

## TECHNICAL MANUAL

# MODEL SD10 OVERTORQUE PROTECTOR

### Purpose

The purpose of the Model SD10 Overtorque Protector is to prevent valve, actuator and/or other equipment damage by limiting the amount of operating torque that can be applied.

### Applications

Buried or non-buried valve service. Compact construction for confined space.

### Operation

Operating torque is applied through a handwheel or other means and transmitted through the Model SD10's shaft to the detent plate, drive balls, body, and then to the driven equipment. If excessive torque is applied, the drive balls will rise out of the detents against the force of the springs and disengage the drive. Re-engagement at the pre-set trip torque is automatic, with further rotation in either direction.

### Construction and Corrosion Protection

The drive mechanism is permanently lubricated and hermetically sealed inside a rugged housing that is corrosion protected by fusion-bonded epoxy coating inside and outside. All exposed fasteners are austenitic stainless-steel.

### Trip Torque Range

Standard Model SD10 trip torque range is 10 Nm (7 lbf<sub>t</sub>) to 275 Nm (204 lbf<sub>t</sub>).

Higher capacity models are available.

### Calibration

Model SD10 units are shipped fully calibrated to user specifications.

To recalibrate: Remove polyurethane sealant from center of SD10 shaft to reveal adjusting screw. Turn the adjusting screw in or out, based on the graph on page 2. Apply a drop of Loctite 290 to the adjusting screw to lock calibration. Reseal the shaft hole by filling with Devcon Flexane 94 Liquid Polyurethane or comparable material.

### Mounting

Model SD10 units are shipped fully calibrated and ready to mount.

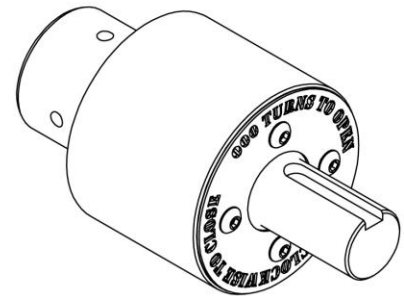
For handwheel applications: Remove handwheel. Mount SD10 in its place. Mount handwheel on SD10. For shaft-to-shaft applications: Mount SD10 on either shaft, then connect to other shaft. Model SD10 can be driven from either end. Tighten (two) mounting screws to secure the SD10 to the equipment's shaft or end-connection.

### Maintenance

No maintenance is required.

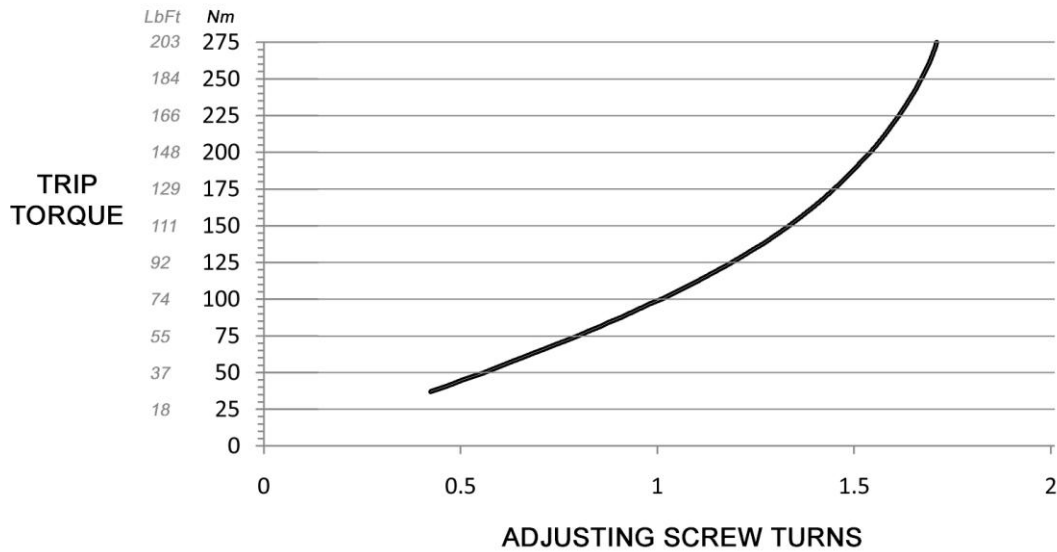
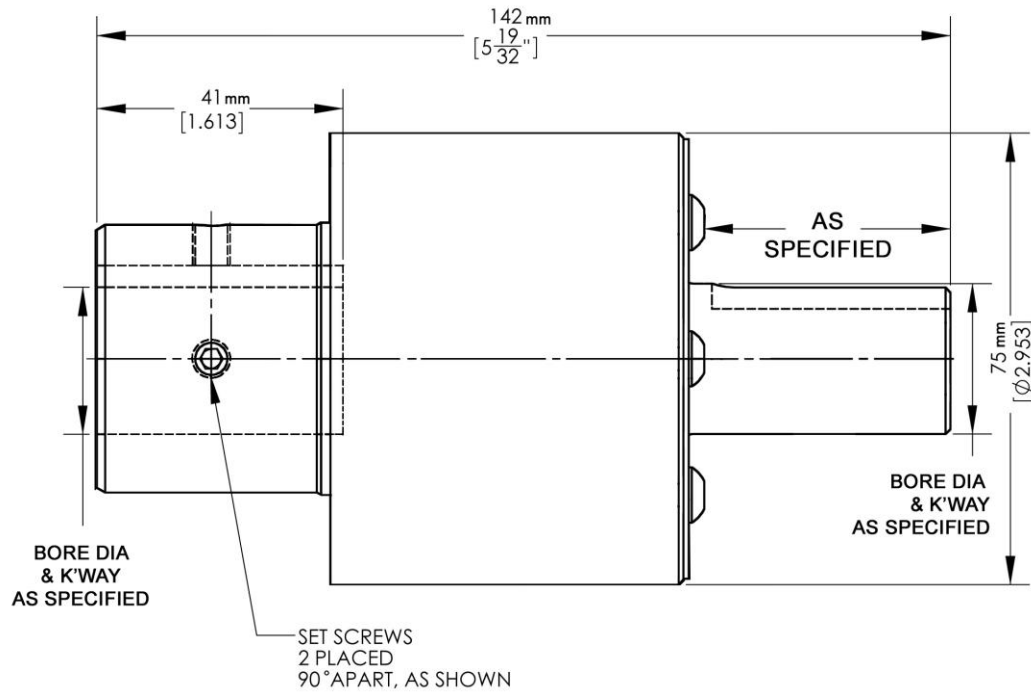
### To Order

Specify trip torque and end connections.



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### TRIP TORQUE vs CALIBRATION SCREW POSITION

The calibration information above is representative of all standard SD10 Models.

Contact factory if more precise calibration of individual units is desired.

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