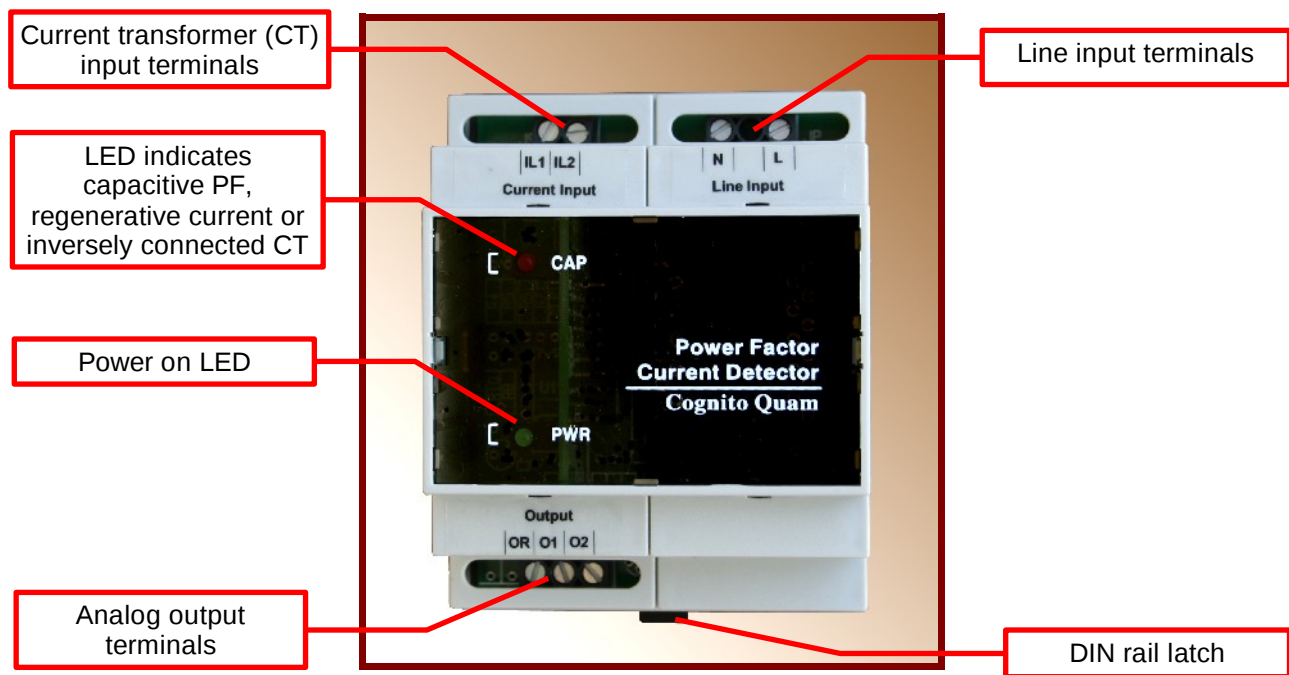


PFCDxx-xxx Power Factor Current Detector

The PFCDxx-xxx power factor current detector measures the apparent and either the active or reactive current in a single- or three-phase power line to respectively produce a set of two 10 VDC analog signals. The two outputs can then be used by a PLC or other controlling device to calculate line power factor as well as monitor the applicable active or reactive current characteristics. It is very simple to install and adaptable to all power factor compensation applications.



Power Factor Current Detector PFCD1R

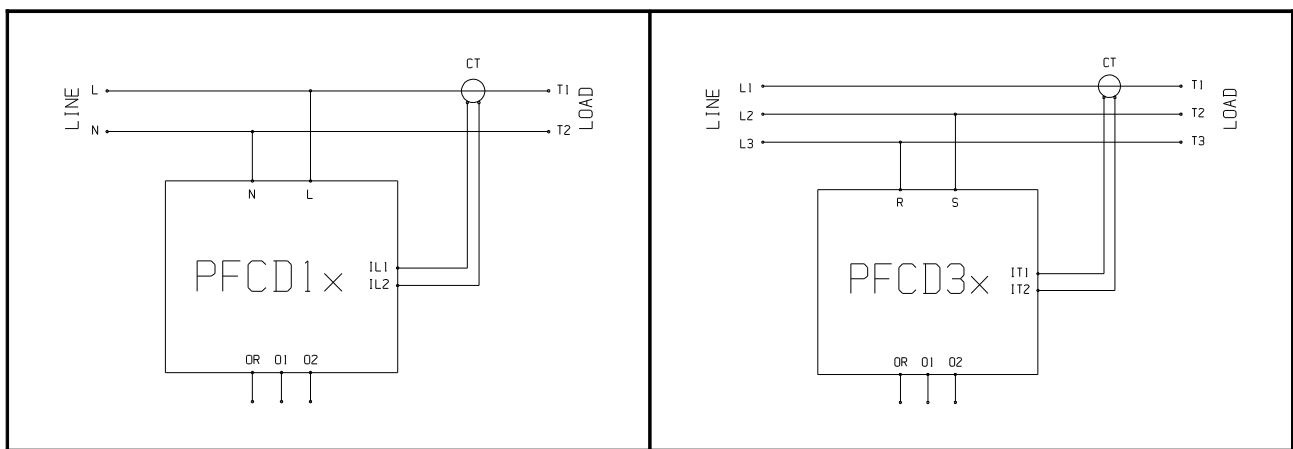
The PFCD measures the power factor related currents in a single-phase (PFCD1x-xxx models) or three-phase (PFCD3x-xxx models) system and produces a unipolar 0-10 VDC signal representing the apparent current and a bipolar ± 10 VDC signal representing the active (PFCDxA-xxx models) or reactive (PFCDxR-xxx models) current. The current is picked up with a current transformer (CT) in one of the phase lines with a response time of about 3 seconds.

The PFCD's versatility and fast response make it particularly suitable for integrating into systems such as:

- Power factor measurement and compensation,
- Power factor and energy flow measurement,
- Reactive current measurement and compensation, and
- Line current measurement and overload/underload protection.

The PFCD is designed for single-phase (PFCD1x-xxx models) or three-phase (PFCD3x-xxx models) lines. Characterizing features are shown in the following table.

PFCDxx Characteristics	
Line connection	The PFCD connects to two of the three phase lines and no connection is needed to the neutral for the three-phase version (PFCD3x-xxx models).
Current detection	By standard 5 A secondary current transformer.
Phase sensitive detection	The active or reactive current is measured without being affected by noise and harmonics in the line.
Analog outputs	Analog outputs can drive loads with up to 10 mA.
Indicating LEDs	LEDs show the power supply state and the existence of capacitive current in the monitored line or an inversely connected CT.
Isolated control circuit	Isolated control circuit enhances safety and noise immunity.
Protection	Protection against line overvoltages and faults.



Connection diagram of a PFCD1x-xxx to a single-phase line (left) and PFCD3x-xxx to a three-phase line (right).

Ordering Information by Line Voltage					
Description	120 V, 60 Hz lines	230 V, 50 Hz lines	240 V, 60 Hz lines	400 V, 50 Hz lines	480 V, 60 Hz lines
PF active current detector, single-phase	PFCD1A-120	PFCD1A-230	PFCD1A-240		
PF reactive current detector, single-phase	PFCD1R-120	PFCD1R-230	PFCD1R-240		
PF active current detector, three-phase	PFCD3A-120		PFCD3A-240	PFCD3A-400	PFCD3A-480
PF reactive current detector, three-phase	PFCD3R-120		PFCD3R-240	PFCD3R-400	PFCD3R-480

Supplied by