

PCD7.L452 Coupling Module

Description

The analog data encoder PCD7.L452 is used as a regulating encoder for manual setting of manipulated variables e.g. for mixing valves, valve settings, temperatures etc.

Function description

The module offers three operation modes selectable by the three-position switch (ON, OFF, AUTO). The switch position is signaled by the external control contacts B1 and B2.

Switch position "ON"

The regulating variable is selected with the front-mounted potentiometer. The 0 to 10 V output signal is available at contact Y.

Switch position "AUTO"

The regulating variable is looped through without change to output Y via contact YR.

These coupling modules are provided with spring clamp terminal blocks allowing easy and quick wire termination. No tool is required to terminate solid wires and stranded wires with end sleeves. And to terminate stranded wires without end sleeves just a screwdriver will do. The terminated wires are easy to release with a screwdriver.

Technical Data

Input voltage 0 ... 10 V DC
Output voltage 0 ... 10 V DC

Input

operating voltage UN 24 V AC/DC
current consumption
at 24 V AC max. 30 mA
at 24 V DC 19 mA
current consumption (input YR)
at 10 V DC max. 2 mA
operating voltage range 0.85 ... 1.2 × UN
duty cycle 100 %
status indication of the output red LED, intensity of the LED is proportional to the manipulated variable
proof against short-circuits

Breaking Capacity of Switch

breaking capacity max. 24 V / 50 mA AC/DC
breaking capacity min. 20 mV / 1 µA AC
mechanical endurance 5 × 10⁵ switching cycles
test voltage 500 V, 50 Hz, 1 min.

Output

output current (output Y) in switch positions "AUTO/ON/OFF" 10 mA

Temperature range

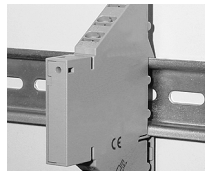
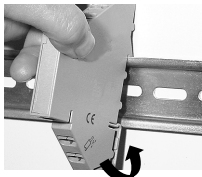
operating temperature range -20 °C ... +55 °C
storage temperature range -25 °C ... +70 °C

Housing

type of protection (EN 60 529) IP20
material polyamide 6.6 V0
wire cross section
single wire 0.08 - 2.5 mm²
stranded wire w/o end sleeve 0.08 - 2.5 mm²
stranded wire with end sleeve 0.08 - 1.5 mm²
dimensions W × H × L 11.2 × 88 × 60 mm
weight 43 g
mounting position any
mounting Standard rail TH35 per IEC 60715

Mounting

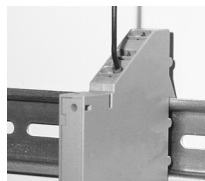
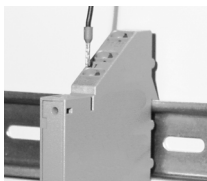
On standard rail TH35 per IEC 60715 (35 × 7.5 mm), in junction boxes And/or distribution panels.



Installation

Electric installation and device termination shall be done by qualified persons only, by respecting the VDE specifications and local regulations.

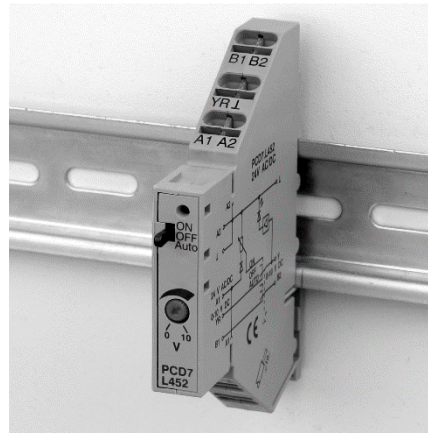
1. Power down the equipment.



2. Strip the wire by 10 mm. Wire cross section:

Solid wire 0.08 - 2.5 mm²
Stranded wire w/o end sleeve 0.08 - 2.5 mm²
Stranded wire with end sleeve 0.08 - 1.5 mm²

a) Solid wires and wire with end sleeves are plugged directly
Insert the wire straight into the contact and press until the wire snaps in the spring.

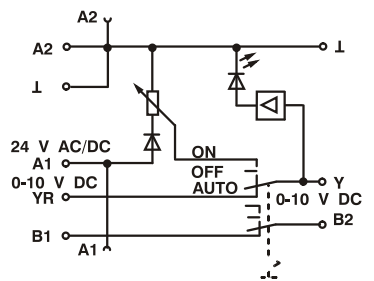


b) When terminating stranded wires without end sleeves it is necessary to open the spring with a flat-bladed screwdriver (blade width max. 3.0 mm): enter the screwdriver to the test sleeve situated below the Contact and remove the screwdriver.

Wiring

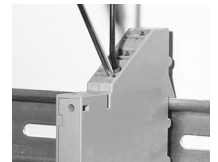
B1	B2	B1, B2 manual checkback function YR, I voltage input A1, A2 operating voltage Y, I voltage output
YR	I	
A1	A2	
Y	I	

m. Wiring diagram



4. Release a wire

Open the spring by inserting a flat-bladed screwdriver (blade width max. 3.0 mm) to the test sleeve situated below the contact and remove the wire.

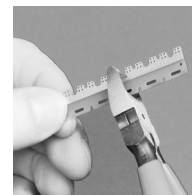
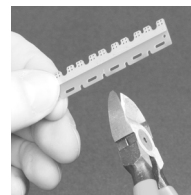


5. Release the Module from the standard rail

Slightly push the clamp at the bottom of the module with a flat-bladed screwdriver and draw off upwards.

Connecting Bridge

The connecting bridge (Order-Nr. PCD7.L291) allows to interconnect up to 10 coupling modules (total current max. 2 A).



Cut the needed number of contacts with wire cutting pliers at the respective predetermined cutting point. Then insert the connecting bridge from the top into the contact slot and press it downwards into place.



The tails of the connecting bridge carry potential, therefore place the bridge in the middle of the aligned modules to eliminate any accidental touch.