www.buyersproducts.com
Phone (440) 974-8888
Fax 800-841-8003

Installation Instructions

E20 **Single-Station Level Switches**

Series	Mounting	HEX Size	Float Diameter
E20	1/8" NPT	1/2"	1"

Installation

A standard NPT female boss in tank top. Units operate in any altitude - from the verticle to a 30° inclination - with lead wires up or down. Standard IPS pipe extends units to any intermediate level in the tank.

Moisture Protection

When moisture exsists in conduit and extension pipes, the potential for this moisture to "wick" down the wire leads and into the switch assembly exsists. Should this happen, the switch will appear to be closed due to a high resistance path through the moisture.

Thread Treatment

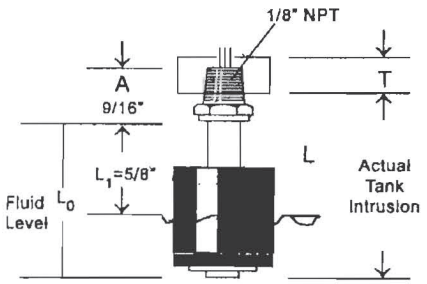
1. Sealing: When threading metal threads into a metal coupling, pipe sealant or Teflon® tape is recommended. Due to potential compatibility problems, when seling plastic threaded units, a compatible pipe sealant such as No More Leaks™ from Permatex® is recommended.
2. Tightening: When threading a plastic level switch into a metal coupling, the installer should use a suitable wrench and tighten the threads one to one and one-half additional turns past hand-tight. Over-torquing of the threads will result in damage to the plastic mounting plug.
3. The Effect of Thread Engagement on Actuation Points

The length of mounting threads engages at installation is important in calculating switch actuation points and the actual length of stem extending into the tank. The chart below shows the thread engagement length (T) for given NPT size, and overall length(L_0).

NPT	1/8"
T Dim	.27"

Definition of Variables Used in Examples Below

A = Mounting Length
T = Thread Engagement
P = Distance from coupling (bung) top to inside surface of tank or bracket
L_0= Overall length from bottom mounting
L = Switch actuation level as measured from inside surface of tank or bracket or fluid surface
L_1= Switch actuation level, nominal, as measured from bottom of mounting



Internally Mounted E20
(Standard Length)
E20 internally mounted through a 1/8" NPT hole. To calculate "L" dimension:

$L = L_1 + (A-T)$

$L = .63" + (.56"-.27")$

$L = .92"$

Electrical Data

Standard reed switches in level switch units are hermetically-sealed, magnetically actuated, make-and-break type. Switches are SPST and are rated in Volt-Amps (VA).
See chart below for maximum load characteristics of level switches. CAUTION: Contact protection is required for transient or high in-rush current.

	Volts	Amps AC	Amps DC
100*	120	.8**	N.A
	240	.4	N.A

*Not U.L recognized **Limited o 50,000 operations

Typical Wiring Diagram
(Circuit Condition Dry)

