

RoHS(6 substances conformity)
DRAWING FOR REFERENCE: This is subject to change without notice
In cases where the application will demand a high level of reliability, such as automotive, please contact a company representative for further information.

APPLICABLE STANDARD		TEST METHOD		REQUIREMENTS		QT	AT
RATING	OPERATING TEMPERATURE RANGE	-15 °C TO +60 °C	STORAGE TEMPERATURE RANGE	-15 °C TO +60 °C			
	VOLTAGE	AC 100 V, DC 140 V					
	CURRENT	1 A					
SPECIFICATIONS							
ITEM	TEST METHOD			REQUIREMENTS			
CONSTRUCTION		VISUALLY AND BY MEASURING INSTRUMENT.		ACCORDING TO DRAWING.			
GENERAL EXAMINATION		CONFIRMED VISUALLY.					
MARKING							
ELECTRIC CHARACTERISTICS							
CONTACT RESISTANCE ⁽¹⁾		CONTACT SHALL BE MEASURED AT DC 1 A		(CONTACT NO.1-10,13-16,19,20 : AWG30) 615 mΩ MAX		○	○
		CONTACT SHALL BE MEASURED AT DC 1 A		(CONTACT NO.11,12,17,18 : AWG28) 405 mΩ MAX		○	○
		GROUND SHALL BE MEASURED AT DC 1 A		158 mΩ MAX		○	○
INSULATION RESISTANCE		250 V.DC.		200 mΩ MIN.		○	○
VOLTAGE PROOF		300 V AC FOR 1 min.		NO FLASHOVER OR BREAKDOWN.		○	○
MECHANICAL CHARACTERISTICS							
CONTACT INSERTION AND WITHDRAWAL FORCES		— BY STEEL GAUGE.		INSERTION AND WITHDRAWAL FORCES : — N		—	—
CONNECTOR INSERTION AND WITHDRAWAL FORCES		MEASURED BY APPLICABLE CONNECTOR LOCKING DEVICE.		INSERTION AND WITHDRAWAL FORCES : 5 TO 50 N.		○	—
MECHANICAL OPERATION		1000 TIMES INSERTIONS AND EXTRACTIONS.		CONTACT RESISTANCE:(NO.1-10,13-16,19,20) 635 mΩ MAX		○	—
				CONTACT RESISTANCE:(NO.11,12,17,18) 425 mΩ MAX		○	—
				GROUND RESISTANCE: 198 mΩ MAX.		○	—
VIBRATION		FREQUENCY: 10 TO 55 HZ, SINGLE AMPLITUDE 1.5 mm, — m/s ² AT 2h, FOR 3 DIRECTIONS.		1) NO ELECTRICAL DISCONTINUITY OF 1 μs. 2) NO DAMAGE, CRACK AND LOOSENESS, OF PARTS.		○	—
SHOCK		490 m/s ² DURATION OF PULSE 11 ms AT 3 TIMES FOR 6 DIRECTIONS.		1) NO ELECTRICAL DISCONTINUITY OF 1 μs. 2) NO DAMAGE, CRACK AND LOOSENESS, OF PARTS.		○	—
ENVIRONMENTAL CHARACTERISTICS							
DAMP HEAT (STEADY STATE)		EXPOSED AT 40 °C, 90 TO 95 %, 96 h.		1) INSULATION RESISTANCE: 2 MΩ MIN (AT HIGH HUMIDITY). 2) INSULATION RESISTANCE: 20 MΩ MIN (AT DRY). 3) NO DAMAGE, CRACK AND LOOSENESS OF PARTS.		○	—
RAPID CHANGE OF TEMPERATURE		TEMPERATURE -15 → R/T → +15 → R/T °C TIME 30 → 10 TO 15 → 30 → 10 TO 15 min UNDER 5 CYCLES.		1) INSULATION RESISTANCE: 200 MΩ MIN. 2) NO DAMAGE, CRACK AND LOOSENESS OF PARTS.		○	—
CORROSION SALT MIST		EXPOSED IN 5 % SALT WATER SPRAY FOR 48 h.		NO HEAVY CORROSION		○	—
DRY HEAT		EXPOSED AT +60 °C, 96 h.		NO DAMAGE CRACK AND LOOSENESS OF PARTS.		○	—
COLD		EXPOSED AT -15 °C, 96 h.		NO DAMAGE, CRACK AND LOOSENESS OF PARTS.		○	—
SEALING		EXPOSED AT A DEPTH OF OF - m FOR — h.		NO WATER PENETRATION INSIDE CONNECTOR.		—	—
AIR TIGHTNESS		APPLY AIR PRESSURE - Pa FOR - h TO INSIDE CONNECTOR.		NO AIR BUBBLES INSIDE CONNECTOR.		—	—
COUNT	DESCRIPTION OF REVISIONS		DESIGNED	CHECKED		DATE	
△							
REMARK							
(1) CONTACT RESISTANCE INCLUDES BULX RESISTANCE OF USED WIRE.							
Unless otherwise specified, refer to JIS C 5402.							
Note QT:Qualification Test AT:Assurance Test X:Applicable Test		DRAWING NO.		ELC4-349413-00			
HRS		SPECIFICATION SHEET		PART NO.		HR12A-14LA20PSD1400	
HIROSE ELECTRIC CO., LTD.		CODE NO.		CL112-3477-8-00		△ 1/1	
		APPROVED		H0. HASHIMOTO		12.12.06	
		CHECKED		TS. FURUYA		12.12.06	
		DESIGNED		MK. OGURA		12.11.30	
		DRAWN		MK. OGURA		12.11.30	

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2018/04/05 04:48:53(JST) Rachele Sheffer

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FORM HD0011-2-1

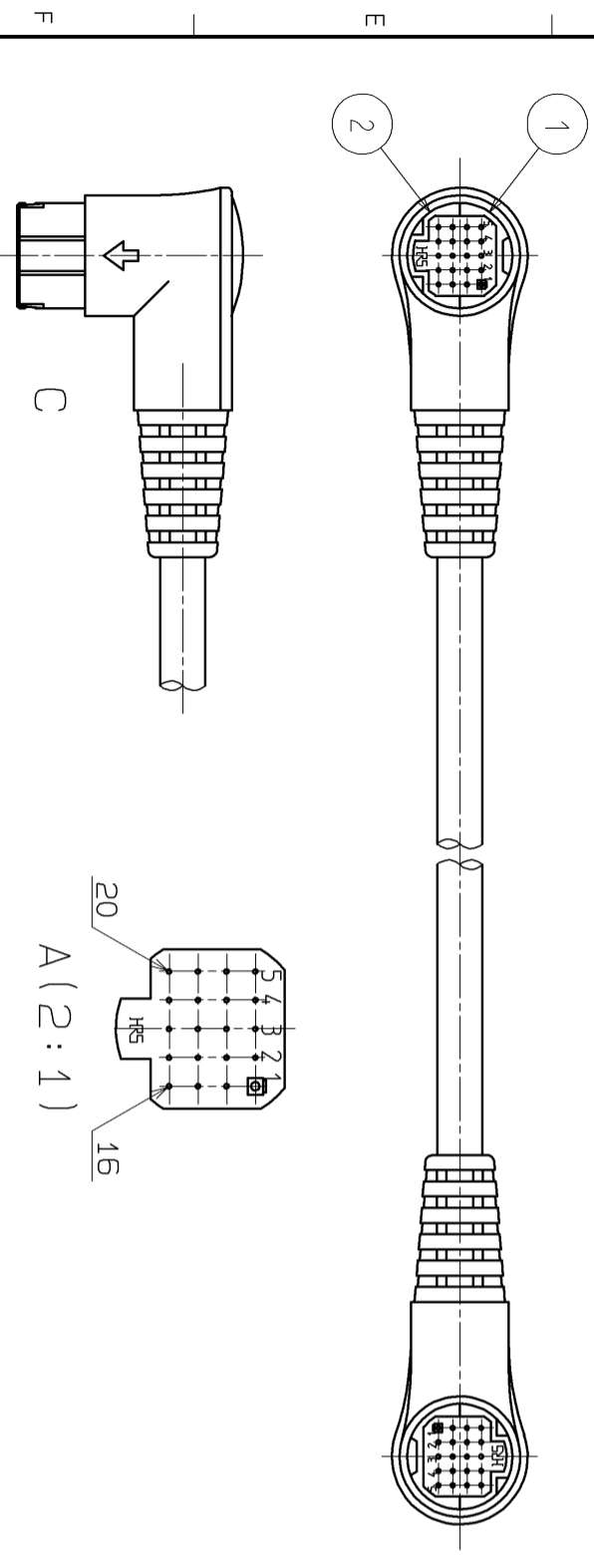
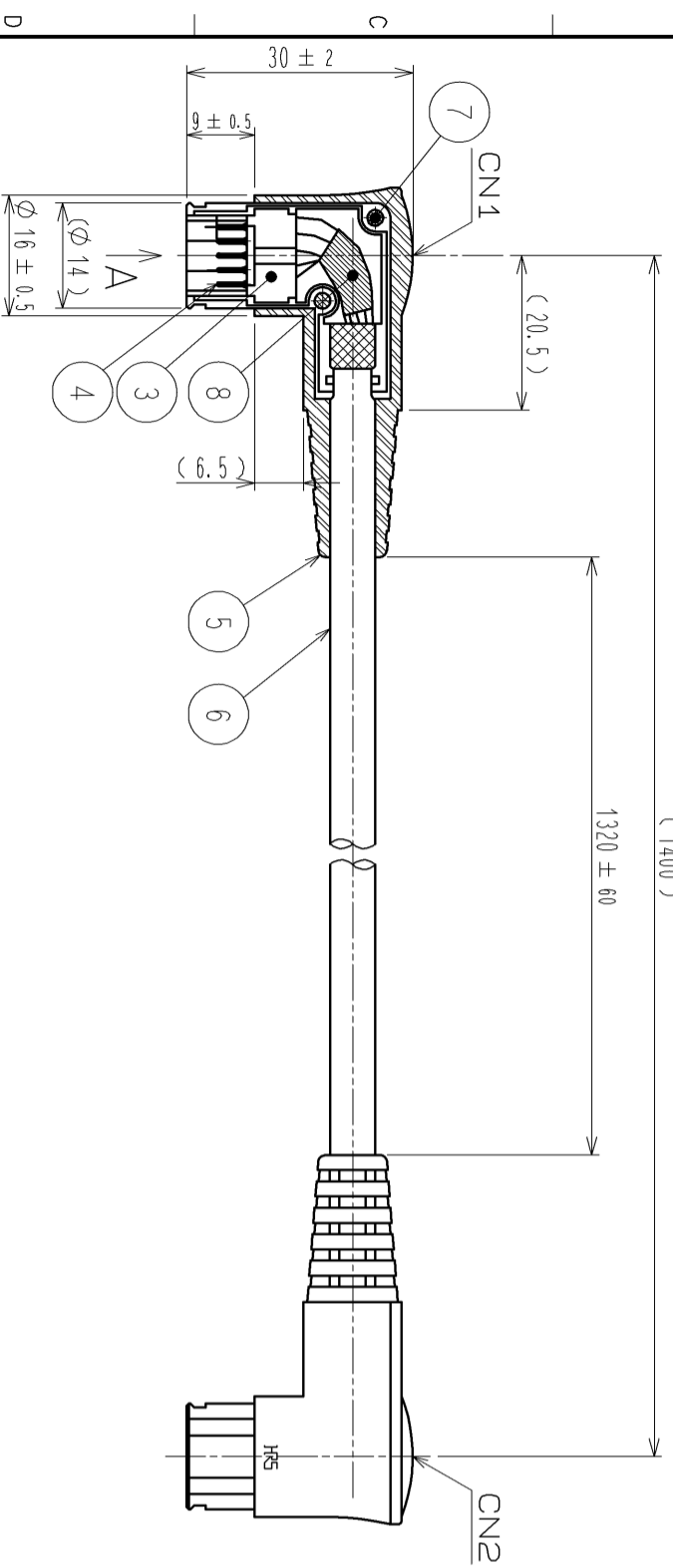
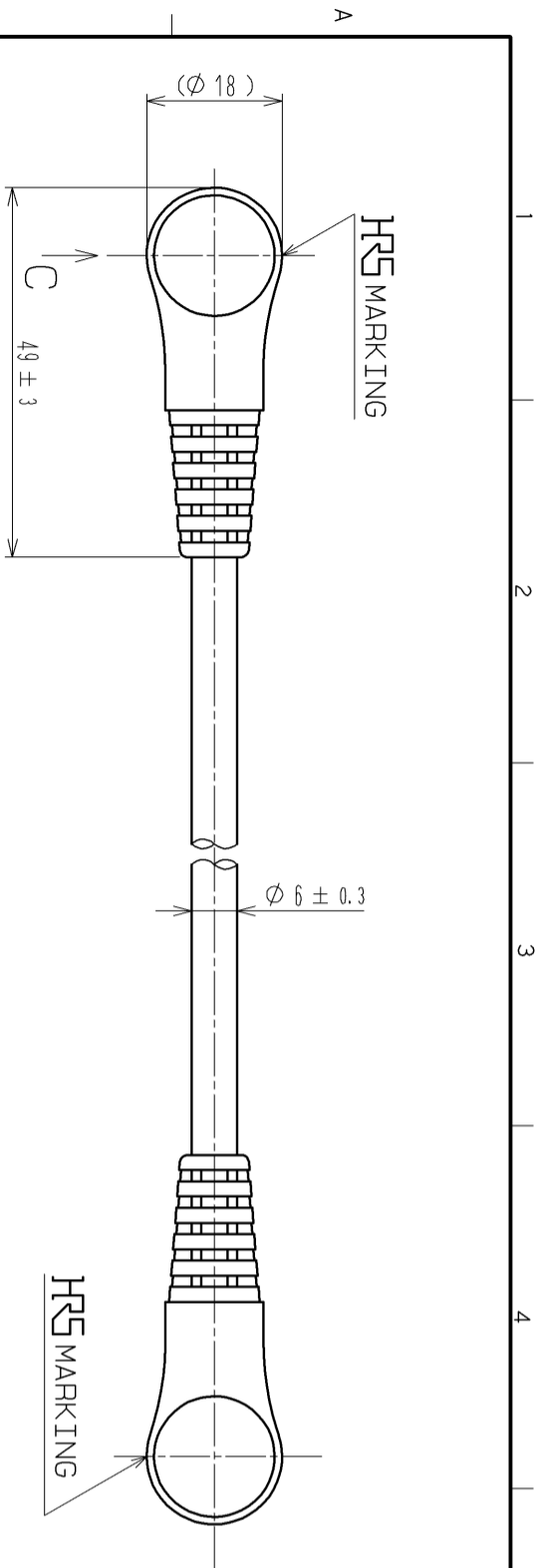


TABLE-1 WIRING

CONTACTNO.	READ WIRECOLOR	CONTACTNO.	READ WIRECOLOR
1	RED (AWG30)	11	BLACK (AWG28)
2	ORANGE (AWG30)	12	SKY BLUE (AWG28)
3	YELLOW (AWG30)	13	PINK (BLACK) (AWG30)
4	GRAY (AWG30)	14	VIOLET (BLACK) (AWG30)
5	WHITE (AWG30)	15	LEAF GREEN (AWG30)
6	PINK (AWG30)	16	SKY BLUE (BLACK) (AWG30)
7	VIOLET (AWG30)	17	BROWN (AWG28)
8	RED (BLACK) (AWG30)	18	BLUE (AWG28)
9	ORANGE (BLACK) (AWG30)	19	GRAY (BLACK) (AWG30)
10	YELLOW (BLACK) (AWG30)	20	WHITE (BLACK) (AWG30)

TABLE-2 CABLE SPECIFICATIONS

COMPOSITION	COLOR DISTINCTION	RED, ORANGE, YELLOW, GRAY, WHITE, PINK, VIOLET, RED (BLACK) ORANGE (BLACK), YELLOW (BLACK) GRAY (BLACK), WHITE (BLACK) PINK (BLACK), VIOLET (BLACK) LEAF GREEN, SKY BLUE (BLACK)	BROWN BLUE BLACK SKY BLUE
PVC INSULATION	OUTER DIAMETER ($\phi 0.7$)		($\phi 0.75$)
CONDUCTOR	COMPOSITION	$\phi 0.1/7$ (AWG#30)	$\phi 0.127/7$ (AWG#28)
	MATERIAL	TIN PLATED ANNEALED COPPER WIRE	
BRAIDED SHIELD	COMPOSITION	$\phi 0.1/24/7$	
	MATERIAL	TIN PLATED ANNEALED COPPER WIRE	
JACKET	OUTER DIAMETER	$\phi 6 \pm 0.3$	
	MATERIAL	PVC	
	COLOR	BLACK	

NOTES

1 WIRING IS SHOWN IN THE TABLE-1.

2 CABLE SPECIFICATIONS ARE SHOWN IN THE TABLE-2.

3 THE POSITION OF REFERENCE NO. ⑥ AND CN1, 2 ARE MATED BY THE POSITION OF REFERENCE NO. ⑥ AND CN1, 2 SHALL BE FREE.)

4 CN1 AND CN2 SHALL BE IN THE SAME SPECIFICATION.

NO.	MATERIAL	FINISH	REMARKS	NO.	MATERIAL	FINISH	REMARKS
4	PHOSPHOR BRONZE	SILVER PLATED		8	STEEL		(CLOTH ADHESIVE TAPE)
3	PBT	(BLACK) UL94V-0		7	STEEL		NICKEL PLATED
2	ZINC ALLOY	NICKEL PLATED		6			(BLACK) UL2990 SHIELDED CABLE, 20 CONDUCTORS
1	ZINC ALLOY	NICKEL PLATED		5	PVC		(BLACK) UL94V-0

UNITS: mm

SCALE: 1:1

COUNT: 1

DESCRIPTION OF REVISIONS:

NO.	DATE	DESIGNED	CHECKED
1	12.12.06	EDC3-349413-00	
2	12.12.06		
3	12.11.30	HR12A-14LA20P5D1400	
4	12.11.30		
5	12.11.30		

APPROVED: HO. HASHIMOTO

CHECKED: TS. FURUYA

DESIGNED: MK. OGURA

DRAWN: MK. OGURA

CL112-3477-8-00

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