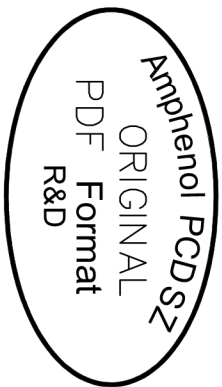
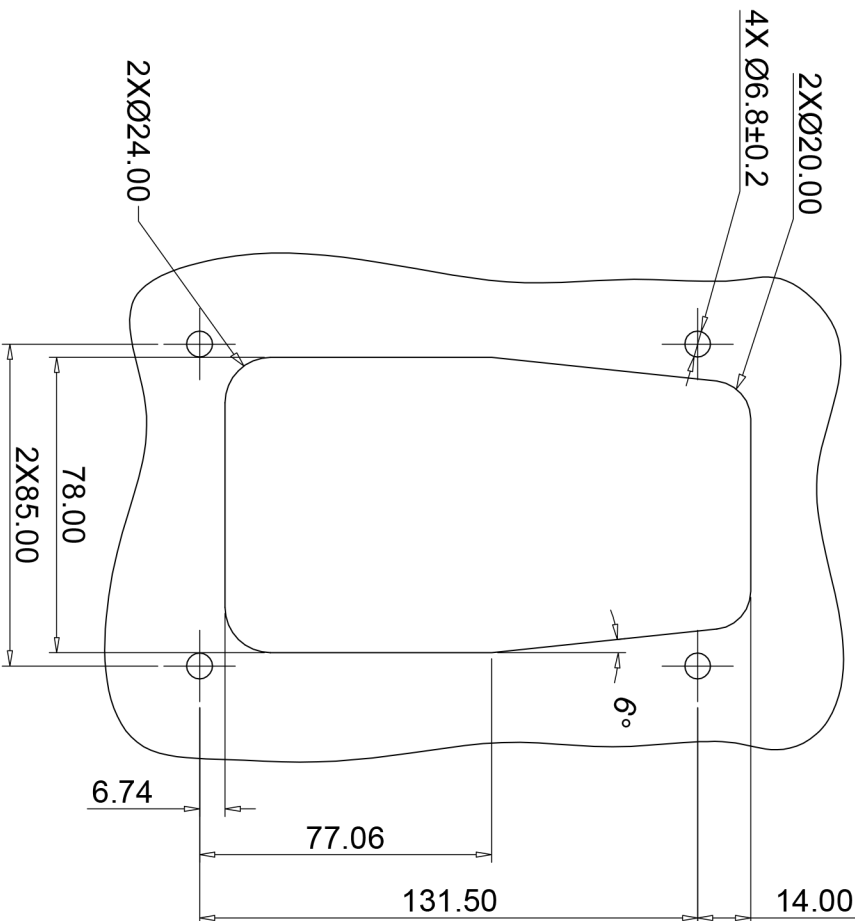
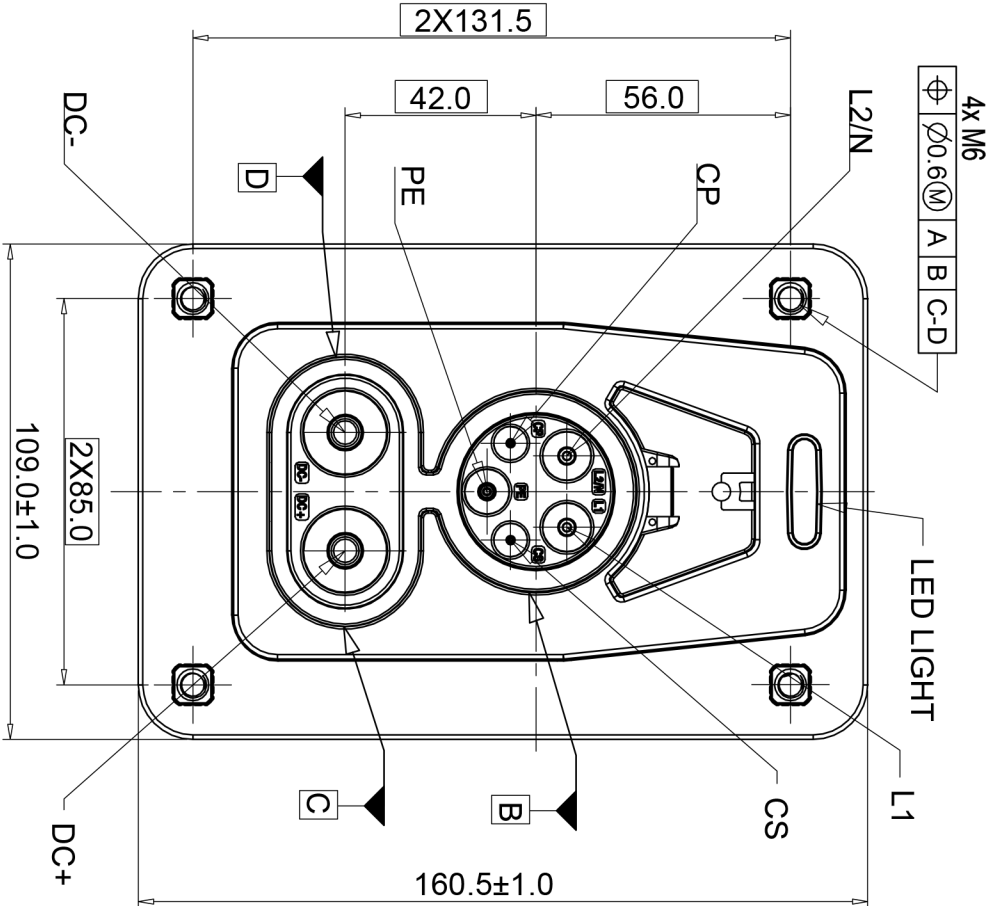
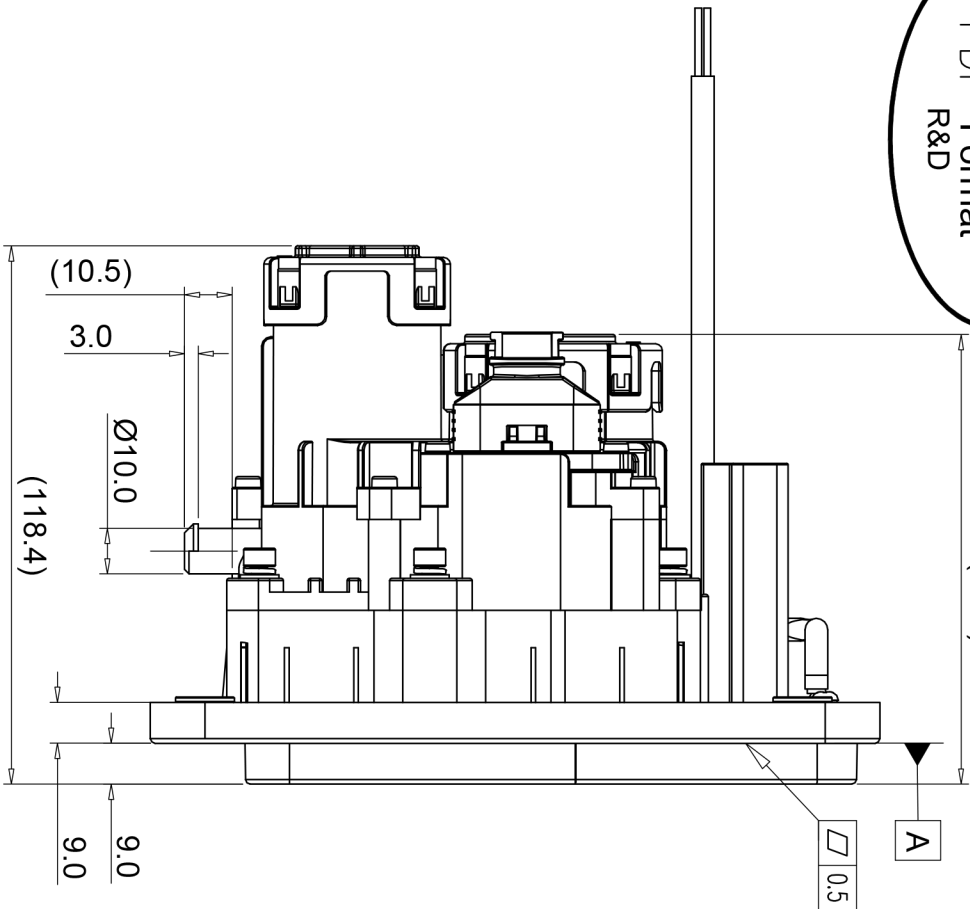


C-HVCOSF04XD



CONNECTOR ASSEMBLY STATUS

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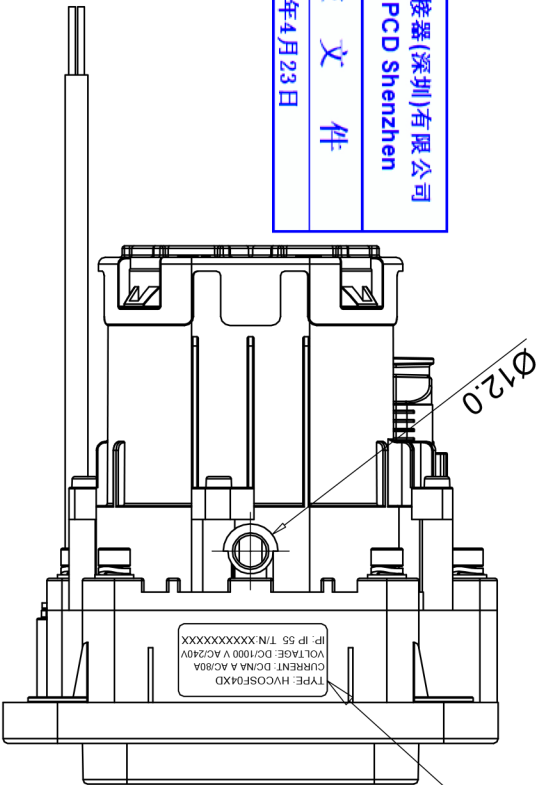
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1 LASER
THE ELECTRICAL
PARAMETERS
ARE BASED ON
THE
CORRESPONDING
P/N.

TECHNICAL DATA

AMBIENT TEMPERATURE	-40°C to +60°C	
RATED CURRENT	SEE TABLE 1	✦
RATED VOLTAGE	SEE TABLE 1	✦
WITHSTAND VOTAGE	DC+ & DC- :3000VAC / L1& L2/N: 2000VAC ; CP & CS : 500VAC	✦
INSULATION RESISTANCE	200MΩ MIN.	✦
IP CLASS	IP55 (PLUGGED IN) / IP55 (IN "ROAD" POSITION) / IP67 (INNER AREA OF VEHICLE INLET)	✦
DURABILITY	10000 CYCLES MIN.	◎
INSERTION & WITHDRAWAL FORCE	F<100N	
ROHS	ROHS COMPLIANCE	✦

DIMENSIONS	ANSI Y14.5M UNITS: MM CAD FILE	TOLERANCES .X ± 0.5 .XX ±0.05 ANGLES ±2°	PROJECTION 	TITLE CCS1 Vehicle INLET WITH LED	
ORIGINAL	CHKD ENGR Mar.11.2022	Amphenol PCD Shenzhen	SIZE A3	DWG NO. C-HVCOSF04XD	REV 7

✦ IS CRITICAL CHARACTERISTIC SYMBOL
◎ IS IMPORTANT CHARACTERISTIC SYMBOL

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REV	ECN	DESCRIPTION	DATE	MODIFIED
3		UPDATEDU THE LED CABLE FIXING POSITION	Apr.18.2022	
4	R6399N	REMOVE THE FLAT WASHER	Jul.07.2022	
5	C7152N	TEMPERATURE COMPENSATION VALUE TBD UPDATED TOSSE TABLE 5	Aug.27.2023	
6	R7449	ADD SPECIFICATIONS	Sep.18.2023	

TABLE 1-1: PART NUMBER LIST

ITEM	PART NUMBER	RATED CURRENT AND VOLTAGE	CABLE SPEC FOR DC+ & DC- PIN	CABLE SPEC FOR L1 & L2/N PIN	CABLE SPEC FOR PE PIN
1	HVCOSF040D	DC+ & DC- : 500A / 1000V DC ; L1& L2/N : 80A / 240V AC; CP&CS: 2A / 30V THE TEMPERATURE OF THE POWER CONTACTS SHOULD BE CONTROLLED, SEE TABLE6, SHEET10 AND SHEET11.	150mm ² (300 Kcmil) SHIELD CABLE, I.D.:20.6±0.5mm O.D.:24.9±0.5mm	25mm ² (4 AWG) SHIELD CABLE, I.D.:8.5±0.3mm O.D.:11.9±0.3mm	25mm ² (4AWG) UNSHIELD CABLE, I.D.: 9.7±0.3mm
2	HVCOSF041D	DC+ & DC- : 400A / 1000V DC ; L1& L2/N : 80A / 240V AC; CP&CS: 2A / 30V THE TEMPERATURE OF THE POWER CONTACTS SHOULD BE CONTROLLED, SEE TABLE6, SHEET10 AND SHEET11.	120mm ² (250 Kcmil) SHIELD CABLE, I.D.:18.3±0.7mm O.D.:22.6±0.4mm		
3	HVCOSF042D	DC+ & DC- : 300A / 1000V DC ; L1& L2/N : 80A / 240V AC; CP&CS: 2A / 30V THE TEMPERATURE OF THE POWER CONTACTS SHOULD BE CONTROLLED, SEE TABLE6, SHEET10 AND SHEET11.	95mm ² (2(4/0 AWG) SHIELD CABLE, I.D.:16.5±0.7mm O.D.:20.5±0.4mm		
4	HVCOSF043D	DC+ & DC- : 500A / 1000V DC ; L1& L2/N : NONE; CP&CS: 2A / 30V THE TEMPERATURE OF THE POWER CONTACTS SHOULD BE CONTROLLED, SEE TABLE6, SHEET10 AND SHEET11.	150mm ² (300 Kcmil) SHIELD CABLE, I.D.:20.6±0.5mm O.D.:24.9±0.5mm	NA	
5	HVCOSF044D	DC+ & DC- : 400A / 1000V DC ; L1& L2/N : NONE; CP&CS: 2A / 30V THE TEMPERATURE OF THE POWER CONTACTS SHOULD BE CONTROLLED, SEE TABLE6, SHEET10 AND SHEET11.	120mm ² (250 Kcmil) SHIELD CABLE, I.D.:18.3±0.7mm O.D.:22.6±0.4mm	NA	
6	HVCOSF045D	DC+ & DC- : 300A / 1000V DC ; L1& L2/N : NONE; CP&CS: 2A / 30V THE TEMPERATURE OF THE POWER CONTACTS SHOULD BE CONTROLLED, SEE TABLE6, SHEET10 AND SHEET11.	95mm ² (2(4/0 AWG) SHIELD CABLE, I.D.:16.5±0.7mm O.D.:20.5±0.4mm	NA	

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SIZE	DWG NO.	REV
A3	C-HVCOSF04XD	7
SCALE 1:1		SHEET 2 OF 10

TABLE 1: PART NUMBER LIST

CABLE REFERENCE STANDARD: LV216-2;
AC&DC CABLE: TIN-PLATED CABLE IS RECOMMENDED;
CABLE ID RANGE IS THE DIAMETER OF CABLE INSIDE OF INLET, TO MEET IP PROTECTION OF INLET SIDE.
COOLED VEHICLE CHARGING CONNECTOR IS RECOMMENDED(FOR DC CHARGING, WHEN THE CHARGING CURRENT IS MORE THAN 300A, RECOMMEND TO USE THE CHARGING GUN WITH LIQUID-COOLED SYSTEM.)
NOTE: ALL INLETS, POWER CURRENT SHOULD BE CONTROLLED AND THE TERMPERATURE OF POWER CONTACTS SHOULD OBEY TABLE6, SHEET 10 AND SHEET 11.

TABLE 1-2: PART NUMBER LIST

ITEM	PART NUMBER	RATED CURRENT AND VOLTAGE	CABLE SPEC FOR DC+ & DC- PIN	CABLE SPEC FOR L1 & L2/N PIN	CABLE SPEC FOR PE PIN
7	HVCOSF046D	DC+ & DC- : 500A / 1000V DC ; L1& L2/N : 48A / 240V AC; CP&CS: 2A / 30V THE TEMPERATUR E OF THE POWER CONTACTS SHOULD BE CONTROLLED, SEE TABLE6, SHEET10 AND SHEET11.	150mm [^] 2(300 KcniI) SHIELD CABLE, I.D.:20.6±0.5mm O.D.:24.9±0.5mm	10mm [^] 2(8 AWG) SHIELD CABLE, I.D.:5.7±0.3mm O.D.:8.5±0.3mm	25mm [^] 2(4AWG) UNSHIELD CABLE, I.D.: 9.7±0.3mm
8	HVCOSF047D	DC+ & DC- : 400A / 1000V DC ; L1& L2/N : 48A / 240V AC; CP&CS: 2A / 30V THE TEMPERATUR E OF THE POWER CONTACTS SHOULD BE CONTROLLED, SEE TABLE6, SHEET10 AND SHEET11.	120mm [^] 2(250 KcniI) SHIELD CABLE, I.D.:18.3±0.7mm O.D.:22.6±0.4mm		
9	HVCOSF048D	DC+ & DC- : 300A / 1000V DC ; L1& L2/N : 48A / 240V AC; CP&CS: 2A / 30V THE TEMPERATUR E OF THE POWER CONTACTS SHOULD BE CONTROLLED, SEE TABLE6, SHEET10 AND SHEET11.	95mm [^] 2(4/0 AWG) SHIELD CABLE, I.D.:16.5±0.7mm O.D.:20.5±0.4mm		
10	HVCOSF049D	DC+ & DC- : 200A / 1000V DC ; L1& L2/N : 48A / 240V AC; CP&CS: 2A / 30V THE TEMPERATUR E OF THE POWER CONTACTS SHOULD BE CONTROLLED, SEE TABLE6, SHEET10 AND SHEET11.	70mm [^] 2 SHIELD CABLE, I.D.:13.0~14.4mm O.D.:17.4~18.2mm	10mm [^] 2(8 AWG) SHIELD CABLE, I.D.:5.7±0.3mm O.D.:8.5±0.3mm	
11	HVCOSF0410D	DC+ & DC- : 200A / 1000V DC ; L1& L2/N : 80A / 240V AC; CP&CS: 2A / 30V THE TEMPERATUR E OF THE POWER CONTACTS SHOULD BE CONTROLLED, SEE TABLE6, SHEET10 AND SHEET11.	70mm [^] 2 SHIELD CABLE, I.D.:13.0~14.4mm O.D.:17.4~18.2mm	25mm [^] 2(4 AWG) SHIELD CABLE, I.D.:8.5±0.3mm O.D.:11.9±0.3mm	

C-HVCOSF04XD

C-HVCOSF04XD

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TABLE 1-3: PART NUMBER LIST

ITEM	PART NUMBER	RATED CURRENT AND VOLTAGE	CABLE SPEC FOR DC+ & DC- PIN	CABLE SPEC FOR L1 & L2/N PIN	CABLE SPEC FOR PE PIN
12	HVCOSF0411D 	DC+ & DC- : 200A / 1000V DC ; L1& L2/N : 80A / 240V AC; CP&CS: 2A / 30V THE TEMPERATURE OF THE POWER CONTACTS SHOULD BE CONTROLLED, SEE TABLE6, SHEET10 AND SHEET11.	70mm [^] 2 SHIELD CABLE, I.D.:13.0~14.4mm O.D.:17.4~18.2mm	16mm [^] 2(6 AWG) SHIELD CABLE, I.D.:6.6~7.2mm O.D.:9.6~10.2mm	25mm [^] 2(4AWG) UNSHIELD CABLE, I.D.: 9.7±0.3mm
13	HVCOSF0412D 	DC+ & DC- : 300A / 1000V DC ; L1& L2/N : 80A / 240V AC; CP&CS: 2A / 30V THE TEMPERATURE OF THE POWER CONTACTS SHOULD BE CONTROLLED, SEE TABLE6, SHEET10 AND SHEET11.	95mm [^] 2(4/0 AWG) SHIELD CABLE, I.D.:16.5±0.7mm O.D.:20.5±0.4mm		
14	HVCOSF0413D 	DC+ & DC- : 400A / 1000V DC ; L1& L2/N : 80A / 240V AC; CP&CS: 2A / 30V THE TEMPERATURE OF THE POWER CONTACTS SHOULD BE CONTROLLED, SEE TABLE6, SHEET10 AND SHEET11.	120mm [^] 2(250 Kcmil) SHIELD CABLE, I.D.:18.3±0.7mm O.D.:22.6±0.4mm		
15	HVCOSF0414D 	DC+ & DC- : 500A / 1000V DC ; L1& L2/N : 80A / 240V AC; CP&CS: 2A / 30V THE TEMPERATURE OF THE POWER CONTACTS SHOULD BE CONTROLLED, SEE TABLE6, SHEET10 AND SHEET11.	150mm [^] 2(300 Kcmil) SHIELD CABLE, I.D.:20.6±0.5mm O.D.:24.9±0.5mm		
16	HVCOSF0415D 	DC+ & DC- : 200A / 1000V DC ; L1& L2/N : NONE; CP&CS: 2A / 30V THE TEMPERATURE OF THE POWER CONTACTS SHOULD BE CONTROLLED, SEE TABLE6, SHEET10 AND SHEET11.	70mm [^] 2 SHIELD CABLE, I.D.:13.0~14.4mm O.D.:17.4~18.2mm	NA	

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C-HVCOSF04XD

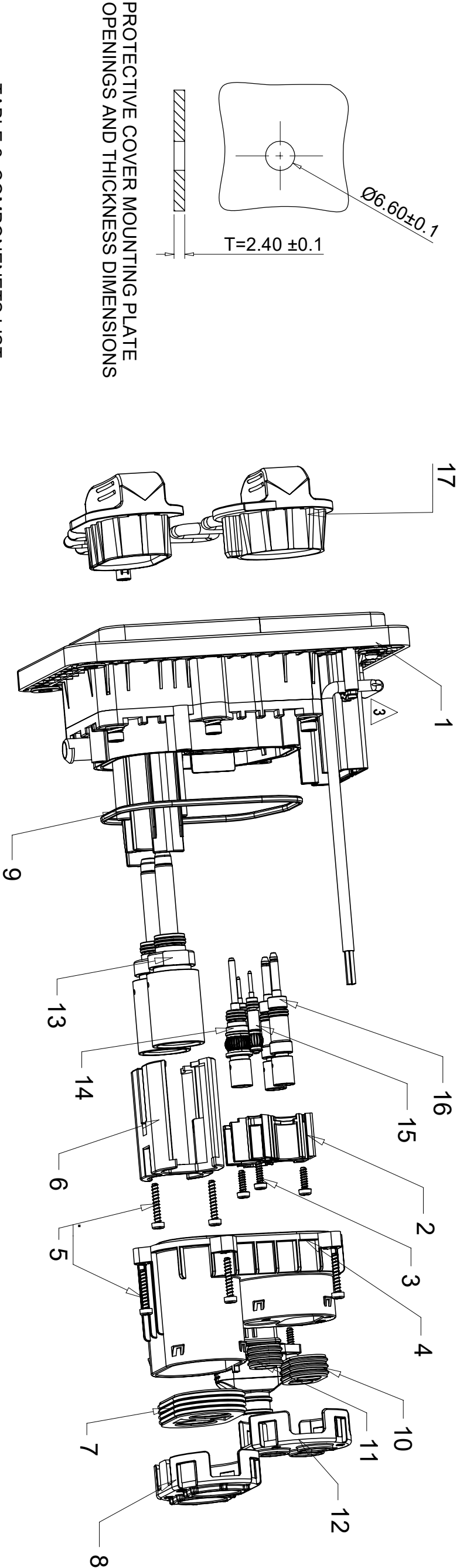
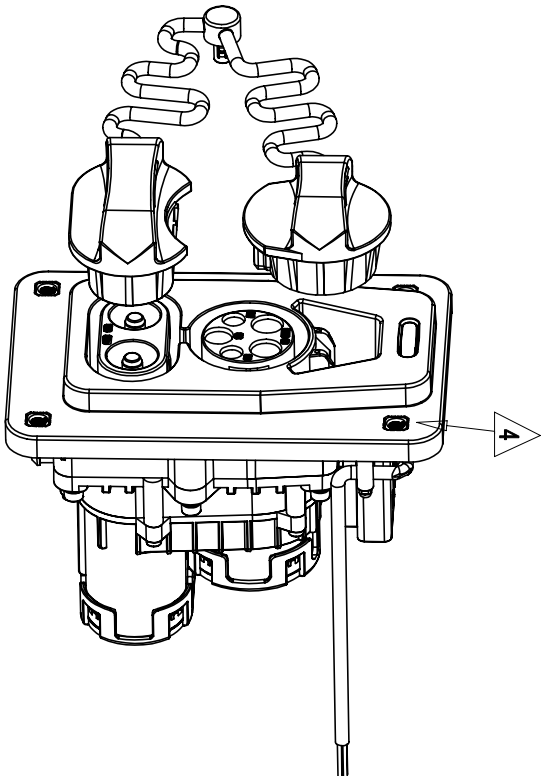


TABLE 2: COMPONENTS LIST

ITEM	PART NUMBER	DESCRIPTION	QTY.	ASSEMBLY/PACKAGING STATUS
1	SEE TABLE 3	HOUSING ASSEMBLY	1	PACKED IN BULK
2	P01BP00526	AC INSERT HOUSING	1	PACKED IN BULK
3	C210006302	SCREW ST2.9X10	3	PACKED IN BULK
4	SEE TABLE 3	REAR HOUSING UP	1	PACKED IN BULK
5	P01BN00372	SCREW ST2.9X18	7	PACKED IN BULK
6	P01BP00524	DC INSERT HOUSING	1	PACKED IN BULK
7	SEE TABLE 3	DC SEALING RING	1	PACKED IN BULK
8	SEE TABLE 3	DC REAR COVER	1	PACKED IN BULK
9	P01BR00411	REAR HOUSING UP/DOWN SEALING	1	PACKED IN BULK
10	SEE TABLE 3	AC SEALING RING	1	PACKED IN BULK
11	P01BR0041002	PE SEALING RING(25SQ)	1	PACKED IN BULK
12	SEE TABLE 3	AC REAR COVER	1	PACKED IN BULK
13	SEE TABLE 3	DC CONTACT	2	PACKED IN BULK
14	P03BM0109902	PE CONTACT (25SQ)	1	PACKED IN BULK
15	P03BM01055	CS CP CONTACT	2	PACKED IN BULK
16	SEE TABLE 3	AC CONTACT	2	PACKED IN BULK
17	P02B000048	PROTECTIVE COVER	1	PACKED IN BULK



ASSEMBLY 3D REFERENCE DRAWING

SIZE	DWG NO.	REV
A3	C-HVCOSF04XD	7
SCALE	1:1	SHEET 5 OF 10

TABLE 3: COMPONENTS LIST

ITEM	P/N	HVCOSF040D (AC/25SQ,DC/150SQ)	HVCOSF041D (AC/25SQ,DC/120SQ)	HVCOSF042D (AC/25SQ,DC/95SQ)	HVCOSF043D (ONLY DC/150SQ)	HVCOSF044D (ONLY DC/120SQ)	HVCOSF045D (ONLY DC/95SQ)	HVCOSF046D (AC/10SQ,DC/150SQ)	HVCOSF047D (AC/10SQ,DC/120SQ)	HVCOSF048D (AC/10SQ,DC/95SQ)
1	HOUSING ASSEMBLY	P02B00020101	P02B00020102	P02B00020103	P02B00020104	P02B00020105	P02B00020106	P02B00020107	P02B00020108	P02B00020109
4	REAR HOUSING UP	P01BP0054101	P01BP0054101	P01BP0054101	P01BP0054102	P01BP0054102	P01BP0054102	P01BP0054101	P01BP0054101	P01BP0054101
7	DC SEALING RING	P01BR0040801	P01BR0040802	P01BR0040803	P01BR0040801	P01BR0040802	P01BR0040803	P01BR0040801	P01BR0040802	P01BR0040803
8	DC REAR COVER	P01BP0052501	P01BP0052502	P01BP0052503	P01BP0052501	P01BP0052502	P01BP0052503	P01BP0052501	P01BP0052502	P01BP0052503
10	AC SEALING RING	P01BR0040901	P01BR0040901	P01BR0040901	NA	NA	NA	P01BR0040904	P01BR0040904	P01BR0040904
12	AC REAR COVER	P01BP0052701	P01BP0052701	P01BP0052701	P01BP0052702	P01BP0052702	P01BP0052702	P01BP0052703	P01BP0052703	P01BP0052703
13	DC CONTACT	P03BM0109801	P03BM0109802	P03BM0109803	P03BM0109801	P03BM0109802	P03BM0109803	P03BM0109801	P03BM0109802	P03BM0109803
16	AC CONTACT	P03BM0105401	P03BM0105401	P03BM0105401	NA	NA	NA	P03BM0105404	P03BM0105404	P03BM0105404

C-HVCOSF04XD

ITEM	P/N	HVCOSF049D (AC/10SQ,DC/70SQ)	HVCOSF0410D (AC/25SQ,DC/70SQ)	HVCOSF0411D (AC/16SQ,DC/70SQ)	HVCOSF0412D (AC/16SQ,DC/95SQ)	HVCOSF0413D (AC/16SQ,DC/120SQ)	HVCOSF0414D (AC/16SQ DC/150SQ)	HVCOSF0415D (ONLY DC/70SQ)
1	HOUSING ASSEMBLY	P02B00020110	P02B00020111	P02B00020112	P02B00020113	P02B00020114	P02B00020115	P02B00020116
4	REAR HOUSING UP	P01BP0054101	P01BP0054101	P01BP0054101	P01BP0054101	P01BP0054101	P01BP0054101	P01BP0054102
7	DC SEALING RING	P01BR0040804	P01BR0040804	P01BR0040804	P01BR0040803	P01BR0040802	P01BR0040801	P01BR0040804
8	DC REAR COVER	P01BP0052504	P01BP0052504	P01BP0052504	P01BP0052503	P01BP0052502	P01BP0052501	P01BP0052504
10	AC SEALING RING	P01BR0040904	P01BR0040901	P01BR0040903	P01BR0040903	P01BR0040903	NA	
12	AC REAR COVER	P01BP0052703	P01BP0052701	P01BP0052704	P01BP0052704	P01BP0052704	P01BP0052704	P01BP0052702
13	DC CONTACT	P03BM0109804	P03BM0109804	P03BM0109804	P03BM0109803	P03BM0109802	P03BM0109801	P03BM0109804
16	AC CONTACT	P03BM0105404	P03BM0105401	P03BM0105403	P03BM0105403	P03BM0105403	P03BM0105403	NA

6

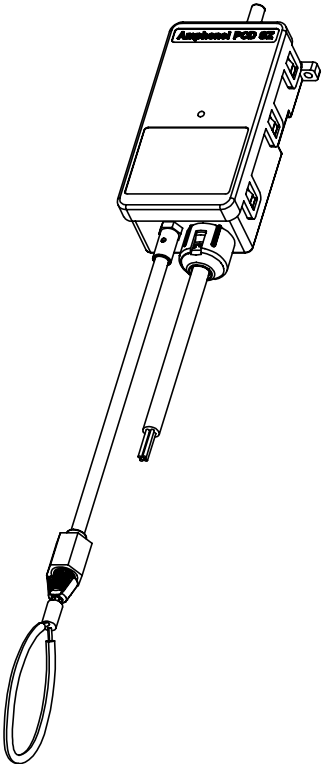
SIZE	DWG NO.	REV
A3	C-HVCOSF04XD	7
SCALE	1:1	SHEET 6 OF 10

C-HVCOSF04XD

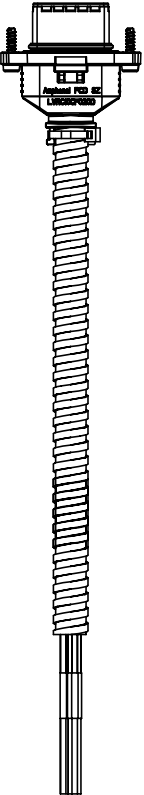
TABLE 4: SPECIFICATIONS AND REQUIREMENTS

ITEM	DESCRIPTION	SPECIFICATIONS AND REQUIREMENTS
1	HOUSING COLOR	BLACK
2	UV REQUIRED	YES
3	AMBIENT TEMPERATURE(STORAGE/TRANSPORT)	-40°C to +85°C
4	TEMPERATURE SENSOR TYPE	PT1000, SPEC OF TEMPERATURE SENSOR ARE SHOWN IN TABLE 6 AND 7
5	LED LIGHT	YES MODEL:SMD.B 19-337C/RSBHGHC-A01/2T(HFX) 3 LED IN SERIES, RGB COLOR, WIRE SPEC.: 0.5MM [∧] 2, 500MM LENGTH; VOLTAGE SUPPLY AT LED: 12V DC POSSIBLE VOLTAGE SUPPLY AT LED: 9~15V DC OTHER SPECIFICATION REFER TO TABLE 5
6	MOUNTING TORQUE FOR ST2.9X10(ITEM3)	0.5±0.025N.M
7	MOUNTING TORQUE FOR ST2.9X18(ITEM5)	0.9±0.1N.M
8	MOUNTING TORQUE FOR INLET	M6: 8~10N.M
9	MOUNTING POSITION	REAR MOUNTING
10	REFER STANDARD	REFER TO IEC 62196-1; IEC 62196-2; IEC 62196-3;J1772;UL2251
11	PACKING WAY	ALL COMPONENTS ARE PACKED SEPARATELY
12	RESISTOR	2.7 KΩ (BETWEEN PE AND CS)

NOTES:
1.E-LOCK TO BE ORDERED SEPARATELY. P/N: HVEL12GS002, MOUNTING TORQUE IS 2.5±0.25KGF.CM
2.LV SIGNAL CONNECTOR TO BE ORDERED SEPARATELY. P/N: P08B002346(8POS,USED FOR AC+DC
MODELS), P/N: P08B002347(5POS,USED FOR ONLY DC MODELS),MOUNTING TORQUE IS 5±0.25KGF.CM.



⚠ P/N: HVEL 12GS002(12V Electronic locks) or
HVEL24GS002(24V Electronic locks)



P/N: P08B002346 (8POS,USED FOR AC+DC MODELS)
P/N: P08B002347 (5POS,USED FOR ONLY DC MODELS)

TABLE 7 R-T INDEXING TABLE FOR PT1000

TEMPERATURE	0	+1	+2	+3	+4	+5	+6	+7	+8	+9
-50	803.08	807.05	811.02	814.98	818.95	822.91	826.88	830.84	834.80	838.76
-40	842.72	846.67	850.63	854.58	858.54	862.49	866.44	870.39	874.33	878.28
-30	882.22	886.17	890.11	894.05	897.99	901.93	905.87	909.80	913.74	917.67
-20	921.60	925.54	929.47	933.39	937.32	941.25	945.17	949.10	953.02	956.94
-10	960.86	964.78	968.70	972.62	976.53	980.45	984.36	988.27	992.18	996.09
0	1000.00	1003.91	1007.81	1011.72	1015.62	1019.53	1023.43	1027.33	1031.23	1035.13
10	1039.02	1042.92	1046.81	1050.71	1054.60	1058.49	1062.38	1066.27	1070.16	1074.04
20	1077.93	1081.81	1085.70	1089.58	1093.46	1097.34	1101.22	1105.10	1108.97	1112.85
30	1116.72	1120.59	1124.47	1128.34	1132.21	1136.07	1139.94	1143.81	1147.67	1151.53
40	1155.40	1159.26	1163.12	1166.98	1170.84	1174.69	1178.55	1182.40	1186.25	1190.11
50	1193.96	1197.81	1201.66	1205.50	1209.35	1213.19	1217.04	1220.88	1224.72	1228.56
60	1232.40	1236.24	1240.08	1243.91	1247.75	1251.58	1255.41	1259.25	1263.08	1266.90
70	1270.73	1274.56	1278.38	1282.21	1286.03	1289.85	1293.67	1297.49	1301.31	1305.13
80	1308.95	1312.76	1316.58	1320.39	1324.20	1328.01	1331.82	1335.63	1339.43	1343.24
90	1347.02	1350.85	1354.65	1358.45	1362.25	1366.05	1369.85	1373.65	1377.44	1381.23
100	1385.03	1388.82	1392.61	1396.40	1400.19	1403.98	1407.76	1411.55	1415.33	1419.11
110	1422.90	1426.68	1430.46	1434.23	1438.01	1441.79	1445.56	1449.33	1453.11	1456.88
120	1460.65	1464.42	1468.18	1471.95	1475.72	1479.48	1483.24	1487.01	1490.77	1494.53
130	1498.28	1502.04	1505.80	1509.55	1513.31	1517.06	1520.81	1524.56	1528.31	1532.06

C-HVCOSF04XD

C-HVCOSF04XD

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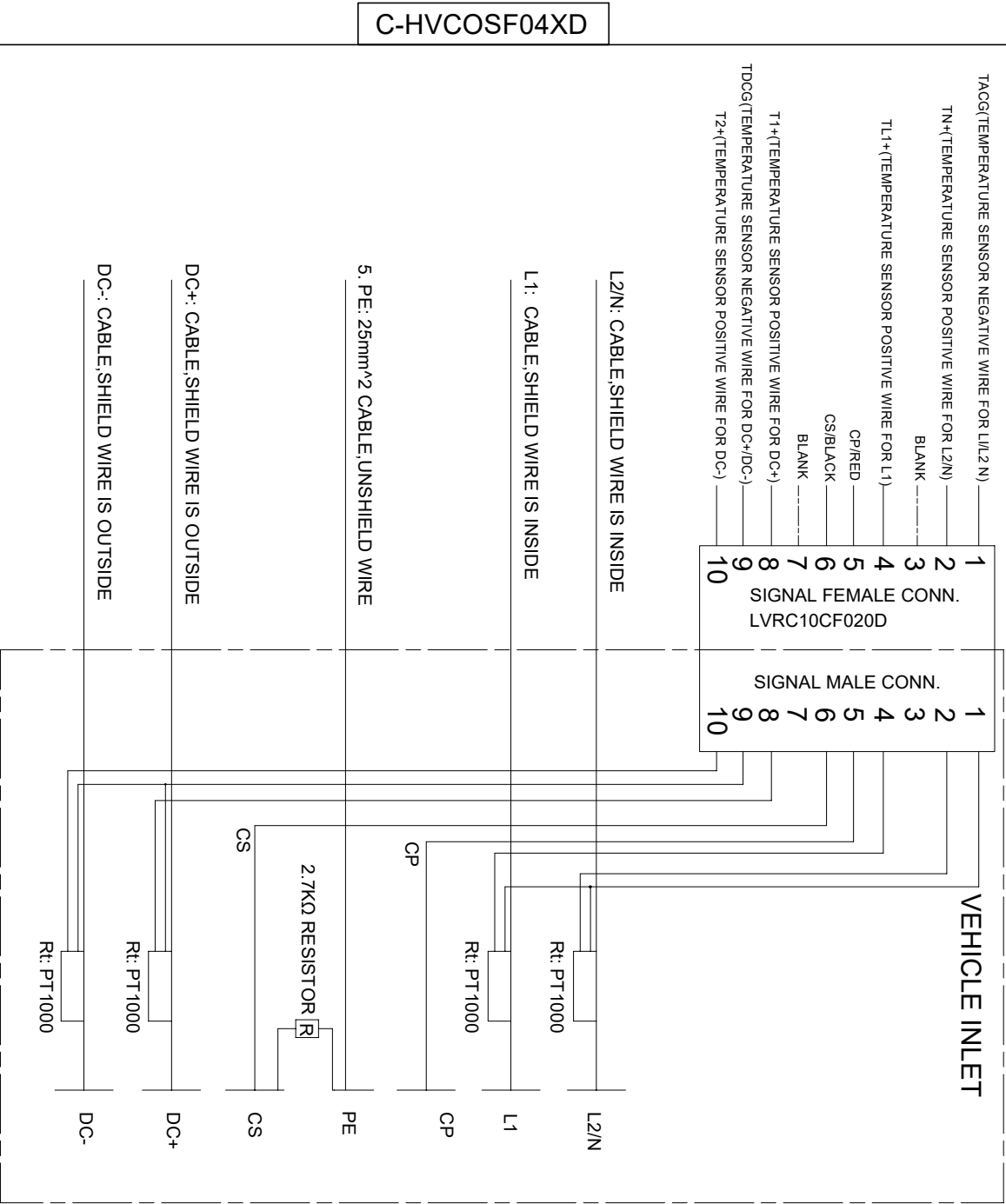
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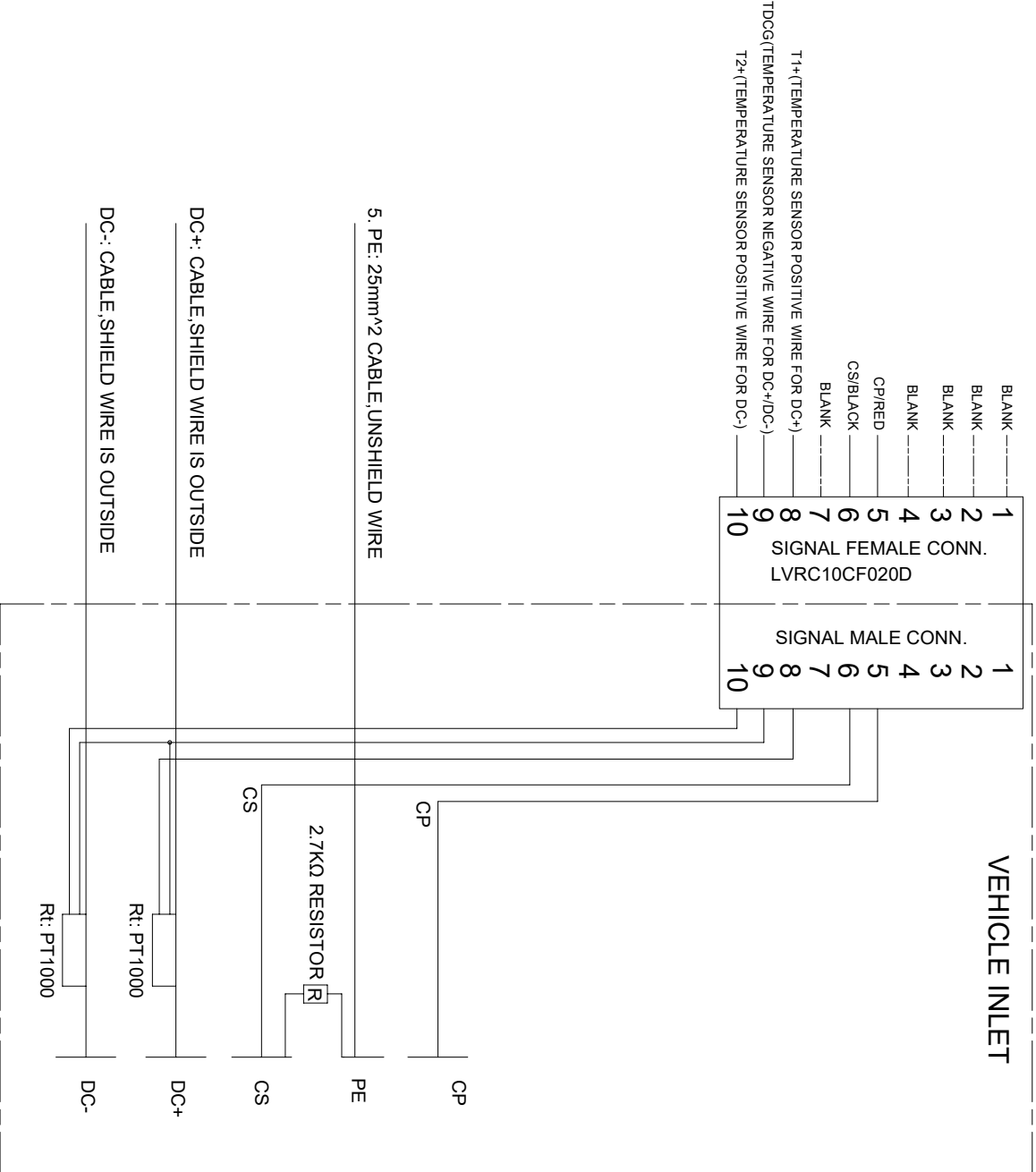
SIZE	DWG NO.	REV
A3	C-HVCOSF04XD	7
SCALE 1:1		SHEET 9 OF 10

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CABLE CONNECTING METHOD(AC+DC)



CABLE CONNECTING METHOD(ONLY DC)



C-HVCOSF04XD

C-HVCOSF04XD

SIZE	DWG NO.	REV
A3	C-HVCOSF04XD	7
SCALE	1:1	SHEET 10 OF 10