

### General Description

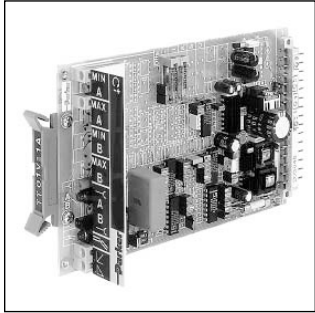
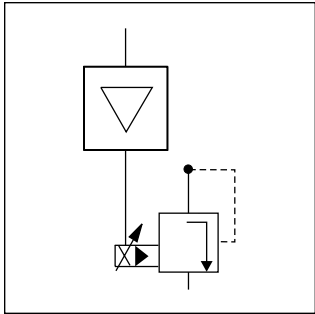
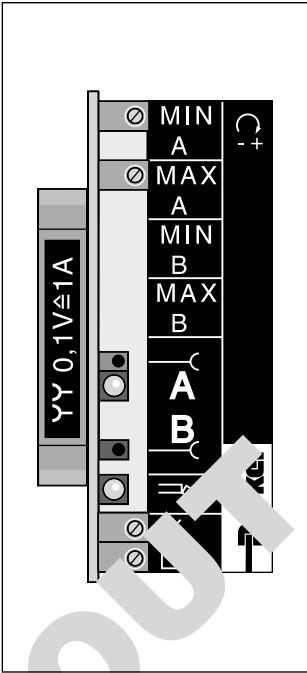
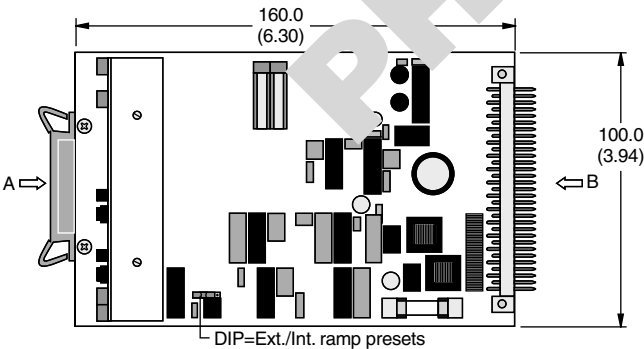
Series ED104 electronic module is used to control DSA/DWE/DWU pressure control valves. The module accepts a 0 to 10 volt command signal, and produces a proportionally linear output current used to drive the valve's proportional solenoid. Two ramp adjustments provide smooth transition between selected pressures. Note that the linearity of the valve itself determines the linearity of the system. Refer to the specific valve data for actual linearity performance.

### Features

- Processing and amplification of the externally supplied positive set-values into output signals for the control solenoid.
- Can be combined with EZ150 or external programmable control.
- DIP switch from internal ramp generation to external ramp setting.
- MIN/MAX limiters for matching the working range to the full set value range.
- Pulsed low-loss amplifier power stage with supporting constant current control for consistent, temperature-independent, solenoid forces.
- Dither generator with applied frequency to improve static characteristics.
- Diagnosis by means of diagnostic sockets as well as LEDs for indicating working conditions.

### Dimensions

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



### Specifications

<b>Connection</b>	31 Pole Male Connector, DIN 41617
<b>Power Supply</b>	Regulated: 18-26V Unregulated: 22-38V
<b>Command Signal</b>	0 to +10 VDC and 0 to -10 VDC
<b>Input Select Voltage</b>	5 to 30 VDC
<b>Power Required</b>	40 VA
<b>Reference Outputs</b>	+10 VDC 10 mA
<b>Max. Solenoid Output Current</b>	1.3A with set value 10V
<b>Ambient Temp. Range</b>	0°C to +70°C (+32°F to +158°F), Standard Range
<b>Ramps</b>	0 to 5 seconds adjustable
<b>Shielded Cable Connection</b>	Supply connections + valve: 1.5 sq. mm (16 AWG) Command Signals: 0.5 sq. mm (20 AWG)
<b>Fuse</b>	2A medium lag, DIN 41571/5x20 mm

### Ordering Information

**ED**  
Electronic Module  
Pressure Valve  
  
**For:**  
DSA  
DWE  
DWU

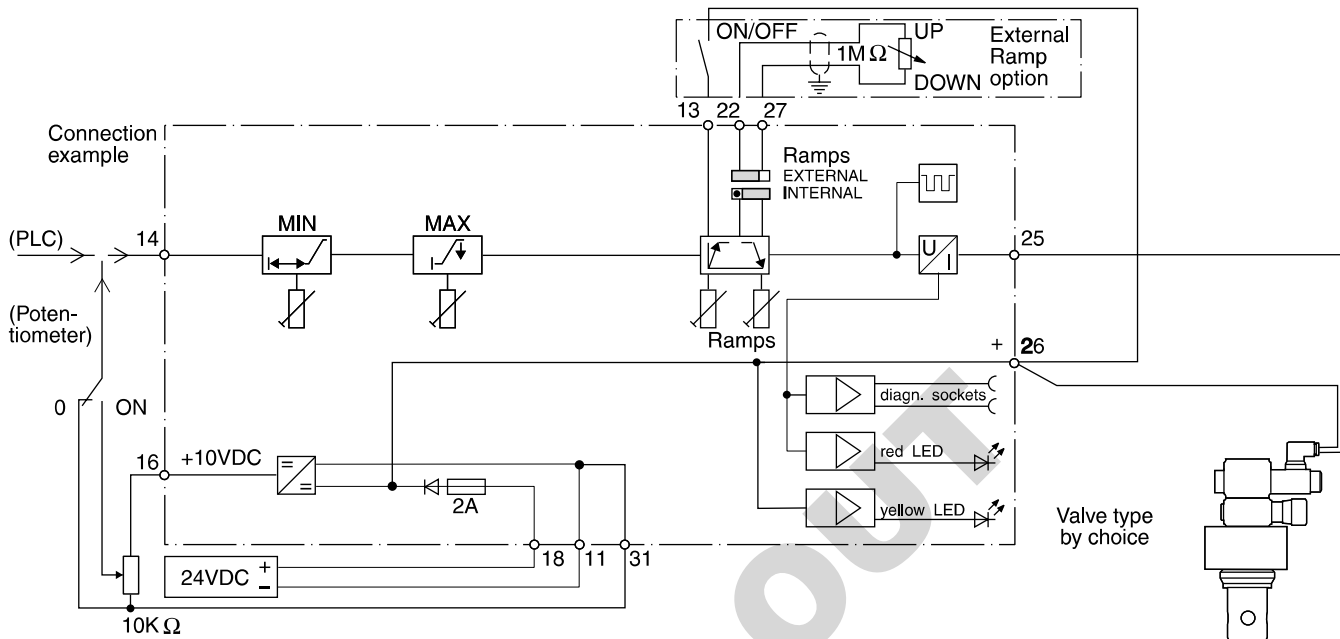
**00**

**104**  
Module Type

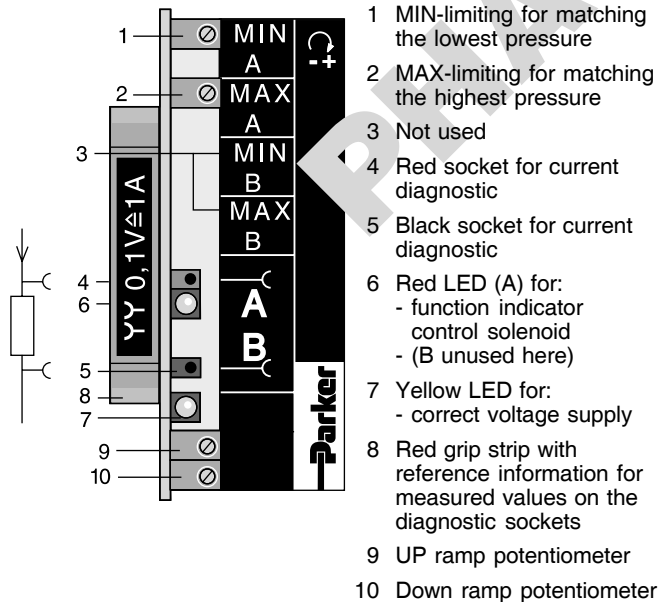
Code	Description
104	Amplifier, adjustable MIN/MAX-limits, Up/Down Ramps

Design Series  
NOTE:  
Not required when ordering.

## Block Diagram



## Operating and Diagnostic Elements (Elevation A)



### Notes:

- Turn off the electrical power to this board whenever the hydraulic supply to the valve is not on.
- Always turn off the power to this board before removing it from the card holder.

Only potential-free measuring equipment to be used

## Connector (Elevation B)

