



Series 7014 B/W Controls Unifloat® Installation Manual

IMPORTANT

Just before final installation into the tank and with the switches mounted inside the guide tube, slide the float up and down the tube. This will reset all the switches to their normal condition. If the Type “C” Reed Switch was ordered, the common switch wire (C) in the UNIFLOAT is bare and is attached to the ground screw with a green wire.

RATINGS:

The factory assembled units are rated for operating pressures up to 500 PSI and temperatures of 0° to 250° F (-19° to 121°C). For pressure tight applications pipe sealing compound should be used on the holder mounting threads. It is best to install in an upright position, but can be mounted up to 30° from vertical. While some small loads such as pilot lights may be operated directly from the switches, most applications will require control relays. Conventional relays can be used, however, B/W relays have unique characteristics that make them desirable for many applications. Diagrams are attached showing B/W recommended wiring for various relays in some typical applications.

SWITCH ADJUSTMENT:

Refer to your order for details on the switch settings provided when the UNIFLOAT was shipped from the factory. If different settings are desired, remove cover on holder. Do not remove any other fittings. Remove the internal assembly consisting of the switches and common wire, (On Type “C” Reed Switch Only), terminal block, and mounting plate. The set lengths for each switch actuation is measured from the bottom of the terminal block mounting plate, and is 1.25” + longer than the set length measured from the bottom of the holder mounting threads, based on a liquid with 1.0 specific gravity. Each switch is marked with the actuation point, and the differential travel is 0.1 inch. Switch actuation will depend on the actual specific gravity of the liquid. See the tables below for set length adjustments for liquids with specific gravities other than 1.0.

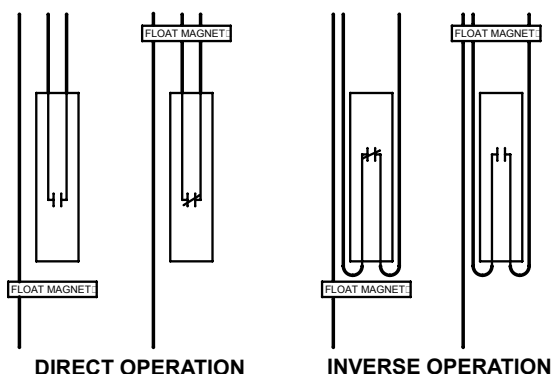
DIRECT OPERATION:

Switches close on the rising level.

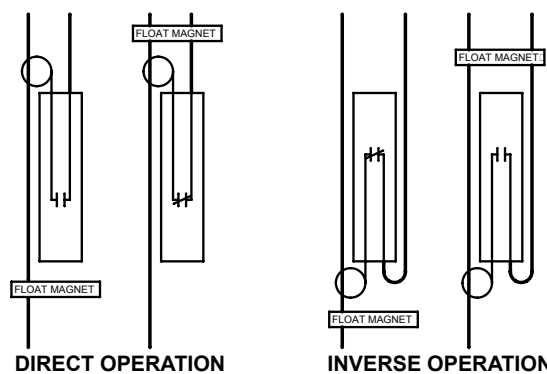
INVERSE OPERATION:

Switches close on the falling level.

TYPE “I” SWITCH



TYPE “C” SWITCH



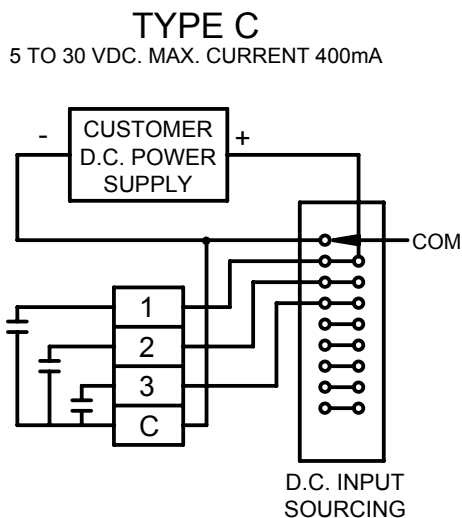
SPECIFIC GRAVITY ADJUSTMENT

REED SWITCH RATINGS		
VOLTS	MAXIMUM CURRENT	
	AC	DC
25	440mA	400mA
50	220mA	200mA
120	90mA	80mA

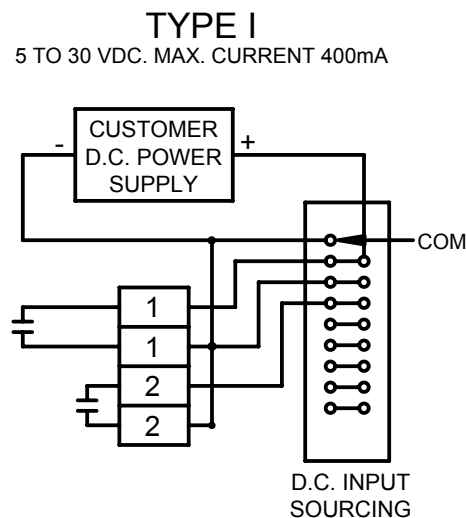
S.G.	SUBTRACT FROM LENGTH	S.G.	ADD TO LENGTH
1.5	0.37 Inch	1.0	NONE
1.4	0.31 Inch	0.9	0.12 Inch
1.3	0.25 Inch	0.8	0.27 Inch
1.2	0.18 Inch	0.7	0.48 Inch
1.1	0.10 Inch	*0.65	0.62 Inch
1.0	NONE	*Recommended Minimum	

SWITCH CONVERSION FROM DIRECT TO INVERSE:

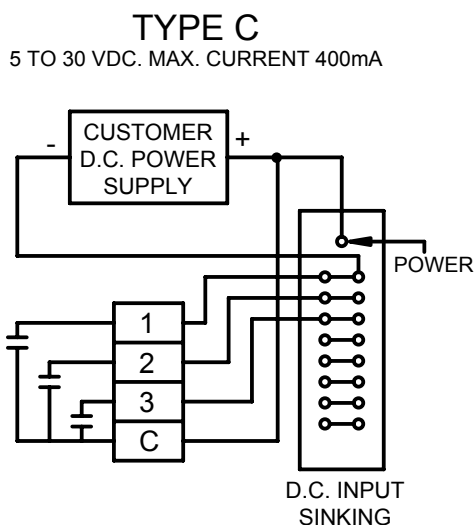
In order to change a Type “I” or Type “C” switch from direct operation to inverse operation, rotate the switch 180° end-to-end. For Type “C” switch, re-attach to bare wire. For Type “I” switch, re-tape to the bare wire.



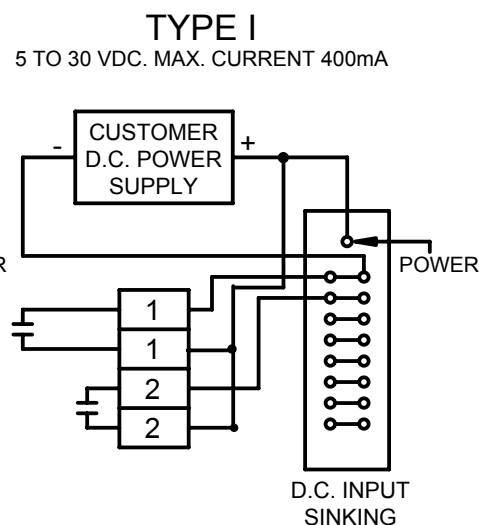
Allen Bradley # 1771-IV
Modicon #B233 or Equivalent



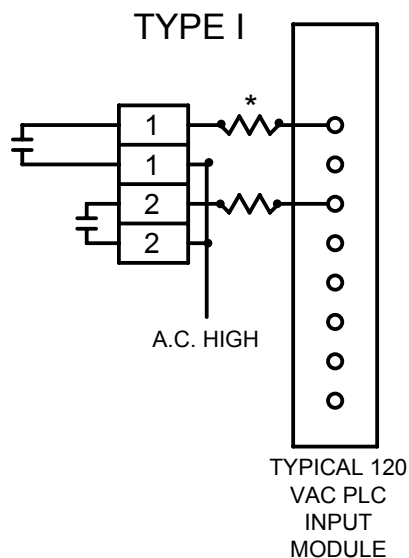
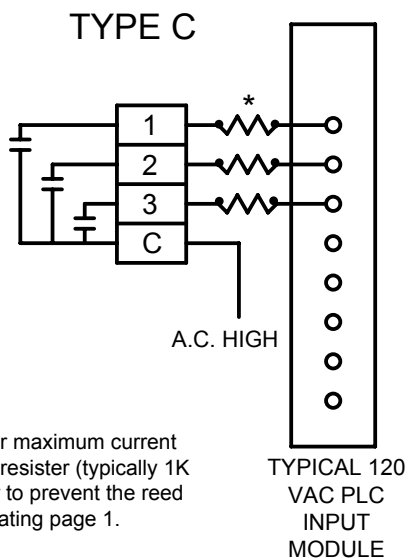
Allen Bradley # 1771-IV
Modicon #B233 or Equivalent



Allen Bradley # 1771-IB
Modicon #B825 or Equivalent

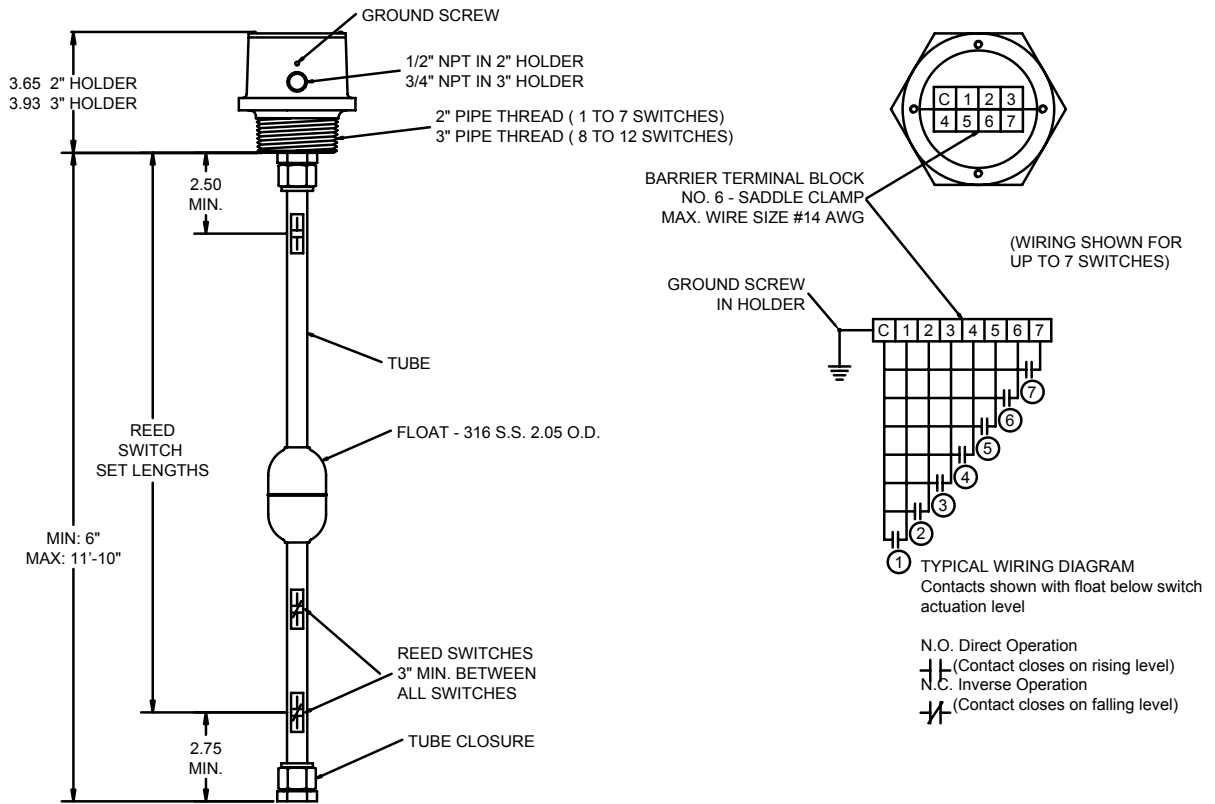


Allen Bradley # 1771-IB
Modicon #B825 or Equivalent

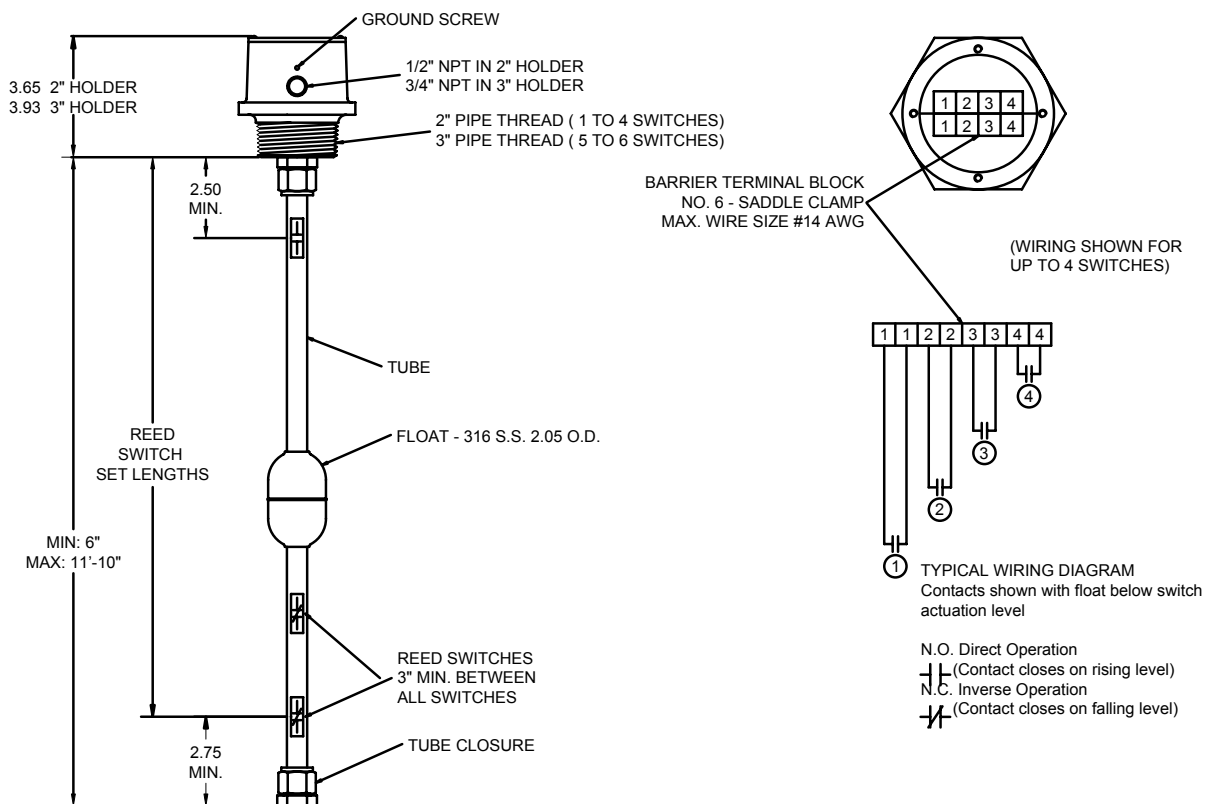


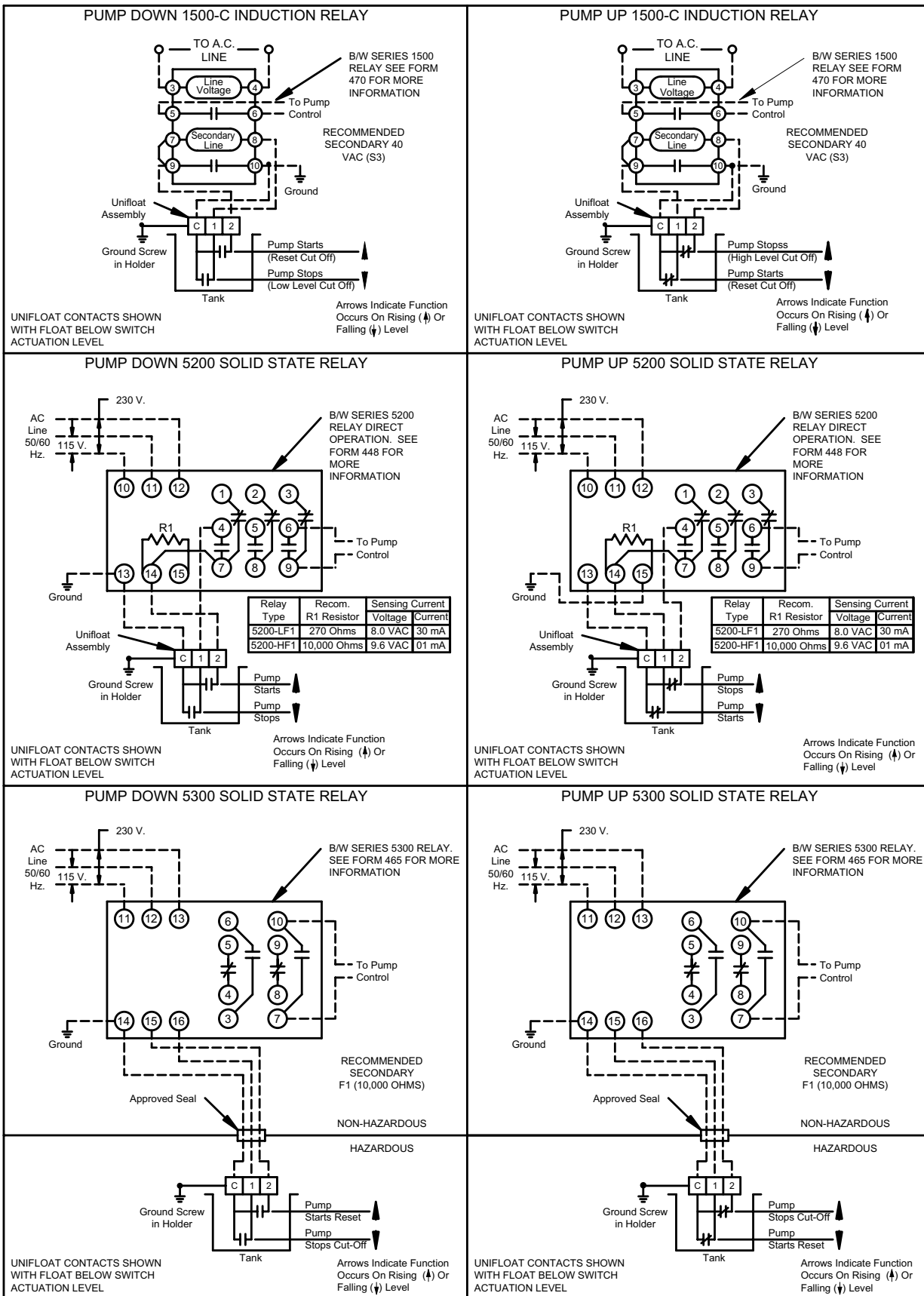
*Note: Consult the PLC manufacturer for maximum current input when using 120 VAC modules. A resistor (typically 1K OHM, 1/4 watt) may be required in order to prevent the reed switch from damage. See reed switch rating page 1.

COMMON STYLE REED SWITCHES



ISOLATED STYLE REED SWITCHES





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