

# Current transformer - PACT RCP-4000A-UIRO-D95 - 2906231

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Set consisting of a 4-way signal conditioner with screw connection technology and a Rogowski coil 300 mm in length/95 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

package_quantity	1
GTIN	4055626048147

## 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

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 μH; example: At 50 Hz; I = 1,000 A))

### Measuring transducer signal output

Current output signal	0 mA ... 20 mA (via DIP switch)
Current output signal	4 mA ... 20 mA (via DIP switch)
Current output signal	0 mA ... 10 mA (via DIP switch)
Current output signal	2 mA ... 10 mA (via DIP switch)

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## Technical data

### Measuring transducer signal output

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

### General data, measuring coil

Length of measuring coil	300 mm
Diameter of measuring coil	8.3 mm ±0.2 mm
Length of signal cable	3000 mm
Conductor structure signal line	2x 0.22 mm (Signal (tinned))
Conductor structure signal line	1x 0.22 mm (Shielding (tinned))
Coil material	Elastollan
Housing material	PC
Insulation	double insulation
Rated insulation voltage	1000 V AC (rms CAT III)
Rated insulation voltage	600 V AC (rms CAT IV)
Test voltage	10.45 kV (DC / 1 min.)
Basic accuracy	<± 0.21 %
UL, USA/Canada	UL 61010 Recognized

### General data for measuring transducer

Maximum transmission error	≤ 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.)
UL, USA/Canada	UL 508 Listed

### General data

Standards/regulations	IEC 61010-1
Standards/regulations	IEC 61010-2-032
Degree of pollution	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>

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## Technical data

### Connection data

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

### Standards and Regulations

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Noise emission	EN 61000-6-4
Standards/regulations	IEC 61010-1
Standards/regulations	IEC 61010-2-032
Rated insulation voltage	300 V
Degree of pollution	2
Overvoltage category	II
Electrical isolation	Reinforced insulation in accordance with IEC 61010-1
Conformance	CE-compliant

### Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 50
China RoHS	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

## Classifications

### eCl@ss

eCl@ss 4.0	27210902
eCl@ss 4.1	27210902
eCl@ss 5.0	27210902
eCl@ss 5.1	27210902
eCl@ss 6.0	27210902

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## Classifications

### eCl@ss

eCl@ss 7.0	27210902
eCl@ss 8.0	27210902
eCl@ss 9.0	27210902

### ETIM

ETIM 3.0	EC002048
ETIM 4.0	EC002048
ETIM 5.0	EC002048
ETIM 6.0	EC002048

### UNSPSC

UNSPSC 13.2	39121032
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## Accessories

### Mounting material

PACT RCP-CLAMP - 2904895



PACT RCP-CLAMP-5-10 - 2907888



## Drawings

### Block diagram

