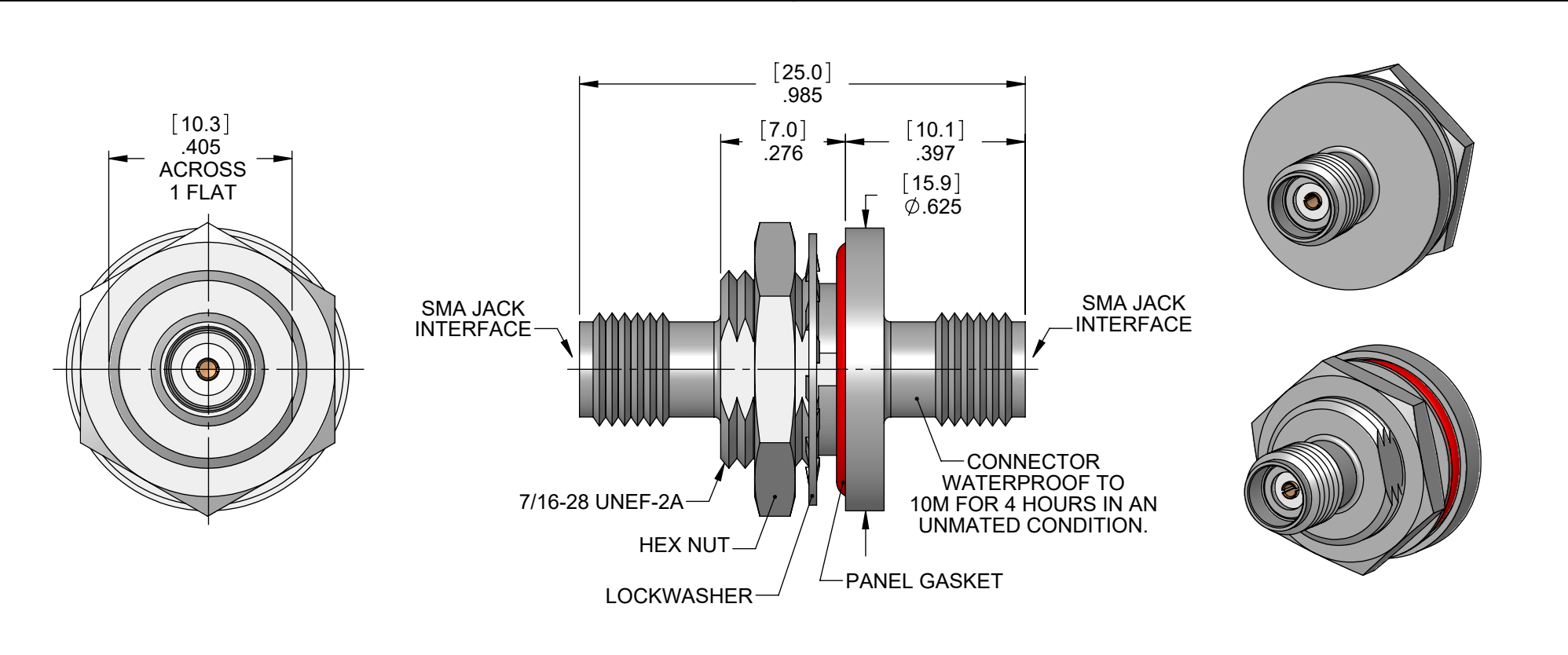


<b>MATERIAL/FINISH PROPERTIES</b>
<p><b>MATERIAL PROPERTIES:</b>                  BODY: BRASS PER ASTM B16 OR EQUIVALENT                  CONTACT: BERYLLIUM COPPER PER ASTM B196 OR EQUIVALENT                  INSULATORS: PTFE PER ASTM D1710 OR EQUIVALENT                  O-RINGS: SILICONE RUBBER PER AA59588 OR EQUIVALENT</p> <p><b>PLATING PROPERTIES:</b>                  BODY: .000100 MIN. NICKEL PER QQ-N-290                  CONTACT: .000030 MIN. GOLD PER MIL-G-45204 OVER                  .000050 MIN. NICKEL PER QQ-N-290</p>

<b>MECHANICAL/ELECTRICAL PROPERTIES</b>
<p>CONNECTOR MEETS: MIL-STD-348 FIG. 310-2, MIL-PRF-39012                  CONNECTOR MEETS: RoHS 2015/863/EU STANDARDS                  CONNECTOR DURABILITY: 250 CYCLES MIN.                  MOUNTING PER: ES117-BK340                  PANEL THICKNESS: .125 [3.2] MAX.                  IMPEDANCE: 50 OHMS NOMINAL                  FREQUENCY RANGE: DC-18 GHz                  VOLTAGE RATING: 335 VRMS                  INSULATION RESISTANCE: 5,000 MEGOHMS                  DIELECTRIC WITHSTANDING VOLTAGE: 1,500 VRMS                  TEMPERATURE RATING: -65°C TO +165°C</p>



A	ECN 1024	JJM	03/13/23
REV	DESCRIPTION	APPR	DATE

**BROWNING ELECTRONICS**  
*RF CONNECTOR SOLUTIONS*

**UNLESS OTHERWISE SPECIFIED**

DIM'S ARE IN INCHES \* (.XXX) = REF. DIM. \* ANGLES: ±2°  
 TOLERANCES: .XX = ±.010 \* .XXX = ±.002 \* .XXXX = ±.001  
 ALL DIAMETERS TO BE CONCENTRIC WITHIN .003 F.I.M.  
 SURFACE FINISH: 63 MICRO. MAX. \* NO BURRS ALLOWED  
 CHAMFER 1ST THREAD 45° \* BREAK ALL EDGES .003 MAX.

TITLE: SMA JACK TO SMA JACK SEALED BULKHEAD MOUNT ADAPTER			
MATERIAL & FINISH: PER TABLE ABOVE			
DRAWN BY: TLB	CHECK BY: TLL	APPR. BY: JJM	
DATE: 03/13/23	DATE: 03/13/23	DATE: 03/13/23	
DO NOT SCALE DWG	SCALE 3:1	SIZE A	REV A
SALES DRAWING	PART NO. AD300-1BK-02N	SHEET 1 OF 1	

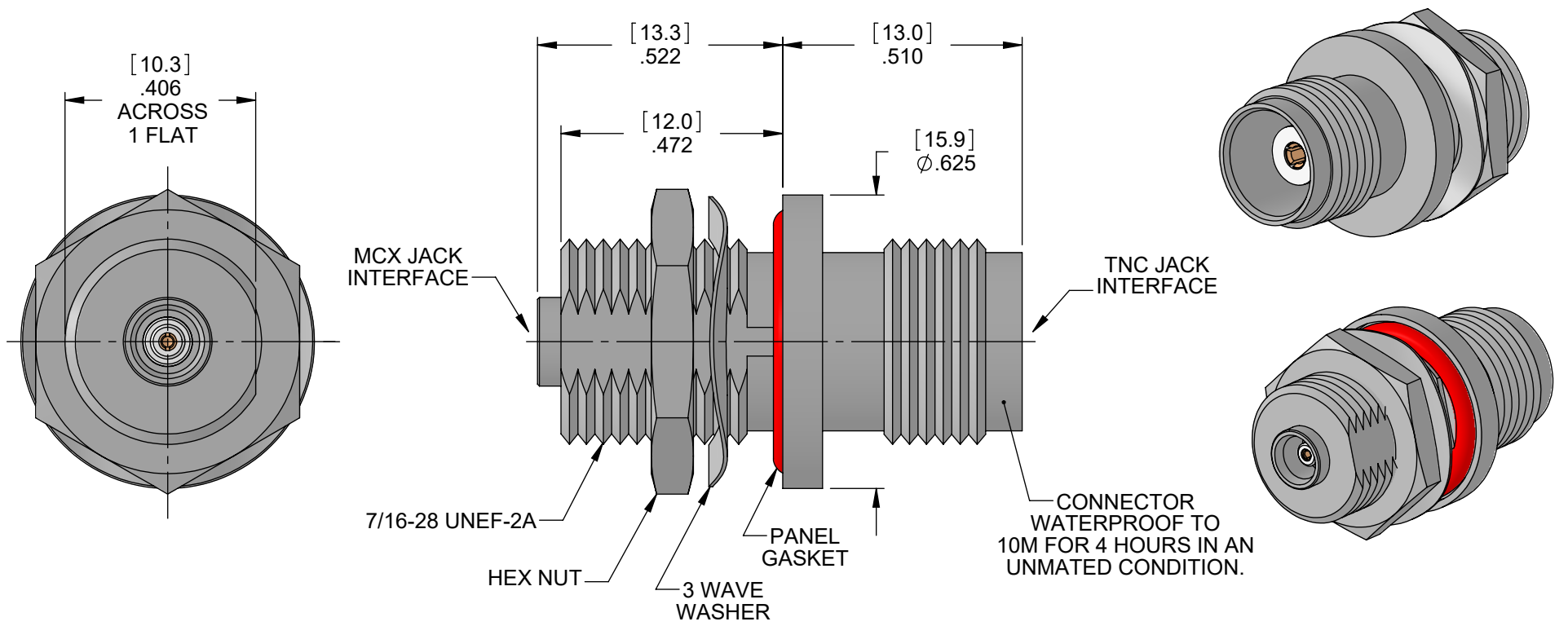
**MATERIAL/FINISH PROPERTIES**

**MATERIAL PROPERTIES:**  
 BODY: BRASS PER ASTM B16 OR EQUIVALENT  
 CONTACT: BERYLLIUM COPPER PER ASTM B196 OR EQUIVALENT  
 INSULATOR: PTFE PER ASTM D1710 OR EQUIVALENT  
 O-RINGS: GASKETS: SILICONE RUBBER PER AA59588 OR EQUIVALENT

**PLATING PROPERTIES:**  
 BODY: .000100 MIN. NICKEL PER QQ-N-290  
 CONTACT: .000030 MIN. GOLD PER MIL-G-45204 OVER  
 .000050 MIN. NICKEL PER QQ-N-290

**MECHANICAL/ELECTRICAL PROPERTIES**

CONNECTOR MEETS: CECC 22 220, MIL-PRF-39012, MIL-STD-348  
 CONNECTOR MEETS: RoHS 2015/863/EU STANDARDS  
 CONNECTOR DURABILITY (MCX): 500 CYCLES MIN.  
 CONNECTOR DURABILITY (TNC): 500 CYCLES MIN.  
 MOUNTING: PER ES117-BK340  
 PANEL THICKNESS: .354 [9.0] MAX.  
 IMPEDANCE: 50 OHMS NOMINAL  
 FREQUENCY RANGE: DC-6 GHZ  
 VOLTAGE RATING: 335 VRMS  
 INSULATION RESISTANCE: 1,000 MEGOHMS  
 DIELECTRIC WITHSTANDING VOLTAGE: 1,000 VRMS  
 TEMPERATURE RATING: -65°C TO +165°C



A	ECN 1023	JJM	03/13/23
REV	DESCRIPTION	APPR	DATE

**BROWNING ELECTRONICS**  
*RF CONNECTOR SOLUTIONS*

**UNLESS OTHERWISE SPECIFIED**  
 ALL DIMENSIONS ARE REFERENCE  
 X.XXX DIM'S = INCHES \* [X.XX] DIM'S = MILLIMETERS  
 SURFACE FINISH: 63 MICRO MAX.  
 ALL DIAMETERS TO BE CONCENTRIC WITHIN .005 F.I.M.

TITLE: TNC JACK TO MCX JACK SEALED STRAIGHT BULKHEAD MOUNT ADAPTER			
MATERIAL & FINISH: PER TABLE ABOVE			
DRAWN BY: TLB	CHECK BY: TLL	APPR. BY: JJM	
DATE: 03/13/23	DATE: 03/13/23	DATE: 03/13/23	
DO NOT SCALE DWG	SCALE 3:1	SIZE A	REV A
SALES DRAWING	PART NO. AD322-1BK-07N	SHEET 1 OF 1	

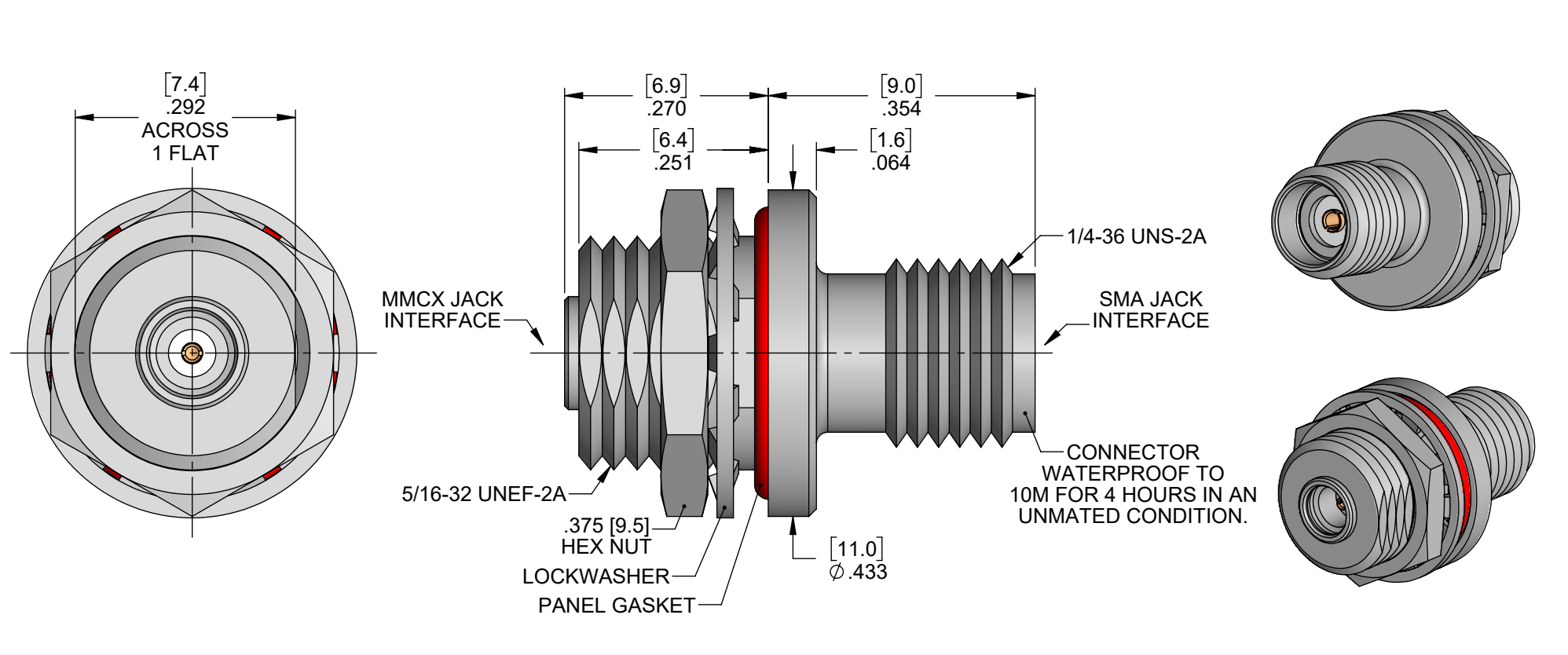
**MATERIAL/FINISH PROPERTIES**

**MATERIAL PROPERTIES:**  
 BODY: STAINLESS STEEL PER ASTM A582 OR EQUIVALENT  
 CONTACT: BERYLLIUM COPPER PER ASTM B196 OR EQUIVALENT  
 INSULATOR: PTFE PER ASTM D1710 OR EQUIVALENT  
 O-RINGS: SILICONE RUBBER PER AA59588 OR EQUIVALENT

**PLATING PROPERTIES:**  
 BODY: PASSIVATE PER QQ-P-35, TYPE II  
 CONTACT: .000030 MIN. GOLD PER MIL-G-45204 OVER  
 .000050 MIN. NICKEL PER QQ-N-290

**MECHANICAL/ELECTRICAL PROPERTIES**

CONNECTOR MEETS: CECC22 000, MIL-PRF-39012, MIL-STD-348  
 CONNECTOR MEETS: RoHS 2015/863/EU STANDARDS  
 CONNECTOR DURABILITY (MMCX): 500 CYCLES MIN.  
 CONNECTOR DURABILITY (SMA): 500 CYCLES MIN.  
 MOUNTING PER: SPECIAL  
 PANEL THICKNESS: .039 [1.0] MIN. TO .156 [4.0] MAX.  
 IMPEDANCE: 50 OHMS NOMINAL  
 FREQUENCY RANGE: DC-6 GHZ  
 VOLTAGE RATING: 170 VRMS  
 INSULATION RESISTANCE: 1,000 MEGOHMS  
 TEMPERATURE RATING: -65°C TO +165°C



B	ECN 1203	TLB	02/12/25
A	ECN 1041	JJM	04/03/23
<b>REV</b>	<b>DESCRIPTION</b>	<b>APPR</b>	<b>DATE</b>

**BROWNING ELECTRONICS**  
*RF CONNECTOR SOLUTIONS*

UNLESS OTHERWISE SPECIFIED  
 ALL DIMENSIONS ARE REFERENCE  
 X.XXX DIM'S = INCHES \* [X.XX] DIM'S = MILLIMETERS  
 SURFACE FINISH: 63 MICRO MAX.  
 ALL DIAMETERS TO BE CONCENTRIC WITHIN .005 F.I.M.

<b>TITLE:</b> SMA JACK TO MMCX JACK SEALED BULKHEAD MOUNT ADAPTER			
<b>MATERIAL &amp; FINISH:</b> PER TABLE ABOVE			
<b>DRAWN BY:</b> TLB	<b>CHECK BY:</b> TLL	<b>APPR. BY:</b> JJM	
<b>DATE:</b> 04/03/23	<b>DATE:</b> 04/03/23	<b>DATE:</b> 04/03/23	
<b>DO NOT SCALE DWG</b>	<b>SCALE</b> 5:1	<b>SIZE</b> A	<b>REV</b> B
<b>SALES DRAWING</b>	<b>PART NO.</b> AD528-1BK-01P		<b>SHEET</b> 1 OF 1

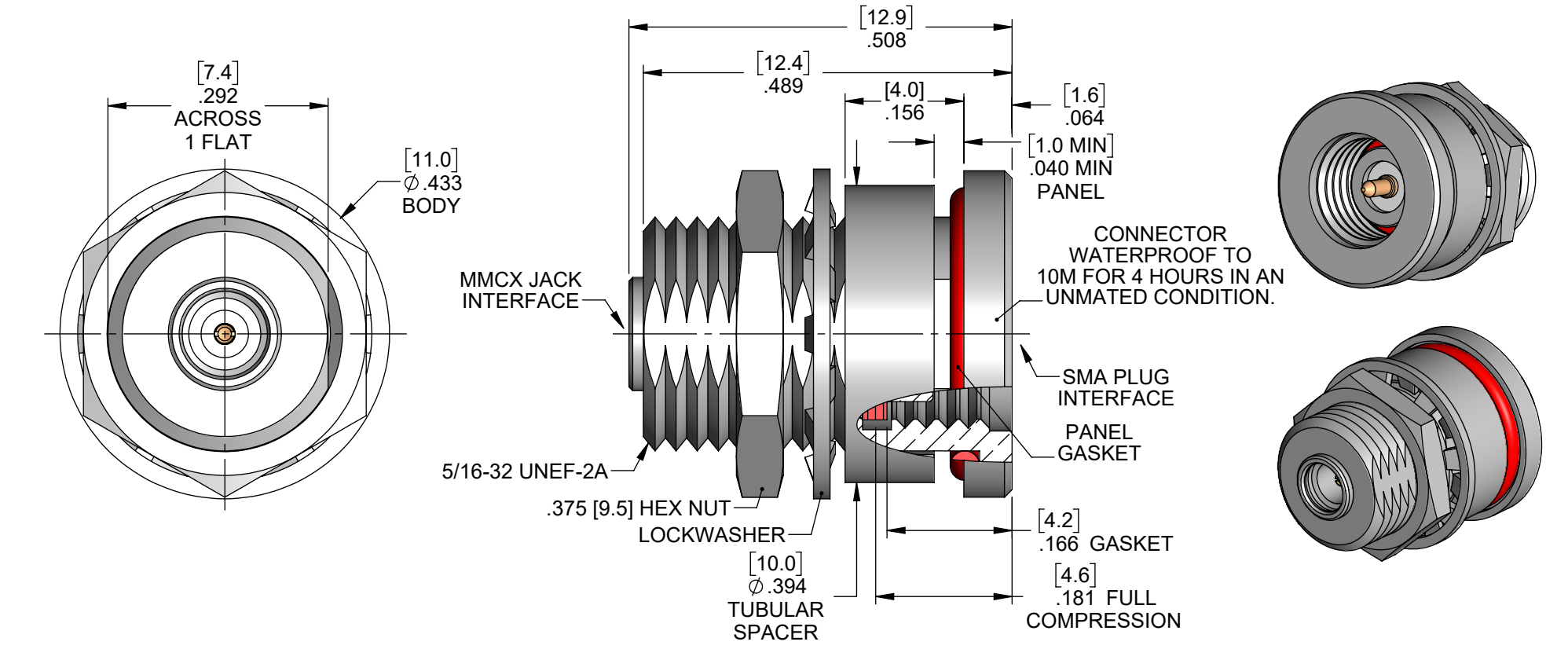
**MATERIAL/FINISH PROPERTIES**

**MATERIAL PROPERTIES:**  
 BODY: STAINLESS STEEL PER ASTM A582 OR EQUIVALENT  
 CONTACT: BERYLLIUM COPPER PER ASTM B196 OR EQUIVALENT  
 INSULATOR: PTFE PER ASTM D1710 OR EQUIVALENT  
 O-RINGS: SILICONE RUBBER PER AA59588 OR EQUIVALENT

**PLATING PROPERTIES:**  
 BODY: PASSIVATE PER QQ-P-35, TYPE II  
 CONTACT: .000030 MIN. GOLD PER MIL-G-45204 OVER  
 .000050 MIN. NICKEL PER QQ-N-290

**MECHANICAL/ELECTRICAL PROPERTIES**

CONNECTOR MEETS: CECC22 000, MIL-PRF-39012, MIL-STD-348  
 CONNECTOR MEETS: RoHS 2015/863/EU STANDARDS  
 CONNECTOR DURABILITY (MMCX): 500 CYCLES MIN.  
 CONNECTOR DURABILITY (SMA): 500 CYCLES MIN.  
 MOUNTING PER: SPECIAL  
 PANEL THICKNESS: .039 [1.0] MIN. TO .335 [8.5] MAX.  
 IMPEDANCE: 50 OHMS NOMINAL  
 FREQUENCY RANGE: DC-6 GHZ  
 VOLTAGE RATING: 170 VRMS  
 INSULATION RESISTANCE: 1,000 MEGOHMS  
 TEMPERATURE RATING: -65°C TO +165°C



B	ECN 1203	TLB	02/12/25
A	ECN 1040	JJM	04/03/23
<b>REV</b>	<b>DESCRIPTION</b>	<b>APPR</b>	<b>DATE</b>

**BROWNING ELECTRONICS**  
*RF CONNECTOR SOLUTIONS*

**UNLESS OTHERWISE SPECIFIED**  
 ALL DIMENSIONS ARE REFERENCE  
 X.XXX DIM'S = INCHES \* [X.XX] DIM'S = MILLIMETERS  
 SURFACE FINISH: 63 MICRO MAX.  
 ALL DIAMETERS TO BE CONCENTRIC WITHIN .005 F.I.M.

<b>TITLE:</b> SMA PLUG TO MMCX JACK SEALED BULKHEAD MOUNT ADAPTER			
<b>MATERIAL &amp; FINISH:</b> PER TABLE ABOVE			
<b>DRAWN BY:</b> TLB	<b>CHECK BY:</b> TLL	<b>APPR. BY:</b> JJM	
<b>DATE:</b> 04/03/23	<b>DATE:</b> 04/03/23	<b>DATE:</b> 04/03/23	
<b>DO NOT SCALE DWG</b>	<b>SCALE</b> 5:1	<b>SIZE</b> A	<b>REV</b> B
<b>SALES DRAWING</b>	<b>PART NO.</b> AD530-1BK-01P		<b>SHEET</b> 1 OF 1

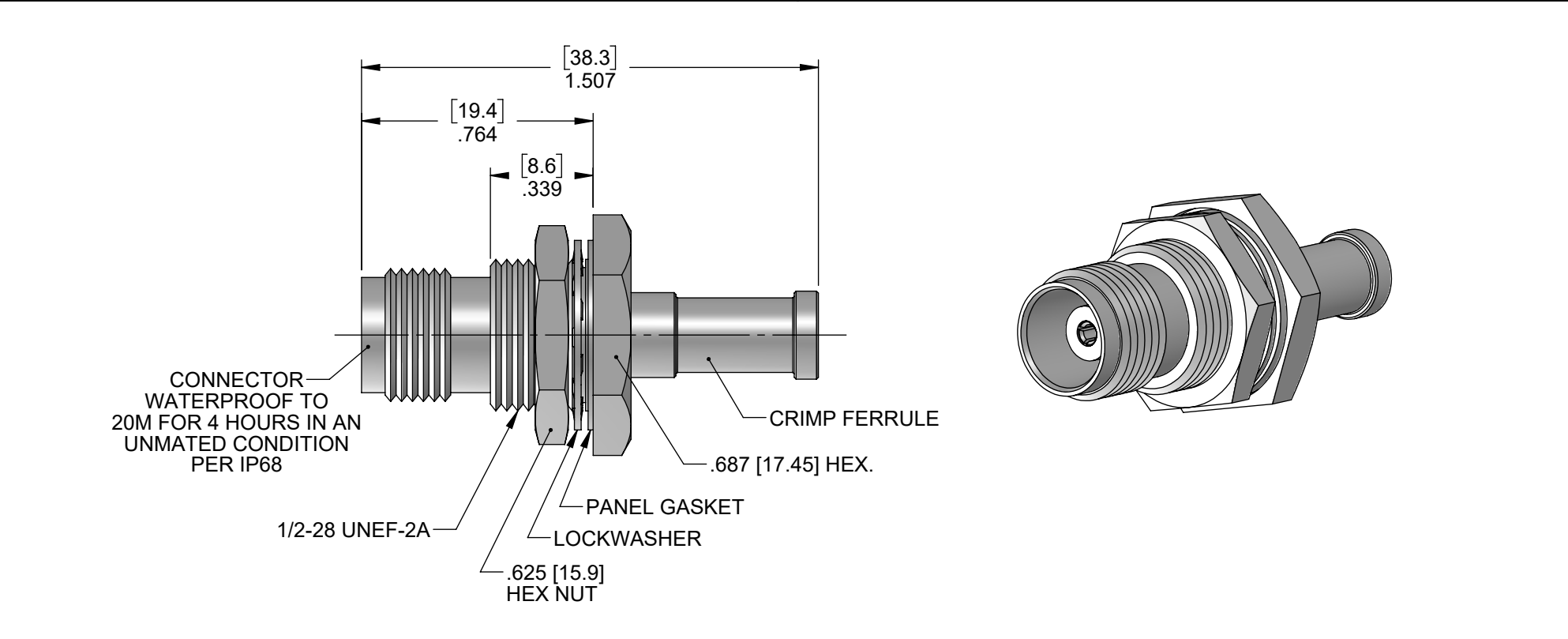
**MATERIAL/FINISH PROPERTIES**

**MATERIAL PROPERTIES:**  
 BODY: STAINLESS STEEL PER ASTM304, TYPE 316 OR EQUIVALENT  
 CONTACT: BERYLLIUM COPPER PER ASTM B196 OR EQUIVALENT  
 INSULATOR: PTFE PER ASTM D1710 OR EQUIVALENT  
 GASKETS: SILICONE RUBBER PER AA59588 OR EQUIVALENT

**PLATING PROPERTIES:**  
 BODY: PASSIVATE PER QQ-P-35, TYPE II  
 CONTACT: .000030 MIN. GOLD PER MIL-G-45204 OVER  
 .000050 MIN. NICKEL PER QQ-N-290

**MECHANICAL/ELECTRICAL PROPERTIES**

CONNECTOR MEETS: MIL-STD-348 FIG. 313-2, MIL-PRF-39012  
 CONNECTOR MEETS: RoHS 2015/863/EU STANDARDS  
 CONNECTOR DURABILITY: 500 CYCLES MIN.  
 MOUNTING: PER ES117-BK190  
 PANEL THICKNESS: .190 [4.8] MAX.  
 CABLE: LMR 195  
 CRIMP FERRULE TOOL: .218 HEX.  
 IMPEDANCE: 50 OHMS NOMINAL  
 FREQUENCY RANGE: DC-11 GHZ  
 VOLTAGE RATING: 500 VRMS  
 INSULATION RESISTANCE: 5,000 MEGOHMS  
 DIELECTRIC WITHSTANDING VOLTAGE: 1,500 VRMS



A	ECN 1059	JJM	04/12/23
REV	DESCRIPTION	APPR	DATE

**BROWNING ELECTRONICS**  
*RF CONNECTOR SOLUTIONS*

**UNLESS OTHERWISE SPECIFIED**  
 ALL DIMENSIONS ARE REFERENCE  
 X.XXX DIM'S = INCHES \* [X.XX] DIM'S = MILLIMETERS  
 SURFACE FINISH: 63 MICRO MAX.  
 ALL DIAMETERS TO BE CONCENTRIC WITHIN .005 F.I.M.

**TITLE:** TNC SEALED STRAIGHT BULKHEAD MOUNT  
CABLED JACK

**MATERIAL & FINISH:** PER TABLE ABOVE

<b>DRAWN BY:</b> TLB	<b>CHECK BY:</b> TLL	<b>APPR. BY:</b> JJM
<b>DATE:</b> 04/12/23	<b>DATE:</b> 04/12/23	<b>DATE:</b> 04/12/23

<b>DO NOT SCALE DWG</b>	<b>SCALE</b> 2:1	<b>SIZE</b> A	<b>REV</b> A
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<b>SALES DRAWING</b>	<b>PART NO.</b> 23F-1BK-309-01P	<b>SHEET</b> 1 OF 1
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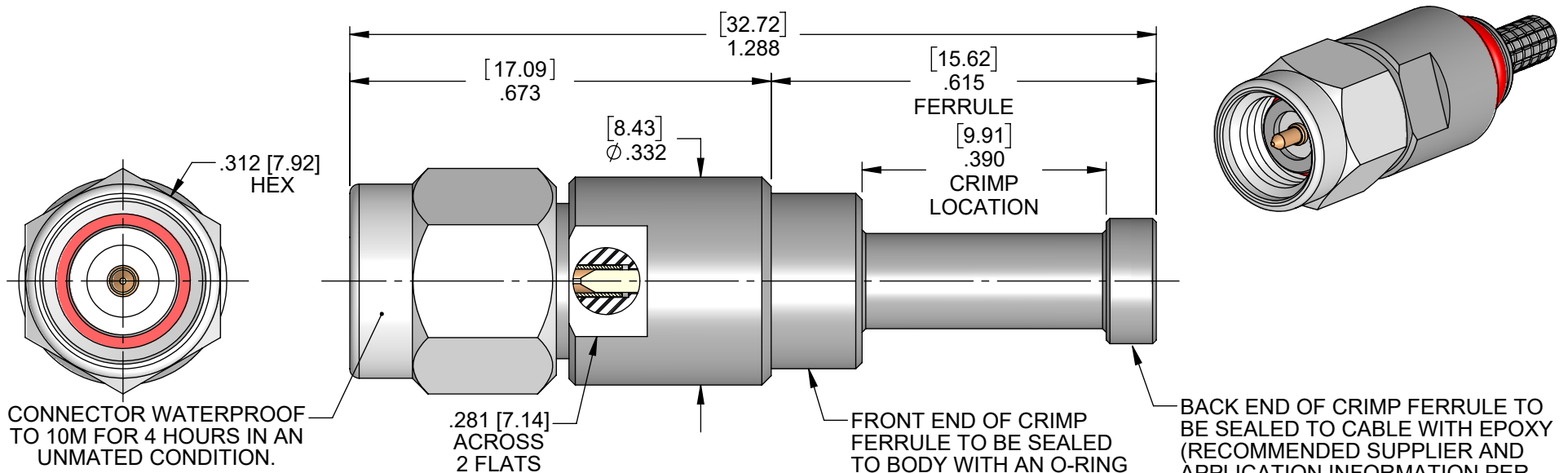
**MATERIAL/FINISH PROPERTIES**

**MATERIAL PROPERTIES:**  
 BODY: BRASS PER ASTM B16 OR EQUIVALENT  
 SLEEVE: STAINLESS STEEL PER ASTM A582 OR EQUIVALENT  
 INTERFACE CONTACT: BERYLLIUM COPPER PER ASTM B196 OR EQUIVALENT  
 CABLE CONTACT: BRASS PER ASTM B16 OR EQUIVALENT  
 INSULATOR: PTFE PER ASTM D1710 OR EQUIVALENT  
 GASKETS: SILICONE RUBBER PER AA59588 OR EQUIVALENT

**PLATING PROPERTIES:**  
 BODY: .000100 MIN. NICKEL PER QQ-N-290  
 SLEEVE: PASSIVATE PER QQ-P-35, TYPE II  
 CONTACTS: .000030 MIN. GOLD PER MIL-G-45204 OVER  
 .000050 MIN. NICKEL PER QQ-N-290

**MECHANICAL/ELECTRICAL PROPERTIES**

CONNECTOR MEETS: MIL-STD-348 FIG. 310-1, MIL-PRF-39012  
 CONNECTOR MEETS: RoHS 2015/863/EU STANDARDS  
 CONNECTOR DURABILITY: 250 CYCLES MIN.  
 CABLE: RG316 OR EQUIVALENT  
 FERRULE CRIMP TOOL: .128 HEX (.375 MAX WIDE)  
 ASSEMBLY INSTRUCTIONS: AI378  
 IMPEDANCE: 50 OHMS NOMINAL  
 FREQUENCY RANGE: DC-18 GHZ  
 VOLTAGE RATING: 335 VRMS  
 INSULATION RESISTANCE: 5,000 MEGOHMS  
 DIELECTRIC WITHSTANDING VOLTAGE: 1,500 VRMS



**NOTES:**  
 1. ADHESIVE LINED HEAT SHRINK TUBING (P/N: C23ST111) TO BE APPLIED OVER FERRULE CRIMP SECTION OF CABLE ASSEMBLY (INCLUDED).

A	ECN 1049	JJM	04/11/23
REV	DESCRIPTION	APPR	DATE

**BROWNING ELECTRONICS**  
*RF CONNECTOR SOLUTIONS*

**UNLESS OTHERWISE SPECIFIED**  
 ALL DIMENSIONS ARE REFERENCE  
 X.XXX DIM'S = INCHES \* [X.XX] DIM'S = MILLIMETERS  
 SURFACE FINISH: 63 MICRO MAX.  
 ALL DIAMETERS TO BE CONCENTRIC WITHIN .005 F.I.M.

TITLE: SMA SEALED STRAIGHT CABLED PLUG			
MATERIAL & FINISH: PER TABLE ABOVE			
DRAWN BY: TLB	CHECK BY: TLL	APPR. BY: JJM	
DATE: 04/11/23	DATE: 04/11/23	DATE: 04/11/23	
DO NOT SCALE DWG	SCALE 4:1	SIZE A	REV A
SALES DRAWING	PART NO. 40M-1NN-301-03N	SHEET 1 OF 1	

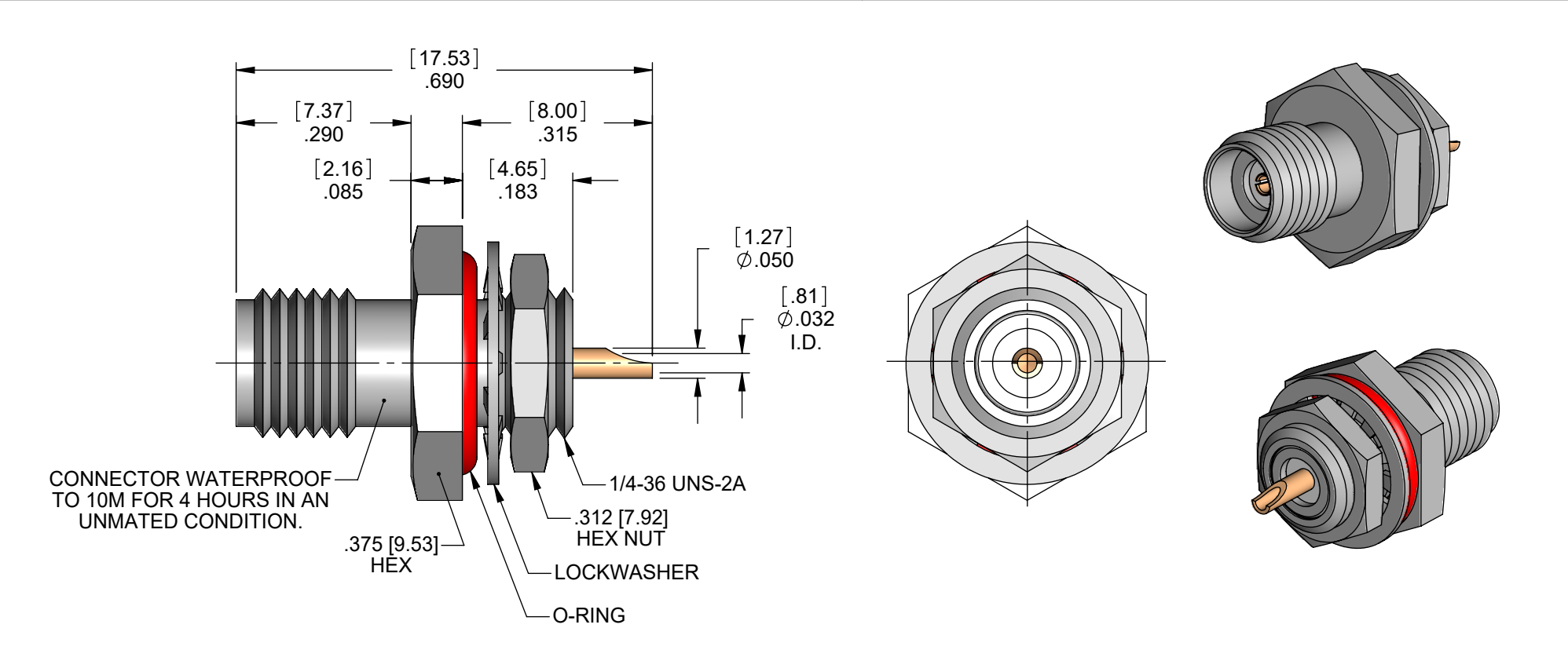
**MATERIAL/FINISH PROPERTIES**

**MATERIAL PROPERTIES:**  
 BODY: STAINLESS STEEL PER ASTM A582 OR EQUIVALENT  
 CONTACT: BERYLLIUM COPPER PER ASTM B196 OR EQUIVALENT  
 INSULATOR: PTFE PER ASTM D1710 OR EQUIVALENT  
 O-RING: FLUOROSILICONE PER MIL-R-25988 OR EQUIVALENT, COLOR: RED

**PLATING PROPERTIES:**  
 BODY: PASSIVATE PER QQ-P-35, TYPE II  
 CONTACT: .000030 MIN. GOLD PER MIL-G-45204 OVER  
 .000050 MIN. NICKEL PER QQ-N-290  
 HEX NUT: PASSIVATE PER QQ-P-35

**MECHANICAL/ELECTRICAL PROPERTIES**

CONNECTOR MEETS: MIL-STD-348 FIG. 310-2, MIL-PRF-39012  
 CONNECTOR MEETS: RoHS 2015/863/EU STANDARDS  
 CONNECTOR DURABILITY: 500 CYCLES MIN.  
 MOUNTING: PER ES117-BK070  
 PANEL THICKNESS: .093 [2.4] MAX.  
 IMPEDANCE: 50 OHMS NOMINAL  
 FREQUENCY RANGE: DC-18 GHz  
 VOLTAGE RATING: 335 VRMS  
 INSULATION RESISTANCE: 5,000 MEGOHMS  
 DIELECTRIC WITHSTANDING VOLTAGE: 1,500 VRMS



A	ECN 1138	JJM	07/19/23
REV	DESCRIPTION	APPR	DATE

**BROWNING ELECTRONICS**  
*RF CONNECTOR SOLUTIONS*

**UNLESS OTHERWISE SPECIFIED**  
 ALL DIMENSIONS ARE REFERENCE  
 X.XXX DIM'S = INCHES \* [X.XX] DIM'S = MILLIMETERS  
 SURFACE FINISH: 63 MICRO MAX.  
 ALL DIAMETERS TO BE CONCENTRIC WITHIN .005 F.I.M.

TITLE: SMA STRAIGHT WATERPROOF BULKHEAD JACK SOLDER CUP CONTACT			
MATERIAL & FINISH: PER TABLE ABOVE			
DRAWN BY: TLB	CHECK BY: TLL	APPR. BY: JJM	
DATE: 07/19/23	DATE: 07/19/23	DATE: 07/19/23	
DO NOT SCALE DWG	SCALE 4:1	SIZE A	REV A
SALES DRAWING	PART NO. 39F-1BK-000-06P	SHEET 1 OF 1	

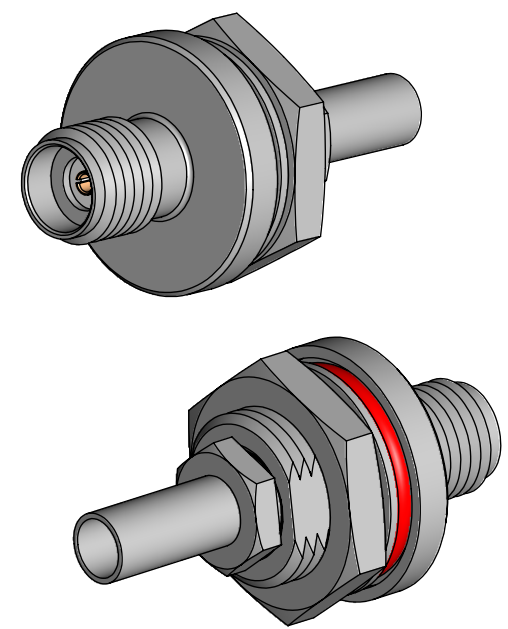
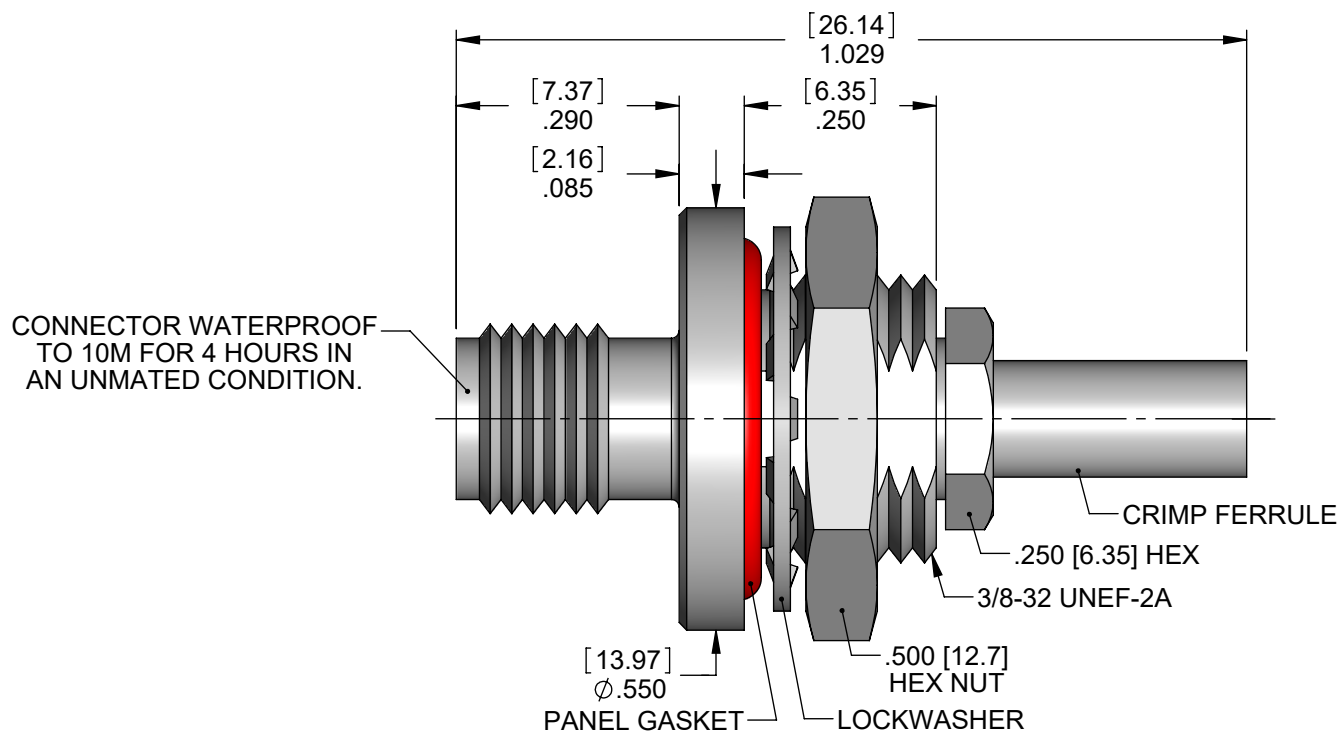
**MATERIAL/FINISH PROPERTIES**

**MATERIAL PROPERTIES:**  
 BODY: BRASS PER ASTM B16 OR EQUIVALENT  
 CONTACT: BERYLLIUM COPPER PER ASTM B196 OR EQUIVALENT  
 INSULATOR: PTFE PER ASTM D1710 OR EQUIVALENT  
 GASKETS: SILICONE RUBBER PER AA59588 OR EQUIVALENT

**PLATING PROPERTIES:**  
 BODY: .000100 MIN. NICKEL PER QQ-N-290  
 CONTACT: .000030 MIN. GOLD PER MIL-G-45204 OVER  
 .000050 MIN. NICKEL PER QQ-N-290

**MECHANICAL/ELECTRICAL PROPERTIES**

CONNECTOR MEETS: MIL-STD-348 FIG. 310-2, MIL-PRF-39012  
 CONNECTOR MEETS: RoHS 2015/863/EU STANDARDS  
 CONNECTOR DURABILITY: 250 CYCLES MIN.  
 MOUNTING: PER ES117-BK470  
 PANEL THICKNESS: .125 [3.2] MAX.  
 CABLE: RG316 OR EQUIVALENT  
 ASSEMBLY INSTRUCTIONS: A161  
 FERRULE CRIMP TOOL: .128 HEX.  
 IMPEDANCE: 50 OHMS NOMINAL  
 FREQUENCY RANGE: DC-18 GHz  
 VOLTAGE RATING: 335 VRMS  
 INSULATION RESISTANCE: 5,000 MEGOHMS  
 DIELECTRIC WITHSTANDING VOLTAGE: 1,500 VRMS



A	ECN 1051	JJM	04/11/23
REV	DESCRIPTION	APPR	DATE

**BROWNING ELECTRONICS**  
*RF CONNECTOR SOLUTIONS*

**UNLESS OTHERWISE SPECIFIED**  
 ALL DIMENSIONS ARE REFERENCE  
 X.XXX DIM'S = INCHES \* [X.XX] DIM'S = MILLIMETERS  
 SURFACE FINISH: 63 MICRO MAX.  
 ALL DIAMETERS TO BE CONCENTRIC WITHIN .005 F.I.M.

TITLE: SMA SEALED STRAIGHT BULKHEAD MOUNT CABLED JACK			
MATERIAL & FINISH: PER TABLE ABOVE			
DRAWN BY: TLB	CHECK BY: TLL	APPR. BY: JJM	
DATE: 04/11/23	DATE: 04/11/23	DATE: 04/11/23	
DO NOT SCALE DWG	SCALE 4:1	SIZE A	REV A
SALES DRAWING	PART NO. 40F-1BK-301-01N	SHEET 1 OF 1	