

IP67/IP68 HARSH ENVIRONMENT CONNECTORS

EN3™ SERIES 2-8 PINS



The EN3™ Series is a popular “all weather” TPR plastic connector series that meets a number of harsh weather environmental ratings. Available from 2 through 18 pins. The contact area is double-sealed for excellent moisture and chemical resistance when mated to Switchcraft's connectors and has an integral O-ring and gasket. The Series has an optional cap to cover the panel housing assembly when not in use. The 2-8 versions carry the same environmental ratings as the 9-18, which include IP66/IP68 and NEMA 250, when mated (Exceeds enclosure rating IP16/IP18 when not mated or covered).

Features and Benefits

- Available in solder, crimp, straight and right angled PC versions.
- The panel connector shell features a positioning keyway to prevent misalignments and a polarizing single "D" design for proper panel mounting and to prevent rotational movement.
- Reduced part count for reduced labour to assemble; e.g. no grommets. Cable clamp assembly features living hinges, which snap easily onto and support the cable. Abrasion-resistant thermoplastic boot provides strain relief and accepts cable diameter .195" to .265".
- Exceeds enclosure rating IP16/IP18 when not mated or covered, IP66/IP68 and NEMA 250 when mated
- Exceeds Coast Guard specifications for water tightness (CFR 46 Part 110.20)
- UL 94V-O rated material
- Gold-plated pins and contacts to reduce contact resistance

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Specifications

Materials

- Cord and Panel connector shells, contact locking disk and cable clamp assembly: Thermoplastic polymer glass fibre, flame retardant
- Coupling ring: Nylon
- Rear boot and connector shell interior: Thermoplastic rubber
- Contacts: Copper base alloy gold-plated over nickel underplate

Mechanical

- Shock: Mil-Std 202 Method 213B, condition K
- Vibration: Mil-Std 202 Method 201
- Life: 600 insertion/withdrawal cycles (minimum)

Electrical

- Voltage Rating (sea level): Tested at 600 VRMS
- Insulation Resistance: 100 Megohms (minimum) at 77° F
- Contact Resistance: 5 milliohms (maximum)
- Current Rating: 7.5 Amps (#20 contact), 6.5 Amps (#20 contact) 7&8 pin, 13.0 Amps (#16 contact) 2&3 pin

Environmental

- Temperature Limits: -40°C to +65°C (non-operating)
- Moisture Resistance: Mil-Std 202 Method 106F
- Insulation Resistance: Mil-Std 202 Method 302 condition B
- Thermal Shock: Mil-Std 202 Method 107G
- Salt Spray: Mil-Std 202 Method 101D condition B

Ratings

- IP16/IP18
- IP66/IP68
- NEMA 250 (6P)
- CFR 46 Part 110.20
- UL 94V-O

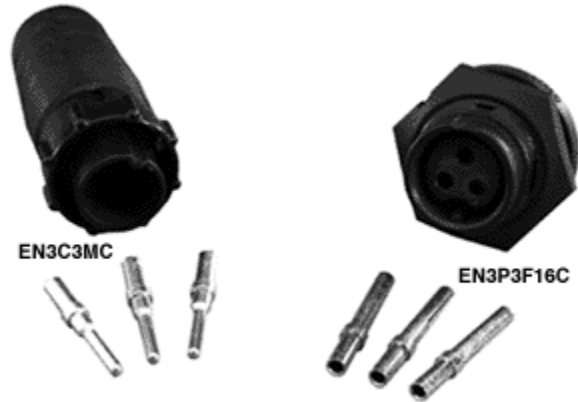
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EN3[®] WITH CRIMP CONTACTS



EN3[®] WITH PC CONTACTS



EN3[®] IN-LINE CONNECTOR

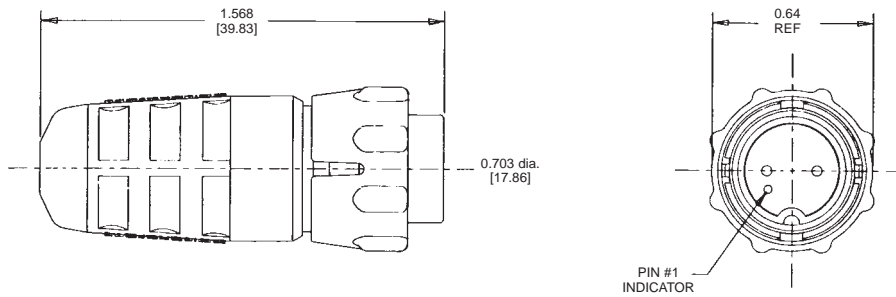
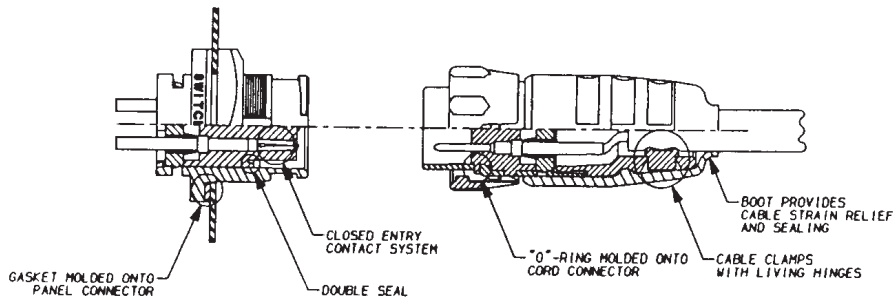


EN3[®] RIGHT ANGLE

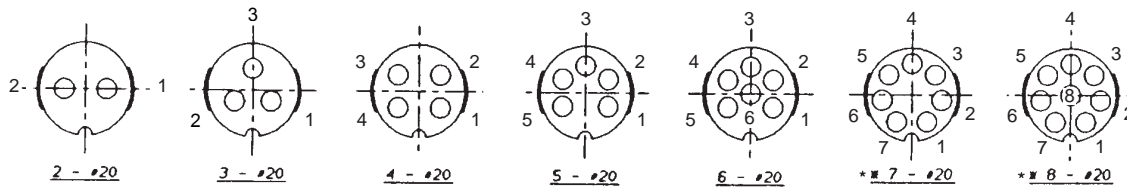


EN3™ MINI WEATHERTIGHT CONNECTOR SERIES

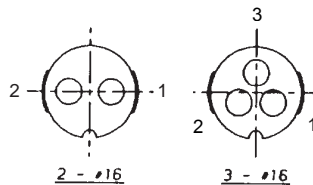
EN3™ CORD CONNECTOR



Cord Connector Contact Arrangements Shown from rear of connector



* 7 and 8 pin not available in crimp male, cord male and panel female

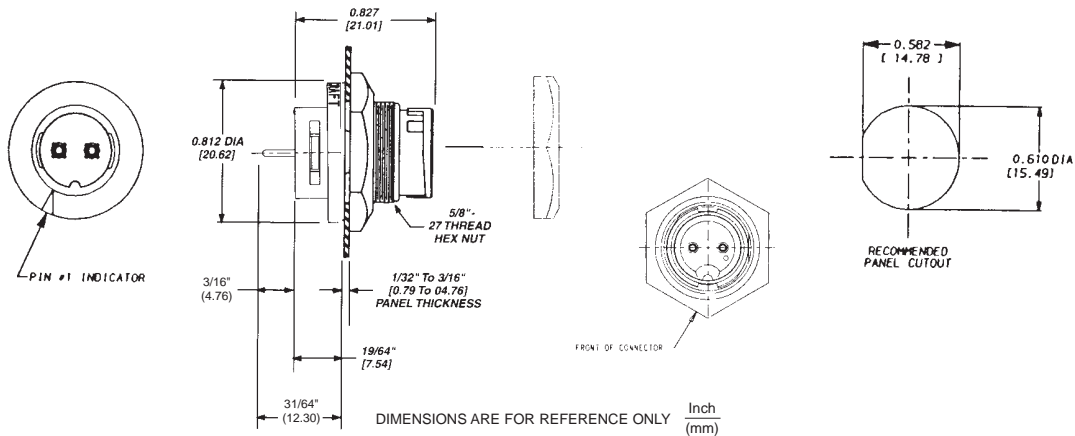
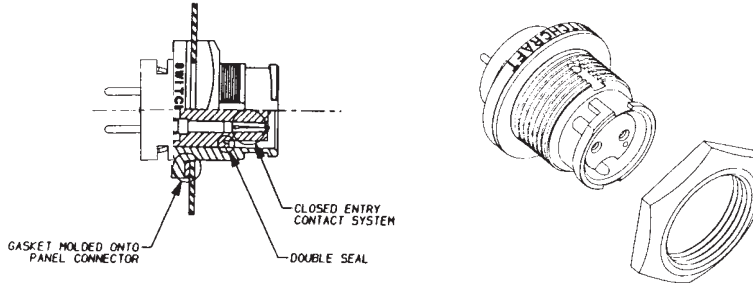


EN3™ MINI WEATHERTIGHT CONNECTOR SERIES

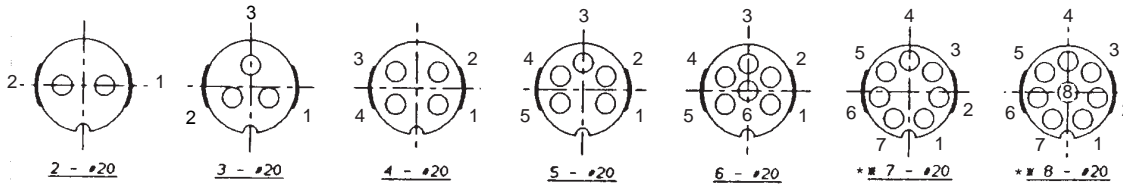


IN2CONNECT
ELECTRONIC CONNECTORS

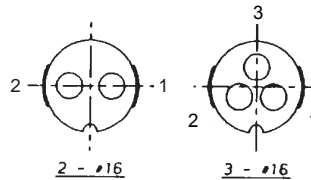
EN3™ PANEL MOUNT CONNECTOR



Panel Connector Contact Arrangements – Shown from front of connector



* 7 and 8 pin not available in panel female

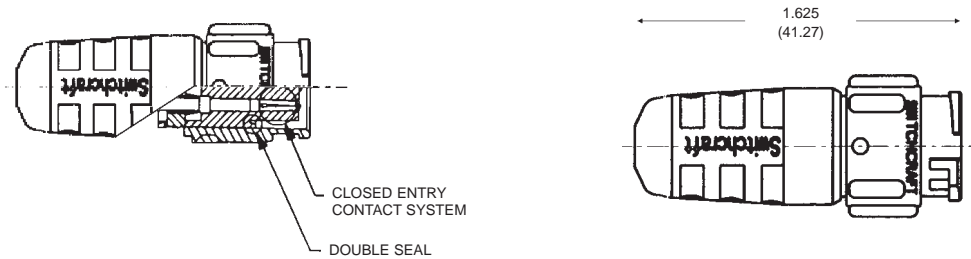


HOLE LAYOUTS VIEWED FROM FRONT OF CONNECTOR
RECOMMENDED HOLE SIZE: #20 CONTACT: .046" DIA.
#16 CONTACT: .055" DIA.

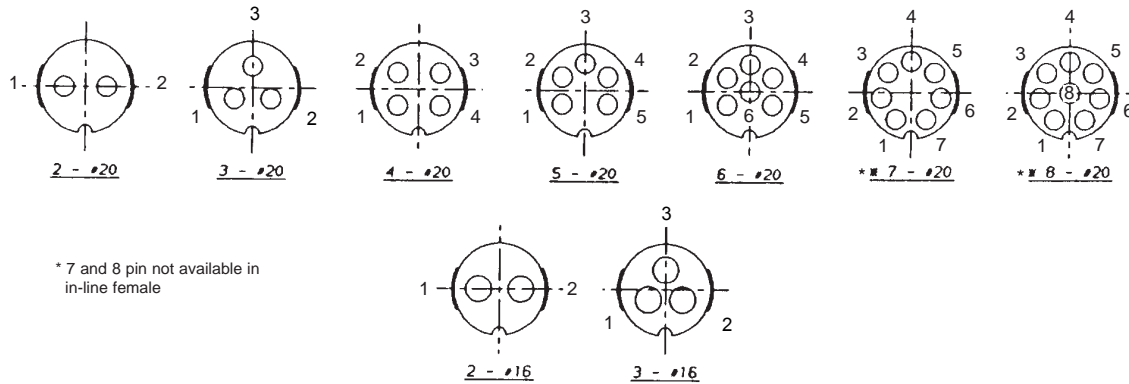
EN3™ MINI WEATHERTIGHT CONNECTOR SERIES



EN3™ INLINE CONNECTOR



**In-Line Connector Contact Arrangements
Shown from rear of connector**



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