

Amphenol PCD SZ
ORIGINAL
PDF Format
R&D

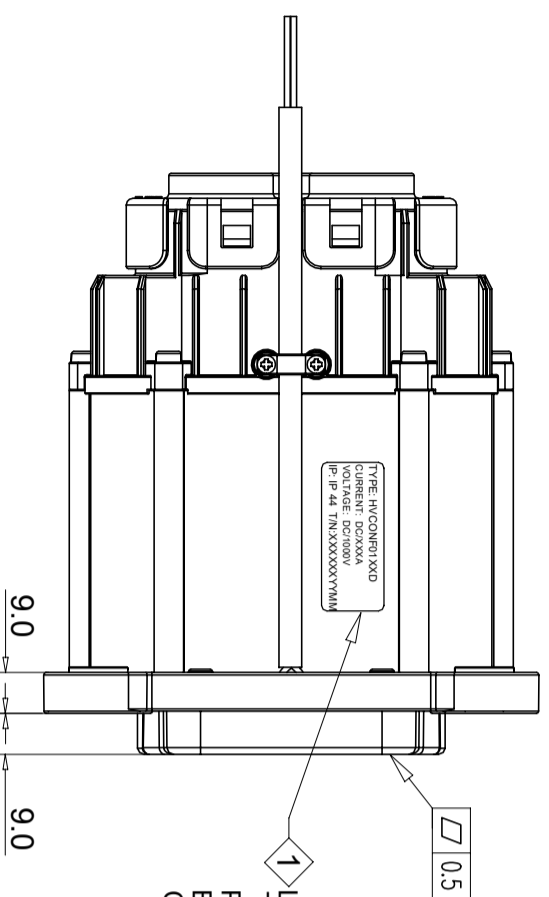
CONNECTOR ASSEMBLY STATUS

C-HVCONF01XXD

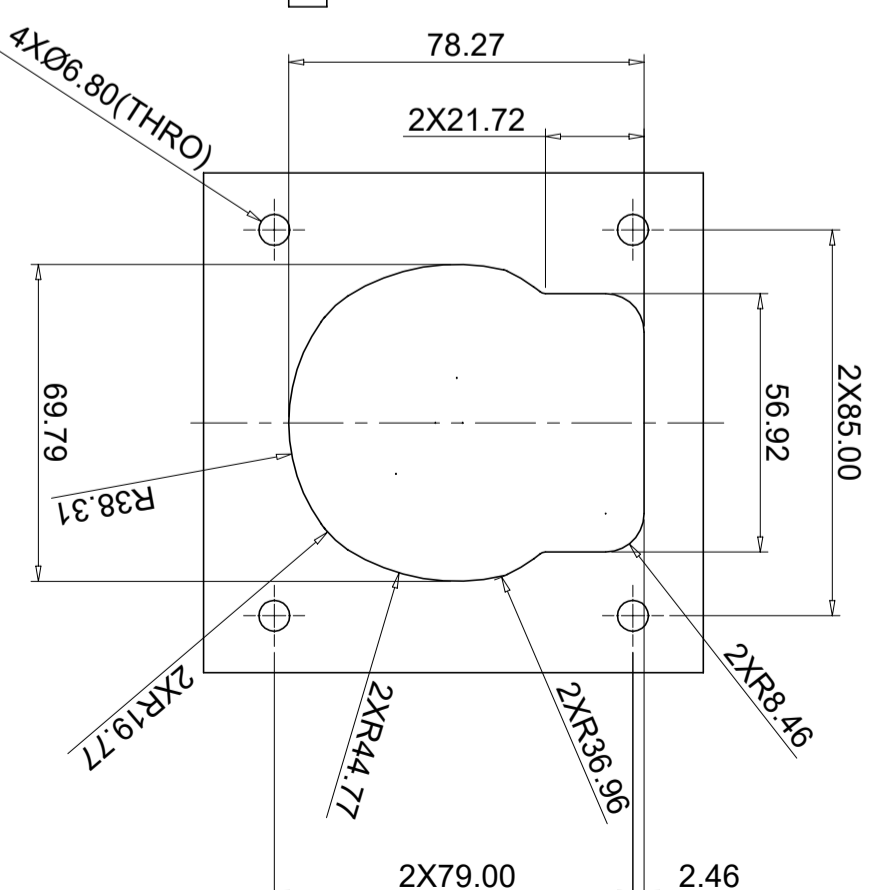
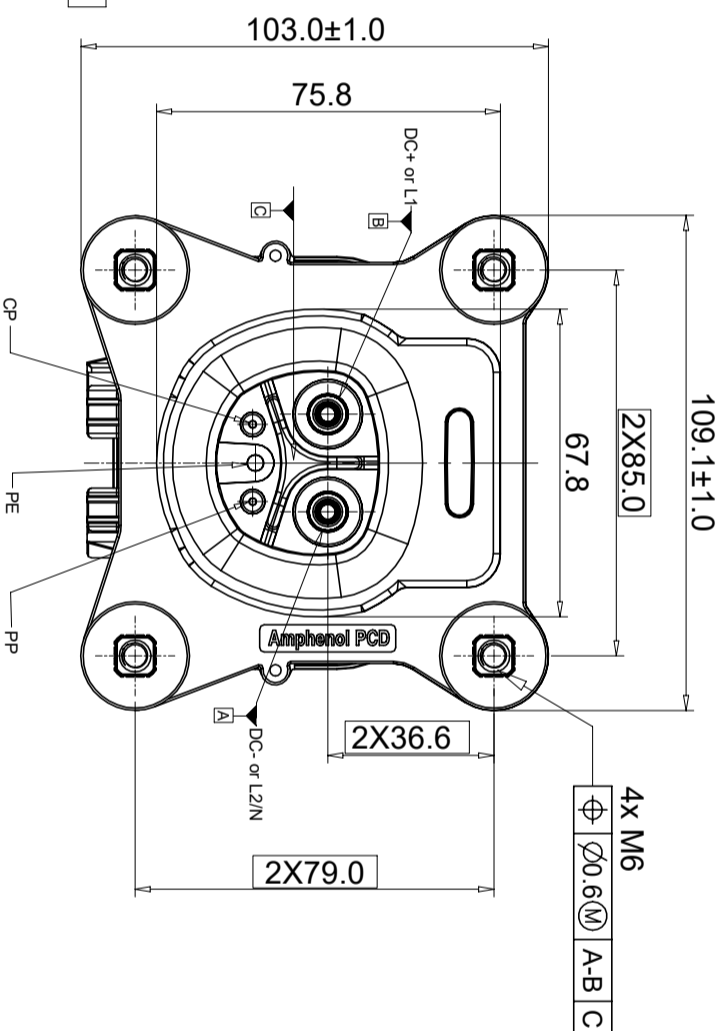
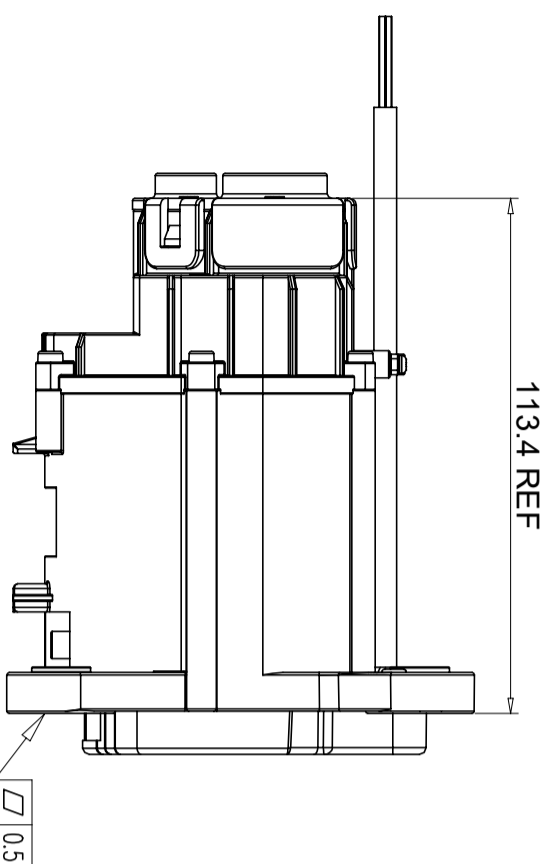
安费诺精密连接器(深圳)有限公司
Amphenol PCD Shenzhen
受控文件
2023年10月12日

REV	ECN	DESCRIPTION	DATE	MODIFIED
1	RELEASE		Sep.20.2023	LIJK.PENG

MOUNTING PANEL RECOMMENDED SIZE
THICKNESS IS 3-9mm.



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



C-HVCONF01XXD

C-HVCONF01XXD

★ IS CRITICAL CHARACTERISTIC SYMBOL
◎ IS IMPORTANT CHARACTERISTIC SYMBOL

DIMENSIONS		TOLERANCES		PROJECTION		TITLE	
ANSI Y14.5M	.X	± 0.5	Amphenol PCD Shenzhen	Amphenol PCD Shenzhen	SIZE	DWG NO.	REV
UNITS: MM	.XX	±0.05	ENGR	ENGR	A3	C-HVCONF01XXD	1
CAD FILE	ANGLES ±2°		CHKD	CHKD	SCALE		SHEET
			LIJK.PENG	LIJK.PENG	1:2		1 OF 7
ORIGINAL	THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION WHICH IS THE CONFIDENTIAL PROPERTY OF Amphenol PCD Shenzhen Co. Ltd. Amphenol PCD Shenzhen Co. Ltd. RESERVES THE RIGHT TO CLARIFY THIS DRAWING.		APPD	APPD			
			Rock.chen	Rock.chen			

TECHNICAL DATA	
AMBIENT TEMPERATURE	-30°C to +50°C
RATED CURRENT	DC+&DC-: SEE TABLE 1; CP&PP: 2A
RATED VOLTAGE	DC+&DC-: 1000V DC; CP&PP: 30V
WITHSTAND VOLTAGE	DC+&DC-: 3000VAC; CP & PP : 500VAC
INSULATION RESISTANCE	200MΩ MIN.
IP CLASS	IP44 (PLUGGED IN) / IP67&IP6K9K(INNER AREA OF VEHICLE INLET)
DURABILITY	10000 CYCLES MIN.
INSERTION & WITHDRAWAL FORCE	F<100N
ROHS	ROHS COMPLIANCE

NOTE:
CABLE REFERENCE STANDARD: LV216-2;
CABLE ID/OD RANGE IS THE DIAMETER OF CABLE INSIDE OF INLET, TO MEET IP PROTECTION OF INLET SIDE.
HV+ HV- AND PE CONTACT ARE WELDED BY ULTRASONIC WAVE.

安费诺精密连接器(深圳)有限公司
Amphenol PCD Shenzhen
受 控 文 件
2023年10月12日

TABLE 1: PART NUMBER LIST

ITEM	PART NUMBER	RATED CURRENT	CABLE SPEC FORHV+& HV- PIN	CABLE SPEC FOR PE PIN
1	HVCONF0101D	DC+& DC- : 200A ; THE TEMPERATURE OF THE POWER CONTACTS SHOULD BE CONTROLLED, SEE TABLE6.	50mm ² (1/0 AWG) SHIELD CABLE, I.D.:11.85±0.35mmO.D.:15.5±0.3mm	
2	HVCONF0102D	DC+& DC- : 250A ; THE TEMPERATURE OF THE POWER CONTACTS SHOULD BE CONTROLLED, SEE TABLE6.	70mm ² (2/0 AWG) SHIELD CABLE, I.D.: 13.7±0.7mmO.D.:17.8±0.4mm	10mm ² (8AWG) UNSHIELD CABLE, O.D.: 5.9~6.5mmmm
3	HVCONF0103D	DC+& DC- : 350A ; THE TEMPERATURE OF THE POWER CONTACTS SHOULD BE CONTROLLED, SEE TABLE6.	95mm ² (3/0 AWG) SHIELD CABLE, I.D.:16.5±0.7mmO.D.:20.5±0.4mm	

SIZE	DWG NO.	REV
A3	C-HVCONF01XXD	1
SCALE	SHEET	
1:2	2 OF 7	

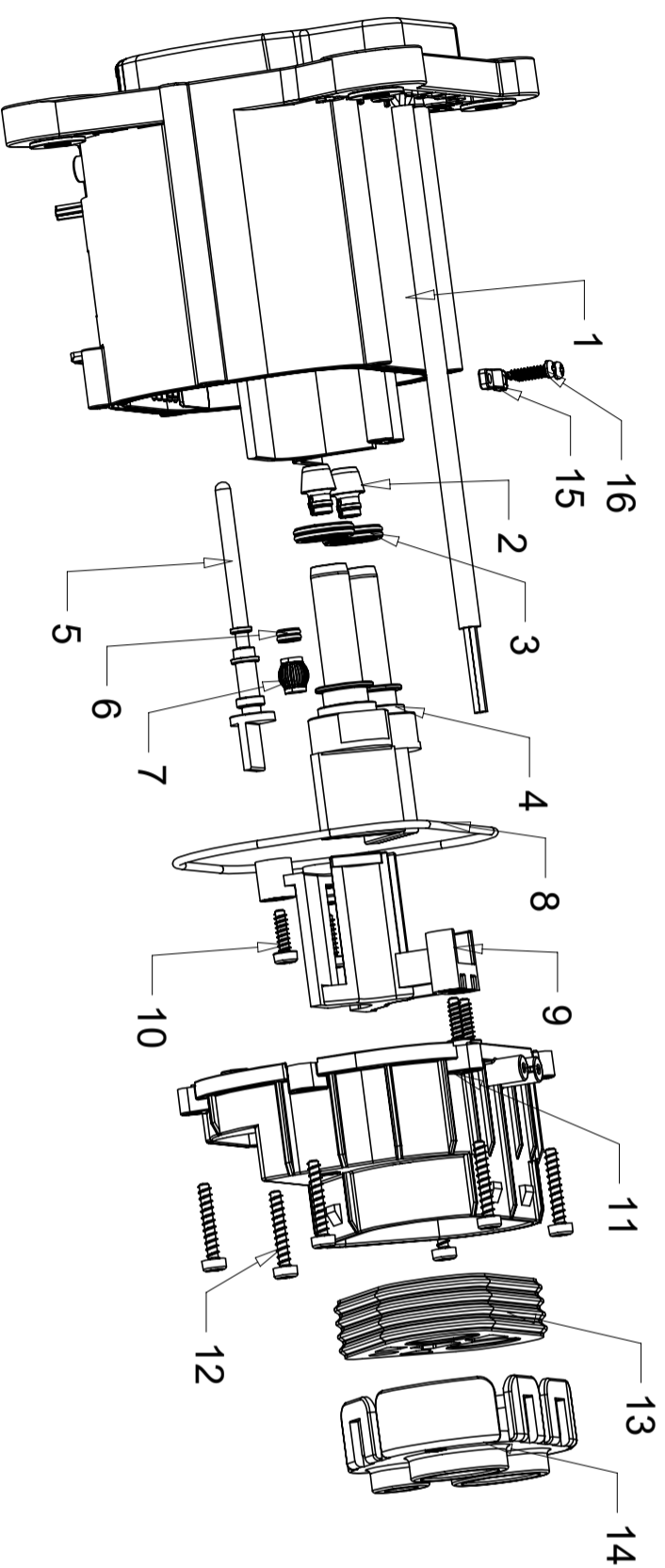
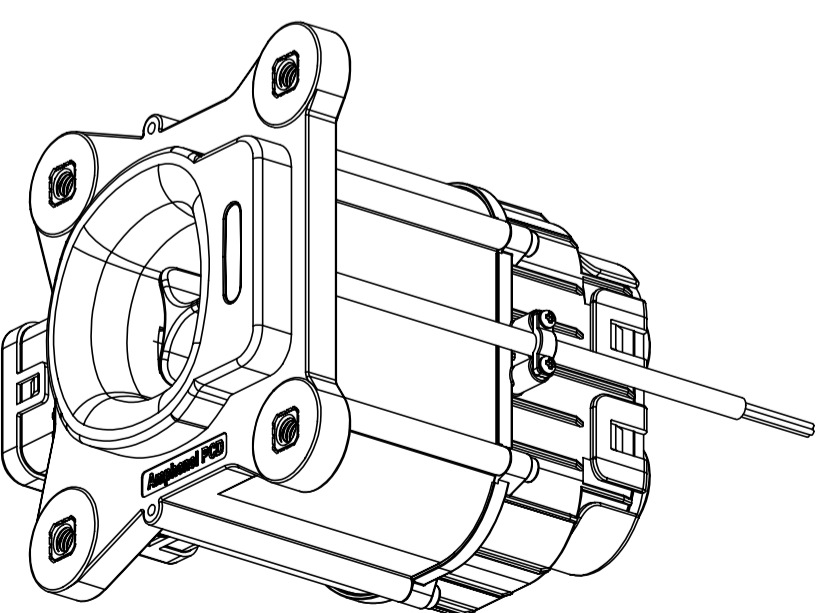


TABLE 2: COMPONENTS LIST

ITEM	PART NUMBER	DESCRIPTION	QTY.	ASSEMBLY/PACKAGING STATUS
1	SEE TABLE 3	HOUSING ASSEMBLY	1	PACKED IN BULK
2	P01BP01036	DC PIN CAP	2	PACKED IN BULK
3	P01BR00349	DC O-RING	2	PACKED IN BULK
4	SEE TABLE 3	DC CONTACT	2	PACKED IN BULK
5	P01BM0209301	PE CONTACT 10SQ	1	PACKED IN BULK
6	P01BR00351	PE O-RING	1	PACKED IN BULK
7	P01BS00248	PE SPRING CONTACT	1	PACKED IN BULK
8	P01BR01023	MAINO-RING	1	PACKED IN BULK
9	P01BP01034	CONTACT CLAMP	1	PACKED IN BULK
10	C210006302	SCREW ST2.9X10	4	PACKED IN BULK
11	SEE TABLE 3	MAIN REAR COVER	1	PACKED IN BULK
12	P03BN00483	SCREW ST2.9X18	6	PACKED IN BULK
13	SEE TABLE 3	CABLE SEALING	1	PACKED IN BULK
14	SEE TABLE 3	CABLE REAR COVER	1	PACKED IN BULK
15	C220006818	CLIP	1	PACKED IN BULK
16	P03BN00484	SCERW ST 2.2X10	2	PACKED IN BULK



ASSEMBLY 3D REFERENCE DRAWING

安费诺精密连接器(深圳)有限公司
Amphenol PCD Shenzhen
受控文件
2023年10月12日

SIZE
A3

DWG NO.

C-HVCONF01XXD

REV
1SCALE
1:2SHEET
3 OF 7

TABLE 3: COMPONENTS LIST

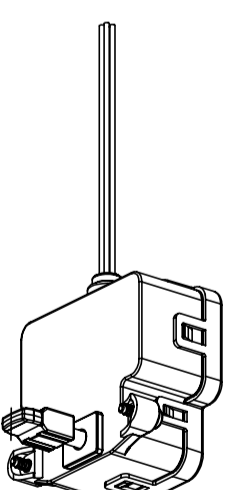
ITEM	P/N	HVCONF0101D (50SQ-200A)	HVCONF0102D (70SQ-250A)	HVCONF0103D (95SQ-350A)
1	HOUSING ASSEMBLY	P02B00054501	P02B00054502	P02B00054503
4	DC CONTACT	P01BM0209201	P01BM0209202	P01BM0209202
11	MAIN REAR COVER	P01BP0103301	P01BP0103302	P01BP0103303
13	CABLE SEALING	P01BR0102201	P01BR0102202	P01BR0102203
14	CABLE REAR COVER	P01BP0103501	P01BP0103502	P01BP0103503

安费诺精密连接器(深圳)有限公司
 Amphenol PCD Shenzhen
 受 控 文 件
 2023年10月12日

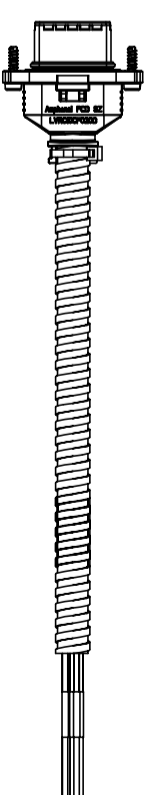
TABLE 4: SPECIFICATIONS AND REQUIREMENTS

ITEM	DESCRIPTION	SPECIFICATIONS AND REQUIREMENTS
1	HOUSING COLOR	BLACK
2	UV REQUIRED	YES
3	AMBIENT TEMPERATURE(STRAGE/SRANSPORT)	-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 DCPOSSIBLE VOLTAGE SUPPLY AT LED: 9~15V DCOTHER SPECIFICATION REFER TO TABLE 5
6	MOUNTING TORQUE FOR ST2.9X10(ITEM10)	0.5±0.05N.M
7	MOUNTING TORQUE FOR ST2.9X18(ITEM12)	0.9±0.1N.M
8	MOUNTING TORQUE FOR ST2.2X10(ITEM16)	0.25±0.05N.M
9	MOUNTING TORQUE FOR INLET	M6: 8~10N.M
10	MOUNTING POSITION	REAR MOUNTING
11	REFER STANDARD	REFER TO UL2251, SAE J3400
12	PACKING WAY	ALL COMPONENTS ARE PACKED SEPARATELY
13	RESISTOR	2.7 KΩ (BETWEEN PE AND PP)

NOTES:
 1.E-LOCK TO BE ORDERED SEPARATELY. P/N: HVEL12NS001, MOUNTING TORQUE IS 0.5±0.025 N.m.
 2.LV SIGNAL CONNECTOR TO BE ORDERED SEPARATELY. P/N: P08B002347(5POS,USED FOR NACS MODELS), MOUNTING TORQUE IS 0.5±0.025 N.m.



P/N: HVEL12NS001



P/N: P08B002347 (5POS,USED FOR NACS MODELS)

SIZE	DWG NO.	REV
A3	C-HVCONF01XXD	1
SCALE	SHEET	
1:2	4 OF 7	

TABLE 5 SPECIFICATIOONS FOR *EACH LED LIGHT*

PARAMETER	SPECIFICATION AND REQUIREMENTS
CODE	RS: BRILLIANT RED BH: BLUE GH: BRILLIANT GREEN
REVERSE VOLTAGE V	5V
REVERSE CURRENT I (V)	RH: 10uA BH: 50uA GH: 50uA
FORWARD VOLTAGE V	RS: 1.7-2.4V BH: 2.7-3.25V GH: 2.7-3.7V
FORWARD CURRENT I (=20mA)	
FOWARD CURRENT I	25mA
PEAK FORWARD CURRENT I FP (DUTY 1/10@1KHZ)	RS: 60mA BH: 100mA GH: 100mA
POWER DISSIPATION P D	RS: 60mW BH: 95mW GH: 95mW

FIGURE 1 CIRCUIT DIAGRAM FOR LED PCB ASSEMBLY

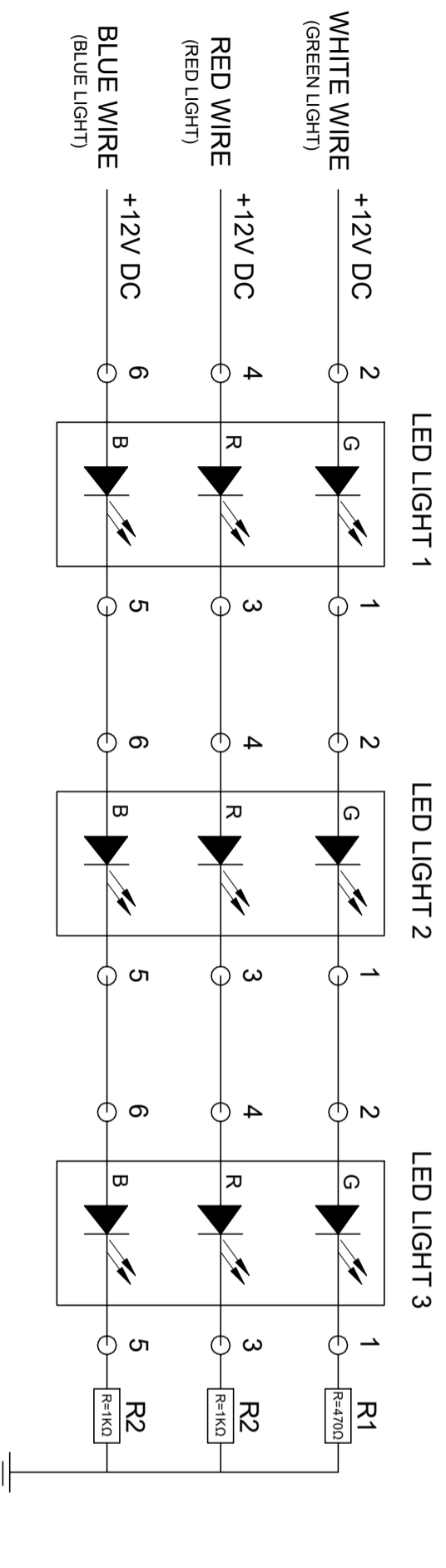


TABLE 6: PT1000 TEMPERATURE SENSOR

PARAMETER	SPECIFICATION AND REQUIREMENT
STANDARD	DIN EN 60751
TOLERANCE	CLASS 2B(R0:±0.24%)
OPERATING TEMPERATURE RANGE	-50 °C TO +130 °C
TEMPERATURE COEFFICIENT	TCR=3850 ppm/K
MEASURING CURRENT	0.1 TO 0.3 mA
SELF HEATING	0.8 K/mW at 0°C
REACTION TIME	<3 s TBD
TEMPERATURE COMPENSATION VALUE RELATIVE TO ACTUAL TEMPERATURE	WHEN CHARGING AT RATING CURRENT AND AT HIGHTEMPERATURE STAGE, THE TEMPERATURE MEASUREDBY THE TEMPERATURE SENSOR IS LESS THAN THEACTUAL TEMPERATURE:7°C FOR DC LIQUID-COOLED CHARGING;10°C FOR DC NON LIQUID-COOLED CHARGING;
R-T VALUME	REFER TO R-T INDEXING TABLE IN TABLE 7
T(R PT1000)=90 °C	THE CHARGE CURRENT MUST BE REDUCED IN ORDER TO PREVENT FURTHER INCREASE OF TEMPERATURE AT THE CONTACTS.
T (R PT1000)=100 °C	CHARGING PROCESS HAS TO BE SHUT DOWN!

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-HVCONF01XXD

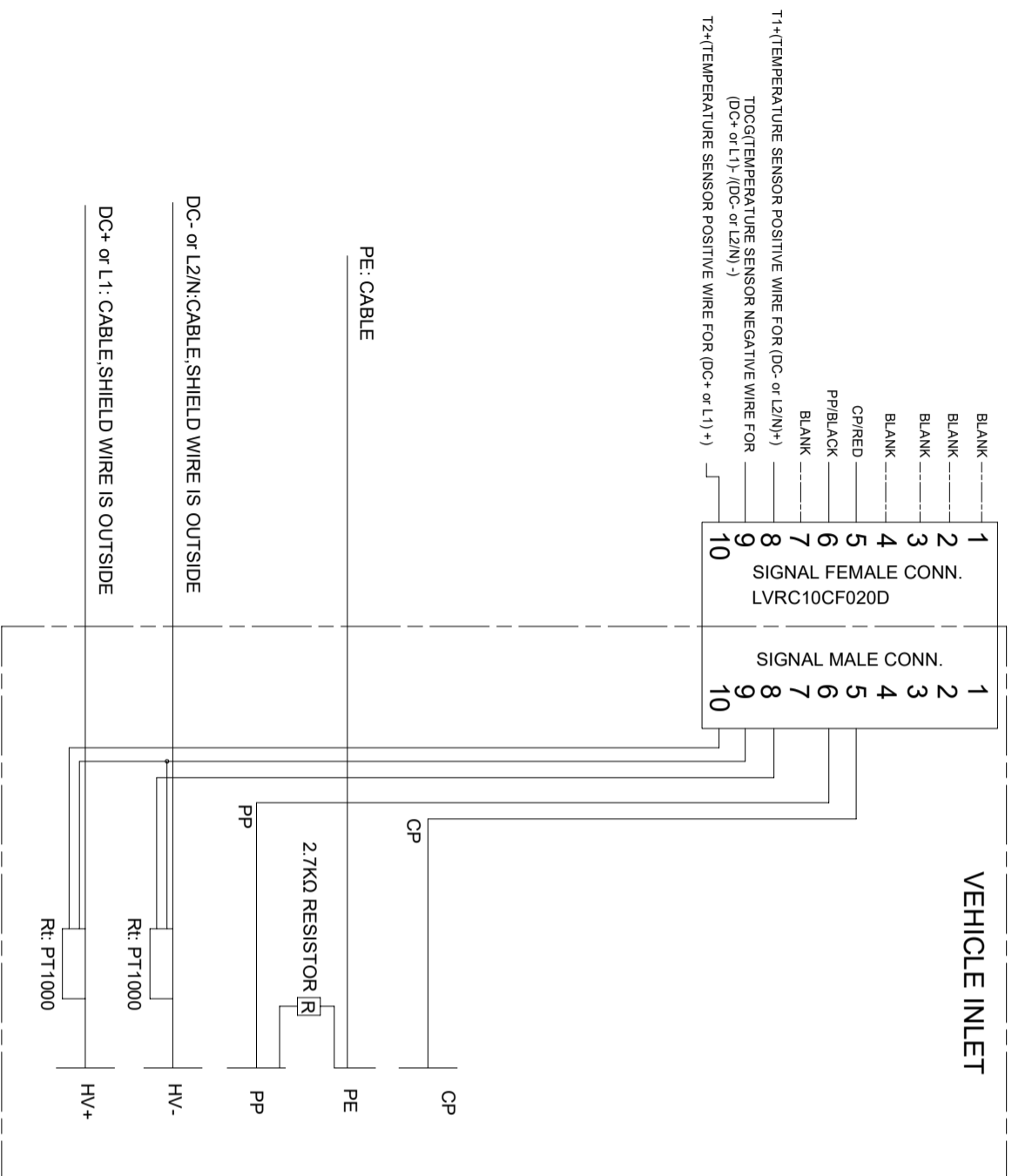
C-HVCONF01XXD

SIZE	DWG NO.	C-HVCONF01XXD
A3		

REV
1SCALE
1:1SHEET
6 OF 7

安费诺精密连接器(深圳)有限公司 Amphenol PCD Shenzhen
受 控 文 件
2023年10月12日

CABLE CONNECTING METHOD



SIZE	DWG NO.	REV
A3	C-HVCONF01XXD	1
SCALE	SHEET	7 OF 7
1:2		