

# Pulse measuring device - IPCH-4X-PCL-TCP-24DC-UT - 1045379

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's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)



Evaluation unit for the recording of surge currents and transient overvoltages over external sensor cables. Communication of the measured data to PROFICLOUD via Ethernet. The data evaluated in the cloud can be accessed on the device via Modbus/TCP or RESTful web service.

## Product Description

ImpulseCheck is the first assistance system for surge protection in the field of mains protection. The system consists of an IPCH-4X-PCL-TCP-24DC-UT pulse measuring device, the sensors, and the ImpulseAnalytics application in PROFICLOUD. The current state of the surge protection can be accessed online at any time. In addition to monitoring the surge protective devices, ImpulseCheck and ImpulseAnalytics also provide a simple and comprehensive analysis of the system's EMC. The accurate recording of electromagnetic interference on the supply lines makes it possible to draw conclusions as to their cause. Possible disturbance variables are detected before they result in a system failure. This means that service and maintenance work can be scheduled in advance and implemented more efficiently. In addition to using ImpulseAnalytics, the data that is acquired and evaluated in the cloud can also be accessed directly on the device via Modbus/TCP or a RESTful web service. After initially registering the ImpulseCheck in PROFICLOUD, you will be granted free access to the ImpulseAnalytics cloud application for one year. When the free trial period expires, an annual fee of €39 will be charged per device.

## Your advantages

- Record state of the system. Recognize state of health (SoH) of the SPDs
- Create standard-compliant status reports at any time at the push of a button
- Using digital added values and services thanks to cloud-based logging, representation and combination of measured values in PROFICLOUD



## Key Commercial Data

Packing unit	1 pc
GTIN	
GTIN	4055626633879
Weight per Piece (excluding packing)	127.900 g
Custom tariff number	85437090
Country of origin	Germany

## Technical data

### Dimensions

Height	104.7 mm
Width	22.5 mm
Depth	114.5 mm

# Pulse measuring device - IPCH-4X-PCL-TCP-24DC-UT - 1045379

## Technical data

### Dimensions

Horizontal pitch	1.3 Div.
------------------	----------

### Ambient conditions

Ambient temperature (operation)	-25 °C ... 60 °C (I <sub>max</sub> = 4 A)
	-35 °C ... 85 °C (I <sub>max</sub> = 2 A)
Ambient temperature (storage/transport)	-35 °C ... 85 °C
Permissible humidity (operation)	30 % ... 95 % (non-condensing)
Permissible humidity (storage/transport)	30 % ... 95 % (non-condensing)
Altitude	≤ 2000 m (amsl (above mean sea level))

### General

Housing material	Polyamide
Color	traffic grey A RAL 7042
Mounting type	DIN rail: 35 mm
Type	DIN rail module, one-piece
Supports cloud computing	yes
Cloud platform	Proficloud

### Typical characteristics

Interface	Ethernet
Communication protocol	TCP/IP
	Modbus/TCP
	REST
Number	1
Connection method	RJ45
Note on the connection method	pluggable
Transmission speed	10/100 Mbps
Basic functions	Acquisition of sensor data
Operation	via Proficloud application and web interface
Operating voltage	24 V DC (-15% ... +20% including all tolerances and ripple)
Operating current	≤ 70 mA
Detectable values (current strength)	100 A ... 40 kA
Sampling rate	500 kHz
Maximum measuring period	1 s

### Connections

Connection name	24 V supply
Connection method	Screw terminal block
Number of connections	4
Screw thread	M3
Tightening torque	0.5 Nm ... 0.6 Nm
Stripping length	8 mm

# Pulse measuring device - IPCH-4X-PCL-TCP-24DC-UT - 1045379

## Technical data

### Connections

Note	The T connector can be used to bridge the supply voltage. It can be snapped onto a 35 mm DIN rail according to EN 60715.
------	--

### Remote indication contact

Connection name	SPD remote indication contact monitoring
Connection method	Screw terminal block
Screw thread	M3
Stripping length	8 mm

### EMC Directives

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Interference emission	Noise immunity test in accordance with EN 61000-6-2 Noise emission EN 61000-6-3/IEC 61000-6-3 Class B
Immunity to surge	Noise immunity test in accordance with EN 61000-6-2 Transient overvoltage (surge) EN 61000-4-5/IEC 61000-4-5 Criterion B; DC supply lines: $\pm 0.5$ kV/ $\pm 1$ kV (symmetrical/asymmetrical), fieldbus cable shielding: $\pm 1$ kV
Immunity to burst	Noise immunity test in accordance with EN 61000-6-2 Fast transients (burst) EN 61000-4-4/IEC 61000-4-4 Criterion A, 2.2 kV
Immunity to EF	Noise immunity test in accordance with EN 61000-6-2 Electromagnetic fields EN 61000-4-3/IEC 61000-4-3 Criterion A, Field intensity: 10 V/m
Immunity to ESD	Noise immunity test in accordance with EN 61000-6-2 Electrostatic discharge (ESD) EN 61000-4-2/IEC 61000-4-2 Criterion B, 6 kV contact discharge, 8 kV air discharge
Immunity to conducted interference	Noise immunity test in accordance with EN 61000-6-2 Conducted interference EN 61000-4-6/IEC 61000-4-6 Criterion A, Test voltage 10 V

### Standards and Regulations

Standards/specifications	EN 61000-6-2
	EN 61000-6-3

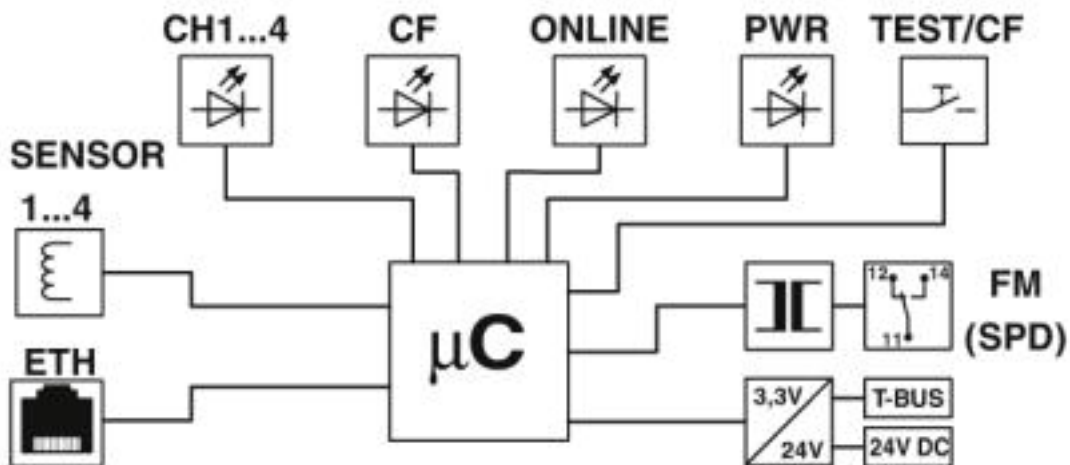
### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
------------	----------------

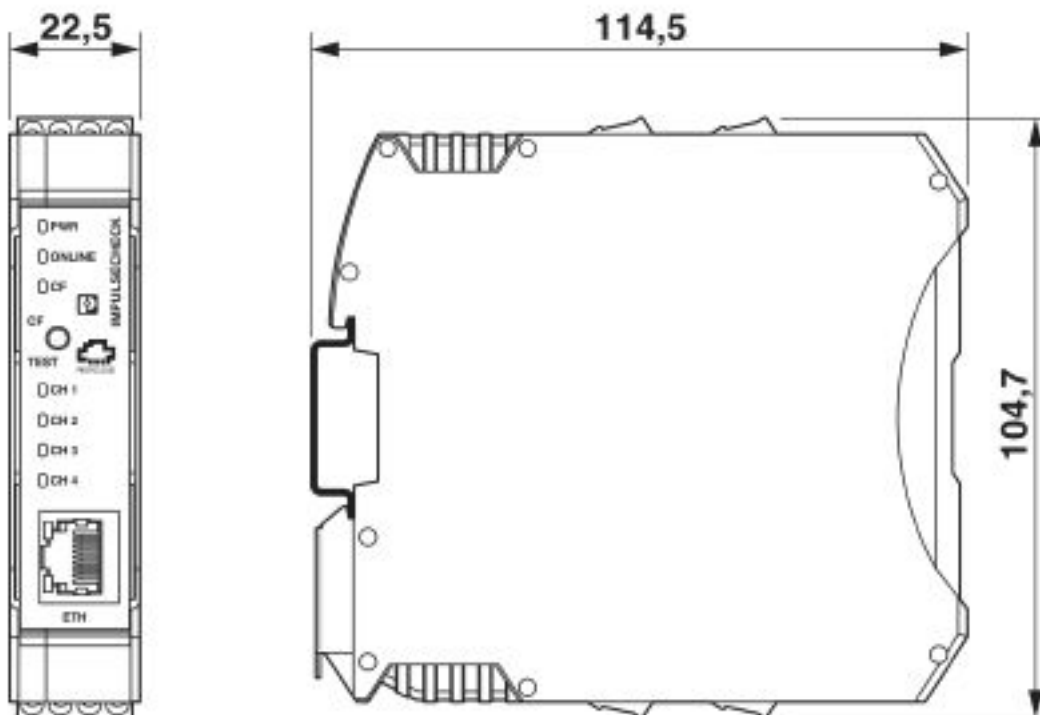
## Drawings

# Pulse measuring device - IPCH-4X-PCL-TCP-24DC-UT - 1045379

Block diagram

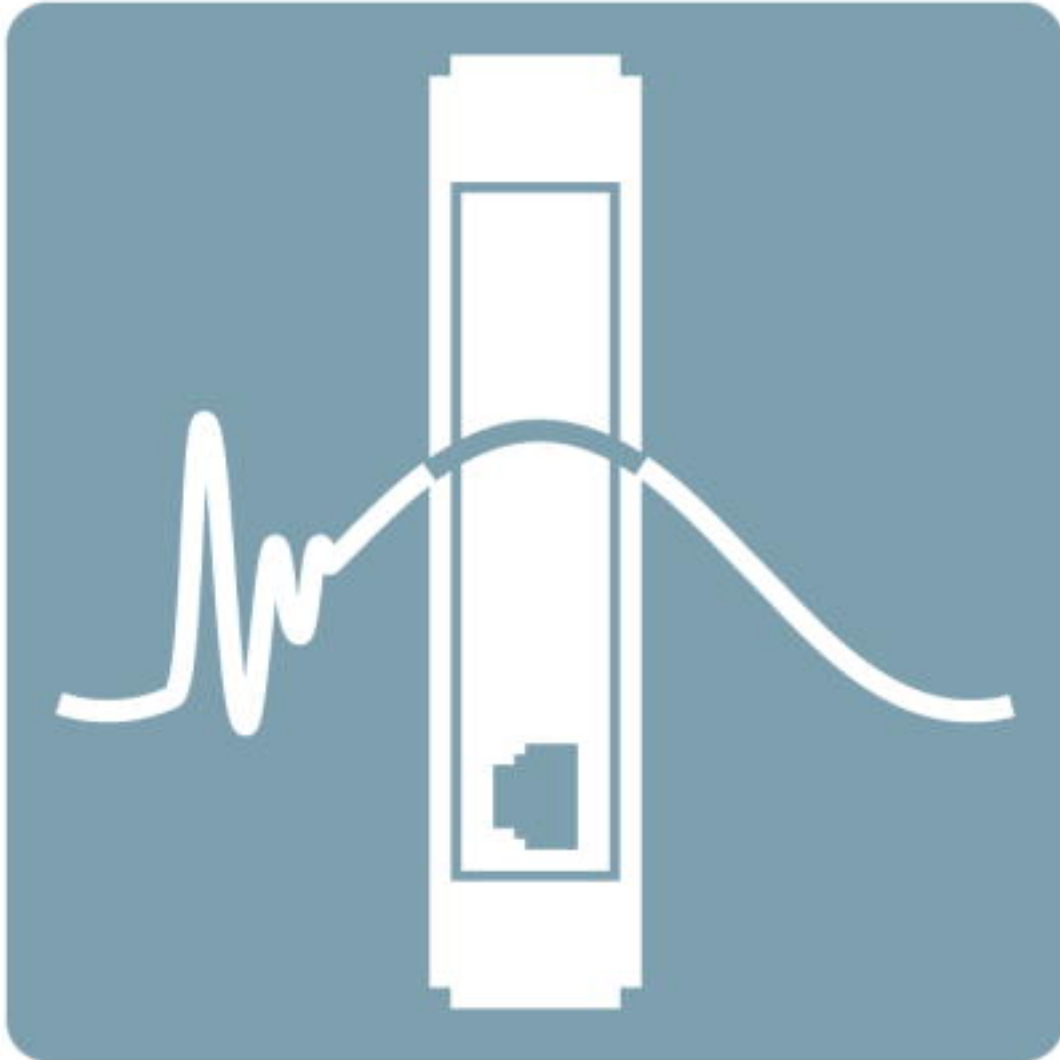


Dimensional drawing



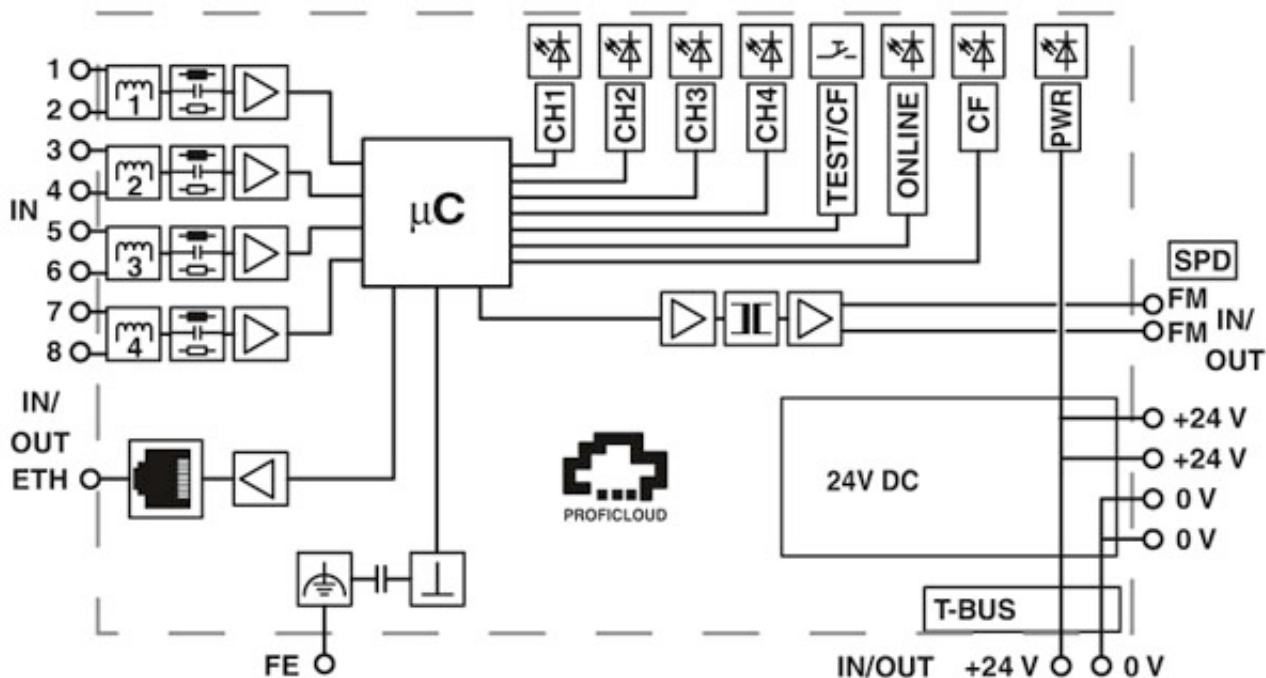
## Pulse measuring device - IPCH-4X-PCL-TCP-24DC-UT - 1045379

Pictogram



# Pulse measuring device - IPCH-4X-PCL-TCP-24DC-UT - 1045379

Circuit diagram



## Classifications

eCl@ss

eCl@ss 9.0	27200316
------------	----------

ETIM

ETIM 6.0	EC002300
ETIM 7.0	EC002300

## Accessories

Accessories

DIN rail connector

DIN rail bus connectors - ME 22,5 TBUS 1,5/ 5-ST-3,81 KMGY - 2713722



DIN rail connector, number of positions: 5, pitch: 3.81 mm, color: light gray, contact surface: Gold, Articles with gold-plated contacts, bus connectors for connecting with electronic housings

## Pulse measuring device - IPCH-4X-PCL-TCP-24DC-UT - 1045379

### Accessories

#### Necessary add-on products

Sensor - IPCH-SC-1.5 - 1045380



Pulse measuring device sensor for the real-time recording of surge currents and transient overvoltages. Length: 1.5 m.

---

Sensor - IPCH-SC-3.0 - 1069191



Pulse measuring device sensor for the real-time recording of surge currents and transient overvoltages. Length: 3.0 m.

---

---