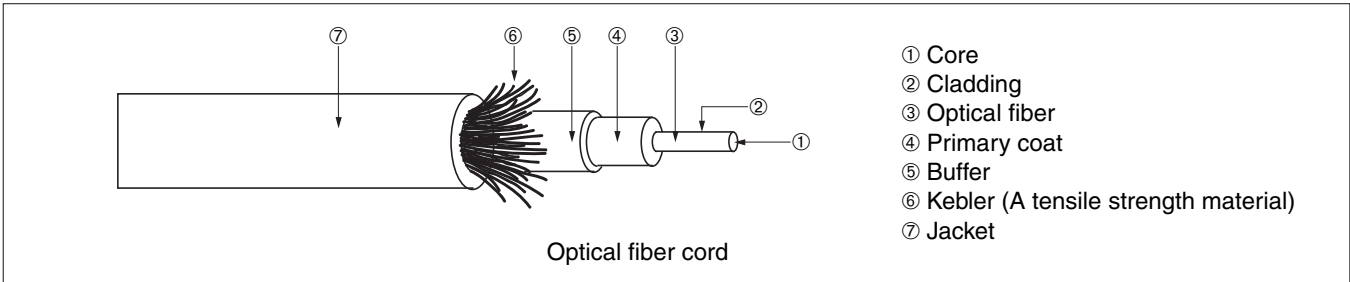


Optical Fiber Cords

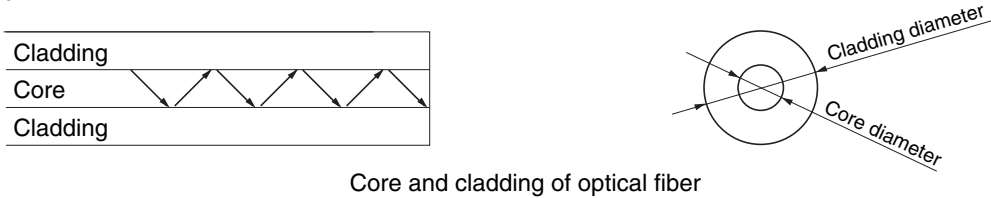
An Example of the Constructions of Optical Fiber Cords

An optical fiber cord is constructed by covering the optical fiber core with the buffer around the optical fiber being covered with the primary coat as illustrated below. Also, this optical fiber core is provided with Kevlar fiber reinforced plastic (a tensile strength material) being covered with the jacket around.



Sort of Optical Fibers

An optical fiber consists of a core and a cladding. Light passes through the core while it is being reflected by the cladding as illustrated below.



The optical fiber modes are shown in the following figures.

Item Number	Single Mode (SM)	Multi Mode (MM)	
		Graded Index (GI)	Step Index (SI)
Sketch			
	Cladding Core	Cladding Core	Cladding Core

Wavelengths commonly used as light source for silica optical fiber are 0.85, 1.31, or 1.55 μm .

Categorized by mode and wavelength, the optical fiber can be shown as follows.

Name	Mode	Core Diameter / Cladding Diameter [μm]	Wavelength [μm]	Typical Jacket Color
1.31 μm Single mode optical fiber	Single mode	10/125	1.31	Yellow
1.55 μm Single mode optical fiber		8/125	1.55	Orange
Graded index optical fiber	Multi mode Graded index	50/125	1.31	Blue
Step index optical fiber	Multi mode Step index	100/140	0.85	Uncertain

Sort of the Constructions of Optical Fiber Cords

The secondary sheath diameters are sorted into $\varnothing 2\text{mm}$ and $\varnothing 2.8\text{mm}$.
 Certain cores are not covered with the secondary sheath.

Sort of the constructions of optical fiber cords

Name	Outside Diameter [mm]	Primary Coat	Buffer	Jacket
$\varnothing 2$ optical fiber cord	$\varnothing 2$	X	Nylon resin etc.	X
$\varnothing 2.8$ optical fiber cord	$\varnothing 2.8$			
$\varnothing 0.9$ buffered fiber	$\varnothing 0.9$			—
Ultraviolet hardened buffered fiber	$\varnothing 0.4, \varnothing 0.25$			

X : Correspond

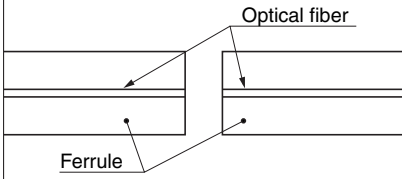
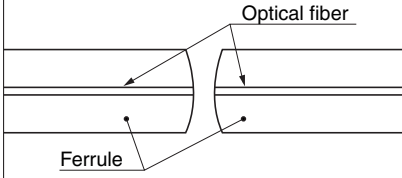
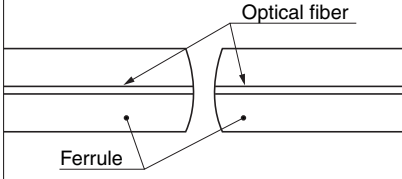
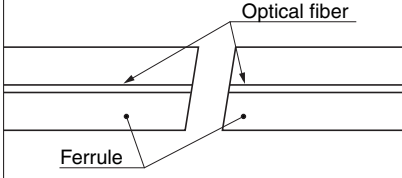
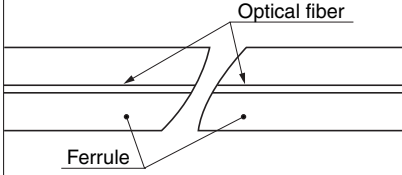
Optical Fiber Connectors

Optical fibers can be connected to each other by the permanent connection method or removable connector connection method. The optical fiber connection is subjected to various connection loss factors, such as the axial misalignment of fibers, angular deviations, space deviations, incomplete end faces, etc. Optical fiber connectors are required to have highly precise sizes to coincide the optical fiber cores with each other accurately. Optical fiber connectors are indispensable for connecting between optical fibers and various devices as the components of optical communication systems.

●Major polishing of optical fiber connectors

The standard values of the insertion loss and return loss depend upon the polishing and mode.

(Note: Indicates the standard values at one end)

No.	Polishing shape	Drawing	Specifications			
			Insertion loss		Return loss	
			Single mode	Multi mode Graded Index	Single mode	Multi mode Graded Index
1	Flat polishing		1.0dB or less	0.6dB or less	—	—
2	PC polishing (R20 convex sphere polishing)		0.5dB or less	0.3dB or less	22dB or more	22dB or more
3	AdPC polishing (Advanced PC polishing)		0.5dB or less	0.3dB or less	40dB or more	—
4	Angled polishing		—	—	—	—
5	Angled PC polishing		0.5dB or less	—	57dB or more	—

Major Specifications

No.	Test items		Requirements (See Note #1, #2)	Test method (See Note #2) Refer to JIS C 5961 : 2005
1	Optical performance	Insertion Loss	<ul style="list-style-type: none"> ● Plug Single mode AdPC, PC polishing: 0.5dB or less Multi mode Graded index PC polishing: 0.3dB or less ● Adaptor : 0.3dB or less 	§7.1
2		Return Loss	<ul style="list-style-type: none"> ● AdPC polishing : 40dB or more PC polishing : 22dB or more 	§7.2
3	Mechanical performance	Repetitive Operation (Repetitive mounting and removal)	<ul style="list-style-type: none"> ● Shall satisfy the requirements about the Insertion Loss and Return Loss after test. ● No mechanical damage 	§8.3 Operation times : 500times
4		Resistance to Vibration	<ul style="list-style-type: none"> ● Shall satisfy the requirements about the Insertion Loss and Return Loss after test. ● No mechanical damage 	§8.1 Frequency : 10~55Hz Single amplitude : 0.75mm Cycle times : 24 Direction : 3directions
5		Resistance to Shock		§8.2 Peak acceleration : 981m/s ² Direction : 3directions 5times each
6	Environmental performance	Change of Temperature	<ul style="list-style-type: none"> ● Shall satisfy the requirements about the Insertion Loss and Return Loss after test. ● No mechanical damage 	§9.2 Temperature : -25~70°C Duration : 1.5H/cyc
7		Resistance to damp heat (Cyclic)		§9.4 Temperature : -10~65°C Humidity : 93±3% Duration : 24H/cyc Cycle times: 10
8		Resistance to Dry Heat		§9.5 Temperature : 85°C Duration : 240H
9		Resistance to Cold		§9.6 Temperature : -25°C Duration : 240H

Note 1: The Insertion Loss and Return Loss depend upon the modes and polishing methods.

Note 2: Certain products don't always conform to these requirements or testing methods.

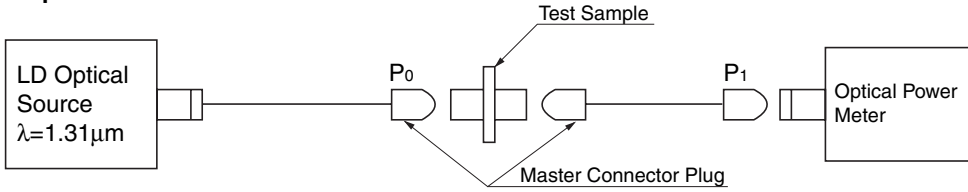
Note 3: Certain products may also be tested by test items other than specified above.

Measurement of Insertion Loss and Return Loss

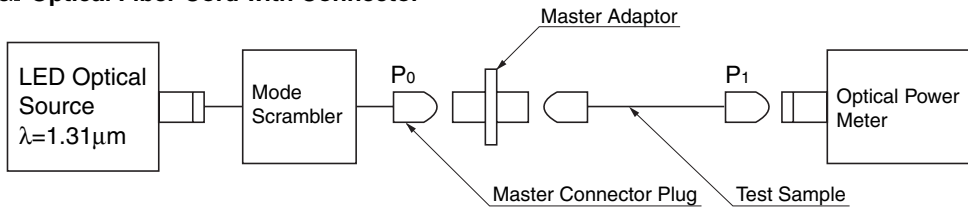
● Insertion Loss

$$\text{Insertion Loss [dB]} = -10 \log \frac{P_1}{P_0}$$

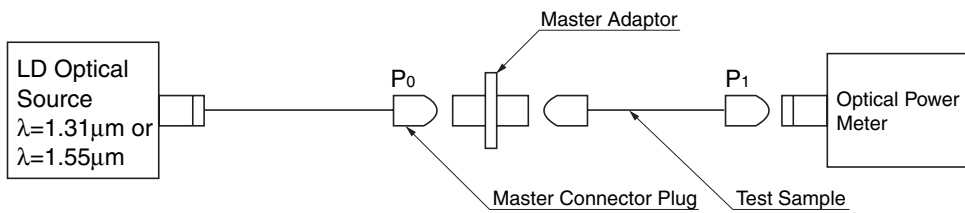
① Adaptor



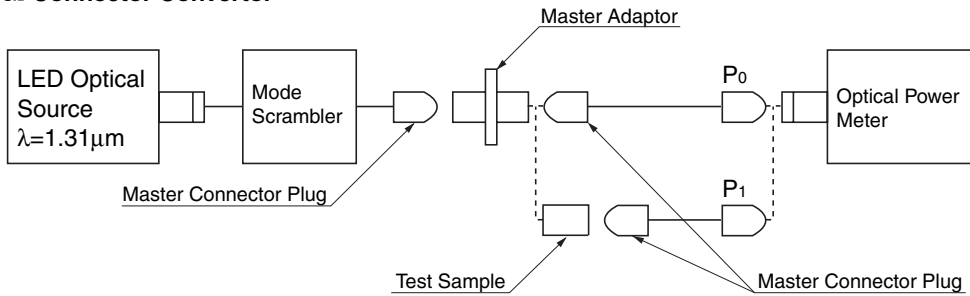
② GI Optical Fiber Cord with Connector



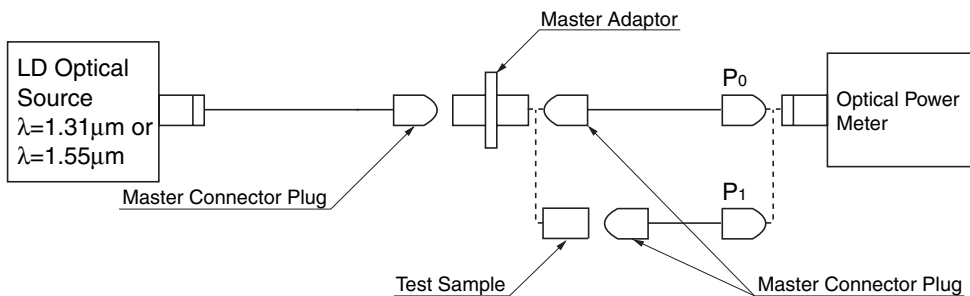
③ SM, 1.55SM Optical Fiber Cord with Connector



④ GI Connector Convertor



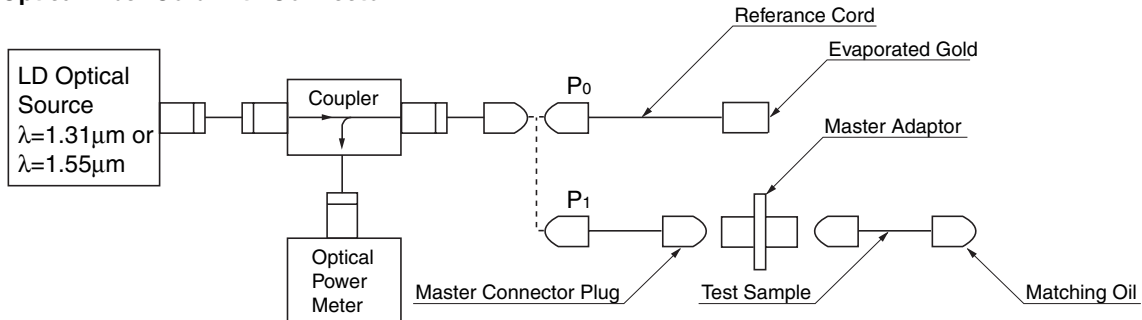
⑤ SM Connector Convertor



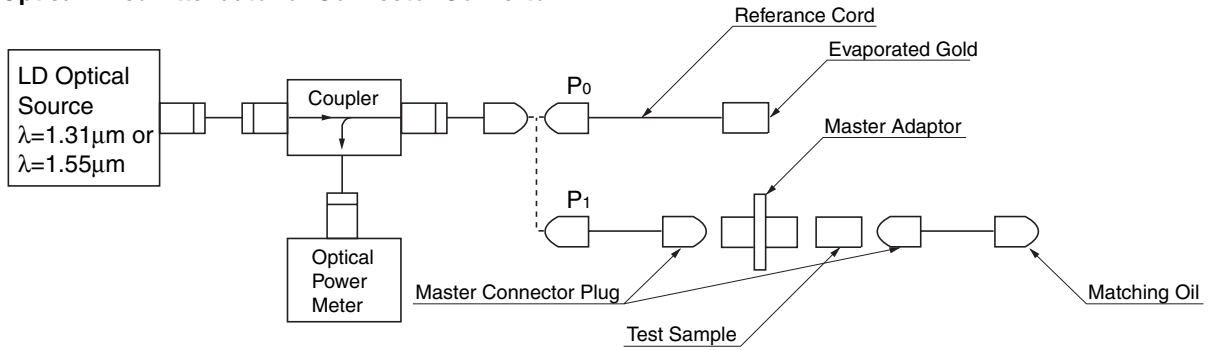
●Return Loss

$$\text{Return Loss [dB]} = -10\text{Log} \frac{P_1}{P_0}$$

① Optical Fiber Cord with Connector



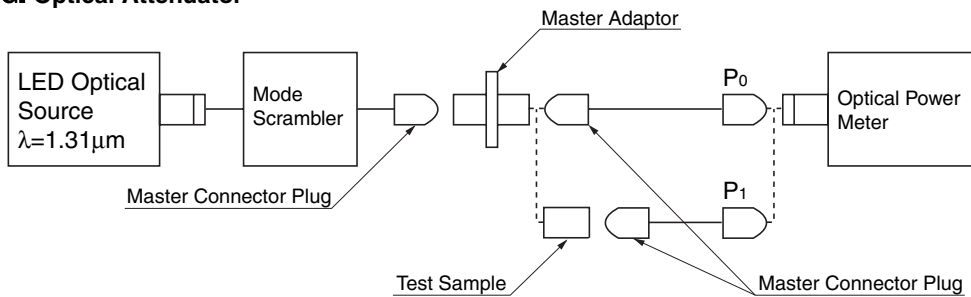
② Optical Fixed Attenuator or Connector Converter



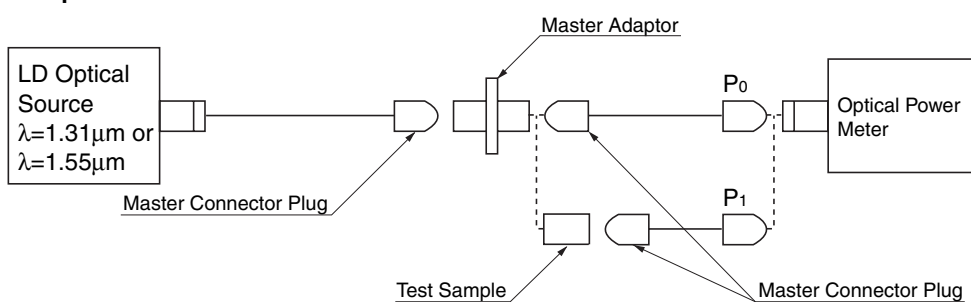
●Attenuation of Optical Fixed Attenuator

$$\text{Attenuation [dB]} = -10\text{Log} \frac{P_1}{P_0}$$

① GI Optical Attenuator



② SM Optical Fixed Attenuator



FC-type Optical Fiber Connector
LGC-100 series

Optical fiber connector

FC-type

JIS C 5970 F01 type

Each FC-type plug consists of a plug and adaptor. It is a connector of the screw lock type.



- ① Plug (with ferrule)
- ② Adaptor
- ③ Receptacle
- ④ Terminator

●Specifications

Items	Requirements	Actual Value (Average)
Insertion Loss	Single Mode : 0.5dB or less	0.2dB
	Multi Mode Graded Index: 0.3dB or less	0.1dB
Return Loss	Single Mode (AdPC polishing) : 40dB or more	50dB
	Single Mode (PC polishing) : 22dB or more	30dB
	Multi Mode Graded Index (PC polishing) : 22dB or more	29dB

FC-type Plug LGC-100 series

Optical fiber connector

FC-type

JIS C 5970 F01 type


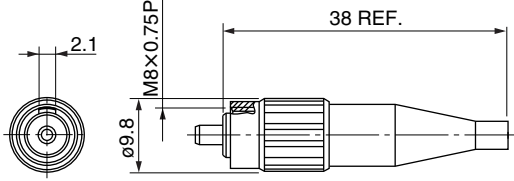
Plug

Each FC-type plug consists of a plug housing and a ferrule.


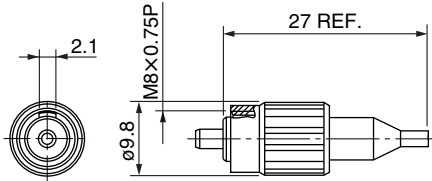
FC-type Plug Housing

Applicable to optical cords having on outside diameter of $\phi 2$ or $\phi 2.8$ mm and $\phi 0.9$ mm. For boot colors, please contact us for those other than specified below. A cap is attached.

●Applicable to Optical Cords having on Outside Diameter of $\phi 2$ or $\phi 2.8$ mm


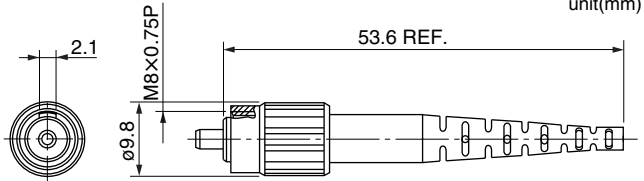
Item Number	Applicable Outside Diameter of Optical fiber cords	Note
LGC-PH2+R	$\phi 2$ mm	(Boot color : Black)
LGC-PH+R	$\phi 2.8$ mm	
		 <p>unit(mm)</p> <p>RoHS Ferrule is excluded.</p>

●Applicable to Optical Cords having on Outside Diameter of $\phi 0.9$ mm (Buffered Fiber)

Item Number	Applicable Outside Diameter of Optical fiber cords	Note
LGC-PH3B+R	$\phi 0.9$ mm	For PC polishing (Boot color : Blue)
LGC-PH3L+R		For AdPC polishing (Boot color : Mauve)
LGC-PH3+R		For AdPC polishing (Boot color : Yellow)
		 <p>unit(mm)</p> <p>RoHS Ferrule is excluded.</p>

●Crimp Assembly type

This type is assembled by caulking the kevlar and sheath of the optical fiber cord to the plug housing in the same way as in SC-type plug.

Item Number	Applicable Outside Diameter of Optical fiber cords	Note
LGC-PH5B+R	$\phi 2$ mm	For PC polishing (Boot color : Blue)
LGC-PH5L+R		For AdPC polishing (Boot color : Mauve)
		 <p>unit(mm)</p> <p>RoHS Ferrule is excluded.</p>

Ferrule

Optical fiber connector

FC-type/SC-type/DS-type

Ferrule


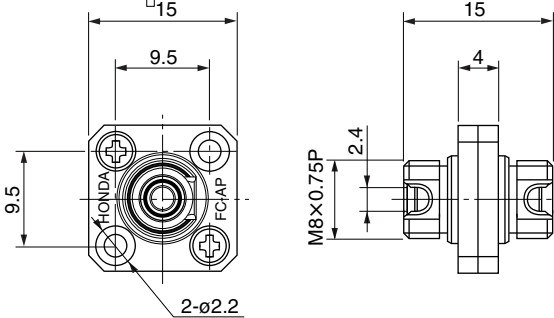
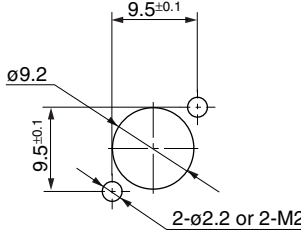
●Zirconia Ferrule (for Single Mode/Multi Mode Graded Index)

Item Number	Inside Diameter of the ferrule [mm]	Outside Diameter of the ferrule [mm]	Note
			The ferrules are provided with a rotation stop key at 4 positions.
LGC-PFS3B4	ø0.123	ø2.499±0.0005	<div style="text-align: right;">unit(mm)</div>
LGC-PFS4B4	ø0.124		
LGC-PFS5B4	ø0.125		
LGC-PFS5.5B4	ø0.1255		
LGC-PFS6B4	ø0.126		
LGC-PFS7B4	ø0.127		
LGC-PFS8B4	ø0.128		

FC-type Adaptor
LGC-100 series


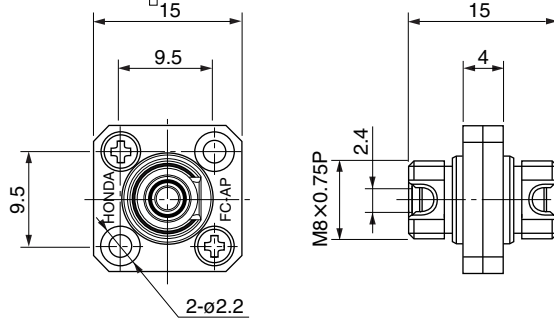
Optical fiber connector
FC-type
JIS C 5970 F01 type
Adaptor

Phosphor-Bronze-Alignment-Sleeve Adaptor

Item Number	Material of Alignment Sleeve	unit(mm)
LGC-A101+R	Phosphor Bronze	
		
		<p>Mounting Hole Size unit(mm)</p> 
		(RoHS)

Zirconia-Alignment-Sleeve Adaptor

This product is an improved adaptor for zirconia-alignment.

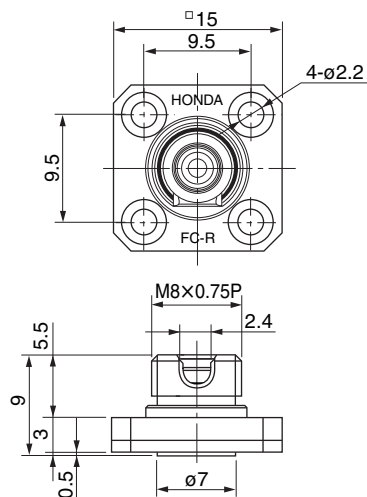
Item Number	Material of Alignment Sleeve	unit(mm)
LGC-A114+R	Zirconia	
		
		<p>The mounting hole size is equal to that of LGC-A101+R.</p>
		(RoHS)

FC-type Receptacle/FC-type Cap for Adaptor
LGC-100 series

Optical fiber connector
FC-type
JIS C 5970 F01 type
Receptacle/Cap

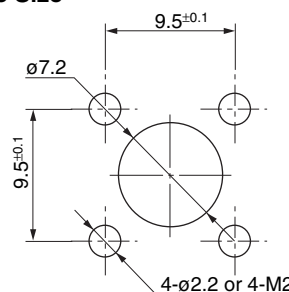
FC-type Receptacle

Item Number	Material of Alignment Sleeve
LGC-R101+R	Stainless steel



unit(mm)

Mounting Hole Size

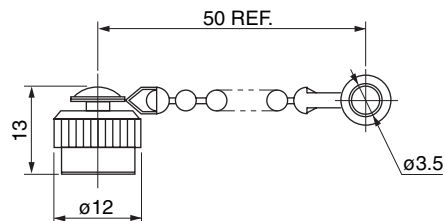


unit(mm)

RoHS

FC-type Cap for Adaptor

Item Number
LGC-C1+R



unit(mm)

RoHS

FC-type Terminator
LGC-100 series

Optical fiber connector


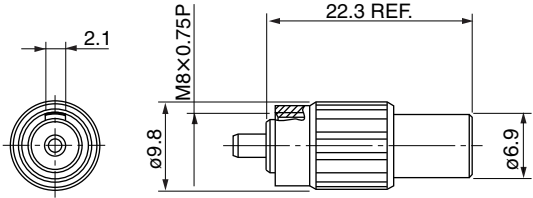
FC-type

JIS C 5970 F01 type


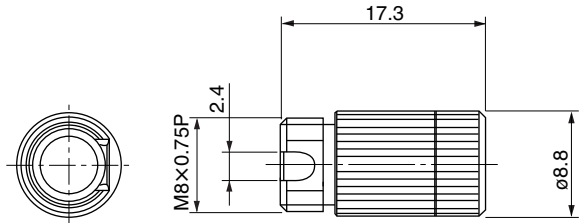
Terminator

The terminator is provided to prevent the reflected light at the end face of the optical connector. FC-type is sub-divided into the plug type and adaptor type.

FC-Plug-type Terminator

Item Number	Note
LGC-PTA101+R	Return Loss : 40dB or more
 <p style="text-align: right;">(RoHS)</p>	<p style="text-align: right;">unit(mm)</p> 

FC-Adaptor-type Terminator

Item Number	Note
LGC-ATA101+R	Return Loss : 40dB or more
 <p style="text-align: right;">(RoHS)</p>	<p style="text-align: right;">unit(mm)</p> 

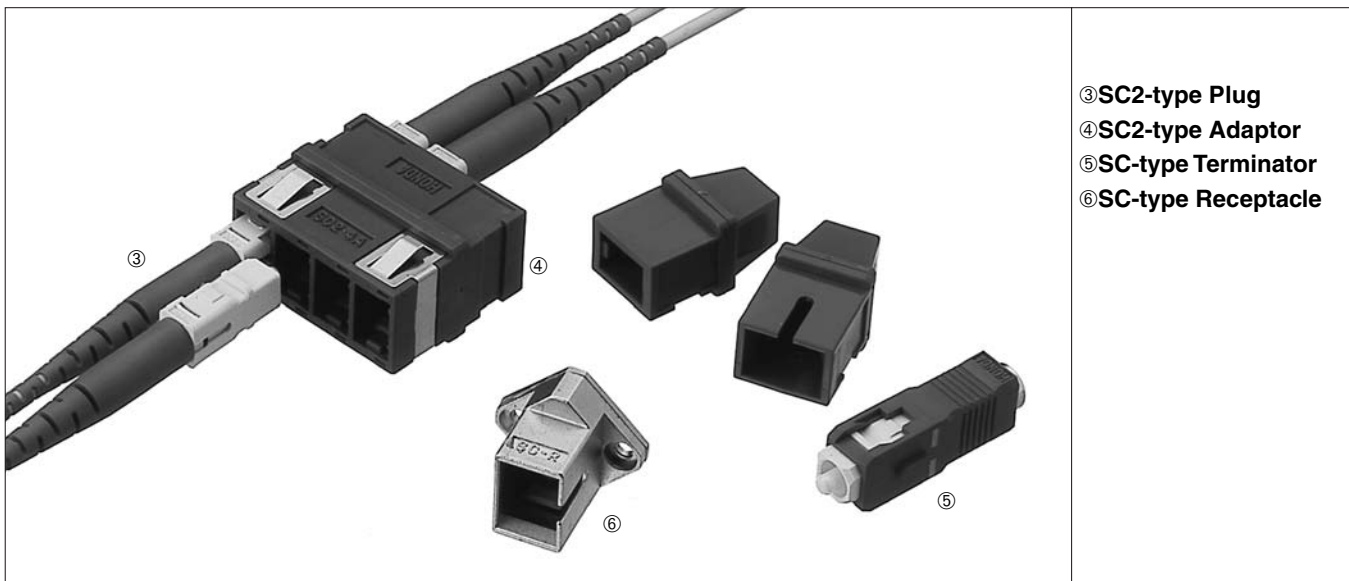
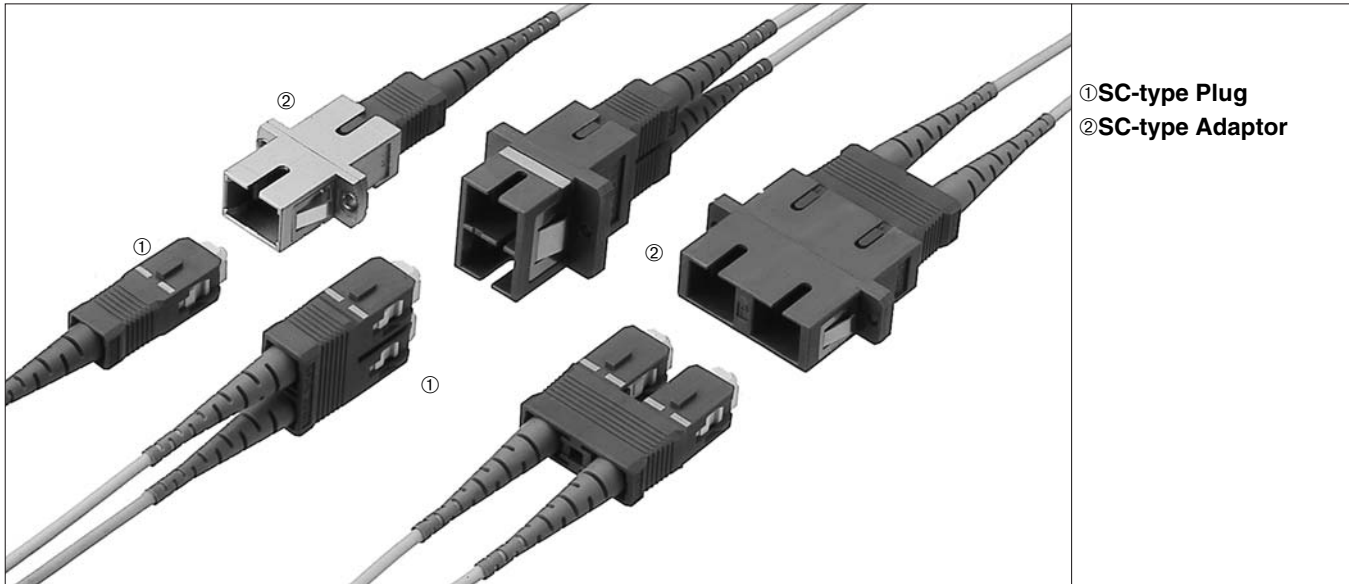
SC-type Optical Fiber Connector LGC-300 series

Optical fiber connector

SC-type

JIS C 5973 F04 type

Each SC-type optical connector consists of a plug and an adaptor.
High density SC2-type optical fiber connectors are also available.



●Specifications

Items	Requirements	Actual Value (Average)
Insertion Loss	Single Mode : 0.5dB or less	0.2dB
	Multi Mode Graded Index: 0.3dB or less	0.1dB
Return Loss	Single Mode (AdPC polishing) : 40dB or more	50dB
	Single Mode (PC polishing) : 22dB or more	30dB
	Multi Mode Graded Index (PC polishing) : 22dB or more	29dB


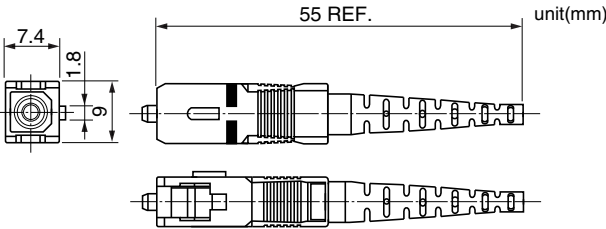
**SC-type Plug
LGC-300 series**

Optical fiber connector
SC-type
JIS C 5973 F04 type
Plug


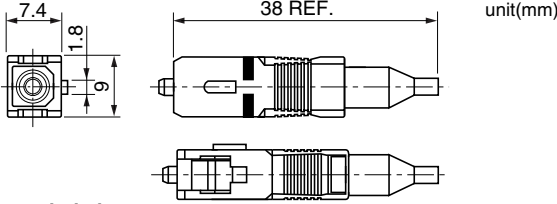
Each SC-type plug consists of a plug housing and a ferrule.
Plug housings are sorted into SC-type simplex plug housing, vertical (H type) duplex plug housing, and horizontal type (F type) duplex plug housing. The ferrule (Refer to page L-10) employed for FC-type connector plug is also applicable to these plug housings.

SC-type Simplex Plug Housing (SC-PH type Plug Housing)


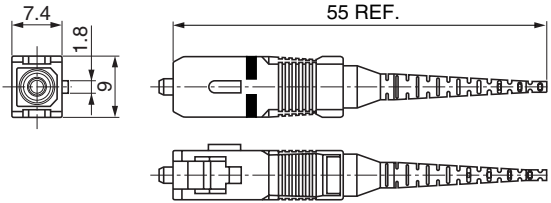
●Applicable to Optical Cords having on Outside Diameter of $\phi 2$ or $\phi 2.8$ mm (The weight reduction has been achieved by using a resin stopper.)

Item Number	Applicable Outside Diameter of Optical fiber cords	Note
LGC-PH353MK+R	$\phi 2$ mm	For PC polishing (Boot color : Blue)
LGC-PH353MKL+R		For AdPC polishing (Boot color : Mauve)
LGC-PH354MK+R	$\phi 2.8$ mm	For PC polishing (Boot color : Blue)
LGC-PH354MKL+R		For AdPC polishing (Boot color : Mauve)
		
<p style="text-align: center;">(RoHS)</p>		Ferrule is excluded.

●Applicable to Optical Cords having on Outside Diameter of $\phi 0.9$ mm (The weight reduction has been achieved by using a resin stopper.)

Item Number	Applicable Outside Diameter of Optical fiber cords	Note
LGC-PH305M	$\phi 0.9$ mm	For PC polishing (Boot color : Yellow)
LGC-PH305MB		For PC polishing (Boot color : Blue)
LGC-PH305MBL		For AdPC polishing (Boot color : Mauve)
		
<p style="text-align: center;">(RoHS)</p>		Ferrule is excluded.

●Applicable to Optical Cords having on Outside Diameter of $\phi 1.1$ mm

Item Number	Applicable Outside Diameter of Optical fiber cords	Note
LGC-PH358H+R	$\phi 1.1$ mm	For AdPC polishing (Boot color : Mauve)
		
<p style="text-align: center;">(RoHS)</p>		Ferrule is excluded.

SC-type Plug
LGC-300 series

Optical fiber connector

SC-type

JIS C 5973 F04 type

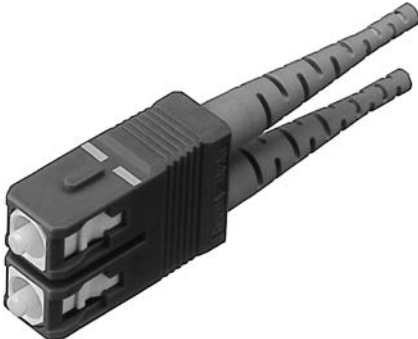
Plug

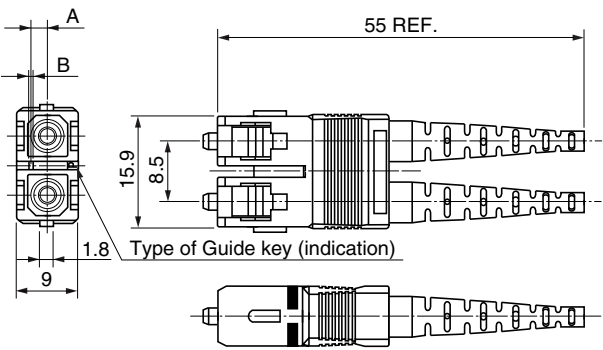
Vertical (H type) Duplex Plug Housing (SCH-2PH type Plug Housing)

●Applicable to Optical Cords having on Outside Diameter of $\phi 2$ or $\phi 2.8$ mm (The weight reduction has been achieved by using a resin stopper.)

Item Number	Applicable Outside Diameter of Optical fiber cords	Note
LGC-H2PH353MK[]SHBB+R	$\phi 2$ mm	For PC polishing (Boot color : Blue)
LGC-H2PH353MK[]SHLL+R		For AdPC polishing (Boot color : Mauve)
LGC-H2PH354MK[]SHBB+R	$\phi 2.8$ mm	For PC polishing (Boot color : Blue)
LGC-H2PH354MK[]SHLL+R		For AdPC polishing (Boot color : Mauve)

[] is filled with the type of guide key. (See the following table)





unit(mm)

RoHS

Ferrule is excluded.

●Type of Guide Key for Vertical Duplex Plugs

Type of Guide Key (Indication)	A (Position of misinsertion Prevention key)	B (Width of misinsertion Prevention key)	Type of Guide Key for Connectable Vertical Duplex Adaptors			
			A	B	P	R
A	3.00	2.65	X			X
B	1.30	2.65		X		X
P	2.15	0.95	X	X	X	X
R	2.15	4.35				X

X : Correspond

●Reference

An Example of Part No.	Specifications	
LGC-H2PH353MKPSHLL+R	Outside diameter of applicable optical fiber cords	$\phi 2$ mm
	Type of Guide Key	P
	Size A	2.15mm
	Size B	0.95mm
	Boot color	Mauve

SC-type Plug
LGC-300 series


Optical fiber connector
SC-type
JIS C 5973 F04 type
Plug

Horizontal (F type) Duplex Plug Housing (SCF-2PH type Plug Housing)

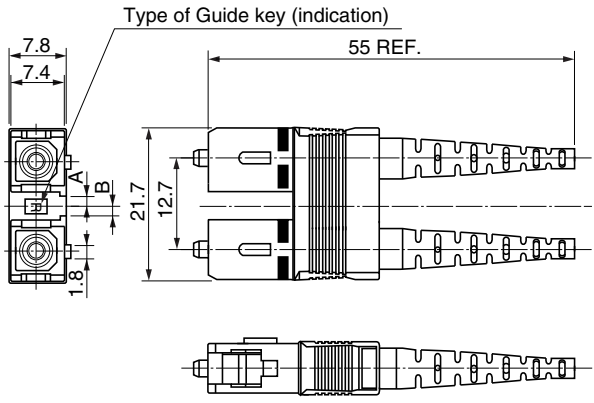
●Applicable to Optical Cords having on Outside Diameter of $\phi 2$ or $\phi 2.8$ mm (The weight reduction has been achieved by using a resin stopper.)

Item Number	Applicable Outside Diameter of Optical fiber cords	Note
LGC-F2PH353MK[]SHBB+R	$\phi 2$ mm	For PC polishing (Boot color : Blue)
LGC-F2PH353MK[]SHLL+R		For AdPC polishing (Boot color : Mauve)
LGC-F2PH354MK[]SHBB+R	$\phi 2.8$ mm	For PC polishing (Boot color : Blue)
LGC-F2PH354MK[]SHLL+R		For AdPC polishing (Boot color : Mauve)

[] is filled with the type of guide key. (See the following table)




unit(mm)



Type of Guide key (indication)

Ferrule is excluded.



●Type of Guide Key for Horizontal Duplex Plugs

Type of Guide Key (Indication)	A (Position of misinsertion Prevention key)	B (Width of misinsertion Prevention key)	Type of Guide Key for Connectable Horizontal Duplex Adaptors			
			A	B	P	R
A	0.95	1.90	X			X
B	1.90	0.95		X		X
P	1.90	1.90	X	X	X	X
R	0.95	0.95				X

X : Correspond

●Reference

An Example of Part No.	Specifications	
LGC-F2PH353MKPSHLL+R	Outside diameter of applicable optical fiber cords	$\phi 2$ mm
	Type of Guide Key	P
	Size A	1.90mm
	Size B	1.90mm
	Boot color	Mauve

Conversion Adaptor/SC-type Receptacle LGC-300 series

Optical fiber connector


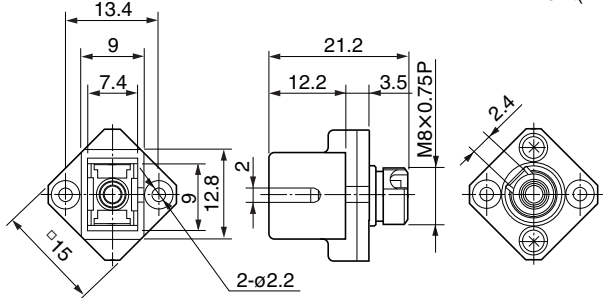
SC-type

JIS C 5973 F04 type

Conversion adaptor/Receptacle


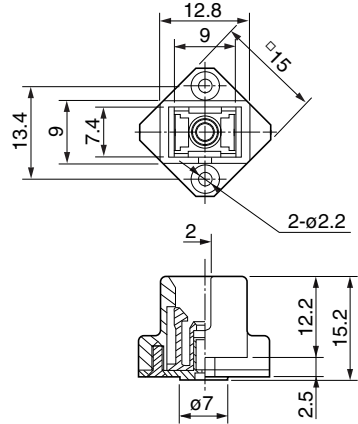
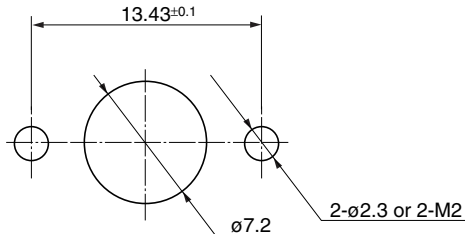
SC-FC type Conversion Adaptor (SC-FC-A type Conversion Adaptor)

An SC-type plug and an FC-type plug are connectable to each other.

Item Number	Material of Alignment Sleeve	Note
LGC-A301/A101+R	Phosphor bronze	
LGC-A302/A104+R	Zirconia	
		 <p>unit(mm)</p> <p>RoHS</p> <p>The mounting hole size is equal to that of LGC-A101+R.</p>

SC-type Receptacle (SC-R type Receptacle)

Use these receptacles by mounting them to measuring instrument, etc.

Item Number	Material of Alignment Sleeve	Materials of Housing	Note
LGC-R301+R	Stainless steel	Zinc alloys die casting	
		 <p>unit(mm)</p>	 <p>unit(mm)</p> <p>RoHS</p>

Plug-in-type Receptacle
LGC-HFC series

Optical fiber connector

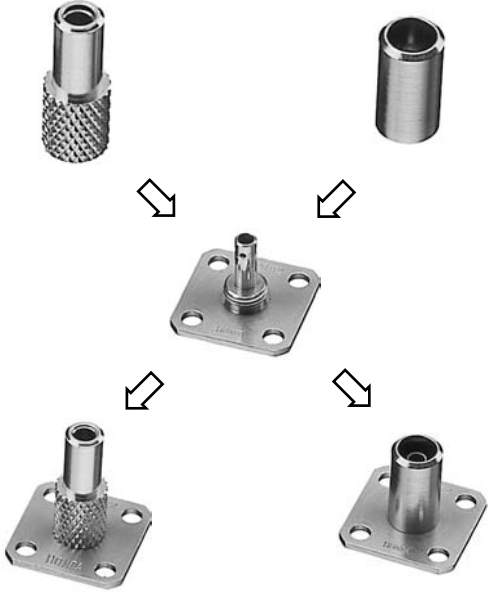
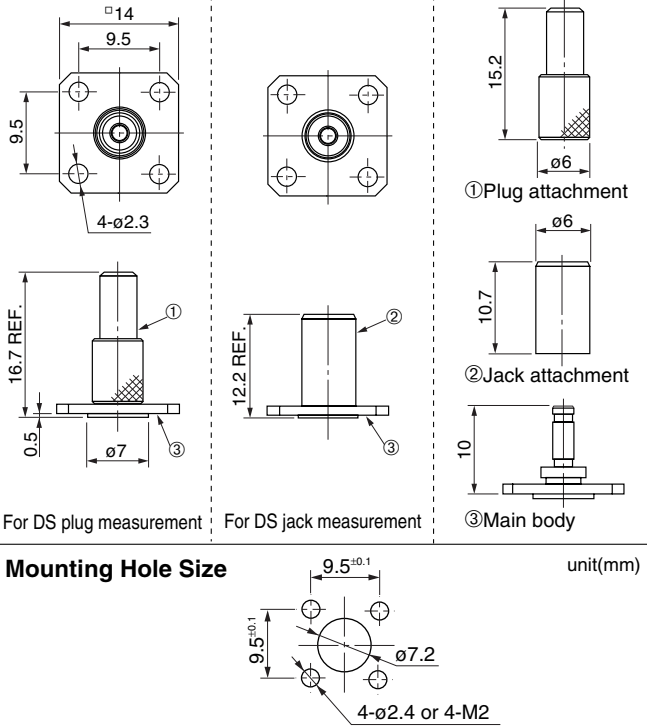
Plug-in (DS)-type

JIS C 5980 F11 type

Receptacle

Plug-in-type Receptacle

Use these receptacles by mounting them to the sensor head of a measuring instrument, etc. They can be used for plug measurement or jack measurement by replacing the attachment.

Item Number	Applicable Wavelength	Note
LGC-HFCR1+R	$\lambda=0.85$ or $1.3\mu\text{m}$	Each receptacle consists of a main body, a plug attachment, and a jack attachment as a set.
LGC-HFCR2+R	$\lambda=1.3$ or $1.55\mu\text{m}$	
 <p style="text-align: right;">(RoHS)</p>		 <p>unit(mm)</p> <p>① Plug attachment</p> <p>② Jack attachment</p> <p>③ Main body</p> <p>For DS plug measurement For DS jack measurement</p> <p>Mounting Hole Size</p> <p>unit(mm)</p>

Note 1: The main bodies or plug or jack attachments are sold individually.


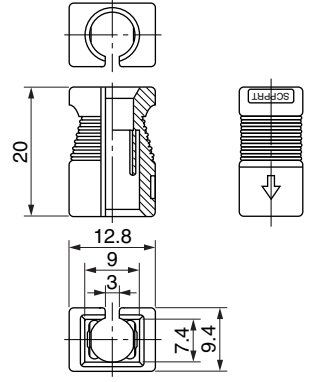
Note 2: Attachments for the MU plug, LGC-RH601+R (Refer to page L-69) are also available.

SC-type Plug Pull-Out Preventive Tool/Assembly-Tool LGC-300 series

Optical fiber connector
SC-type
Tool


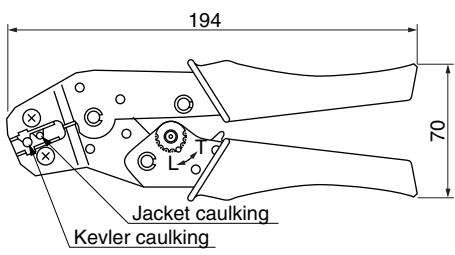
SC-type Plug Pull-Out Preventive Tool (SC-P type Plug Pull-Out Preventive Tool)

By mounting this tool to the SC-type plug, the SC-type plug knob is covered with this tool to prevent the plug from being pulled out by mistake.

Item Number	Note
LGC-PRT301	Color : Blue (Red, yellow and green are prepared in addition to blue.)
 <p style="text-align: right;">RoHS</p>	 <p style="text-align: right;">unit(mm)</p>

Assembly-Tool for the SC-type and SC2-type Plugs (No. 12A Crimping Pliers)

This tool is used for caulking the optical fiber cord kevler and jacket to the plug housing when assembling the SC-type and SC2-type plugs.

Item Number	Note
LGC-KP1A	For $\phi 2$ mm outside diameter of optical fiber cord
	 <p style="text-align: right;">unit(mm)</p>

**SC2-type Plug
LGC-300 series**

Optical fiber connector

SC-type

JIS C 5973 F04 type

The SC2-type plug consists of a plug housing and ferrule.

The plug housing is applicable to the simplex only, while the ferrule (Refer to page L-10) is the same as in FC-type Optical fiber connector plug or plugin type (DS) optical fiber connector plug.

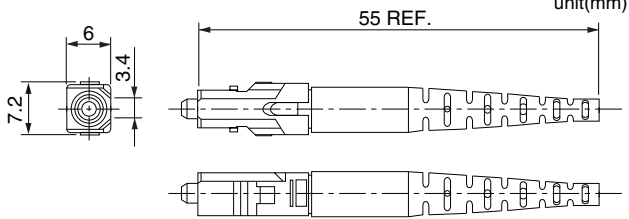
This plug is inserted or pulled out by using the exclusive removing tool (LGC-KP2).

SC2-type Plug Housing (SC2-PH type Plug Housing)

●Applicable to Optical Cords having on Outside Diameter of $\phi 2$ or $\phi 2.8$ mm (The weight reduction has been achieved by using a resin stopper.)

Item Number	Applicable Outside Diameter of Optical fiber cords	Note
LGC-PH373MK+R	$\phi 2$ mm	For PC polishing (Boot color : Blue)
LGC-PH373MKL+R		For AdPC polishing (Boot color : Mauve)
LGC-PH374MK+R	$\phi 2.8$ mm	For PC polishing (Boot color : Blue)
LGC-PH374MKL+R		For AdPC polishing (Boot color : Mauve)






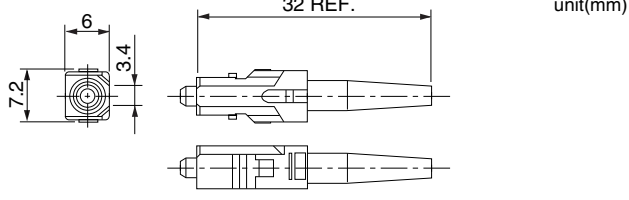
unit(mm)

(RoHS) Ferrule is Excluded.

●Applicable to Optical Cords having on Outside Diameter of $\phi 0.9$ mm

Item Number	Applicable Outside Diameter of Optical fiber cords	Note
LGC-PH329+R	$\phi 0.9$ mm	For PC polishing (Boot color : Blue)
LGC-PH329L+R		For AdPC polishing (Boot color : Mauve)






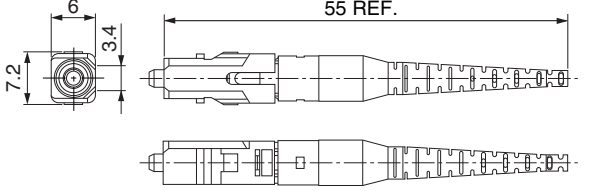
unit(mm)

(RoHS) Ferrule is Excluded.

●Applicable to Optical Cords having on Outside Diameter of $\phi 1.1$ mm

Item Number	Applicable Outside Diameter of Optical fiber cords	Note
LGC-PH378H+R	$\phi 1.1$ mm	For AdPC polishing (Boot color : Mauve)





unit(mm)

(RoHS) Ferrule is Excluded.

SC2-type Plug Caulking Tool/Plug Assembly Tool LGC-300 series

Optical fiber connector


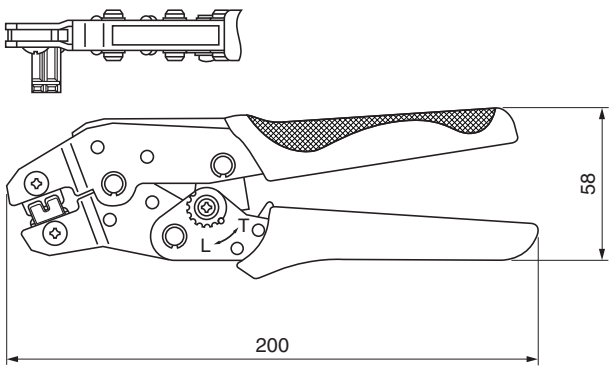
SC-type

Tool

SC2-type Plug Caulking Tool

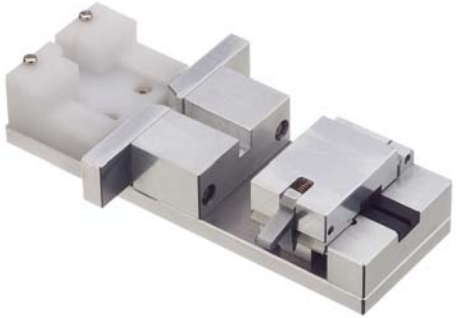
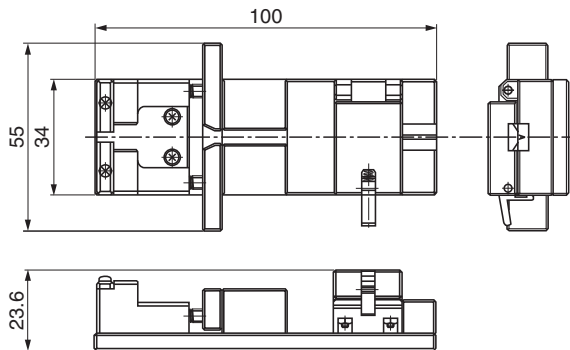
When assembling economical SC or SC2 type plugs, a Kevlar optical cable and an external shield are swaged together using this tool.

The positions of the ferrule and swaging ring can be set with swaging at the same time.

Item Number	Note	unit(mm)
LGC-KP370	—	
		

SC2-type Plug Assembly Tool

When assembling economical SC-type plugs, a rear-assembly plug is inserted into the plug housing using this tool.


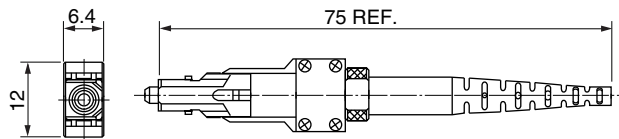

Item Number	Note	unit(mm)
LGC-KP371	—	
		

**SC2-type Plug Housing with Pull-Out Tool/
SC2-type Plug Removing Tool
LGC-300 series**

Optical fiber connector
SC-type
Tool


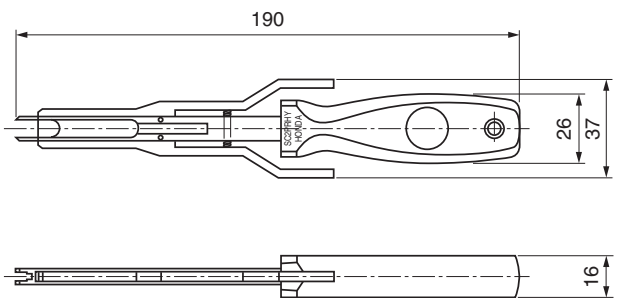
SC2-type Plug Housing with Pull-Out Tool

This SC2-type plug housing being provided with a pull-out tool can pull out plug from SC2-type adaptor without tool.

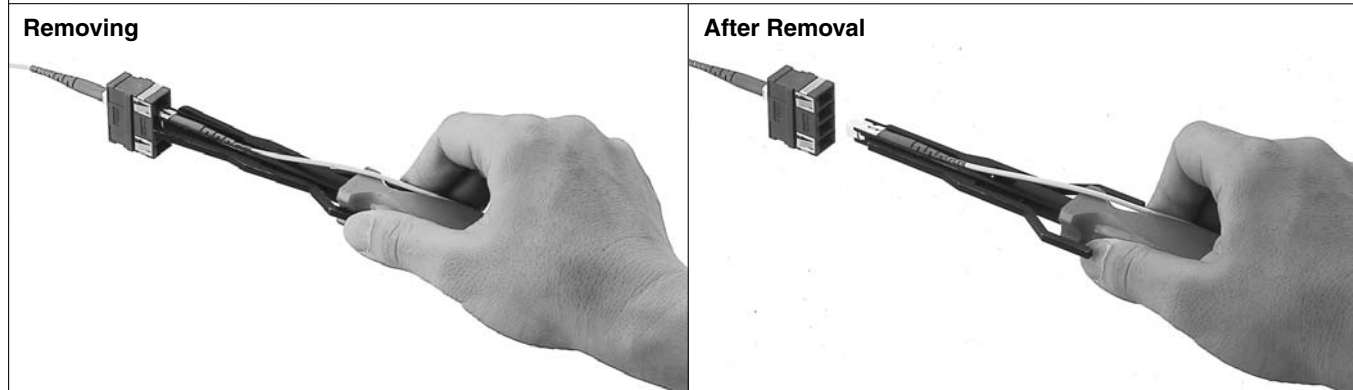
Item Number	Applicable Outside Diameter of Optical fiber cords	Note
LGC-PH343+R	ø2mm	For PC polishing (Boot color : Blue)
LGC-PH343L+R		For AdPC polishing (Boot color : Mauve)
		
		Ferrule is excluded.

SC2-type Plug Removing Tool

This tool can insert the SC2-type plug into or pull it out from the SC2-type adaptor.

Item Number	Note	unit(mm)
LGC-KP2		
		

Operation Procedure



SC-type Adaptor
LGC-300 series




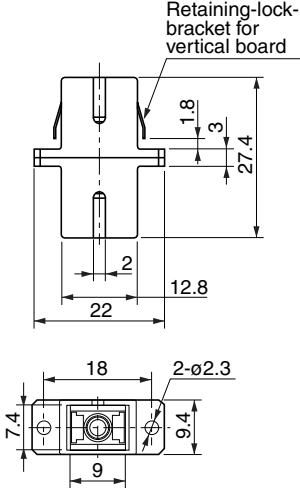
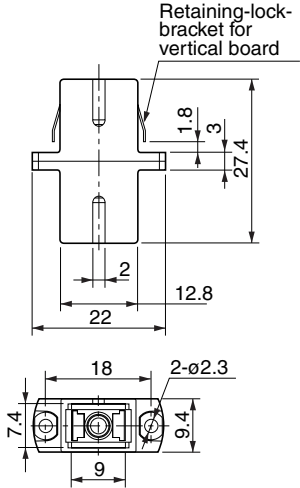
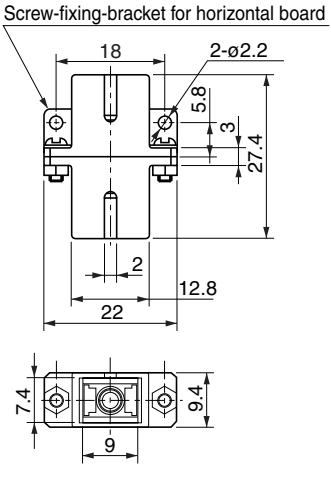
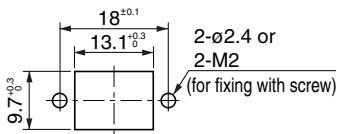
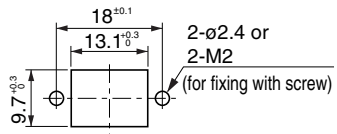
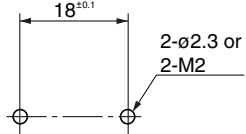
Optical fiber connector

SC-type

JIS C 5973 F04 type

Adaptor


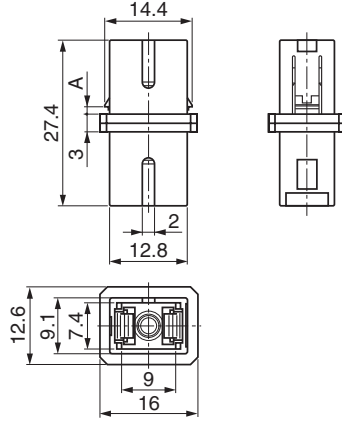
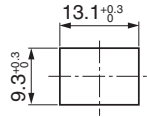
SC-type Adaptor (SC-A type Adaptor)

Type of Adaptor	Simplex			
Mounting Clamps	Retaining-lock-bracket for vertical board		Screw-fixing-bracket for horizontal board	
Housing	Plastic (Color : Blue)	Zinc alloys die casting	Plastic (Color : Blue)	
Overview	 RoHS	 RoHS	 RoHS	
Drawing	 <p>Retaining-lock-bracket for vertical board</p> <p>unit(mm)</p>	 <p>Retaining-lock-bracket for vertical board</p> <p>unit(mm)</p>	 <p>Screw-fixing-bracket for horizontal board</p> <p>unit(mm)</p>	
Mounting Hole Size	 <p>unit(mm)</p> <p>t=1.6 (Additionally t=1.0, t=1.2)</p>	 <p>unit(mm)</p> <p>t=1.6 (Additionally t=1.0, t=1.2)</p>	 <p>unit(mm)</p>	
Item Number	Phosphor-Bronze-Alignment-Sleeve Adaptor	LGC-A301	LGC-A302	LGC-A321
	Zirconia-Alignment-Sleeve Adaptor	LGC-A303	LGC-A304	LGC-A323

SC-type Adaptor
LGC-300 series

Optical fiber connector
SC-type
JIS C 5973 F04 type
Adaptor

SC-type Adaptor (SC-A type Adaptor)

Type of Adaptor	Simplex			
Mounting Clamps	Retaining-lock-bracket for vertical board			
Housing	Plastic (Color: Blue)			
Overview				
Drawing	 <p style="text-align: right;">unit(mm)</p>			
Mounting Hole Size	 <p style="text-align: right;">unit(mm)</p>			
Item Number		A (mm)	Alignment-Sleeve	Thickness of PCB (mm)
	LGC-AM301	1.2±0.1	Phosphor-Bronze	1.0
	LGC-AM301A	1.8±0.1		1.6
	LGC-AM303	1.2±0.1	Zirconia	1.0
LGC-AM303A	1.8±0.1	1.6		

RoHS

SC-type Adaptor
LGC-300 series




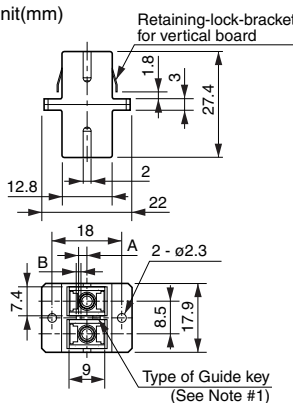
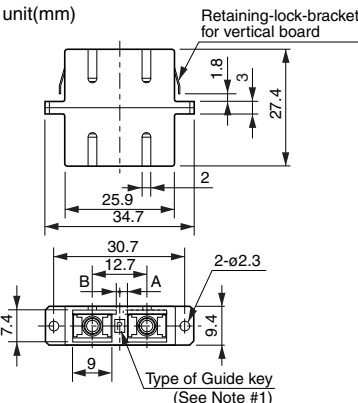
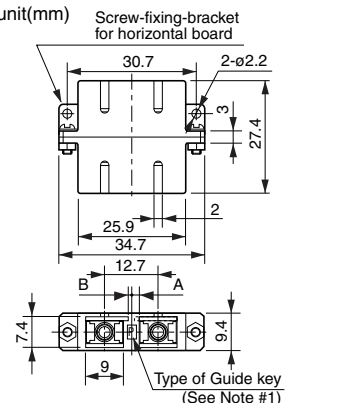
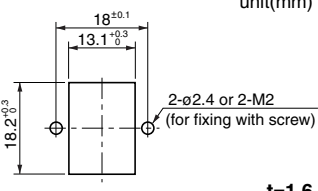
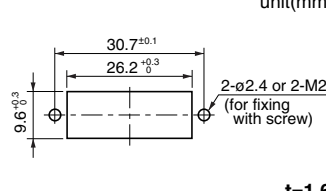
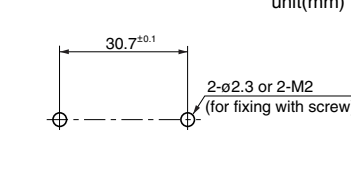
Optical fiber connector

SC-type

JIS C 5973 F04 type

Adaptor

SC-type Adaptor (SCH-2A type Adaptor/SCF-2A type Adaptor)

Type of Adaptor	Vertical (H type) Duplex	Horizontal (F type) Duplex														
Mounting Clamps	Retaining-lock-bracket for vertical board	Retaining-lock-bracket for vertical board	Screw-fixing-bracket for horizontal board													
Housing	Plastic (Color : Blue)(See Note #2)	Plastic (Color : Blue)(See Note #2)	Plastic (Color : Blue)(See Note #2)													
Overview	 RoHS	 RoHS	 RoHS													
Drawing	unit(mm)  Retaining-lock-bracket for vertical board	unit(mm)  Retaining-lock-bracket for vertical board	unit(mm)  Screw-fixing-bracket for horizontal board													
Mounting Hole Size	unit(mm)  2-ø2.4 or 2-M2 (for fixing with screw) t=1.6	unit(mm)  2-ø2.4 or 2-M2 (for fixing with screw) t=1.6	unit(mm)  2-ø2.3 or 2-M2 (for fixing with screw)													
Type of Guide Key	A (Position of misinsertion Prevention key)		B (Width of misinsertion Prevention key)		Type of Guide Key for Connectable Vertical Duplex Plugs (See Note #3)	A (mm)		B (mm)		Type of Guide Key for Connectable Horizontal Duplex Plugs (See Note #3)	A (mm)		B (mm)		Type of Guide Key for Connectable Horizontal Duplex Plugs (See Note #3)	
					A B P R					A B P R				A B P R		
	A		2.95		X	0.85		1.85		X		0.85		1.85		X
	B		2.95		X	1.85		0.85		X		1.85		0.85		X
	P		1.25		X	1.85		1.85		X		1.85		1.85		X
R		4.65		X	0.85		0.85		X		0.85		0.85		X	
Item Number	Phosphor-Bronze-Alignment-Sleeve Adaptor	LGC-H2A301 [A,B,P,R] SH				LGC-F2A301 [A,B,P,R] SH				LGC-F2A321 [A,B,P,R] SH						
	Zirconia-Alignment-Sleeve Adaptor	LGC-H2A303 [A,B,P,R] SH				LGC-F2A303 [A,B,P,R] SH				LGC-F2A323 [A,B,P,R] SH						

Note 1: (A,B,P and R) show the kind of guide keys, and one of these characters is inserted.

Note 2: For plastic housing other than blue ones, please contact us.

Note 3: X: Correspond

SC-type Adaptor
LGC-300 series


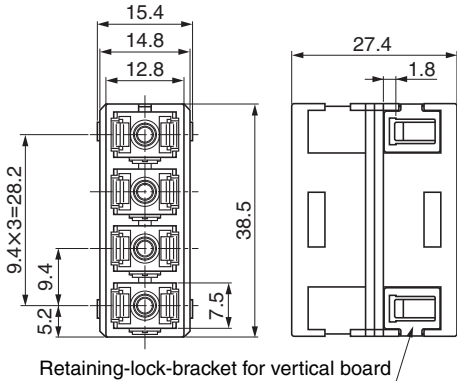
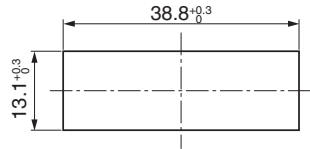
Optical fiber connector

SC-type

JIS C 5973 F04 type

Adaptor

SC-type Adaptor (SCH-4A type Adaptor)

Type of Adaptor		4-Ports
Mounting Clamps		Retaining-lock-bracket for vertical board
Housing		Plastic (Color: Blue)
Overview		
Drawing		 <p>unit(mm)</p>
Mounting Hole Size		 <p>unit(mm)</p> <p>t=1.6 (Additionally t=1.0, t=1.2)</p>
Item Number	Phosphor-Bronze-Alignment-Sleeve Adaptor	LGC-H4A311
	Zirconia-Alignment-Sleeve Adaptor	LGC-H4A313

RoHS

SC-type Adaptor with a Shutter
LGC-300 series




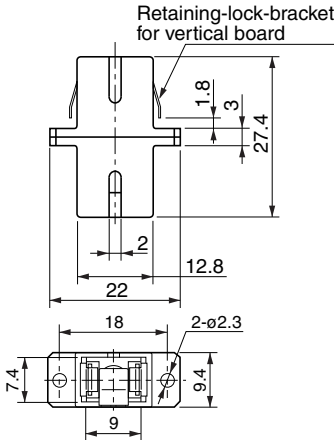
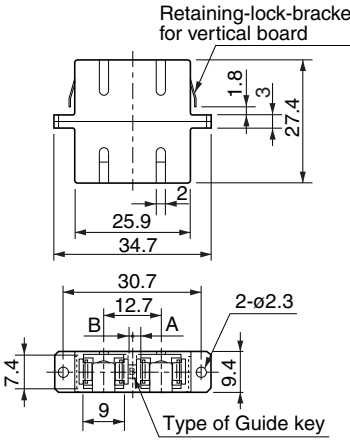
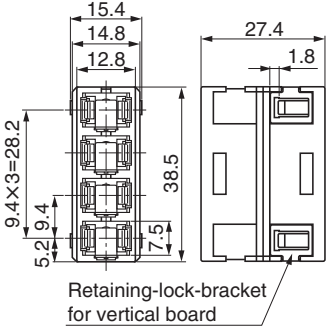
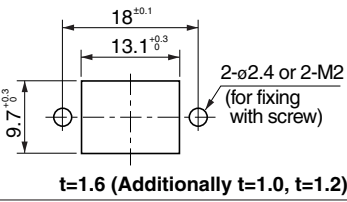
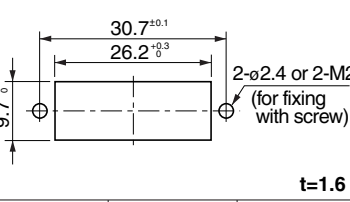
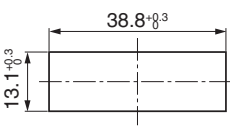
Optical fiber connector

SC-type

JIS C 5973 F04 type

Adaptor with a shutter

SC-type Adaptor with a Shutter (SC-A type Adaptor/SCF-2A type Adaptor/SCH-4A type Adaptor)


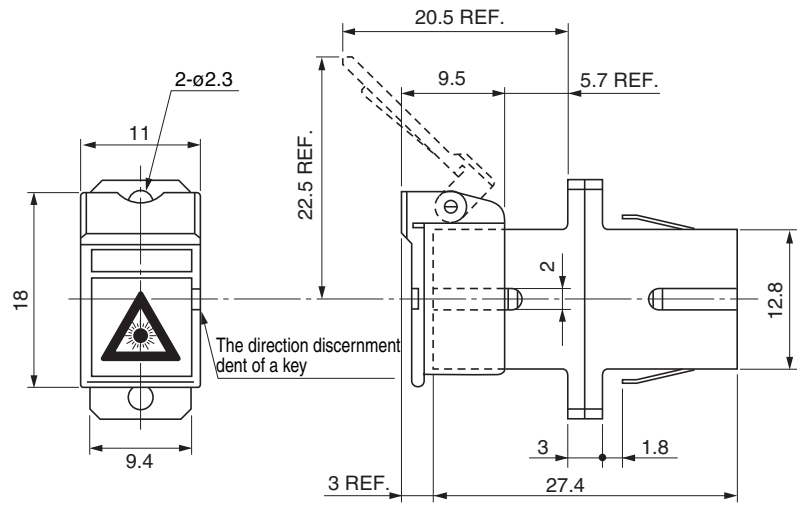
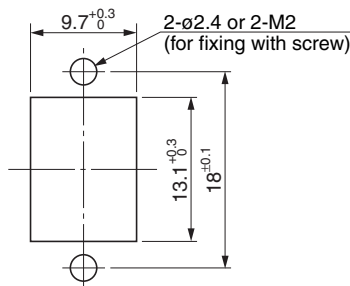
Type of Adaptor		Simplex	Horizontal (F type) Duplex		4-Ports
Mounting Clamps		Retaining-lock-bracket for vertical board	Retaining-lock-bracket for vertical board		Retaining-lock-bracket for vertical board
Housing		Plastic (Color: blue)(See Note #2)	Plastic (Color: blue)(See Note #2)		Plastic (Color: blue)(See Note #2)
Overview		 RoHS	 RoHS	 RoHS	
Drawing					
Mounting Hole Size					
Type of Guide key		—	A (mm)	B (mm)	Type of Guide key for Connectable Horizontal Duplex Plugs (See Note #3)
	A	—	0.85	1.85	X X
	B	—	1.85	0.85	X X
	P	—	1.85	1.85	X
	R	—	0.85	0.85	X X X X
Item Number	Zirconia-Alignment-Sleeve Adaptor	LGC-SA303	LGC-SF2A303[A,B,P,R]SH		LGC-SH4A313

Note 1: (A, B, P and R) show the kind of guide key, and one of these characters is inserted.
 Note 2: For other than blue plastic housing, please contact us.
 Note 3: X: Correspond

SC-type Adaptor with a Shutter
LGC-300 series

Optical fiber connector
SC-type
JIS C 5973 F04 type
Adaptor with a shutter

Mounting and SC-type Adaptor with a Shutter

Type of Adaptor	Simplex	
Mounting Clamps	Retaining-lock-bracket for vertical board	
Housing	Plastic (Color: Blue)	
Overview		
Drawing	 <p style="text-align: right;">unit(mm)</p>	
Mounting Hole Size	 <p style="text-align: right;">unit(mm)</p> <p style="text-align: right;">t=1.6 (Additionally t=1.0, t=1.2 types)</p>	
Item Number	Zirconia-Alignment-Sleeve Adaptor	LGC-SAE300A/A303

RoHS

Note: In case of using Optical Fixed Attenuators, the shutter opening side of this product guarantees only combination with SC-type Optical Fixed Attenuator of our company.

FC to SC Connector Convertor

An FC adaptor and an SC-type plug are connectable to each other.

Item Number	Applicable Optical Fiber Mode	Insertion Loss	Return Loss	Ferrule Polishing
LGC-P101/A301KC-SM+R	Single Mode	1.0dB or less	40dB or more	AdPC polishing
LGC-P101/A301K-SM+R			22dB or more	PC polishing
LGC-P101/A301K-GI+R	Multi Mode Graded Index	0.6dB or less		

unit(mm)

SC to FC Connector Convertor

An SC adaptor and an FC-type plug are connectable to each other.

Item Number	Applicable Optical Fiber Mode	Insertion Loss	Return Loss	Ferrule Polishing
LGC-P301/A101C-SM+R	Single Mode	1.0dB or less	40dB or more	AdPC polishing
LGC-P301/A101-SM+R			22dB or more	PC polishing
LGC-P301/A101-GI+R	Multi Mode Graded Index	0.6dB or less		

unit(mm)

Note: For the attenuators of connectors converter, please contact us.

Conversion Adaptor

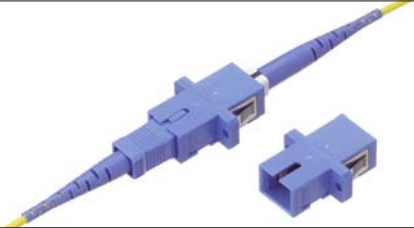
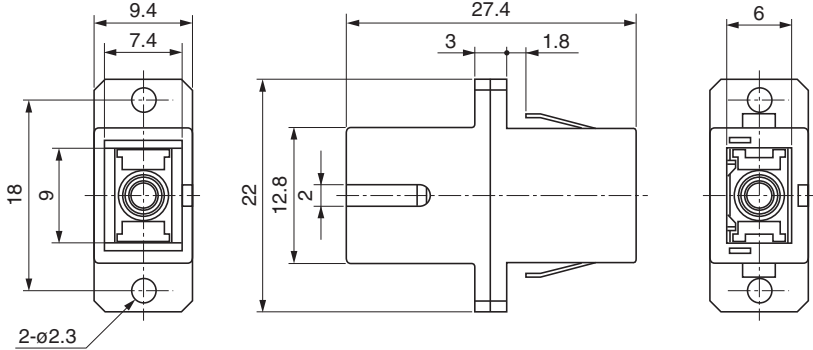
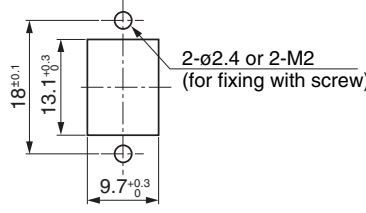
Optical fiber connector

SC-type

Conversion adaptor

SC-SC2 type Conversion Adaptor

An SC-type plug and an SC2-type plug are connectable to each other.

Type of Adaptor		Simplex
Mounting Clamps		Retaining-lock-bracket for vertical board
Housing		Plastic (Color: Blue)
Overview		
Drawing		 <p style="text-align: right;">unit(mm)</p>
Mounting Hole Size		 <p style="text-align: right;">unit(mm)</p> <p style="text-align: right;">t=1.6 (Additionally t=1.0, t=1.2)</p>
Item Number	Phosphor-Bronze-Alignment-Sleeve Adaptor	LGC-AP301
	Zirconia-Alignment-Sleeve Adaptor	LGC-AP303

RoHS

SC2-type Adaptor
LGC-300 series

Optical fiber connector


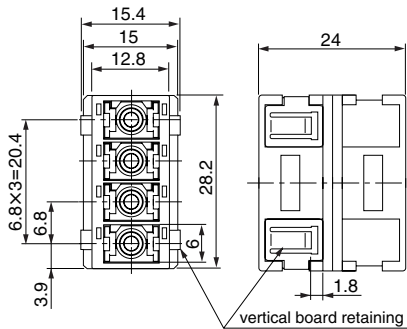
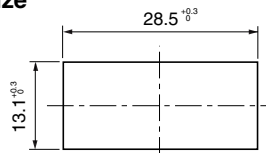
SC-type

JIS C 5973 F04 type

Adaptor


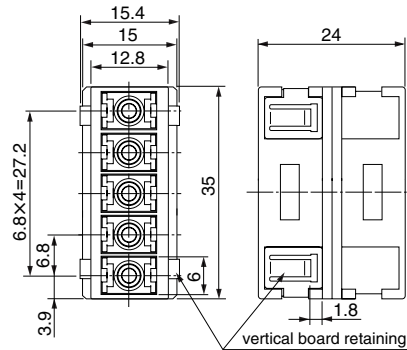
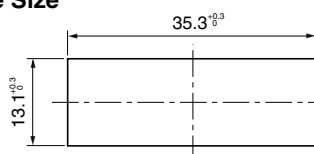
The SC2-type adaptors are sorted according to the No. of cores and the materials of alignment sleeves.
The vertical board retaining lock spring is attached as a mounting clamp.

SC2-type 4-Ports Adaptors (SC2-4A type Adaptor)

Item Number	Material of Alignment Sleeve	Materials of Housing
LGC-4A301	Phosphor bronze	Plastic
LGC-4A302	Zirconia	
		 <p>unit(mm)</p>
		<p>Mounting Hole Size</p>  <p>unit(mm)</p> <p>t=1.6 (Additionally t=1.0, t=1.2)</p>

RoHS

SC2-type 5-Ports Adaptors (SC2-5A type Adaptor)

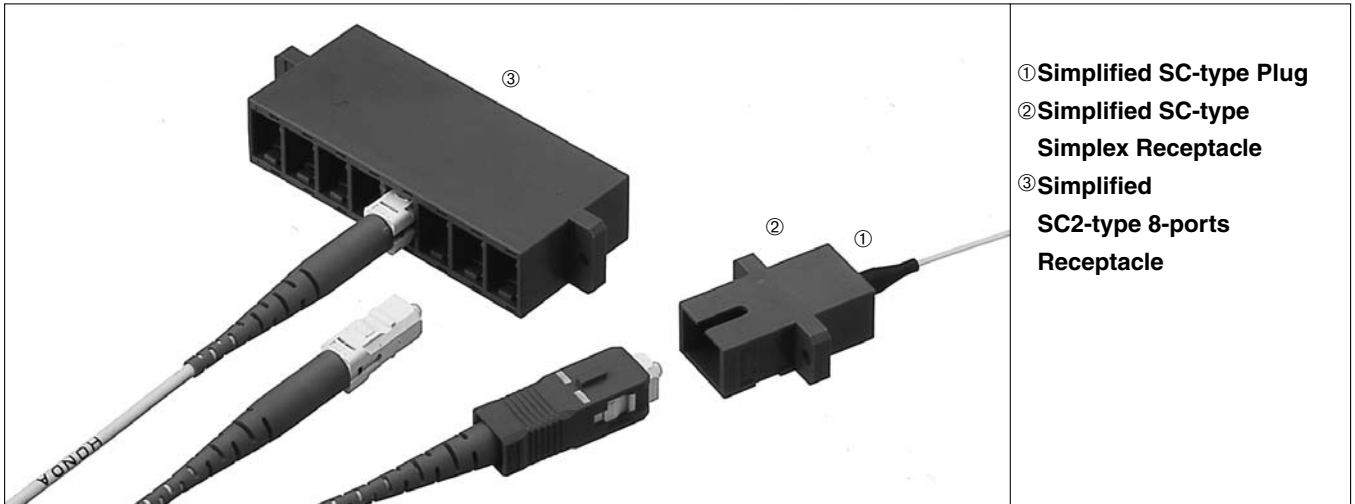
Item Number	Material of Alignment Sleeve	Materials of Housing
LGC-5A301	Phosphor bronze	Plastic
LGC-5A302	Zirconia	
		 <p>unit(mm)</p>
		<p>Mounting Hole Size</p>  <p>unit(mm)</p> <p>t=1.6 (Additionally t=1.0, t=1.2)</p>

RoHS

Simplified SC-type Optical Fiber Connector LGC-SR300 series

Optical fiber connector
SC-type
Simplified connector
Ferrule

These optical connectors are constructed by simplifying the structures of SC-type and SC2-type plugs and adaptors. They are composed of a plug and a receptacle, respectively. The SC or SC2-type plug is connectable to the receptacle. A single-core or 2-ports plug is connectable to the SC-type receptacle, a 4 or 8-ports plug is connectable to the SC2-type receptacle, and a plug is connectable to the single-core and 8-ports receptacles. The ferrule is made of zirconia.



● Specifications

Items	Requirements	Actual Value (Average)
Insertion Loss	Single Mode : 0.5dB or less	0.2dB
	Multi Mode Graded Index : 0.3dB or less	0.1dB
Return Loss	Single Mode (AdPC polishing) : 40dB or more	50dB
	Single Mode (PC polishing) : 22dB or more	30dB
	Multi Mode Graded Index (PC polishing) : 22dB or more	29dB

Simplified SC-type Plug

Each SC-type plug is provided with a ferrule. The ferrule hole diameter ranges from $\phi 0.123\text{mm}$ to $\phi 0.128\text{mm}$ every $1\mu\text{m}$. Select these plugs according to the outside diameters of optical fiber.

Item Number	Inside Diameter of the ferrule [mm]	Outside Diameter of the ferrule [mm]	Mode	
LGC-RFS3	$\phi 0.123$	$\phi 2.499 \pm 0.0005$	Single mode Multi mode Graded index	
LGC-RFS4	$\phi 0.124$			
LGC-RFS5	$\phi 0.125$			
LGC-RFS5.5	$\phi 0.1255$			
LGC-RFS6	$\phi 0.126$			
LGC-RFS7	$\phi 0.127$			
LGC-RFS8	$\phi 0.128$			

Simplified SC-type Optical Fiber Connector

LGC-SR300 series

Optical fiber connector


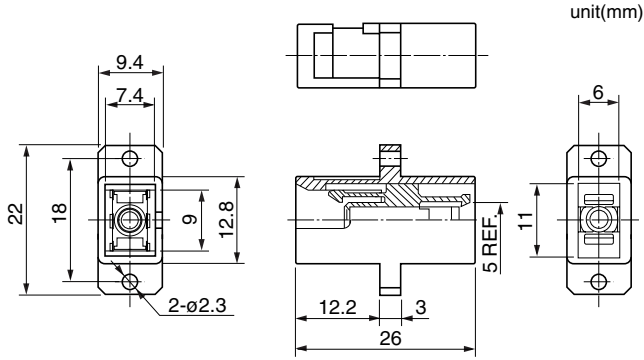

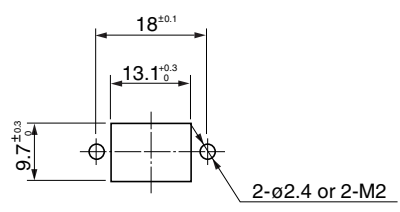
SC-type

Simplified connector


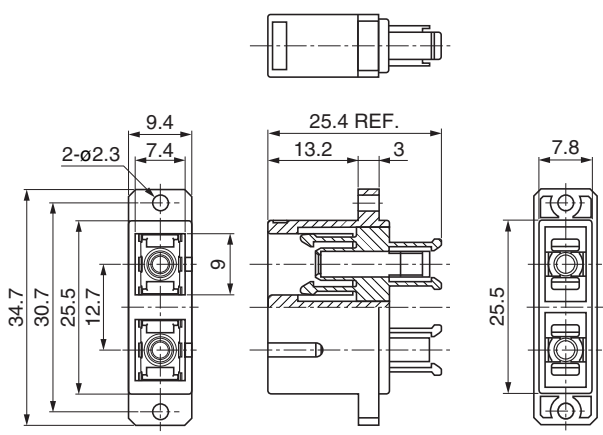
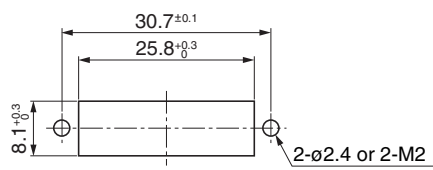
Receptacle

RoHS

Simplified SC-type Simplex Receptacle

Item Number	Note	
LGC-SR305	Attached one-phosphor-bronze-alignment-sleeve	
LGC-SR305B	Attached one-zirconia-alignment-sleeve	
		 <p>unit(mm)</p>
<p>An External View with the Simplified SC-type Plug</p> 		<p>Mounting Hole Size</p>  <p>unit(mm)</p>

Simplified SC-type 2-Ports Receptacle

Item Number	Note	
LGC-F2SR309	Attached two-phosphor-bronze-alignment-sleeves	
LGC-F2SR309B	Attached two-zirconia-alignment-sleeves	
		 <p>unit(mm)</p>
		<p>Mounting Hole Size</p>  <p>unit(mm)</p>

Simplified SC-type Optical Fiber Connector LGC-SR300 series

Optical fiber connector

SC-type

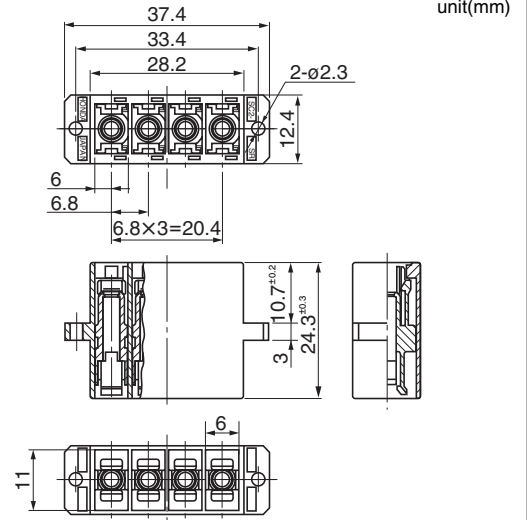
Simplified connector

Receptacle

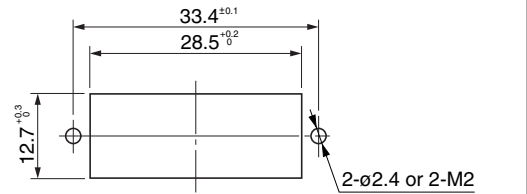
RoHS

Simplified SC2-type 4-Ports Receptacle

Item Number	Note
LGC-4SR305	Attached four-phosphor-bronze-alignment-sleeves
LGC-4SR305B	Attached four-zirconia-alignment-sleeves

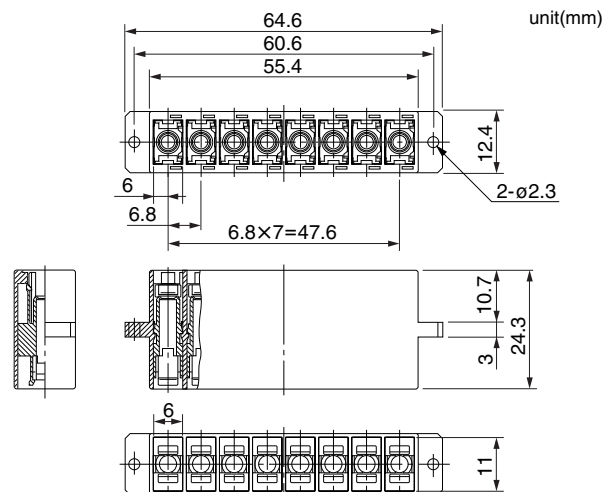


Mounting Hole Size

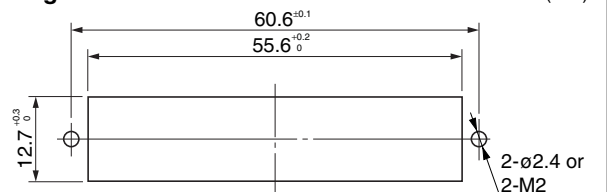


Simplified SC2-type 8-Ports Receptacle

Item Number	Note
LGC-8SR305	Attached eight-phosphor-bronze-alignment-sleeves
LGC-8SR305B	Attached eight-zirconia-alignment-sleeves



Mounting Hole Size


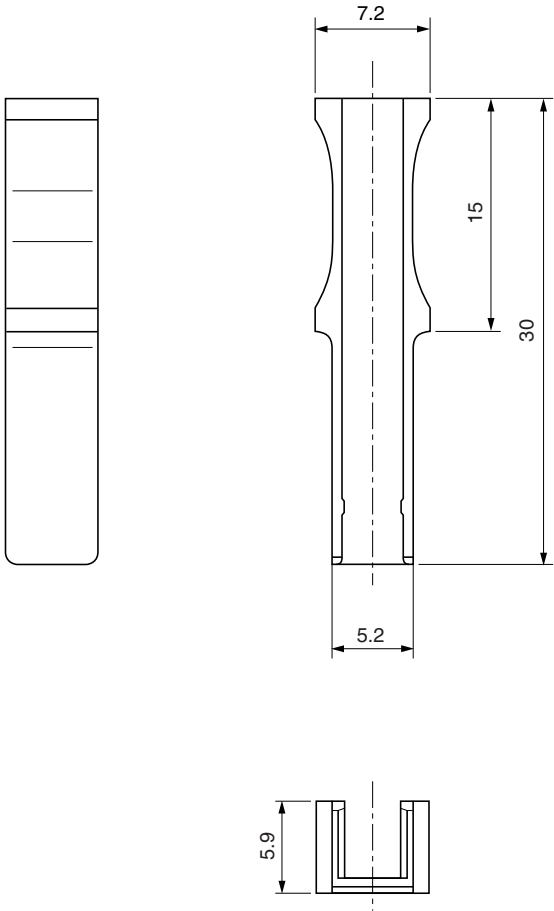


Extraction Tool
LGC-KPSR3

Optical fiber connector
SC-type
Simplified connector
Tool

● **Extraction Tool**

This tool is for extracting simplified SC-type plug mating with simplified receptacle.

Item Number	Note
<p>LGC-KPSR3</p>  <p style="text-align: right;">unit(mm)</p> <p style="text-align: center;">RoHS</p>	

SC-type Terminator
LGC-300 series

Optical fiber connector

SC-type


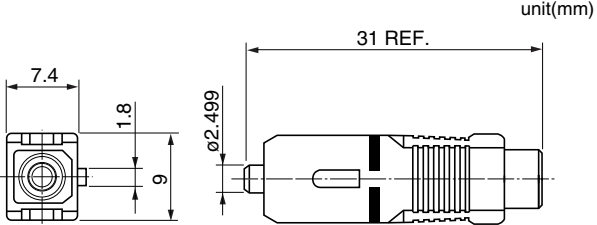
JIS C 5973 F04 type

Terminator


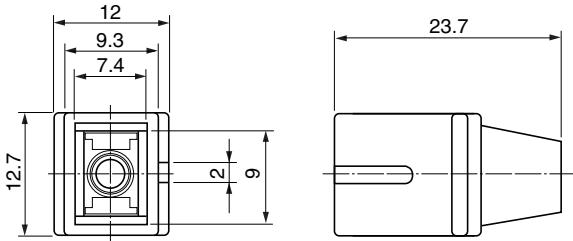
The terminator is used to prevent the reflected light from the end faces of optical connector. SC-type terminators are sorted into the SC-type and SC2-type, and the SC-type is sub-divided into the plug type and adaptor type.

SC-type Terminator


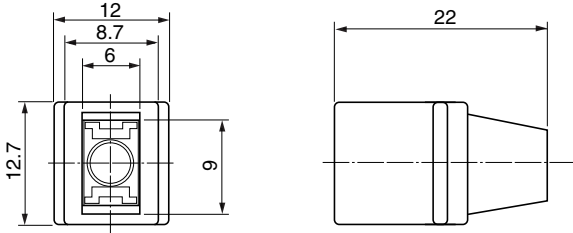
●SC-type Plug Terminator (SC-P-TA type Terminator)

Item Number	Note
LGC-PTA301SM+R	Return loss : 40dB or more for Single Mode
 <p style="text-align: right;">(RoHS)</p>	 <p style="text-align: right;">unit(mm)</p>

●SC-type Adaptor Terminator (SC-A-TA type Terminator)

Item Number	Note
LGC-ATA301+R	Return loss : 40dB or more
 <p style="text-align: right;">(RoHS)</p>	 <p style="text-align: right;">unit(mm)</p>

●SC2-type Adaptor Terminator (SC2-A-TA type Terminator)

Item Number	Note
LGC-ATA321+R	Return loss : 40dB or more
 <p style="text-align: right;">(RoHS)</p>	 <p style="text-align: right;">unit(mm)</p>

MU-type Optical Fiber Connector LGC-600 series

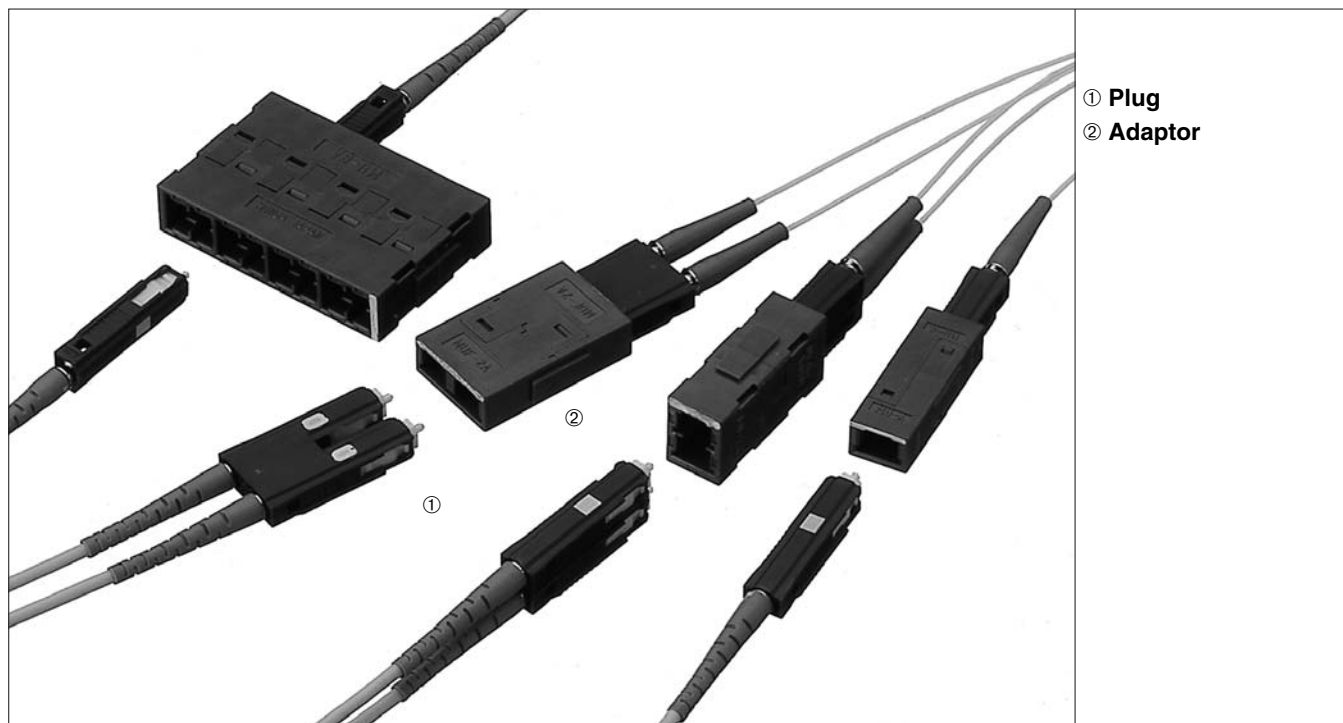
Optical fiber connector

MU-type

JIS C 5983 F14 type

■ MU-type Optical Fiber Connector

The packaging density of this connector amounts to about 4 times as compared with the SC-type optical fiber connector. It consists of a plug (consisting of a plug housing and a $\phi 1.25\text{mm}$ ferrule) and an adaptor.



① Plug
② Adaptor

● Specifications

Items	Requirements	Actual Value (Average)
Insertion Loss	Single Mode : 0.5dB or less	0.2dB
	Multi Mode Graded Index: 0.3dB or less	0.1dB
Return Loss	Single Mode (AdPC polishing) : 40dB or more	50dB
	Single Mode (PC polishing) : 22dB or more	30dB
	Multi Mode Graded Index (PC polishing) : 22dB or more	29dB

MU-type Plug LGC-600 series

Optical fiber connector

MU-type

JIS C 5983 F14 type

Plug

MU-type Plug

The MU-type plug is constructed as a push-pull lock type in the same way as in the SC-type plug, and it can easily be mounted or removed.

It consists of an MU-type plug housing and a $\phi 1.25\text{mm}$ ferrule.

High-density Plug-in-type Optical Fiber Connector Plug


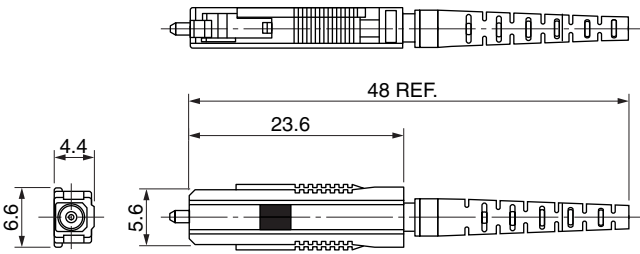

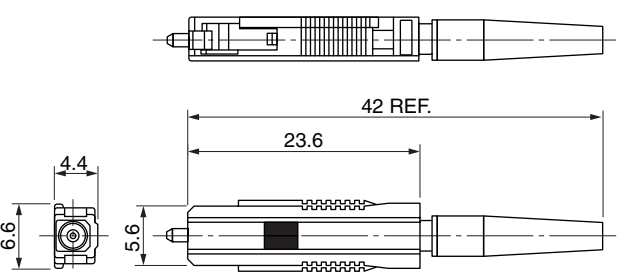
The MU-type plug is connected to the back board housing in the same way as in the plug-in (DS)-type plug. It can easily be removed by the high-density plug-in-type removing tool (LGC-KP601C+R) when connectors are connected closely.

MU-type Optical Fiber Connector Plug

This MU-type plug can be used in the same way as in the SC-type plug. It can easily to be removed by the high-density plug-in-type removing tool (LGC-KP601D+R) when connectors are connected closely.

MU-type Simplex Plug Housing (MU-PH type Plug Housing)

This plug housing is connectable to the high-density plug-in-type back board housing, All of MU-type adaptor, Simplified Receptacle respectively.

Item Number	Applicable Outside diameter of optical fiber cords	Note
LGC-PH604+R	$\phi 2\text{mm}$	For AdPC polishing (Boot color : Mauve)
LGC-PH604B+R		For PC polishing (Boot color : Blue)
 <div style="text-align: right;">(RoHS)</div>		unit(mm) 
		Ferrule is excluded.
Item Number	Applicable Outside diameter of optical fiber cords	Note
LGC-PH603L+R	$\phi 0.9\text{mm}$	For AdPC polishing (Boot color : Mauve)
LGC-PH603B+R		For PC polishing (Boot color : Blue)
 <div style="text-align: right;">(RoHS)</div>		unit(mm) 
		Ferrule is excluded.

MU-type Plug LGC-600 series

Optical fiber connector


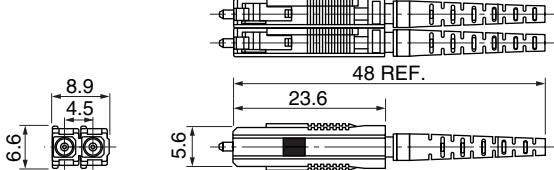

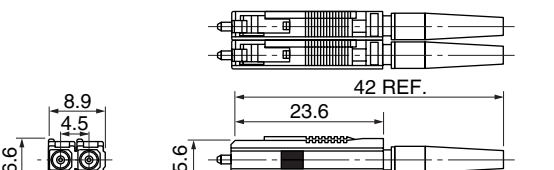
MU-type

JIS C 5983 F14 type

Plug


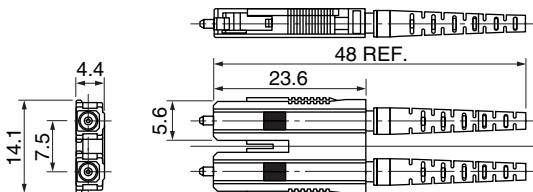

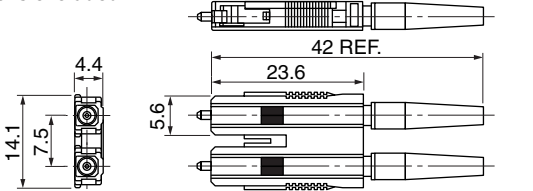
● **MU-type Vertical (H type) duplex Plug Housing (MU-2PH type Plug Housing)**

This MU-plug is connectable to the high-density plug-in-type back board housing, MU-type vertical (H type) 2-ports and 8-ports adaptors, Simplified Receptacle 2-ports or more, respectively.

Item Number	Applicable Outside Diameter of Optical fiber cords	Note	
LGC-2PH604+R	ø2mm	For AdPC polishing (Boot color : Mauve)	
LGC-2PH604B+R		For PC polishing (Boot color : Blue)	
 <div style="text-align: right;">(RoHS)</div>		Ferrule is excluded. unit(mm) 	
		<th>Item Number</th> <th>Applicable Outside Diameter of Optical fiber cords</th> <th>Note</th>	Item Number
LGC-2PH603+R	ø0.9mm	For AdPC polishing (Boot color : Mauve)	
LGC-2PH603B+R		For PC polishing (Boot color : Blue)	
 <div style="text-align: right;">(RoHS)</div>		Ferrule is excluded. unit(mm) 	

● **MU-type Horizontal (F type) duplex Plug Housing**

This plug housing is connectable to the MU-type horizontal 2-ports adaptor. It is not employable as a high-density plug-in-type optical connector.


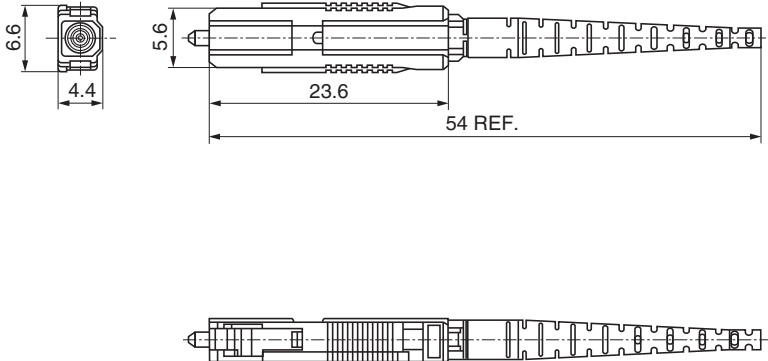

Item Number	Applicable Outside Diameter of Optical fiber cords	Note	
LGC-F2PH604+R	ø2mm	For AdPC polishing (Boot color : Mauve)	
LGC-F2PH604B+R		For PC polishing (Boot color : Blue)	
 <div style="text-align: right;">(RoHS)</div>		Ferrule is excluded. unit(mm) 	
		<th>Item Number</th> <th>Applicable Outside Diameter of Optical fiber cords</th> <th>Note</th>	Item Number
LGC-F2PH603L+R	ø0.9mm	For AdPC polishing (Boot color : Mauve)	
LGC-F2PH603B+R		For PC polishing (Boot color : Blue)	
 <div style="text-align: right;">(RoHS)</div>		Ferrule is excluded. unit(mm) 	

**Cost-effective MU-type Plug
LGC-PH638H+R**

Optical fiber connector
MU-type
Cost-effective connector
Plug

● Housing for Cost-effective MU-type Simplex Plug (MU-PHD type Plug Housing)

The housing has been achieved at lower cost with the use of a stopper made of resin material.
The components are designed with consideration for automatic assembly and man-hour reduction.

Item Number	Applicable Outside Diameter of Optical fiber cords	Note
LGC-PH638H+R	ø1.1mm	For AdPC polishing (Boot color: Mauve)
		<p style="text-align: right;">unit(mm)</p>  <p>Ferrule is excluded.</p>
		

Minute Diameter Ferrule LGC-600 series

Optical fiber connector

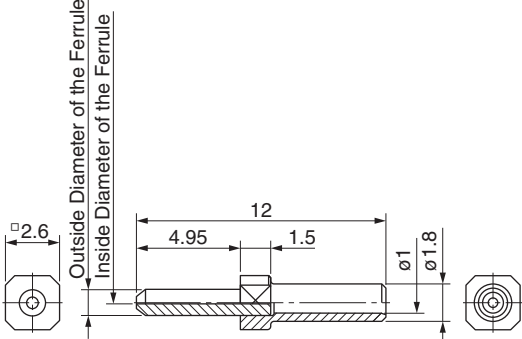
MU-type

JIS C 5983 F14 type

Minute diameter ferrule

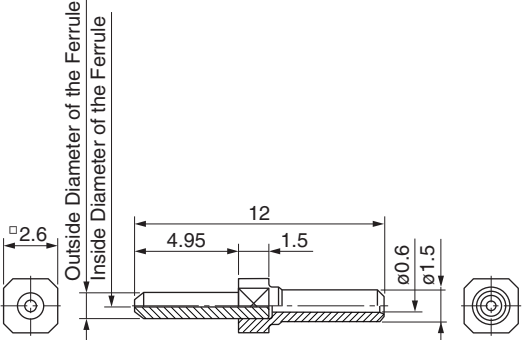
● Minute Diameter Ferrule (MU-PFS type [] Ferrule)

The inside diameter of the ferrule ranges from 0.123mm to 0.128mm every 1μm. Select the ferrule according to the outside diameter of the optical fiber. This ferrule is characterized with its square flange, and it can set the eccentric direction every 90°.

Item Number	Inside Diameter of the Ferrule [mm]	Outside Diameter of the Ferrule [mm]	Mode	unit(mm) 
LGC-PFS603	ø0.123	ø1.249±0.0005	Single Mode	
LGC-PFS604	ø0.124			
LGC-PFS605	ø0.125			
LGC-PFS6055	ø0.1255		Multi Mode Graded Index	
LGC-PFS606	ø0.126			
LGC-PFS607	ø0.127			
LGC-PFS608	ø0.128			

● Minute Diameter Ferrule for ø1.1mm Optical Fiber Cord (MU-PFSD type [] Ferrule)

The inside diameter of the ferrule ranges from 0.123mm to 0.128mm every 1μm. Select the ferrule according to the outside diameter of the optical fiber. This ferrule is characterized with its square flange, and it can set the eccentric direction every 90°.

Item Number	Inside Diameter of the Ferrule [mm]	Outside Diameter of the Ferrule [mm]	Mode	unit(mm) 
LGC-PFSD603	ø0.123	ø1.249±0.0005	Single Mode	
LGC-PFSD604	ø0.124			
LGC-PFSD605	ø0.125			
LGC-PFSD6055	ø0.1255		Multi Mode Graded Index	
LGC-PFSD606	ø0.126			
LGC-PFSD607	ø0.127			
LGC-PFSD608	ø0.128			

MU-type Plug Caulking Tool LGC-600 series


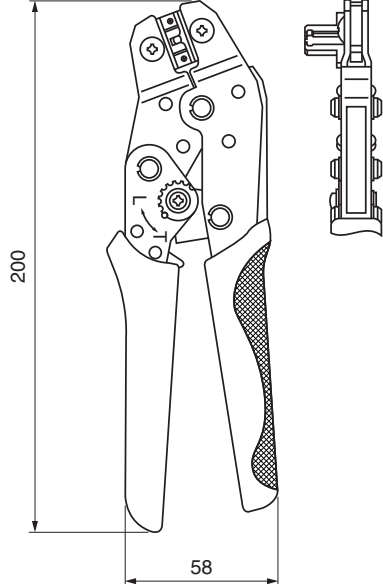
Optical fiber connector

MU-type


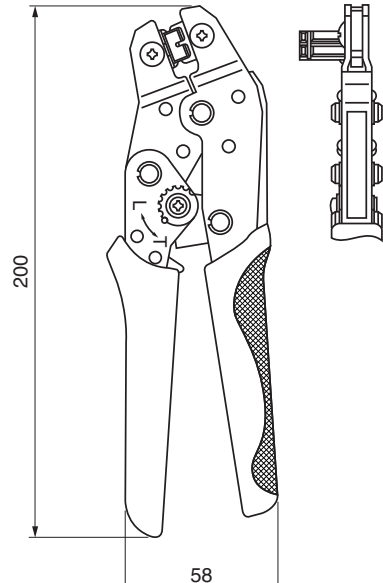
Tool

Caulking Tool

When assembling MU-type plugs, a Kevlar optical cable and a plug housing are swaged together using this tool. An attachment is provided, which sets the plug housing and positioning boss in the proper direction.

Item Number	Note
LGC-KP604A	
	

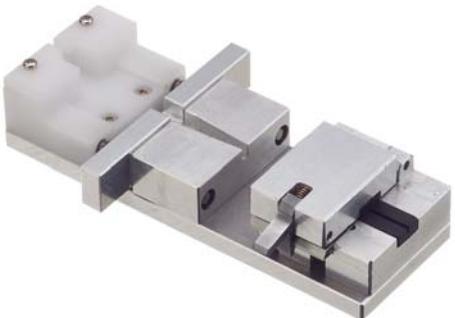
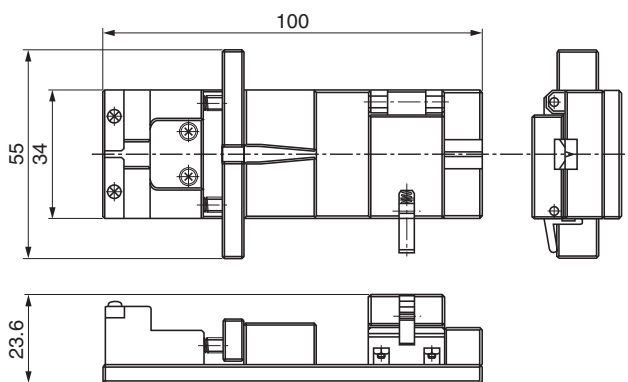
When assembling cost-effective MU-type plug components, a Kevlar optical cable and a plug housing are swaged together by using this tool, at the specified distance between the flange and swaging ring.

Item Number	Note
LGC-KP630	for LGC-PH638H+R
	


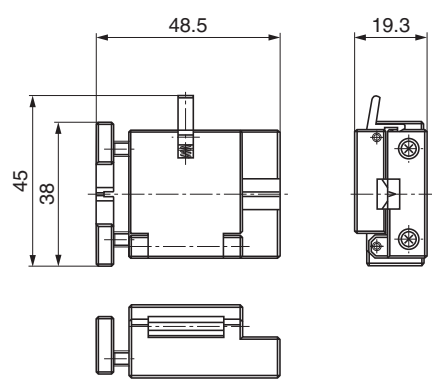
**Cost-effective MU-type Plug assembly tool/
Tool for inserting plug swaging seats
LGC-600 series**

Optical fiber connector
MU-type
Tool

When assembling economical MU-type plugs, a rear-assembly is inserted into a front-pre-assembly using this tool.

Item Number	Note
LGC-KP631	<p style="text-align: right;">unit(mm)</p>  

When assembling economical MU-type plugs, an optical cable is inserted into the hole of a plug swaging seat using this tool. This tool is also used when assembling economical SC or SC type plugs.

Item Number	Note
LGC-KP632	<p style="text-align: right;">unit(mm)</p>  

MU-type Adaptor
LGC-600 series

Optical fiber connector






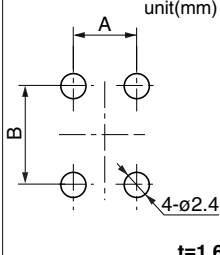
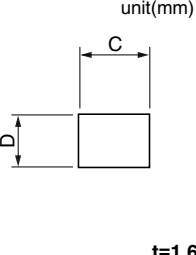
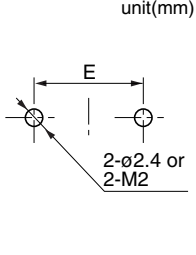
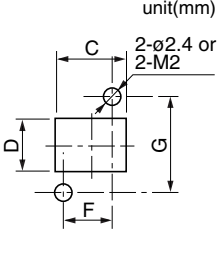
MU-type

JIS C 5983 F14 type

Adaptor

MU-type Adaptor

● Mounting Bracket type (The following overview drawings and mounting views show single port type adaptors.)

Mounting Bracket Type	Free	Insertion-Bracket for Horizontal Board	Retaining-Lock-Bracket for Vertical Board	Screw-Fixing-Bracket for Horizontal Board	Screw-Fixing-Bracket for Vertical Board
Overview	 (RoHS)	 (RoHS)	 (RoHS)	 (RoHS)	 (RoHS)
Mounting Hole Size	—	 unit(mm) A B 4-ø2.4 t=1.6	 unit(mm) C D t=1.6	 unit(mm) E 2-ø2.4 or 2-M2	 unit(mm) C D E F G 2-ø2.4 or 2-M2

Item Number of MU-type Adaptor

● Alignment sleeve material designator
[none]: Zirconia
[P]: Phosphor bronze

Single Port	Item Number	LGC-A640[]	LGC-A641[]	LGC-A642[]	LGC-A643[]	LGC-A644[]	
	Size	—	A B	9.5 ^{±0.1} 12.7 ^{±0.1}	C D	10.7 ^{+0.3} 7.6 ^{+0.3}	E F G
Vertical 2-ports (H-type)	Item Number	LGC-2A640[]	LGC-2A641[]	LGC-2A642[]	LGC-2A643[]	LGC-2A644[]	
	Size	—	A B	12.7 ^{±0.1} 12.7 ^{±0.1}	C D	14.3 ^{+0.3} 10.1 ^{+0.3}	E F G
Horizontal 2-ports (F-type)	Item Number	LGC-F2A600+R	LGC-F2A601+R	LGC-F2A602+R	—	—	
	Size	—	A B	16.5 ^{±0.1} 12.7 ^{±0.1}	C D	17.8 ^{+0.3} 7.6 ^{+0.3}	—
8-ports	Item Number	LGC-8A640[]	LGC-8A641[]	LGC-8A642[]	LGC-8A643[]	LGC-8A644[]	
	Size	—	A B	40.6 ^{±0.1} 12.7 ^{±0.1}	C D	42.3 ^{+0.3} 10.1 ^{+0.3}	E F G

Note 1: The horizontal (F type) 2-port adapter uses a metal holder.

MU-type Adaptor with a Shutter LGC-600 series

Optical fiber connector

MU-type






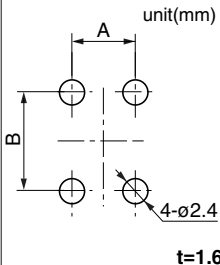
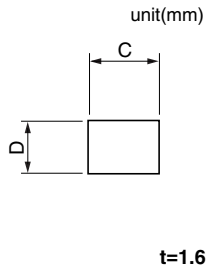
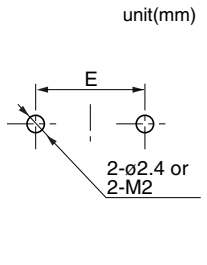
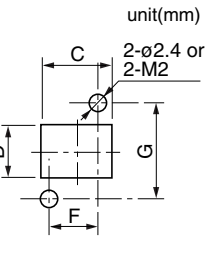
JIS C 5983 F14 type

Adaptor with a shutter

MU-type Adaptor with Shutter

This connector is a MU-type adaptor built in light shielding shutters.

● Mounting Bracket type (The following overview drawings and mounting views show single port type adaptors.)

Mounting Bracket Type	Free	Insertion-Bracket for Horizontal Board (Board thickness: 1.6mm)	Retaining-Lock-Bracket for Vertical Board (Board thickness: 1.6mm)	Screw-Fixing-Bracket for Horizontal Board	Screw-Fixing-Bracket for Vertical Board
Overview					
	(RoHS)	(RoHS)	(RoHS)	(RoHS)	(RoHS)
Mounting Hole Size	—	 <p>unit(mm) A, B, 4-ϕ2.4 t=1.6</p>	 <p>unit(mm) C, D t=1.6</p>	 <p>unit(mm) E, 2-ϕ2.4 or 2-M2</p>	 <p>unit(mm) C, D, F, G, 2-ϕ2.4 or 2-M2</p>

Item Number of MU-type Adaptor


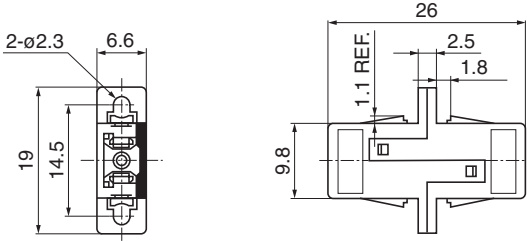
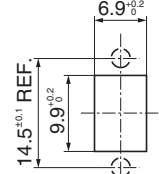

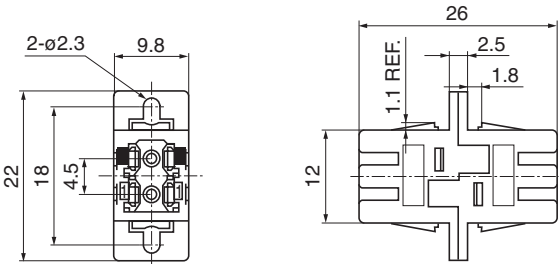
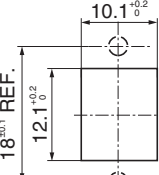
● Alignment sleeve material designator
[none]: Zirconia
[P]: Phosphor bronze

Single Port	Item Number	LGC-SA640[]	LGC-SA641[]	LGC-SA642[]	LGC-SA643[]	LGC-SA644[]
	Size	—	A: 9.5 \pm 0.1 B: 12.7 \pm 0.1	C: 10.7 \pm 0.3 D: 7.6 \pm 0.3	E: 14.0 \pm 0.1	F: 0 G: 12.5 \pm 0.1
Vertical 2-ports (H-type)	Item Number	LGC-2SA640[]	LGC-2SA641[]	LGC-2SA642[]	LGC-2SA643[]	LGC-2SA644[]
	Size	—	A: 12.7 \pm 0.1 B: 12.7 \pm 0.1	C: 14.3 \pm 0.3 D: 10.1 \pm 0.3	E: 17.8 \pm 0.1	F: 5.0 \pm 0.1 G: 15.0 \pm 0.1

MU-type Adaptor
LGC-A622[]
LGC-2A622[]

Optical fiber connector
MU-type
JIS C 5983 F14 type
Adaptor

● **Screw-Fixing-Bracket for Vertical Board type**

Item Number	Material of Alignment Sleeve	Housing Material							
LGC-A622P	Phosphor bronze	Plastic							
LGC-A622	Zirconia								
 <p style="text-align: right;">RoHS</p>		<div style="text-align: right;">unit(mm)</div>   <p>(2-ø2.3^{±0.2} or 2-M2) (for fixing with screw)</p> <p>Mounting Hole Size t=1.6</p>							
		<table border="1"> <thead> <tr> <th>Item Number</th> <th>Material of Alignment Sleeve</th> <th>Housing Material</th> </tr> </thead> <tbody> <tr> <td>LGC-2A622P</td> <td>Phosphor bronze</td> <td rowspan="2">Plastic</td> </tr> <tr> <td>LGC-2A622</td> <td>Zirconia</td> </tr> </tbody> </table>		Item Number	Material of Alignment Sleeve	Housing Material	LGC-2A622P	Phosphor bronze	Plastic
Item Number	Material of Alignment Sleeve	Housing Material							
LGC-2A622P	Phosphor bronze	Plastic							
LGC-2A622	Zirconia								
 <p style="text-align: right;">RoHS</p>		<div style="text-align: right;">unit(mm)</div>   <p>(2-ø2.3^{±0.2} or 2-M2) (for fixing with screw)</p> <p>Mounting Hole Size t=1.6</p>							

MU-type Adaptor

MU-type


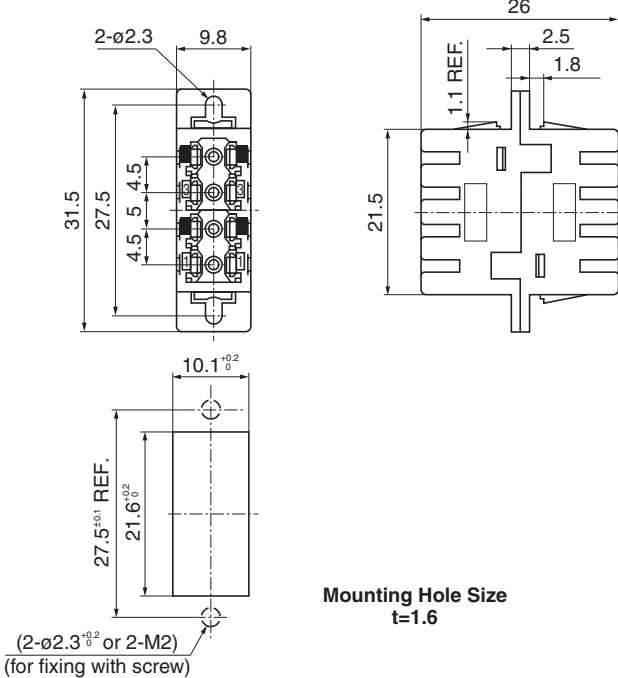

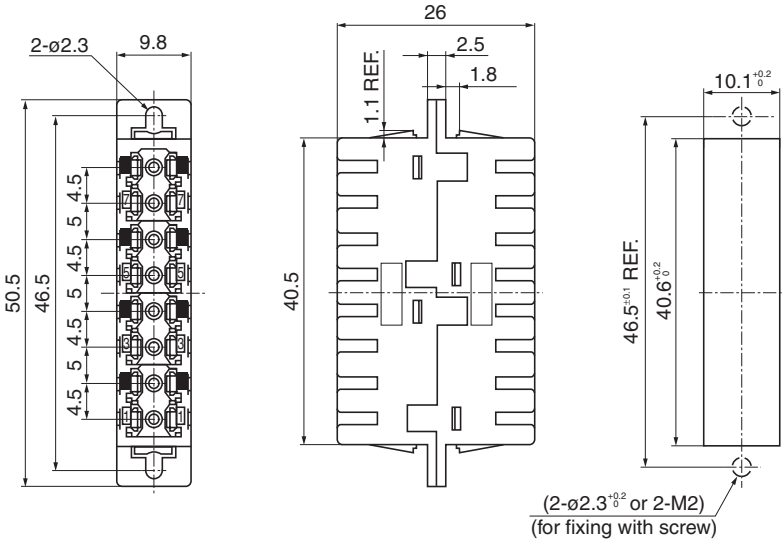
LGC-4A622[]

JIS C 5983 F14 type

LGC-8A622[]

Adaptor

● Screw-Fixing-Bracket for Vertical Board type

Item Number	Material of Alignment Sleeve	Housing Material
LGC-4A622P	Phosphor bronze	Plastic
LGC-4A622	Zirconia	
 <p style="text-align: right;">RoHS</p>		<p style="text-align: right;">unit(mm)</p>  <p style="text-align: center;">Mounting Hole Size t=1.6</p> <p style="text-align: center;">(2-ø2.3^{+0.2} or 2-M2) (for fixing with screw)</p>
Item Number	Material of Alignment Sleeve	Housing Material
LGC-8A622P	Phosphor bronze	Plastic
LGC-8A622	Zirconia	
 <p style="text-align: right;">RoHS</p>		<p style="text-align: right;">unit(mm)</p>  <p style="text-align: center;">Mounting Hole Size t=1.6</p> <p style="text-align: center;">(2-ø2.3^{+0.2} or 2-M2) (for fixing with screw)</p>

MU-type Adaptor
LGC-16A622[1]

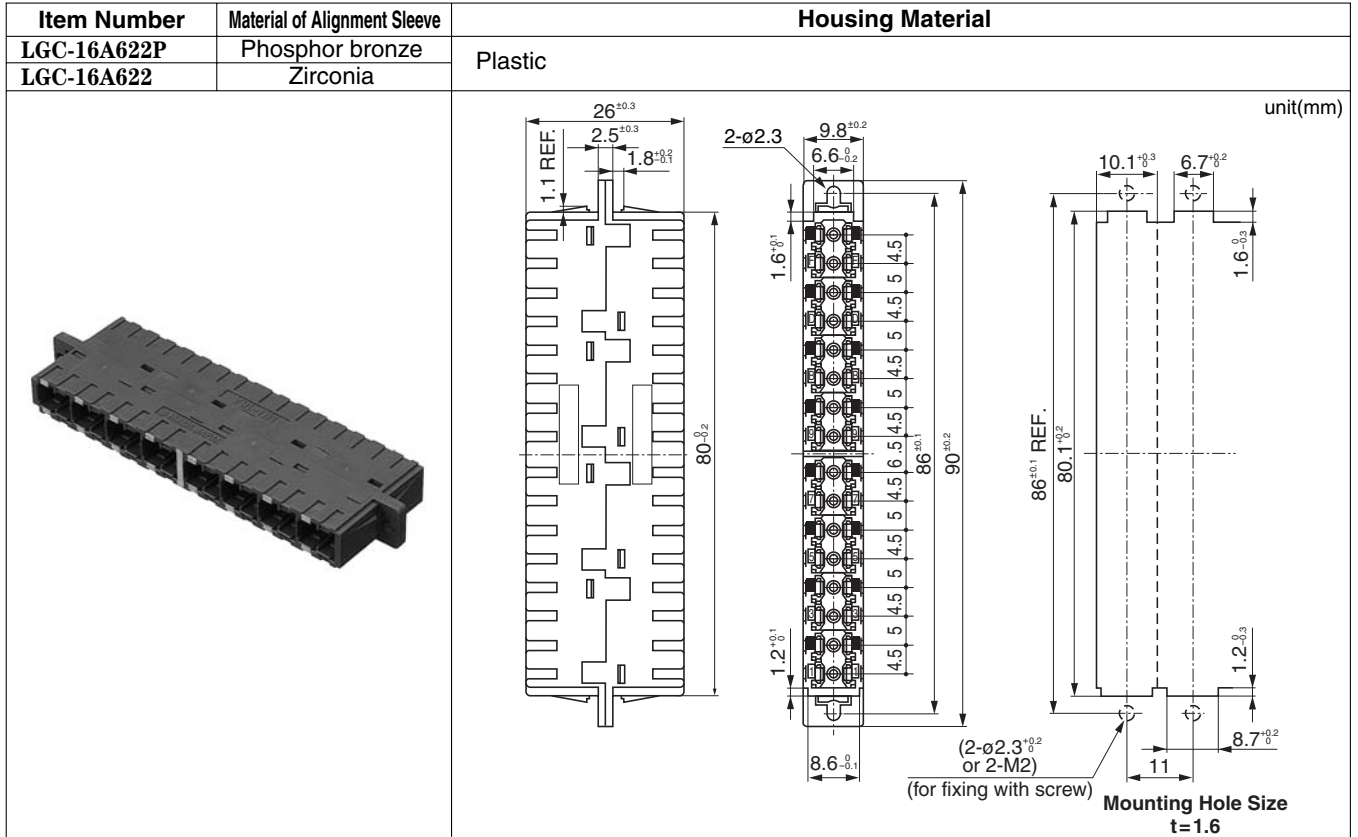
Optical fiber connector

MU-type

JIS C 5983 F14 type

Adaptor

● **Screw-Fixing-Bracket for Vertical Board type**



MU-type Adaptor (6.25mm pitch between terminals)

LGC-2A632[]


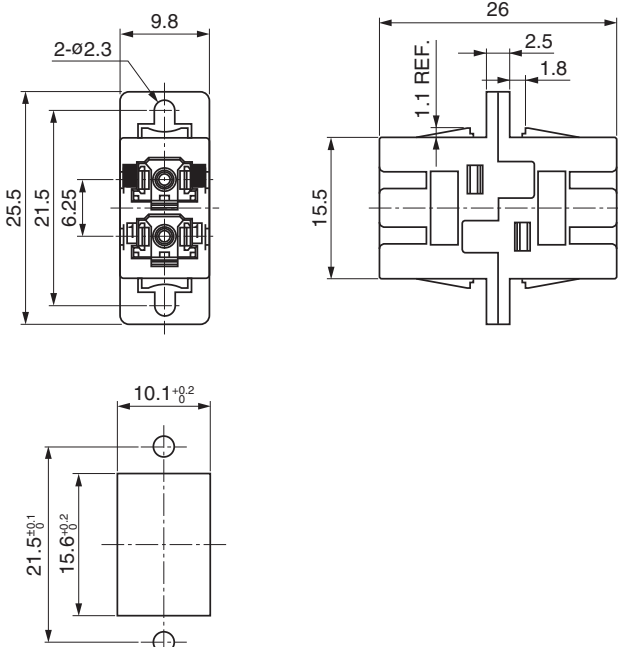
LGC-8A632[]

MU-type


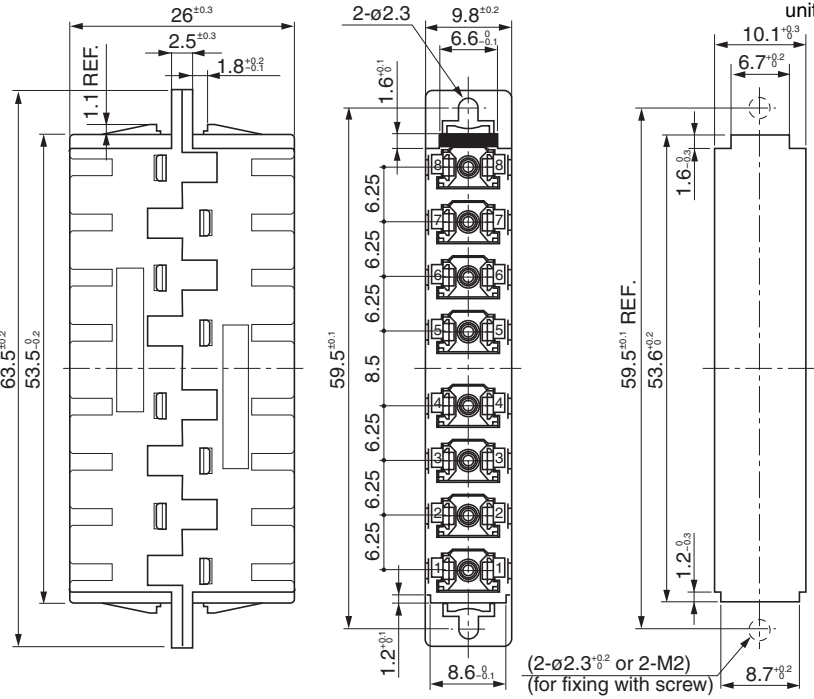
JIS C 5983 F14 type

Adaptor

● Screw-Fixing-Bracket for Vertical Board type

Item Number	Material of Alignment Sleeve	Housing Material	
LGC-2A632P	Phosphor bronze	Plastic	
LGC-2A632	Zirconia		
			
		<p>unit(mm)</p> <p>Mounting Hole Size t=1.6</p>	

RoHS


Item Number	Material of Alignment Sleeve	Housing Material	
LGC-8A632P	Phosphor bronze	Plastic	
LGC-8A632	Zirconia		
			
		<p>unit(mm)</p> <p>Mounting Hole Size t=1.6</p>	

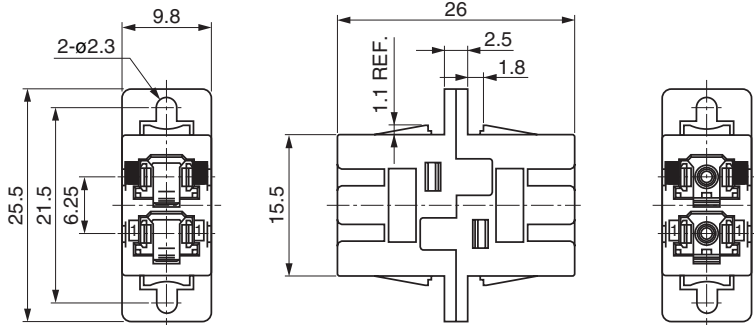
RoHS

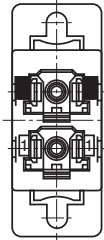
MU-type Adaptor with a Shutter
(6.25mm pitch between terminals)
LGC-600 series

Item Number	Material of Alignment Sleeve	Housing Material
LGC-2SA632P	Phosphor bronze	Plastic
LGC-2SA632	Zirconia	

unit(mm)







RoHS

The mounting hole size is equal to that of LGC-2A632.

MU-type/High-density Plug-in-type Optical Fiber Connector LGC-600 series

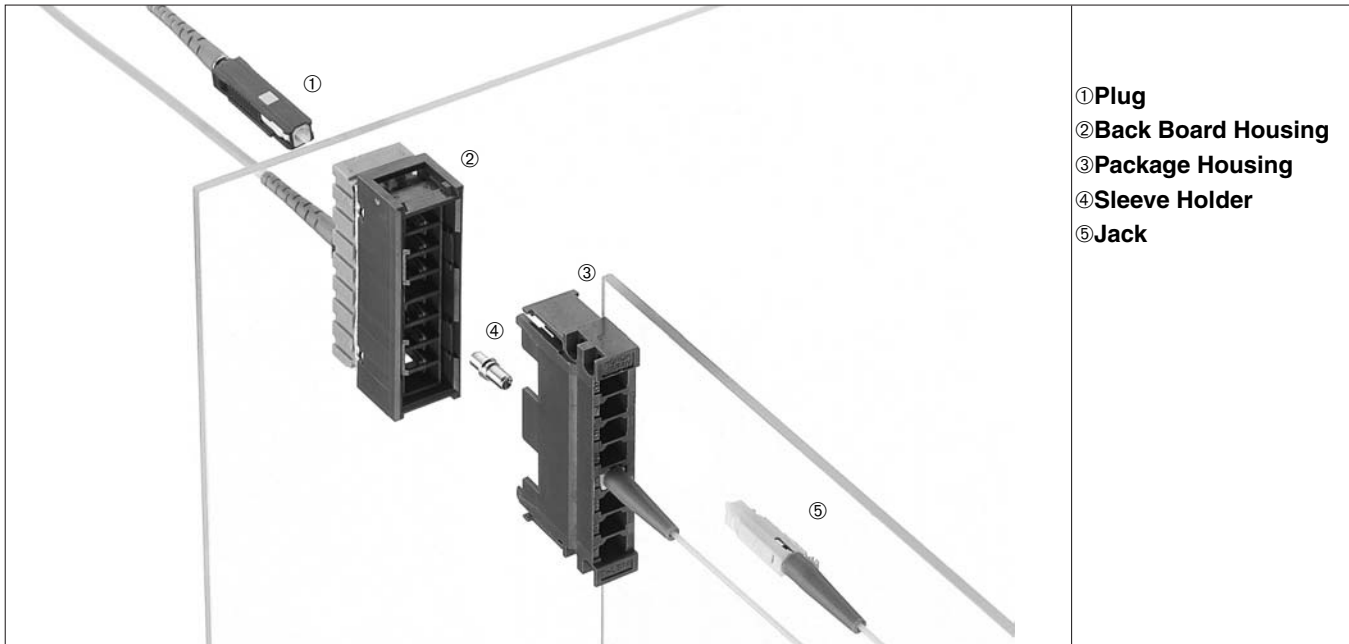
Optical fiber connector

MU-type/High-density Plug-in-type

JIS C 5983 F14 type

■ High-density Plug-in-type Optical Fiber Connector

This connector has been developed for high-density mounting the plug-in-type (DS) optical connector. Its packaging density amounts to about 4 times as compared with the plug-in-type (DS) connector. It consists of a plug (consisting of a plug housing and a $\phi 1.25\text{mm}$ ferrule), a back board housing, a package housing, a sleeve holder include alignment sleeve, and a jack (consisting of a jack housing and a $\phi 1.25\text{mm}$ ferrule).



- ① Plug
- ② Back Board Housing
- ③ Package Housing
- ④ Sleeve Holder
- ⑤ Jack

● Specifications

Items	Requirements	Actual Value (Average)
Insertion Loss	Single Mode : 0.5dB or less	0.2dB
	Multi Mode Graded Index : 0.3dB or less	0.1dB
Return Loss	Single Mode (AdPC polishing) : 40dB or more	50dB
	Single Mode (PC polishing) : 22dB or more	30dB
	Multi Mode Graded Index (PC polishing) : 22dB or more	29dB

High-density Plug-in-type Back Board Housing/ Package Housing LGC-600 series

Optical fiber connector

MU-type/High-density Plug-in-type

JIS C 5983 F14 type

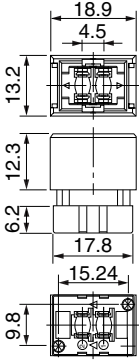
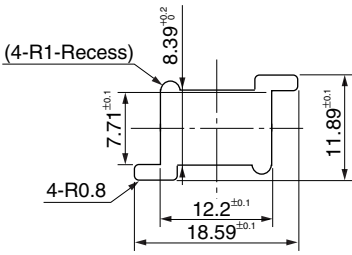

Back board/Package housing

High-density Plug-in-type Back Board Housing (HA, B Housing)

These housings are sorted into those for 2-ports type, 4-ports type, and 8-ports type. Each housing is mounted by inserting it to the back board and then, fixing it with screws.

● 2-ports High-density Plug-in-type Back Board Housing (C-L2HA, B Housing)

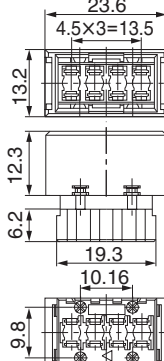
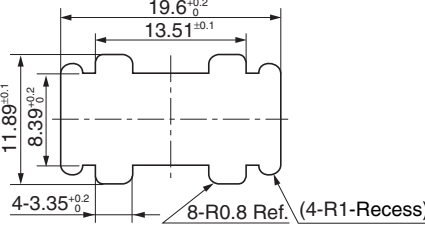

This housing is connected to the 2-ports high-density plug-in-type package housing (LGC-L2PA+R).

Item Number	Back Board Thickness		unit(mm)	Mounting Hole Size	unit(mm)	
LGC-L2HA+R	2.4mm					
LGC-L2HB+R	3.2mm					
						

RoHS

● 4-ports High-density Plug-in-type Back Board Housing (C-L4HA, B Housing)

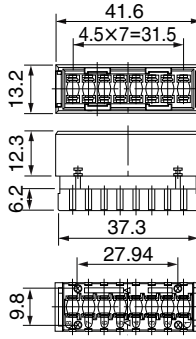
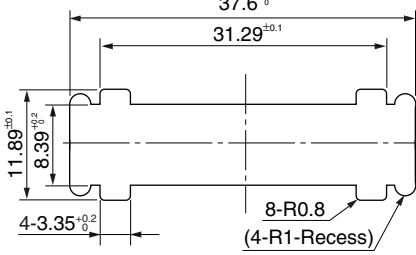

This housing is connected to the 4-ports high-density plug-in-type package housing (LGC-L4PA+R).

Item Number	Back Board Thickness		unit(mm)	Mounting Hole Size	unit(mm)	
LGC-L4HA+R	2.4mm					
LGC-L4HB+R	3.2mm					
						

RoHS

● 8-ports High-density Plug-in-type Back Board Housing (C-L8HA, B Housing)

This housing is connected to the 8-ports high-density plug-in-type package housing (LGC-L8PA+R).

Item Number	Back Board Thickness		unit(mm)	Mounting Hole Size	unit(mm)	
LGC-L8HA+R	2.4mm					
LGC-L8HB+R	3.2mm					
						

RoHS

High-density Plug-in-type Package Housing LGC-600 series

Optical fiber connector

MU-type/High-density Plug-in-type

JIS C 5983 F14 type

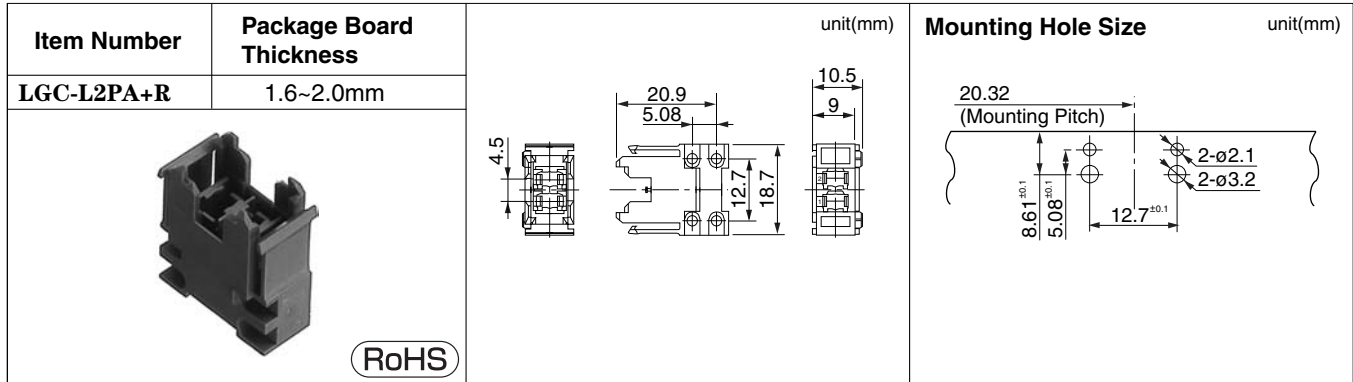
Package housing

High-density Plug-in-type Package Housing (PA Housing)

These housings are sorted into those for 2-ports type, 4-ports type, and 8-ports type.
This housing is mounted to the package board surface with screws.

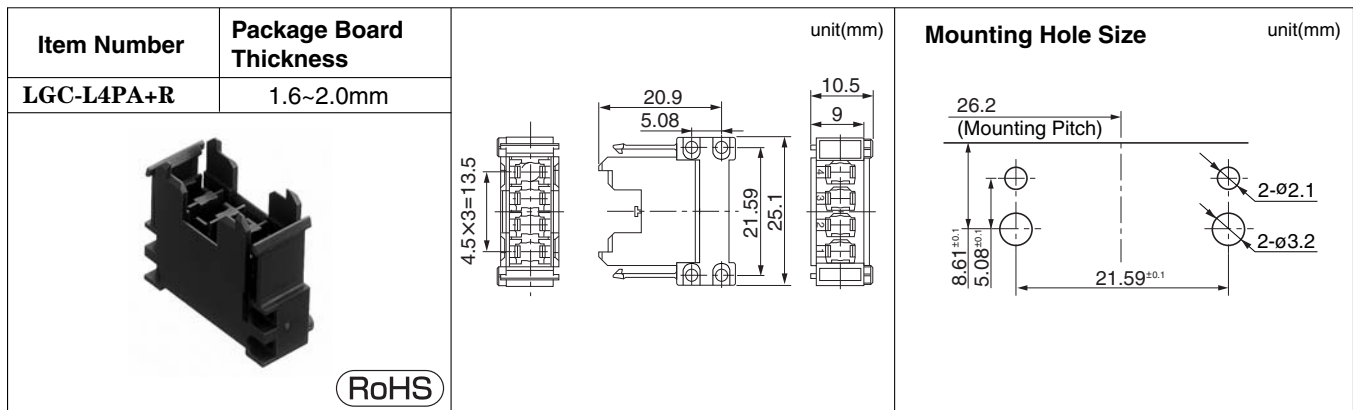
● 2-ports High-density Plug-in-type Package Housing (C-L2PA Housing)

This housing is connected to the 2-ports high-density plug-in-type back board housing (LGC-L2HA+R or LGC-L2HB+R).



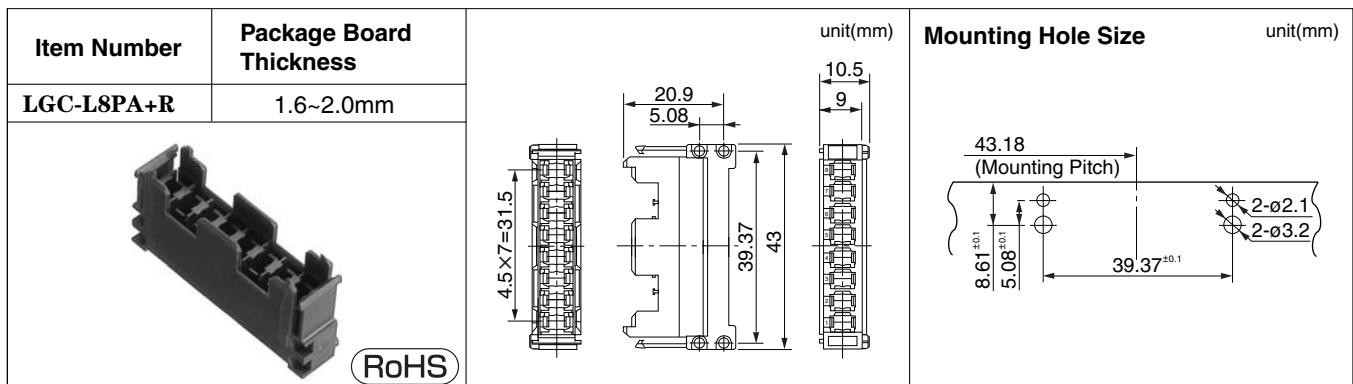
● 4-ports High-density Plug-in-type Package Housing (C-L4PA Housing)

This housing is connected to the 4-ports high-density plug-in-type back board housing (LGC-L4HA+R or LGC-L4HB+R).



● 8-ports High-density Plug-in-type Package Housing (C-L8PA, B Housing)

This housing is connected to the 8-ports high-density plug-in-type back board housing (LGC-L8HA+r or LGC-L8HB+R).



High-density Plug-in-type Package Housing

LGC-600 series

Optical fiber connector



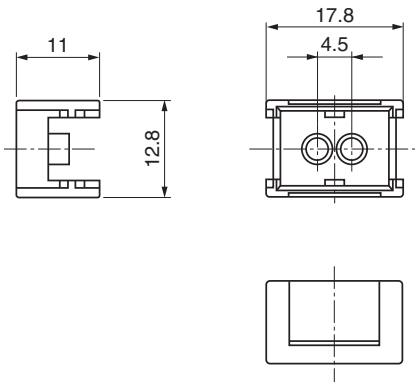


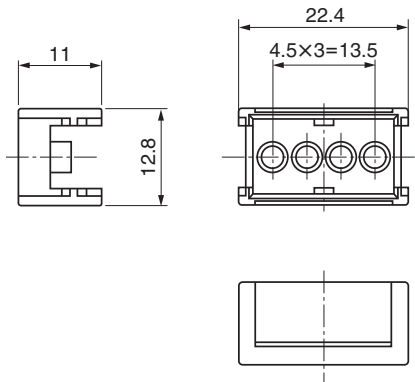


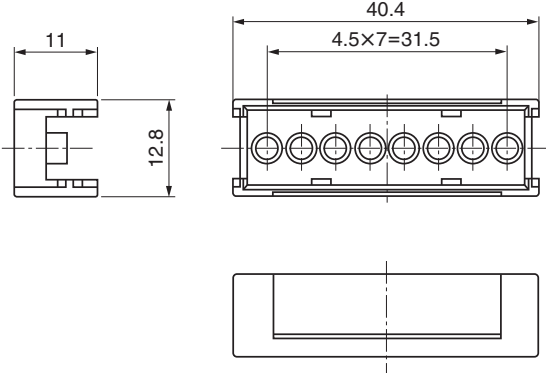
MU-type/High-density Plug-in-type

JIS C 5983 F14 type

Package housing

High-density Plug-in-type Package Housing Cap (PA Housing Cap)

These are caps for High-density Plug-in-type Package Housing

Item Number	No. of contacts	
LGC-CL2PB	2-ports	  
LGC-CL4PB	4-ports	  
LGC-CL8PB	8-ports	  

Housing for Back Board for Hard Metric LGC-600 series

Optical fiber connector

MU-type/High-density Plug-in-type

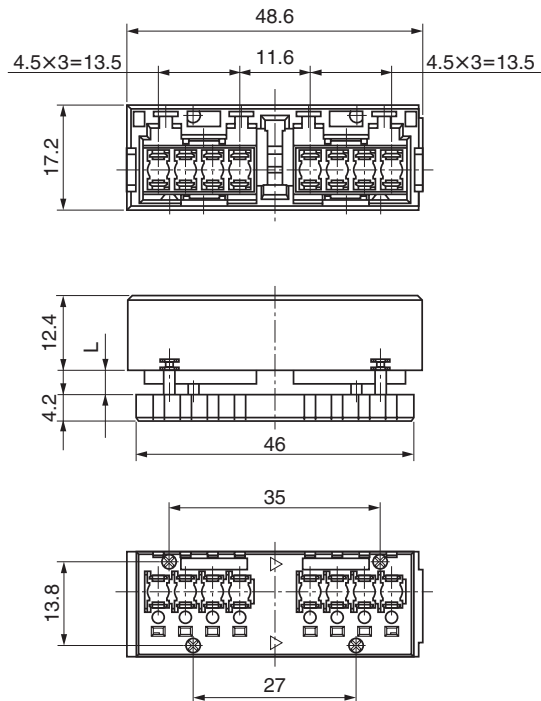
JIS C 5983 F14 type

Back board housing

Housing for Back Board for Hard Metric (HA Housing)

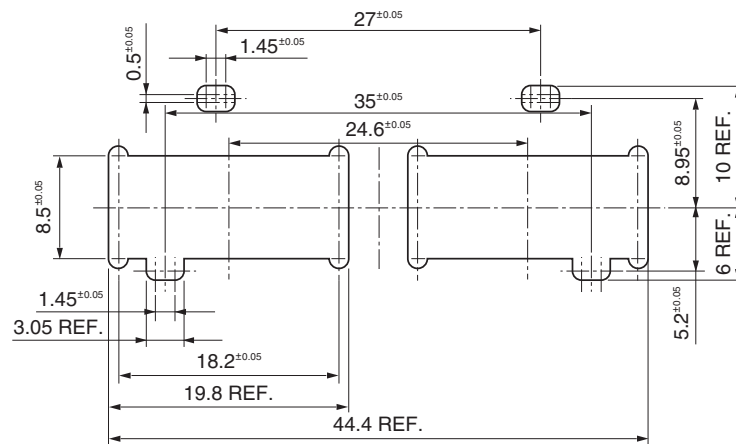
It connects it with housing for package for hard metric LGC-LZ8PA+R

Item Number	Back Board Thickness (L)	Back Housing Color
LGC-LZ8HA+R	3.7mm	Beige
LGC-LZ8HB+R	3.1mm	Black



Mounting Hole Size

unit(mm)



RoHS

R are all R0.8

Housing for Package for Hard Metric LGC-600 series

Optical fiber connector

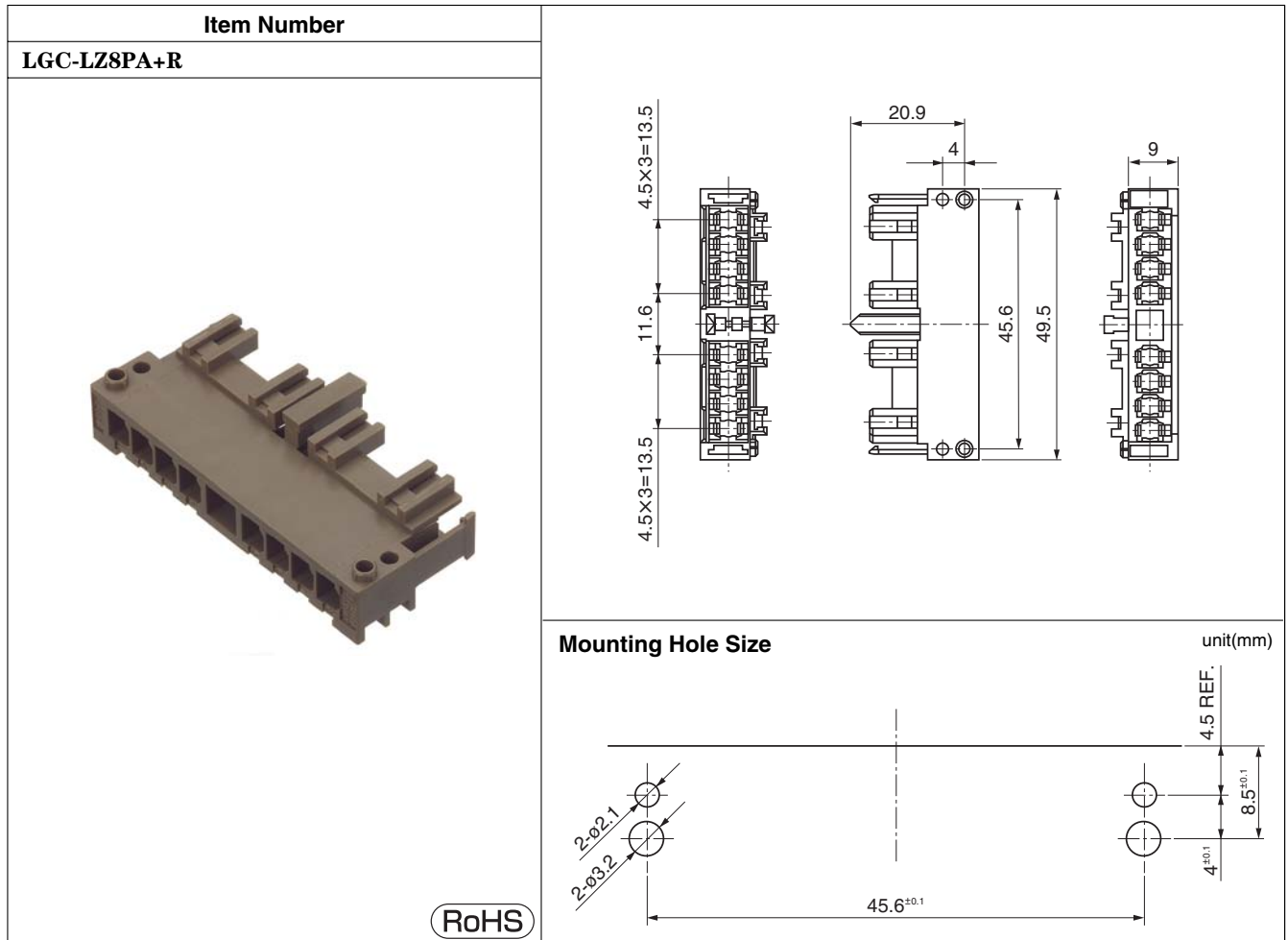
MU-type/High-density Plug-in-type

JIS C 5983 F14 type

Package housing

Housing for Package for Hard Metric (PA Housing)

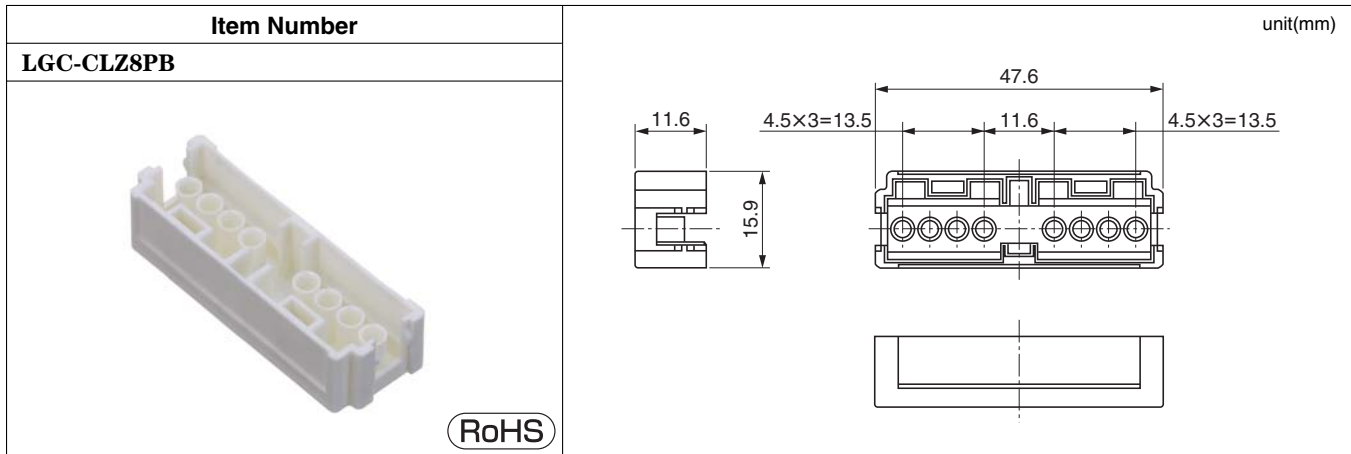
It connects it with housing for backboard for hard metric LGC-LZ8HA or LGC-LZ8HB+R



Package Housing Cap for Hard Metric
Housing Misinsertion Prevention Key for Hard Metric
LGC-600 series

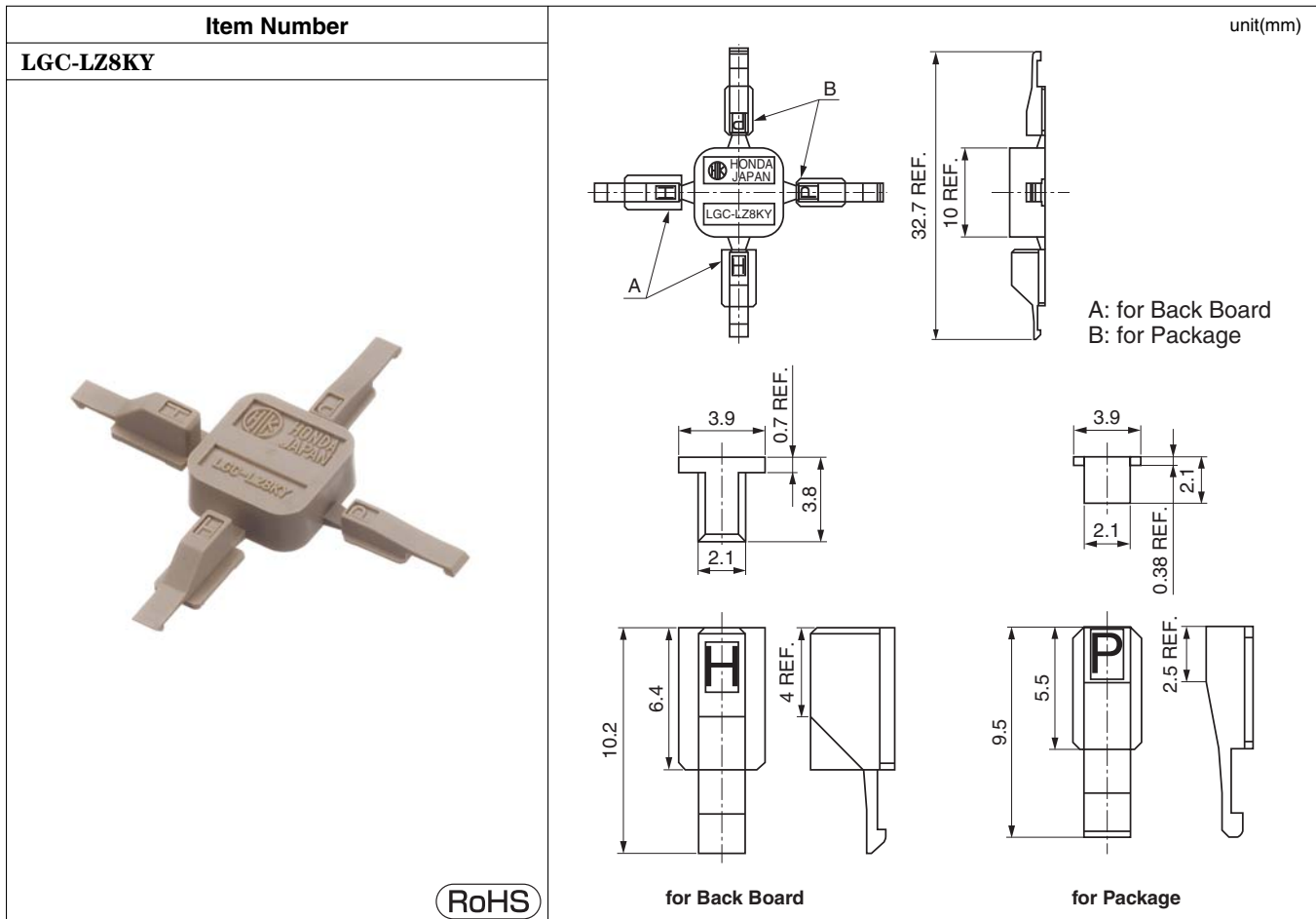
Package Housing Cap for Hard Metric (PA Housing Cap)

There are caps for Package Housing for Hard Metric LGC-LZ8PA+R.



Housing Misinsertion Prevention Key for Hard Metric

This is a housing misinsertion prevention key for hard metric.
 A set is composed of two keys for the backboard and two keys for the package.



High-density Plug-in-type Jack LGC-600 series

Optical fiber connector

MU-type/High-density Plug-in-type

JIS C 5983 F14 type

Jack

High-density Plug-in-type Jack


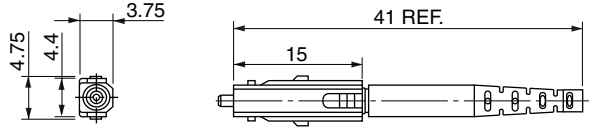

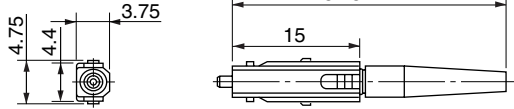
This high-density plug-in-type jack is connected to the high-density plug-in-type package housing. It consists of a high-density plug-in-type jack housing and a $\phi 1.25\text{mm}$ ferrule.

Inserted ferrule, $\phi 1.25\text{mm}$ Ferrule, is the same as in the MU-type plug. (LGC-PFS60[]))

For removing it, use its exclusive removing tool. (LGC-KP602C)

● High-density Plug-in-type Jack Housing (MUJ-PH type plug housing)

This jack housing is connected to the high-density plug-in-type package housing.

Item Number	Applicable Outside diameter of optical fiber cords	Note
LGC-PH624+R	$\phi 2\text{mm}$	For AdPC polishing (Boot color : Mauve)
LGC-PH624B+R		For PC polishing (Boot color : Blue)
		unit(mm) 
(RoHS)		Ferrule is excluded.
Item Number	Applicable Outside diameter of optical fiber cords	Note
LGC-PH623L+R	$\phi 0.9\text{mm}$	For AdPC polishing (Boot color : Mauve)
LGC-PH623B+R		For PC polishing (Boot color : Blue)
		unit(mm) 
(RoHS)		Ferrule is excluded.

High-density Plug-in-type MU-type Sleeve Holder/Dummy plug/Dummy Jack

LGC-600 series

Optical fiber connector


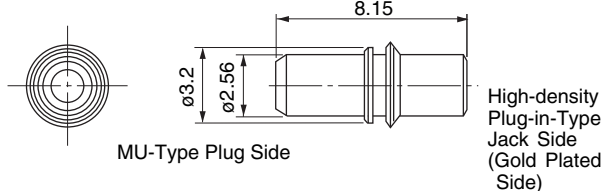

MU-type/High-density Plug-in-type

JIS C 5983 F14 type


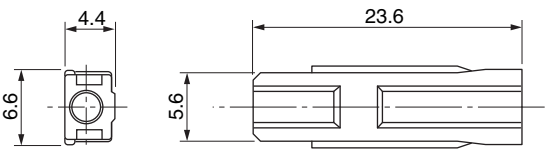

Sleeve Holder/Dummy plug/Dummy Jack

MU-type Sleeve Holder (MU-SH type Sleeve Holder)


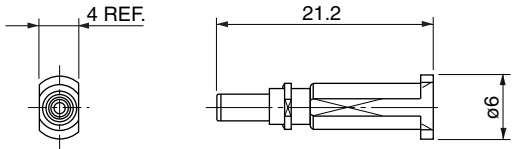

This sleeve holder contains a zirconia alignment sleeve. Use the MU-type Sleeve Holder Mounting / Removing Tool (LGC-6P603C) when mounting or removing this sleeve holder.

Item Number	Note	unit(mm)
LGC-AL8PA+R		
		
		

Dummy plug (MU-DP type Dummy Plug)

Item Number	Note	unit(mm)
LGC-DP601-1		
		
		

Dummy Jack

Item Number	Note	unit(mm)
LGC-DJ601-1		
		
		

Simplified MU-type Optical Fiber Connector LGC-SR600 series

Optical fiber connector

MU-type

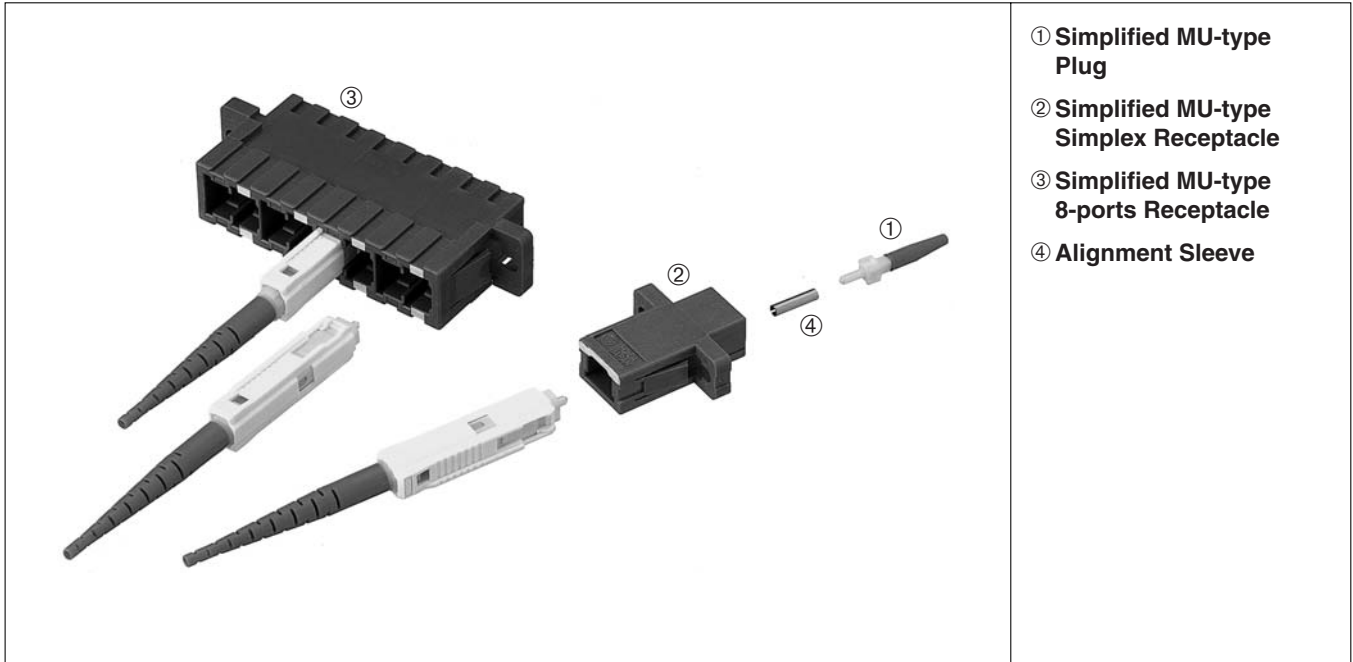
Simplified connector

Ferrule

These optical connectors are constructed by simplifying the structures of MU-type plugs and adaptors.

MU-type or Simplified MU-type plug is connectable to the receptacle.

When pulling out simplified MU-type plugs from simplified receptacles, the extracting tool LGC-KPSR6 (Refer to the page L-67) is required.



- ① Simplified MU-type Plug
- ② Simplified MU-type Simplex Receptacle
- ③ Simplified MU-type 8-ports Receptacle
- ④ Alignment Sleeve

● Specifications

Item	Requirements	Actual Value (Average)
Insertion Loss	Single Mode : 0.5dB or less	0.2dB
	Multi Mode Graded Index : 0.3dB or less	0.1dB
Return Loss	Single Mode (AdPC polishing) : 40dB or more	50dB
	Single Mode (PC polishing) : 22dB or more	30dB
	Multi Mode Graded Index (PC polishing) : 22dB or more	29dB

Simplified MU-type Plug

Each simplified MU-type plug is provided with a ferrule of zirconia. The inside diameter of the ferrule can be selected to align with the outside diameter of an optical fiber as follows.


Item Number	Inside diameter of ferrule [mm]	Outside diameter of ferrule [mm]	Mode
LGC-PFS633	ø0.123	ø1.249±0.0005	Single mode
LGC-PFS634	ø0.124		
LGC-PFS635	ø0.125		
LGC-PFS6355	ø0.1255		
LGC-PFS636	ø0.126		
LGC-PFS637	ø0.127		
LGC-PFS638	ø0.128		

Simplified MU-type Receptacle
LGC-SR631 [1]

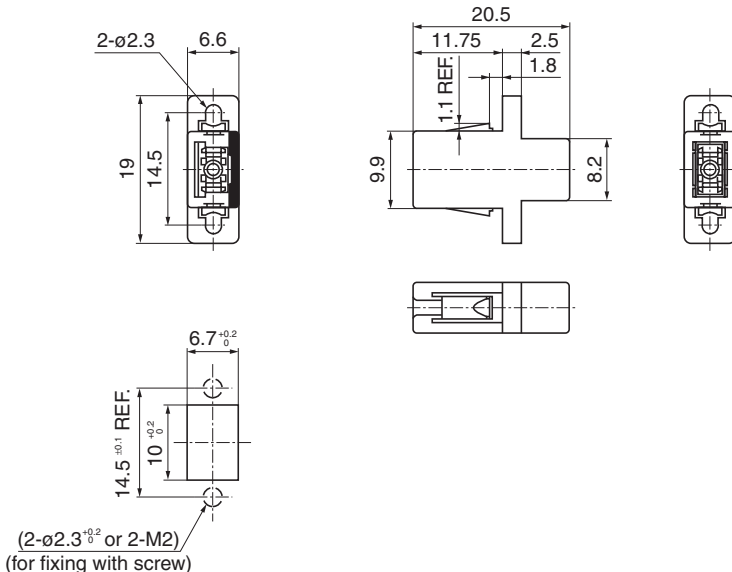
Optical fiber connector
MU-type
Simplified connector
Receptacle

● **Screw-Fixing-Bracket for Vertical Board type**

Item Number	Material of Alignment Sleeve	Housing Material
LGC-SR631B	Phosphor bronze	Plastic
LGC-SR631	Zirconia	



unit(mm)



$2-\phi 2.3$ 6.6
 19
 14.5
 20.5
 11.75 2.5
 1.1 REF. 1.8
 9.9 8.2
 6.7^{+0.2}
 14.5^{+0.1} REF. 10^{+0.0}
 (2- $\phi 2.3$ ^{+0.2} or 2-M2)
 (for fixing with screw)
Mounting Hole Size
t=1.6

RoHS

Simplified MU-type Receptacle


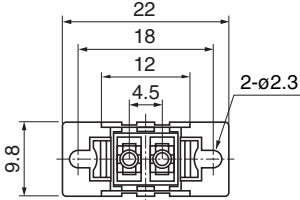
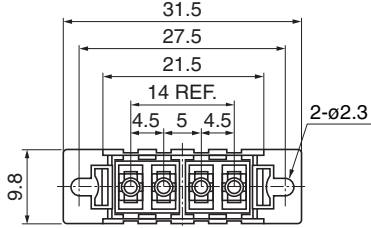
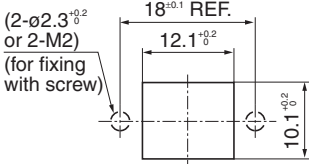
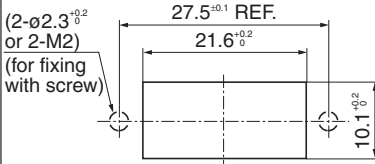

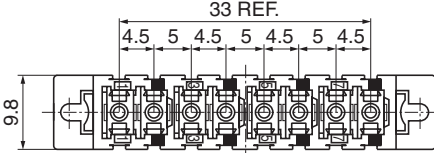
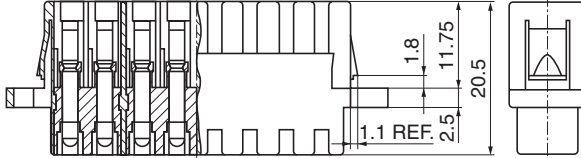
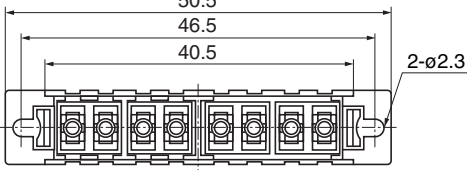
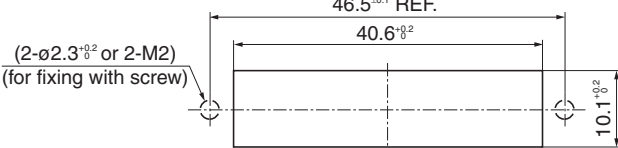
- LGC-2SR631 []
- LGC-4SR631 []
- LGC-8SR631 []

MU-type

Simplified connector

Receptacle

● Screw-Fixing-Bracket for Vertical Board type

Item Number	Material of Alignment Sleeve	Housing Material	
LGC-2SR631B	Phosphor bronze	Plastic	unit(mm)
LGC-2SR631	Zirconia		
 <p style="text-align: right;">RoHS</p>		<p>LGC-2SR631 []</p>  <p>Note: Dimensions in axial direction are same as the dimensions of LGC-8SR631 [], as shown below.</p>	<p>LGC-4SR631 []</p>  <p>Note: Dimensions in axial direction are same as the dimensions of LGC-8SR631 [], as shown below.</p>
		<p>(2-ø2.3^{+0.2} or 2-M2) (for fixing with screw)</p>  <p>Mounting Hole Size t=1.6</p>	<p>(2-ø2.3^{+0.2} or 2-M2) (for fixing with screw)</p>  <p>Mounting Hole Size t=1.6</p>
LGC-4SR631B	Phosphor bronze	Plastic	unit(mm)
LGC-4SR631	Zirconia		
 <p style="text-align: right;">RoHS</p>		<p>LGC-8SR631 []</p>    <p>(2-ø2.3^{+0.2} or 2-M2) (for fixing with screw)</p>  <p>Mounting Hole Size t=1.6</p>	<p style="text-align: right;">RoHS</p>

Simplified MU-type Receptacle
LGC-16SR631 [1]

Optical fiber connector
MU-type
Simplified connector
Receptacle

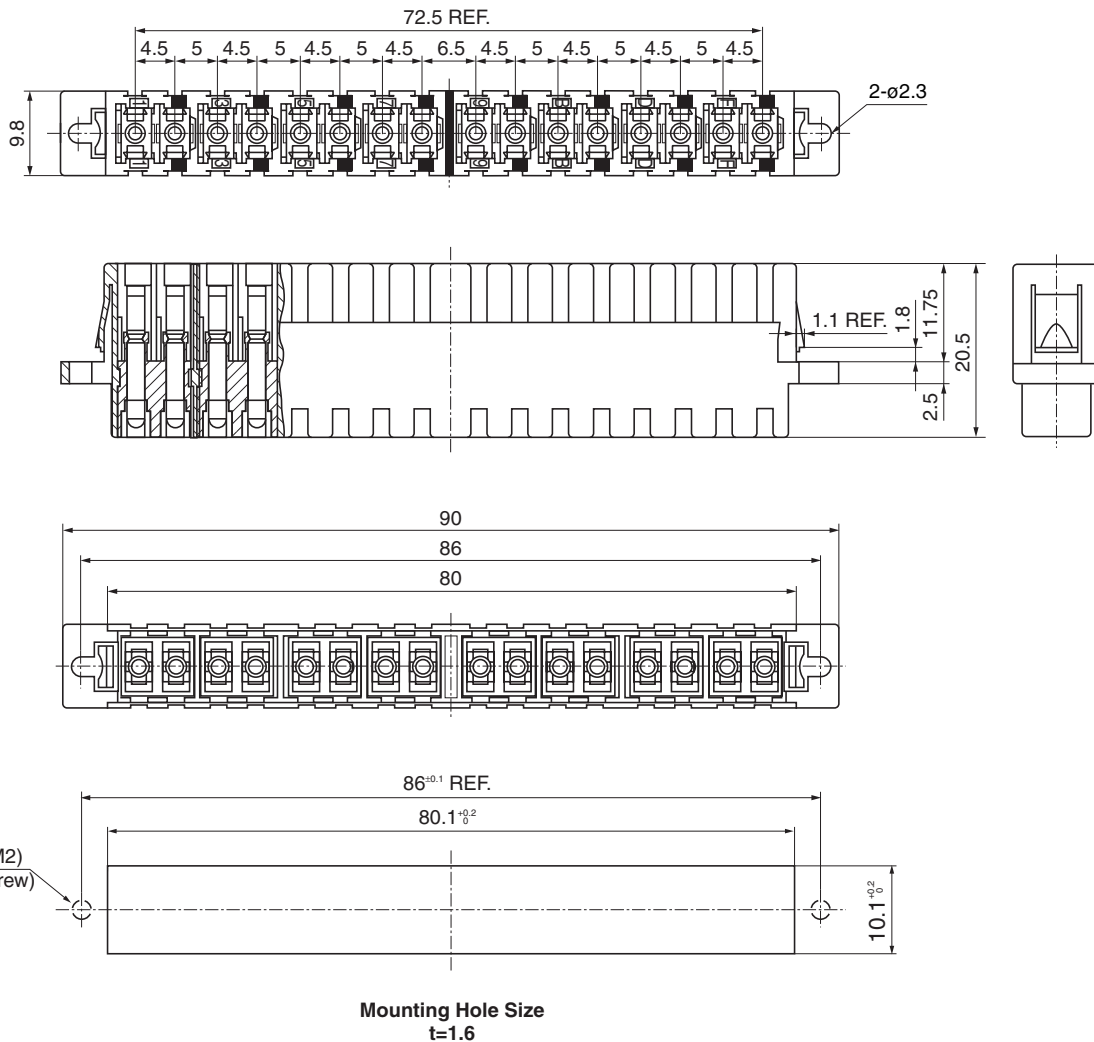
● **Screw-Fixing-Bracket for Vertical Board type**

Item Number	Material of Alignment Sleeve	Housing Material
LGC-16SR631B	Phosphor bronze	Plastic
LGC-16SR631	Zirconia	



RoHS


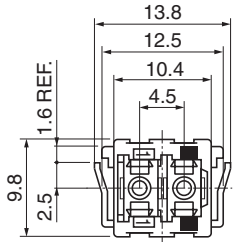
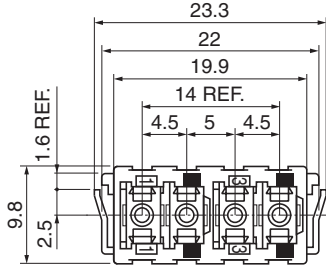

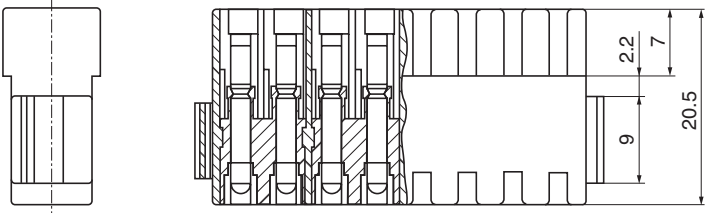
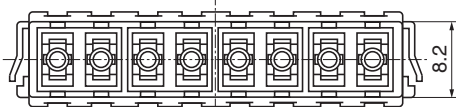

unit(mm)



Simplified MU-type Receptacle

LGC-2SR611[]
 LGC-4SR611[]
 LGC-8SR611[]

● Spring-Lock type

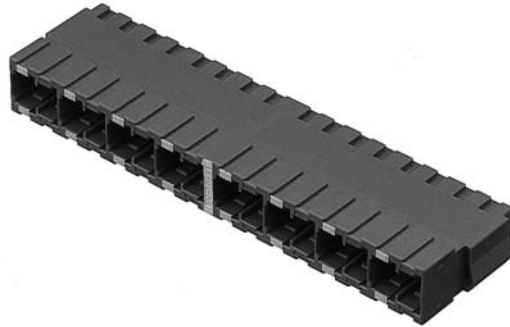
Item Number	Material of Alignment Sleeve	Housing Material											
LGC-2SR611B	Phosphor bronze	Plastic											
LGC-2SR611	Zirconia												
 <p style="text-align: right;">RoHS</p>		<p>LGC-2SR611[] unit(mm)</p>  <p>Note: Dimensions in axial direction are same as the dimensions of LGC-8SR611 [], as shown below.</p>	<p>LGC-4SR611[] unit(mm)</p>  <p>Note: Dimensions in axial direction are same as the dimensions of LGC-8SR611 [], as shown below.</p>										
		<table border="1"> <thead> <tr> <th>Item Number</th> <th>Material of Alignment Sleeve</th> <th colspan="2">unit(mm)</th> </tr> </thead> <tbody> <tr> <td>LGC-4SR611B</td> <td>Phosphor bronze</td> <td colspan="2" rowspan="2"></td> </tr> <tr> <td>LGC-4SR611</td> <td>Zirconia</td> </tr> </tbody> </table>		Item Number	Material of Alignment Sleeve	unit(mm)		LGC-4SR611B	Phosphor bronze			LGC-4SR611	Zirconia
Item Number	Material of Alignment Sleeve	unit(mm)											
LGC-4SR611B	Phosphor bronze												
LGC-4SR611	Zirconia												
 <p style="text-align: right;">RoHS</p>													
<table border="1"> <thead> <tr> <th>Item Number</th> <th>Material of Alignment Sleeve</th> <th colspan="2"></th> </tr> </thead> <tbody> <tr> <td>LGC-8SR611B</td> <td>Phosphor bronze</td> <td colspan="2" rowspan="2"></td> </tr> <tr> <td>LGC-8SR611</td> <td>Zirconia</td> </tr> </tbody> </table>		Item Number	Material of Alignment Sleeve			LGC-8SR611B	Phosphor bronze			LGC-8SR611	Zirconia		
Item Number	Material of Alignment Sleeve												
LGC-8SR611B	Phosphor bronze												
LGC-8SR611	Zirconia												
 <p style="text-align: right;">RoHS</p>													

Simplified MU-type Receptacle
LGC-16SR611 []

Optical fiber connector
MU-type
Simplified connector
Receptacle

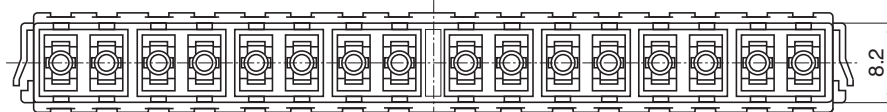
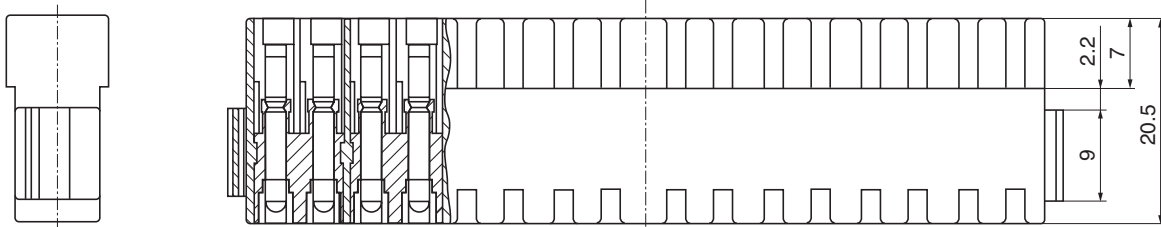
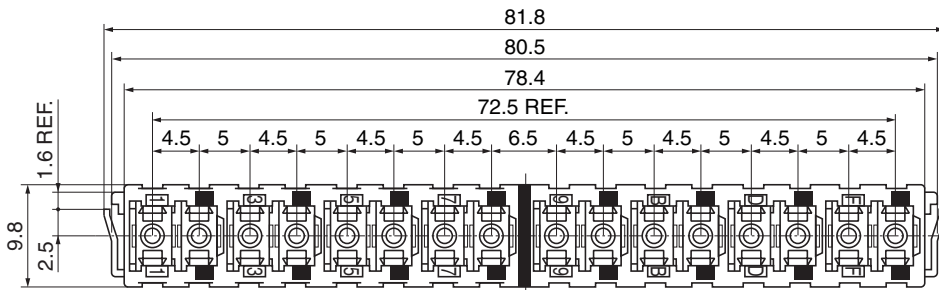
● Spring-Lock type

Item Number	Material of Alignment Sleeve	Housing Material
LGC-16SR611B	Phosphor bronze	Plastic
LGC-16SR611	Zirconia	



RoHS


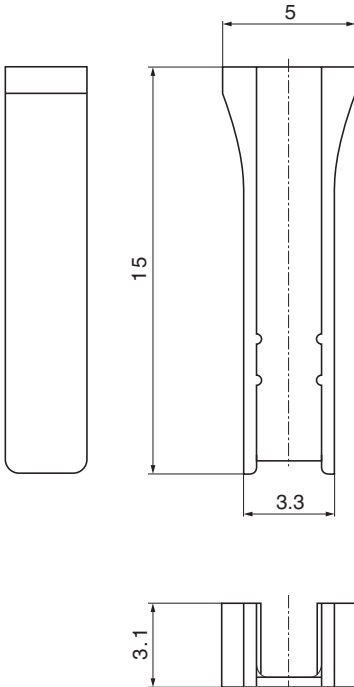

unit(mm)



Removing Tool
LGC-KPSR6

● **Removing Tool**

This tool is for extracting simplified MU-type plug mating with simplified receptacle.

Item Number	Note
LGC-KPSR6	<div style="text-align: right;">unit(mm)</div>   <div style="text-align: center; margin-top: 20px;">  </div>

MU-type Terminator

Optical fiber connector


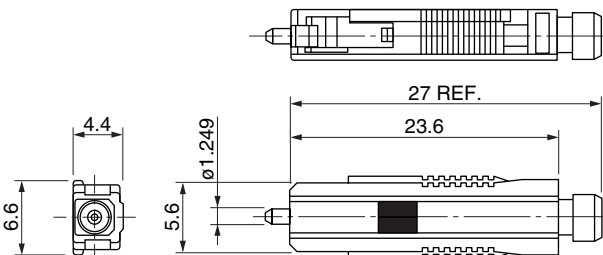

MU-type/High-density Plug-in-type

Terminator


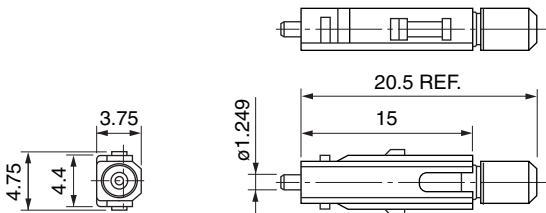

MU-type Terminator

Terminators are used for preventing the reflected light at the end faces of optical connectors. They are sorted into the plug type, jack type, and adaptor type.


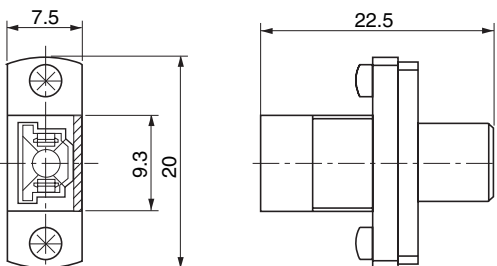

● MU Plug type Terminator (MU-P-TA type Terminator)

Item Number	Note
LGC-PTA601+R	Return loss : 40dB or more for Single Mode
	 <p>unit(mm)</p>
	

● MU Jack type Terminator (MU-J-TA type Terminator)

Item Number	Note
LGC-PTA621+R	Return loss : 40dB or more for Single Mode
	 <p>unit(mm)</p>
	

● MU Adaptor type Terminator

Item Number	Note
LGC-ATA601+R	Return loss : 40dB or more
	 <p>unit(mm)</p>
	

MU-type Receptacle/MU-RA Receptacle Attachments LGC-600 series

Optical fiber connector

MU-type/High-density Plug-in-type


JIS C 5983 F14 type

Receptacle

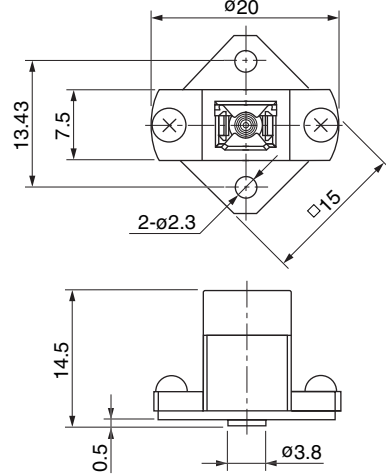
MU-type Receptacle/MU-RA Receptacle Attachments

● MU-type Receptacle

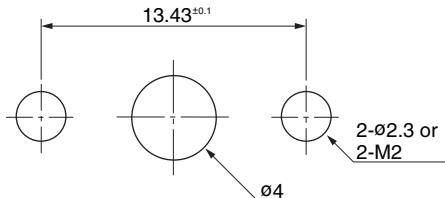
Item Number	Note
LGC-R605	



unit(mm)



Mounting Hole Size




RoHS

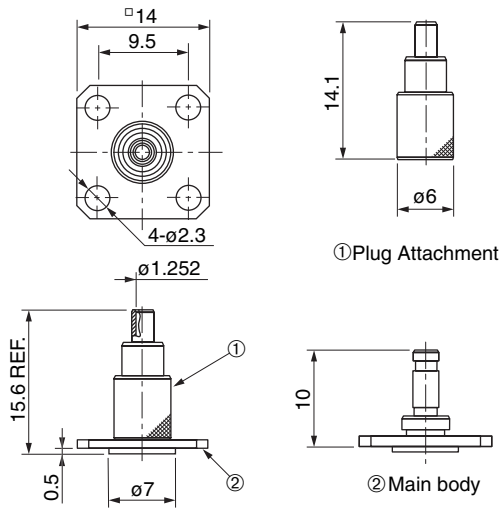
● MU-RA Receptacle Attachments

Use these receptacles by mounting them to measuring instruments, etc. The main body is the same as in the receptacle of plug-in-type optical connector (LGC-HFCR1+R or LGC-HFCR2+R: Refer to page L-19) and it is applicable by replacing the attachment.

Item Number	Note
LGC-RH601+R	Attachment only



unit(mm)



RoHS

The mounting hole size is equal to that of LGC-HFCR[]+R.

MU-type Tool
LGC-600 series

MU-type

Tool

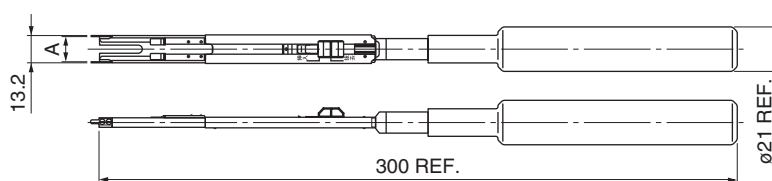
MU-type Plug Mounting/Removing Tool (C-LMU type [] Plug Mounting/Removing Tool)

Plug removing tools, jack removing tool, cleaning tool, are available.

● MU-type Plug Mounting/Removing Tool (C-LMU type [] Plug Mounting/Removing Tool)

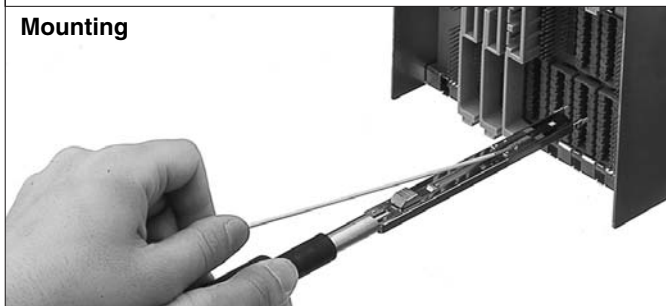
This tool is used for mounting the MU-type plug to or removing it from the back board housing.

Item Number	Size A	Name	Note
LGC-KP601C+R	12.1mm	For high-density plug-in-type back board housing	C-LMU type B plug mounting/removing tool
LGC-KP601D+R	9.1mm	For MU-type adaptor plug	C-LMU type A plug mounting/removing tool

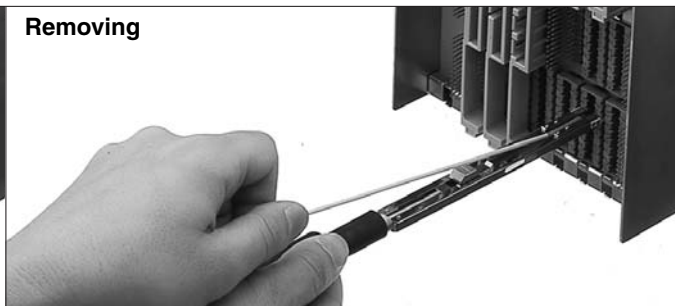


RoHS

Mounting



Removing



MU-type Tool
LGC-600 series




Optical fiber connector

MU-type

Tool


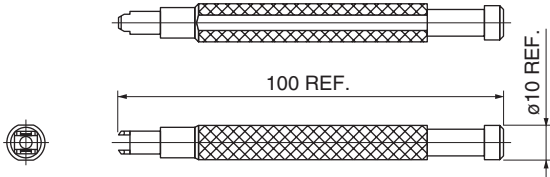


● **MU-type Sleeve Holder Mounting/Removing Tool (MU-SH type Sleeve Holder Mounting/Removing Tool)**

This tool is used for mounting the MU-type sleeve holder to or removing the sleeve holder from the package housing.

Item Number	Removing	After Removal
LGC-KP603C		
		
(RoHS)		



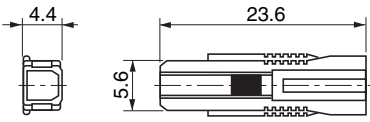
● **High-density Plug-in-type Jack Removing Tool (MUJ-PH type Plug Removing Tool)**

This tool is used for removing the High-density Plug-in-type Jack from the package housing.

Item Number	Note
LGC-KP602C	
	<div style="text-align: right;">unit(mm)</div> 
(RoHS)	
Removing 	After Removal 

● **High-density Plug-in-type Jack Mounting/Removing Pad**

The high-density plug-in-type jack can be freely removed from the back board housing and adaptor by mounting this pad to the jack.

Item Number	Mounted Condition	unit(mm)
LGC-Z43		
		
(RoHS)		

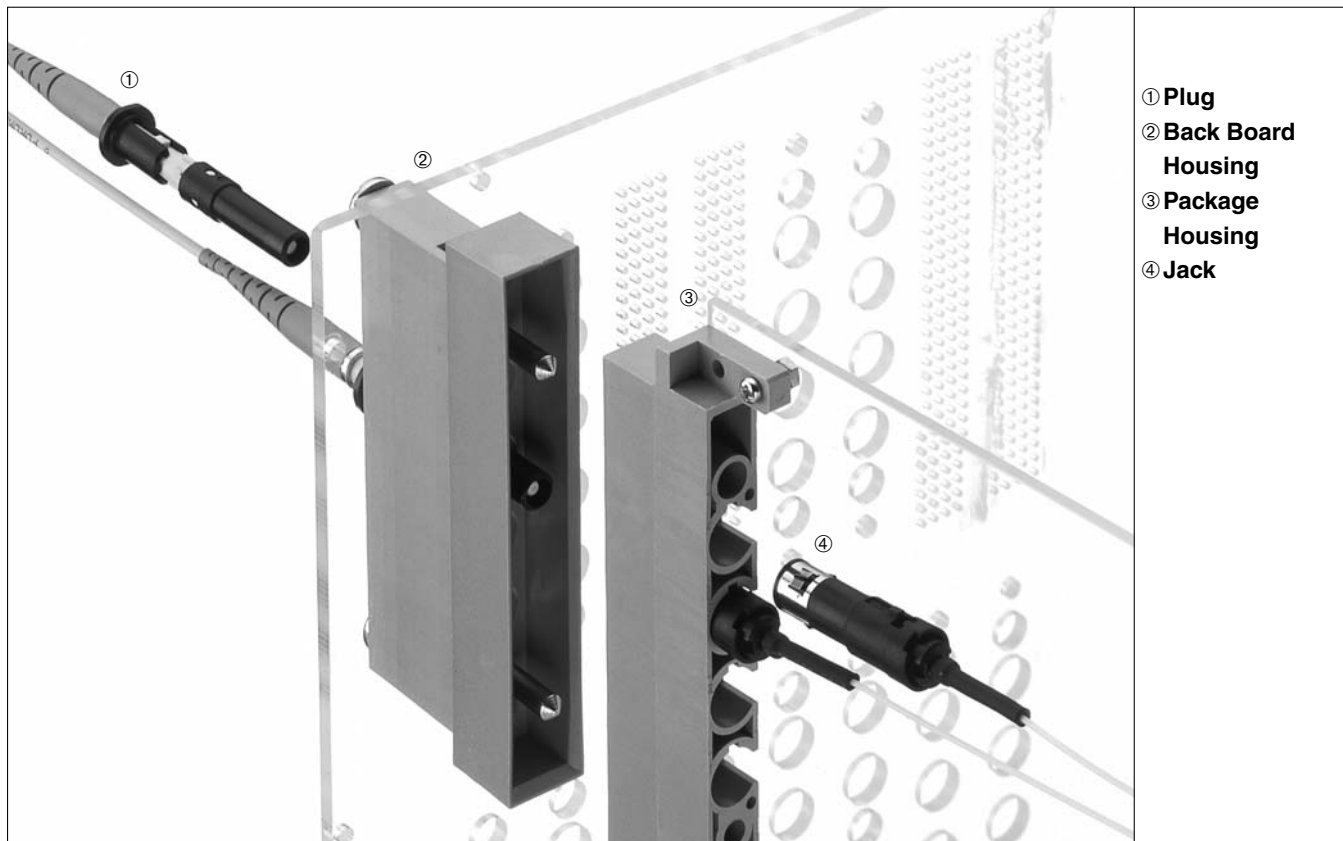
Plug-in (DS)-type Optical Connector LGC-HFC series

Optical fiber connector

Plug-in (DS)-type

JIS C 5980 F11 type

The plug-in (DS)-type optical connector is applicable to the exchange and transmission systems. It is mountable together with a coaxial connector. It is composed of a plug (consisting of a plug housing and a $\phi 2.5\text{mm}$ ferrule), a back board housing, a package housing, and a jack (consisting of a jack housing and a $\phi 2.5\text{mm}$ ferrule).



- ① Plug
- ② Back Board Housing
- ③ Package Housing
- ④ Jack

●Specifications

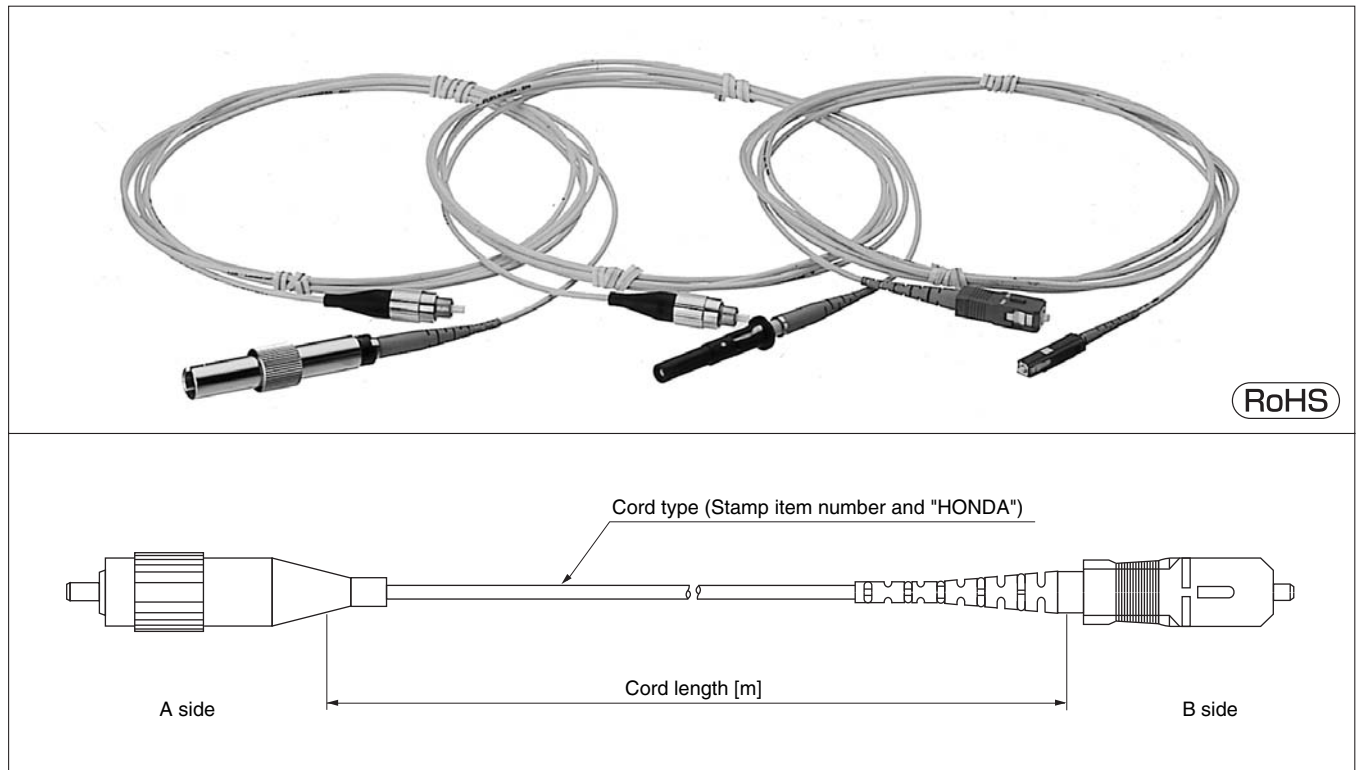
Items	Requirements	Actual Value (Average)
Insertion Loss	Single Mode : 0.5dB or less	0.2dB
	Multi Mode Graded Index : 0.3dB or less	0.1dB
Return Loss	Single Mode (AdPC polishing) : 40dB or more	50dB
	Single Mode (PC polishing) : 22dB or more	30dB
	Multi Mode Graded Index (PC polishing) : 22dB or more	29dB

Note 1: Please contact us for details about this series.

Optical Fiber Cord with Connectors (Patch Cord)

Optical fiber connector
Optical fiber cord with connectors

An optical fiber cord with connectors is produced by harnessing various optical connectors in this catalog.



Note: The cord length shows the length from the rear end of one connector to the rear end of the other connector excluding the boots.

Item Number Configuration

In case of those other than plug-in Optical fiber connector (In case of the example shown in the above figure)

LGC- PA 102 PA 353 - SM 2 + R

A Side Connector Name

Set the connector having a lower number in the table to the A side.

B Side Connector Name

Deleted in case of a cord with a connector at one end only.

Cord Length (Unit: m)

RoHS

A Side Polishing Shape	
Entry characters	Polishing shape
P	PC
PA	AdPC
PN	Angled FLAT

B Side Polishing Shape	
Entry characters	Polishing shape
P	PC
PA	AdPC
PN	Angled FLAT

Mode	
Entry characters	Type
SM	10/125SM ($\lambda=1.31\mu\text{m}$)
15SM	8/125SM ($\lambda=1.55\mu\text{m}$)
GI	50/125GI ($\lambda=1.31\mu\text{m}$)

Deleted in case of a cord with a connector at one end only.

Optical Fiber Cord with Connectors (Patch Cord)

Optical fiber connector

Optical fiber cord with connectors

●Types of A or B side connector name

Be careful since the part numbers of the connectors to be harnessed are different from entry characters.

No.	Entry Characters	Connector Type	Part No. of Connector Housing (See Note #1)	Outside Diameter of Optical Fiber Cord
1	102	FC-type plug	LGC-PH2+R	ø2
2	103	FC-type plug	LGC-PH3 []+R	ø0.9 (Buffered fiber)
3	105	FC-type plug (Crimp Assembly type)	LGC-PH5 []+R	ø2
4	353	SC-type plug	LGC-PH353M []+R	ø2
5	305	SC-type plug	LGC-PH305M []	ø0.9 (Buffered fiber)
6	373	SC2-type plug	LGC-PH373M []+R	ø2
7	329	SC2-type plug	LGC-PH329 []+R	ø0.9 (Buffered fiber)
8	604	MU-type plug	LGC-PH604 []+R	ø2
9	603	MU-type plug	LGC-PH603 []+R	ø0.9 (Buffered fiber)
10	624	High-density plug-in-type jack	LGC-PH624 []+R	ø2
11	623	High-density plug-in-type jack	LGC-PH623 []+R	ø0.9 (Buffered fiber)

Note 1: The character to be inserted in [] depend on the boot colors.

Note 2: For the various master cords, please contact us.

Note 3: For the cord of SC and MU-type Vertical and Horizontal 2-ports plug, please contact us.

Connector Convertor

Optical fiber connector


SC-type/MU-type

Connector convertor

SC to MU Connector Convertor

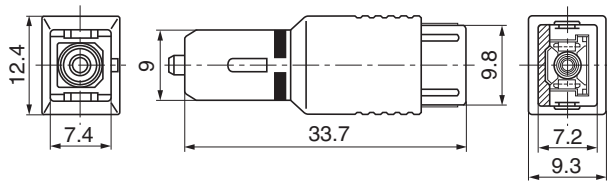
An SC adaptor and an MU-type plug are connectable to each other.

Item Number	Applicable Optical Fiber Mode	Insertion Loss	Return Loss	Ferrule Polishing
LGC-P302/A600SM+R	Single Mode	1.0dB or less	40dB or more	AdPC polishing
LGC-P302/A600GI+R	Multi Mode Graded Index	0.6dB or less	35dB or more	



RoHS

unit(mm)



Conversion Adaptor


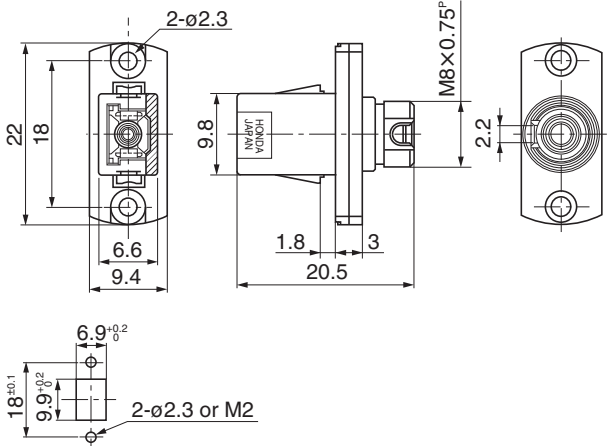
Optical fiber connector

MU-type

Conversion adaptor


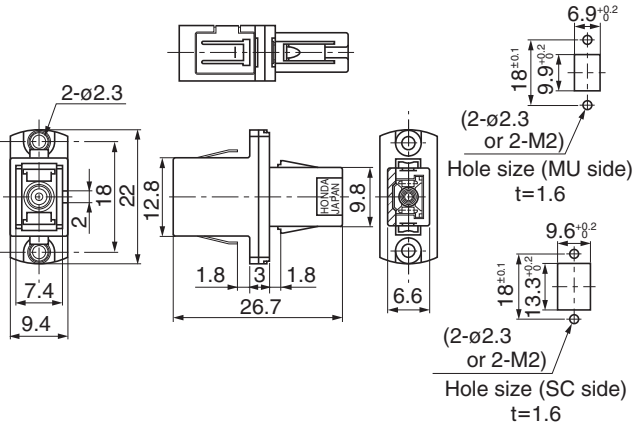
MU-FC type Conversion Adaptor

An MU-type plug and an FC-type plug are connectable to each other.

Item Number	Material of Alignment Sleeve	Note
LGC-A600/A110+R	Phosphor bronze	
		<p>unit(mm)</p>  <p>Hole size (MU side) t=1.6</p>
		<p>RoHS</p>

MU-SC type Conversion Adaptor


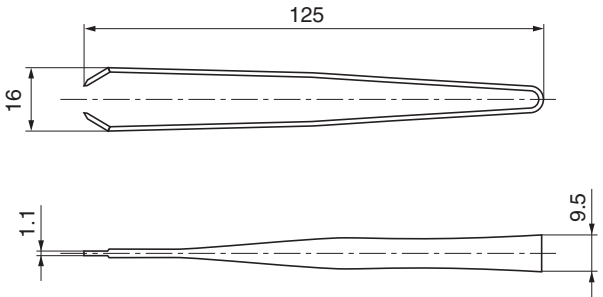
An MU-type plug and an SC-type plug are connectable to each other.

Item Number	Material of Alignment Sleeve	Note
LGC-A600/A302+R	Phosphor bronze	
		<p>unit(mm)</p>  <p>Hole size (MU side) t=1.6</p> <p>Hole size (SC side) t=1.6</p>
		<p>RoHS</p>

MUJ-type Plug Removing Tool
LGC-KP609

Optical fiber connector
Optical fixed attenuator
MU-type
Tool

MUJ-type Plug Removing Tool

Item Number	Note	unit(mm)
LGC-KP609		
		
RoHS		

Note 1: This removing tool is a tool to pull out MU-type plugs from a narrow pitch MU-type fixed optical attenuator LGA-S6()LC+R (Refer to page L-80).

Note 2: For high density plug-in type package housing, please use the LGC-KP602C removing tool (Refer to page L-71).