

T10 Float level switch

The T10 float level switch offers industrial and municipal users a low cost solution to wide differential level applications. The patented moving ballast causes a flipping motion of the float to provide positive switching action even under turbulent conditions. Recommended for use in either clean or dirty liquids, it is ideal for use in both sump control, wet well applications and pilot systems.

FEATURES

- * Differential band 6 m (20 ft), 12 m (40 ft) or 18 m (60 ft), determined by the length of the cable.
- * May be wired for automatic fill or empty cycles.
- * Dry contact switch mechanism.
- * Cable CSA (SJTO) approved.
- * Switch chatter eliminated with moving ballast.
- * Single float with simple control circuit eliminates the need for latching devices or double switching with 2 units.
- * Provides positive switching action, even in turbulent conditions.
- * Cable anchoring point protected by an adjustable strain relief.
- * All wetted parts in PVC for increased resistance to water based chemicals.
- * Heavy duty construction requires no maintenance when properly mounted.
- * Mounts easily by cable tie (included) or optional cable weight.

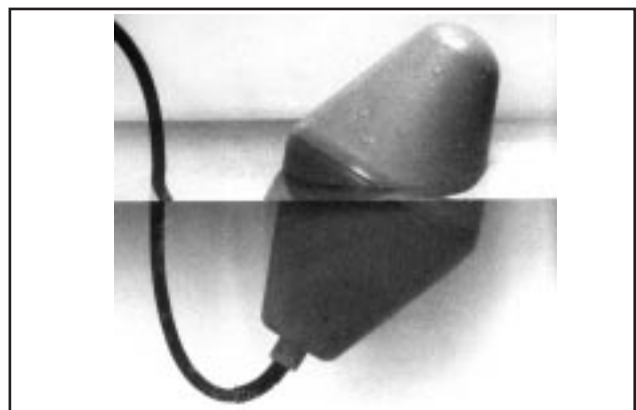
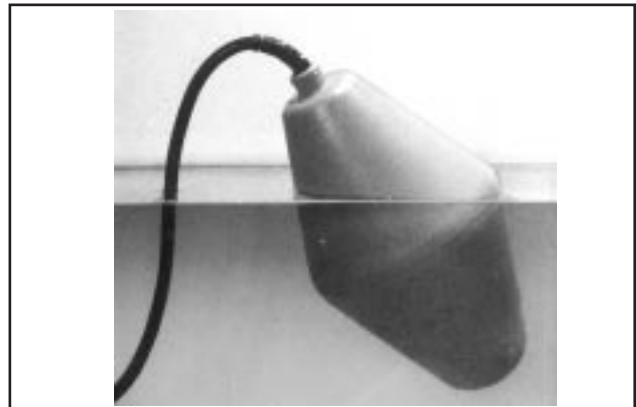
SPECIFICATIONS

| Description | | Specification |
|---------------------------|------------------|--|
| Pilot duty rating | Dry contact SPDT | 10 A and 360 VA, 240/120 V AC |
| Process temperature | | +60°C (+140°F) max. |
| Ambient temperature | | 0°C to +60°C (+32°F to +140°F) |
| Specific gravity | | 0.6 min., 1.5 max. |
| Differential band | | Min. 457 mm (18") Max. 18 m (60 ft) |
| Materials of construction | | Polyvinylchloride (PVC) with adjustable neoprene strain relief and butyl cosmetic ring |
| Cable size | | 18 AWG (3 x 1.5 mm) 41 strands |

APPLICATIONS

- Water and wastewater
- PVC compatible caustics
- PVC compatible chemicals
- PVC compatible acids

Adjustable differential band with no relay chatter, specific gravity range of 0.6 to 1.5



SELECTION DATA

| Model number | Switch mechanism | Differential band — max. | Cable length |
|--------------|---|--------------------------|--------------|
| T10-5104-020 | Dry contact | 6 m (20 ft) | 6 m (20 ft) |
| T10-5104-040 | | 12 m (40 ft) | 12 m (40 ft) |
| T10-5104-060 | | 18 m (60 ft) | 18 m (60 ft) |
| 89-5209-001 | Cable weight accessory kit contains: weight, clamp, and 2 screws. | | |

BASIC ELECTRICAL RATINGS

| Voltage | Non-inductive Amp ratings — dry contact |
|----------|---|
| 240 V AC | 21.00 |
| 120 V AC | 21.00 |
| 240 V DC | 0.30 |
| 120 V DC | 0.60 |

PRINCIPLE OF OPERATION

Figure 1:

T10 level switches contain a dry contact switch with a swinging ballast. The cable on the float is anchored in the tank at the midpoint of the differential band.

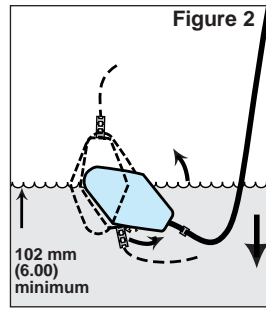
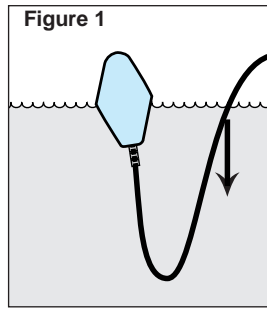


Figure 2:

As the level falls to the lowest point of the differential, the cable is pulled taut, tilting the float, causing the ballast to swing to the opposite end of the float. The float reacts in a flipping action which causes the switch contacts to change state. The minimum level recommended is 152 mm (6.00).

Figure 3:

Since the float remains in this position even under turbulent conditions, switch chatter is eliminated.

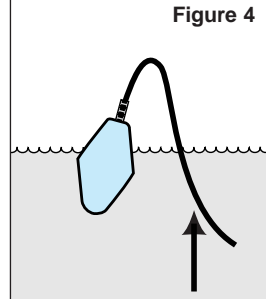
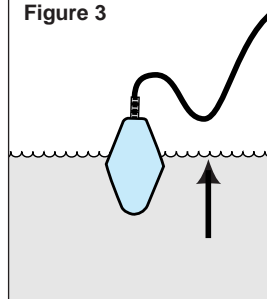


Figure 4:

Contacts have not yet changed state with rise in level.

Figure 5:

As the highest point of the differential is reached, the cable is again pulled taut, tilting the float, causing the ballast to swing back to its original position in the float.

The float flips, causing the switch contacts to return to their original state. This cycle repeats as the level changes.

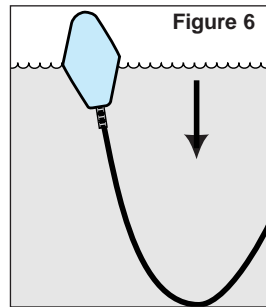
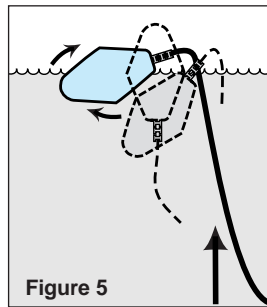


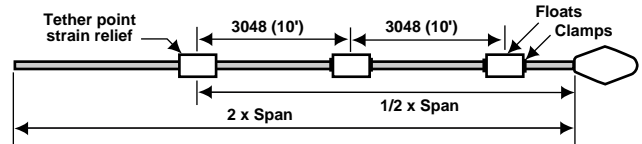
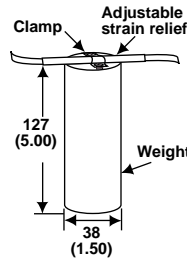
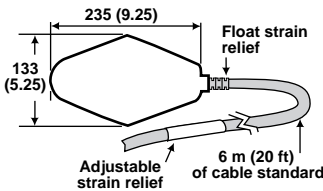
Figure 6:

The differential band equals twice the length of cable from its point of attachment to the strain relief, to the point at which it is anchored.

For an alarm function, use a minimum differential band of 229 mm (9.00).

DIMENSIONS IN mm (inches)

T10 cable extension



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UNDER RESERVE OF MODIFICATIONS

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