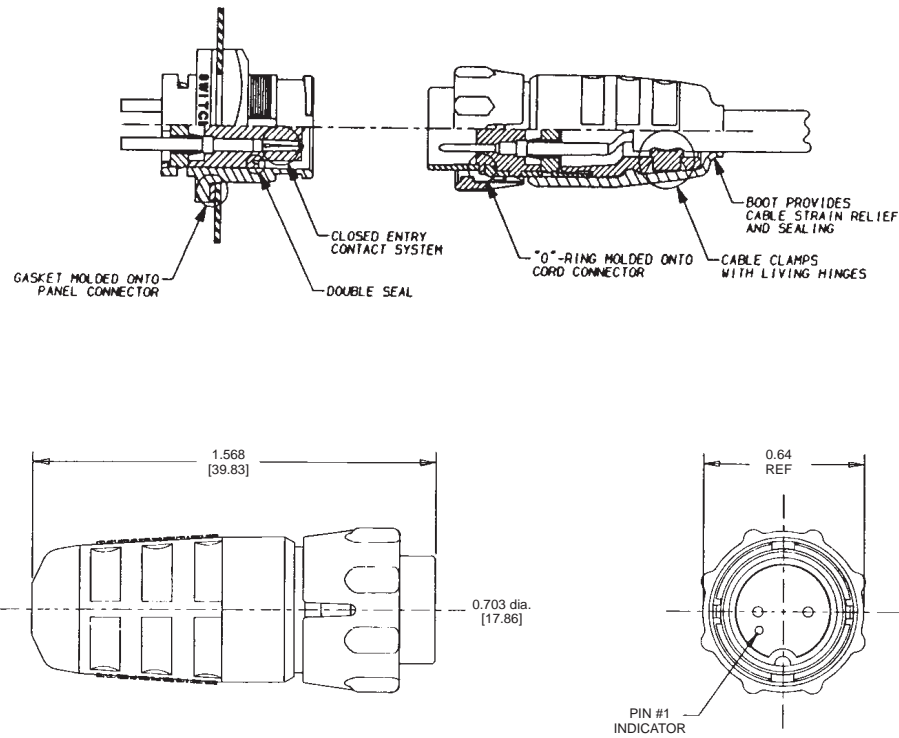
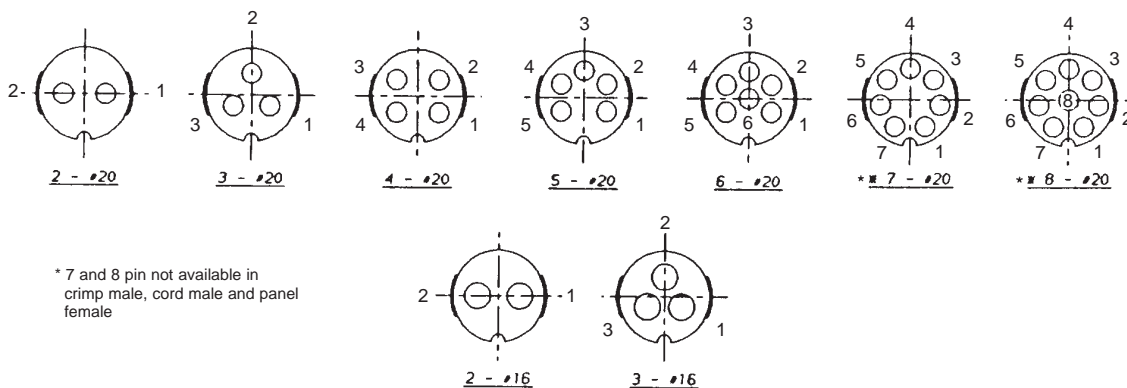


## EN3™ MINI WEATHERTIGHT CONNECTOR SERIES

### EN3™ CORD CONNECTOR



### Cord Connector Contact Arrangements Shown from rear of connector

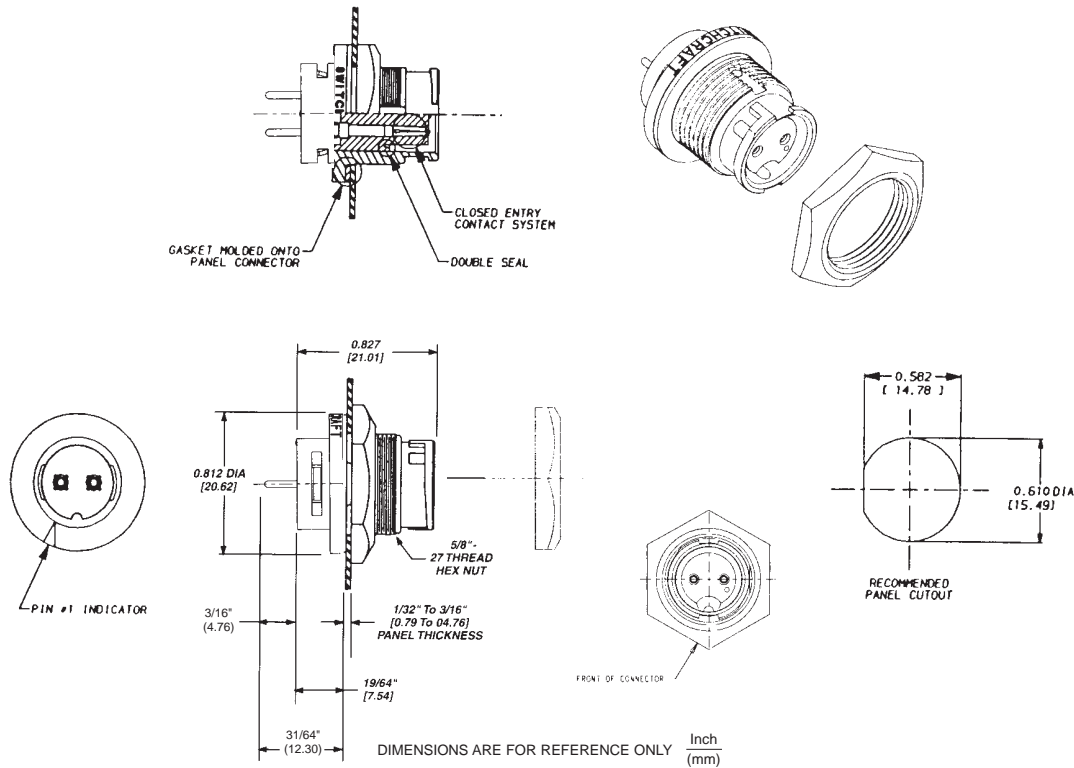


DIMENSIONS ARE FOR REFERENCE ONLY  $\frac{\text{Inch}}{(\text{mm})}$

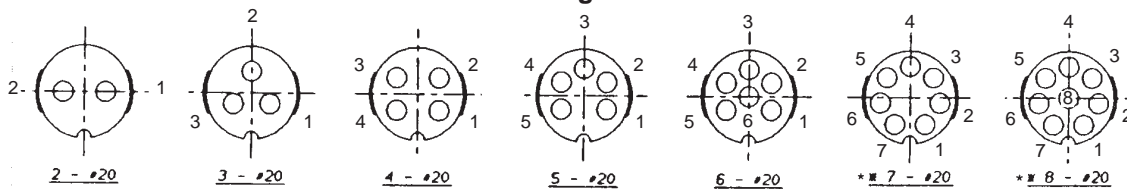
**NOTE:** Contact your Switchcraft Representative for price and delivery.

## EN3™ MINI WEATHERTIGHT CONNECTOR SERIES

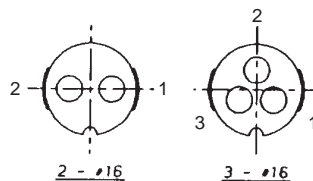
### EN3™ PANEL MOUNT CONNECTOR



#### Panel Connector Contact Arrangements – Shown from front of connector



\* 7 and 8 pin not available in panel female



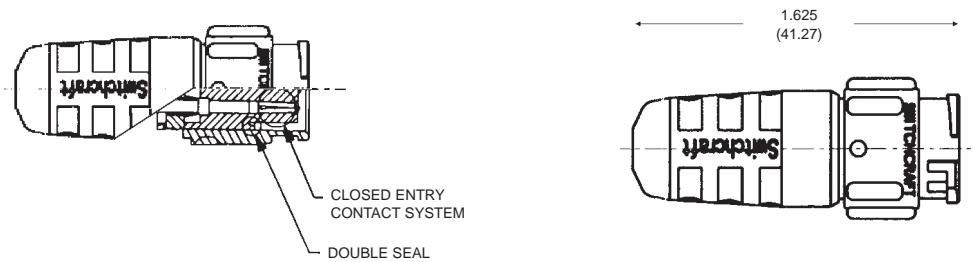
HOLE LAYOUTS VIEWED FROM FRONT OF CONNECTOR  
RECOMMENDED HOLE SIZE: #20 CONTACT: .046" DIA.  
#16 CONTACT: .055" DIA.

DIMENSIONS ARE FOR REFERENCE ONLY Inch  
(mm)

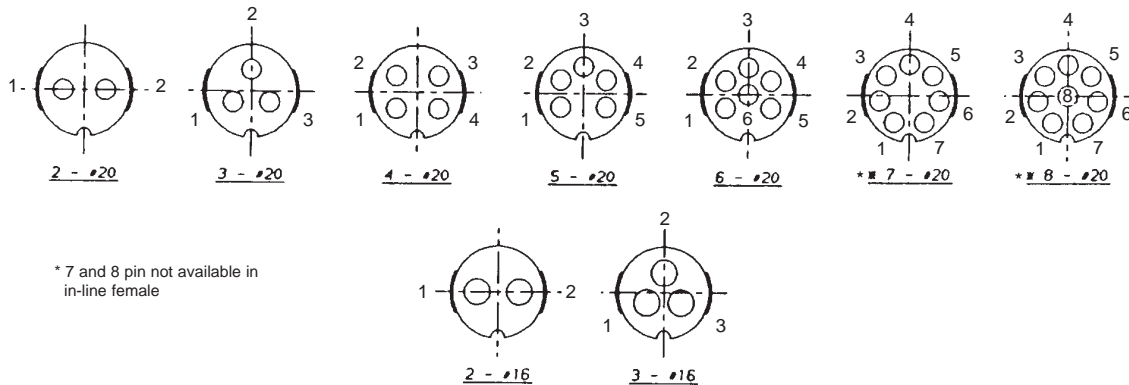
NOTE: Contact your Switchcraft Representative for price and delivery.

## EN3™ MINI WEATHERTIGHT CONNECTOR SERIES

### EN3™ INLINE CONNECTOR



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

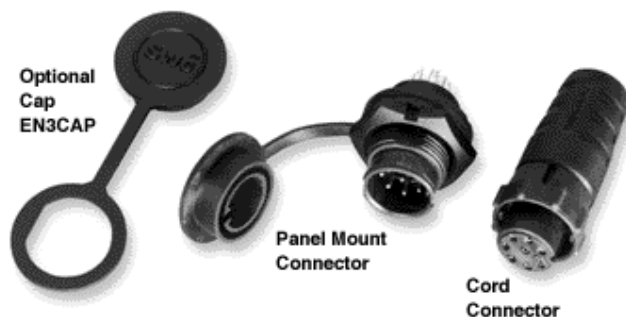


DIMENSIONS ARE FOR REFERENCE ONLY  $\frac{\text{Inch}}{(\text{mm})}$

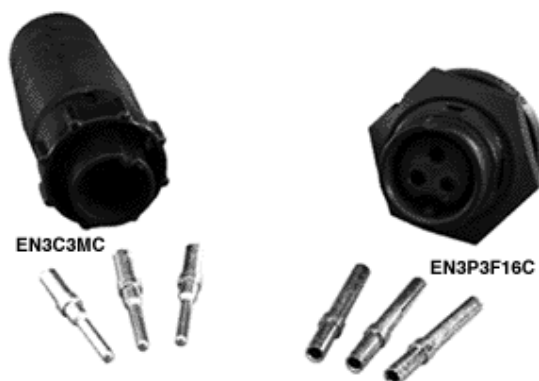
**NOTE:** Contact your Switchcraft Representative for price and delivery.

## EN3™ MINI WEATHERTIGHT CONNECTOR SERIES

### EN3™ WITH SOLDER CONTACTS



### EN3™ WITH CRIMP CONTACTS



### EN3™ WITH PC CONTACTS



### EN3™ IN-LINE CONNECTOR



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## EN3<sup>TM</sup> OVERMOLDED CONNECTOR



# EN3 Series Specifications

## GENERAL FEATURES AND BENEFITS

- Great all-purpose connector “weather” or not sealing feature is required.
- Superior leakage protection. Contact area is double-sealed for excellent moisture and chemical resistance when mated to Switchcraft’s connectors.
- Integral O-ring and gasket. O-ring is molded onto cord housing assembly and gasket is molded onto panel housing assembly to prevent leakage and eliminate need for additional O-rings and gaskets.
- Reduced part count for reduced labor to assemble.
- No Grommets. Cable clamp assembly features living hinges, which snap easily onto and support the cable.
- Thermoplastic rubber body simulates closed entry contact system to prevent probe damage or accidental loss of spring retention due to misaligned or bent pins.
- Abrasion-resistant thermoplastic boot provides strain relief and accepts cable diameter .195” to .265”.
- Housing rated UL 94V-O against flammability.
- 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.
- 2-8 pins.
- Exceeds Coast Guard specifications for water tightness (CFR 46 Part 110.20).
- Optional cap covers panel housing assembly when not in use.
- Exceeds enclosure rating IP16/IP18 when not mated or covered and IP66/IP68 when mated or covered (IEC 529).
- Exceeds enclosure rating 6P at 1000V when mated or covered (NEMA 250).

## APPLICATIONS

- Process Control Communications
- Marine Electronics Transportation
- Medical Instrumentation General Industrial Electronics
- Geothermal Instrumentation Harsh Environments

## MATERIALS

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

## SPECIFICATIONS

### 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 and 8 Pin 13.0 Amps (#16 contact) - 2 and 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

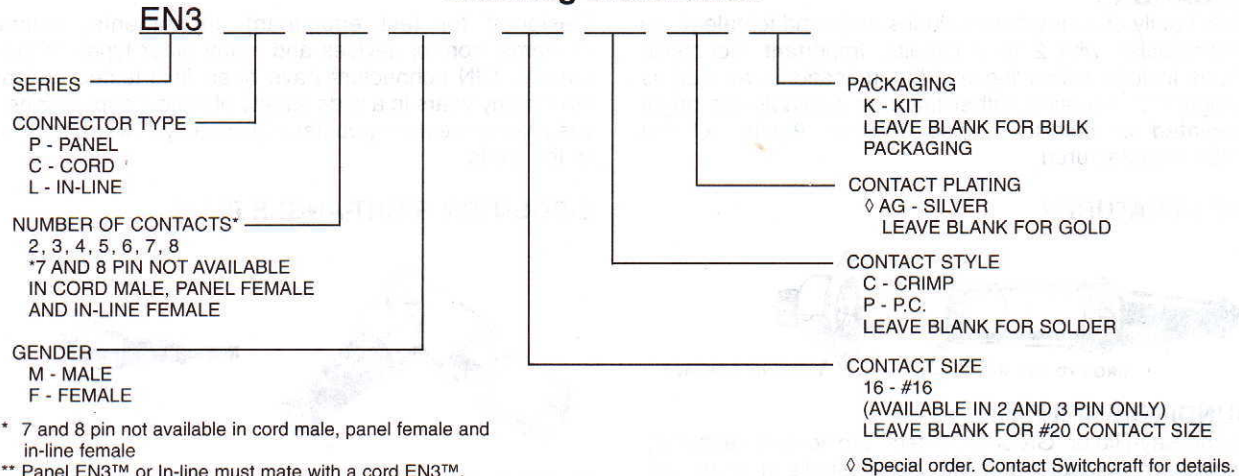
- IP16/IP18 CFR 46 Part 110.20
- IP66/IP68 UL 94V-O
- NEMA 250 (6P)
- Patent 5,485,673 File 36049



## EN3™ MINI WEATHERTIGHT CONNECTOR SERIES

(See Cable Section for Overmolded Cable Part Numbering Information.)

### Ordering Information\*\*



#### 1 Standard Configuration

- Contact size – #20
- Contact style – Solder Cup
- Contact Plating – Gold
- Contacts Factory Installed
- Packaged in Bulk

#### 2 Optional Configuration

Leave Blank for Standard Configuration

#### Optional Cap

- Part Number EN3CAP

#### Examples:

EN3P2M – “Standard”

Mini Panel Connector with 2 Male Contacts, Size #20, Solder Cup Style, Gold-Plated, Contacts Factory Installed; Packaged in Bulk.

EN3C3F16K – “Optional”

Mini Cord Connector with 3 Female Contacts, Size #16, Solder Cup Style, Gold Plated, Contacts Factory Installed, Packaged in Kit.

EN3C5MCSN – “Optional”

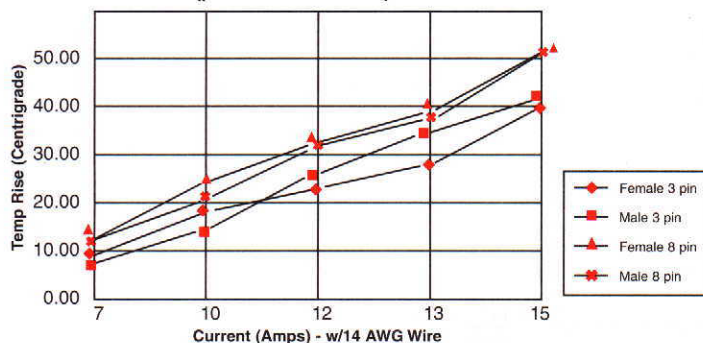
Mini Cord Connector with 5 Male Contacts, Size #20, Crimp Style (Contacts Supplied Loose), Tin-Plated, Packaged in Bulk. (Consult Factory)

### CRIMP TOOLS

Part Number	Tool Description
EN3INS16	Insertion/Extraction Tool for 16 AWG
EN3INS20	Insertion/Extraction Tool for 20 AWG
EN3CR	Crimp Hand Tool
EN3CRAUTO	Pneumatic Crimp Tool
EN3POS16	Positioner for 16 AWG contacts and pins
EN3POS20	Positioner for 20 AWG contacts and pins

**NOTE:** A positioner must be used with the EN3CR and EN3CRAUTO.

EN3™ Weathertight Connector Current Carry Capability  
(per UL 498 Standard)



**NOTE:** Contact your Switchcraft Representative for price and delivery.

### EN3™ Mating Guide

		Male		
		Cord	In-Line	Panel
Female	Cord		•	•
	In-line	•		
	Panel	•		

### Dielectric Withstanding Voltage

Contact size/ number of contacts	Voltage
#20-2	3000
#20-4	
#20-3	
#16-2	2000
#20-7, #20-8	
#16-3	
#20-5, #20-6	1000