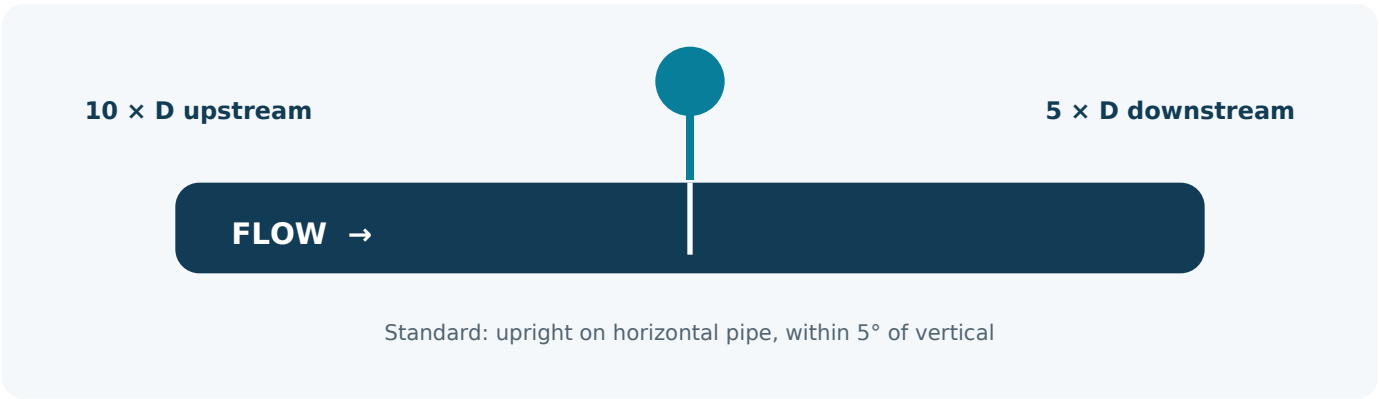


PEECO Flow Switch

Installation, Operation & Maintenance

A concise field guide for standard paddle-type PEECO flow switches. Confirm the nameplate, order-specific drawing, electrical rating and supplied instructions before installation.

Installation at a glance



BEFORE WORK BEGINS

Isolate and depressurize the process. Disconnect electrical power before opening the cover. Handle exposed-vane units by the body or flange; never lift or support them by the paddle or stem.

Quick checks

- Location: Aim for at least 10 pipe diameters of straight run upstream and 5 downstream.
- Direction: Point the conduit connection downstream for the standard arrangement; verify the unit drawing.
- Setting: Field-set the trip point after installation unless a specified calibration was supplied.
- Wiring: At no flow, the micro-switch plunger is depressed. Verify the actual contact state before connection.

Scope: General field guidance for standard configurations. Special orientations, multiple-action units, hazardous locations and optional accessories require their order-specific documents.

1 Mechanical installation

Choose a location with steady, fully developed flow. Keep elbows, valves, reducers and pumps away from the sensing point when possible. The recommended straight-run target is 10D upstream and 5D downstream, where D is the pipe inside diameter.

Mounting and process connection

- Standard orientation. Mount upright on a horizontal line, with the switch within 5° of vertical. Other positions need an application-specific setup and may need spring compensation.
- Direction. Install the standard unit with its conduit connection pointing downstream. Check the body marking and order drawing before tightening.
- Threaded connection. Use the specified weld-o-let, thread-o-let or half coupling. Apply a compatible sealant and tighten to the fitting manufacturer's requirements; protect the housing from wrench damage.
- Tee, flange or wafer connection. Fit per the dimensional drawing. Use the correct gasket and mating hardware; tighten flange bolts evenly in a cross sequence.

PADDLE CLEARANCE

On exposed-vane screwed models, the linked original IOM calls for about 1/2 in. clearance to the pipe bottom, rounded corners where needed, and no contact with the pipe. Keep the flexible paddle in the pipe run, not inside a riser. Do not alter a tee-model paddle.

Before restoring flow

- Inspect. Confirm paddle travel is unobstructed, the process joint is leak-tight, and the housing and conduit entry are sealed for the installation.
- Verify limits. Check the individual unit's pressure, temperature and electrical ratings. Use the specified hazardous-location wiring method for E/H enclosures.

Turbulence can shift the trip point or cause chatter. If the target straight run is unavailable, ask PEECO engineering about spring, paddle and damping options for the actual process conditions.

2 Electrical connections

A qualified electrician should wire the installed micro-switch using its terminal markings and the unit nameplate. The usual enclosure has a 1/2 in. FNPT conduit entry; other entries and switch arrangements are available. Verify the specific contact and load ratings.

Paddle / plunger	COM-NO	COM-NC
No flow / plunger depressed	CLOSED	OPEN
Flow at trip / plunger released	OPEN	CLOSED

NO and NC describe the micro-switch with its plunger released. PEECO holds the plunger depressed at no flow, so the installed contact states above are reversed from a casual reading of the terminal names. Check continuity on the actual unit before energizing.

3 Field setting and commissioning

Factory testing uses water or nitrogen to establish reference activation and reset behavior. Fluid density, temperature, pressure, pipe geometry and turbulence affect the field trip point. Unless calibrated for the order, set and verify the unit under actual operating conditions.

- 1. Isolate power. Disconnect electrical current before removing the cover. Follow the site isolation and hazardous-area procedure.
- 2. Establish target flow. Set the process to the desired trip condition. With power isolated, use a suitable continuity check to observe contact change.
- 3. Adjust in small steps. The linked original IOM identifies a micro-switch actuating rod and a separate return spring adjustment. Set the rod near mid travel; change spring tension carefully to reach the required flow response.
- 4. Prove both directions. Increase and decrease flow through the set point. Record actuation, reset and stability; revise the setting if chatter or a false trip occurs.
- 5. Close and retest. Secure the cover before reconnecting current. Confirm operation again after the system reaches normal pressure and temperature.

VERIFY TRIP AND RESET POINTS

Record the actual make and break points under operating conditions. If the application requires a specific differential, confirm the requirement with PEECO engineering before commissioning.

4 Inspection and maintenance

At a site-defined interval, inspect the process connection for leakage; check housing, cover, conduit seal and wiring condition; and prove both the trip and reset points at representative flow. Recheck after process changes or maintenance that affects the paddle or spring.

Before opening the unit, disconnect power and isolate and depressurize the line. The linked original IOM identifies seven color-coded spring rates, from brown (softest) through purple (stiffest). Springs are not quantitative flow calibrations. Obtain the correct factory part for the model, paddle, pipe size and fluid; do not bend, cut or stretch a spring.

5 Troubleshooting

- No actuation. Confirm actual flow direction and range; inspect paddle clearance and continuity; check spring selection and set point.
- Will not reset. Check for residual or reverse flow, binding, incorrect orientation and excessive sensitivity.
- Chatter or rapid cycling. Look for pulsation or turbulence, a marginal set point and paddle/spring mismatch; discuss damping options.
- Wrong trip point. Recheck adjustment at stabilized process conditions and confirm the fluid correction and pipe size.
- Contact or leak problem. Verify the installed terminal states and rating; isolate the process before investigating a leaking joint.

Commissioning record

Model / serial:

Pipe size / medium:

Normal pressure / temperature:

Trip flow / reset flow:

Contacts used / function:

Installer / date:

SUPPORT

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References: [peecoflowswitch.com/installing-a-peeco-flow-switch/](https://www.peecoflowswitch.com/installing-a-peeco-flow-switch/) and the linked PEECO-IMO-02272019-1.pdf. Use the unit nameplate, order drawing and supplied model-specific instructions for the installed configuration. For hazardous locations, follow the applicable approved installation requirements.