



ELECTRIC SERVO ACTUATOR

Applications:

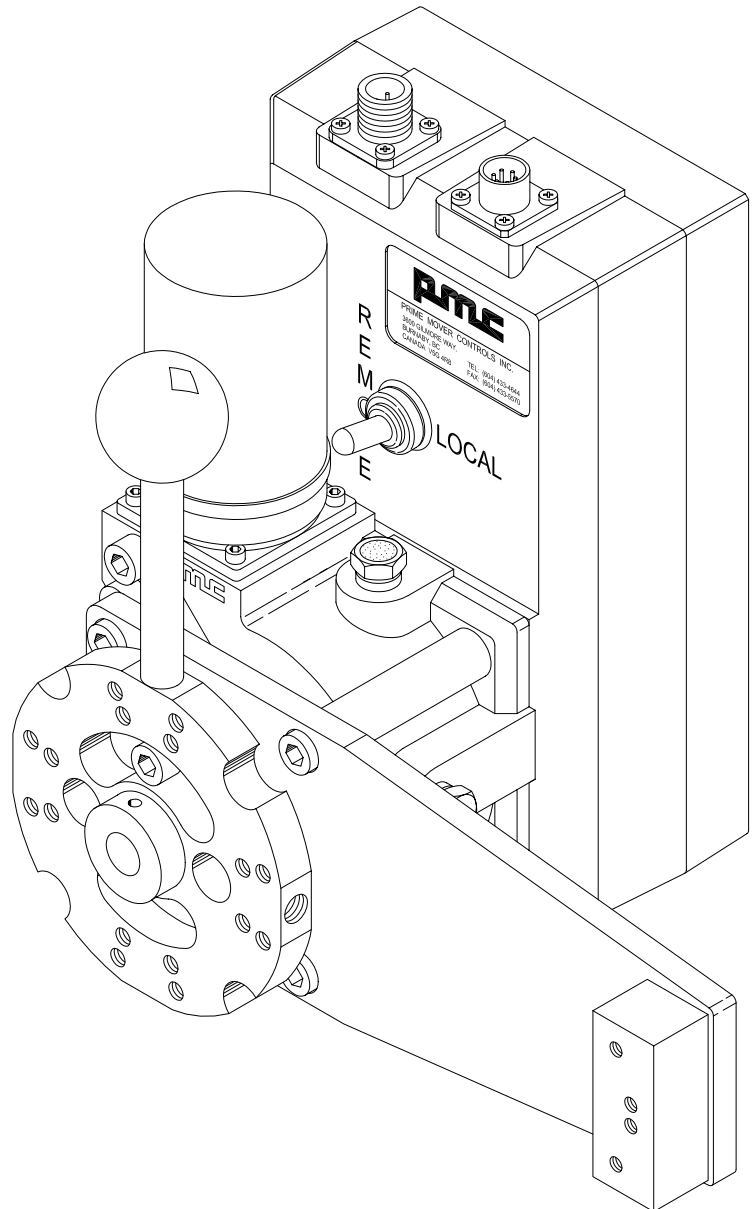
Remote Control for:

- Governor Speed Setting
- C.P. Propeller Pitch Setting
- Thruster
- Winch
- Industrial

Features:

- Rugged construction with corrosion resistant materials
- Water resistant against water spray
- 4 - 20 mA, 2 wire transmitter, or potentiometer input
- Forward or Reverse acting models available
- Push-pull cable or rotary output
- Separate connector for backup jog control
- Manual Override allows direct control of machinery, without disconnecting linkage
- Adjustable slip clutch

Type 3380-1100



PRIME MOVER CONTROLS INC.

VANCOUVER, BC, CANADA

DESIGN MANUFACTURE AND SERVICE OF MARINE AND
INDUSTRIAL CONTROL COMPONENTS AND SYSTEMS

Electronic - Pneumatic - Hydraulic - Mechanical

General

3380 actuators are designed and manufactured for long trouble free service with corrosion resistant materials. Long operational life can be expected due to generously proportioned design.

The 3380 actuator contains a permanent magnet DC gearmotor that drives a push-pull cable or lever through an adjustable friction clutch. It also contains a servo amplifier printed circuit board and a feedback potentiometer.

The 3380-1100 electric servo actuator converts an electrical command signal into mechanical motion. It positions an output lever or push pull cable in a position proportional to the command signal.

The actuator includes a manual override switch marked REMOTE and LOCAL. Select LOCAL to disable remote control of the actuator and allow the operator to move the output lever manually.

In case of electrical failure, the actuator is set to the local control mode and the optional external backup motor control circuit is automatically activated.

Two Bendix, Mil. Spec. type connectors are used to connect the actuator to the control system. One is the 6 pin main control connector and the other is the 3 pin backup control connector.

Input Protection

Several input protection circuits are employed to provide protection against: reverse connection of 24 VDC, connection of 120 VAC, and connection of voltages in excess 35 VDC.

Limit Switches

Internal travel limit switches can be provided if required. Once a limit switch activates, no further motion is allowed in that direction. The motor is permitted only to drive away from the limit switch.

Low Power Mode

If the actuator is prevented from following up, the internal slip clutch will prevent the motor from stalling. If this condition persists for a predetermined time, the actuator will go into low power mode. In this mode the motor voltage is reduced and the motor stops. When the actuator is freed it will move slowly into position. A non follow up alarm will occur when in low power mode. The actuator can remain in low power mode indefinitely without being damaged.

Manual Override

In manual override mode, the actuator motor can be driven directly from a backup power source. The actuator can also be moved with the manual handle. Manual override mode is selected by switching the manual override switch on the actuator to the "LOCAL" position, or by connecting the manual override line to zero volts. A primary power failure to the actuator will also allow backup control. During backup control the power to the motor is switched by an internal relay and bypasses all internal electronics.

Backup control disables the non follow up alarm. It is recommended that the backup power be controlled by a spring centered jog switch. This will prevent the motor from accidentally being driven when the power is switched. The backup power source is supplied to the actuator through a separate backup connector.

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