

## Current transformer - PACT RCP-4000A-UIRO-D140 - 2906232

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Set consisting of a 4-way signal conditioner with screw connection technology and a Rogowski coil 450 mm in length/140 mm in diameter for AC current measurement on busbars and power lines. The signal conditioner outputs 8 different standard signals on the output side and has one switching output.



### Key Commercial Data

Packing unit	1 pc
Weight per Piece (excluding packing)	286.2 g
Custom tariff number	85437090
Country of origin	Germany

### Technical data

#### Measuring transducer supply

Nominal supply voltage	24 V DC
Nominal supply voltage range	9.6 V DC ... 30 V DC
Power consumption	≤ 1 W (at I <sub>OUT</sub> = 20 mA, 9.6 V DC, 600 Ω load)

#### Measuring coil input data

Frequency measuring range	40 Hz ... 20000 Hz
Position error	< 1 %
Linearity error	0.1 %

#### Measuring transducer input data

Measuring ranges (current)	100 A 250 A 400 A 630 A 1000 A 1500 A 2000 A 4000 A
Configurable/programmable	Via DIP switches

#### Measuring transducer signal input

Input signal (at 50 Hz)	100 mV (1000 A)
Input impedance	> 100 kΩ

#### Measuring coil signal output

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#### Measuring coil signal output

Output signal (at 50 Hz)	100 mV (no load, at 1,000 A)
Output voltage (in no-load operation)	$V_{OUT} = M \cdot di/dt$
Output voltage (sinusoidal, in no-load operation)	100 mV ( $V_{OUT} = 2 \cdot \pi \cdot M \cdot f \cdot I$ (M = 0.318 $\mu$ H; example: At 50 Hz; I = 1,000 A))

#### Measuring transducer signal output

Current output signal	0 mA ... 20 mA (via DIP switch)
	4 mA ... 20 mA (via DIP switch)
	0 mA ... 10 mA (via DIP switch)
	2 mA ... 10 mA (via DIP switch)
	0 mA ... 21 mA (Can be set via software)
Voltage output signal	0 V ... 10 V (via DIP switch)
	2 V ... 10 V (via DIP switch)
	0 V ... 5 V (via DIP switch)
	1 V ... 5 V (via DIP switch)
	0 V ... 10.5 V (Can be set via software)
Load/output load current output	$\leq 600 \Omega$ (20 mA)

#### General data, measuring coil

Length of measuring coil	450 mm
Diameter of measuring coil	8.3 mm $\pm$ 0.2 mm
Length of signal cable	3000 mm
Conductor structure signal line	2x 0.22 mm (Signal (tinned))
	1x 0.22 mm (Shielding (tinned))
Coil material	Elastollan
Housing material	PC
Insulation	double insulation
Rated insulation voltage	1000 V AC (rms CAT III)
	600 V AC (rms CAT IV)
Test voltage	10.45 kV (DC / 1 min.)
Basic accuracy	$<\pm 0.21 \%$
UL, USA / Canada	UL 61010 Recognized

#### General data for measuring transducer

Maximum transmission error	$\leq 0.5 \%$ (From the range end value)
Frequency range	16 Hz ... 1000 Hz
Housing material	PBT
Degree of protection	IP20
Test voltage	3 kV (50 Hz, 1 min.)

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## Technical data

### General data for measuring transducer

UL, USA / Canada	UL 508 Listed
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### General data

Standards/regulations	IEC 61010-1
	IEC 61010-2-032
Pollution degree	2
Overvoltage category	II
Typical measuring error	< 1 %

### Connection data

Connection name	Measuring transducer side
Conductor cross section flexible min.	0.2 mm <sup>2</sup>
Conductor cross section flexible max.	1.5 mm <sup>2</sup>
Conductor cross section solid min.	0.2 mm <sup>2</sup>
Conductor cross section solid max.	1.5 mm <sup>2</sup>
Conductor cross section AWG min.	26
Conductor cross section AWG max.	16
Screw thread	M3
Connection method	Screw connection
Stripping length	10 mm
Torque	0.5 Nm ... 0.6 Nm

### Dimensions

Width	6.20 mm
Height	110.50 mm
Depth	120.50 mm

### Ambient conditions

Ambient temperature (operation)	-30 °C ... 80 °C (Measuring coil)
	-40 °C ... 70 °C (Measuring transducer)
Ambient temperature (storage/transport)	-40 °C ... 80 °C (Measuring coil)
	-40 °C ... 85 °C (Measuring transducer)
Maximum altitude	> 4000 m
Measuring coil degree of protection	IP67 (not assessed by UL)

## Classifications

eCl@ss

eCl@ss 5.1	27200303
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## Classifications

eCl@ss

eCl@ss 6.0	27200303
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ETIM

ETIM 4.0	EC002475
ETIM 5.0	EC002475

## Drawings

Block diagram

