

Zertifikat Certificate



Zertifikat Nr. Certificate No.
R 50270424

Blatt Page
0003

Ihr Zeichen Client Reference
K.S.

Unser Zeichen Our Reference
ZJL-MAS- 12030062 002

Ausstellungsdatum
20.02.2020

Date of Issue
(day/mo/yr)

Genehmigungsinhaber License Holder
Hirose Electric Co., Ltd.
5-5-23 Osaki
Shinagawa-ku, Tokyo
141-8587 Japan

Fertigungsstätte Manufacturing Plant
Ichinoseki Hirose Electric Co., Ltd.
14-36 Higashidai
Ichinoseki-shi, Iwate
021-0822 Japan

Prüfzeichen Test Mark



Geprüft nach Tested acc. to
EN 61984:2009
IEC 61984:2008

Zertifiziertes Produkt (Geräteidentifikation)
Certified Product (Product Identification)

Lizenzentgelte - Einheit
License Fee - Unit

Connector Connector without breaking capacity

Change

Rated Voltage (5 poles): AC 600V/DC 400V

changed to: AC/DC 600V

Addition

Test Requirement: IEC 61984:2008



ANLAGE (Appendix): 1.1

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde und es bestätigt die Konformität des Produktes mit den oben genannten Standards und Prüfnundlagen. Zusätzliche Anforderungen in Ländern, in denen das Produkt in Verkehr gebracht werden soll, müssen zusätzlich betrachtet werden. Die Herstellung des zertifizierten Produktes wird überwacht.
This certificate is based on our Testing and Certification Regulation and states the conformity of the product with the standards and testing requirements as indicated above. Any additional requirements in countries where the product is going to be marketed have to be considered additionally. The manufacturing of the certified product is subject to surveillance.

TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg
Tel.: (+49/221)8 06 - 13 71 e-mail: cert-validity@de.tuv.com
Fax: (+49/221)8 06 - 39 35 http://www.tuv.com/safety

Zertifizierungsstelle

Dipl.-Ing. (FH) F. Becker

Zertifikat Certificate



Zertifikat Nr. Certificate No.
R 50270423

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0002

Ihr Zeichen Client Reference
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ZJL-MAS- 12030061 001

Ausstellungsdatum
19.11.2013

Date of Issue
(day/mo/yr)

Genehmigungsinhaber License Holder
Hirose Electric Co., Ltd.
5-5-23 Osaki
Shinagawa-ku, Tokyo
141-8587 JAPAN

Fertigungsstätte Manufacturing Plant
Ichinoseki Hirose Electric Co., Ltd.
14-36 Higashidai
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EN 61984:2009

Zertifiziertes Produkt (Geräteidentifikation)
Certified Product (Product Identification)

Lizenzentgelte - Einheit
License Fee - Unit

Connector Connector with breaking capacity, as page 0001

Continuation

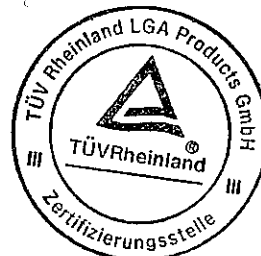
Overvoltage Category: II
Pollution Degree: 3
IP-degree: IP68 (Depth 2m, Time 14 days)
Max. Ambient Temperature: +37°C
Upper Limit Temperature: +65°C
Lower Limit Temperature: -40°C

ANLAGE (Appendix): 1

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Zertifizierungsstelle

Dipl.-Ing. (FH) J. Taylor

Zertifikat Certificate



Zertifikat Nr. Certificate No.
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0001

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EN 61984:2009



Zertifiziertes Produkt (Geräteidentifikation)
Certified Product (Product Identification)

Lizenzentgelte - Einheit
License Fee - Unit

Connector Connector with breaking capacity

Type Designation:	HR41-tuvw-xyz	5
	t = 25	
	u = WB	
	v = P or R	1
	w = D, E, F or blank	1
	x = 3	
	y = PC or SC	1
	z = 01 - 99 or blank	

Classification: CBC
Number of Poles: 3
Rated Voltage: AC/DC 250V
Rated Current: 5.5A

continued on page 0002



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ANLAGE (Appendix): 1

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde und es bestätigt die Konformität des Produktes mit den oben genannten Standards und Prüfgrundlagen. Zusätzliche Anforderungen in Ländern, in denen das Produkt in Verkehr gebracht werden soll, müssen zusätzlich betrachtet werden. Die Herstellung des zertifizierten Produktes wird überwacht.

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Zertifizierungsstelle

Dipl.-Ing. (FH) J. Taylor

Constructional Data Form for Connector

Page 1/5

License holder: Hirose Electric Co., Ltd.
 5-5-23 Osaki, Shinagawa-ku, Tokyo 141-8587 Japan
 Factory: Ichinoseki Hirose Electric Co., Ltd.
 (Full address) 14-36 Higashidai, Ichinoseki-shi, Iwate 021-0822 Japan
 Type or Model Number: HR41-25WBPD-3SC(zz), HR41-25WBPE-3SC(zz), HR41-25WBPF-3SC(zz) and
 HR41-25WBR-3PC(zz),
 HR41-25WBP-5SC(zz) and HR41-25WBRA-5PC(zz)
 Notes: (zz) : (01) thru (99) or blank.
 Kind of device: Connector

Specifications		
Type designation	HR41-25WBPD-3SC(zz), HR41-25WBPE-3SC(zz), HR41-25WBPF-3SC(zz), HR41-25WBR-3PC(zz), HR41-25WBP-5SC(zz) and HR41-25WBRA-5PC(zz)	
Contact material	Copper alloy, selective gold plating (contact area)	
Number of poles	3 or 5	
Rated voltage	AC/ DC 600 V (3 poles)	AC/DC 600 V (5 poles)
Rated current	20 A (3 poles)	10 A (5 poles)
Mechanical endurance	50 times	
Classification	☐ CBC ☒ COC (Non CBC) ☐ other	
Number of bendings (non-rewirable terminals only)	N/A	
Upper limit temperature	65 °C	
Lower limit temperature	- 40 °C	
Maximum ambient temperature at rated current	37,0 °C	
IP code	IP 68 (Depth 2.0 m, Time 14 days)	

TÜV Rheinland

Yokohama

20 February 2020

(Place)

(Date)

2020 feb. 20

(Date)

(Signature)

Hirose Electric Co., Ltd.

Kenichi Sato

(Stamp and Signature of Applicant)



(To be filled in by TÜV Rheinland)

Constructional Data Form for Connector

Page 2/5

Classification of Connectors ☒ COC ☐ CBC						
Type of connector	Style	Enclosure		Cable Clamp		Function
Receptacle HR41-25WBR-3PC(zz) HR41-25WBRA-5PC(zz)	☐ Free Connector ☒ Fixed Connector	☒ Enclosed ☐ Un-enclosed	☐ Hand Back Safety mated ☐ Hand Back Safety unmated ☒ Finger Safety mated ☒ Finger Safety unmated ☒ IP68 mated ☒ IP00 unmated	☐ with ☐ with additional insulation bushing ☒ without	Applicable Cable Size Range: N/A	☒ with PE (5 poles) ☒ without PE (3 poles) ☐ with interlock ☒ without interlock
Plug HR41-25WBPD-3SC(zz), HR41-25WBPE-3SC(zz), HR41-25WBPF-3SC(zz) HR41-25WBP-5SC(zz),	☒ Free Connector ☐ Fixed Connector	☒ Enclosed ☐ Un-enclosed	☐ Hand Back Safety mated ☐ Hand Back Safety unmated ☒ Finger Safety mated ☒ Finger Safety unmated ☒ IP67 mated ☒ IP20 unmated	☒ with ☐ with additional insulation bushing ☐ without	Applicable Cable Size Range: HR41-25WBPD-3SC = Ø 9.0 mm ± 0.6 mm HR41-25WBPE-3SC = Ø 10.1 mm ± 0.5 mm HR41-25WBPF-3SC = Ø 13.5 mm ± 0.7 mm HR41-25WBP-5SC = Ø 11 mm ± 0.3 mm	☒ with PE (5 poles) ☒ without PE (3 poles) ☐ with interlock ☒ without interlock

Remark: *1)The protection class of components is dependent upon the equipment in which they are used, these connectors are intended for class I equipment normally.

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Constructional Data Form for Connector

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Insulation Coordination	
Overvoltage category	II / 4kVpeak
Pollution degree	3
Insulation voltage	600V
Test voltages	4.26 kVac 50/60Hz
Minimum creepage distances (mated)	Live Contact – Live Contact: 11.01 mm (inside the IP67 enclosure) Earth Terminal & Metal Shell – Live Contacts: 12.57 mm (inside the IP67 enclosure) Live Contact – Live Contact (terminals of socket): 11.01 mm Earthed Metal Shell – Live Parts (terminals of socket): N/A
Minimum clearance distances (mated)	Live Contact – Live Contact: 11.01 mm (inside the IP67 enclosure) Earth Terminal & Metal Shell – Live Contacts: 12.57 mm (inside the IP67 enclosure) Live Contact – Live Contact (terminals of socket): 11.01 mm Earthed Metal Shell – Live Parts (terminals of socket): N/A
Insulation system (IEC 60664-1)	Contact – Contact : ☒ basic ☐ reinforced ☐ NA Earth Metal Shell – Contact: ☐ basic ☐ reinforced ☒ NA

Specifications of Terminals / Connection ☒ Rewirable ☐ Non-rewirable	
Type of terminals	☐ WRAPPED CONNECTION ☒ CRIMPED CONNECTION ☐ CLIP CONNECTION ☐ PRESS-IN CONNECTIONS ☐ INSULATION DISPLACEMENT CONNECTION ☐ SCREWLESS TERMINALS ☐ SCREW TERMINALS ☐ FLAT, QUICK CONNECT TERMINATIONS ☐ SOLDER TERMINALS ☐ other: SOLDER CONNECTION
Terminal designation	Marking of the terminals: 1, 2, 3, 4, 5 and $\oplus$
Spec. Tightening torque	N/A
Rated cross section of conductor	HR41-*C-111: 5.2 mm ² to 5.5 mm ² (AWG 10 to AGW 12) HR41-*C-121: 1.3 mm ² to 2.5 mm ² (AWG 14 to AGW 16) HR41-*C-141: 5.5 mm ² to 6.5 mm ² (AWG 10) HR41-*C-151: 0.75 mm ² to 2.0 mm ² (AWG 14 to AGW 18) HR41-*C-161: 5.2 mm ² to 5.5 mm ² (AWG 10 to AGW 12) Note: * - P (male contact) or S (female contact)
Type of conductor	Flexible
Required preparation of the conductor	N/A
Max. Stripping length	10 mm
Max. Number of conductors per terminal	1

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Constructional Data Form for Connector

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Materials			
Type designation		See Nomenclature	
Contact material		Copper alloy, selective gold plating (contact area)	
Contact block (housing)		Plug PA, 1521AH, MITSUBISHI ENGINEERING- PLASTICS CORP (E41179) CTI: 510 V RTI: 65 °C 5 pos: PBT, 5810GN2-(s) MITSUBISHI ENGINEERING- PLASTICS CORP (E41179) CTI: 212V, RTI: 75 °C	Receptacle PA, 1521AH, MITSUBISHI ENGINEERING- PLASTICS CORP (E41179) CTI: 510 V RTI: 65 °C
	Insulator (Front)	Cf. photo documentation.	Cf. photo documentation.
	Insulator (Rear)	Cf. photo documentation.	Cf. photo documentation.
Connector body	Shell	Same as contact block.	Same as contact block.
	Barrel	N/A	N/A
*2) Cord Anchorage	Insulation Bushing	N/A	
	Backshell and clamping units	o-ring, gasket : silicon rubber sleeve, hood, clamp ring, hex nut: PA, 1521AH clamp: PA, 3004-V0, TORAY INDUSTRIES INC.(E41797) retainer: PBT, 209AW, WINTech POLYMER LTD (E213445)	

*2) Parts for Secure Cord Anchorage:

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Constructional Data Form for Connector

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TYPE NOMENCLATURE:

Example

HR41 - 25 WB P F - 3 SC (zz)
t u v w x y z

HR41: Series name

t: Shell Size
25

u: Locking type
WB : bayonet lock

v: Connector Configuration
P : Plug
R : Receptacle

w: shell description (apply to plug)
None: applicable cable dia. 11.0 mm ± 0,3 mm.
D: applicable cable dia. 9,0 mm ± 0,6 mm.
E: applicable cable dia. 10,1 mm ± 0,5 mm.
F: applicable cable dia. 13,5 mm ± 0,7 mm.

x: Number of contacts
3 or 5

y: Contact type
PC: Male contact – crimped connection
SC: Female contact – crimped connection

z:: Customer specifications(packaging and color)
none or (01) to (99)

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