

HS2 C 7 F 20 B - K

Dura-Pull Series

Connector Type:
C - Cable-End
P - Panel, Front-Mount
L - Cable-to-Cable

of contacts:
2-5 for #20
6-9 for #26

Gender:
M - Male (Pin)
F - Female (Socket)

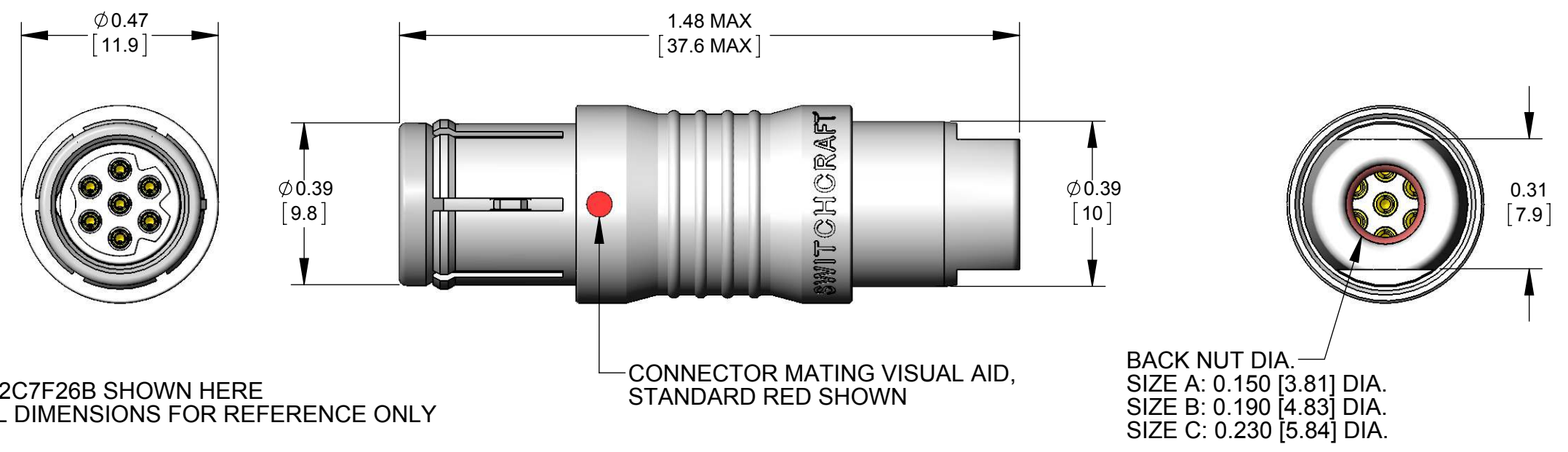
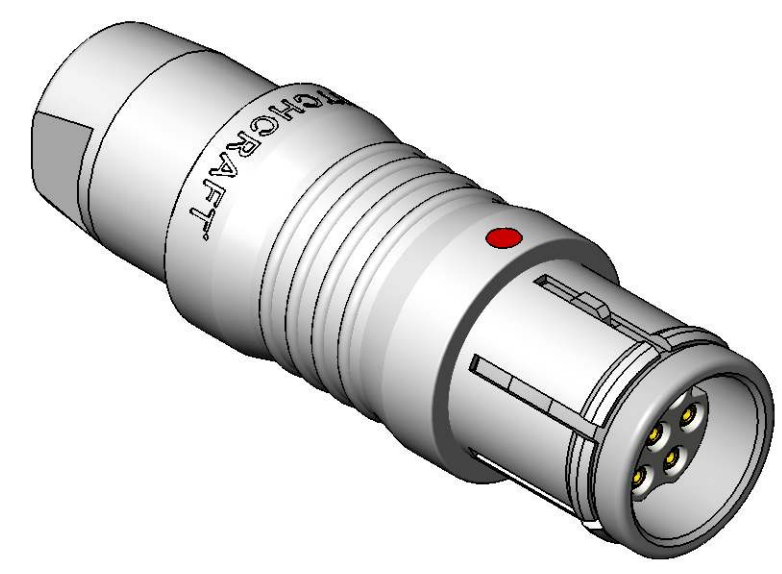
Options:
K - Kit Packaging (one unit/bag)
[blank] - Bulk Packaging
 Consult factory for other options

Clamp Set per Cable O.D. Range for Cable-End and Cable-to-Cable only:
A - 0.110 - 0.140 [2.8 - 3.6]
B - 0.140 - 0.180 [3.6 - 4.6]
C - 0.180 - 0.216 [4.6 - 5.5]

Contact Size:
20 - 20, 22, 24, 26 AWG wires
26 - 26, 28, 30 AWG wires

Refer to HS2P SERIES drawing for mating Panel-mount connectors.
 Refer to HS2L SERIES drawing for mating Cable-to-Cable connectors.

| SPECIFICATIONS: | |
|----------------------------------|---|
| MECHANICAL | |
| Mating / Locking Type: | Push-Pull automatic locking/unlocking |
| Life | 5,000 cycles minimum |
| Operating Forces | 10 lb. [44.5 N] maximum Insertion or Withdrawal |
| Vibration | Mil-Std 202G Method 201A |
| Panel-Mount Hex Nut Tongue | 40 in-lb [4.5 Nm] maximum |
| Cable Securing System: | Threaded on metal Clamp |
| ELECTRICAL | |
| Voltage Rating | 125 V AC/DC for 2-5 contact arrangements 30 V AC/DC for 6-9 contact arrangements |
| Current Rating | Refer to Current Carry Capacity Table |
| Insulation Resistance | 1000 MΩ minimum |
| Contact Resistance | 10 mΩ typical |
| EMI Shielding | 360° |
| ENVIRONMENTAL | |
| Temperature Limits | -40°C to +135°C (-40°F to +275°F) |
| Operating Temperature Range | Refer to Current Carry Capacity Table |
| Moisture Resistance | Mil-Std 202G Method 106G |
| Insulation Resistance | Mil-Std 202G Method 302 |
| Thermal Shock | Mil-Std 202G Method 107G |
| Salt Atmosphere (Corrosion) | Mil-Std 202G Method 101E |
| Ingress Protection Ratings | IP66, IP67, IP68 (6 ft. for 24 hours) per IEC60529, NEMA 250 6P |
| MATERIAL | |
| Outer Shell Metal components | Copper Alloy, electroless nickel plated |
| Hex Nut & Inner Metal components | Copper Alloy, nickel plated |
| Ground Spring Washer | Stainless Steel |
| Electrical Insulator | Medical Technology LCP, natural |
| Seal O-rings | Silicone, red |
| Contacts | Copper Alloy, gold plated |



PRELIMINARY

| Contacts | Wire (awg) | Current Rating (A) at Operating Temperature (°C) | | | | | Minimum Test Voltage (V rms) | Voltage (V rms) tested per UL2238 |
|----------|------------|--|-----------|-----------|------------|------------|------------------------------|-----------------------------------|
| | | 45°C max. | 65°C max. | 85°C max. | 100°C max. | 110°C max. | | |
| 2 #20 | 20 | 10 | 9 | 8 | 7* | 6 | 1400 | 125 |
| | 22 | 8.5 | 7.5 | 7.5 | 5.5* | 4.5 | | |
| | 24 | 7 | 6 | 5 | 4.5* | 3.5 | | |
| | 26 | 4 | 4 | 3.5 | 3.5* | 2.5 | | |
| 3 #20 | 20 | 9.5 | 8.5 | 7.5 | 6.5* | 5 | | |
| | 22 | 8 | 7 | 6 | 5* | 4 | | |
| | 24 | 6 | 5.5 | 4.5 | 4* | 3 | | |
| | 26 | 3.5 | 3.5 | 3 | 3* | 2.5 | | |
| 4 #20 | 20 | 9 | 8 | 7 | 6* | 5 | | |
| | 22 | 7.5 | 6.5 | 5.5 | 4.5* | 3.5 | | |
| | 24 | 5 | 4.5 | 4 | 3.5* | 2.5 | | |
| | 26 | 3 | 3 | 2.5 | 2.5* | 2 | | |
| 5 #20 | 20 | 8 | 7.5 | 6.5 | 5.5* | 4.5 | | |
| | 22 | 6.5 | 5.5 | 5 | 4* | 3 | | |
| | 24 | 4.5 | 4 | 3.5 | 3* | 2.5 | | |
| | 26 | 2.5 | 2.5 | 2 | 2* | 1.5 | | |
| 6-7 #26 | 26 | 2.5 | 2.5 | 2 | 2* | 1.5 | | |
| | 28 | 2 | 2 | 1.5 | 1.5* | 1 | | |
| | 30 | 1.5 | 1.5 | 1 | 1* | .5 | | |
| | 26 | 2 | 2 | 1.5 | 1.5* | 1 | | |
| 8-9 #26 | 28 | 1.5 | 1.5 | 1 | 1* | .5 | | |
| | 30 | 1 | 1 | .5 | .5* | .5 | | |

*Temperature Rise does not exceed 30°C when tested according to UL2238. All other recommended current ratings are based on the Relative Thermal Index of the insulating material.

| TOOL | TOOL TYPE | POSITIONER | CONTACT SIZE | WIRE SIZES |
|------------|----------------------------------|------------|--------------|------------------------|
| EN3CR | HAND CRIMP TOOL | EN2POS20 | 20 and 22 | 20 and 22 AWG |
| | | EN3POS26 | 26 | 26, 28, and 30 AWG |
| EN3CRAUTO | PNEUMATIC CRIMP TOOL | EN2POS20 | 20 and 22 | 20 and 22 AWG |
| | | EN3POS26 | 26 | 26, 28, and 30 AWG |
| EN2CRL | HAND CRIMP TOOL LARGE FRAME | EN2POS20L | 20 and 22 | 20, 22, 24, and 26 AWG |
| EN2CRAUTOL | PNEUMATIC CRIMP TOOL LARGE FRAME | | | |
| EN3INS20 | CONTACT INSERTION | -- | 20 and 22 | 20, 22, 24, and 26 AWG |
| EN3INS26 | | -- | 26 | 26, 28, and 30 AWG |
| REMT00L20 | CONTACT EXTRACTION | -- | 20 | 20, 22, 24, and 26 AWG |
| REMT00L26 | | -- | 26 | 26, 28, and 30 AWG |

CUSTOMER DRAWING

THIS DRAWING DESCRIBES A DESIGN CONSIDERED PROPRIETARY IN NATURE, DEVELOPED AND MANUFACTURED BY SWITCHCRAFT INC. AND IS RELEASED ON A CONFIDENTIAL BASIS FOR IDENTIFICATION PURPOSES ONLY.

| | | | | | |
|--------------------------------------|------|-------|------|-------|--------|
| UNLESS OTHERWISE SPECIFIED | SIZE | WIDTH | MULT | LBS/M | TEMPER |
| 1. ALL DIMENSIONS IN INCHES [mm] | | | | | |
| - TWO PLACE DECIMALS ±0.02 [0.5] | | | | | |
| - THREE PLACE DECIMALS ±0.005 [0.13] | | | | | |

| | | | |
|----------------------|----------|-------------|----------|
| FINISH | MATERIAL | | |
| SPEC No. | SPEC No. | | |
| FIRST USED ON | SCALE | | |
| | 3:1 | | |
| DATE DRAWN | BY | CHKD | APVD |
| 01/06/16 | PNK | 01/06/16 | 01/06/16 |
| NAME | | PART No. | |
| CABLE-END | | HS2C SERIES | |
| DO NOT SCALE DRAWING | | REV 0A | |

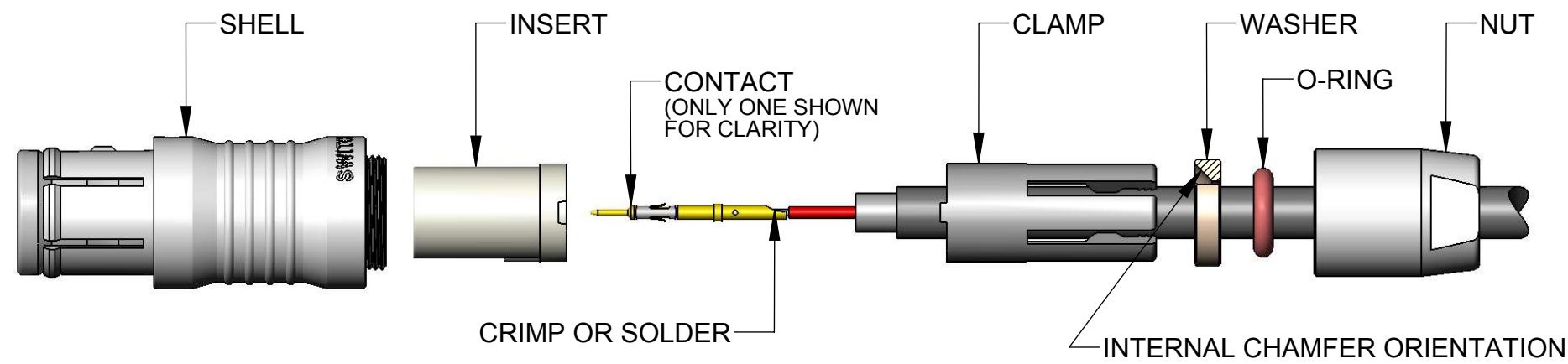
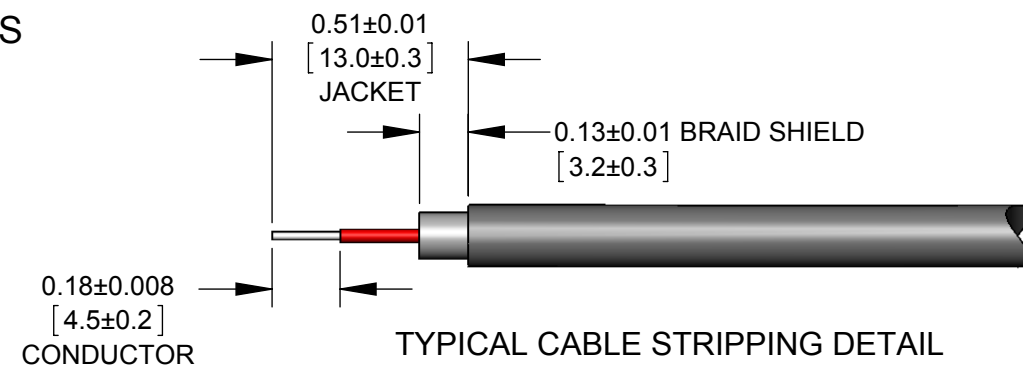
Switchcraft®

SHEET 1 OF 2

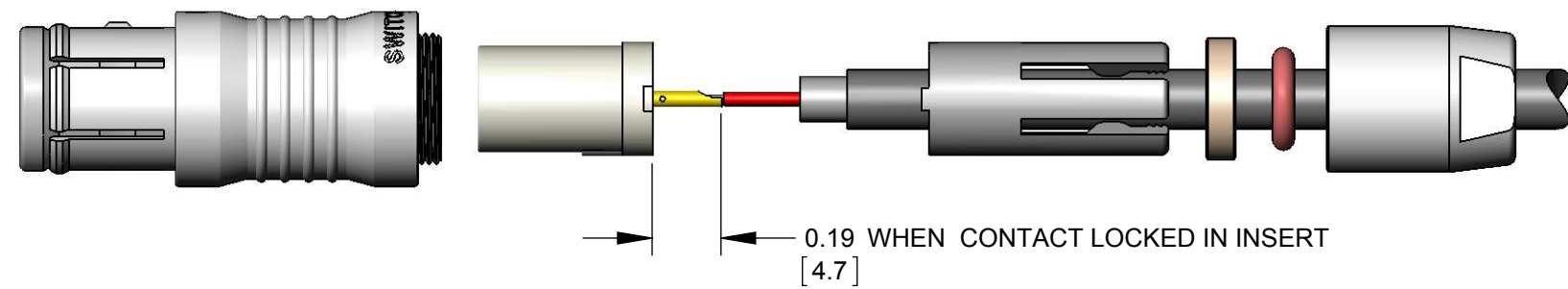
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HS2 SERIES CABLE-END FIELD ASSEMBLY INSTRUCTIONS:

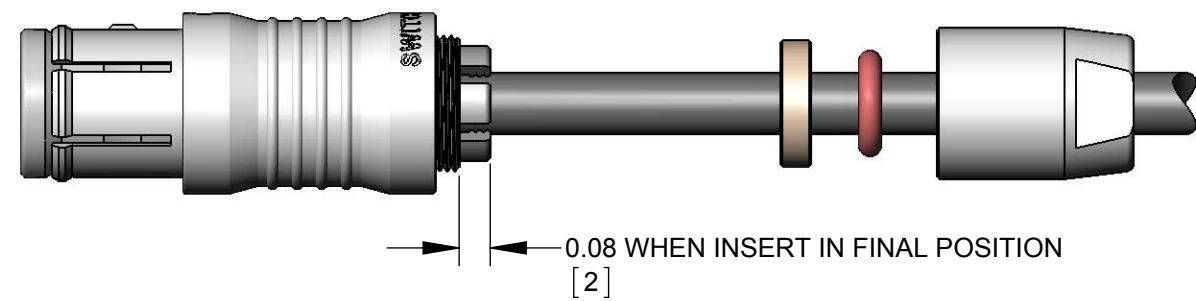
1. FEED THE FREE END OF CABLE THROUGH THE NUT, O-RING, WASHER, AND CLAMP IN THE ORDER SHOWN.
2. STRIP THE CABLE END AND THE CONDUCTORS AS SHOWN HERE.



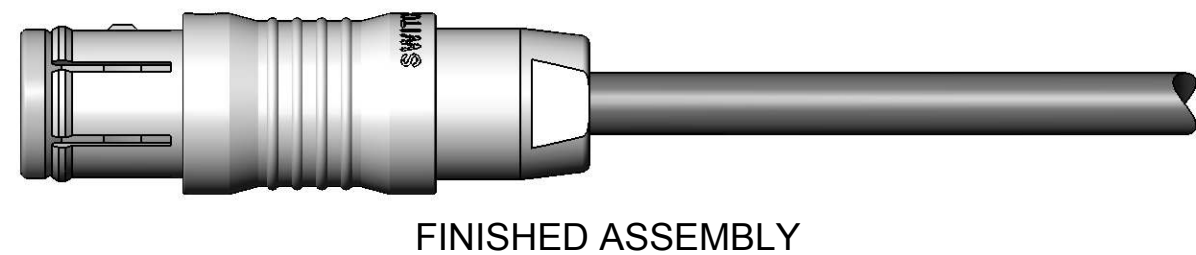
3. CRIMP CONDUCTORS TO CONTACTS USING HAND OR PNEUMATIC CRIMP TOOL* WITH CRIMP POSITIONER* SET PER CONTACT SIZE AND WIRE GAGE. IF SOLDERING, IT IS RECOMMENDED TO SOLDER CONDUCTORS TO CONTACTS BEFORE INSERTING THEM INTO INSERT.
4. GUIDE EACH WIRED CONTACT INTO INSERT HOLE AND PUSH UNTIL CONTACT SNAPS IN PLACE. USE INSERTION TOOL* IF NECESSARY. COLORED CONDUCTORS CAN BE ASSIGNED TO CONTACT POSITION NUMBERS AS DESIRED. TO REMOVE A CONTACT, INSERT THE EXTRACTION TOOL* FROM THE FRONT OF INSERT AND LIGHTLY PRESS THE SPRING LOADED PLUNGER INWARD TO PUSH THE CONTACT OUT.



5. ALIGN INSERT ASSEMBLY INTO SHELL FOLLOWED BY THE CLAMP. PUSH CLAMP LIGHTLY FORWARD AND ROTATE UNTIL THE ASSEMBLY SNAPS IN THE FINAL POSITION SHOWN.



6. SLIDE WASHER, O-RING, AND NUT AGAINST CLAMP AND THREAD NUT ON UNTIL TIGHT, UP TO 12 IN-LB [1.4 Nm] TORQUE. A 5/16" [8mm] WRENCH CAN BE USED, IF NECESSARY.



*REFER TO TOOLS TABLE ON THIS DRAWING FOR SELECTION OF TOOLS PER CONTACT AND WIRE SIZE.

| | | |
|------------------------|----------------------------|-----------|
| SCALE 2:1 | Switchcraft® | |
| DATE DRAWN 01/06/16 | | |
| DRAWN BY PNK | PART No. HS2C SERIES_CD | REV 0A |