APPLICABLE STANDARD		Safety standards UL/cUL, TUV (Plans for applying)		
Rating	Operating temperature range	-40 °C to +105 °C (Note 1)	Storage temperature range	-40 °C to +105 °C (Note 2)
	Voltage	Power: 400 V AC Signal: 100 V AC (Note 3)	Operating humidity range	Relative humidity of 90 % Max, no dew condensation allowed
	Current	Power: 3 A / pin (Receptacle AWG22 to AWG24) Power: 9 A / pin (Receptacle AWG18 to AWG20) Signal: 1 A / pin (Note 3)	Applicable cable and wires	[Plug] Insulator outer dia. Ø 6.3 to Ø 7.7 mm Power: AWG18 to AWG20 Signal, Brake: AWG22 to AWG24 [Receptacle] Power: AWG22 to AWG24 Power: AWG18 to AWG20 Signal: AWG28 to AWG30 Brake: AWG24

SPECIFICATIONS

ITEM	TEST METHOD	REQUIREMENTS	QT	AT
CONSTRUCTION				
General examination	Visually and by measuring instrument.	According to drawing.	X	X
Marking	Confirmed visually.		X	X
ELECTRICAL CHARACTERISTICS				
Contact resistance (Note 5)	100 mA (DC or 1000 Hz) Max.	Power contact: 5 mΩ Max. Signal contact: 5 mΩ Max. (Note 3)	X	-
Contact resistance (Note 6)	100 mA (DC or 1000 Hz) Max.	Power contact: 20 mΩ Max. Signal contact: 30 mΩ Max. (Note 3) PE, shield: 20 mΩ Max.	X	-
Insulation resistance	500 V DC.	5000 MΩ Min.	X	-
Voltage proof	Between power supply terminal and signal terminal Apply voltage at 3000 V AC for 1 minute. (Note 3) Between power supply terminal and shield Apply voltage at 2640 V AC for 1 minute. Between signal terminal and shield Apply voltage at 600 V AC for 1 minute. (Note 3)	No flashover or breakdown.	X	-

Note
1 The operation temperature includes the temperature rise by current carrying.
2 Storage temerature range shows storage condition without packing materials.
Storage condition with packing materials is -10 ℃ to 60 ℃.
3 To the brake terminal, the same standards as those for signal terminal are applied.
4. Above specification shows the values in assembled condition with 'MT50WB' series.

	COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE
⚠	0				

REMARK
This specification sheet shows the performance with incorporated applicable crimp contacts and compatible connector.
Unless otherwise specified, refer to JIS C 5402(IEC-60512.)

APPROVED	TU. TANIGUCHI	20230925
CHECKED	KZ. KAI	20230925
DESIGNED	KIM JAEHYEON	20230922
DRAWN	HK. SAITO	20230922

Note QT: Qualification Test AT: Assurance Test X: Applicable Test

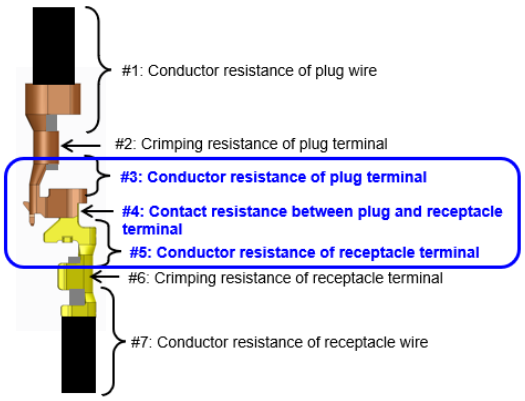
DRAWING NO. ELC-404550-00-00

HRS	SPECIFICATION SHEET	PART NO.	MT50WBA-6D/2D4E-CVLD
	HIROSE ELECTRIC CO., LTD.	CODE NO.	CL0248-0056-0-00 ⚠0 1/2

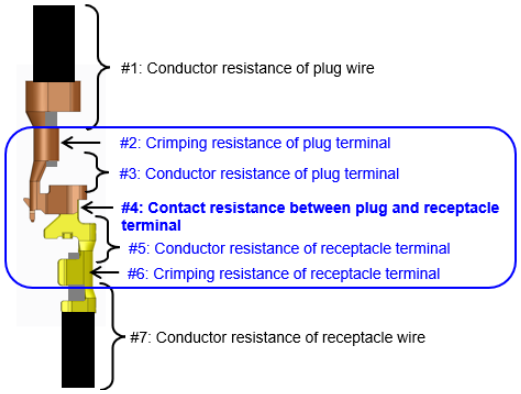
SPECIFICATIONS

ITEM	TEST METHOD	REQUIREMENTS	QT	AT
MECHANICAL CHARACTERISTICS				
Durability (mechanical operation)	Repeat insertion/removal 50 times at the rate of 600 times per hour or less.	1) Contact resistance (Note 6) Power contact: 40 mΩ Max. Signal contact: 100 mΩ Max. (Note 3) PE, shield: 1000 mΩ Max. 2) No damage, crack or looseness of parts	X	-
Vibration resistance	Frequency 10 to 60 Hz, single amplitude 0.35 mm, Frequency 60 to 500 Hz, acceleration 5 G, 3 axial directions, 6 hours, 10 cycles each	1) No instantaneous electric interruption for 10 μs or longer 2) No damage, crack or looseness of parts	X	-
Shock resistance	500 m/s^2, duration of pulse 11 ms, for 10 times in 3 both axial directions (half-sine wave) in mated state with applicable connector.		X	-
Crimp terminal fixing force	Pull the crimped terminals of cables one by one from the crimp terminal insertion side.	Power, Signal, Brake contact: 10 N Min.	X	-
Cable clamping force (plug side)	Apply an 80 N load to the cable for 1 minute.	No cable disconnection.	X	-
Case fixing force (receptacle side)	Push the Power case and Signal case from mating side at Flange case.	50 N Min.	×	-
ENVIRONMENTAL CHARACTERISTICS				
Rapid Change of Temperature	Temperature -40 → 15 to 35 → 105 → 15 to 35°C Time 30 → 2 to 3 → 30 → 2 to 3 minutes Under 5 cycles.	1) Contact resistance (Note 6) Power contact: 40 mΩ Max. Signal contact: 100 mΩ Max. (Note 3) PE, shield: 1000 mΩ Max. 2) Insulation resistance: 5000 MΩ Min. 3) No damage, crack or looseness of parts	X	-
Heat resistance	Exposed at 105 ±2 °C for 96 hours In mated state with applicable connector.		X	-
Cold resistance	Exposed at -40 ±3 °C for 96 hours In mated state with applicable connector.		X	-
Humidity resistance	In mated state with applicable connector. In an environment with a temperature of 40 ±2 °C and a humidity of 90 to 95 %, leave the product for 96 hours.		X	-
Corrosion resistance test, salt mist	Exposed in 5 % salt water spray 35 ±2 °C for 72 hours In mated state with applicable connector.	No loss of function which could be caused by severe corrosion. (contact resistance, withstand voltage)	X	-
Airtightness	Apply air pressure 17.6 kPa for 0.5 minutes to inside connector	No air bubbles from connector interface.	X	-

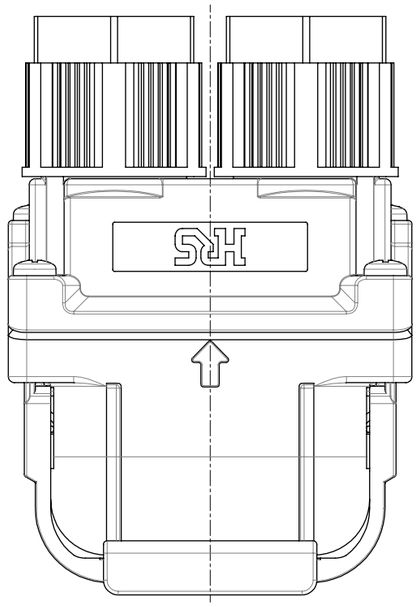
(Note 5) The wire conductor resistance and crimping resistance is not considered.

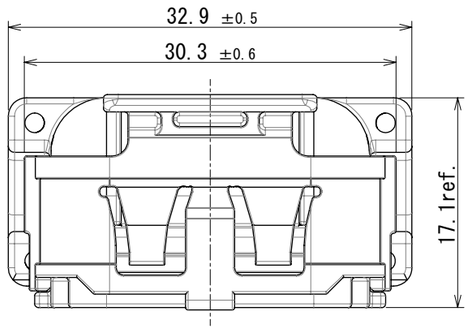


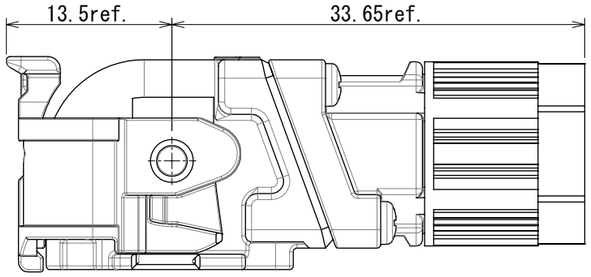
(Note 6) The wire conductor resistance is not considered.

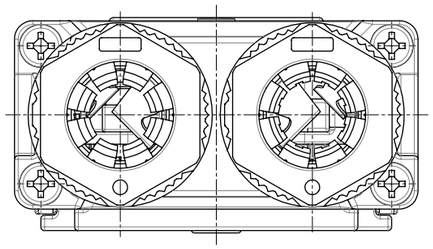


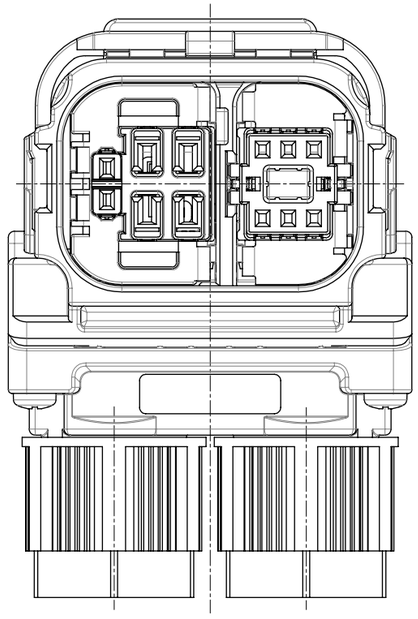
Assembled state drawing











Note:
1. This product is sold in units of 100 assemblies.
2. UL Recognized, cUL Recognized.
   The rating current for which UL and cUL certifications can be acquired up to 9A.
3. In this product, the contact is fixed by resin lances. To take out the contact, press the resin lance part with the removing tool 'DF62W/RE-MD'. Do not reuse the power unit, PE, Br unit S case, and signal unit S case after removal, but use new parts.
4. Refer to assembly manual ETAD-E3244 for the procedures of wire connection with this product.
5. Refer to assembly drawing ETAD-E3243 for applicable contacts and the mating counterpart for this product.
6. This product is packed in tray, refer to page 6/6.
7. Refer to MT50WB series guideline ETAD-E3245 for handling instructions.
8. Due to the manufacturing process of die-cast plated products, this product may have discoloration unplated areas and difference in surface roughness and gloss. There may be protrusions or dents of 2 mm^2 or less on the surface, but this does not affect the product performance.
9. For cable diameters out of this range, we need evaluation.
10. Lubricant (Hanal SF-104B with PFOA content less than 25 ppb. manufactured by Kanto kasei Co., Ltd) is applied to the Lever (#2).
11. Lubricant (sankol CFD-960 with PFOA content less than 25 ppb. manufactured by Sankei Chemical Co., Ltd) is applied to the O-ring (#9).

NO.	MATERIAL	FINISH , REMARKS	NO.	MATERIAL	FINISH , REMARKS
7	Stainless steel	Nickel plating 0.5μm min.	16	PP	Tray packaging
6	Stainless steel	Nickel plating 0.5μm min.	15	PP	Tray packaging
5	PBT	Natural, UL94V-0	14	PBT	Black, UL94V-0
4	Stainless steel	Nickel plating 0.5μm min.	13	PBT	White, UL94V-0
3	PBT	Black, UL94V-0	12	PBT	Gray, UL94V-0
2	Zinc alloy die casting	Lubricant Surface:Nickel plating 2μm min. Substrate:Cu plating 7μm min.	11	HNBR	Black
			10	Stainless steel	-
1	Zinc alloy die casting	Surface:Nickel plating 2μm min. Substrate:Cu plating 7μm min.	9	HNBR	Black, Lubricant
			8	PBT	Black, UL94V-0

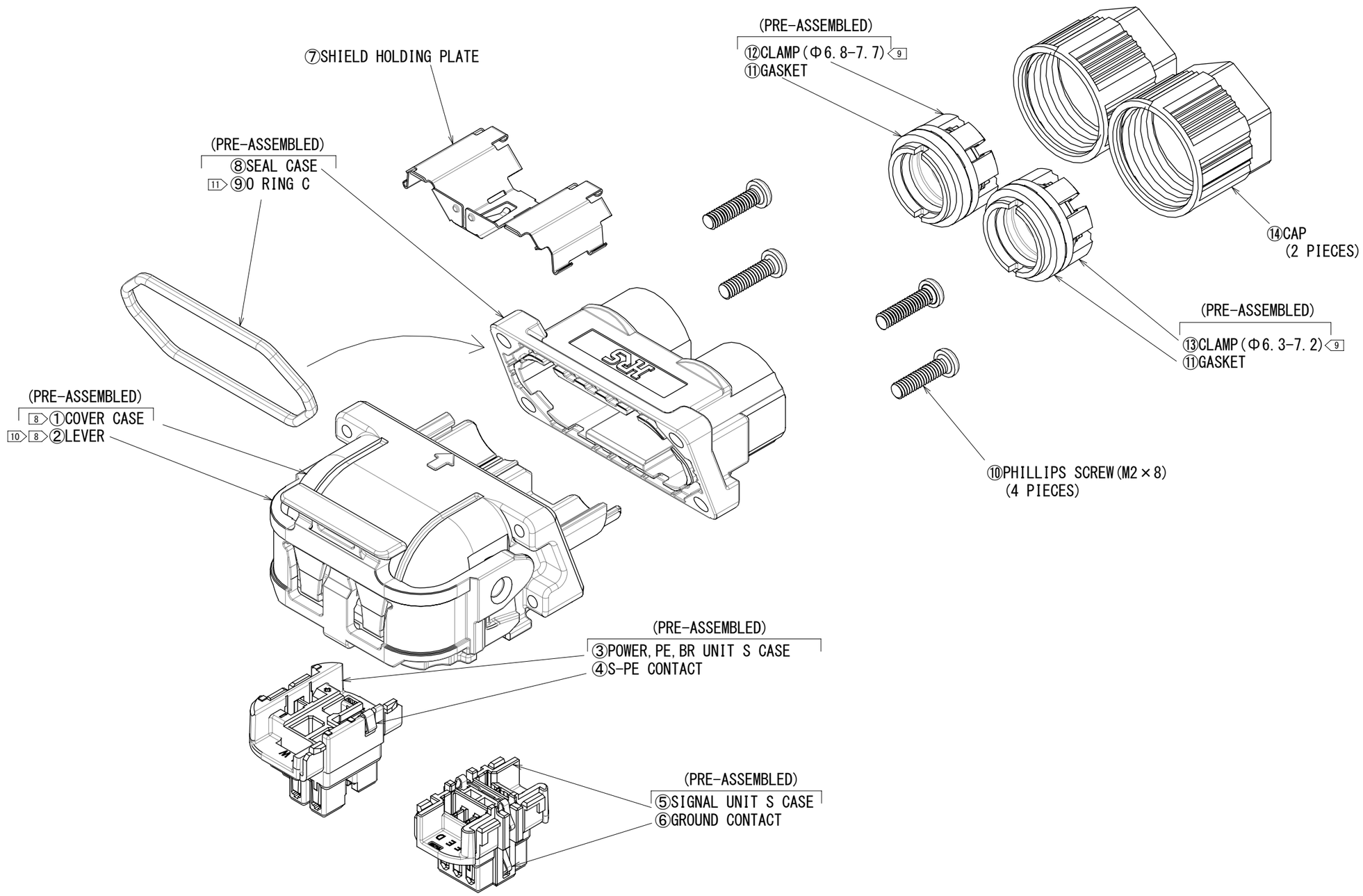
UNITS	SCALE		COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE
mm	2:1	△1	1	DIS-E-00015399	KZ.KAI	TU.TANIGUCHI	2023.12.15

HIROSE ELECTRIC CO., LTD. △1

APPROVED	TU.TANIGUCHI	2023.12.13
CHECKED	TU.TANIGUCHI	2023.12.13
DESIGNED	KZ.KAI	2023.12.13
DRAWN	KH.KOGI	2023.12.13

DRAWING NO.	EDC-404550-00-00
PART NO.	MT50WBA-6D/2D4E-CVLD
CODE NO.	CL0248-0056-0-00 △1
	1/6

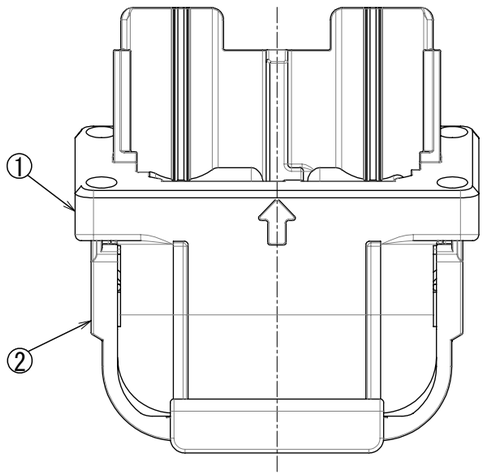
Delivered state drawing



HRS	DRAWING NO.	EDC-404550-00-00
	PART NO.	MT50WBA-6D/2D4E-CVLD
	CODE NO.	CL0248-0056-0-00 △1 2/6

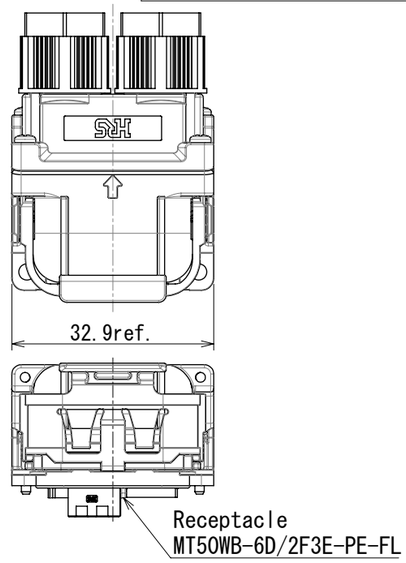
3D Model File Name:CL0248-0056-0-00

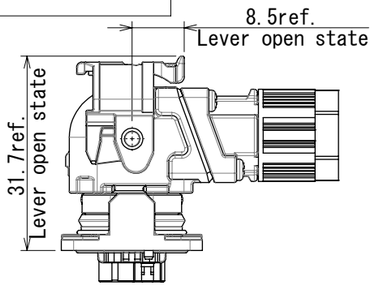
①COVER CASE 8
②LEVER 8 10
(PRE-ASSEMBLED)

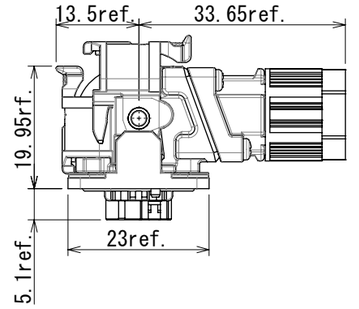


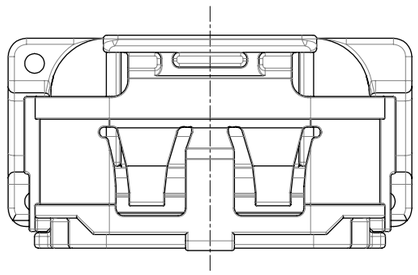
Mating state drawing (1:1)

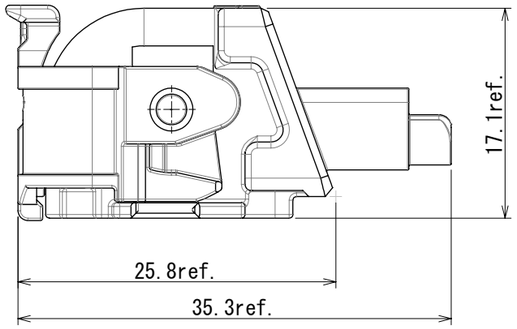
The assembly image of this product shows a product with the cable directed to the drive end.

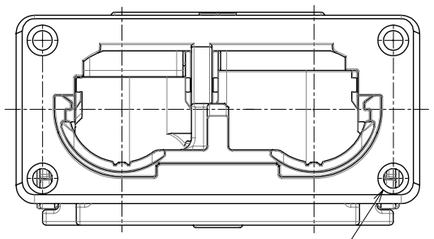


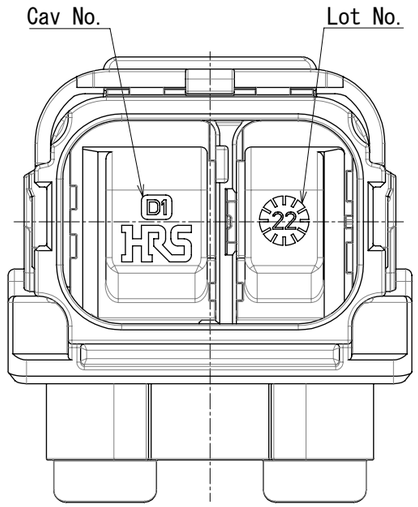












HRS	DRAWING NO.	EDC-404550-00-00
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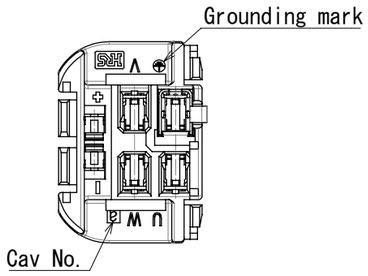
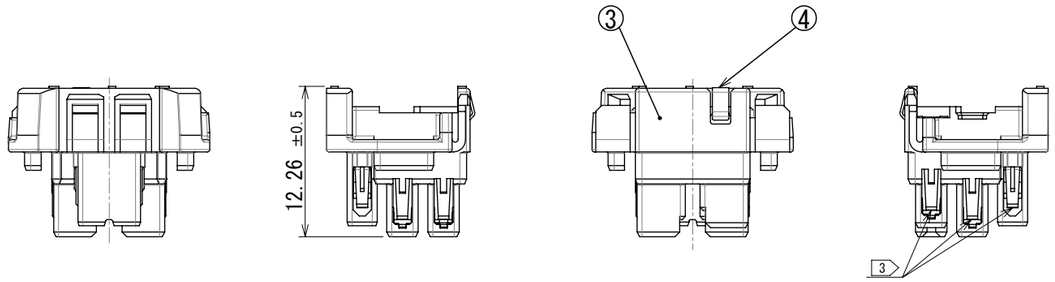
	CODE NO.	CL0248-0056-0-00 △1 3/6

3D Model File Name:CL0248-0056-0-00

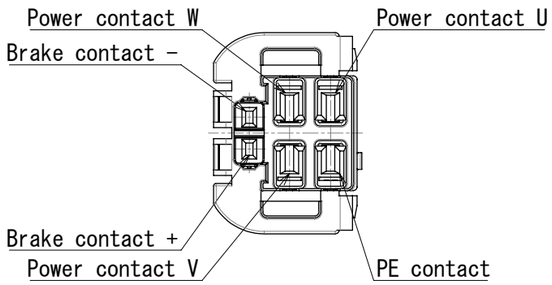
③POWER, PE, BR UNIT S CASE
④S-PE CONTACT
(PRE-ASSEMBLED)

Wire inlet side



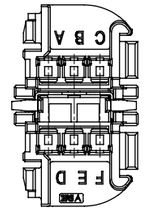


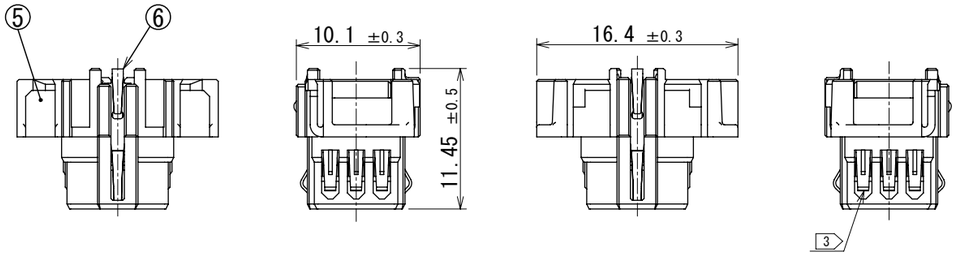
Mating side



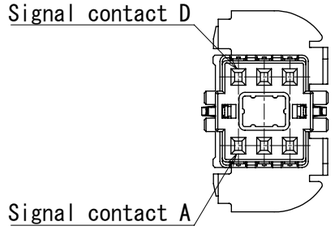
⑤SIGNAL UNIT S CASE
⑥GROUND CONTACT
(PRE-ASSEMBLED)

Wire inlet side





Mating side



DRAWING NO.	EDC-404550-00-00
PART NO.	MT50WBA-6D/2D4E-CVLD
CODE NO.	CL0248-0056-0-00

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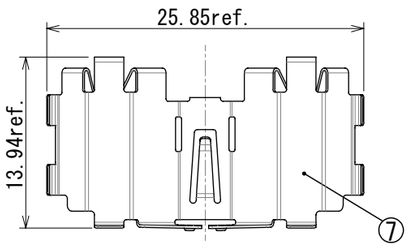
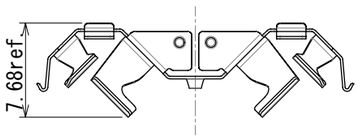
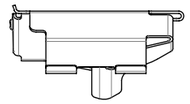
FORM HC0011-28

3D Model File Name:CL0248-0056-0-00

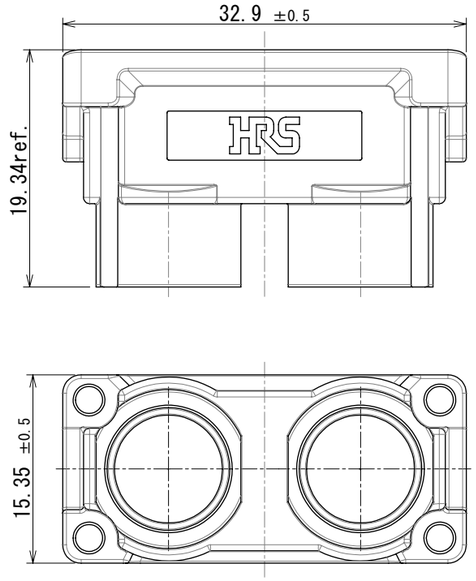
⑦SHIELD HOLDING PLATE

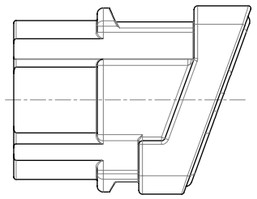


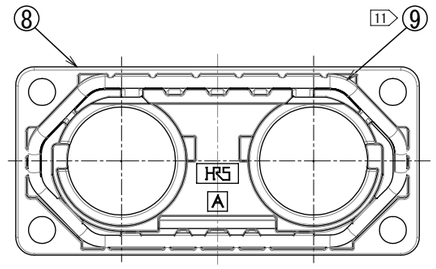




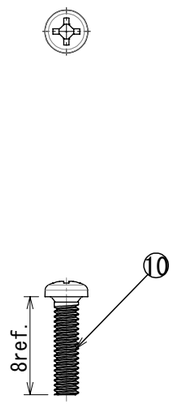
⑧SEAL CASE
⑨O Ring C
(PRE-ASSEMBLED)



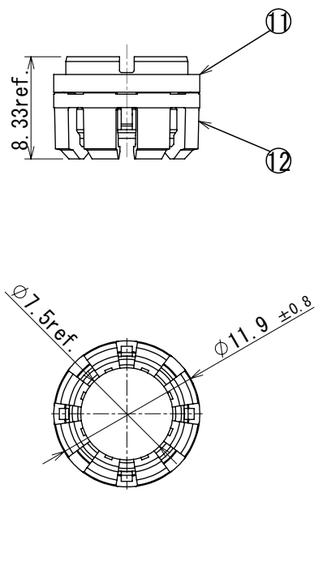




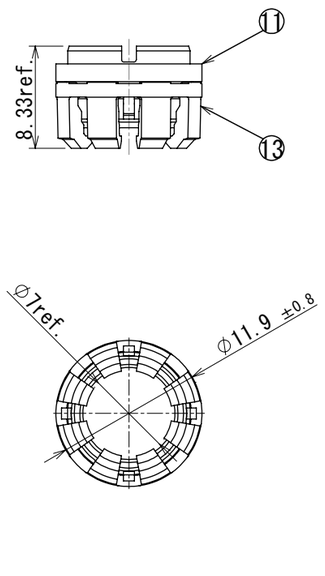
⑩PHILLIPS SCREW (JIS B 1111 M2×8)



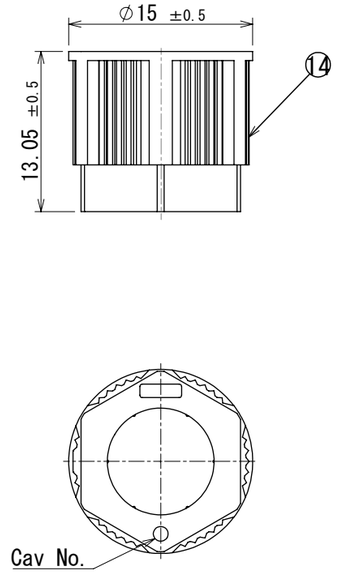
⑪GASKET
⑫CLAMP(Gray)(6.8-7.7) ◇9
(PRE-ASSEMBLED)



⑪GASKET
⑬CLAMP(White)(6.3-7.2) ◇9
(PRE-ASSEMBLED)



⑭CAP



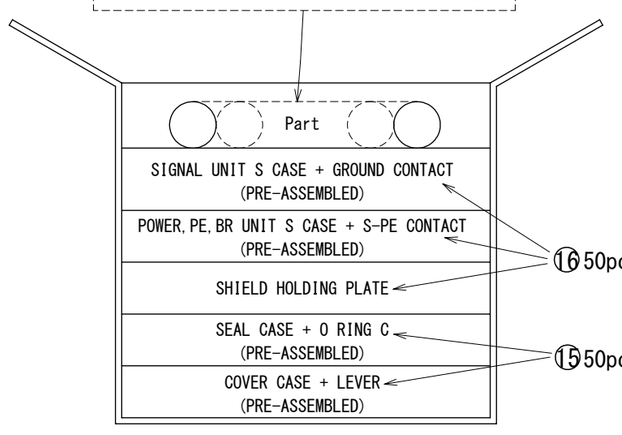
HRS	DRAWING NO.	EDC-404550-00-00
	PART NO.	MT50WBA-6D/2D4E-CVLD
	CODE NO.	CL0248-0056-0-00 △1 5/6

3D Model File Name:CL0248-0056-0-00

6 <Specifications>

《Part》

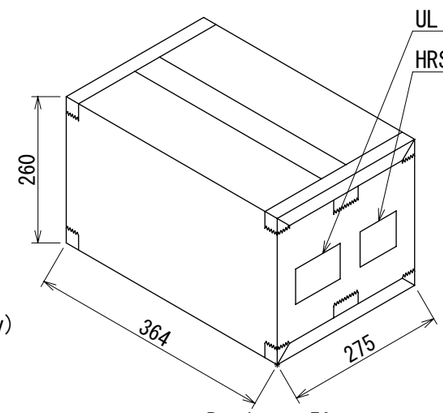
CAP	100pcs(Plastic bag)
CLAMP(φ6.8-7.7)+GASKET	50pcs(Plastic bag)
CLAMP(φ6.3-7.2)+GASKET	50pcs(Plastic bag)
PHILLIPS SCREW(M2×8)	200pcs(Plastic bag)



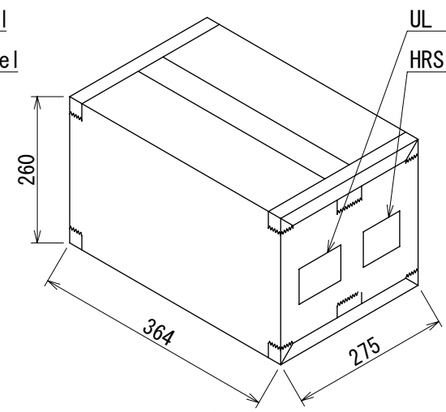
⑯ 50pcs(Tray)

⑮ 50pcs(25pcs Tray×2 Tray)

Products 100 pcs (50 pcs/box × 2 box)



Products:50pcs



Products:50pcs

HRS	DRAWING NO.	EDC-404550-00-00
	PART NO.	MT50WBA-6D/2D4E-CVLD
	CODE NO.	CL0248-0056-0-00 △1 6/6

3D Model File Name:CL0248-0056-0-00