

EN2™ SERIES SEALED CONNECTORS

NEW PRODUCT BULLETIN 601

FEATURES & BENEFITS

- Sealed to IP68, NEMA 250 (6P) (when mated)
- Available in standard or winged coupling ring
- Patented grommet and o-ring free design
- Solder/crimp and PC contact options

APPLICATIONS

- Any sealed data transmission
- Military or industrial GPS location devices
- Instrumentation
- Medical data carts
- Marine Applications
- Transportation
- General industrial electronic applications



SWITCHCRAFT®

A H E I C O C O M P A N Y



Please visit www.switchcraft.com for the most up-to-date product specifications. Made in USA.

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SPECIFICATIONS

MECHANICAL SPECIFICATIONS

| | |
|-------------------|--|
| Life: | 600 insertion/withdrawal cycles minimum |
| Vibration: | Mil-Std 202G Method 201A |
| Hex Nut Torque: | 5-6 in/lb |
| Operating Forces: | 8 lb maximum insertion. 0.25 lb minimum withdrawal |
| Back Shell Type: | Threaded Handle |

ELECTRICAL SPECIFICATIONS

| | |
|------------------------|---|
| Voltage Rating: | 250 V AC/DC for 2 contact arrangement. 125 V AC/DC for 3-7 contact arrangements |
| Current Rating: | Refer to current rating table on page 3 |
| Insulation Resistance: | 1000 MΩ minimum |
| Contact Resistance: | 10 mΩ maximum |

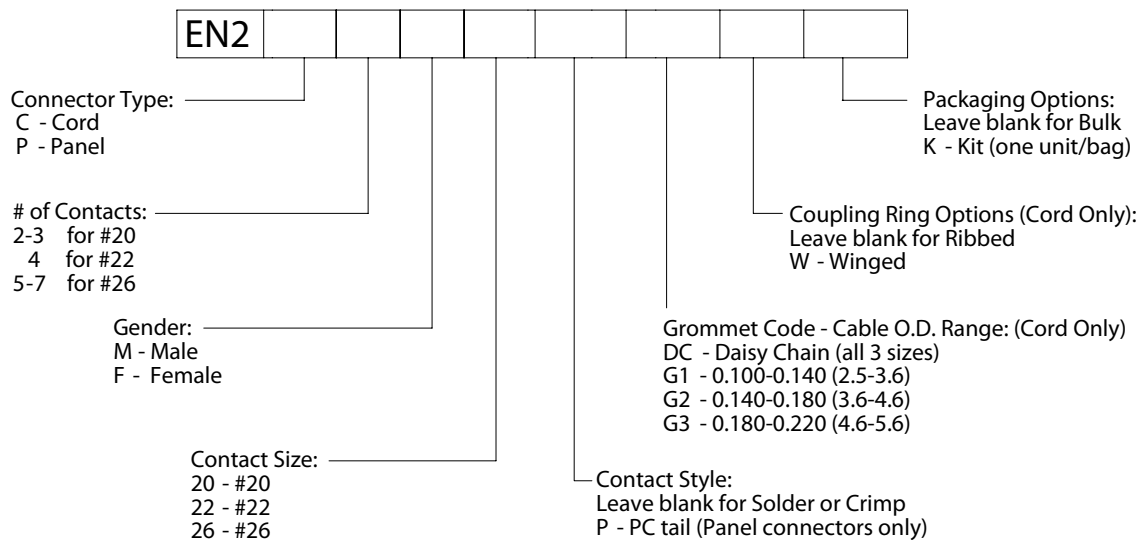
ENVIRONMENTAL SPECIFICATIONS

| | |
|-------------------------------|--|
| Operating Temperature Limits: | -40°C to +85°C (-40°F to +185°F) |
| Moisture Resistance: | Mil-Std 202G Method 106G |
| Insulation Resistance: | Mil-Std 202G Method 302 Condition B |
| Thermal Shock: | Mil-Std 202G Method 107G |
| Salt Atmosphere (Corrosion): | Mil-Std 202G Method 101E Condition B |
| Weathertight Ratings: | IP16, IP18, IP66, IP67, IP68 per IEC60529. NEMA 250 (6P), CFR 46 Part 110.20 |

MATERIAL SPECIFICATIONS

| | |
|---------------------|----------------------|
| Connector Housing: | Thermoplastic, Black |
| Hex Nut: | Thermoplastic, Black |
| Coupling Ring: | Thermoplastic, Black |
| Cable Clamp: | Thermoplastic, Black |
| Handle (Back-Shell) | Thermoplastic, Black |
| Insulator: | Elastomer, Black |
| Seal Grommet: | Elastomer, Black |
| Contacts: | Copper Alloy, Plated |

ORDERING CODE



Consult factory for Cable to Cable (Inline) type connectors.



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EN2™ SERIES CURRENT RATING TABLE

| Contacts | Wire (awg) | Current Rating (A) at Operating Temperature (°C) | | | | |
|----------|------------|--|----------|----------|----------|----------|
| | | 45°C max | 55°C max | 65°C max | 75°C max | 85°C max |
| 2 #20 | 20 | 7 | 6 | 5 | 4 | 3.5 |
| | 22 | 5.5 | 5 | 4 | 3 | 2.5 |
| | 24 | 5.5 | 5 | 4 | 3 | 2.5 |
| | 26 | 4 | 3.5 | 2.5 | 2 | 1 |
| 3 #20 | 20 | 6.5 | 5.5 | 4.5 | 3.5 | 2 |
| | 22 | 5 | 4.5 | 3.5 | 3 | 1.5 |
| | 24 | 5 | 4.5 | 3.5 | 3 | 1.5 |
| | 26 | 3 | 2.5 | 2 | 1.5 | 0.5 |
| 4 #22 | 20 | 5 | 4.5 | 3.5 | 3 | 1.5 |
| | 22 | 4.5 | 4 | 3 | 2 | 1 |
| | 24 | 4.5 | 4 | 3 | 2 | 1 |
| | 26 | 3 | 2.5 | 2 | 1.5 | 0.5 |
| 5-7 #26 | 26 | 3 | 2.5 | 2 | 1.5 | 1 |
| | 28 | 2.5 | 2 | 1.5 | 1 | 0.5 |
| | 30 | 2 | 1.5 | 1 | 0.5 | 0.5 |

EN2™ CONTACT CRIMPING TOOLS

| Handle | Description | Positioner | Contact Sizes | Wire Sizes |
|-----------|----------------------|------------|---------------|----------------|
| EN3CR | Crimp Hand Tool | EN2POS20 | #20, #22 | 20, 22 AWG |
| | | EN3POS26 | #26 | 26, 28, 30 AWG |
| EN3CRAUTO | Pneumatic Crimp Tool | EN2POS20 | #20, #22 | 20, 22 AWG |
| | | EN3POS26 | #26 | 26, 28, 30 AWG |

EN2™ INSERTION / EXTRACTION TOOLS

| Part Number | Contact Sizes | Description |
|-------------|---------------|---|
| EN3INS20 | #20, #22 | Insertion / Extraction Tool for 20, 22 AWG |
| EN3INS26 | #26 | Insertion / Extraction Tool for 26, 28 & 30 AWG |

EN2™ ALTERNATE LARGER FRAME TOOL

| Handle | Description | Positioner | Contact Sizes | Wire Sizes |
|------------|----------------|------------|---------------|-----------------|
| EN2CRL | Hand Tool | EN2POS20L | #20, #22 | 20-22-24-26 AWG |
| EN2CRAUTOL | Pneumatic Tool | | | |

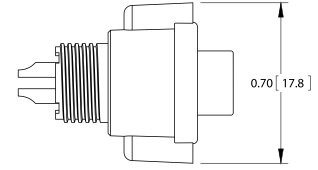
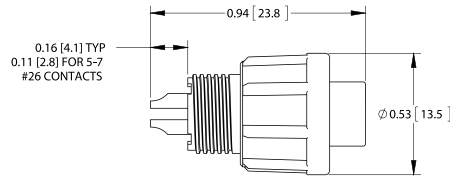
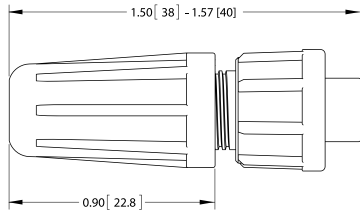


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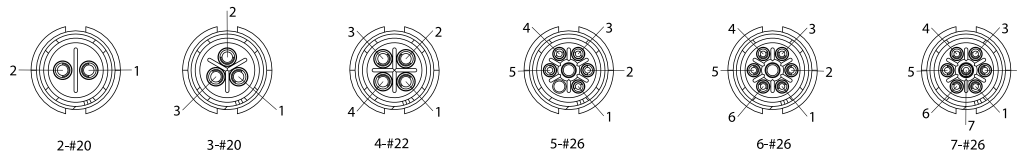
CORD



TYPICAL CORD CONNECTOR WITH RIBBED COUPLING RING

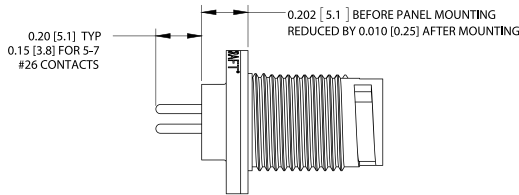
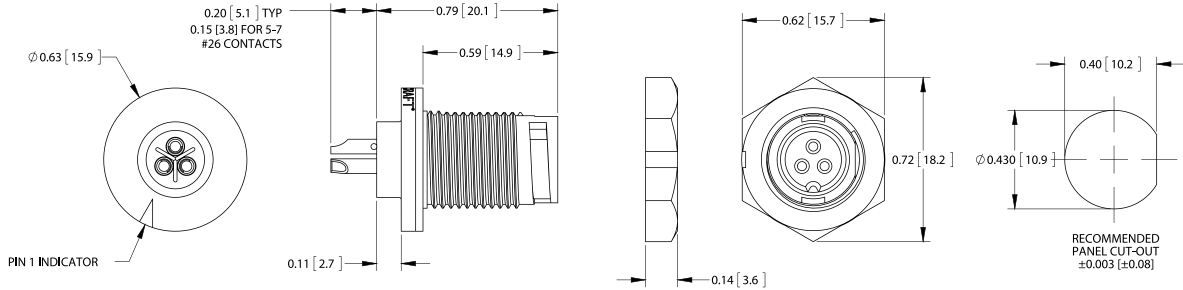
TYPICAL CORD CONNECTOR WITH WINGED COUPLING RING

ALL DIMENSIONS FOR REFERENCE ONLY



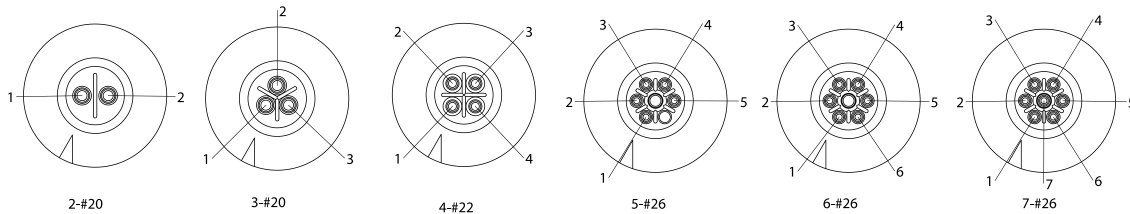
CONTACT ARRANGEMENTS
CORD CONNECTOR REAR (WIRING SIDE) VIEW

PANEL MOUNT



PC TAIL TYPE CONTACTS

ALL DIMENSIONS FOR REFERENCE ONLY



CONTACT ARRANGEMENTS
PANEL CONNECTOR REAR (WIRING SIDE) VIEW

DUST CAP PART # 16295



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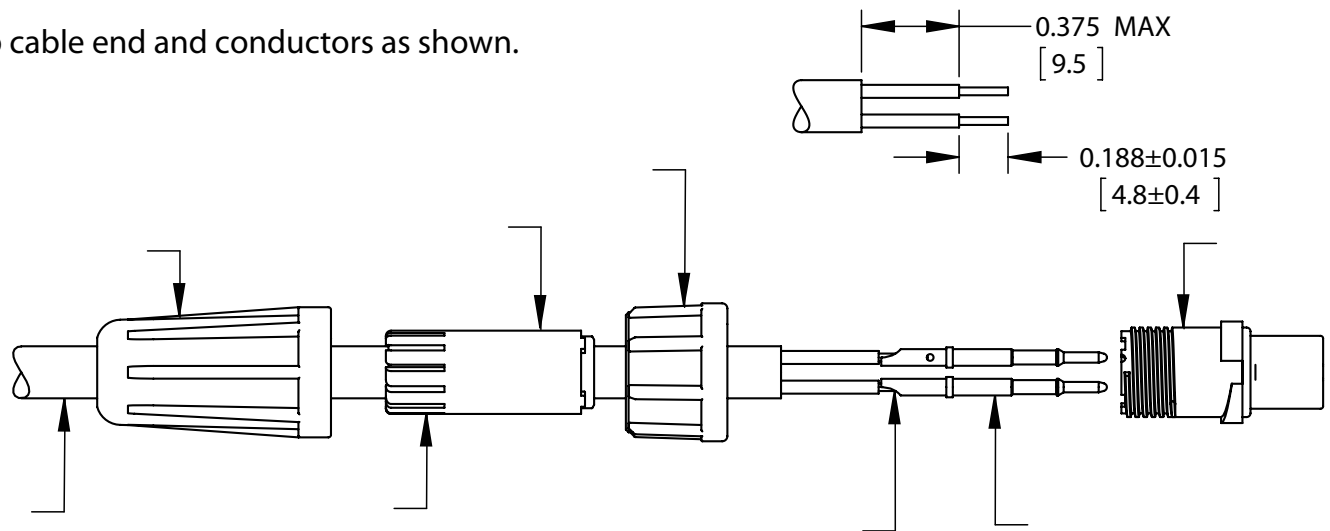
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EN2™ CORD CONNECTOR FIELD ASSEMBLY INSTRUCTIONS

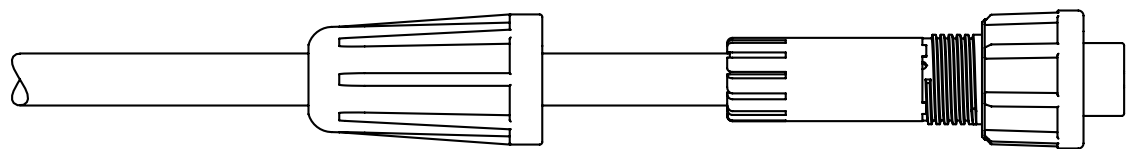
Feed the free end of cable through the handle, cable-clamp/grommet, and coupling ring in the order shown.

Strip cable end and conductors as shown.



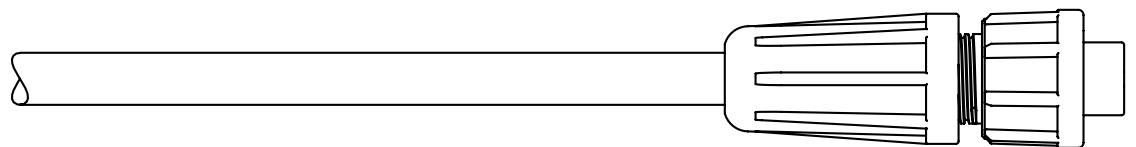
Soldering or crimping conductors to contacts is recommended before insertion into connector. If crimping, use hand or pneumatic crimp tool with crimp positioner per contact size. If soldering after contacts are inserted in the connector, limit exposure of contacts to soldering iron temperature to 4 sec. maximum. Soldering iron temperature should not exceed 650°F (343°C).

Insert wired contacts into connector housing using an insertion tool and per contacts arrangements.



Align coupling ring over housing and bring forward.

Align cable-clamp/grommet on the rear of housing. Make certain grommet is completely inside the cable-clamp in the final position.



Bring forward and thread handle onto housing until tight. Do not exceed 2 in-lb torque.



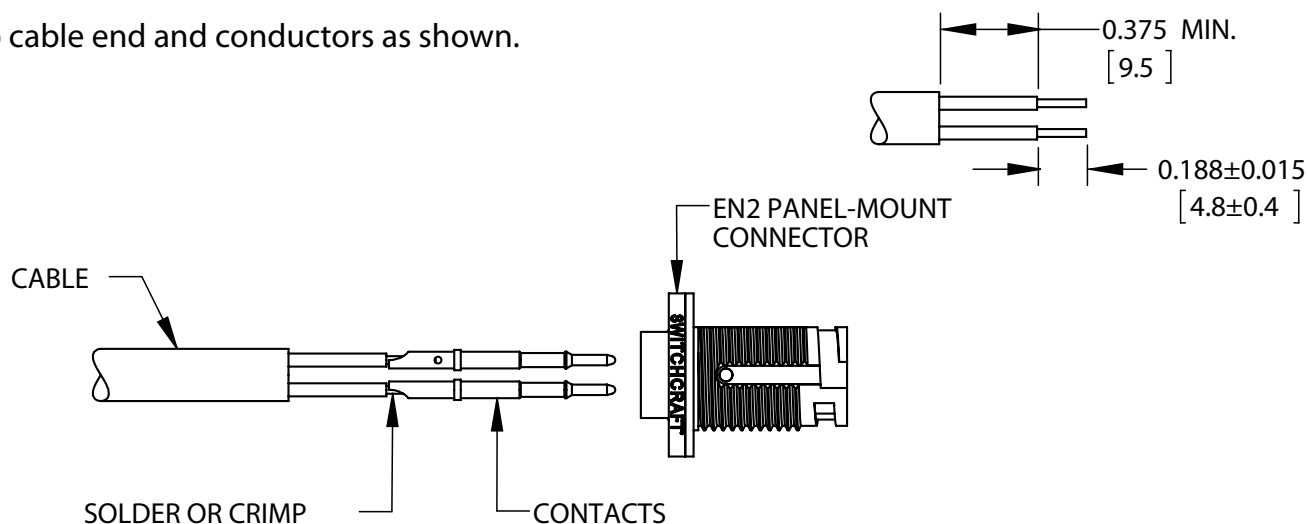
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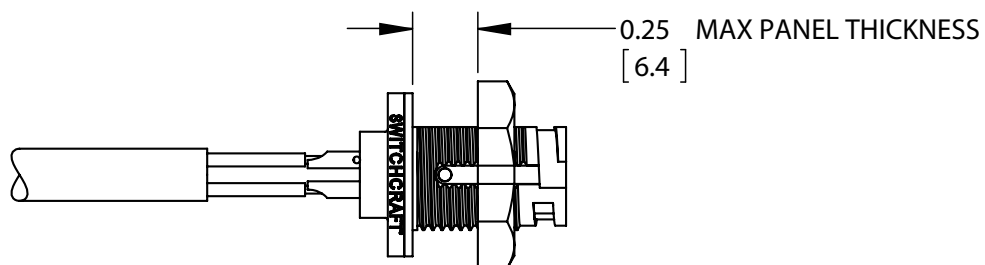
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EN2™ PANEL CONNECTOR FIELD ASSEMBLY INSTRUCTIONS

Strip cable end and conductors as shown.



Soldering or crimping conductors to contacts is recommended before insertion into connector. If crimping, use hand or pneumatic crimp tool with crimp positioner per contact size. If soldering after contacts are inserted in the connector, limit exposure of contacts to soldering iron temperature to 4 sec. maximum. Soldering iron temperature should not exceed 650°F (343°C).



Insert wired contacts into connector housing using an insertion tool and per contacts arrangements.

Align and install connector into panel cut-out. Tighten hex nut 5 -6 in-lb.



Mouser Electronics

Authorized Distributor

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Switchcraft:

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[EN2P7M26P](#) [EN2P7M26PK](#) [EN2C7F26G1W](#) [EN2C7F26G2](#) [EN2C7F26G2W](#) [EN2C7F26G3](#) [EN2C7F26G3W](#)
[EN2C7M26DCW](#) [EN2C7M26G1](#) [EN2C7M26G1W](#) [EN2C7M26G2](#) [EN2C7M26G2W](#) [EN2C7M26G3](#) [EN2C7M26G3W](#)
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[EN2P3M20PK](#) [EN2P4F22P](#) [EN2P4M22K](#) [EN2P4M22P](#) [EN2P5F26P](#) [EN2P5M26K](#) [EN2C5F26G2W](#) [EN2C5F26G3](#)
[EN2C5F26G3W](#) [EN2C5M26DCW](#) [EN2C5M26G1](#) [EN2C5M26G1W](#) [EN2C5M26G2](#) [EN2C5M26G2W](#) [EN2C5M26G3](#)
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