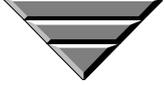


**NEW**  
**VG95234 Qualified Circular Waterproof Connector**  
One-touch Bayonet Locking System / Panel-to-Wire / Crimp Connection Type

CONNECTOR

MB-0285-3

January 2016

# JK06 Series



The JK06 Series is a waterproof circular connector developed for railway vehicles and related electronic equipment worldwide.

The JK06 Series is designed in accordance with the VG95234 specifications and also compliant with NFF61-030 (French standard for rolling stock) and EN50467 (European standard for railway applications, rolling stock).

The JK06 Series is also ideally suited for use in other industrial equipment applications that require a rugged and secure connection.

Features
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■ Mechanical designs are VG95234<sup>(Note 1)</sup> specification compliant

Note 1: VG95234 is the German circular connector specification  
VG95234 connectors are popular for railway vehicles in Europe

- Mating type is a bayonet locking system
- Contact arrangement is compatible with MIL-DTL-5015
- Intermates with other products that are compliant to the same standards

■ Protection rating is IP67 equivalent when mated (no inundation when underwater 1m for 24 hours)

■ Function and performance are compliant with the following standards:

EN45545-2 (2013)	European standards: railway applications, fire protection on railway vehicles, requirements for fire behavior of materials and components
EN50467 (2011)	European standards: railway applications, rolling stock electrical connectors, requirements and test methods
NFF16-101 (1988)	French standards: railway rolling stock, burning behavior, choice of materials
NFF16-102 (1992)	
NFF61-030 (1992)	French standards: rolling stock, electrical connectors, general
BS6853 (1999)	British standards: code of practice for fire precautions in the design and construction of passenger carrying trains

Year shown in the parentheses is the issue year (version)

■ Compatible with conduit

- Plug is compatible with conduit harness assembly by attaching the conduit adapter manufactured by PMA

■ Materials selected with ecological consideration

- Compliant with RoHS directive
- Halogen-free plastic parts

General Specifications
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	Item	Defined Value	Standard (Paragraph Number)
Electrical Performance	Dielectric Withstanding Voltage	A.C.2550Vrms	NFF61-030 (11.3.1)
	Maximum Rated Current	Whole Connector: 63.1A (10 pos.), 96.2A (37 pos.), 124.8A (48 pos.) Individual Connector: 13A	NFF61-030 (11.3.5)
	Insulation Resistance	5000MΩ min.	NFF61-030 (11.3.2)
	Contact Resistance	2.5mΩ max.	NFF61-030 (11.3.3)

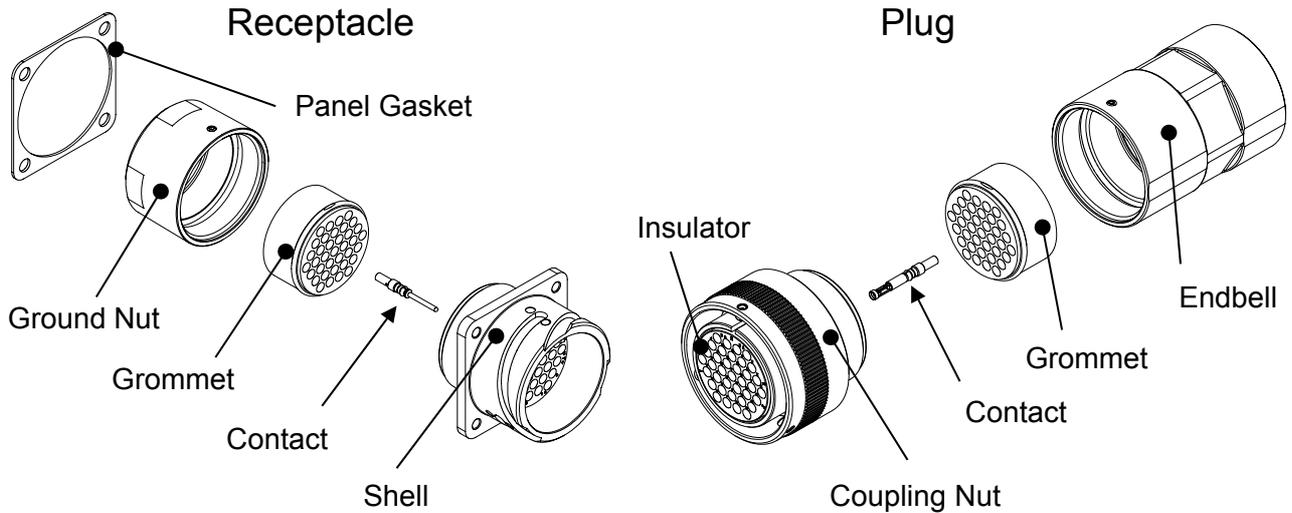
	Item	Meets Function and Performance At Below Test Conditions	Standards for Reference (Paragraph Number)
Environmental Resistance	High-temperature High-humidity Test	Temperature: 40 Deg. C Relative humidity: 95% Applied period of time: 21 days	NFF61-030 (11.4.1)
	Sine Wave Vibration	Frequency: 10 ~ 100Hz Acceleration: 19.6m/s <sup>2</sup> Period of time: 15 minutes / cycle (10 → 100 → 10Hz) 2 hours for each axis, 4 hours total	NFF61-030 (11.5.2)
	Vibration Durability	Random vibration, applied to each axis for 5h x 3 axis Acceleration of Vertical vibration: 7.9m/s <sup>2</sup> Horizontal vibration: 3.5m/s <sup>2</sup> Longitudinal vibration: 5.5m/s <sup>2</sup>	EN61373 (EN50467 6.16)
	Waterproof (When Mated)	IP67 minimum	IEC60529
	Heat Shock (Heat Cycle)	Temperature range: -40 Deg. C ~ +100 Deg. C, 5 Cycles	NFF61-030 (11.4.2)
	Mating Durability	Mating cycles: 500 times	NFF61-030 (11.6.1)
	Corrosion (Salt Spray)	Saltwater concentration: 5% Test tank temperature: 35 Deg. C Exposure time: 500h	NFF61-030 (11.4.3)
	Shock Resistance	Impact strength: 294m/s <sup>2</sup> Semi-sine wave 18msec	NFF61-030 (11.5.1)
	High Temperature Resistance	Temperature: 125 Deg. C Exposure time: 96h	NFF61-030 (11.6.2)
	Ozone Resistance	Concentration: 200 ± 20pphm Exposure time: 24h	NFF61-030 (11.4.6)

• Please refer to the below documents for specifications and handling instructions.

Specifications JACS-50103

Handling Instructions JAHL-50103

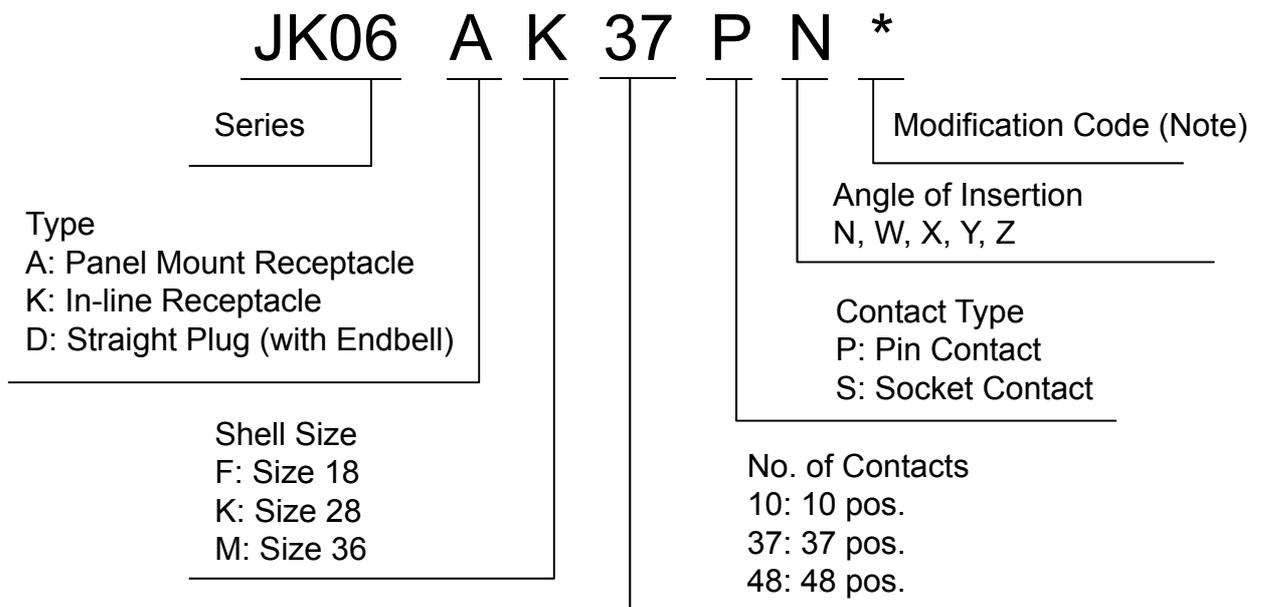
Component Parts



Materials and Finishes

Main Components	Material and Finish
Insulator	Synthetic plastic
Shell, coupling nut, endbell, ground nut	Aluminum alloy / zinc plating
Grommet, panel gasket, interfacial seal	Synthetic rubber
Contact	Copper alloy / Ag plating

Ordering Information



Note: The modification code is an alphanumeric character indicating product specifications. For more information please refer to product drawing or Ordering Information section of this document.

## Ordering Information

Shell Size	Number of Contacts	Type	Part Number	Contact	Insertion Angle	Drawing Number	Applicable Conductor Cross-sectional Area	
18	10	Panel Mount Receptacle	JK06AF10PN1	Pin	N	SJ116182	1.25mm <sup>2</sup> ~2.0mm <sup>2</sup>	
			JK06AF10PW1		W			
			JK06AF10PX1		X			
			JK06AF10PY1		Y			
			JK06AF10PZ1		Z			
		Plug	JK06DF10SN1	Socket	N	SJ116183		1.25mm <sup>2</sup> ~2.0mm <sup>2</sup>
			JK06DF10SW1		W			
			JK06DF10SX1		X			
			JK06DF10SY1		Y			
			JK06DF10SZ1		Z			
		Plug (Short-type Endbell)	JK06DF10SN2	Socket	N	SJ116184		1.25mm <sup>2</sup> ~2.0mm <sup>2</sup>
			JK06DF10SW2		W			
			JK06DF10SX2		X			
			JK06DF10SY2		Y			
			JK06DF10SZ2		Z			
	28	37	Panel Mount Receptacle	JK06AK37PN1	Pin	N	SJ114014	1.25mm <sup>2</sup> ~2.0mm <sup>2</sup>
				JK06AK37PW1		W		
				JK06AK37PX1		X		
JK06AK37PY1				Y				
JK06AK37PZ1				Z				
In-line Receptacle			JK06KK37PN1	Pin	N	SJ116272	1.25mm <sup>2</sup> ~2.0mm <sup>2</sup>	
			JK06KK37PW1		W			
			JK06KK37PX1		X			
			JK06KK37PY1		Y			
			JK06KK37PZ1		Z			
Plug			JK06DK37SN1	Socket	N	SJ114015	1.25mm <sup>2</sup> ~2.0mm <sup>2</sup>	
			JK06DK37SW1		W			
			JK06DK37SX1		X			
			JK06DK37SY1		Y			
			JK06DK37SZ1		Z			
Plug		JK06DK37SN2	Socket	N	SJ115734	1.5mm <sup>2</sup> ~2.5mm <sup>2</sup>		
		JK06DK37SW2		W				
		JK06DK37SX2		X				
		JK06DK37SY2		Y				
		JK06DK37SZ2		Z				

Ordering Information
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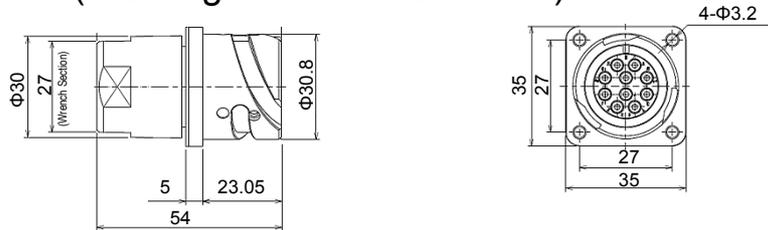
Shell Size	Number of Contacts	Type	Part Number	Contact	Insertion Angle	Drawing Number	Applicable Conductor Cross-sectional Area
36	48	Panel Mount Receptacle	JK06AM48PN1	Pin	N	SJ116185	1.25mm <sup>2</sup> ~2.0mm <sup>2</sup>
			JK06AM48PW1		W		
			JK06AM48PX1		X		
			JK06AM48PY1		Y		
			JK06AM48PZ1		Z		
		Plug	JK06DM48SN1	Socket	N	SJ116186	1.25mm <sup>2</sup> ~2.0mm <sup>2</sup>
			JK06DM48SW1		W		
			JK06DM48SX1		X		
			JK06DM48SY1		Y		
			JK06DM48SZ1		Z		
		Plug (Short-type Endbell)	JK06DM48SN2	Socket	N	SJ116187	1.25mm <sup>2</sup> ~2.0mm <sup>2</sup>
			JK06DM48SW2		W		
			JK06DM48SX2		X		
			JK06DM48SY2		Y		
			JK06DM48SZ2		Z		

JK06 contact insert arrangements are compliant with MIL-DTL-5015 standard. Please refer to product drawings of each product for further information on insert arrangements and angular position of the contact inserts.

Outer Information

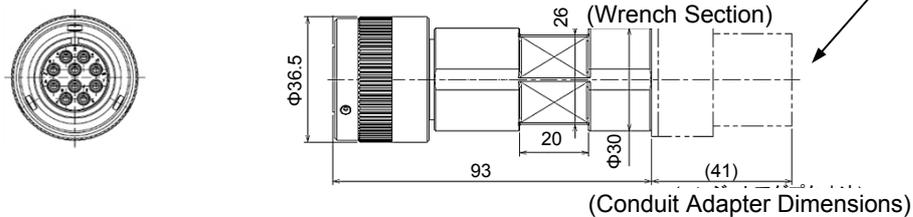
Outer shape and dimensions are for reference only, please refer to part drawing for further product information. (Unit: mm)

■Size 18, 10 position Panel Mount Receptacle  
JK06AF10P\*1 (Drawing Number: SJ116182)



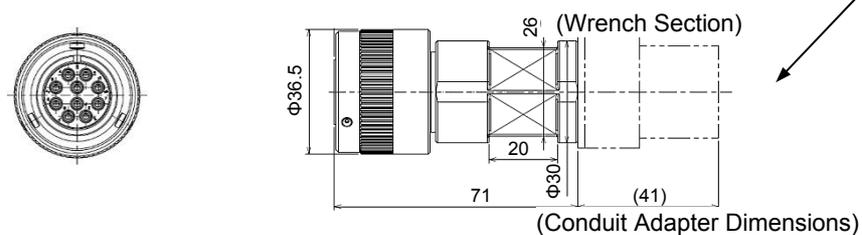
■Size 18, 10 position Plug (Conduit Compatible Type)  
JK06DF10S\*1 (Drawing Number: SJ116183)

Connected to conduit by attaching PMA conduit adapter



JK06DF10S\*2 (Drawing Number: SJ116184)  
(Short Endbell Type)

Connected to conduit by attaching PMA conduit adapter



Applicable Conduit Adapter

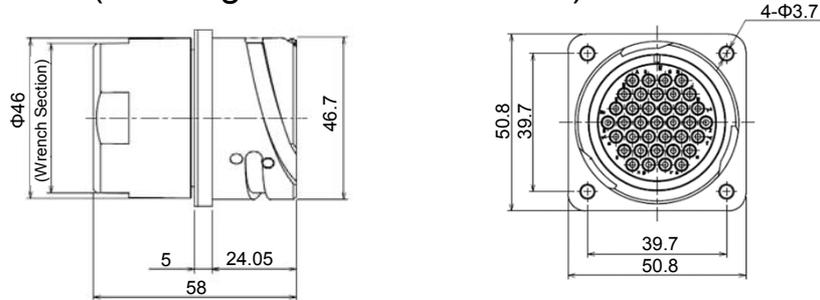
PMA made product Part Number: BVNV-M207 SVN-V-M207 NVNV-M207 MVNV-M207

Please contact PMA import agent Captain Industries, Inc. (URL: <http://www.capind.co.jp>) for more information concerning PMA conduit adapter.

Outer Information

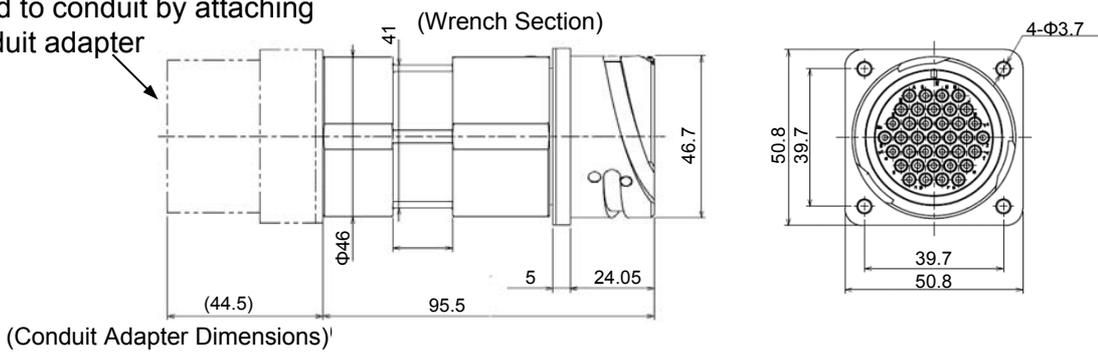
Outer shape and dimensions are for reference only, please refer to part drawings for further product information. (Unit: mm)

■Size 28, 37 position Panel Mount Receptacle  
JK06AK37P\*1 (Drawing Number: SJ114014)



■Size 28, 37 position In-line Receptacle (Conduit Compatible Type)  
JK06KK37P\*1 (Drawing Number: SJ116272)

Connected to conduit by attaching  
PMA conduit adapter

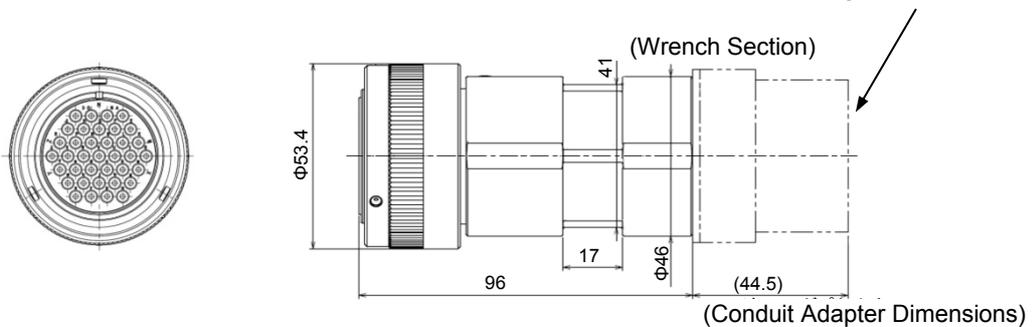


Applicable Condit Adapter

PMA made product Part Number: BVNV-P299 SVN-V-P299 NVNV-P299 MVNV-P299

■Size 28, 37 position Plug (Conduit Compatible Type)  
JK06DK37S\*1 (Drawing Number: SJ114015)  
JK06DK37S\*2 (Drawing Number: SJ115734)

Connected to conduit by  
attaching PMA conduit adapter



Applicable Condit Adapter

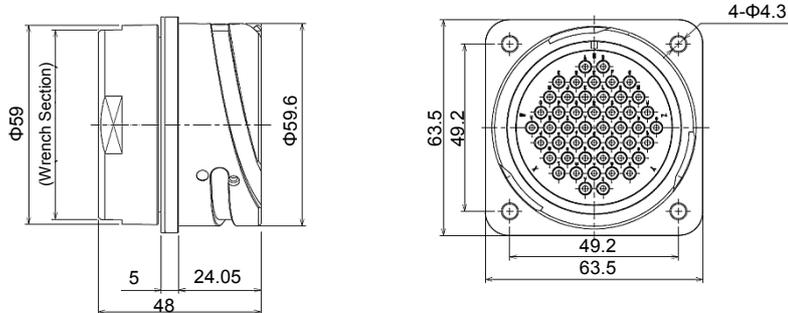
PMA made product Part Number: BVNV-P299 SVN-V-P299 NVNV-P299 MVNV-P299

Please contact PMA import agent Captain Industries, Inc. (URL: <http://www.capind.co.jp>) for more information concerning PMA conduit adapter.

**Outer Information**

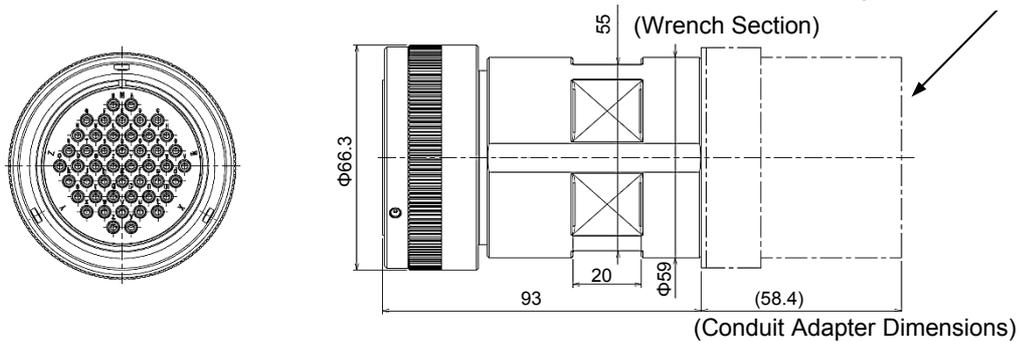
Outer shape and dimensions are for reference only, please refer to part drawings for further product information. (Unit: mm)

■ Size 36, 48 position Panel Mount Receptacle  
JK06AM48P\*1 (Drawing Number: SJ116185)



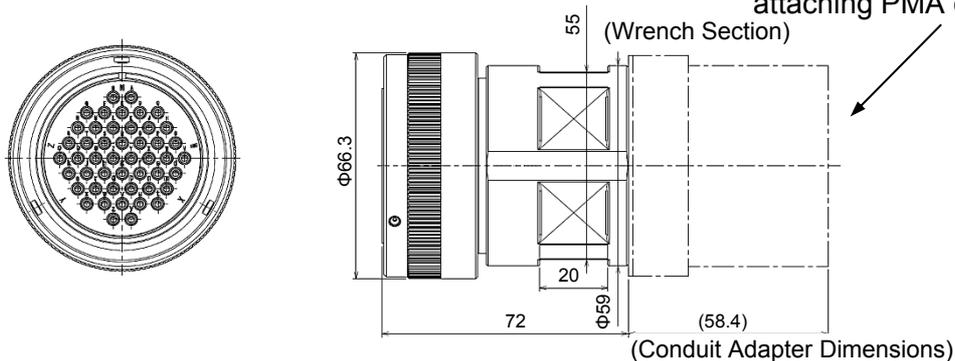
■ Size 36, 48 position (Conduit Compatible Type)  
JK06DM48S\*1 (Drawing Number: SJ116186)

Connected to conduit by attaching PMA conduit adapter



JK06DM48S\*2 (Drawing Number: SJ116187)  
(Short Endbell Type)

Connected to conduit by attaching PMA conduit adapter



Applicable Condit Adapter

PMA made product Part Number: BVNV-M506 SVN-V-M506 BVNV-M508 SVN-V-M508  
NVNV-M506-9 (or 14) MVNV-M506-9 (or 14)  
NVNV-M508-9 (or 14) MVNV-M508-9 (or 14)

Please contact PMA import agent Captain Industries, Inc. (URL: <http://www.capind.co.jp>) for more information concerning PMA conduit adapter.

## Applicable Contacts

### ■ Crimp Contacts

Contact	Part Number	Packaging	Drawing Number	Applicable Conductor Cross-sectional Area
Pin Contact	J031-57179-PKG10	10 pcs.	SJ115738	1.25mm <sup>2</sup> ~2.0mm <sup>2</sup>
Socket Contact	J031-57180-PKG10	10 pcs.	SJ115739	
Socket Contact	J031-57294-PKG10	10 pcs.	SJ115740	1.5mm <sup>2</sup> ~2.5mm <sup>2</sup>

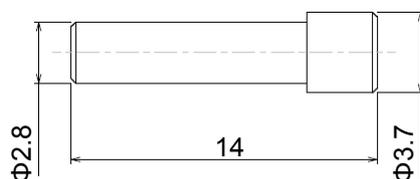
## Accessories

Outer shape and dimensions are for reference only, please refer to part drawings for further product information. (Unit: mm)

### ■ Sealing Plug

Used to seal the unused grommet holes in the insert for waterproof performance.

Part Number: J225-50124 (Drawing Number: SJ115429)



## Tools

Hand crimp tool and contact extraction tool is the same as for the GTC Series.

Hand Crimp Tool		Contact Extraction Tool
Main Body	Locator	
M22520/1-01	JP-GTC-16	JET-GTC-16

\*For RoHS compliance information concerning the tools, please consult us.

### Notice:

- The values specified in this brochure are only for reference. The products and their specifications are subject to change without notice. Contact our sales staff for further information before considering or ordering any of our products. For purchase, a product specification must be agreed upon.
- Users are requested to provide protection circuits and redundancy circuits to ensure safety of the equipment, and sufficiently review the suitability of JAE's products to the equipment.
- The products presented in this brochure are designed for the uses recommended below. We strongly suggest you contact our sales staff when considering use of any of the products in any other way than the recommended applications or for a specific use that requires an extremely high reliability.
  - Applications that require consultation:
    - Please contact us if you are considering use involving a quality assurance program that you specify or that is peculiar to the industry, such as:  
Automotive electrical components, train control, telecommunications devices (mainline), traffic light control, electric power, combustion control, fire prevention or security systems, disaster prevention equipment, etc.
    - We may separately give you our support with a quality assurance program that you specify, when you think of a use such as:  
Aviation or space equipment, submarine repeaters, nuclear power control systems, medical equipment for life support, etc.
  - Recommended applications include:  
Computers, office appliances, telecommunications devices (terminals, mobile units), measuring equipment, audiovisual equipment, home electric appliances, factory automation equipment, etc.

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\* The specifications in this brochure are subject to change without notice. Please contact JAE for information.