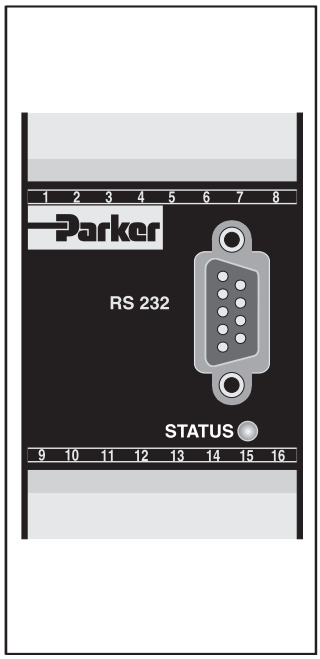
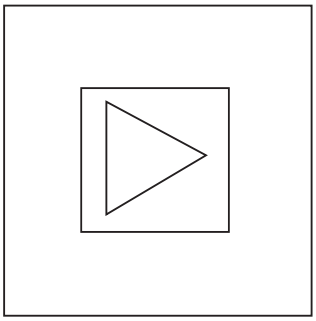
Technical Information





CE

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General Description

Parker electronic modules PID00A-40* for rail mounting are compact, easy to install and provide time saving wiring by disconnectable terminals. The digital design of the circuit results in good accuracy and optimal adaption for closed loop controls by a comfortable interface program.

Features

The described electronic unit combines all necessary functions for the optimal operation of closed loop controls. The most important features are:

- Extended PID controls.
- Speed control with position feedback.
- Differential input stage with different signal options.
- Output stage with different output options.
- Four-quadrant ramp function.
- Status indicator.
- Digital circuit design.
- Parametering by serial interface RS-232.
- Connection by disconnectable terminals.
- Compatible to the relevant European EMC standards.
- Optional technology function "linearization"
- Simple to use interface program.

Ordering Information

PID	00	A	—	40	—	□	—	⌜ ⌟
Electronic Module Closed Loop Control	Universal			Min/Max Ajustment Accel/Decel Ramps Command Input		Technology Function		Design Series NOTE: Not required when ordering.

Code	Function
0	Standard
1	Linearization Option

D01_Cat2550.indd, ddp, 04/19

Parker Hannifin Corporation
Hydraulic Valve Division
Elyria, Ohio, USA

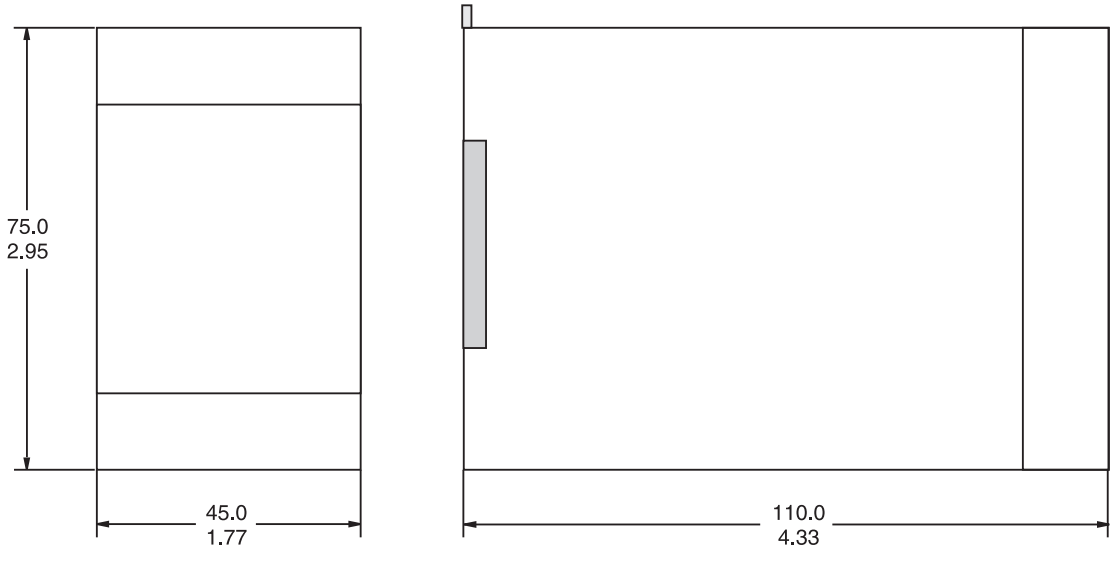
Specifications

General	
Model	Module package for snap-on mounting on EN 50022 rail
Package Material	Polycarbonate
Inflammability Class	V2...V0 acc. UL 94
Mounting Position	Any
Ambient Temperature	-20°C to +60°C (-4°F to +140°F)
Protection Class	IP 20 acc. DIN 40050
Weight	0.16 kg (0.35 lbs.)
Electrical	
Duty Ratio	100%
Supply Voltage	18...30 VDC, ripple <5% eff., surge free
Current Consumption Max.	100 mA
Pre-fusing	500 mA
Command Signal Options	+10...0...-10 V, ripple <0.01 eff., surge free, Ri = 100 kOhm +20...0...-20 mA, ripple <0.01 eff., surge free, Ri = 200 kOhm 4...12...20 mA, ripple <0.01 eff., surge free, Ri = 200 kOhm <3.6 mA = solenoid output OFF, <3.8 mA = solenoid output ON, (acc. NAMUR NE43)

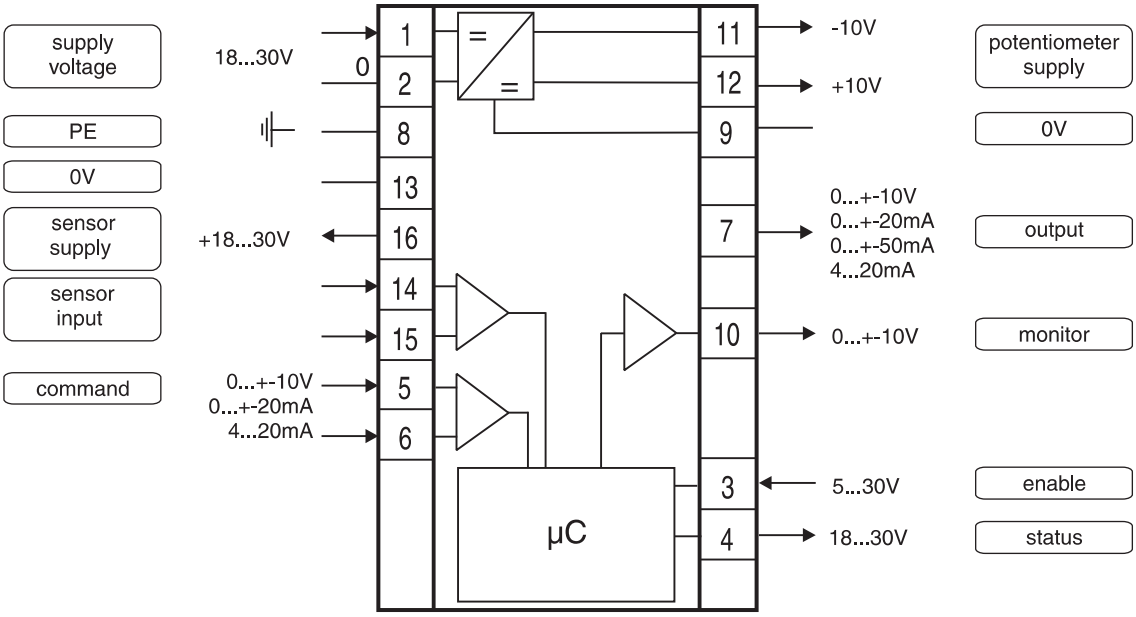
Electrical (cont.)	
Input Signal Resolution	0.025 %
Differential Input Voltage Max.	30 V for terminals 5 and 6 against PE (terminal 8)
Enable Signal	0...2.5 V: OFF / 5...30 V: ON Ri = 100 kOhm
Status Signal	0...0.5 V: OFF / Us: ON rated 15 mA maximum
Monitor Signal	+10...0...-10 V, rated 5 mA max., signal resolution 0.4%
Adjustment Ranges	Minimum: 0...50 % Maximum: 50...100% Ramp: 0...32.5 s Zero Offset +100%...-100%
Interface	RS 232C, DSub 9p. male for null modem cable
EMC	EN 50081-2, EN 50082-2
Connection	Screw Terminals 0.2...2.5 mm², disconnectable
Cable Specification	20 AWG overall braid shield
Cable Length	50 m (164 ft.)
Options	
Technology Function	Code 1: Software adjustable transfer function with 10 compensation points for linearization of valve behavior

Dimensions

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



Block Diagram — Wiring



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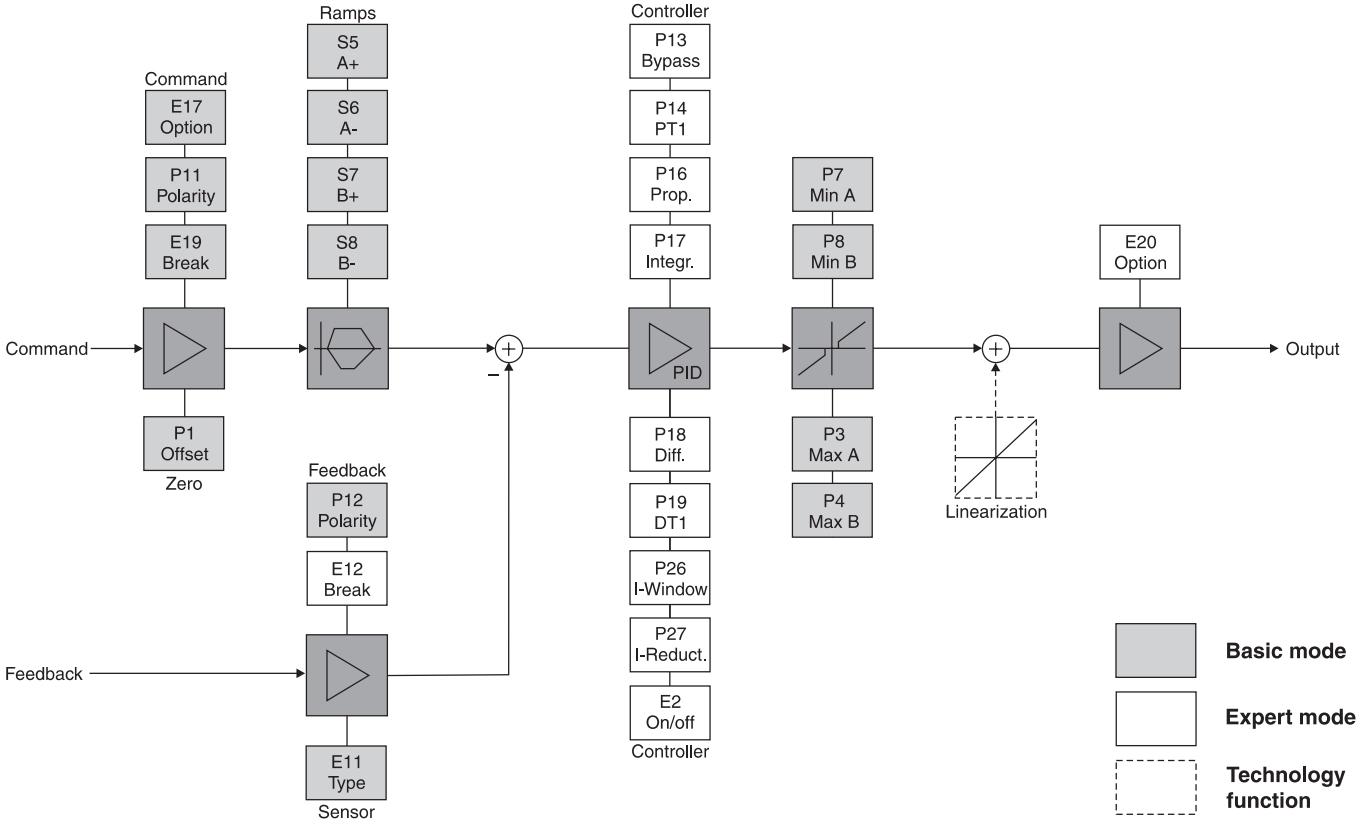
Signal Flow Diagram



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**