Zertifikat *Certificate*

Zertifikatsnummer *Certificate No.:*
R 50628526 0001

Berichtsnummer *Report No.:*
JP24DBD5 001

Genehmigungsinhaber *License Holder:*
Hirose Electric Co., Ltd.
2-6-3 Nakagawa-Chuo, Tsuzuki-ku
Yokohama-shi, Kanagawa
224-8540 Japan

Fertigungsstätte *Manufacturing Site:*
Koriyama Hirose Electric Co., Ltd.
1-19 Kamiizushima,
Koriyama, Fukushima,
963-1311 Japan

Prüfzeichen *Test Mark:*

TÜVRheinland® CERTIFIED
Type Approved
Safety
Regular Production
Surveillance
www.tuv.com
ID 1111284556

Geprüft nach *Tested according to:*
EN 61984:2009
IEC 61984:2008

Geräteidentifikation
Product Identification

Produkt: Connector
Product:

Modell: Modelle sind auf nächste(r) Seite(n) gelistet
Type: *Type designation(s) are listed on the next page(s)*

Technische Daten: *Technical Data:*

Classification:	COC (Non-CBC)
Number of Poles:	1, 2, 3, 4 or 8
Rated Voltage:	AC / DC 250 V
Rated Current:	(see next page)
Overvoltage Category:	II
Pollution Degree:	2
IP-degree:	IP00
Max Ambient Temperature:	+75°C
Upper Limit Temperature:	+105°C
Lower Limit Temperature:	-35°C

Gültig ab:
Valid from:

Ausstellungsdatum: 2024-05-28
Date of issue:

Zertifizierungsstelle:
Certification body:

TÜV Rheinland LGA Products GmbH TÜVRheinland® Zertifizierungsstelle

Vilmos Sztaroveczki

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.
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
http://www.tuv.com/safety E-mail: markcheck@tuv.com
Fax: +49 221 806-3935

Zertifikat *Certificate*

Zertifikatsnummer *Certificate No.:*
R 50628526 0001

Berichtsnummer *Report No.:*
JP24DBD5 001

Produkt *Product:* Connector

Modell *Type:*

Bezeichnung *Designation:*

Connector: DF62w-xy-2.2C(zz)
w = B or C
x = 2, 3, 4, 5, 6, 7, 13 or 24
y = S or EP
zz = (01) to (99) or blank

Crimp contact: DF62-vwxy(zz)
v = EP or blank
w = 22, 2428 or 30
x = SC, SCF, PC or PCF
y = A or blank
z = (01) to (99) or blank

Rated Current:
1 or 2 poles: 4 A (22 AWG), 2 A (24 AWG), 1 A (25 to 30 AWG)
3 to 8 poles: 3 A (22 AWG), 2 A (24 AWG), 1 A (25 to 30 AWG)

ANLAGE (Appendix): 1.0

TÜV Rheinland LGA Products GmbH
TÜVRheinland®
Zertifizierungsstelle

Constructional Data Form for Connector

License holder: Hirose Electric.,Ltd.

2-6-3 Nakagawa-Chuo, Tsuzuki-ku, Yokohama-shi, Kanagawa 224-8540 Japan

Factory: Koriyama Hirose Electric Co., Ltd.

(Full address) 1-19 Kamiizushima, Koriyama, Fukushima, 963-1311 Japan

レ

Type or Model Number: Socket, DF62B-*S-2.2C(zz), DF62C-*S-2.2C(zz),

In-line plug, DF62B-*EP-2.2C(zz), DF62C-*EP-2.2C(zz)

Contacts for Socket
DF62-22SCF(zz), DF62-2428SCF(zz), DF62-30SCF(zz)
DF62-22SCFA(zz), DF62-2428SCFA(zz), DF62-30SCFA(zz)

Contacts for In-line plug
DF62-EP22PCF(zz), DF62-EP2428PCF(zz), DF62-EP30PCF(zz),
DF62-EP22PCFA(zz), DF62-EP2428PCFA(zz), DF62-EP30PCFA(zz),

*: Number of contact holes
(zz): (01) to (99) or blank.

Kind of device: Connectors

<table>
<tr><th colspan="2">Specifications</th></tr>
<tr><td>Type designation</td><td>See Nomenclatures</td></tr>
<tr><td>Contact material</td><td>Copper alloy (contain not less than 92 wt % of Cu), Tin or Gold plating</td></tr>
<tr><td>Number of poles</td><td>1, 2, 3, 4 or 8 (depends on the number of contact holes)
<table>
<tr><th colspan="2"></th><th>Number of poles (max)</th><th>Examples (non-exhaustive)</th></tr>
<tr><td rowspan="8">Number of contact holes</td><td>2</td><td>1</td><td>Nº 1 or 2</td></tr>
<tr><td>3</td><td>1</td><td>Nº 1, 2 or 3</td></tr>
<tr><td>4</td><td>1</td><td>Nº 1, 2, 3 or 4</td></tr>
<tr><td>5</td><td>2</td><td>Nº 1 and 3 or Nº 3 and 4</td></tr>
<tr><td>6</td><td>2</td><td>Nº 1 and 6 or Nº 3 and 4</td></tr>
<tr><td>7</td><td>3</td><td>Nº 1, 5 and 6 or Nº 2, 3 and 8</td></tr>
<tr><td>13</td><td>4</td><td>Nº 1, 3, 9 and 11 or Nº 3, 4, 11 and 12</td></tr>
<tr><td>24</td><td>8</td><td>Nº 1, 3, 5, 11, 13, 15, 21 and 23 or Nº 1, 3, 5, 11, 13, 15, 22 and 24</td></tr>
<tr><td colspan="4">Contacts can bet attached to any hole, but when one hole is used (contact attached), the surrounding holes must remain empty.</td></tr>
</table></td></tr>
<tr><td>Rated voltage</td><td>AC / DC 250 V</td></tr>
</table>

TÜV Rheinland

27/05/2024 P. Nalogowski

(Date) (Signature)

Yokohama, Japan

(Place)

27/05/2024

(Date)

Hirose Electric Co., Ltd. Kenichi SATO

(Stamp and Signature of Applicant)

Constructional Data Form for Connector

Rated current	(iii) Applicable conductor 22: 22 AWG, 2428: 24 AWG to 28 AWG, 30: 30 AWG

Nº of Poles	22 AWG	24 AWG	25 to 30 AWG
1	4 A	2 A	1 A
2	4 A	2 A	1 A
3	3 A	2 A	1 A
4	3 A	2 A	1 A
8	3 A	2 A	1 A

Mechanical endurance	Tin plating:30 times Gold plating:30 times
Classification	☐ CBC ☒COC (Non CBC) ☐ other
Number of bendings (non-rewirable terminals only)	N/A
Upper limit temperature	105 °C
Lower limit temperature	-35 °C
Maximum ambient temperature at rated current	75 °C

Classification of Connectors ☒ COC ☐ CBC						
Type of connector	Style	Enclosure		Cable Clamp		Function
Socket	☒ Free Connector ☐ Fixed Connector	☒Enclosed ☐ Un-enclosed	☐ Hand Back Safety mated ☒ Hand Back Safety unmated	☐ with ☐ with additional insulation bushing	Applicable Cable Size Range: N/A	☐ with PE ☒ without PE

TÜV Rheinland		**Yokohama, Japan**	27/05/2024
		(Place)	(Date)
27/05/2024	P. Nalogowski	**Hirose Electric Co., Ltd.**	Kenichi SATO
(Date)	(Signature)	(Stamp and Signature of Applicant)	

Constructional Data Form for Connector

		*1) Protection class mated: ☒ Class I ☐ Class II ☐ Built in	☐ Finger Safety mated ☒ Finger Safety unmated ☐ IP67 mated ☐ IP20 unmated	☒ without		☐ with interlock ☒ without interlock
In-line Plug	☒ 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	Applicable Cable Size Range: N/A	☐ with PE ☒ without PE
		*1) Protection class mated: ☒ Class I ☐ Class II ☐ Built in		☒ without		☐ 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.						

Constructional Data Form for Connector

Insulation Coordination	
Overvoltage category	II
Pollution degree	2
Insulation voltage	AC/DC 250 V
Test voltages	1.39 kV r.m.s
Minimum creepage distances (mated)	Live Contact – Live Contact (terminals of socket): 3.26 mm (measured leaving one free hole between contacts)
Minimum clearance distances (mated)	Live Contact – Live Contact(terminals of socket): 3.26 mm (measured leaving one free hole between contacts)
Insulation system (IEC 60664-1)	Contact – Contact: ☒ basic ☐ reinforced ☐ NA

Specifications of Terminals / Connection _ ☒Rewirable ☐Non-rewirable	
Type of terminals	☐ solder ☒ crimp
Terminal designation	Marking of the terminals: 1, 5, 6, 10, 11, 15, 16, 20, 21 and 24, details of the indication shall be as shown in the drawings.
Spec. Tightening torque	N/A

TÜV Rheinland

27/05/2024 P. Nalogowski

(Date) (Signature)

Yokohama, Japan

(Place)

27/05/2024

(Date)

Hirose Electric Co., Ltd. Kenichi SATO

(Stamp and Signature of Applicant)

Constructional Data Form for Connector

Rated cross section of conductor	DF62-22SC*(zz), DF62-EP22PC*(zz) INSULATION: ϕ 1.45mm-1.2mm CONDUCTOR:0.342mm^2 DF62-2428SC*(zz), DF62-EP2428PC*(zz) INSULATION: ϕ 1.45mm-0.9mm CONDUCTOR:0.221mm^2-0.089mm^2 DF62-30SC*(zz), DF62-EP30PC*(zz) INSULATION: ϕ 1.2mm-0.75mm CONDUCTOR: 0.055mm^2
Type of conductor	Flexible
Required preparation of the conductor	N/A
Max. Stripping length	2.3 mm
Max. Number of conductors per terminal	1

Materials			
Type designation		See Nomenclature	
Contact material		Copper alloy (contain not less than 92 wt % of Cu), Tin or Gold plating	
Contact block (housing)		In line plug	Socket
	Insulator (Front)	PBT: 4130-(Z)K(G1)(G2), CHANG CHUN PLASTICS CO LTD., Color in black or white. CTI: 175V to 249 V, RTI(Elec): 140 °C	
	Insulator (Rear)	PBT: 5010GN1-30(r2), 5010GN1-30AM(r2), 5010GN1-30AM2(r2), MITSUBISHI ENGINEERING-PLASTICS CORP., Color in red. CTI: 175V to 249 V, RTI(Elec): 130 °C	
Connector body	Shell	N/A	N/A
	Barrel	N/A	N/A
*2) Cord Anchorage	Insulation Bushing	N/A	
	Backshell and clamping units	N/A	

*2) **Parts for Secure Cord Anchorage:**

TÜV Rheinland		**Yokohama, Japan**	27/05/2024
		(Place)	(Date)
27/05/2024	P. Nalogowski	**Hirose Electric Co., Ltd.**	Kenichi SATO
(Date)	(Signature)	(Stamp and Signature of Applicant)	

Constructional Data Form for Connector

TYPE NOMENCLATURE:

1 Connector

Example: DF62w – x y - 2.2 C (zz)
(i) (ii) (iii) (iv) (v)(vi)

(i) Series Name

DF62B: Regular type

DF62C: Protected Lock type

(ii) Number of contact holes

2, 3, 4, 5, 6, 7, 13, 24

(iii) Connector type

S: Socket

EP: In-line plug

(iv) Contact pitch:2.2 mm

(v) Connection part

C: Crimping housing

(vi)Customer specifications

none or (01) to (99)

2 Crimp contact

Example: DF62 – v w x y (zz)
(i) (ii) (iii) (iv) (v) (vi)

(i) Series name

(ii) Terminal type: None (for socket) or EP (for In-line plug)

(iii) Applicable conductor

22: 22 AWG, 2428: 24 AWG to 28 AWG, 30: 30 AWG

(iv) Contact and packaging type

SC: socket contact, bag, SCF: socket contact, reel

PC: plug contact, bag, PCF: plug contact, reel

(v) Plating type

A: Gold plating, None: Tin plating

(vi)Customer specifications

none or (01) to (99)