Optical Fiber Cords

An Example of the Constructions of Optical Fiber Cords

An optical fiber cords 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 Kevler 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.



Core and cladding of optical fiber

The optical fiber modes are shown in the following figures.

Item Number	Single Mede (SM)	Multi Mode (MM)		
nem Number	Single Mode (SM)	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 μ m. 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
1.31µm Single mode optical fiber		10/125	1.31	Yellow
1.55µm Single mode optical fiber	Single mode	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 ø2mm and ø2.8mm. 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
ø2 optical fiber cord	ø2			×
ø2.8 optical fiber cord	ø2.8	X	Nylon resin etc.	^
ø0.9 buffered fiber	ø0.9			
Ultraviolet hardened buffered fiber	ø0.4, ø0.25	—	Ultraviolet hardened resin	

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)

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

Major Specifications

No.	o. Test items		Requirements (See Note #1, #2)	Test method (See Note #2) Refer to JIS C 5961 : 2005
1	Optical	Insertion Loss	 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	performance	Return Loss	 AdPC polishing : 40dB or more PC polishing : 22dB or more 	§7.2
3		Repetitive Operation (Repetitive mounting and removal)	 Shall satisfy the requirements about the Insertion Loss and Return Loss after test. No mechanical damage 	§8.3 Operation times : 500times
4	Mechanical performance	Resistance to Vibration	 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		Change of Temperature		§9.2 Temperature : -25~70°C Duration : 1.5H/cyc
7	Environmental performance	Resistance to damp heat (Cyclic)	 Shall satisfy the requirements about the Insertion Loss and Return Loss after test. No mechanical damage 	§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

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

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

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

① Optical Fiber Cord with Connector



2 Optical Fixed Attenuator or Connector Convertor



Attenuation of Optical Fixed Attenuator

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

① GI Optical Attenuator



② SM Optical Fixed Attenuator





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

Specifications

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

(HONDA TSUSHIN KOGYO CO., LTD.

Ferrule

Optical fiber connector

FC-type/SC-type/DS-type

Ferrule

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

lite on Alexandra a	Inside Diameter	Outside Diameter	Note
Item Number	of the ferrule [mm]	of the ferrule [mm]	The ferrules are provided with a rotation stop key at 4 positions.
LGC-PFS3B4	ø0.123		unit(mm)
LGC-PFS4B4	ø0.124		
LGC-PFS5B4	ø0.125		ater ater
LGC-PFS5.5B4	ø0.1255	ø2.499±0.0005	Point of the formation
LGC-PFS6B4	ø0.126		
LGC-PFS7B4	ø0.127		
LGC-PFS8B4	ø0.128		
	F	RoHS	t current de ser



Zirconia-Alignment-Sleeve Adaptor

This product is an improved adapter for zirconia-alignment.



S C 5970 F01 type Receptacle/Cap

FC-type Receptacle Item Number **Material of Alignment Sleeve** unit(mm) [□]15 9.5 LGC-R101+R Stainless steel 4-ø2.2 HONDA 9.5 //8×0.75P 5.5 4 ი 0.5 ø7 unit(mm) **Mounting Hole Size** 9.5^{±0.1} ø7.2 **9.5**±0.1 4-ø2.2 or 4-M2 (RoHS)

FC-type Cap for Adaptor





Specifications

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

(HONDA TSUSHIN KOGYO CO., LTD.	Optical fiber connector
SC-type Plug	SC-type
LGC-300 series	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 ø2 or ø2.8mm (The weight reduction has been achieved by using a resin stopper.)

Item Number	Applicable Outside Diameter of Optical fiber cords	Note	
LGC-PH353MK+R	-0	For PC polishing (Boot color : Blue)	
LGC-PH353MKL+R	ø2mm	For AdPC polishing (Boot color : Mauve)	
LGC-PH354MK+R	~0.9mm	For PC polishing (Boot color : Blue)	
LGC-PH354MKL+R	ø2.8mm	For AdPC polishing (Boot color : Mauve)	
	Dalle		
	(RoHS)	Ferrule is excluded.	

•Applicable to Optical Cords having on Outside Diameter of Ø0.9mm (The weight reduction has been achieved by using a resin stopper.)

Item Number	Applicable Outside Diameter of Optical fiber cords	Note
LGC-PH305M		For PC polishing (Boot color : Yellow)
LGC-PH305MB	ø0.9mm	For PC polishing (Boot color : Blue)
LGC-PH305MBL		For AdPC polishing (Boot color : Mauve)
	RoHS	Ferrule is excluded.

●Applicable to Optical Cords having on Outside Diameter of ø1.1mm

Item Number	Applicable Outside Diameter of Optical fiber cords	Note
LGC-PH358H+R	ø1.1mm	For AdPC polishing (Boot color : Mauve)
	(RoHS)	Ferrule is excluded.
		Others Wire Crimping Soldering IDC Press-in SMT Through hole

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

•Applicable to Optical Cords having on Outside Diameter of ø2 or ø2.8mm (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	ø2mm	For PC polishing (Boot color : Blue)
LGC-H2PH353MK[]SHLL+R	ØZIIIII	For AdPC polishing (Boot color : Mauve)
LGC-H2PH354MK[]SHBB+R	ø2.8mm	For PC polishing (Boot color : Blue)
LGC-H2PH354MK[]SHLL+R	Ø2.0000	For AdPC polishing (Boot color : Mauve)
[] is filled with the type of guide kee	ey. (See the following table)	
	Linne	unit(mm)
	RoHS	errule is excluded.

●Type of Guide Key for Vertical Duplex Plugs

Type of Guide Key (Indication)	A (Position of misinsertion	B (Width of misinsertion	Type of G for Conne		ical Duplex	Adaptors
(indication)	Prevention key)	Prevention key)	Α	В	Р	R
A	3.00	2.65	Х			Х
В	1.30	2.65		Х		Х
Р	2.15	0.95	X	Х	Х	Х
R	2.15	4.35				Х

Reference

An Example of Part No.	Specifications	
	Outside diameter of applicable optical fiber cords	ø2mm
LGC-H2PH353MKPSHLL+R	Type of Guide Key	Р
LGC-II2F II555MKF SILL+K	Size A	2.15mm
	Size B	0.95mm
	Boot color	Mauve

X : Correspond

(B) HONDA	TSUSHIN	KOGYO	CO.,	LTD.
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SC-type Plug LGC-300 series

SC-type

JIS C 5973 F04 type

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

•Applicable to Optical Cords having on Outside Diameter of ø2 or ø2.8mm (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	ø2mm	For PC polishing (Boot color : Blue)
LGC-F2PH353MK[]SHLL+R	0211111	For AdPC polishing (Boot color : Mauve)
LGC-F2PH354MK[]SHBB+R	ø2.8mm	For PC polishing (Boot color : Blue)
LGC-F2PH354MK[]SHLL+R	Ø2.8I1II1	For AdPC polishing (Boot color : Mauve)
[] is filled with the type of guide	key. (See the following table)	
	RoHS	unit(mm)

•Type of Guide Key for Horizontal Duplex Plugs

Type of Guide Key (Indication)	A (Position of misinsertion	B (Width of misinsertion	Type of Gu for Conne	-	ontal Duple	x Adaptors
(indication)	Prevention key)	Prevention key)	Α	В	Р	R
А	0.95	1.90	Х			Х
В	1.90	0.95		Х		Х
Р	1.90	1.90	Х	Х	Х	Х
R	0.95	0.95				Х

Reference

An Example of Part No.	Specifications	
LGC-F2PH353MKPSHLL+R	Outside diameter of applicable optical fiber cords	ø2mm
	Type of Guide Key	Р
LGC-F 2F 11353MKF SILL+K	Size A	1.90mm
	Size B	1.90mm
	Boot color	Mauve

X : Correspond

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	
		unit(mm)
	RoHS	The mounting hole size is equal to that of LGC-A101+R.

SC-type Receptacle (SC-R type Receptacle)

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



Plug-in-type Receptacle LGC-HFC series

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.



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

(HONDA TSUSHIN KOGYO CO., LTD.

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.



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 ø2mm outside diameter of optical fiber cord			
		194 unit(mm)		

HONDA	TSUSHIN	KOGYO	CO., LT	D.
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SC2-type Plug LGC-300 series

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 fiver 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 ø2 or ø2.8mm (The weight reduction has been achieved by using a resin stopper.)

Item Number	Applicable Outside Diameter of Optical fiber cords	Note
LGC-PH373MK+R	~0mm	For PC polishing (Boot color : Blue)
LGC-PH373MKL+R	ø2mm	For AdPC polishing (Boot color : Mauve)
LGC-PH374MK+R		For PC polishing (Boot color : Blue)
LGC-PH374MKL+R	ø2.8mm	For AdPC polishing (Boot color : Mauve)
And and	RoHS	55 REF. unit(mm)

•Applicable to Optical Cords having on Outside Diameter of ø0.9mm

Item Number	Applicable Outside Diameter of Optical fiber cords	Note
LGC-PH329+R	~0 0mm	For PC polishing (Boot color : Blue)
LGC-PH329L+R	ø0.9mm	For AdPC polishing (Boot color : Mauve)
	RoHS	32 REF. unit(mm)

•Applicable to Optical Cords having on Outside Diameter of ø1.1mm

Item Number	Applicable Outside Diameter of Optical fiber cords	Note					
LGC-PH378H+R	ø1.1mm	For AdPC polishing (Boot color : Mauve)					
Querter 1	RoHS	Ferrule is Excluded.					
		Others Wire Wrapping Crimping Soldering IDC Press-in SMT Through hole					

(B) HONDA TSUSHIN KOGYO CO., LTD. SC2-type Plug Caulking Tool/Plug Assembly Tool LGC-300 series

Optical fiber connector
<u>SC-type</u>

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.



SC2-type Plug Assembly Tool

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



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.



SC2-type Plug Removing Tool

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



Optical fiber connector SC-type

JIS C 5973 F04 type

Adaptor

SC-type Adaptor (SC-A type Adaptor)										
Ty of	pe Adaptor	Simplex								
Mo Cl	ounting amps	Retaining-lock-bracket for vertical	board	Screw-fixing-bracket for horizontal board						
Нс	ousing	Plastic (Color : Blue)	Zinc alloys die casting	Plastic (Color : Blue)						
0\	verview	RoHS	RoHS	RoHS						
Dr	rawing	Retaining-lock- bracket for vertical board	Retaining-lock- bracket for vertical board	Screw-fixing-bracket for horizontal board						
		unit(mm)	unit(mm)	unit(mm)						
Ma Ha	ounting ble Size	$\begin{array}{c} 18^{\pm0.1} \\ \hline 13.1^{+0.3} \\ \hline 2-\emptyset2.4 \text{ or} \\ 2-M2 \\ \hline (\text{for fixing with screw}) \\ \hline \end{array}$	$\begin{array}{c} 18^{\pm0.1} \\ \hline 13.1^{\oplus}3} \\ \hline 2.02.4 \text{ or} \\ 2-M2 \\ \hline (\text{for fixing with screw}) \\ \hline \end{array}$	2-ø2.3 or 2-M2						
		t=1.6 (Additionally t=1.0, t=1.2)	t=1.6 (Additionally t=1.0, t=1.2)							
Item Number	Phosphor- Bronze- Alignment- Sleeve Adaptor	LGC-A301	LGC-A302	LGC-A321						
Item N	Zirconia- Alignment- Sleeve Adaptor	LGC-A303	LGC-A304	LGC-A323						

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: I	Blue)					
Overview				RoHS			
Drawing	unit(mm)						
Mounting Hole Size		13.1+0.3		unit(mm)			
		A (mm)	Alignment- Sleeve	Thickness of PCB (mm)			
	LGC-AM301	1.2 ^{±0.1}	Phosphor-	1.0			
Item Number	LGC-AM301A	1.8 ^{±0.1}	Bronze	1.6			
	LGC-AM303	1.2 ^{±0.1}	Zirconia	1.0			
	LGC-AM303A	1.8 ^{±0.1}		1.6			

SC-type

JIS C 5973 F04 type

Adaptor

	SC-type Ada	aptor (SC	H-2A typ	e A	١da	pt	or/S	SCF-2A t	ype Ada	aptor))								
Type of AdaptorVertical (H type) DuplexH			Horizonta	Horizontal (F type) Duplex															
Mo Cla	ounting amps	Retaining-lock-bracket for vertical board			Retaining for vertic	g-lock-bra al board	cket				Screw-fixing-bracket for horizontal board								
Ho	ousing	Plastic (Color : Blue)(See Note #2)			Plastic (0	Color : Blu	e)(See) N	ote	#2)	Plastic (Color : Blu	e)(Se	e N	ote	#2)			
Overview				1	R	ъН	S)		K.		Ro	ъН	S)					o⊢	S
Drawing			22 3 A 2 - 02.3 4 2 - 02.3 4 0, 00 5 0, 00		rd				for vertical board			unit(mm) Screw-fixing-bracket for horizontal board 30.7 2-02.2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0							
	ounting le Size			2-ø2.4 for fixi	or 2	ith sc		9.6 ⁰³	30.7 ^{±0.1} 26.2 ^{+0.3}	(fo	2.4	screw	M2_		30.7 ^{±0.1}		.3 or 2		nm) crew)
Guide Key		A (Position of misinsertion	B (Width of misinsertion	fo Verti	e of G r Conr cal Du See N	iuide nectal	Key ble Plugs	A (mm)	B (mm)	for Horizon	Conn tal D	iuide l nectab	Key le Plugs	A (mm)	B (mm)	fo Horiz	pe of C or Con ontal E See N	necta Duplex	ole Plugs
uic			Prevention key)	Α	В	Ρ	R			A	в	Р	R			Α	В	Р	R
	Α	3.00	2.95	х		Х		0.85	1.85	X		х		0.85	1.85	X		Х	
eo	В	1.30	2.95		х	Х		1.85	0.85	+	x	х		1.85	0.85	_	X	Х	
Type of	P	2.15	1.25			Х		1.85	1.85			Х		1.85	1.85	_		Х	
	R Phosphor- Bronze- Alignment- Sleeve Adaptor	2.15	4.65 A301 [A,B	× ,P,R	×] SI	X H	x	0.85 0.85 X X X X LGC-F2A301 [A,B,P,R] SH		X	0.85 0.85 X X X X X LGC-F2A321 [A,B,P,R] SH								
Item Number	Zirconia- Alignment- Sleeve Adaptor	LGC-H2	A303 [A,B,	P,R] SI	H		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

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

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SC-type Adaptor (SCH-4A type Adaptor)					
T	ype of Adaptor	4-Ports			
Мо	ounting Clamps	Retaining-lock-bracket for vertical board			
	Housing	Plastic (Color: Blue)			
	Overview	RoHS			
	Drawing	unit(mm)			
	Mounting Hole Size	unit(mm)			
Item Number	Phosphor- Bronze- Alignment- Sleeve Adaptor	LGC-H4A311			
Item I	Zirconia- Alignment- Sleeve Adaptor	LGC-H4A313			

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

SC-type Adaptor with a Shutter LGC-300 series

Optical fiber connector

SC-type

JIS C 5973 F04 type

Adaptor with a shutter

SC-I	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				
Но	ousing	Plastic (Color: blue)(See Note #2)	Plastic (Color: blue)(See Note #2)	Plastic (Color: blue)(See Note #2)				
Overview		RoHS	RoHS	RoHS				
Drawing		Retaining-lock-bracket for vertical board	Retaining-lock-bracket for vertical board	Retaining-lock-bracket				
Mountir	ng Hole Size	18 ^{±0.1} 2-ø2.4 or 2-M2 (for fixing with screw)	30.7 ^{±0.1} 2-ø2.4 or 2-M2 √ (for fixing with screw)	38.8*8³ ↔ ↔ ↔ ↔ ↔ ↔ ↔ ↔ ↔ ↔ ↔ ↔ ↔				
		t=1.6 (Additionally t=1.0, t=1.2)	t=1.6 Type of Guide key	t=1.6 (Additionally t=1.0, t=1.2)				
Type of Guide key			A (mm) B (mm) B (mm) B (mm) B (See Note #3) A B P R 0.85 1.85 X X 1.85 0.855 X X 1.85 1.85 X X 0.85 0.85 X X					
~	Zirconia- Alignment- leeve 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 S	C-type Adaptor with a Shutter
Type of Adaptor	Simplex
Mounting Clamps	Retaining-lock-bracket for vertical board
Housing	Plastic (Color: Blue)
Overview	RoHS
Drawing	20.5 REF. unit(mm)
Mounting Hole Size	unit(mm)
aZirconia-Alignment-SleeveAlignment-Alignment	LGC-SAE300A/A303

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.

Connectors Convertor

Optical fiber connector

FC-type/SC-type

Connectors convertor

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	Circula Mada		40dB or more	AdPC polishing
LGC-P101/A301K-SM+R	Single Mode	1.0dB or less	20dP or more	PC poliching
LGC-P101/A301K-GI+R	Multi Mode Graded Index	0.6dB or less	22dB or more	PC polishing
	RoHS		999 021499 021499 021499	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	Qira ed a Marala		40dB or more	AdPC polishing
LGC-P301/A101-SM+R	Single Mode	1.0dB or less		PC polishing
LGC-P301/A101-GI+R	Multi Mode Graded Index	0.6dB or less	22dB or more	
	RoHS			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 plut and an a	SC2-type plug are connectable to each other.
Ţ	ype of Adaptor	Simplex
Me	ounting Clamps	Retaining-lock-bracket for vertical board
	Housing	Plastic (Color: Blue)
	Overview	RoHS
		unit(mm)
	Drawing	$\begin{array}{c} 9.4 \\ \hline 7.4 \\ \hline$
	Mounting Hole Size	unit(mm)
umber	Phosphor- Bronze- Alignment- Sleeve Adaptor	LGC-AP301
Item Number	Zirconia- Alignment- Sleeve Adaptor	LGC-AP303

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

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



(B) HONDA TSUSHIN KOGYO CO., LTD. Simplified SC-type Optical Fiber Connector LGC-SR300 series

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	Requiremen	Actual Value (Average)	
Insertion Loss	Single Mode	: 0.5dB or less	0.2dB
Insertion Loss	Multi Mode Graded Index	: 0.3dB or less	0.1dB
	Single Mode (AdPC polishing) : 40dB or more	50dB
Return Loss	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 $\emptyset 0.123$ mm to $\emptyset 0.128$ mm every 1µm. 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	ø0.123			
LGC-RFS4	ø0.124		Oinata	(RoHS)
LGC-RFS5	ø0.125		Single mode	unit(mm)
LGC-RFS5.5	ø0.1255	ø2.499±0.0005	Multi mode	
LGC-RFS6	ø0.126		Graded index	□ 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 1
LGC-RFS7	ø0.127			eliside
LGC-RFS8	ø0.128			











Item Number	Note	64.6 unit(mm)
LGC-8SR305	Attached eight-phosphor-bronze-alignment-sleeves	60.6
LGC-8SR305B	Attached eight-zirconia-alignment-sleeves	
		6.8×7=47.6
		Mounting Hole Size unit(mm
		2-ø2.4 or 2-M2

Extraction Tool LGC-KPSR3

Extraction Tool

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



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 ø1.25mm ferrule) and an adaptor.



Specifications

Items	Requirements		Actual Value (Average)
Insertion Loss	Single Mode : 0.5dB or less		0.2dB
Insertion Loss	Multi Mode Graded Index: 0.3dB or less		0.1dB
	Single Mode (AdPC polishing)	: 40dB or more	50dB
Return Loss	Single Mode (PC polishing)	: 22dB or more	30dB
	Multi Mode Graded Index (PC polis	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 ø1.25mm 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 plugin-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	ø2mm	For AdPC polishing (Boot color : Mauve)	
LGC-PH604B+R	0211111	For PC polishing (Boot color : Blue)	
		unit(mm)	
4.			
	RoHS	Ferrule is excluded.	
Item Number	Applicable Outside diameter		
	of optical fiber cords	Note	
LGC-PH603L+R	of optical fiber cords	Note For AdPC polishing (Boot color : Mauve)	
LGC-PH603L+R	of optical fiber cords	For AdPC polishing (Boot color : Mauve)	
LGC-PH603L+R	of optical fiber cords	For AdPC polishing (Boot color : Mauve) For PC polishing (Boot color : Blue)	
LGC-PH603L+R	of optical fiber cords ø0.9mm	For AdPC polishing (Boot color : Mauve) For PC polishing (Boot color : Blue) unit(mm)	

(HONDA TSUSHIN KOGYO CO., LTD.	Optical fiber connector
MU-type Plug	MU-type
LGC-600 series	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.



• 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	20mm	For AdPC polishing (Boot color : Mauve)			
LGC-F2PH604B+R	ø2mm	For PC polishing	(Boot color : Blue)		
	RoHS	Ferrule is excluded.	unit(mm)		
Item Number	Applicable Outside Diameter of Optical fiber cords	Note			
LGC-F2PH603L+R	603L+R		For AdPC polishing (Boot color : Mauve)		
LGC-F2PH603B+R	ø0.9mm	For PC polishing	(Boot color : Blue)		
	RoHS	Ferrule is excluded.	unit(mm)		
Through SMT Press-in	IDC Soldering Crimping Wire wrapping Others				
(HONDA TSUSHIN KOGYO CO., LTD.	Optical fiber connector				
---	---------------------------------				
Cost-effective MU-type Plug	MU-type				
LGC-PH638H+R	Cost-effective connector				
	Plug				
Housing for Cost-effective MU-type Simplex Plug (MU-PHD type Plug Hous The housing has been achieved at lower cost with the use of a stopper made of resin material.	ing)				
The components are designed with consideration for automatic assembly and man-hour reduction	n.				



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°.



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 1μ m.

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°.



MU-type Plug Caulking Tool LGC-600 series

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.



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.



IDC

Press-i

Crimpi

SMT

INDA TSUSHIN KOGYO CO., LTD. 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.



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.



MU-type Adaptor LGC-600 series

MU-type

JIS C 5983 F14 type

Adaptor

MU-type Adaptor

• Mouting 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
Ove	erview					A second
		RoHS	RoHS	RoHS	RoHS	RoHS
			unit(mm)	unit(mm)	unit(mm)	unit(mm)
1	unting le Size				E - 2-ø2.4 or 2-M2	C 2-02.4 or 2-M2 0 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
			<u>4-ø2.4</u>			F ►
			t=1.6	t=1.6		, F →
Item N	Number of	MU-type Adaptor				
	Number of Item Number	MU-type Adaptor LGC-A640[]			[none	material designator e]: Zirconia
Single Port Item I	Item		t=1.6		[none [F	material designator e]: Zirconia e]: Phosphor bronze
Single Port	Item Number Size		t=1.6	LGC-A642[] C 10.7 ^{+0.3}	[none [F LGC-A643[]	material designator e]: Zirconia P]: Phosphor bronze LGC-A644[] F 0
Single Port	Item Number Size	LGC-A640[]	t=1.6 LGC-A641[] A 9.5 ^{±0.1} B 12.7 ^{±0.1} LGC-2A641[] A 12.7 ^{±0.1}	LGC-A642[] C 10.7 ^{+0.3} D 7.6 ^{+0.3} LGC-2A642[] C 14.3 ^{+0.3}	[none [F LGC-A643[]] E 14.0 ^{±0.1} LGC-2A643[]	material designator p]: Zirconia P]: Phosphor bronze LGC-A644[] F 0 G 12.5 ^{±0.1} LGC-2A644[] F 5.0 ^{±0.1}
Vertical Single 2-ports Port (H-type)	Item Number Size Item Number Size	LGC-A640[]	t=1.6 LGC-A641[] A 9.5 ^{±0.1} B 12.7 ^{±0.1} LGC-2A641[]	LGC-A642[] C 10.7 ^{+0.3} D 7.6 ^{+0.3} LGC-2A642[]	[none [F LGC-A643[] E 14.0 ^{±0.1}	material designator b]: Zirconia P]: Phosphor bronze LGC-A644[] F 0 G 12.5 ^{±0.1} LGC-2A644[]
Vertical Single 2-ports Port (H-type)	Item Number Size Item Number Size	LGC-A640[]	t=1.6 LGC-A641[] A 9.5 ^{±0.1} B 12.7 ^{±0.1} LGC-2A641[] A 12.7 ^{±0.1} B 12.7 ^{±0.1} B 12.7 ^{±0.1} B 12.7 ^{±0.1}	LGC-A642[] C 10.7 ^{+0.3} D 7.6 ^{+0.3} LGC-2A642[] C 14.3 ^{+0.3} D 10.1 ^{+0.3} LGC-F2A602+R	[none [F LGC-A643[]] E 14.0 ^{±0.1} LGC-2A643[]	material designator e]: Zirconia P]: Phosphor bronze LGC-A644[] F 0 G 12.5 ^{±0.1} LGC-2A644[] F 5.0 ^{±0.1}
Vertical Single 2-ports Port (H-type)	Item Number Size Item Number Size	LGC-A640[] LGC-2A640[] 	t=1.6 LGC-A641[] A 9.5 ^{±0.1} B 12.7 ^{±0.1} LGC-2A641[] A 12.7 ^{±0.1} B 12.7 ^{±0.1} LGC-F2A601+R A 16.5 ^{±0.1}	LGC-A642[] C $10.7^{+0.3}$ D $7.6^{+0.3}$ LGC-2A642[] C $14.3^{+0.3}$ D $10.1^{+0.3}$ LGC-F2A602+R C $17.8^{+0.3}$	[none [F LGC-A643[]] E 14.0 ^{±0.1} LGC-2A643[]	material designator e]: Zirconia P]: Phosphor bronze LGC-A644[] F 0 G 12.5 ^{±0.1} LGC-2A644[] F 5.0 ^{±0.1}
Single Port	Item Number Size Item Number Size	LGC-A640[] LGC-2A640[] 	t=1.6 LGC-A641[] A 9.5 ^{±0.1} B 12.7 ^{±0.1} LGC-2A641[] A 12.7 ^{±0.1} B 12.7 ^{±0.1} B 12.7 ^{±0.1} B 12.7 ^{±0.1}	LGC-A642[] C 10.7 ^{+0.3} D 7.6 ^{+0.3} LGC-2A642[] C 14.3 ^{+0.3} D 10.1 ^{+0.3} LGC-F2A602+R	[none [F LGC-A643[]] E 14.0 ^{±0.1} LGC-2A643[]	material designator e]: Zirconia P]: Phosphor bronze LGC-A644[] F 0 G 12.5 ^{±0.1} LGC-2A644[] F 5.0 ^{±0.1}
Horizontal Vertical Single 2-ports 2-ports Port (F-type) (H-type)	Item Number Size Item Number Size	LGC-A640[] LGC-2A640[] 	t=1.6 LGC-A641[] A 9.5 ^{±0.1} B 12.7 ^{±0.1} LGC-2A641[] A 12.7 ^{±0.1} B 12.7 ^{±0.1} LGC-F2A601+R A 16.5 ^{±0.1}	LGC-A642[] C 10.7 ^{+0.3} D 7.6 ^{+0.3} LGC-2A642[] C 14.3 ^{+0.3} D 10.1 ^{+0.3} LGC-F2A602+R C 17.8 ^{+0.3} D 7.6 ^{+0.3}	[none [F LGC-A643[]] E 14.0 ^{±0.1} LGC-2A643[]	material designator e]: Zirconia P]: Phosphor bronze LGC-A644[] F 0 G 12.5 ^{±0.1} LGC-2A644[] F 5.0 ^{±0.1}
Vertical Single 2-ports Port (H-type)	Item Number Size Item Number Size Size Item	LGC-A640[] LGC-2A640[] LGC-F2A600+R 	t=1.6 LGC-A641[] A 9.5 ^{±0.1} B 12.7 ^{±0.1} LGC-2A641[] A 12.7 ^{±0.1} B 12.7 ^{±0.1}	LGC-A642[] C 10.7 ^{+0.3} D 7.6 ^{+0.3} LGC-2A642[] C 14.3 ^{+0.3} D 10.1 ^{+0.3} LGC-F2A602+R C 17.8 ^{+0.3} D 7.6 ^{+0.3}	[none [F LGC-A643[] LGC-2A643[] E 17.8 ^{±0.1}	material designator e]: Zirconia P]: Phosphor bronze LGC-A644[] F 0 G 12.5 ^{±0.1} LGC-2A644[] F 5.0 ^{±0.1} G 15.0 ^{±0.1}

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.

• Mouting 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
Ove	erview					
		RoHS	RoHS	RoHS	RoHS	RoHS
			unit(mm)	unit(mm)	unit(mm)	unit(mm)
	unting le Size		m		E - - - - - - - - - - - - - - - - - - -	C 2-02.4 or 2-M2 0 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
			t=1.6	t=1.6		
Item N	lumber of	MU-type Adaptor			•	material designator]: Zirconia]: Phosphor bronze
ale rt	ltem Number	LGC-SA640[]	LGC-SA641[]	LGC-SA642[]	LGC-SA643[]	LGC-SA644[]
Single Port	Size		A 9.5 ^{±0.1} B 12.7 ^{±0.1}	$\begin{array}{c c} \textbf{C} & 10.7^{+0.3} \\ \textbf{D} & 7.6^{+0.3} \end{array}$	E 14.0 ^{±0.1}	F 0 G 12.5 ^{±0.1}
ical orts /pe)	ltem Number	LGC-2SA640[]	LGC-2SA641[]	LGC-2SA642[]	LGC-2SA643[]	LGC-2SA644[]
Vertical 2-ports (H-type)	Size		A 12.7 ^{±0.1} B 12.7 ^{±0.1}	C $14.3^{+0.3}_{0.3}$ D $10.1^{+0.3}_{0.3}$	E 17.8 ^{±0.1}	F 5.0 ^{±0.1} G 15.0 ^{±0.1}



INHONDA TSUSHIN KOGYO CO., LTD.

Mounting Hole Size t=1.6

(RoHS)

Soldering Through hole Others Wire wrapping Crimping IDC Press-in SMT

MU-type Adaptor LGC-4A622[] LGC-8A622[]

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

Screw-Fixing-Bracket for Vertical Board type





Optical fiber connector

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

MU-type JIS C 5983 F14 type

Adaptor with a shutter

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.

Optical fiber connector

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 ø1.25mm ferrule), a back board housing, a package housing, a sleeve holder include alignment sleeve, and a jack (consisting of a jack housing and a ø1.25mm ferrule).



Specifications

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

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).



• 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).



• 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).



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).



(HONDA TSUSHIN KOGYO CO., LTD. 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



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



(B) HONDA TSUSHIN KOGYO CO., LTD. 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

Optical fiber connector MU-type/High-density Plug-in-type

JIS C 5983 F14 type

Package housing

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



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 ø1.25mm ferrule.

Inserted ferrule, ø1.25mm 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	ø2mm	For AdPC polishing	(Boot color : Mauve)
LGC-PH624B+R	Ø211111	For PC polishing (B	oot color : Blue)
		3.75 9 <u>7</u> 9 9 9	unit(mm)
	RoHS	Ferrule is excluded.	
Item Number	Applicable Outside diameter		Note
	of optical fiber cords		Note
LGC-PH623L+R	-	For AdPC polishing	(Boot color : Mauve)
LGC-PH623L+R LGC-PH623B+R	of optical fiber cords ø0.9mm	For AdPC polishing For PC polishing (B	(Boot color : Mauve)

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 Mountig / Removing Tool (LGC-KP603C) when mounting or removing this sleeve holder.



Dummy plug (MU-DP type Dummy Plug)



Dummy Jack



INDRATSUSHIN KOGYO CO., LTD. Optical fiber connector MU-type Simplified MU-type Optical Fiber Connector MU-type LGC-SR600 series Simplified connector Ferrule 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.



Specifications

Item	Requirements	Actual Value (Average)	
Insertion Loss	Single Mode : 0.5dB or	r less	0.2dB
	Multi Mode Graded Index : 0.3dB or	r less	0.1dB
	Single Mode (AdPC polishing)	: 40dB or more	50dB
Return Loss	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			(RoHS)
LGC-PFS634	ø0.124			ية اير unit(mm)
LGC-PFS635	ø0.125		Single	unit(mm)
LGC-PFS6355	ø0.1255	ø1.249±0.0005	mode	
LGC-PFS636	ø0.126			
LGC-PFS637	ø0.127]		$\circ \square \oplus \square \cdots \square \cdots \square \cdots \square \square$
LGC-PFS638	ø0.128			

Others Wire Crimping Soldering IDC Press-in SMT Through hole

Simplified MU-type Receptacle LGC-SR631[]

Optical fiber connector

MU-type

Simplified connector

Receptacle

• Screw-Fixing-Bracket for Vertical Board type

Simplified MU-type Receptacle LGC-2SR631[] LGC-4SR631[] LGC-8SR631[]

Optical fiber connector

MU-type

Simplified connector

Receptacle

Screw-Fixing-Bracket for Vertical Board type



Simplified MU-type Receptacle LGC-16SR631[]

Optical fiber connector

MU-type

Simplified connector

Receptacle

Screw-Fixing-Bracket for Vertical Board type



Simplified MU-type Receptacle LGC-2SR611[] LGC-4SR611[] LGC-8SR611[]

Spring-Lock type



Optical fiber connector

MU-type

Simplified connector

Receptacle

Simplified MU-type Receptacle LGC-16SR611[]

Optical fiber connector

MU-type

Simplified connector

Receptacle

Spring-Lock type



HONDA	TSUSHIN	KOGYO	CO.,	LTD.
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Removing Tool LGC-KPSR6

Optical fiber connector
MU-type
Tool

• Removing Tool

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



(B) HONDA TSUSHIN KOGYO CO., LTD. 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



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.



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.



(HONDA TSUSHIN KOGYO CO., LTD.	Optical fiber connector
MU-type Tool	MU-type
LGC-600 series	ΤοοΙ

• 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.



• 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.



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.



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 ø2.5mm ferrule), a back board housing, a package housing, and a jack (consisting of a jack housing and a ø2.5mm ferrule).



Specifications

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



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

Optical Fiber Cord with Connectors (Patch Cord)

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	Adro polisiling
and the second	RoHS	₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩		unit(mm)

Others Wire Crimping Soldering IDC Press-in SMT Through hole
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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	
		unit(mm)
0		$\begin{array}{c} 2-02.3 \\ \hline \\ $
		6.9 ⁺ 8 ² 6.9 ⁺
	RoHS	Hole size (MU side) t=1.6

MU-SC type Conversion Adaptor

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





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).