

# PACT RCP-4000A-1A-D190 - Current transformer



2904923

<https://www.phoenixcontact.com/au/products/2904923>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.

Set consisting of a 1 A measuring transducer and a Rogowski coil with signal line. Length of Rogowski coil: 600 mm, diameter: 190 mm. Length of signal line: 3 m. The Rogowski coil measures the AC current of busbars and power lines.



## Commercial data

Item number	2904923
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	CMMA12
Product key	CMMA12
Catalog page	Page 222 (C-5-2019)
GTIN	4046356900935
Weight per piece (including packing)	331.5 g
Weight per piece (excluding packing)	331.5 g
Customs tariff number	85437090
Country of origin	DE

# PACT RCP-4000A-1A-D190 - Current transformer



2904923

<https://www.phoenixcontact.com/au/products/2904923>

## Set consists of

### PACT RCP-4000A-1A - Measuring transducer

2902990

<https://www.phoenixcontact.com/au/products/2902990>



This is an individual product; please order the complete set. The measuring transducer processes the mV signal of the upstream Rogowski coil. The measuring transducer has 8 current measuring ranges (100 A ... 4000 A AC) which can be set; max. output current of 1 A AC.

---

### PACT RCP-D190 - Coil

2904892

<https://www.phoenixcontact.com/au/products/2904892>



600 mm long Rogowski coil. The measuring coil diameter when installed is 190 mm. The Rogowski coil is used for AC current measurement for busbars and power lines.

# PACT RCP-4000A-1A-D190 - Current transformer



2904923

<https://www.phoenixcontact.com/au/products/2904923>

## Technical data

### Product properties

Product type	Current transformer
Insulation characteristics	
Insulation	double insulation
Overvoltage category	III (1000 V, to neutral conductor) IV (600 V, to neutral conductor)
Pollution degree	2

### Electrical properties

Electrical isolation	Reinforced insulation in accordance with IEC 61010-1
Typical measuring error	< 1 %
Protective circuit	Surge protection; 33 V suppressor diode
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)

### Measuring coil

Conductor structure signal line	2x 0.22 mm (Signal (tinned)) 1x 0.22 mm (Shielding (tinned))
Insulation	double insulation
Rated insulation voltage	1000 V AC (rms CAT III) 600 V AC (rms CAT IV)
Test voltage	10.45 kV DC (60 s)
Accuracy class	0.2 (IEC 61869-10: A1)

### Measuring transducers

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)
Test voltage	1.5 kV AC (Supply/input and output: 50 Hz, 1 min)

### General

Can be calibrated	no
Converter type	Rogowski coil and 1 A measuring transducer

### Supply: Measuring transducers

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

# PACT RCP-4000A-1A-D190 - Current transformer



2904923

<https://www.phoenixcontact.com/au/products/2904923>

## Input data

### Frequency

Designation	Measuring coil
Frequency measuring range	40 Hz ... 20000 Hz

### Signal

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

### Current transformer

Configurable/programmable	Via DIP switches
Rated power	1.25 VA
Primary rated current $I_{pn}$	0 A AC ... 100 A AC
	0 A AC ... 250 A AC
	0 A AC ... 400 A AC
	0 A AC ... 630 A AC
	0 A AC ... 1000 A AC
	0 A AC ... 1500 A AC
	0 A AC ... 2000 A AC
	0 A AC ... 4000 A AC
Phase angle	< 1 °
Can be calibrated	no
Converter type	Rogowski coil and 1 A measuring transducer

## Output data

### Signal

Designation	Measuring coil
Output signal (at 50 Hz)	100 mV (no load, at 1,000 A)
Output voltage (in no-load operation)	$V_{OUT} = M \cdot dl/dt$
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))

### Signal

Designation	Measuring transducer
Current output signal	0 A AC ... 1 A AC
Rated power	1.25 VA
Load	0 Ω ... 1.25 Ω
Max. distances for copper cables at $P_{N \max}$	16 m (0.75 mm² (AWG 20))
	32 m (1.5 mm² (AWG 16))
	55 m (2.5 mm² (AWG 14))

## Connection data

# PACT RCP-4000A-1A-D190 - Current transformer



2904923

<https://www.phoenixcontact.com/au/products/2904923>

## Measuring transducer side

Connection method	Screw connection
Stripping length	7 mm
Screw thread	M3
Conductor cross section rigid	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section flexible	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section AWG	24 ... 14
Tightening torque	0.5 Nm ... 0.6 Nm

## Signaling

Operating voltage display	Green LED
---------------------------	-----------

## Dimensions

### Item dimensions

Width	22.5 mm
Height	85 mm
Depth	70.4 mm

### Measuring coil

Length	600 mm
Diameter	8.3 mm ±0.2 mm

### Measuring coil when installed

Diameter	190 mm
----------	--------

### Signal line

Length	3 m
Width	22.5 mm
Height	85 mm
Depth	70.4 mm

## Material specifications

Housing material	PC
	PA
Coil material	Elastollan

## Environmental and real-life conditions

### Ambient conditions

Measuring coil degree of protection	IP54 (not assessed by UL)
Measuring transducer degree of protection	IP20
Ambient temperature (operation) (Measuring coil)	-30 °C ... 80 °C (Measuring coil)
Ambient temperature (operation) (Measuring transducer)	-20 °C ... 70 °C (Measuring transducer)
Ambient temperature (storage/transport)	-40 °C ... 80 °C (Measuring coil)
	-25 °C ... 85 °C (Measuring transducer)

# PACT RCP-4000A-1A-D190 - Current transformer



2904923

<https://www.phoenixcontact.com/au/products/2904923>

Altitude	< 2000 m
Permissible humidity (operation)	5 % ... 95 % (non-condensing)

## Approvals

### CE

Certificate	CE-compliant
-------------	--------------

### UKCA

Certificate	UKCA-compliant
-------------	----------------

### CMIM

Certificate	CMIM-compliant
-------------	----------------

### UL, USA/Canada

Identification	UL 61010 Recognized
Note	Measuring coil

### UL, USA/Canada

Identification	UL 508 Listed
Note	Measuring transducer

## EMC data

Electromagnetic compatibility	Conformance with EMC directive
Noise immunity	EN 61000-6-3

### Noise emission

Standards/regulations	EN 61000-6-4
-----------------------	--------------

## Standards and regulations

Electrical isolation	Reinforced insulation in accordance with IEC 61010-1
Standards/regulations	IEC 61010-2-030
	IEC 61869-10

## Mounting

Mounting type	DIN rail mounting
---------------	-------------------

# PACT RCP-4000A-1A-D190 - Current transformer



2904923

<https://www.phoenixcontact.com/au/products/2904923>

## Approvals

🔗 To download certificates, visit the product detail page: <https://www.phoenixcontact.com/au/products/2904923>



**EAC**

Approval ID: RU\*DE\*08.B.01187/19

# PACT RCP-4000A-1A-D190 - Current transformer



2904923

<https://www.phoenixcontact.com/au/products/2904923>

## Classifications

### ECLASS

ECLASS-13.0	27210902
-------------	----------

### ETIM

ETIM 9.0	EC002048
----------	----------

### UNSPSC

UNSPSC 21.0	39121000
-------------	----------



## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(c), 7(a), 7(c)-I

### China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

### EU REACH SVHC

REACH candidate substance (CAS No.)	Diboron trioxide(CAS: 1303-86-2)
	Lead monoxide (lead oxide)(CAS: 1317-36-8)
	Lead(CAS: 7439-92-1)
SCIP	b7eae15-40ed-448f-a5b0-1ce4600c16d7