



# PRCD-S+

## Operating manual

967011355x12\_Ver09\_17



PCE

Connection  
to the future

The PRCD-S+ is an all-pole switching portable RCD circuit breaker with electronic fault evaluation for use on socket outlets with unknown protection measures, enabling persons and electrical equipment to safely draw current from a feed point.

### Field of application:

As a portable residual current with a rated differential current of  $I_{\Delta n} \leq 30 \text{ mA}$  or  $I_{\Delta n} \leq 10 \text{ mA}$  for alternating currents, pulsating DC residual currents and phase-controlled residual currents.

Personal protective devices for emergency services must be connected directly into the mains power. No further electrical devices should be plugged in between the mains power and the Personal protective devices, e. g. cable drums.

If the electrical system is unknown, only one electrical devices can be connected to the Personal protective devices!

### Test instruction:

Personal protective devices for emergency services must be tested before each use by pressing the test button.

### Function:

- The PRCD-S+ isolates all poles when tripped: In the event of a fault, the power supply via L and N is interrupted and the signal unit on the device lights up red. For additional safety, the PE conductor contact nevertheless remains closed until the fault has been cancelled. When the fault has been remedied, the PRCD-S+ can be activated again with the press of a button.
- Every time the device is switched on, a routine check is performed to test the safe condition of the socket outlet.
- The PE conductor circuit is switched on in advance and switched off with a delay
- The integral undervoltage trip prevents automatic restarting after a power failure or an interruption in the power supply.
- The integral surge voltage protection detects 400 VAC and 220 VDC and does not allow these to pass (a weak point occurs).
- The PRCD-S+ cannot be switched on or switches itself off if:
  - The PE conductor is interrupted.
  - A fault voltage is measured on the PE conductor.
  - A surge voltage or undervoltage is detected.
  - A broken conductor is detected.

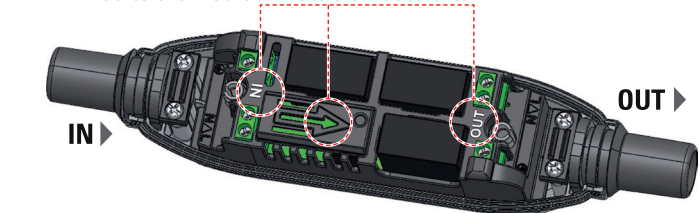
In the event of a fault voltage on the PE conductor, the protection device switches off the L and N conductor but maintains the connection to the PE conductor circuit.

### The PRCD-S+ detects and protects in the case of the following faults:

- N conductor interrupted
- External voltage on the PE conductor
- Surge voltage
- Wiring errors (L and PE conductor reversed)
- PE conductor interrupted
- Undervoltage or voltage failure
- DC voltage
- Fault currents with rated values of 30 mA or 10 mA

### Installation:

- Installation, commissioning and function testing must be carried out by a qualified electrician!
- Observe the 5 safety rules!
- The direction of the energy flow must be maintained at all times!
- When connecting the device, pay attention to the designations "IN" and "OUT" and to the direction on the arrow in the cover of the electronics.



- The PRCD-S+ must be subjected to regularly recurring inspections in accordance with the national statutory regulations and the regulations in the country of use, e.g. DIN VDE 0701-0702. Inspection recommendations can be found at [www.prcd-s.info](http://www.prcd-s.info).

### Technical data:

Rated voltage 230V- / Rated frequency 50Hz / Rated current 16A  
 rated residual current 10 mA (Art. No. 967011155) / 30 mA (Art. No. 967011355)  
 Ambient temperature -25°C to +45°C  
 Connection cross-section: 1-2.5mm<sup>2</sup>  
 Cable dismantling length: 35 mm / wire stripping length: 7 mm

Tightening torque	Housing screw	Strain relief	Contact screw
Ncm	180	80	80

Connecting lead type in accordance with the national statutory regulations and regulations in the country of use. Cable diameter 9-14 mm  
 Protection class IP55 • Standards/code DIN VDE 0661 and DGUV Information 203-006 (former BGI/GUV-I 608)

### Operation:



#### Switch ON

- Insert the mains plug of the PRCD-S+ into a socket outlet. If the mains power supply is OK, the signal unit **flashes** after approx. 1-2 sec. Testing time of the unit in **GREEN**.



- Press and briefly hold the button of the PRCD-S+. A routine check is performed within <1 sec. (connection, mains supply,...). The PRCD-S+ switches ON, the signal unit illuminates **continuously** in **GREEN**.
- The PRCD-S+ is now ready for operation. The button can now be released.



#### Switch OFF

- Press the button on the PRCD-S+ briefly.
- The signal unit **flashes GREEN**.
- All poles of the PRCD-S+ are now switched off.

### The PRCD-S+ must not be used for:

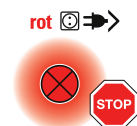
- Heating appliances or similar applications (no automatic restarting after a power failure)
- Machines with high starting currents
- IT current networks (isolating transformers, power generators, etc....). The presence of a PE conductor is mandatory for the function of the PRCD-S+.



**Differential current faults** are indicated by the signal unit **flashing red**. In this case, the PRCD-S+ from PCE gives a visual warning and switches off immediately. The PE conductor circuit is maintained until the fault is cancelled! **Maximum possible personal protection is assured.**



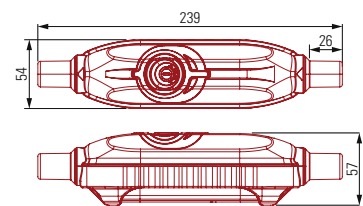
**Measuring errors** caused, for example, by the wearing of a glove when switching on are indicated by the signal unit **flashing red**. In this case, the PRCD-S+ from PCE gives a visual warning and does not switch on. **Maximum possible personal protection is assured.** After acknowledging the fault, repeat the starting procedure without a glove or after changing your location.



If, when switching on, the signal unit **illuminates red or remains neutral** within approx. 1 sec., there is a **fault**. The PRCD-S+ does not switch ON. **Maximum possible personal protection is assured.** Consult a qualified electrician.

**5 SAFETY RULES:**  
**Before starting work:**

- Disconnect mains!
- Prevent reconnection!
- Test for absence of harmful voltages!
- Ground and short circuit!
- Cover or close of nearby live parts!



### Contact details of manufacturer:

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