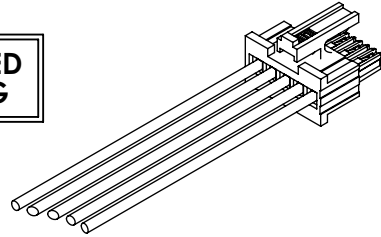


DESIGNED & DIMENSIONED  
IN MILLIMETERS [INCHES]

DO NOT  
SCALE FROM  
THIS PRINT

**THIS PRODUCT MANUFACTURED  
WITH LEAD-FREE PROCESSING**

ACR-12-XX-X-XX.XX-X-XX-P-X



LEAD STYLE  
 -01: 4 POS (1.0 TERM/SKT), 24 AWG  
 -02: 5 POS (1.0 TERM/SKT), 24 AWG  
 -03: 6 POS (0.5 TERM/SKT), 28 AWG  
 -04: 8 POS (0.5 TERM/SKT), 28 AWG  
 -05: 6 POS COMBO  
 (2x1.0 TERM/SKT), 24 AWG  
 (4x0.5 TERM/SKT), 28 AWG

PLATING SPECIFICATION  
 -G: 10µ" LIGHT GOLD IN CONTACT AREA  
 -H: 30µ" HEAVY GOLD IN CONTACT AREA  
 (SEE NOTE 10)

ASSEMBLED LENGTH  
 XX.XX (IN METERS)  
 (00.20 METER MIN TO 50.00 METER MAX)  
 (-01.00 IS CATALOG STANDARD LENGTH,  
 FOR OTHER LENGTHS CONTACT SAMTEC)

KEYING FEATURE  
 (SEE NOTE 4) (SEE SHEET 5)  
 -1: ORANGE  
 -2: GREEN  
 -3: BLUE  
 -4: YELLOW

STYLE  
 -P: PLASTIC

END 2  
 -BC: BLUNT CUT  
 -S1: CONNECTOR  
 (DETERMINED BY  
 LEAD STYLE)

END 1  
 -T: TERMINAL  
 -S: SOCKET

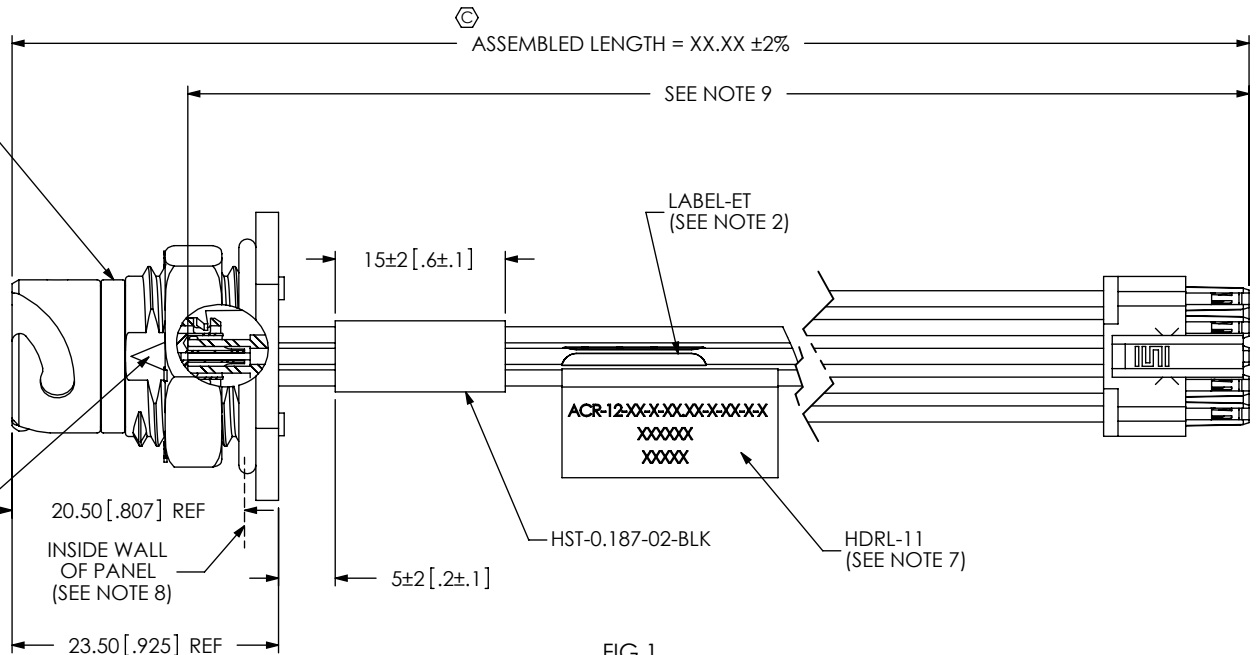
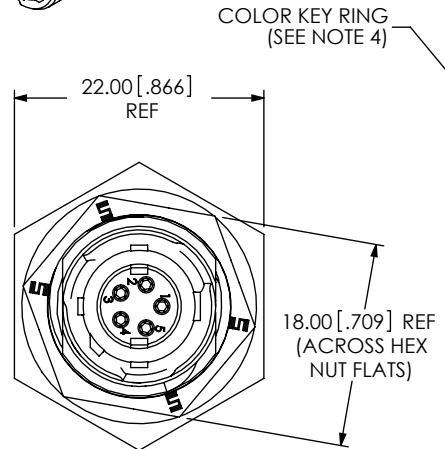
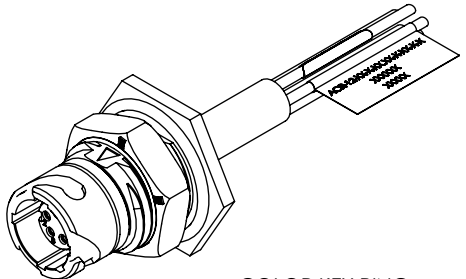


FIG 1  
ACR-12-02-X-XX.XX-S-S1-P-1 SHOWN

NOTES:

- ⊕ REPRESENTS A CRITICAL DIMENSION.
- ASSEMBLY TO BE 100% HI-POT TESTED AT 300V.  
(1) LABEL-ET TO BE APPLIED AFTER FINAL ELECTRICAL TEST.
- ASSEMBLIES TO BE BULK PACKAGED.
- KEYING FEATURE DETERMINES COLOR OF KEY RING AND DUSTCAP LANYARD IF APPLICABLE.
- SIGNAL MAPPING IS 1 TO 1, 2 TO 2, 3 TO 3, ETC..
- REFER TO DCA-ACR-12-P-X PRINT FOR DUST CAP.
- PLACE HDRL-11 (LABEL) ON CABLE WHERE SHOWN. LABEL TO CONTAIN:  
 LINE 1 - PART NUMBER "ACR-12-XX-X-XX.XX-X-XX-P-X"  
 LINE 2 - SHOP ORDER NUMBER "XXXXXX"  
 LINE 3 - DATE CODE "XXXXX"
- PANEL THICKNESS RANGE: 0.80 [0.031] - 5.20 [0.205]
- FOR END 2 CABLE LENGTH REFERENCE END 2 OPTIONS ON SHEET 3.
- END 2 CONNECTOR PLATING TO BE 10µ GOLD.
- PARTS TO BE BUILT AND INSPECTED TO IPC-A-620 CLASS 2.
- WHEN MOUNTING PRODUCT TO PANEL TORQUE ACPN-12-P TO 15IN-LBS.

UNLESS OTHERWISE SPECIFIED,  
DIMENSIONS ARE IN MILLIMETERS.  
TOLERANCES ARE:  
 DECIMALS ANGLES  
 X.X: ±0.3 [.01] 2°  
 X.XX: ±0.13 [.005]  
 X.XXX: ±0.051 [.0020]

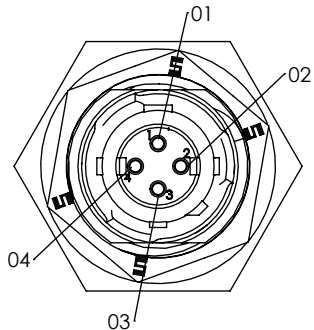
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520 PARK EAST BLVD., NEW ALBANY, IN 47150 PHONE: 812-944-6733 FAX: 812-948-5047 e-Mail: info@SAMTEC.com code 53322	
DESCRIPTION: M12 CABLE ASSEMBLY	
DWG. NO. ACR-12-XX-X-XX.XX-X-XX-P-X	
BY: D.SCHMELZ 09/20/2010	SHEET 1 OF 6

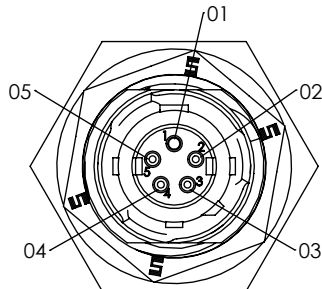
MATERIAL: DO NOT SCALE DRAWING SHEET SCALE: 2:1  
 SHELL: NYLON  
 INSULATOR: PBT, COLOR: BLACK  
 TERMINALS: BRASS  
 CONTACTS: BRASS/BeCu

-T END OPTIONS

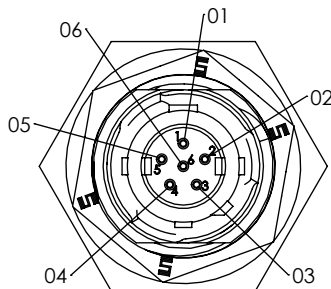
-01: 4 POS  
Ø 1.0 TERMINALS



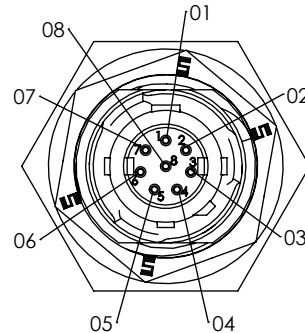
-02: 5 POS  
Ø 1.0 TERMINALS



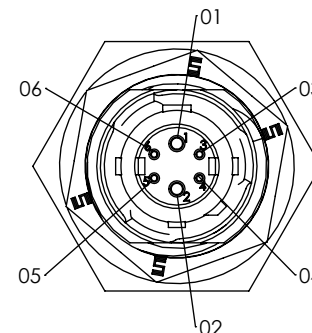
-03: 6 POS  
Ø 0.5 TERMINALS



-04: 8 POS  
Ø 0.5 TERMINALS

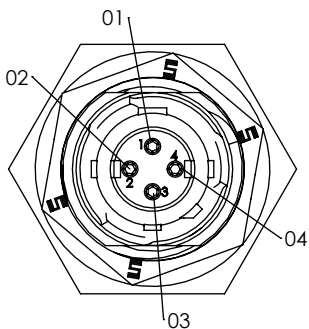


-05: 6 POS COMBO  
2x Ø 1.0 TERMINALS  
4x Ø 0.5 TERMINALS

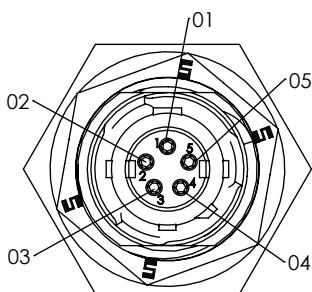


-S END OPTIONS

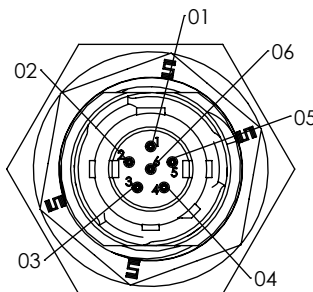
-01: 4 POS  
Ø 1.0 SOCKETS



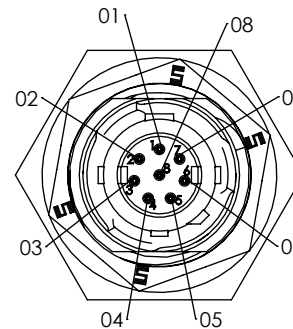
-02: 5 POS  
Ø 1.0 SOCKETS



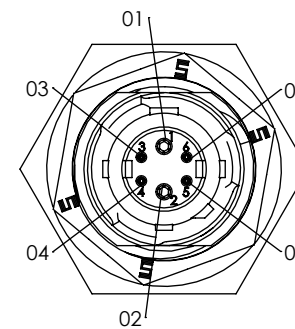
-03: 6 POS  
Ø 0.5 SOCKETS



-04: 8 POS  
Ø 0.5 SOCKETS



-05: 6 POS COMBO  
2x Ø 1.0 SOCKETS  
4x Ø 0.5 SOCKETS



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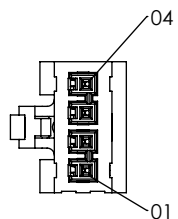
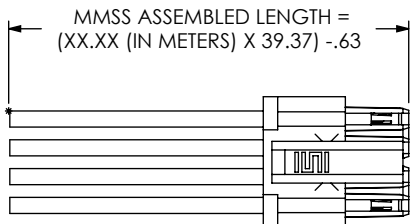
DESCRIPTION:  
M12 CABLE ASSEMBLY

DWG. NO.  
ACR-12-XX-X-XX.XX-X-XX-P-X

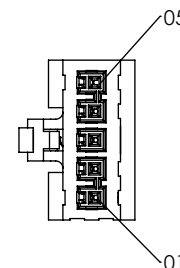
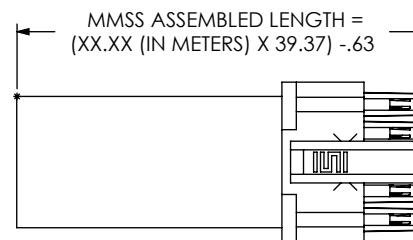
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END 2 OPTIONS

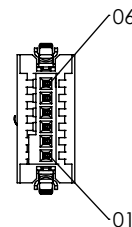
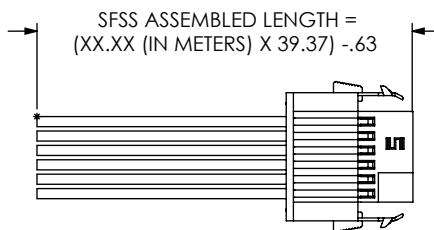
-01: 4 POS  
MMSS-04-24-L-XX.XX-S-K



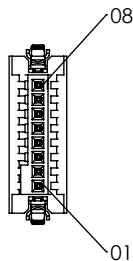
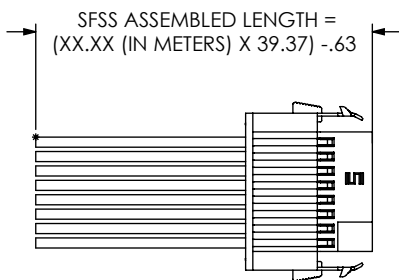
-02: 5 POS  
MMSS-05-24-L-XX.XX-S-K



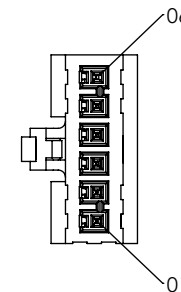
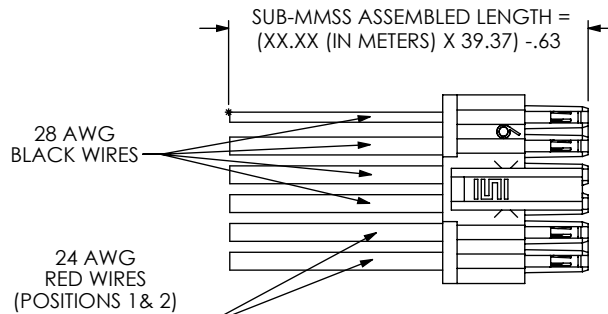
-03: 6 POS  
SFSS-06-28-G-XX.XX-SR



-04: 8 POS  
SFSS-08-28-G-XX.XX-SR



-05: 6 POS COMBO  
SUB-MMSS-06-L-XX.XX-S-K



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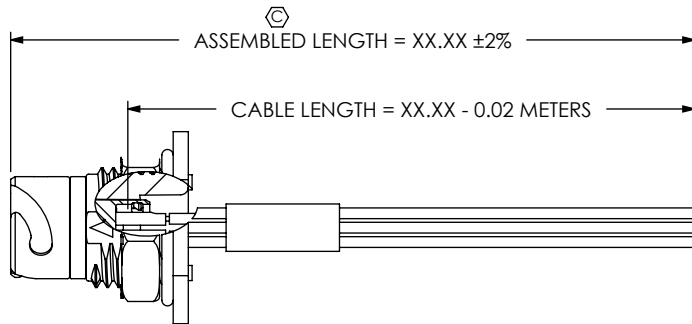
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e-Mail info@SAMTEC.com code 55322

DESCRIPTION:  
M12 CABLE ASSEMBLY

DWG. NO.  
ACR-12-XX-X-XX.XX-X-XX-P-X

BY: D.SCHMELZ 09/20/2010 SHEET 3 OF 6

-BC END 2 OPTION  
 (SEE TABLE 2 FOR DWC CALLOUTS / SIGNAL MAPPING)  
 (BUILD DOUBLE-ENDED INITIALLY FOR E-TEST)  
 (SEE IN-PROCESS 6)



RECOMMENDED PANEL OPENING  
 (SEE NOTE 8)

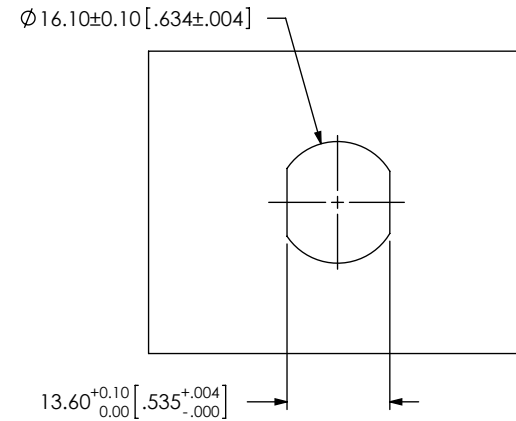


TABLE 2

-BC LEAD STYLES ONLY

POSITION	-01		-02		-03		-04		-05	
	COLOR	DWC-XX-XX-XXX	COLOR	DWC-XX-XX-XXX	COLOR	DWC-XX-XX-XXX	COLOR	DWC-XX-XX-XXX	COLOR	DWC-XX-XX-XXX
01	BROWN	DWC-24-01-300	BROWN	DWC-24-01-300	BROWN	DWC-28H-01-300	BROWN	DWC-28H-01-300	BROWN	DWC-24-01-300
02	RED	DWC-24-02-300	RED	DWC-24-02-300	RED	DWC-28H-02-300	RED	DWC-28H-02-300	RED	DWC-24-02-300
03	ORANGE	DWC-24-03-300	ORANGE	DWC-24-03-300	ORANGE	DWC-28H-03-300	ORANGE	DWC-28H-03-300	ORANGE	DWC-28H-03-300
04	YELLOW	DWC-24-04-300	YELLOW	DWC-24-04-300	YELLOW	DWC-28H-04-300	YELLOW	DWC-28H-04-300	YELLOW	DWC-28H-04-300
05	NA		GREEN	DWC-24-05-300	GREEN	DWC-28H-05-300	GREEN	DWC-28H-05-300	GREEN	DWC-28H-05-300
06			NA		DARK BLUE	DWC-28H-06-300	DARK BLUE	DWC-28H-06-300	DARK BLUE	DWC-28H-06-300
07					NA		VIOLET		DWC-28H-07-300	NA
08			GRAY				DWC-28H-08-300			

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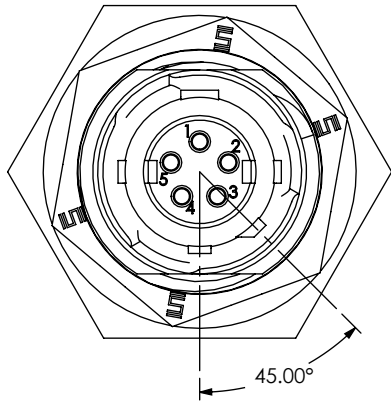
DESCRIPTION:  
 M12 CABLE ASSEMBLY

DWG. NO.  
**ACR-12-XX-X-XX.XX-X-XX-P-X**

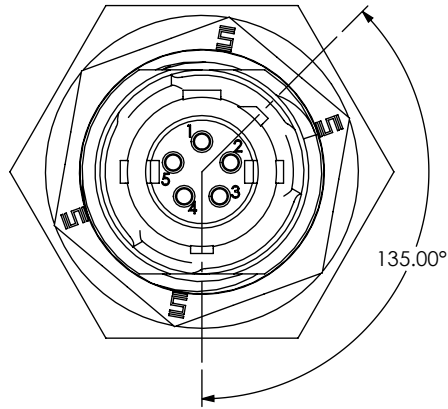
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KEYING FEATURE  
(SEE NOTE 4)

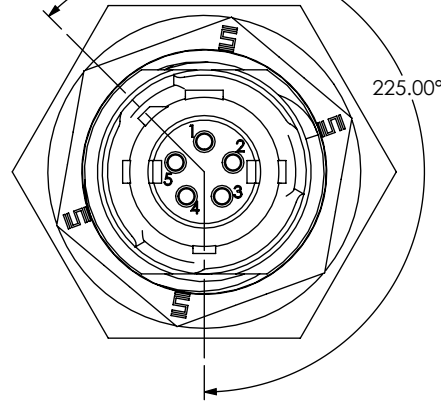
-1  
ORANGE KEY RING



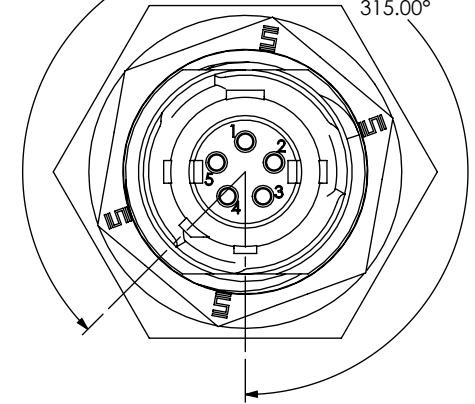
-2  
GREEN KEY RING



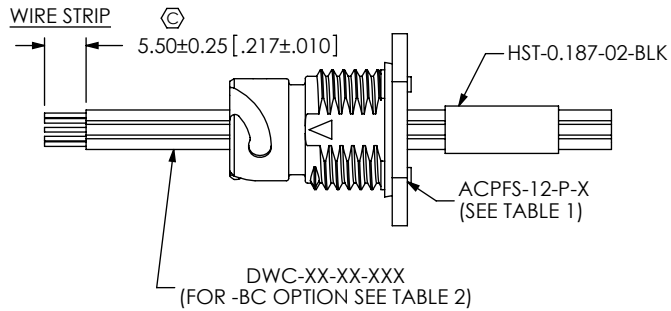
-3  
BLUE KEY RING



-4  
YELLOW KEY RING



**IN-PROCESS 1**  
FEED CABLES THROUGH HST-0.187-02-BLK & ACPFS-12-P-X.  
STRIP CABLES TO DIMENSIONS SHOWN & TIN INNER CONDUCTORS.



KEYING FEATURE	SHELL PART #
-1	ACPFS-12-P-1
-2	ACPFS-12-P-2
-3	ACPFS-12-P-3
-4	ACPFS-12-P-4

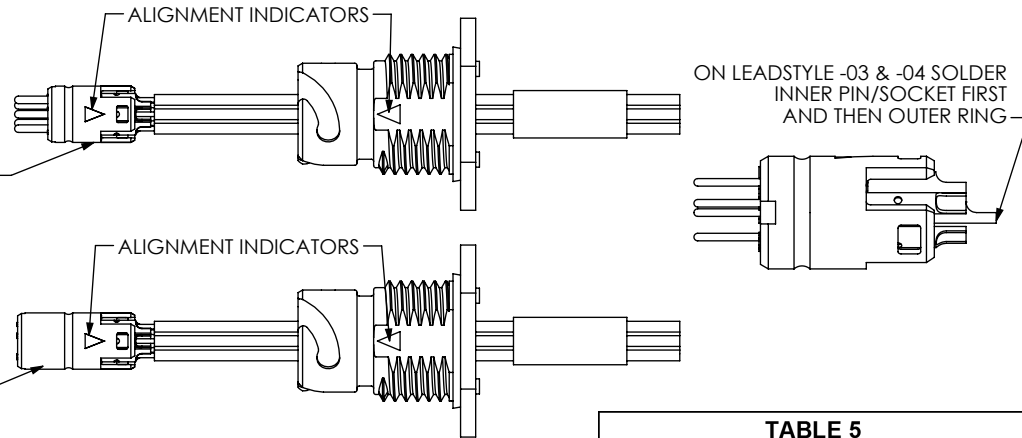
**IN-PROCESS 2**  
TERMINATE WIRES TO TERMINALS/SOCKETS

SOLDER TERMINATION TO TERMINALS

SUB-ACTHB-12-X-XX  
(SEE TABLE 3 & 5)

SOLDER TERMINATION TO SOCKETS

SUB-ACSHB-12-X-XX  
(SEE TABLE 3 & 5)



LEAD STYLE	END1/END 2	SUB-ACXHB-12-X-XX
-01	-T	SUB-ACTHB-12-X-01
-02	-T	SUB-ACTHB-12-X-02
-03	-T	SUB-ACTHB-12-X-03
-04	-T	SUB-ACTHB-12-X-04
-05	-T	SUB-ACTHB-12-X-05
-01	-S	SUB-ACSHB-12-X-01
-02	-S	SUB-ACSHB-12-X-02
-03	-S	SUB-ACSHB-12-X-03
-04	-S	SUB-ACSHB-12-X-04
-05	-S	SUB-ACSHB-12-X-05

PLATING	SUB-ACXHB-12-X-XX
-G	SUB-ACXHB-12-G-XX
-H	SUB-ACXHB-12-H-XX

F:\DWG\MISC\MKTG\ACR-12-XX-X-XX.XX-X-XX-P-X-MKT.SLDDRW

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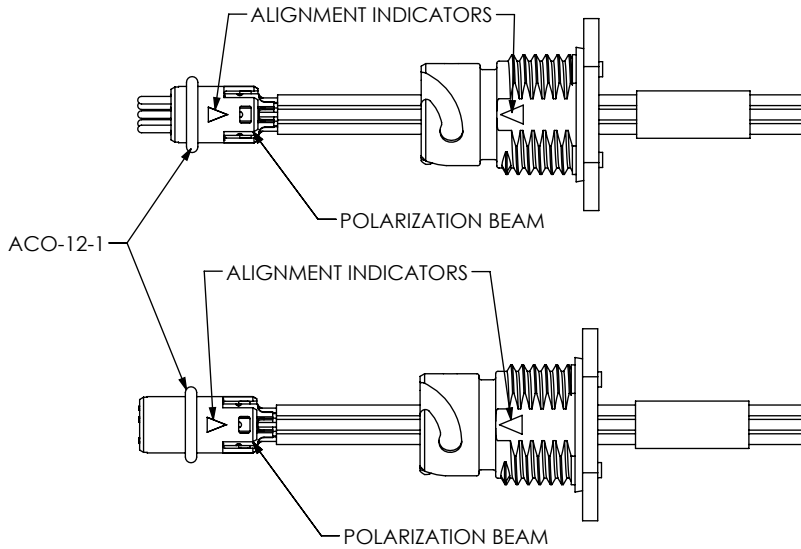
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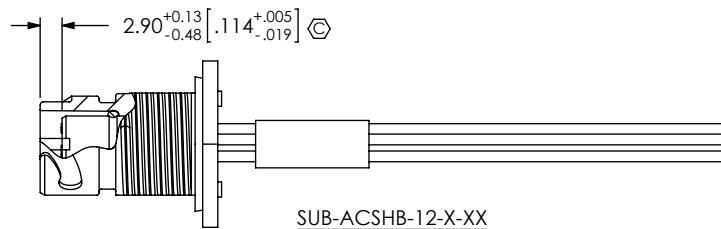
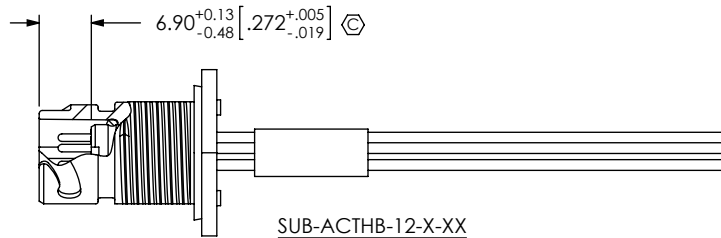
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DESCRIPTION: M12 CABLE ASSEMBLY  
DWG. NO. ACR-12-XX-X-XX.XX-X-XX-P-X  
BY: D.SCHMELZ 09/20/2010 SHEET 5 OF 6

**IN-PROCESS 3**  
PUSH ACO-12-1 O-RING ONTO SUB-ACXHB-12-X-XX.



**IN-PROCESS 4**  
WHILE MAKING SURE THE ALIGNMENT ARROWS LINE UP TO AID POLARIZATION BEAM ENGAGEMENT, INSERT SUB-ACXHB-12-X-XX UNTIL SNAP LOCKS ENGAGE.



**IN-PROCESS 5**  
PRESS ACO-12-2 O-RING AROUND FLANGE OF ACPFS-12-P-X  
THREAD ACPN-12-P ONTO ACPFS-12-P-X  
STRETCH ACCR-12-X OVER ACPFS-12-P-X UNTIL IT SEATS IN GROOVE  
ACTIVATE HST-0.187-02-BLK USING HEAT GUN

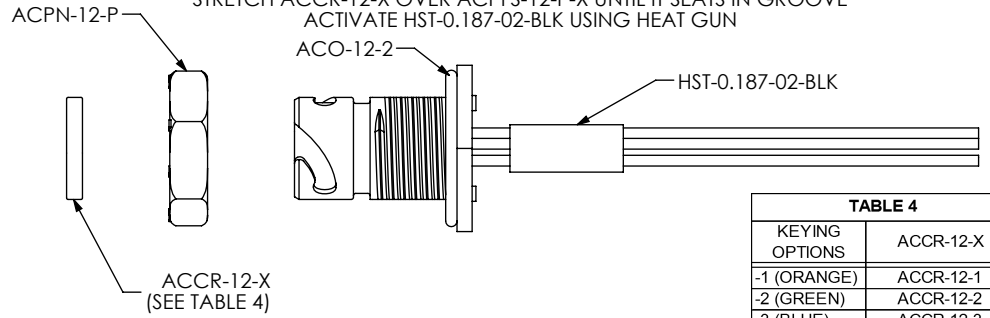
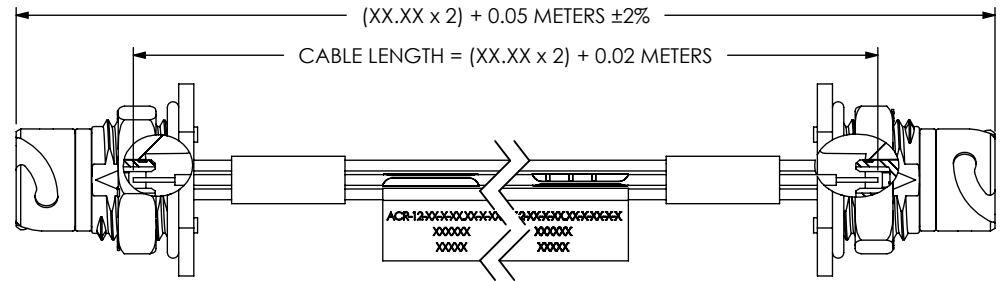


TABLE 4	
KEYING OPTIONS	ACCR-12-X
-1 (ORANGE)	ACCR-12-1
-2 (GREEN)	ACCR-12-2
-3 (BLUE)	ACCR-12-3
-4 (YELLOW)	ACCR-12-4

**IN-PROCESS 6**  
(-BC OPTION ONLY)  
BUILD DOUBLE-ENDED INITIALLY FOR E-TEST,  
APPLY LABEL-ET & HDRL-11 TO BOTH ENDS,  
AND CUT CABLE IN HALF



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DWG. NO. ACR-12-XX-X-XX.XX-X-XX-P-X  
BY: D.SCHMELZ 09/20/2010 SHEET 6 OF 6