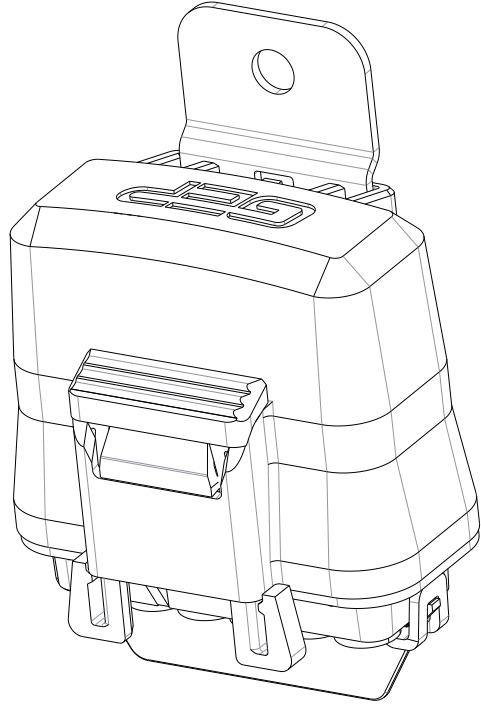


REV	REVISION DETAILS	ECO	DATE	BY	ABY
0	INITIAL RELEASE	NP-0660	27NOV2017	JWK	JML
1	UPDATED TO LATEST DRAWING STANDARDS. ADDED SC42-2018A-A001 AS HOUSING AND SEAL OPTION. ADDED SC19-2001A-A001, SC56-2000A-B001, SC55-2000A-A001 AS ACCESSORY OPTIONS. UPDATED PART NUMBER AND DESCRIPTION.	NP-005914	13FEB2024	JWK	JML
2	UPDATED NOTES	NP-006181	12JUN2024	JWK	JML
3	ADDED PLUG WITH SEAL TO ACCESSORIES. ADDED VENTED COVER OPTION. UPDATED LAYOUT OF ACCESSORIES AND MOUNTING BRACKET SHEETS. UPDATED TABLE A. UPDATED NOTES.	NP-007409	01MAY2026	JWK	JML



ISO VIEW
FOR REF ONLY

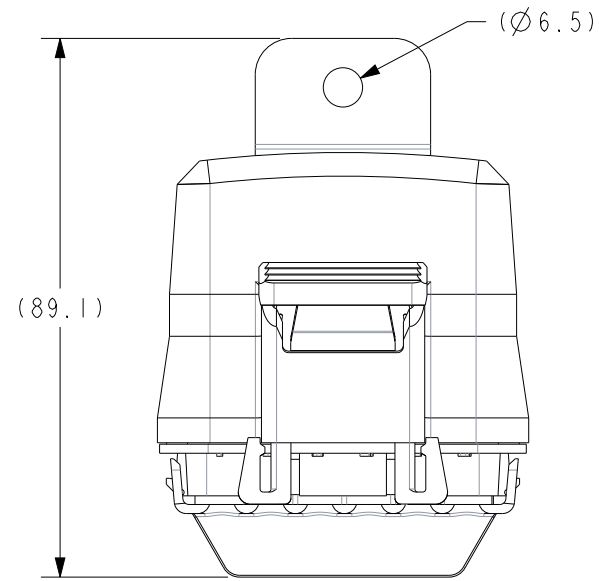
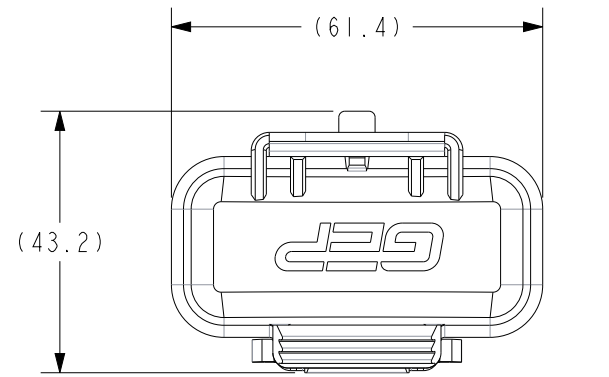
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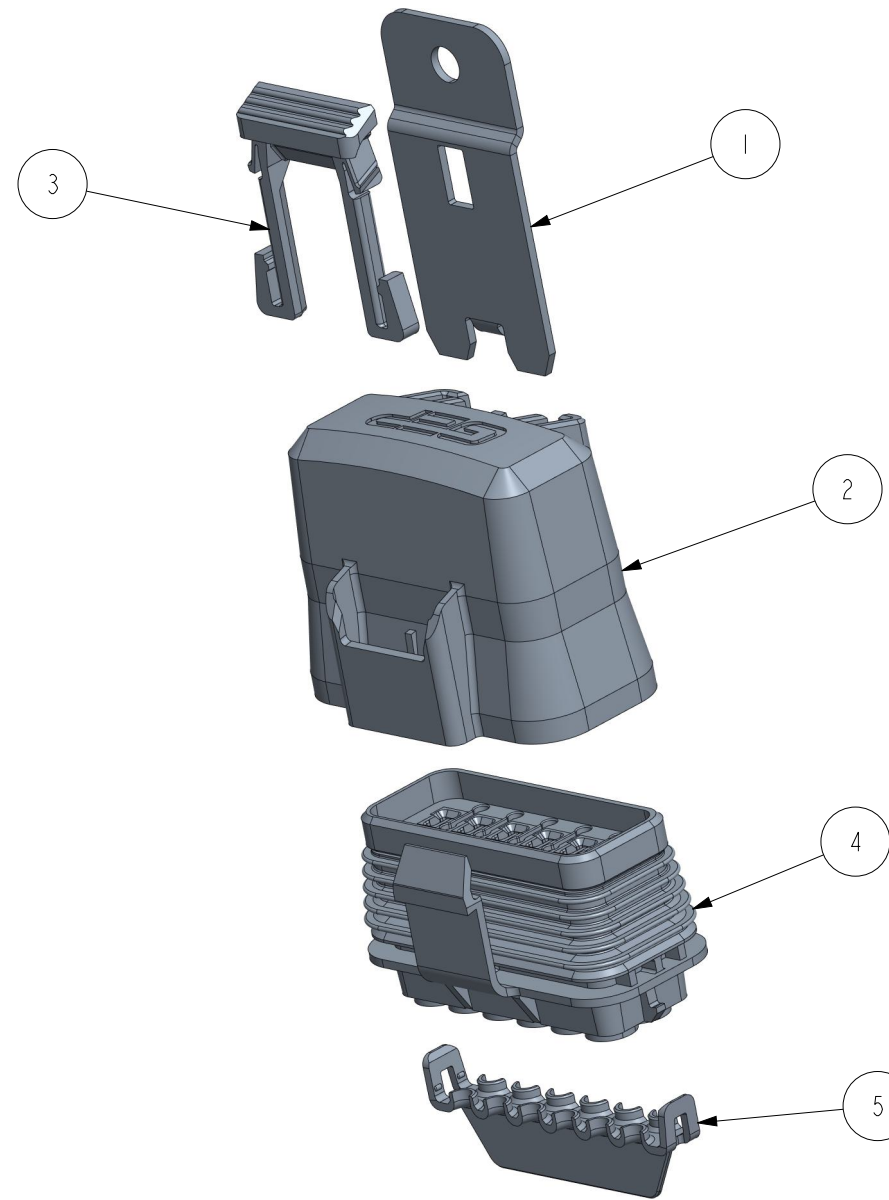
<p>▲ CRITICAL DIMENSIONS ON FEATURES TO BE CHECKED DURING ANY SET-UP ADJUSTMENTS, TOOL CHANGES, OR ANNUAL MAINTENANCE ON TOOLING.</p>	<p>○ DIMENSIONS OR FEATURES TO BE CHECKED FROM RUN-TO-RUN</p>
<p>TOLERANCES UNLESS OTHERWISE SPECIFIED</p>	
<p>METRIC TOL</p>	<p>ENGLISH TOL</p>
<p>1 PL DEC. = ±.25 2 PL DEC. = ±.13</p>	<p>2 PL DEC. = ±.01 3 PL DEC. = ±.005</p>
<p>THIRD ANGLE PROJECTION</p>	
<p>ANGULAR TOL = ±2° FRACTION TOL = ±1/64 IN</p>	
<p>DIMENSIONS INSIDE PARENTHESES OR CONTAINING "REF" ARE FOR REFERENCE ONLY.</p>	
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GEP POWER PRODUCTS		16830 Pheasant Drive Brookfield, WI 53005		
PART NO:		FRH-A12 PDM SERIES (SALES)		
DESCRIPTION:		FRH-A12 PDM SERIES (SALES)		
CUSTOMER:		STANDARD		
METRIC (MM)	REV	SHEET	SCALE	SIZE
	3	1 OF 7	1:1	B

EXAMPLE CONFIGURATION & NOTES



EXAMPLE CONFIGURATION WITH DIMENSIONAL INFO



EXAMPLE CONFIGURATION EXPLODE VIEW

- NOTES:
1. BASE, COVER, & CPA MATERIAL: UNFILLED PBT
 2. TPA & DIODE KEY MATERIAL: NYLON
 3. COLORS: HOUSING, COVER - BLACK
SEAL - BLUE (OR RED IF MANUFACTURED BEFORE AUGUST 2026)
TPA, CPA - BLUE
 4. BRACKET MATERIAL: ZINC PLATED STEEL OR STAINLESS STEEL (SEE PART DESCRIPTION)
 5. DESIGNED TO USE DELPHI 280 METRI-PACK TERMINALS AND SEALS (SEE TABLE A)
 6. RoHS AND REACH COMPLIANT

EXAMPLE ASSEMBLY BOM			
ITEM	DESCRIPTION	PART NO.	QTY
1	BRACKET - PDM - FRH - FLAT WITH ANTI-ROTATION - ZINC STEEL	FRH-A12-MB-A1	1
2	COVER - PDM, FRH, 12 POS, GEP	FRH-A12-C	1
3	CPA - PDM - FRH	FRH-A-CPA	1
4	HOUSING AND SEAL - PDM, FRH, 12 POS	FRH-A12	1
5	TPA - PDM, FRH	FRH-A12-T	1

GEP POWER PRODUCTS 16830 Pheasant Drive Brookfield, WI 53005

PART NO: FRH-A12 PDM SERIES (SALES)

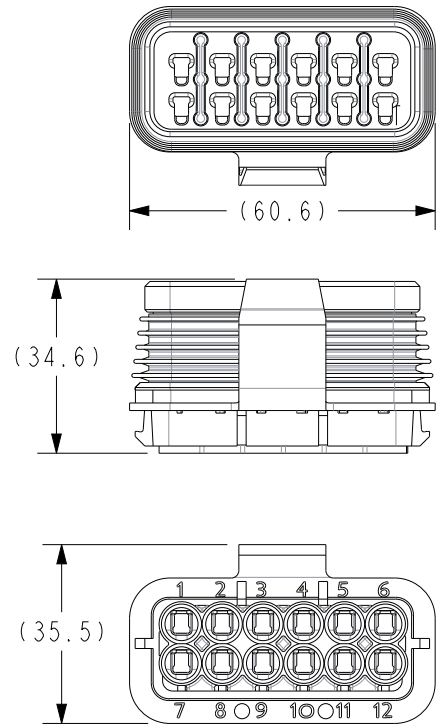
DESCRIPTION: FRH-A12 PDM SERIES (SALES)

CUSTOMER: STANDARD

METRIC (MM)	REV 3	SHEET 2 OF 7	SCALE 1:1.25	SIZE B
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HOUSING W/SEAL OPTIONS

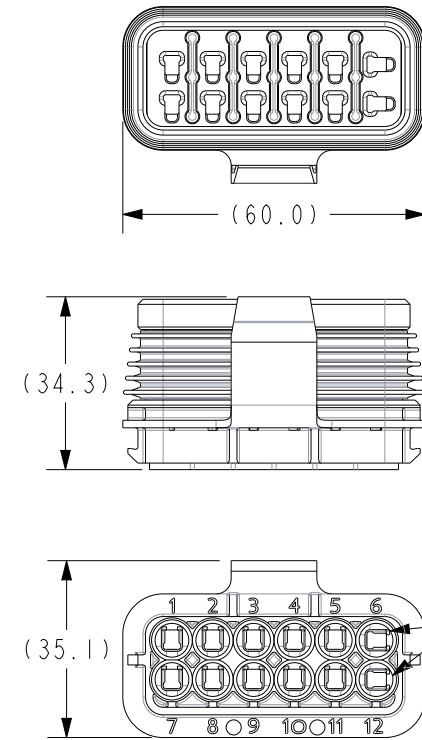
FRH-A12
HOUSING AND SEAL - PDM, FRH 12 POS
(FOR TERMINALS AND SEALS
SEE TABLE A)



FRH-A12 EXAMPLE
POPULATED WITH FUSES/RELAY



SC42-2018A-A001
HOUSING AND SEAL - PDM
FRH 12 POS - ROTATED FUSE
(FOR TERMINALS AND SEALS
SEE TABLE A)



SC42-2018A-A001 EXAMPLE
POPULATED WITH FUSES/RELAY

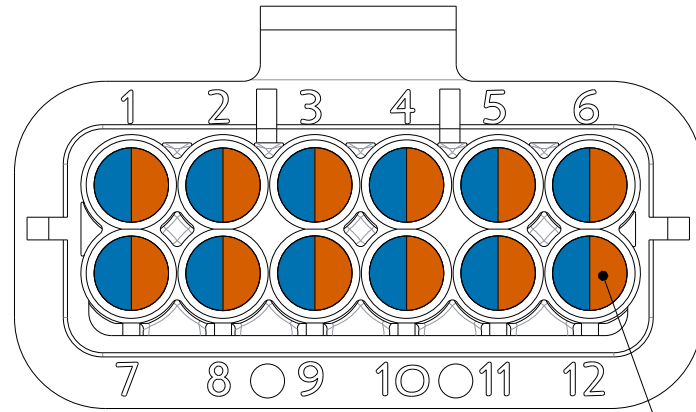


NOTE: POSITIONS 6 AND 12
ARE ROTATED

		16830 Pheasant Drive Brookfield, WI 53005		
PART NO:	FRH-A12 PDM SERIES (SALES)			
DESCRIPTION:	FRH-A12 PDM SERIES (SALES)			
CUSTOMER:	STANDARD			
METRIC (MM)	REV 3	SHEET 3 OF 7	SCALE 1:1.5	SIZE B

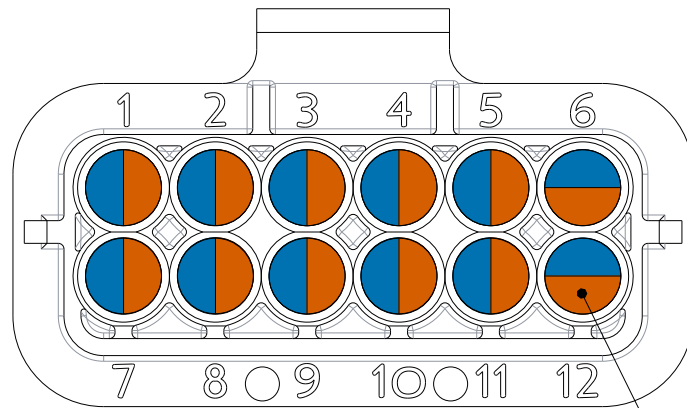
HOUSING TERMINALS AND SEALS

FRH-A12
HOUSING AND SEAL - PDM, FRH 12 POS



280 CAVITIES
SEE TABLE A FOR TERMINALS
AND CABLE SEALS

SC42-2018A-A001
HOUSING AND SEAL - PDM
FRH 12 POS - ROTATED FUSE



280 CAVITIES
SEE TABLE A FOR TERMINALS
AND CABLE SEALS

Table A			REV 2
APTIV (DELPHI) 280 METRI-PACK TERMINALS			
PART NUMBER	CABLE RANGE (mm ²)	MATERIAL	PLATING
12077413	3	TIN BRASS	TIN
12129493	2.0-3.0	TIN BRASS	TIN
12077411	0.8-1.0	TIN BRASS	TIN
12084201	0.35-0.50	TIN BRASS	TIN
12176387	5	BERYLLIUM COPPER	SILVER/NICKEL
12176388	2.0-3.0	BERYLLIUM COPPER	SILVER/NICKEL
12176389	0.8-1.0	BERYLLIUM COPPER	SILVER/NICKEL
APTIV (DELPHI) 280 METRI-PACK CABLE SEALS (FOR REF. ONLY)			
PART NUMBER	CABLE DIAMETER	MATERIAL	COLOR
15324981	3.45-4.3	SILICONE	BLUE
15324980	2.81-3.49	SILICONE	LT. GRAY
15324982	2.03-2.85	SILICONE	GREEN
15324984	2.03-2.42	SILICONE	TAN
15324985	1.6-2.15	SILICONE	PURPLE
15324983	1.29-1.70	SILICONE	DK. RED
12010300	PLUG	SILICONE	GREEN
DELPHI 280 METRI-PACK TERMINAL REMOVAL TOOL (FOR REF. ONLY)			
PART # 12094430			

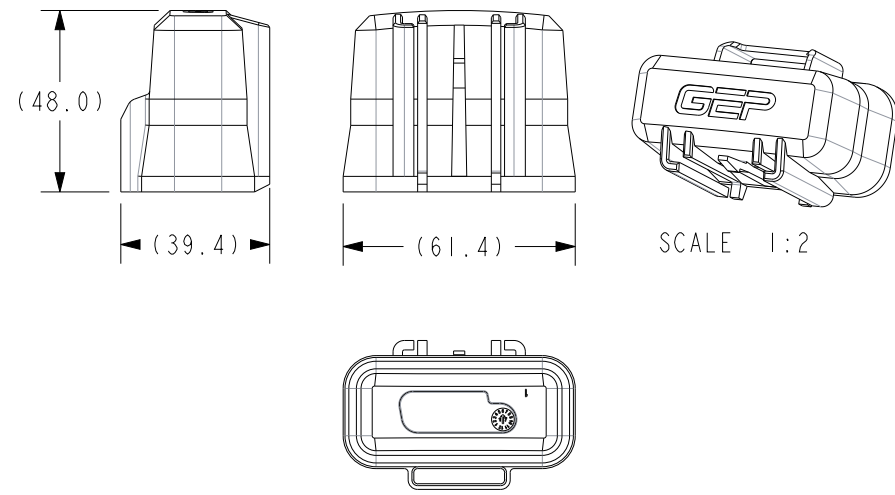
GEP POWER PRODUCTS 16830 Pheasant Drive
Brookfield, WI 53005

PART NO: FRH-A12 PDM SERIES (SALES)
DESCRIPTION: FRH-A12 PDM SERIES (SALES)
CUSTOMER: STANDARD

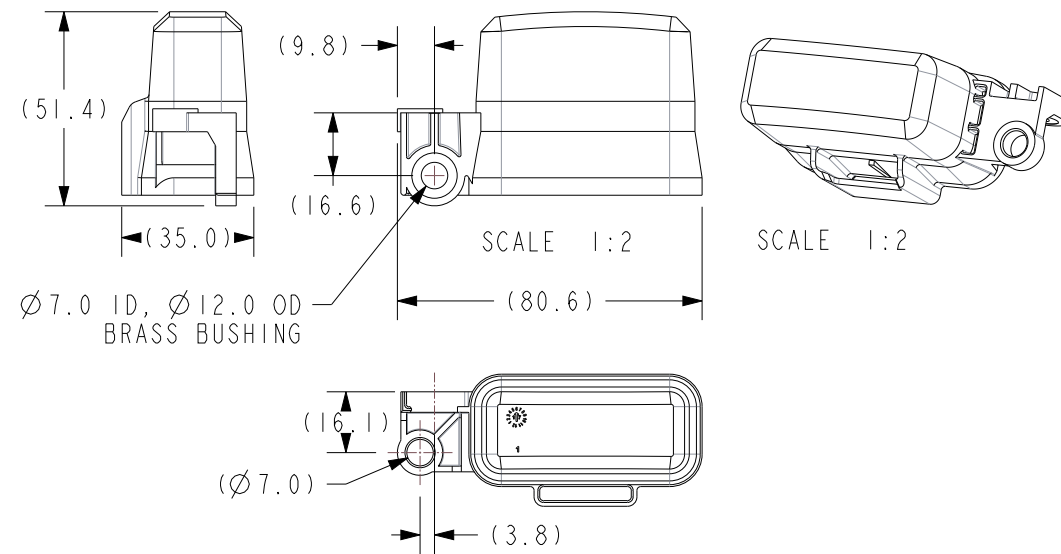
METRIC (MM)	REV 3	SHEET 4 OF 7	SCALE 1:1	SIZE B
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COVER & ACCESSORY OPTIONS

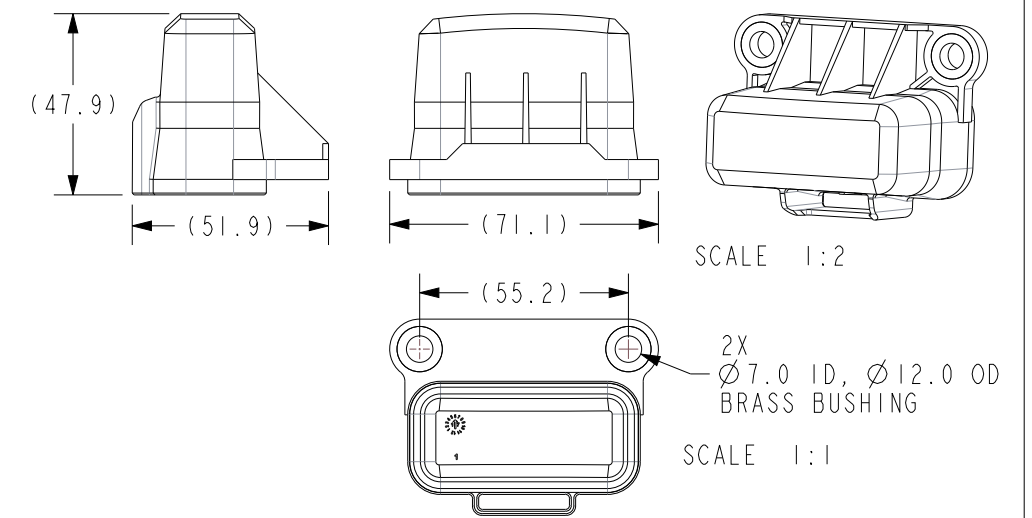
FRH-A12-C
COVER - PDM, FRH, 12 POS, GEP



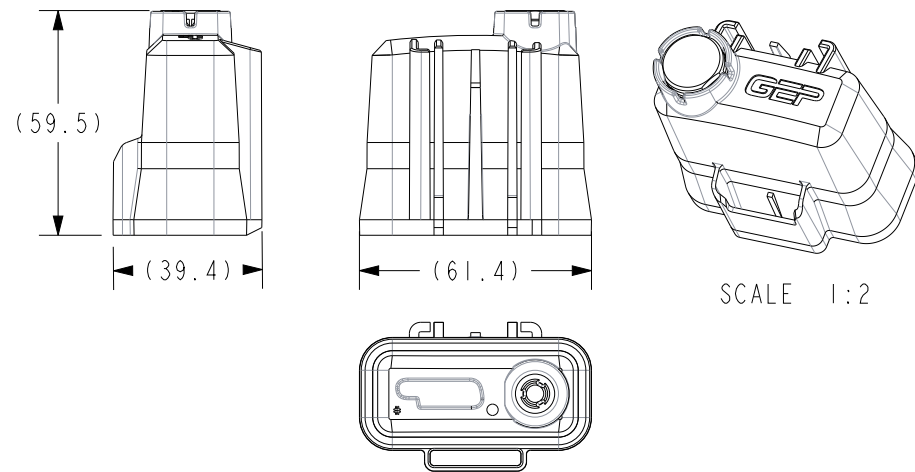
FRH-A12-CB-1
COVER - PDM, FRH 12 POS, SINGLE SIDE MOUNT, PLAIN



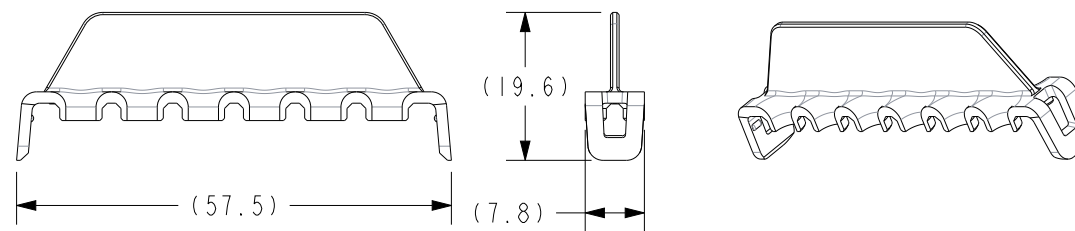
FRH-A12-CD-1
COVER - PDM, FRH 12 POS, DOUBLE SIDE MOUNT, PLAIN



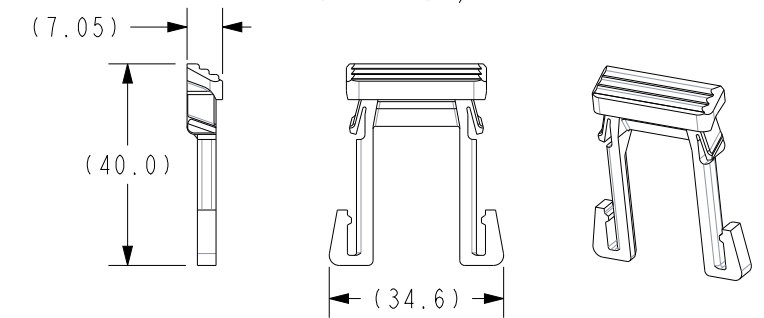
SC42-2027A-A001
COVER WITH VENT - FRH - A12



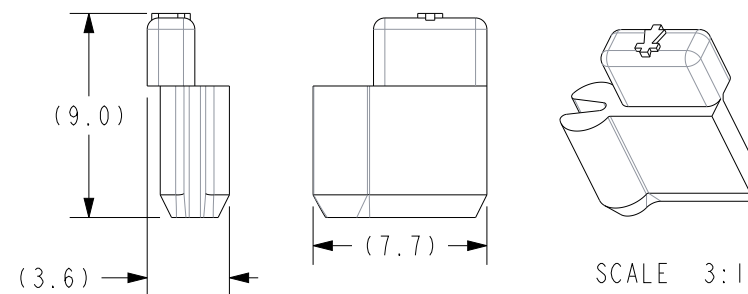
FRH-A12-T
TPA - PDM, FRH



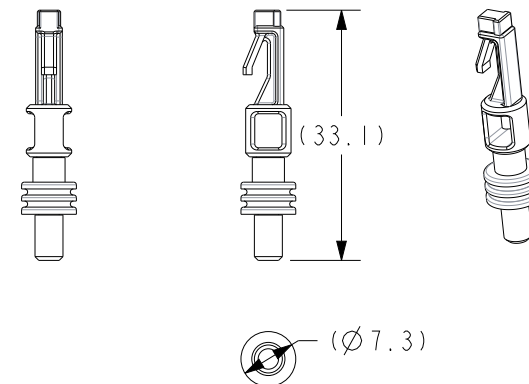
FRH-A-CPA
CPA - PDM, FRH



PDM-TK
DIODE KEY



SC55-2000A-A001
PLUG AND SEAL - PDM
CAVITY PLUG - METRIPACK 280

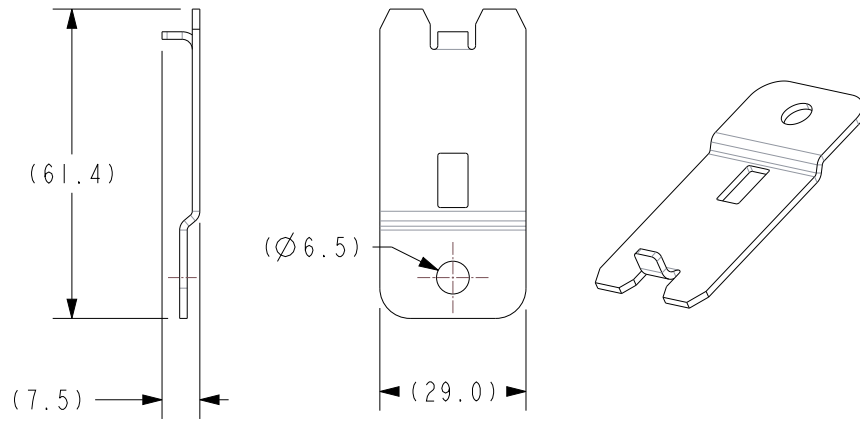


GEP POWER PRODUCTS		16830 Pheasant Drive Brookfield, WI 53005		
PART NO:	FRH-A12 PDM SERIES (SALES)			
DESCRIPTION:	FRH-A12 PDM SERIES (SALES)			
CUSTOMER:	STANDARD			
METRIC (MM)	REV 3	SHEET 5 OF 7	SCALE 1:1	SIZE B

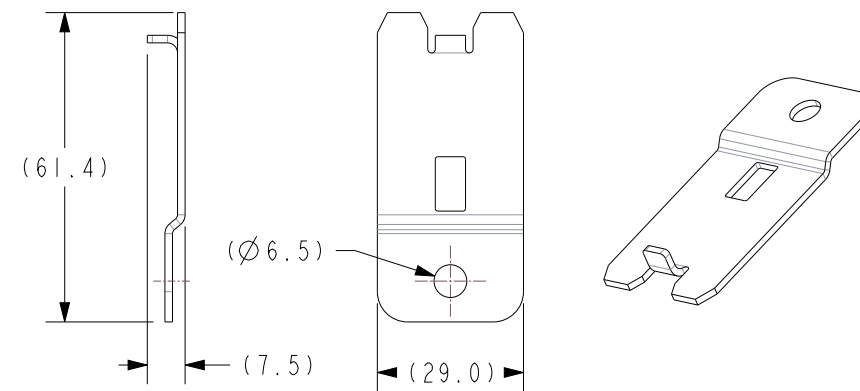
MOUNTING BRACKET OPTIONS

FOR NON-STANDARD MOUNTING OPTIONS EMAIL
GEPENGINEERING@GEPPOWERPRODUCTS.COM TO REVIEW

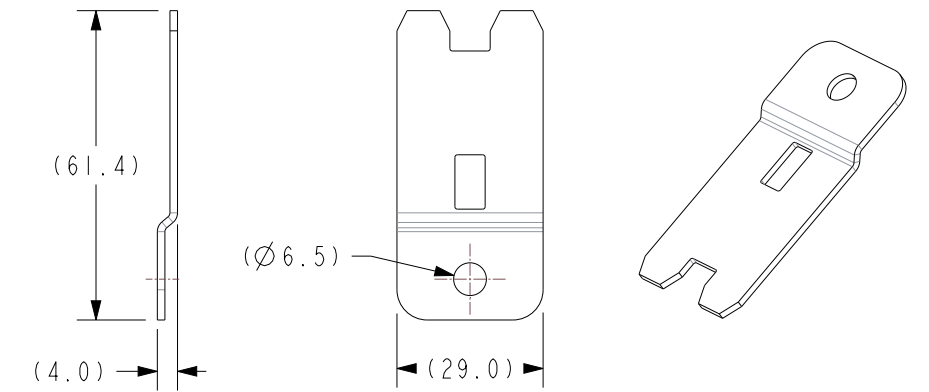
FRH-A12-MB-A1
BRACKET - PDM,FRH,FLAT WITH ANTI-ROTATION, ZINC STEEL



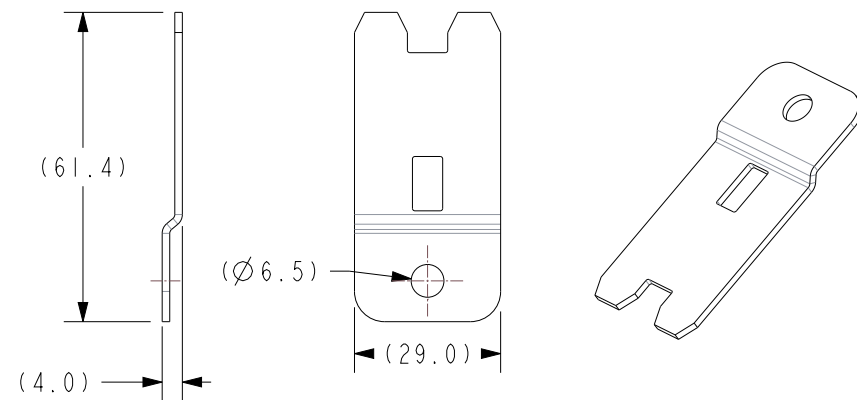
FRH-A12-MB-A2
BRACKET - PDM, FRH, FLAT WITH ANTI-ROTATION, STAINLESS 304



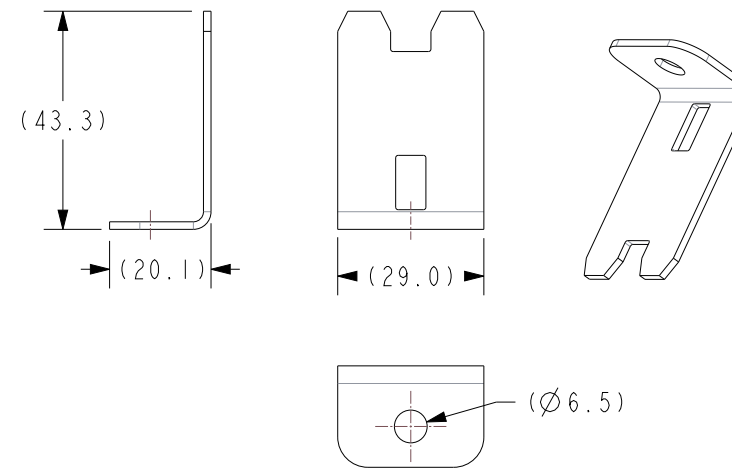
FRH-A12-MB-B1
BRACKET - PDM, FRH, FLAT WITHOUT ANTI-ROTATION, ZINC STEEL



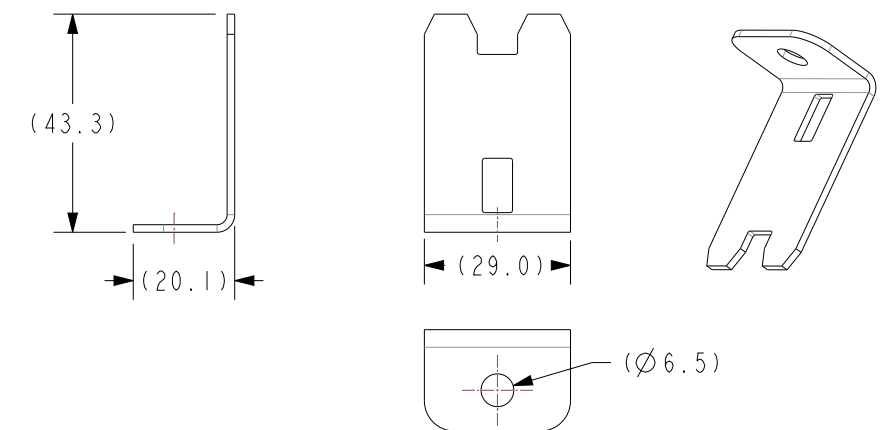
FRH-A12-MB-B2
BRACKET - PDM, FRH, FLAT WITHOUT ANTI-ROTATION, STAINLESS 304



FRH-A12-MB-C1
BRACKET - PDM, FRH, 90° BENT, ZINC STEEL



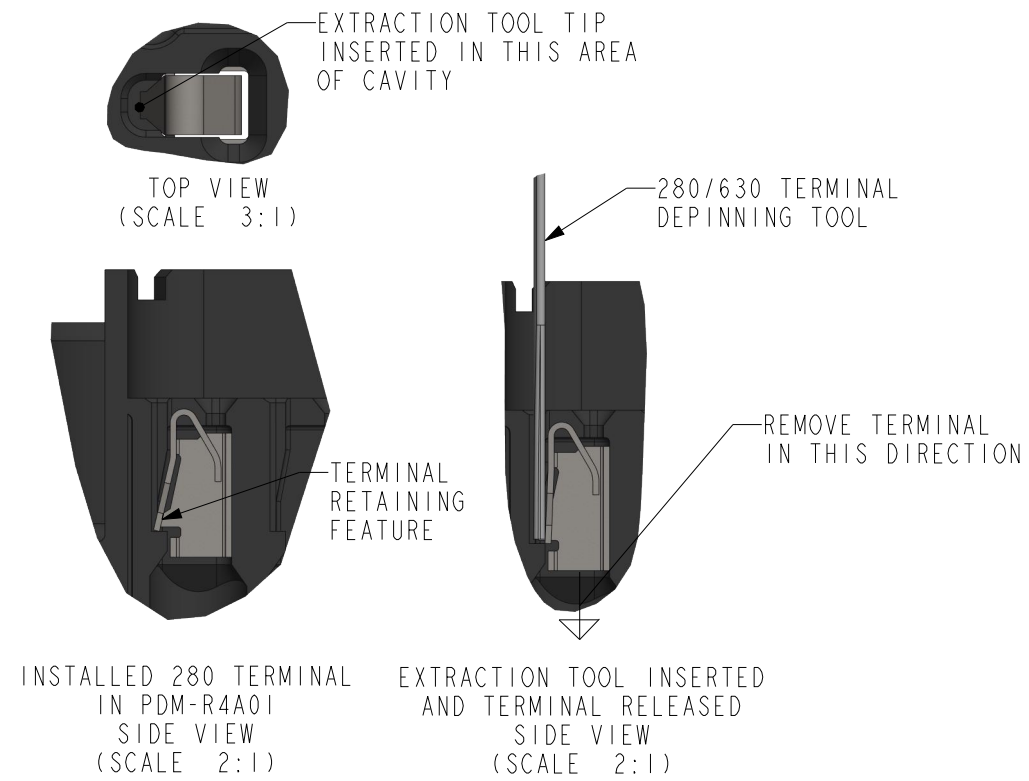
FRH-A12-MB-C2
BRACKET - PDM, FRH, 90° BENT, STAINLESS 304



GEP POWER PRODUCTS		16830 Pheasant Drive Brookfield, WI 53005		
PART NO:	FRH-A12 PDM SERIES (SALES)			
DESCRIPTION:	FRH-A12 PDM SERIES (SALES)			
CUSTOMER:	STANDARD			
METRIC (MM)	REV 3	SHEET 6 OF 7	SCALE 1:1.5	SIZE B

DEPINNING INSTRUCTIONS

280 TERMINAL DEPINNING



		16830 Pheasant Drive Brookfield, WI 53005		
PART NO:	FRH-A12 PDM SERIES (SALES)			
DESCRIPTION:	FRH-A12 PDM SERIES (SALES)			
CUSTOMER:	STANDARD			
METRIC (MM)	REV 3	SHEET 7 OF 7	SCALE 1:1	SIZE B