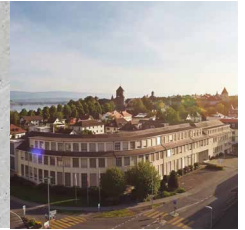


PCD3.W800

Analogue manual control module with 4 output channels, 0...+10 V, 10 bit resolution

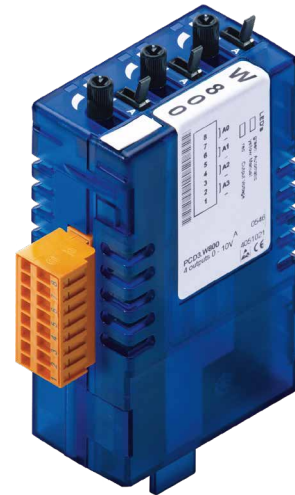


- 3 outputs 0...10 V with local control
- 1 output 0...10 V without local control

Application

The PCD3.W800 module is a rapid analogue output module with a manual control option. In Automatic mode, there are 4 analogue 0...+10 V output channels available, each with 10 bit resolution.

Three of the analogue output channels have manual control functionality. In this mode, the output voltage is preset via the potentiometer on the front panel.

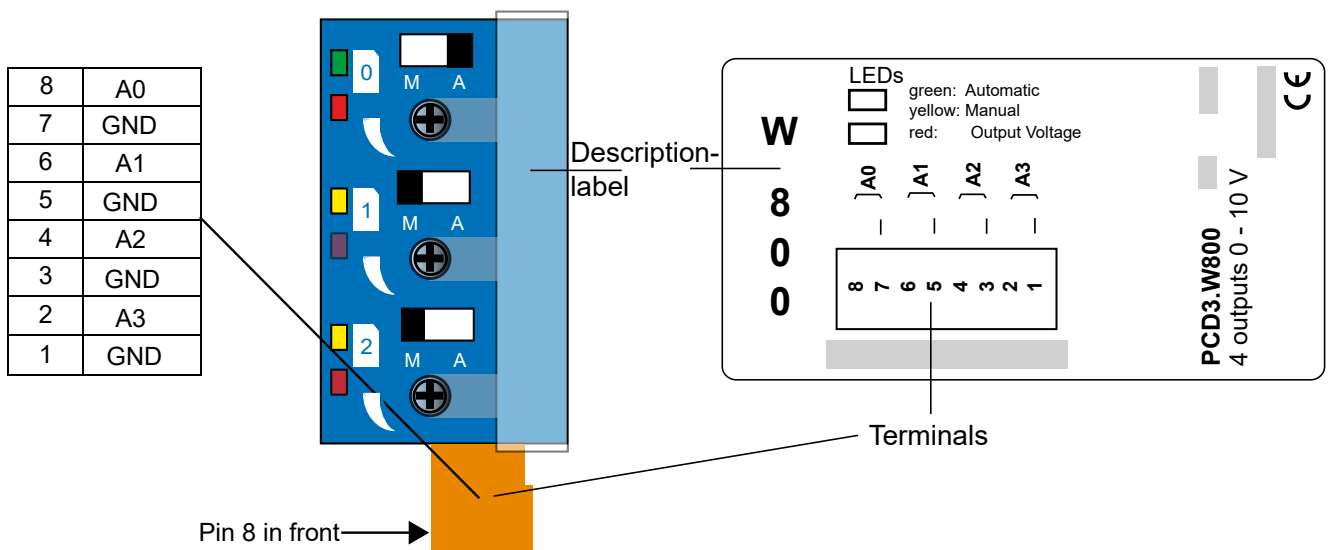


PCD3.W800



I/O modules and I/O terminal blocks may only be plugged or unplugged when the CPU is de-energized. An external power supply at their connections must also be switched off.

Indicators and connections



Technical data

Automatic mode

Output ranges	Voltage 0...+10 V
Channels	4 analogue outputs O0...O3 (3 with manual operation O0...O2)
Resolution	10 mV
Digital representation	10 bits (0...1023)
Load resistance	> 3 kΩ
Accuracy at 25°C *	±0.4 %
Temperature error (0...+55°C)	±0.25 %, 100 ppm/K or 0.01 %/K
Short circuit protection	Yes (permanent)
Time constant of output filter	typically 1 ms

Manual operation mode

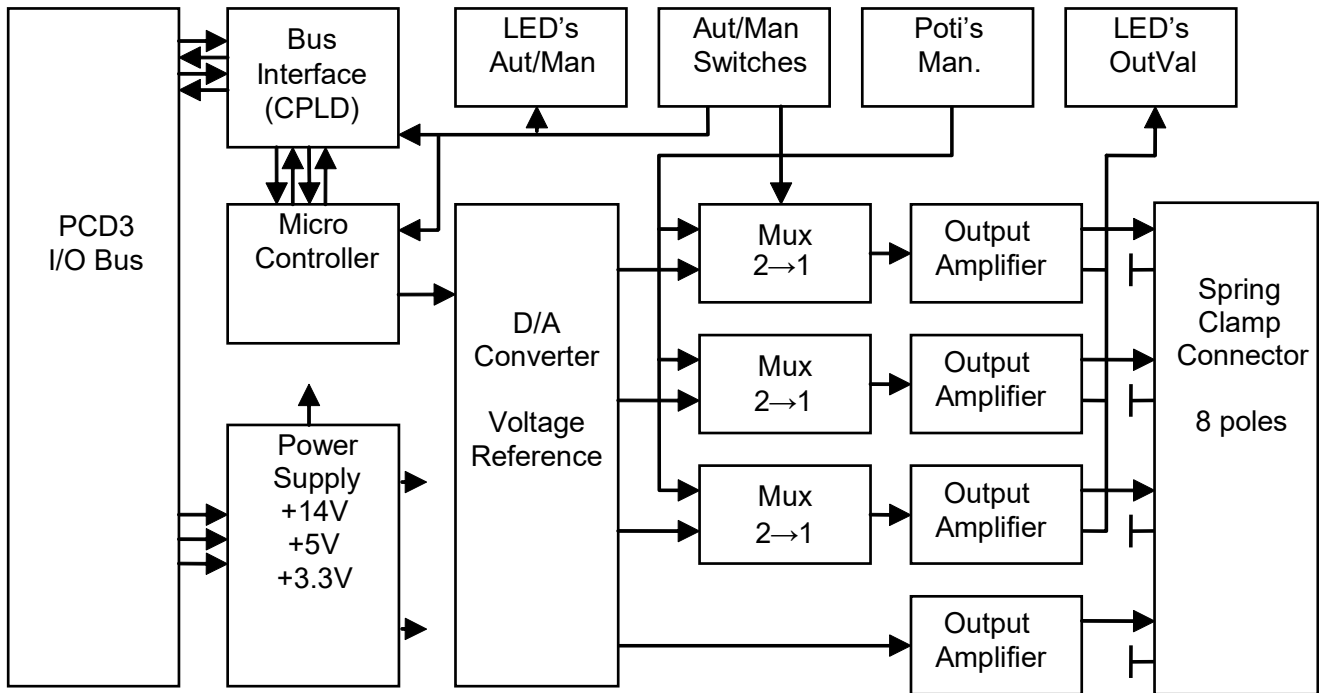
Output ranges	Voltage 0...10 V
Range of settings for potentiometer	0°...280° ±5°
Output voltage at rotation angle 0°	typically 0 V
Output voltage at rotation angle 140°	typically 5 V
Output voltage at rotation angle 280°	typically 10 V
Accuracy at end stop	±5 %
Linearity error of potentiometer	±20 %
Operating torque of the potentiometer	< 0.01 Nm
Lifetime of potentiometer	> 5000 cycles

General data

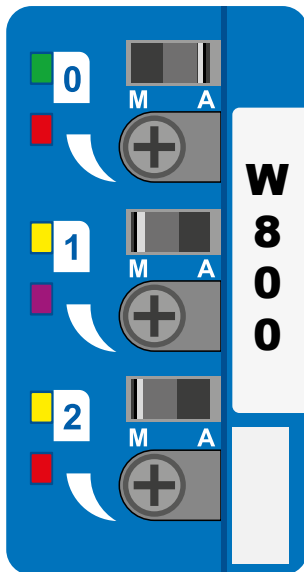
Internal current consumption (from +5 V bus)	max. 55 mA
Internal current consumption (from V+ bus)	typically 20 mA / max. 35 mA
External current consumption	---
Connections	Pluggable 8-pole cage clamp terminal block (4 405 4934 0), for wires up to 1.5 mm ²

* Tolerance value for output signals > 100 mV

Block diagram



Control elements



Channels A0...A2 each have a toggle switch with the two positions Manual and Automatic.

There are 2 LEDs fitted per channel.

The upper LED is two-colour and displays the operating mode for the channel:

amber = Manual
green = Automatic.

The brightness (red) of the lower LED displays the output voltage of the channel (Manual and Automatic).

Example (left side):

Output 0:	Automatic: Value (100 %)	LED 1 = green
		LED 2 = red (max.)
Output 1:	Manual: Value (15 %)	LED 1 = amber
		LED 2 = red (weak)
Output 2:	Manual: Value (85%)	LED 1 = amber
		LED 2 = red (strong)

Digital/analogue values			
Output signals	Digital values		
	Classic	xx7	Simatic
+10.0 V	1023	1023	27684
+5.0 V	511	511	13842
0 V	0	0	0

The user is able to set application-specific parameters. It is possible for example to work directly in %. For this purpose, the appropriate parameters should be set to 0...1,000 in the FBox, corresponding to 0...100% in the HeaVAC library.

**ATTENTION**

These devices must only be installed by a professional electrician, otherwise there is the risk of fire or the risk of an electric shock.

**WARNING**

Product is not intended to be used in safety critical applications, using it in safety critical applications is unsafe.

**WARNING - SAFETY**

The unit is not suitable for the explosion-proof areas and the areas of use excluded in EN 61010 Part 1.

**WARNING - SAFETY**

Check compliance with nominal voltage before commissioning the device (see type label). Check that connection cables are free from damage and that, when wiring up the device, they are not connected to voltage. Do not use a damaged device !

**NOTE**

In order to avoid moisture in the device due to condensate build-up, acclimatise the device at room temperature for about half an hour before connecting.

**CLEANING**

The device can be cleaned in dead state with a dry cloth or cloth soaked in soap solution. Do not use caustic or solvent-containing substances for cleaning.

**MAINTENANCE**

These devices are maintenance-free.
If damaged during, no repairs should be undertaken by the user.

**GUARANTEE**

Opening the module invalidates the guarantee.



Observe this instructions (data sheet) and keep them in a safe place.
Pass on the instructions (data sheet) to any future user.

**WEEE Directive 2012/19/EC Waste Electrical and Electronic Equipment directive**

The product should not be disposed of with other household waste. Check for the nearest authorized collection centers or authorized recyclers. The correct disposal of end-of-life equipment will help prevent potential negative consequences for the environment and human health.



EAC Mark of Conformity for Machinery Exports to Russia, Kazakhstan or Belarus.



PCD3.W800



4 405 4934 0

Ordering information

Type	Short description	Description	Weight
PCD3.W800	Analogue output module with local override functionality	Analogue local control module with 4 channels, 10 bits - 3 outputs 0...10 V with local control - 1 output 0...10 V without local control (connector type J included)	80 g

Ordering information Accessories

Type	Short description	Description	Weight
4 405 4934 0	connector type "J"	Plug-in I/O spring terminal block, 8-pole up to 1.5 mm ² , labelled 1 to 8, for manual control module PCD3.W800, connector type "J"	8 g

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