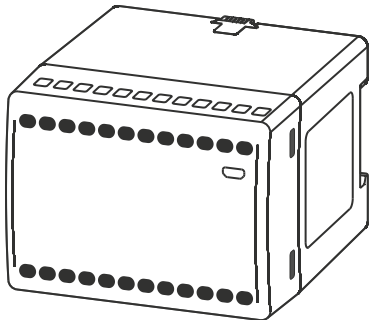
Mechanical dimensions



Front view



Side view



Isometric view

DPT300: three phase

Technical specifications

Site-configurable measurement functions (measurands)

AC voltage

Nominal input (U_n)	3 x 100 to 415 V L-L (3-phase 3-wire system) 3 x 57.5 to 240V L-N (3-phase 4-wire system)
Measuring range	0 to 130% U_n (500 V max.)
Scale factor	0.8 to 1.3 (500 V max.)
Measurement frequency	50/60 Hz ($\pm 5\%$)
Burden	≤ 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

AC current

Nominal input (I_n)	1/5 A
Maximum input current	0 to 150% I_n
Scale factor	0.6 to 1.5
Burden	≤ 0.2 VA per phase
Maximum overload current	2 x I_n continuously 20 x I_n for 1 s, with up to 10 repetitions at 100 s intervals

Active power/reactive power

Nominal input voltage (U_n)	3 x 100 to 415 V L-L (3 phase 3 wire system) 3 x 57.5 to 240V L-N (3 phase 4 wire system)
Input voltage range	0-130% U_n (up to 500 V)
Nominal input current (I_n)	1/5 A
Input current range	0 to 150% I_n
Measurement frequency	50/60 Hz ($\pm 5\%$)
Scale factor	0.5 to 1.5 (active power, at unity power factor) 0.3 to 1 (reactive power, at reactive power factor > 0.8 or unity)

Power factor

Nominal input voltage (U_n)	3 x 100 to 415 V L-L (3 phase 3 wire system) 3 x 57.5 to 240V L-N (3 phase 4 wire system)
Input voltage range	0-130 % U_n (up to 500 V)
Nominal input current (I_n)	1/5 A
Input current range	0 to 150 % I_n
Measurement frequency	50/60 Hz ($\pm 5\%$)
Measurement range	-0.8 to +0.8
Accuracy	± 0.2 degree (at nominal range)

Auxiliary Supply

High auxiliary

Nominal voltage range	80-276 V AC/DC ($\pm 10\%$)
Frequency	50/60 Hz
Maximum burden	≤ 11 VA, 6 W with two outputs at 750 Ω each ≤ 12 VA, 7 W with four outputs at 750 Ω each

Low auxiliary

Nominal voltage range	24-80 V DC ($\pm 10\%$)
Maximum burden	≤ 6 W with two outputs at 750 Ω each ≤ 8 W with four outputs at 750 Ω each

Analogue outputs

Type	Current (bipolar) & Voltage
Maximum Load resistance	$\leq 750\ \Omega$ for 20 mA, $\geq 2\ \text{k}\Omega$ for 10 V (for each output)
Response time	5 cycles measurement (≤ 100 -220 ms)
Ripple	$< 0.4\%$ peak to peak

DPT300: three phase

Technical specifications

Temperature range

Operating temperature

-5 °C to +55 °C

Storage temperature

-25 °C to +70 °C

Mechanical

Dimension (W x H x D)

100 x 75 x 105 (mm)

Weight

0.7 kg (approx.)

Material

Fire-retardant polycarbonate (PC-FR), UL94 V-0

Mounting

DIN (EN 50022)

Connector type

Screw terminals

Conductor size for terminals

≤4 mm²

Environmental

Protection class

II (double insulation) EN 61010-1

Pollution degree

2

Installation category

CATIII

Protection degree

Protection housing IP 40, terminals IP 20

Standards compliance

Standards

IEC 60688, IEC 61010-1, IEC 61010-2-30,
IEC 61326-1, DIN 50022

Communication ports

Micro USB

For configuration

RS-485

Modbus RTU enabled

(Suitable for integration with SCADA/PLC)

Baud rate

1200-38400 baud

Configuration software- Configview

ConfigView

For on-site configuration of measurement inputs, measurands, output curve and online parameter reading. It can be freely downloaded from www.ceweinstruments.se

Ordering key

DPT XX3-1YF

Example

DPT 643-12F

where high auxiliary (6),
output nos. (4), accuracy class(2)

