


# Current transformer - PACT RCP-4000A-1A-D140-10M - 1033483

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Set consisting of one 1 A measuring transducer and one Rogowski coil with signal line. Length of Rogowski coil: 450 mm, diameter: 140 mm. Length of signal line: 10 m. The Rogowski coil measures the AC current of busbars and power lines.



## Key Commercial Data

Packing unit	1 pc
GTIN	 4 0 5 5 6 2 6 5 3 9 2 1 8
GTIN	4055626539218
Weight per Piece (excluding packing)	640.000 g
Custom tariff number	85437090
Country of origin	Germany

## Technical data

### Dimensions

Width	22.5 mm
Height	85 mm
Depth	70.4 mm
Length	450 mm (Measuring coil) 10000 mm (Signal line)
Diameter	8.3 mm ±0.2 mm (Measuring coil) 140 mm (Measuring coil when installed)

### Ambient conditions

Ambient temperature (operation)	-30 °C ... 80 °C (Measuring coil) -20 °C ... 70 °C (Measuring transducer)
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## Technical data

### Ambient conditions

Ambient temperature (storage/transport)	-40 °C ... 80 °C (Measuring coil)
	-25 °C ... 85 °C (Measuring transducer)
Maximum altitude	< 2000 m
Permissible humidity (operation)	5 % ... 95 % (non-condensing)
Measuring coil degree of protection	IP67 (not assessed by UL)
Measuring transducer degree of protection	IP20

### Measuring transducer supply

Nominal supply voltage	24 V DC -20 % ... +25 %
Nominal supply voltage range	19.2 V DC ... 30 V DC
Max. current consumption	190 mA
Power consumption	4 W

### Measuring coil input data

Frequency measuring range	40 Hz ... 20000 Hz
Position error	<± 0.1 % (typical)
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
Phase angle	< 1 °
Rated power	1.5 VA

### Measuring transducer signal input

Input signal (at 50 Hz)	100 mV (1000 A)
Input impedance	27 kΩ (smallest measuring range)

### 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 A AC ... 1 A AC
Load	0 Ω ... 1.5 Ω
Max. distances for copper cables at $P_{N \max}$	32 m (0.75 mm <sup>2</sup> (AWG 20))
	64 m (1.5 mm <sup>2</sup> (AWG 16))
	107 m (2.5 mm <sup>2</sup> (AWG 14))

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## Technical data

### General data, measuring coil

Length of measuring coil	450 mm
Diameter of measuring coil	8.3 mm ±0.2 mm
Length of signal cable	10000 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	<± 0.2 %

### General data for measuring transducer

Linearity error	< 0.5 % (From the range end value)
Maximum transmission error	≤ 0.5 % (From the range end value)
Frequency range	45 Hz ... 65 Hz
Max. detectable harmonics	< 2 kHz
Current consumption	< 190 mA (at 19.2 V)
Housing material	Polyamide
Test voltage	1.5 kV AC (Supply/input and output: 50 Hz, 1 min)

### General data

Standards/regulations	IEC 61010-1
	IEC 61010-2-032
Insulation	double insulation
Temperature coefficients	0.005 %/K (+10 °C ... +70 °C, both components have the same ambient temperature)
	0.07 %/K (-20°C ... +10°C; both components have the same ambient temperature)
Typical measuring error	< 1 %

### Connection data

Connection name	Measuring transducer side
Connection method	Screw connection
Stripping length	7 mm
Screw thread	M3
Conductor cross section solid	0.2 mm² ... 2.5 mm²
Conductor cross section flexible	0.2 mm² ... 2.5 mm²
Conductor cross section AWG	24 ... 14

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## Technical data

### Connection data

Torque	0.5 Nm ... 0.6 Nm
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### Standards and Regulations

Standards/regulations	IEC 61010-1
	IEC 61010-2-032
Insulation	double insulation
Pollution degree	2
Overvoltage category	III (1000 V, to neutral conductor)
	IV (600 V, to neutral conductor)

### Conformance/approvals

Designation	UKCA
Certificate	UKCA-compliant
Designation	UL, USA / Canada
Identification	UL 61010 Recognized
Additional text	Measuring coil
Designation	UL, USA / Canada
Identification	UL 508 Listed
Additional text	Measuring transducer

### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

## Classifications

### eCl@ss

eCl@ss 10.0.1	27210902
eCl@ss 11.0	27210902
eCl@ss 4.0	27210900
eCl@ss 4.1	27210900
eCl@ss 5.0	27210900
eCl@ss 5.1	27210900
eCl@ss 6.0	27210900
eCl@ss 7.0	27210902
eCl@ss 9.0	27210902

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## Classifications

### ETIM

ETIM 6.0	EC002048
ETIM 7.0	EC002048

### UNSPSC

UNSPSC 18.0	39121032
UNSPSC 19.0	39121032
UNSPSC 20.0	39121032
UNSPSC 21.0	39121032

## Approvals

### Approvals

Approvals

EAC

Ex Approvals

### Approval details

EAC		RU*DE*08.B.01187/19
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## Accessories

### Accessories

#### Mounting material

Holder - PACT RCP-CLAMP - 2904895



The optional holding device ensures the Rogowski coil is securely seated on busbars with a thickness of 10 ... 15 mm. During installation, the coil housing is pushed onto the flange of the holding device and snaps in automatically.

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### Accessories

Holder - PACT RCP-CLAMP-5-10 - 2907888



The optional holding device ensures the Rogowski coil is securely seated on busbars that are 5 ... 10 mm thick. During installation, the coil housing is pushed onto the flange of the holding device and snaps in automatically.