

# Zertifikat Certificate



Zertifikat Nr. *Certificate No.*  
R 9151488

Blatt *Page*  
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<i>Ihr Zeichen Client Reference</i>	<i>Unser Zeichen Our Reference</i>	<i>Ausstellungsdatum</i>	<i>Date of Issue (day/mo/yr)</i>
PO2711826594	ZJL-MAS- 09150780 016	30.07.2020	

**Genehmigungsinhaber License Holder**  
Tyco Electronics Japan G.K.  
3-5-8 Hisamoto, Takatsu-ku  
Kawasaki-shi, Kanagawa  
213-8535 Japan

**Fertigungsstätte Manufacturing Plant**  
Tyco Electronics (Qingdao) Ltd.  
3rd ST. Qingdao  
export processing zone, Hetao  
Chengyang Qingdao  
266113 Shandong  
P.R. China

## 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, as page 0001

Additions

Additional Part No. for D-3100 series  
(see Appendix 1.8 for details)  
Additional Part No. for D-3200 series  
(see Appendix 1.8 for details)

Changes

For Type Designations Dynamic D-3230, D-3100, D-3200  
D-3400, D-3500 series  
Limit temperature: -30°C to +105°C / -20°C to +105°C  
changed to: -55°C to +105°C

Mechanical endurance: 50 times  
changed to: 500 times (Gold-Plated Contacts)  
100 times (Tin-Plated Contacts)

ANLAGE (Appendix): 1.8

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**  
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**

**Vilmos Sztaroveczki**

**Constructional Data Form**

License holder: **Tyco Electronics Japan G.K.**  
 3-5-8 Hisamoto, Takatsu-ku, Kawasaki-shi, Kanagawa 213-8535 Japan

Factory: **Tyco Electronics (Qingdao) Ltd.**  
 (Full address) 3<sup>rd</sup> ST. Qingdao Export processing zone, Hetao Chengyang, Qingdao, Shandong  
 266113, P.R. China

**Tyco Electronics AMP Shanghai Ltd.**  
 No.668, Guiping Road, Shanghai 200233, P.R. China.

**TE Connectivity Connectors(Suzhou) Co., Ltd.**  
 No.33 Chunyao Road, Caohu Subdistrict, Suzhou Xiangcheng Economic  
 Development Zone, Suzhou, Jiangsu 215000, P.R. China.

Type or Model Number: Dynamic D-3100, D-3200, D-3400, D-3500, D-3230 Series Connector  
 Kind of device: Connector

Specifications	
Type designation	Dynamic D-3230 Series Connector
Contact material	Copper Alloy, Tin and contact side is Gold plating
Number of poles	3 poles type and 6 poles type
Rated voltage	See Table-1
Rated current	3 Pos: 12A max , 6 Pos: 10A max
Mechanical endurance	500(Gold)
Classification	<input type="checkbox"/> CBC <input checked="" type="checkbox"/> Non CBC <input type="checkbox"/> other:
Number of bendings (non-rewirable terminals only)	N/A
Upper limit temperature	105 °C
Lower limit temperature	-55 °C
Maximum ambient temperature at rated current	75

IP Degree Conditions		
Type of connector	Receptacle	Tab Header
IP code	IP-00 <input checked="" type="checkbox"/> mated <input type="checkbox"/> unmated	IP-00 <input checked="" type="checkbox"/> mated <input type="checkbox"/> unmated
Backshell	N/A	N/A
Cable clamp	N/A	N/A
Cable range	N/A	N/A
Fastening torque	N/A	N/A

<b>TÜV Rheinland</b>  2020 July 30 <i>In Masuda</i> (Date) (Signature)	Kawasaki _____ (Place)  Tyco Electronics Japan G.K. (Stamp and Signature of Applicant)	2020.7.30 (Date)  <i>E. Ikematsu</i> (Signature)
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**Constructional Data Form**

Insulation Coordination	
Overvoltage category	See Table-1
Pollution degree	See Table-1
Test voltages	Contact – contact : 3 poles type 6100V , 6 poles type 4200V Shell – contact : N/A
Minimum creepage distances	Contact – contact : 3 poles type 14.0 mm, 6 poles type 7.6 mm Shell – contact : N/A
Minimum clearance distances	Contact – contact : 3 poles type 9.5 mm, 6 poles type 6.4 mm Shell – contact : N/A
Insulation system (IEC 60664-1)	Contact – contact : <input checked="" type="checkbox"/> basic <input type="checkbox"/> reinforced <input type="checkbox"/> NA Shell – contact : <input type="checkbox"/> basic <input type="checkbox"/> reinforced <input checked="" type="checkbox"/> NA

Specifications (terminals)	
Type of terminals	<input type="checkbox"/> WRAPPED CONNECTIONS <input type="checkbox"/> SOLDER TERMINALS <input type="checkbox"/> CLIP CONNECTIONS <input checked="" type="checkbox"/> CRIMPED CONNECTIONS <input type="checkbox"/> INSULATION DISPLACEMENT CONNECTIONS <input type="checkbox"/> PRESS-IN CONNECTIONS <input type="checkbox"/> SCREWLESS TERMINALS <input type="checkbox"/> SCREW TERMINALS <input type="checkbox"/> FLAT, QUICK CONNECT TERMINATIONS <input type="checkbox"/> other:
Terminal designation	1 to 6
Material / Plating Material	Copper Alloy, Tin and contact side Gold plating
Spec. Tightening torque	N/A
Rated cross section of conductor	AWG#28 to AWG#14
Type of conductor	Flexible copper wire
Required preparation of the conductor	N/A
Max. Stripping length	S,M and L size: 4.3mm, 2L and 3L size: 4.8mm
Max. Number of conductors per terminal	1

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*E. Ikematsu*

(Stamp and Signature of Applicant)



**Constructional Data Form**

Table-1

Pollution degree	Overvoltage category	3 Poles type	6 poles type
2	II	630V a.c/ d.c.	320V a.c/ d.c.
2	III	630V a.c/ d.c.	320V a.c/ d.c.
3	III	500V a.c/ d.c.	320V a.c/ d.c.

**Connector (tab header):**

Header Single Row 5.08 Pitch

Poles	Horizontal
3	□-1554472-□

Header Dual Row 5.08 x 7.62 Pitch

Poles	Horizontal
6	□-1554474-□

Note; The prefixes and suffixes denote color and Keying type

**Engagement part:** (These have been recognized with same Certificate)

D-3200 Series	P/N	
5.08 Pitch type	□-178128-□	Single Row
5.08 x 7.62 Pitch type	□-178129-□	Double Row
	□-917266-□	Double Row

**Contacts**

Size	Wire range(AWG#)	Receptacle	
		Strip Form	Loose Form
S	24-28	□-175194-□	□-175216-□
M	20-24	□-175195-□	□-175217-□
L	16-20	□-175196-□	□-175218-□
2L	14-16	□-917484-□	□-917511-□
3L	14-16	□-353715-□	□-353717-□

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**Constructional Data Form**

Minimum clearance distances	Contact – contact: 5.08 pitch type min. 3.0 mm, 3.81 pitch type min. 2.0 mm Shell – contact: N/A
Insulation system (IEC 60664-1)	Contact – contact : <input checked="" type="checkbox"/> basic <input type="checkbox"/> reinforced <input type="checkbox"/> NA Shell – contact : <input type="checkbox"/> basic <input type="checkbox"/> reinforced <input checked="" type="checkbox"/> NA

**Specifications (terminals)**

Type of terminals	<input type="checkbox"/> WRAPPED CONNECTIONS <input type="checkbox"/> CLIP CONNECTIONS <input type="checkbox"/> INSULATION DISPLACEMENT CONNECTIONS <input type="checkbox"/> SCREWLESS TERMINALS <input type="checkbox"/> FLAT, QUICK CONNECT TERMINATIONS <input type="checkbox"/> SOLDER TERMINALS <input checked="" type="checkbox"/> CRIMPED CONNECTIONS <input type="checkbox"/> PRESS-IN CONNECTIONS <input type="checkbox"/> SCREW TERMINALS <input type="checkbox"/> other:
Terminal designation	1 to 20
Material / Plating Material	Copper Alloy, Tin and contact side Gold plating or Tin plating
Spec. Tightening torque	N/A
Rated cross section of conductor	AWG#28 to AWG#14
Type of conductor	Flexible copper wire
Required preparation of the conductor	N/A
Max. Stripping length	S,M and L size: 4.3mm, 2L and 3L size: 4.8mm
Max. Number of conductors per terminal	1

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**Constructional Data Form**

**Table 2 (Rated voltage)**

Overvoltage category and Rated voltage	<b>D-3100, D-3400 (3.81 pitch Type)</b> : AC/DC 200V(Overvoltage category II) : AC/DC 300V(Overvoltage category II) *split by floating conductive part : AC/DC 150V(Overvoltage category III)
	<b>D-3200, D-3500(5.08 pitch Type)</b> : AC/DC 300V (Overvoltage category III) : AC400V (Overvoltage category II)

**Table 3 (Rated Current)**

3100, 3200  
Models

Conductor	Current (A)						
	1 Poles	3 Poles	5 Poles	8 Poles	9-10 Poles	15 Poles	20 Poles
AWG 28	5	4	4	3.3	3.3	3	2.8
AWG 26	6	5	4.5	4	3.8	3.5	3.5
AWG 24	7	6	5.3	4.8	4.5	4	4
AWG 22	8.3	7	6.3	5.5	5.3	4.8	4.5
AWG 20	10	8.5	7.5	6.5	6.3	6	6
AWG 18	12.3	10.5	9.5	8	8	7.5	7.3
AWG 14-16	15	12	10.5	9	8.5	8	8

**Contacts**

Size	Wire range(AWG#)	Receptacle		Tab	
		Strip Form	Loose Form	Strip Form	Loose Form
S	24-28	<input type="checkbox"/> -175194- <input type="checkbox"/>	<input type="checkbox"/> -175216- <input type="checkbox"/>	<input type="checkbox"/> -175284- <input type="checkbox"/>	<input type="checkbox"/> -175287- <input type="checkbox"/>
S	24-28	<input type="checkbox"/> -2298107-1	2311162-1		
M	20-24	<input type="checkbox"/> -175195- <input type="checkbox"/>	<input type="checkbox"/> -175217- <input type="checkbox"/>	<input type="checkbox"/> -175285- <input type="checkbox"/>	<input type="checkbox"/> -175288- <input type="checkbox"/>
M	20-24	<input type="checkbox"/> -2298107-2	2311162-2		
L	16-20	<input type="checkbox"/> -175196- <input type="checkbox"/>	<input type="checkbox"/> -175218- <input type="checkbox"/>	<input type="checkbox"/> -175286- <input type="checkbox"/>	<input type="checkbox"/> -175289- <input type="checkbox"/>
L	16-20	<input type="checkbox"/> -2298107-3,8	2311162-3		
2L	14-16	<input type="checkbox"/> -917484- <input type="checkbox"/>	<input type="checkbox"/> -917511- <input type="checkbox"/>	<input type="checkbox"/> -917485- <input type="checkbox"/>	<input type="checkbox"/> -917512- <input type="checkbox"/>
2L	14-16	<input type="checkbox"/> -2298107-3,9	2311162-4		
3L	14-16	<input type="checkbox"/> -353715- <input type="checkbox"/>	<input type="checkbox"/> -353717- <input type="checkbox"/>	<input type="checkbox"/> -353716- <input type="checkbox"/>	<input type="checkbox"/> -353718- <input type="checkbox"/>
3L	14-16	<input type="checkbox"/> -2298107-5	2311162-5		

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**Constructional Data Form**

D-3100 Series (Single Row, 3.81mm Pitch)

Pos	Receptacle Housing	Tab Housing		Board-mounting Tab Header	
	Single Row	Panel Type	Free-hanging Type	Horizontal Type	Vertical Type
3	□-178288-□	□-178802-□	□-177648-□	□-178293-□	□-178313-□
4	□-178288-□			□-178294-□	□-178314-□
5	□-178288-□	□-178802-□	□-177648-□	□-178295-□	□-178315-□
5				□-177662-□	□-177665-□
6	□-178288-□			□-178296-□	□-178316-□
8	□-178288-□	□-178802-□	□-177648-□	□-178297-□	□-178317-□
8				□-179188-□	
10	□-178288-□	□-178802-□	□-177648-□	□-178298-□	□-178318-□

D-3100 Series (Single Row, 7.62mm Pitch)

Pos	Receptacle Housing	Tab Housing		Board-mounting Tab Header	
	Single Row	Panel Type	Free-hanging Type	Horizontal Type	Vertical Type
3					1-1903481-2

Note: The suffixes -0 to -9 and prefixes 0- to 9- denotes different body colors, keying and other variations not affecting the electrical or ,mechanical function of the devices.

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2020 July 30	<i>Tom Masuda</i>	<i>E. Ikematsu</i>
(Date)	(Signature)	(Stamp and Signature of Applicant)
	Tyco Electronics Japan G.K.	





**Constructional Data Form**

D-3100 Series (Double Row, 3.81 x 5.08 mm)

Pos	Receptacle Housing	Tab Housing		Board-mounting Tab Header	
	Double Row	Panel Type	Free-hanging Type	Horizontal Type	Vertical Type
6	<input type="checkbox"/> -178289- <input type="checkbox"/>	<input type="checkbox"/> -178803- <input type="checkbox"/>	<input type="checkbox"/> -178964- <input type="checkbox"/>	<input type="checkbox"/> -178303- <input type="checkbox"/>	<input type="checkbox"/> -178323- <input type="checkbox"/>
8	<input type="checkbox"/> 178289- <input type="checkbox"/>		<input type="checkbox"/> -178964- <input type="checkbox"/>	<input type="checkbox"/> -1717412- <input type="checkbox"/>	<input type="checkbox"/> 1903601- <input type="checkbox"/>
10	<input type="checkbox"/> -178289- <input type="checkbox"/>	<input type="checkbox"/> -178803- <input type="checkbox"/>	<input type="checkbox"/> -178964- <input type="checkbox"/>	<input type="checkbox"/> -178305- <input type="checkbox"/>	<input type="checkbox"/> -178325- <input type="checkbox"/>
12	<input type="checkbox"/> -178289- <input type="checkbox"/>	<input type="checkbox"/> -178803- <input type="checkbox"/>	<input type="checkbox"/> -178964- <input type="checkbox"/>	<input type="checkbox"/> -178306- <input type="checkbox"/>	<input type="checkbox"/> -178326- <input type="checkbox"/>
16	<input type="checkbox"/> -178289- <input type="checkbox"/>	<input type="checkbox"/> -178803- <input type="checkbox"/>	<input type="checkbox"/> -178964- <input type="checkbox"/>	<input type="checkbox"/> -178307- <input type="checkbox"/>	<input type="checkbox"/> -178327- <input type="checkbox"/>
16	<input type="checkbox"/> -1674157- <input type="checkbox"/>				
16	<input type="checkbox"/> -2069459- <input type="checkbox"/>				
16	<input type="checkbox"/> -2334697- <input type="checkbox"/>				
20	<input type="checkbox"/> -178289- <input type="checkbox"/>	<input type="checkbox"/> -178803- <input type="checkbox"/>	<input type="checkbox"/> -178964- <input type="checkbox"/>	<input type="checkbox"/> -178308- <input type="checkbox"/>	<input type="checkbox"/> -178328- <input type="checkbox"/>

Note: The suffixes -0 to -9 and prefixes 0- to 9- denotes different body colors, keying and other variations not affecting the electrical or ,mechanical function of the devices.

D-3100 Series (Double Row, 3.81 x 7.62 mm)

Pos	Receptacle Housing	Tab Housing		Board-mounting Tab Header	
	Double Row	Panel Type	Free-hanging Type	Horizontal Type	Vertical Type
6	<input type="checkbox"/> -178127- <input type="checkbox"/>			<input type="checkbox"/> -178137- <input type="checkbox"/>	<input type="checkbox"/> -178141- <input type="checkbox"/>

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(Date)

*E. Ikematsu*



**Constructional Data Form**

D-3200 Series (Single Row, 5.08mm Pitch)

Pos	Receptacle Housing	Tab Housing		Board-mounting Tab Header	
	Single Row	Panel Type	Free-hanging Type	Horizontal Type	Vertical Type
2	<input type="checkbox"/> -178128- <input type="checkbox"/>	<input type="checkbox"/> -179553- <input type="checkbox"/>	<input type="checkbox"/> -179552- <input type="checkbox"/>	<input type="checkbox"/> -179276- <input type="checkbox"/>	<input type="checkbox"/> -917337- <input type="checkbox"/>
3	<input type="checkbox"/> -178128- <input type="checkbox"/>	<input type="checkbox"/> -179553- <input type="checkbox"/>	<input type="checkbox"/> -179552- <input type="checkbox"/>	<input type="checkbox"/> -178138- <input type="checkbox"/>	<input type="checkbox"/> -178136- <input type="checkbox"/>
3	<input type="checkbox"/> -1565878- <input type="checkbox"/>			<input type="checkbox"/> -917389- <input type="checkbox"/>	
4	<input type="checkbox"/> -178128- <input type="checkbox"/>	<input type="checkbox"/> -179553- <input type="checkbox"/>	<input type="checkbox"/> -179552- <input type="checkbox"/>	<input type="checkbox"/> -179277- <input type="checkbox"/>	<input type="checkbox"/> -917338- <input type="checkbox"/>
5	<input type="checkbox"/> -178128- <input type="checkbox"/>			<input type="checkbox"/> -316130- <input type="checkbox"/>	<input type="checkbox"/> -316132- <input type="checkbox"/>
6	<input type="checkbox"/> -178128- <input type="checkbox"/>			<input type="checkbox"/> -316131- <input type="checkbox"/>	<input type="checkbox"/> -316133- <input type="checkbox"/>



D-3200 Series (Double Row, 5.08 x 7.62 mm))

Pos	Receptacle Housing	Tab Housing		Board-mounting Tab Header	
	Double Row	Panel Type	Free-hanging Type	Horizontal Type	Vertical Type
4	<input type="checkbox"/> -2291727- <input type="checkbox"/>			<input type="checkbox"/> -2299004- <input type="checkbox"/>	
4	<input type="checkbox"/> -2303376- <input type="checkbox"/>				
6	<input type="checkbox"/> -178129- <input type="checkbox"/>	<input type="checkbox"/> -179555- <input type="checkbox"/>	<input type="checkbox"/> -179554- <input type="checkbox"/>	<input type="checkbox"/> -178139- <input type="checkbox"/>	<input type="checkbox"/> -178140- <input type="checkbox"/>
6	<input type="checkbox"/> -177893- <input type="checkbox"/>				
6	<input type="checkbox"/> -917266- <input type="checkbox"/>				
10	<input type="checkbox"/> -917659- <input type="checkbox"/>			<input type="checkbox"/> -316080- <input type="checkbox"/>	<input type="checkbox"/> -917657- <input type="checkbox"/>
12	<input type="checkbox"/> -917659- <input type="checkbox"/>	<input type="checkbox"/> -179555- <input type="checkbox"/>	<input type="checkbox"/> -179554- <input type="checkbox"/>	<input type="checkbox"/> -316081- <input type="checkbox"/>	<input type="checkbox"/> -917658- <input type="checkbox"/>
12	<input type="checkbox"/> -2291728- <input type="checkbox"/>			<input type="checkbox"/> -2299005- <input type="checkbox"/>	
12	<input type="checkbox"/> -2303378- <input type="checkbox"/>				
20	<input type="checkbox"/> -917659- <input type="checkbox"/>	<input type="checkbox"/> -179555- <input type="checkbox"/>			

D-3200 Series (3 Row, 5.08 x 7.62 mm))

Pos	Receptacle Housing	Tab Housing		Board-mounting Tab Header	
	3 Row	Panel Type	Free-hanging Type	Horizontal Type	Vertical Type
9				<input type="checkbox"/> -1123624- <input type="checkbox"/>	

Note: The suffixes -0 to -9 and prefixes 0- to 9- denotes different body colors, keying and other variations not affecting the electrical or ,mechanical function of the devices.

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		Tyco Electronics Japan G.K. (Stamp and Signature of Applicant)	



**Constructional Data Form**

D-3400 Series (3 Row, 3.81 x 5.08 mm))

Pos	Receptacle Housing	Tab Housing		Board-mounting Tab Header	
	3 Row	Panel Type	Free-hanging Type	Horizontal Type	Vertical Type
12	<input type="checkbox"/> -178214- <input type="checkbox"/>			<input type="checkbox"/> -178216- <input type="checkbox"/>	
20	<input type="checkbox"/> -917249- <input type="checkbox"/>			<input type="checkbox"/> -917251- <input type="checkbox"/>	

Note: The suffixes -0 to -9 and prefixes 0- to 9- denotes different body colors, keying and other variations not affecting the electrical or ,mechanical function of the devices.

D-3500 Series (3 Row, 5.08 x 5.08 mm))

Pos	Receptacle Housing	Tab Housing		Board-mounting Tab Header	
	Double Row	Panel Type	Free-hanging Type	Horizontal Type	Vertical Type
2	<input type="checkbox"/> -175362- <input type="checkbox"/>				
4	<input type="checkbox"/> -175363- <input type="checkbox"/>			<input type="checkbox"/> -1376133- <input type="checkbox"/>	
6	<input type="checkbox"/> -1318095- <input type="checkbox"/>				
12		<input type="checkbox"/> -917241- <input type="checkbox"/>	<input type="checkbox"/> -917242- <input type="checkbox"/>	<input type="checkbox"/> -177555- <input type="checkbox"/>	<input type="checkbox"/> -316516- <input type="checkbox"/>
20		<input type="checkbox"/> -917241- <input type="checkbox"/>	<input type="checkbox"/> -917242- <input type="checkbox"/>	<input type="checkbox"/> -175365- <input type="checkbox"/>	<input type="checkbox"/> -316517- <input type="checkbox"/>

Note: The suffixes -0 to -9 and prefixes 0- to 9- denotes different body colors, keying and other variations not affecting the electrical or ,mechanical function of the devices.

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