

# FLOSEARCH® Transmitter

## Installation Instructions

The FLOSEARCH® Transmitter is a “universal” design for use on all Neptune meters with a bayonet register mount. As water flows through the meter, the Transmitter produced a dry contact output from a reed switch that toggles between its open and closed positions under the force of a rotating magnet. There is no gearing in the Transmitter to adjust its resolution (number of contacts per unit of volume) for each meter type. The Transmitter simply produces 4 contacts per revolution of the drive magnet of the attached meter. As a result, the Transmitter resolution varies with each meter size as follows

T-10 Meters	Contacts Per Gal	Gal Per Contact	Contacts / Min @ Max Flow	Max Hz	Contacts Per CF	CF Per Contact
5/8"	231.36	0.0044	4627.2 (20 GPM)	77.12	1730.7	0.0006
3/4"	129.23	0.0078	3876.9 (30 GPM)	64.62	966.74	0.0011
1"	60.286	0.0166	3014.3 (50 GPM)	50.24	450.97	0.0023
1-1/2"	26.736	0.0374	2673.6 (100 GPM)	44.56	200	0.005
2"	15	0.0667	1500 (160 GPM)	25	112.21	0.009
HP Turbine (HPT)	Contacts Per Gal	Gal Per Contact	Contacts / Min @ Max Flow	Max Hz	Contacts Per CF	CF Per Contact
1-1/2"	0.6095	1.6407	97.52 (160 GPM)	1.62	4.5594	0.2194
2"	0.6095	1.6407	121.9 (200 GPM)	2.04	4.5594	0.2194
3"	1.12	0.885	504 (450 GPM)	8.4	8.3782	0.1194
4"	0.7556	1.3235	906.72 (1200 GPM)	15.12	5.6523	0.177
6"	0.0727	13.7552	181.75 (2500 GPM)	3.03	0.5438	1.839
8"	0.0756	13.2276	302.4 (4000 GPM)	5.04	0.5655	1.7684
10"	0.0756	13.2276	491.4 (6500 GPM)	8.19	0.5655	1.7684
Tru/Flo Compound	Contacts Per Gal	Gal Per Contact	Contacts / Min @ Max Flow	Max Hz	Contacts Per CF	CF Per Contact
2" Turbine (High Flow)	0.6095	1.6407	121.9 (200 GPM)	1.62	4.5594	0.2194
T-10 (Low Flow)	231.36	0.0044	4627.2 (20 GPM)	77.12	1730.7	0.0006
3" Turbine (High Flow)	0.289	3.4602	130.05 (450 GPM)	2.17	2.1619	0.4626
T-10 (Low Flow)	231.36	0.0044	4627.2 (20 GPM)	77.12	1730.7	0.0006
4" Turbine (High Flow)	0.159	6.2893	159 (1000 GPM)	2.65	1.1894	0.8408
T-10 (Low Flow)	129.23	0.0078	3876.9 (30 GPM)	64.62	966.74	0.0011
6" Turbine (High Flow)	0.0464	21.5518	92.8 (2000 GPM)	1.55	0.3471	2.8811
T-10 (Low Flow)	60.286	0.0166	3014.3 (50 GPM)	50.24	450.97	0.0023
<i>6" x 8" Tru/Flo use the same figures as the 6" Tru/Flo above</i>						
HP Protectus (HPT P3)	Contacts Per Gal	Gal Per Contact	Contacts / Min @ Max Flow	Max Hz	Contacts Per CF	CF Per Contact
4" Turbine (High Flow)	0.7556	1.3235	906.72 (1200 GPM)	15.12	5.6523	0.177
T-10 (Bypass Meter)	60.286	0.0166	3014.3 (50 GPM)	50.24	450.97	0.0023
6" Turbine (High Flow)	0.0727	13.7552	181.75 (2500 GPM)	3.03	0.5438	1.839
T-10 (Bypass Meter)	26.736	0.0374	2673.6 (100 GPM)	44.56	200	0.005
8" Turbine (High Flow)	0.061	16.3935	244 (4000 GPM)	4.07	0.4563	2.1916
T-10 (Bypass Meter)	15	0.0667	1500 (160 GPM)	25	112.21	0.009
10" Turbine (High Flow)	0.0533	18.7618	346.45 (6500 GPM)	5.78	0.3987	2.5082
T-10 (Bypass Meter)	15	0.0667	1500 (160 GPM)	25	112.21	0.009

### FLOSEARCH Wiring for Switch Closure

Pin #	FloSearch Transmitter
1	No Connection
2	No Connection
3	Switch Closure
4	No Connection
5	Switch Closure

# Mounting the FLOSEARCH<sup>®</sup> Transmitter

Before you mount the transmitter you need to make your wire connections on the transmitter so the terminal cover is in place for installation.

- 1) Slide your wire through the terminal cover hole and leave space to connect the wires to the transmitter. Make the wire connections on the Flosearch transmitter to pins 3 & 5 (Switch closure connections are not polarity sensitive). Slide the terminal cover in place over the terminal screws and snap in place. Tighten the terminal cover with the screw provided until snug. Wrap the strain relief around the exposed wire and push into the hole of the terminal cover.
- 2) Remove existing register off the meter by using a center punch and hammer. Position the small end of the center punch on the center of the seal pin at the base of the register. Using the hammer, drive the punch through the center of the seal pin. The head of the pin should shear off. Twist the register  $\frac{1}{4}$  turn counter-clockwise and lift off the meter. Turn the register upside-down and remove the remaining part/s of the seal pin. Keep the register for a later step in the installation.
- 3) Position the Flosearch transmitter on the meter and twist it clockwise until it locks into place.
- 4) Place the register mounting ring on top of the Flosearch transmitter with the four rounded grooves facing upward. Align the notch in the base of the register mounting ring with the terminal cover on the Flosearch transmitter and snap the ring into place. When properly oriented, the register mounting ring should sit flush on top of the Flosearch transmitter.
- 5) Position the register that was removed off the meter in step 2 on top of the Flosearch transmitter and register mounting ring. Turn it clockwise until it locks into place. Push the new seal pins into the register base and the Flosearch base to secure the installation and prevent tampering.

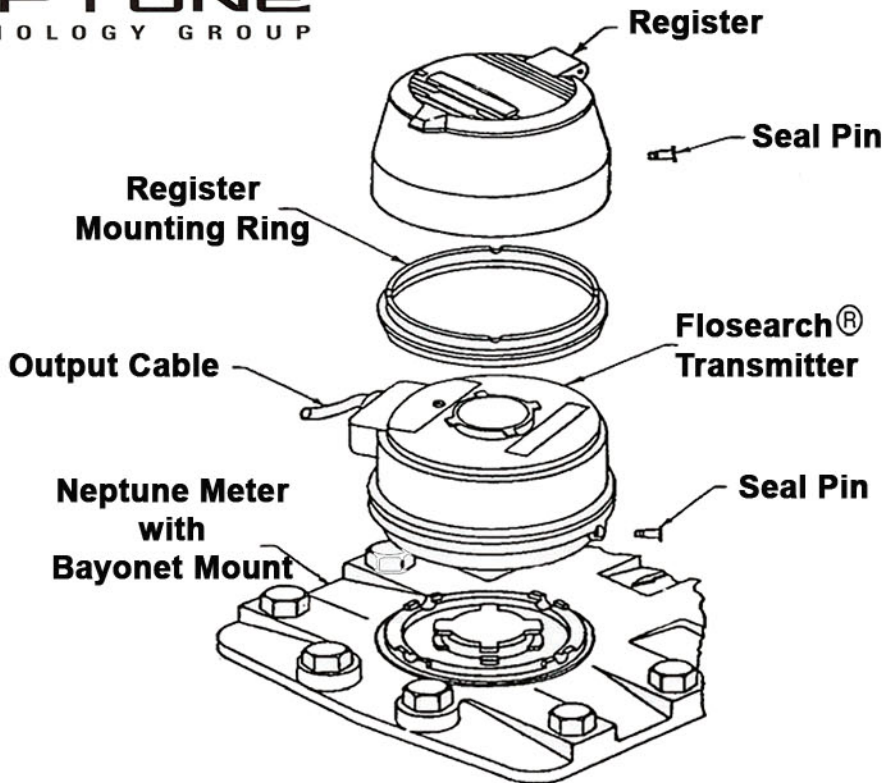
The Flosearch transmitter is now installed, complete the wiring at the end point to begin receiving the pulse output from the meter.



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**Inserting Multi-Conductor Cable**

Move the cover far enough down the cable to allow you to work with the end that you just inserted

- A Strip the outer covering of the cable back approximately 1-1/2" from the inserted end.
- B Separate the individual conductors and strip the insulation back approximately 1/2" from the end of each conductor.
- C Using the rounded shaft of the screwdriver, form a hook in the end of each bare copper wire. (see below)



**Creating a Hook in the Wire**