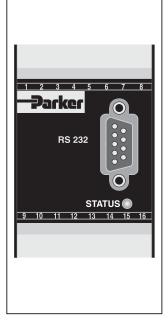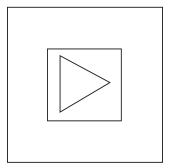## General Description

Series PCD00A-400 electronic module for driving proportional pressure control and proportional throttle valves is compact and easy to install with DIN rail mounting and plug-in terminals. The module is designed to drive two coils independent of each other. The digital design allows for programmable parameters such as solenoid drive current, mins, maxs, ramps and setpoints. The module provides flexibility and repeatability from unit to unit. The module parameters are programmed with an RS-232 interface and user friendly software (ProPxD) with default values for standard valves.

The PCD00A-400 module contains the functions required by typical pressure control and throttle valve applications (series RE*W, PE*W, DSAE, VBY, VMY, TDA, and TEA valves).

Features

- Two independent valve drivers.
- Ramps, Setpoints, Mins, Maxs.
- 5 output current selections.
- Programmable parameters.
- RS-232 Interface.

- User friendly programming software.
- Plug-in terminals.
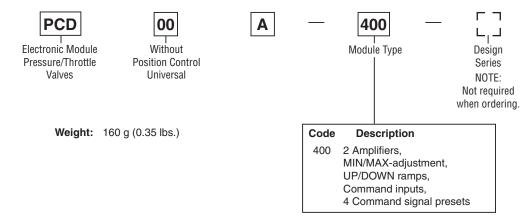- Compliant with European EMC Standards.

Specifications

General			
Model	Module package for snap-on mounting on EN 50022 rail	**Mounting Position**	Any
		Ambient Temperature Range	-20°C to +60°C (-4°F to +140°F)
Package Material	Polycarbonate		
Inflammability Class	V2 to V0 acc. UL 94	**Protection Class**	IP 20 acc. DIN 40050

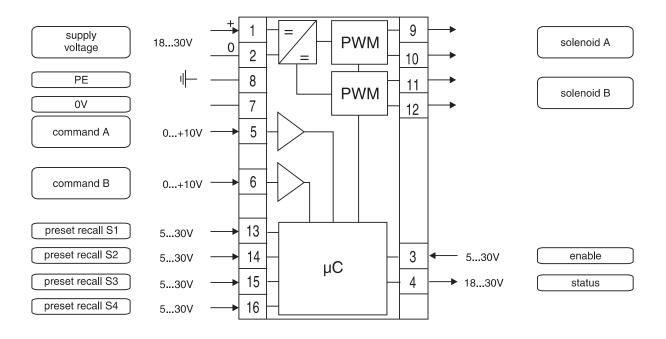| Electrical			
Duty Ratio	100%	**Status Signal**	Off – 0 to 0.5 VDC; On – Us; rated max. 15 mA
Supply Voltage	18 VDC to 30 VDC, ripple < 5% eff., surge free* (29 VDC to 30 VDC for 24 V coils)	**Adjustment Ranges** preset Minimum 0 to 50% 0 to 1000 Maximum 50 to 100% 0 to 1000 Ramp Time 0 to 32.5 s 0 to 32.5 Current 0.8/3.5/2.7/1.8/1.3 A 0/1/2/3/4/5	
Switch-on Current Typ.	22A for 0.2 mS		
Current Consumption Max.	5.0A	**Interface**	RS 232C, DSub 9p. male for null modem cable
Pre-fusing	6.3A medium lag	**EMC**	EN 50081-2, EN 50082-2
Command Signal	0 to +10 VDC, ripple < 0.01 % eff., surge free, Ri = 150K ohm	**Connection**	Screw terminals 0.2 to 2.5 mm², plug-in
Input Signal Resolution	0.025%	**Cable Specification**	16 AWG overall braid shield for supply voltage and solenoids
Differential Input Voltage Max.	30V for terminals 5 and 6 against PE (terminal 8)		20 AWG overall braid shield for sensor and signal
Enable Signal	Off – 0 to 5.0 VDC; On – 8.5 to 30 VDC; Ri = 30K ohm	**Cable Length**	50m (164 ft.)
Channel Recall Signal	Off – 0 to 5.0 VDC; On – 8.5 to 30 VDC; Ri = 30K ohm		

PCD00A-400.indd, ddp
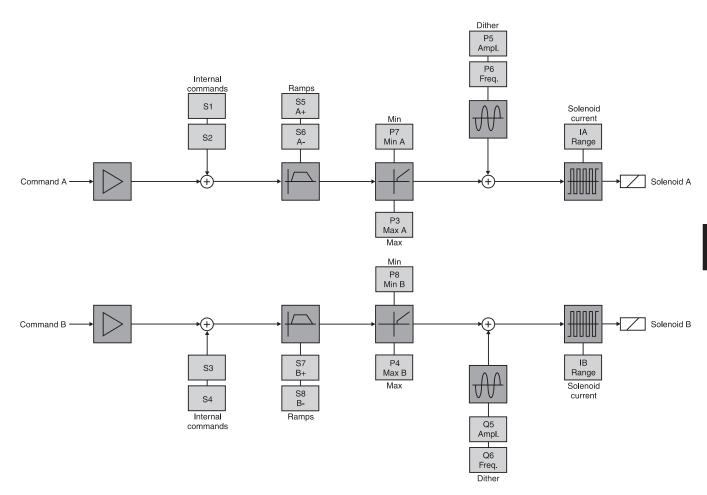
Ordering Information

PCD	00	A	—	400	—	⌐¬ ∟_
Electronic Module Pressure/Throttle Valves	Without Position Control Universal			Module Type		Design Series NOTE: Not required when ordering.

Weight: 160 g (0.35 lbs.)

Code	Description
400	2 Amplifiers, MIN/MAX-adjustment, UP/DOWN ramps, Command inputs, 4 Command signal presets

Block Diagram — Wiring

Signal Flow Diagram

Dither
| P5 Ampl. |
| P6 Freq. |

Internal commands
| S1 |
| S2 |

Ramps
| S5 A+ |
| S6 A- |

Min
| P7 Min A |

Solenoid current
| IA Range |

Command A →

| P3 Max A |
Max

Solenoid A

Min
| P8 Min B |

Command B →

| S3 |
| S4 |
Internal commands

| S7 B+ |
| S8 B- |
Ramps

| P4 Max B |
Max

| IB Range |
Solenoid current

Solenoid B

| Q5 Ampl. |
| Q6 Freq. |
Dither

Dimensions

Inch equivalents for millimeter dimensions are shown in (**)

75.0
2.95

45.0
1.77

110.0
4.33

ProPxD Interface Program

The new ProPxD software permits comfortable parameter setting for the electronic module series PCD, PWD, PZD and PID.

Via the clearly arranged entry mask the parameters can be noticed and modified. Storage of complete parameter sets to floppy or hard disk is possible as well as printout or record as a text file for further documentation. Stored parameter sets may be loaded anytime and transmitted to the electronic module in the same manner as the basic parameters which are available for all usable valve series. Inside the electronic a nonvolatile memory stores the data with the option for recalling or modification.

Features

- User-friendly editing of all parameters.

- Storage and loading of optimized parameter adjustments.

- Executable with all Windows® operating systems from Windows® 95 upwards.

- Communication between PC and electronic via serial interface RS-232 and null modem cable.

- Simple to use interface program. Download free of charge **www.parker.com/euro_hcd → Services → downloads**

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