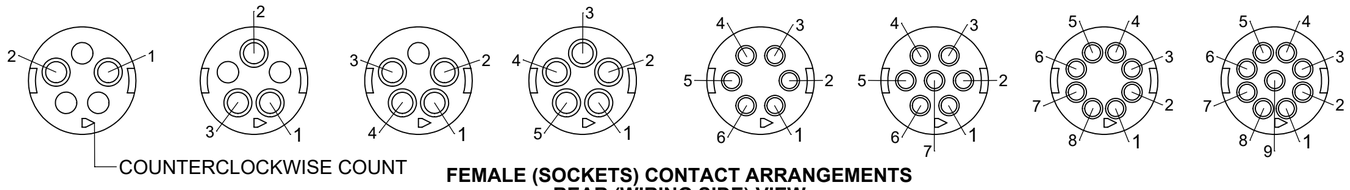
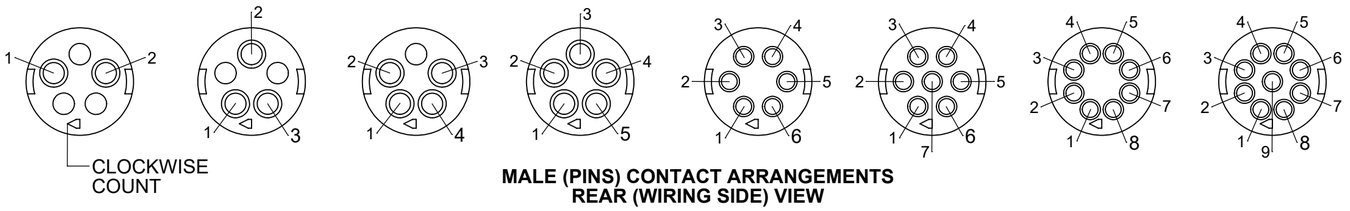


FEMALE (SOCKETS) CONTACT ARRANGEMENTS
REAR (WIRING SIDE) VIEW



MALE (PINS) CONTACT ARRANGEMENTS
REAR (WIRING SIDE) VIEW

HS2 C - - - - - -

HS2 SERIES

C - CABLE-END CONNECTOR

OF CONTACTS:
2-5 FOR #20 CONTACTS
6-9 FOR #26 CONTACTS

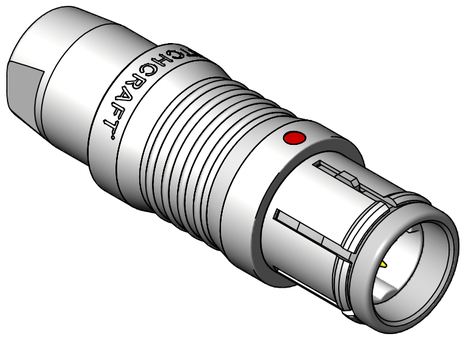
GENDER:
M - MALE (PIN)
F - FEMALE (SOCKET)

CONTACT SIZE:
20 - 20, 22, 24, 26 AWG WIRES
26 - 26,28, 30 AWG WIRES

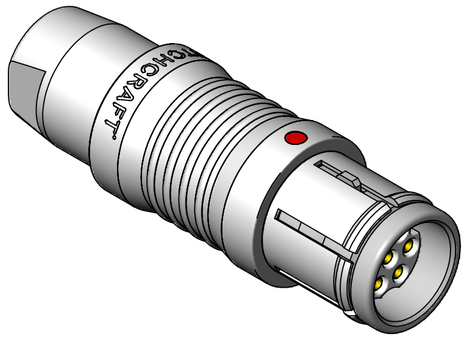
CLAMP SET PER CABLE O.D. RANGE:
A - 0.110 - 0.140 [2.8 - 3.6]
B - 0.140 - 0.180 [3.6 - 4.6]
C - 0.180 - 0.216 [4.6 - 5.5]

KIT PACKAGING OPTION:
K - ONE UNIT / BAG

REFER TO "HS2P SERIES" DRAWING FOR MATING PANEL-MOUNT CONNECTORS.
REFER TO "HS2L SERIES" DRAWING FOR MATING CABLE-TO-CABLE CONNECTORS.



TYPICAL CABLE-END PINS (MALE)
HS2C7M26B SHOWN HERE

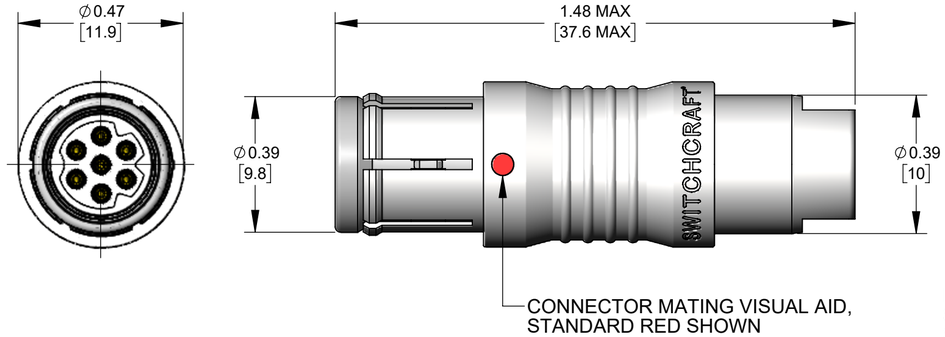


TYPICAL CABLE-END SOCKETS (FEMALE)
HS2C7F26B SHOWN HERE

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 Torque	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	-40ºC to +135ºC (-40ºF 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 with Stainless Steel locking clip

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	1000	30
	28	2	2	1.5	1.5*	1		
	30	1.5	1.5	1	1*	.5		
8-9 #26	26	2	2	1.5	1.5*	1		
	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.



ALL DIMENSIONS FOR REFERENCE ONLY.
CONNECTORS PROVIDED UNASSEMBLED, SHOWN ASSEMBLED HERE.

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			
INSTOOL20	CONTACT INSERTION	--	20	20, 22, 24, and 26 AWG
INSTOOL26		--	26	26, 28, and 30 AWG
REMTOOL20	CONTACT EXTRUCTION	--	20	20, 22, 24, and 26 AWG
REMTOOL26		--	26	26, 28, and 30 AWG

CUSTOMER DRAWING

REV	ECO NUMBER	DATE	BY	APVD
0B	INTALLATION TOOLS CHANGE, INSTRUCTIONS UPDATE	04/22/16	PNK	SRC
0A	PRELIMINARY	01/06/16	PNK	SRC

REVISIONS

UNLESS OTHERWISE SPECIFIED
1. ALL DIMENSIONS IN INCHES [mm]
- TWO PLACE DECIMALS ±0.02 [0.5]
- THREE PLACE DECIMALS ±0.005 [0.13]

DO NOT SCALE DRAWING

SolidWorks CAD File

SIZE	WIDTH	MULT	LBS/M	TEMPER
C				

FINISH
SPEC No.

MATERIAL
SPEC No.

FIRST USED ON

SCALE 3:1

DATE DRAWN	BY	CHKD	APVD
01/06/16	PNK	PNK 01/06/16	SRC 01/06/16

Switchcraft®

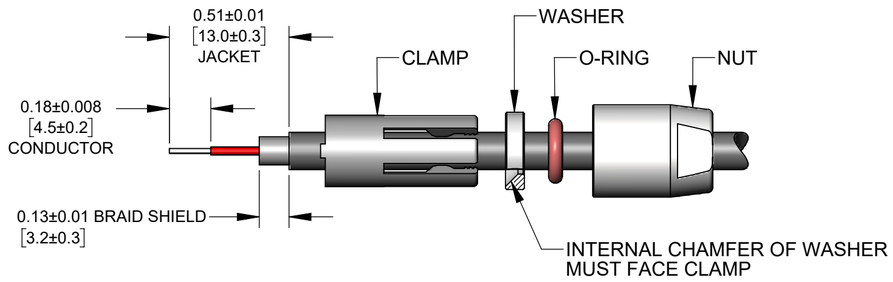
SHEET 1 OF 2

NAME CABLE-END HS2 SERIES CONNECTOR

PART No. HS2C SERIES

REV 0B

STEP 1

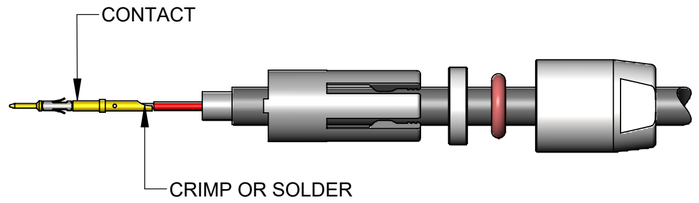


FEED THE FREE END OF CABLE THROUGH THE NUT, O-RING, WASHER, AND CLAMP IN THE ORDER SHOWN.

STRIP THE CABLE JACKET, THE CONDUCTORS, AND THE CABLE SHIELDING AS SHOWN.

STEP 2

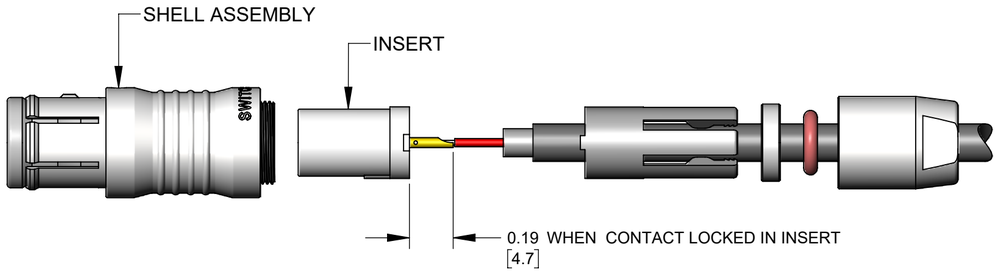
ONLY ONE CONTACT SHOWN FOR CLARITY



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 INSTALLATION.

STEP 3

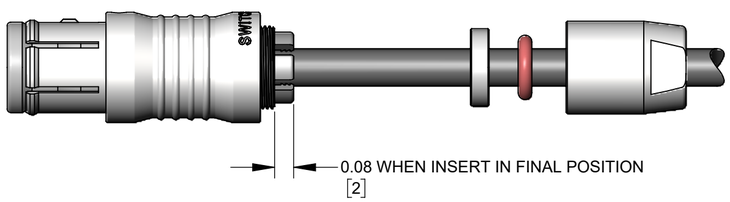


GUIDE EACH WIRED CONTACT INTO INSERT HOLE AND PUSH UNTIL CONTACT SNAPS IN PLACE. USE INSERTION TOOL* IF NECESSARY.

COLORED CONDUCTORS CAN BE ASSIGNED TO CONTACT POSITION NUMBERS AS DESIRED.

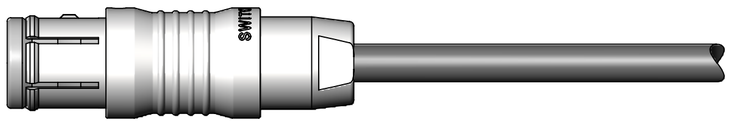
TO REMOVE A CONTACT, INSERT THE EXTRACTION TOOL* FROM THE FRONT OF INSERT AND LIGHTLY PRESS THE SPRING LOADED PLUNGER INWARD TO PUSH THE CONTACT OUT.

STEP 4



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

STEP 5



FINISHED ASSEMBLY

SLIDE WASHER, O-RING, AND NUT AGAINST CLAMP AND THREAD NUT ON UNTIL TIGHT - NOT TO EXCEED 9 IN-LB [1 Nm] TORQUE.
A 5/16" [8 mm] WRENCH CAN BE USED, IF NECESSARY.

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

HS2 SERIES CABLE-END FIELD ASSEMBLY INSTRUCTIONS

SCALE 2:1	Switchcraft®
DATE DRAWN 01/06/16	SHEET 2 OF 2
DRAWN BY PNK	PART No. HS2C SERIES / REV 0B

SolidWorks CAD File C

Mouser Electronics

Authorized Distributor

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HS2C5M20C HS2C5F20C