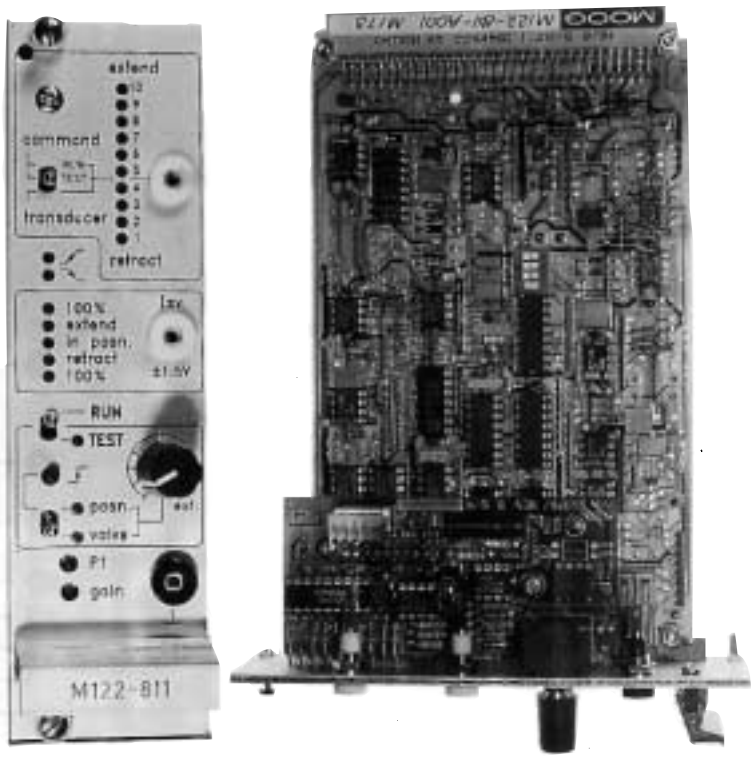
DESCRIPTION

The M122-811 is a Eurocard servoamplifier for linear position control with Moog 852 Series, or similar, servoactuators.

It is designed to operate with magneto-strictive, potentiometric or DCDT position transducers and either servo or proportional valves requiring current or voltage drives.

Because of its high user friendliness, it is ideal in installations with limited technical support.



SPECIFICATIONS

Command Input:
0 to +10V standard
± 10V, 4-20mA optional

Feedback Input:
0 to +10V standard
± 10V, 4-20mA optional

Output Drive:
± 50mA max current
± 10V max voltage (optional)

Adjustments:
P1 Velocity control
P2 Proportional Loop Gain

Connector:
DIN 41612 Style C

Test Points: (2 mm ∅ probes)
Ground
Command or feedback (selectable)
Voltage image of output current
Isv: ± 1.5V ≡ ± rated valve drive

Outputs to PLC: (Isolated)
Position achieved
Valve overdrive

Inputs from PLC: (Isolated)
Enable test mode

Form Factor:
Eurocard 100 x 160 mm, 7HP, 3U

Power Supply Requirements:
± 15VDC Stabilized

FEATURES

- Front panel LED array for display of command or feedback signal
- LED indication of:
  - Valve drive
  - Command ramping
  - Position achieved
  - Valve overdrive (error)
  - Test mode status
- Opto isolated output to PLC advising:
  - Position achieved
  - Valve overdrive (error)
- Pressure and load compensated constant velocity control
- Test and commissioning facilities:
  - Local manual position control
  - Independence from PLC
  - System set up and trouble shooting via front panel, without disturbing rear connector wiring
  - Step input facility for system optimisation in conjunction with valve drive LEDs
  - Servovalve testing
  - Simple commissioning; only two adjustments
  - Voltmeter not essential
- Safe shockfree transition from Run to Test mode
- Moog 127 Series Motherboard compatible
- Convenient for telephone troubleshooting
- Test points accept 2 mm ∅ standard probes

PANEL DESCRIPTION

❶ Display selector switch, selects feedback transducer, manual TEST command or external RUN command signals for display ❷ and test point ⓱.

LED DISPLAYS

❷ 10 LED array displaying feedback transducer or command.

❸ Command signal ramping active; extend or retract.

❹ Valve overdrive (error) extending, (PLC also advised of condition).

❺ Valve drive signal when extending, (variable brightness).

❻ Position achieved indication, (PLC also advised of condition).

❼ As per ❺ but retracting.

❽ As per ❹ but retracting.

TESTING FACILITIES

❾ Selects normal run or test mode. The test mode is protected from inadvertant operation. It requires switch selection and receipt of PLC signal.

Transfer between modes is bumpless. When position is selected a slow ramp command is active until final position is reached. When valve is selected the command pot is not active until zero command is set on the pot.

❿ Step disturbance input for system optimising.

⓫ Select valve test or position test command.

⓬ Pot to set test position command or valve drive, as selected by ⓫.

⓭ LED to indicate that test mode is enabled.

⓮ LED to indicate that position test mode via pot ⓬ has been activated.

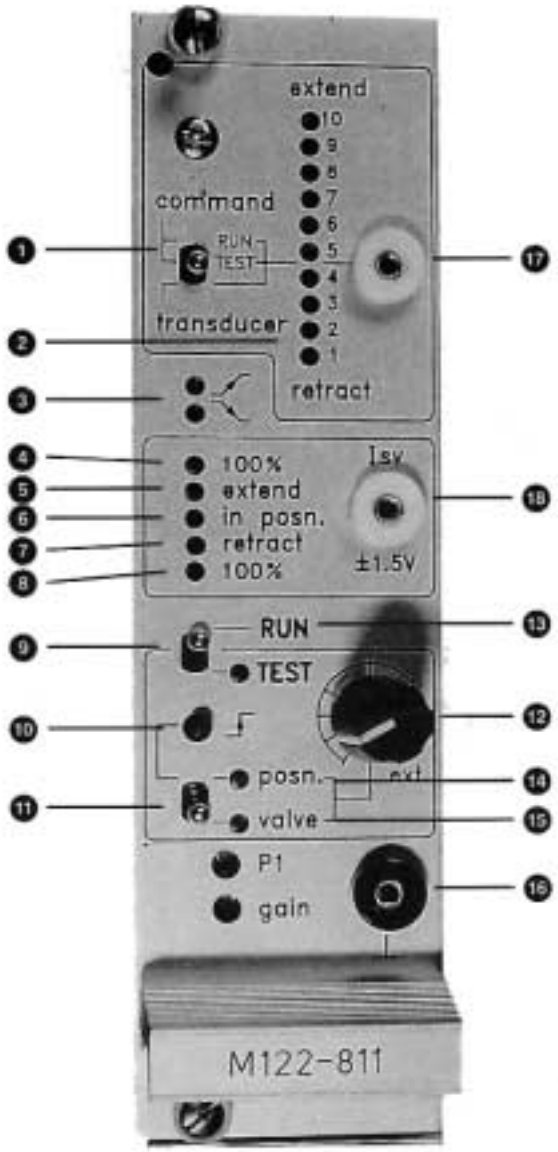
⓯ LED to indicate that valve test mode via pot ⓬ has been activated.

TEST POINTS

⓰ Ground test point.

⓱ Display test point, checks feedback transducer or command as selected by Switch ❶.

⓲ Valve drive signal. ± 1.5V max. ≡ rated valve coil current.



ADJUSTMENTS

P1 Adjusts the speed of movement.

gain Adjusts system response and accuracy.