

Specification Number 1002928-2.8

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Revision 2.0 01NOV05 mrc Added water block requirement to penetrator.

Revision 2.5 08NOV05 mrc Reduced power wires to 16AWG, added foil shield and drain/ground wire.

Revision 2.6 08NOV05 mrc Added cable PN marking requirement.

Revision 2.7 08NOV05 mrc Bonded cable shield to penetrator shell.

Revision 2.8 10JAN06 mrc Added CF cable length dimension.

1. **Penetrator Specification:** Brantner/SeaCon "Mini-Con" series in a "K" shell size in an FCR bulkhead mount "straight" (not RA) configuration. Material for connector shell and all parts exposed to seawater shall be Titanium 6AL4V Alloy or polyurethane. The penetrator is to be molded to customer supplied water-blocked polyurethane cable (shown below).
 - a. Pressure rating for all connectors: Max. working pressure: 5800 p.s.i. seawater.
 - b. Penetrator fully water-blocked to rated pressure.
 - c. Insulation Resistance: 5000 MegOhms min., pin to pin, pin to shell at 500 VDC.
 - d. Voltage rating: 600VDC all contacts.
 - e. Contacts: Insert shall be 2#14, 8#20 - long.
 - f. Contact current capacities:
 - i. #14 pins shall carry 12 Amperes continuous duty.
 - ii. #20 pins shall carry 2 Amperes continuous duty.
 - g. Nominal connection diagram (see below):

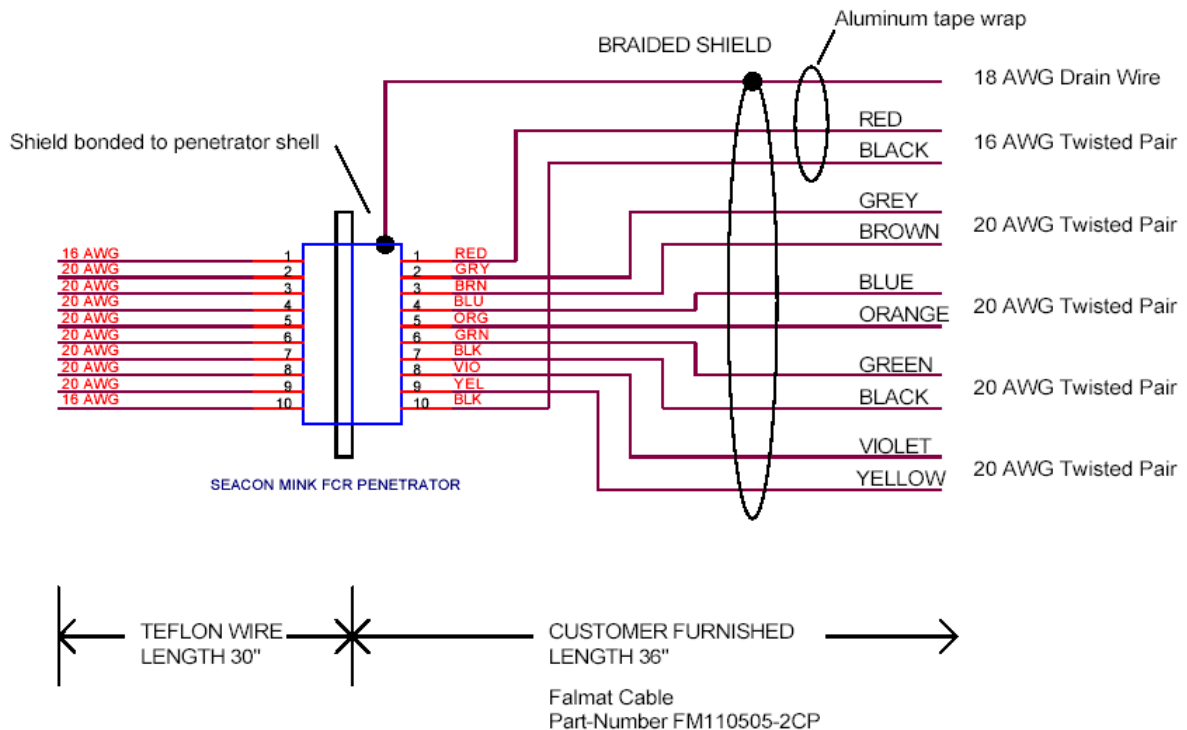


Figure 1. Penetrator Generic Wiring Diagram

2. **Cabling Specification:** The cable shall be 10 conductor, surrounded with a braided shield, all void spaces TPE water-blocked with a polyurethane orange jacket and Teflon insulated conductors. Cable shall be marked on external jacket with Falmat PN "FM110505-2CP" at one (1) meter intervals minimum.
- Pressure rating for cable: Max. working pressure: 5800 p.s.i. seawater.
 - Cable insulation Resistance: 5000 Megohms minimum, conductor to conductor and conductor to seawater at 500 Vdc.
 - Voltage rating: 600VDC all conductors.
 - Maximum working load: 100 lbs. Breaking load: not specified.
 - Cable construction and color codes as shown below.

MOOS BIN INSTRUMENT CABLE MBARI PN 1002923

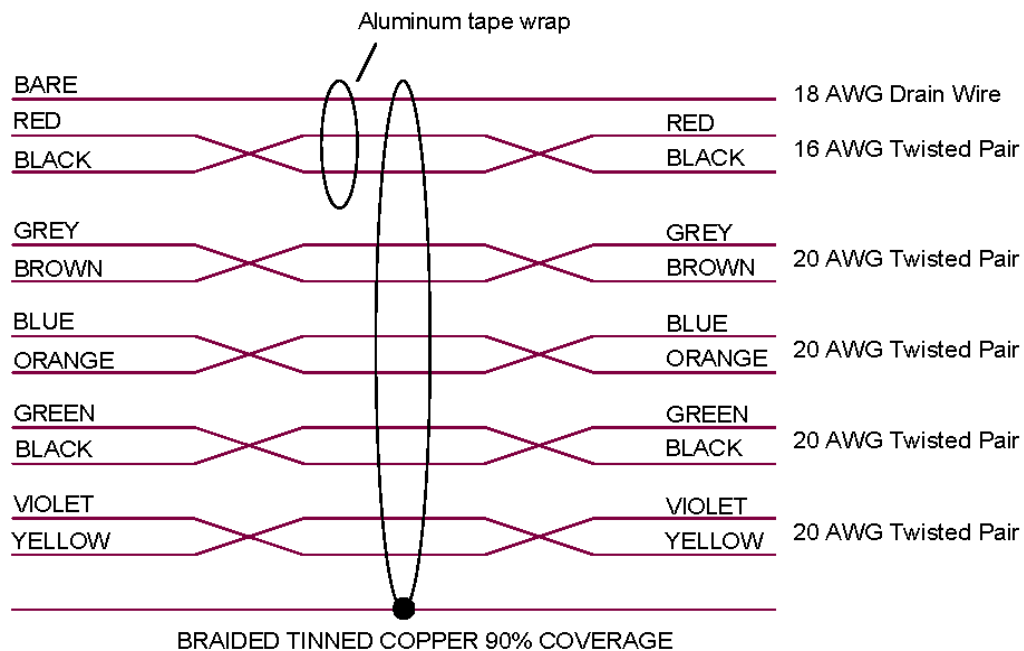


Figure 2. BIN Instrument Cable Color Codes (Falmat PN FM-110505-2CP)