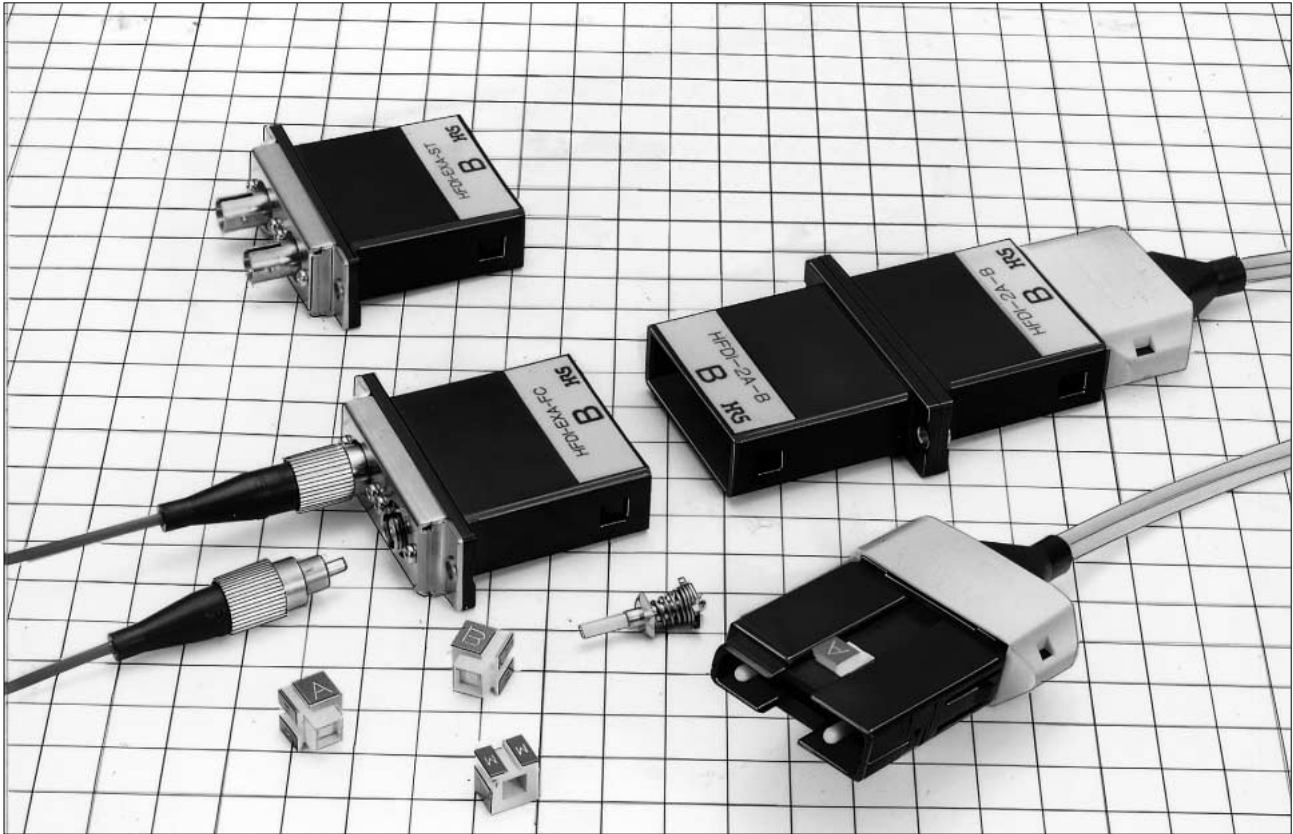


# Optical Connectors for 100Mbps Backbone LAN

## HFDI Series



### ■Features

#### 1.FDDI Specification

These duplex connectors for use with multimode optical fiber are suited to 100 Mbps backbone LAN based on the FDDI specification.

#### 2.Simple Field Work, Simple Product Inventory

Use of a key block permits one type of main unit to correspond to 4 types of keys (A, B, M, and S). This convenience offers the following advantages:

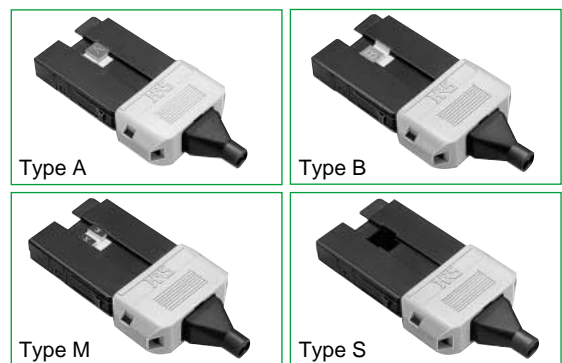
(1) In field work, having one kind of main unit and one key block will permit correspondence with all 4 types of keys (A, B, M, and S).

(2) Also in product inventory, stocking one kind of main unit and key blocks will permit correspondence with the various keys and simplify inventory work.

#### 3.Lock Structure

A slide lock cover system has been used which allows operation from whichever direction is desired. In this design the lock cover is not exposed which means the lock will not be accidentally released even if it is bumped.

### Key-Conversion Type



### ■Applications

LAN, computer transfer systems, etc.

## ■Product Standards

Rating	Operating temperature range	-25℃～70℃	Storage temperature range	-25℃～85℃
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	Item	Test Method (JIS C 5961)	Standard
Optical Performance	Insertion loss	1,300nm wavelength (LD)	0.3 dB or less (PC) 0.7 dB or less (flat)
	Reflection attenuation	1,300nm wavelength (LED)	22 dB or greater (PC)
Mechanical Performance	Coupling force and separation force	Measure when connectors are coupled and separated in the direction of the axis.	Coupling force 39.2 N or less Separation force 39.2 N or less
	Cable clamp strength (Pulling in direction of axis)	70 N of pulling force between connector and cable	1) Insertion loss fluctuation after test:0.2 dB or less 2) No irregularity in clamp section or cable
	Repetitive Operation	500 times	1) Insertion loss fluctuation after test:0.2 dB or less 2) No damage, cracks, or part looseness
	Vibration resistance	Vibration range of 10 to 55 Hz, in 3 directions, 3 hours each	
	Shock resistance	Acceleration of 981 m/s <sup>2</sup> , in 3 directions, 3 times each	
Environmental performance	Humidity resistance (Temperature and humidity cycle)	Temperature, -10℃ to 65℃ Humidity 90 to 96% 10 cycles	1) Insertion loss fluctuation after test:0.2 dB or less 2) No damage, cracks, or part looseness
	Temperature cycle	Temperature -25 to 70℃ 100 cycles	
	Heat resistance	Leave for 960 hours at a temperature of 85℃	
	Cold resistance	Leave for 960 hours at a temperature of -25℃	
	Salt fog	Left in a 5% concentration of salt fog for 48 hours	No conspicuous corrosion

## ■Materials

Part name	Material
Plug housing	Polybutylene terephthalate
Coil spring	Stainless steel
Ferrule	Zirconia
Adapter housing	Polybutylene terephthalate
Split sleeve	Copper alloy

## ■Function Diagram

### Plug Housing

For  $\phi$ 3mm zip cord... HFDI-2P-EX  
For  $\phi$ 4.8mm cable... HFDI-2P-EX (01)  
For 5 x 3 oval cable... HFDI-2P-EX (02)



### Connectors with Cable Attached

HFDI-HDFI  
HFDI-FC  
HFDI-SC

### Ferrules

For MM fiber...  
HFDI-F36-B127



### Receptacles

HFDI-2R-B



### Conversion Adapters

FC conversion... HFDI-EXA-FC

ST conversion... HFDI-EXA-ST



# ■Guide Key Arrangement

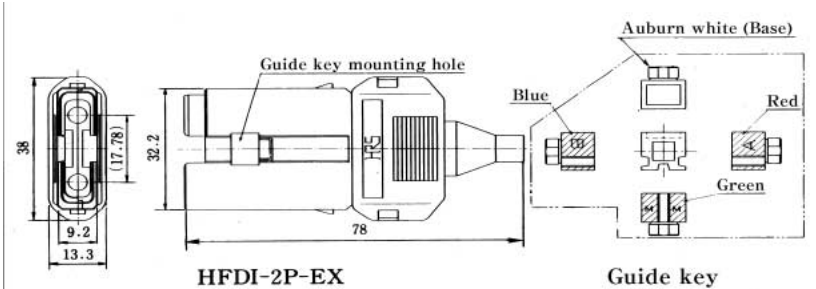
Type	Guide Key Arrangement (Front Diagram)	
	Plugs	Adapters/Receptacles
A		
B		
M		
S		

# ■Connection Pattern

Plug Type	Guide Key Arrangement (Front Diagram)		Guide Key Arrangement (Front Diagram)	Receptacle Type
	Plugs		Adapters/Receptacles	
A		↔		A
B		↔		B
M		↔		M
S		↔		S

# ■Plug Housing

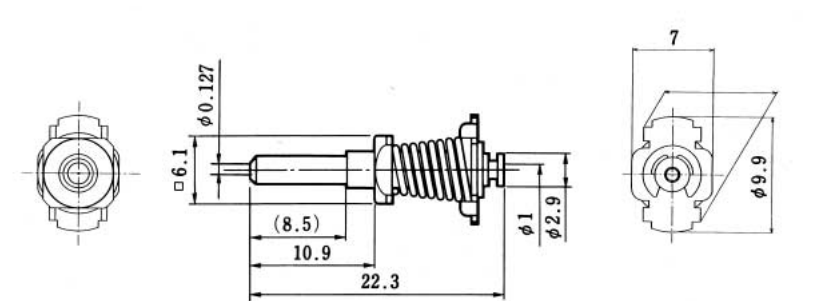
## ●Key-Conversion Type



HRS No.	Product Number	Suitable Cable
CL705-0057-7	HFDI-2P-EX	φ3mm zip cable
CL705-0057-7-01	HFDI-2P-EX(01)	φ4.8mm cable
CL705-0057-7-02	HFDI-2P-EX(02)	5 x 3 oval cable

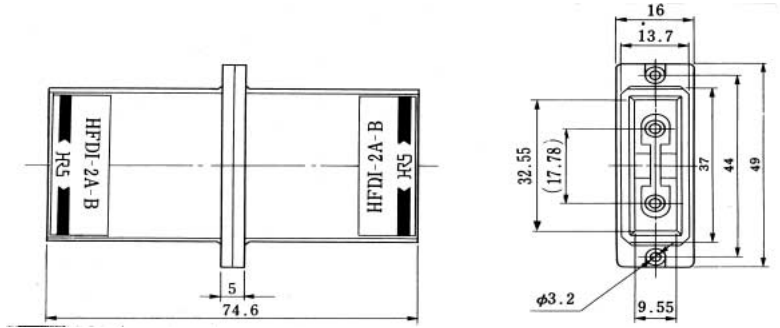
NOTE: When using with guide key S, remove the guide key from the housing.

# ■Ferrule



HRS No.	Product Number	Suitable Optical Fiber
CL705-0043-2-01	HFDI-F36-B127	GI-50/125, GI-62.5/125

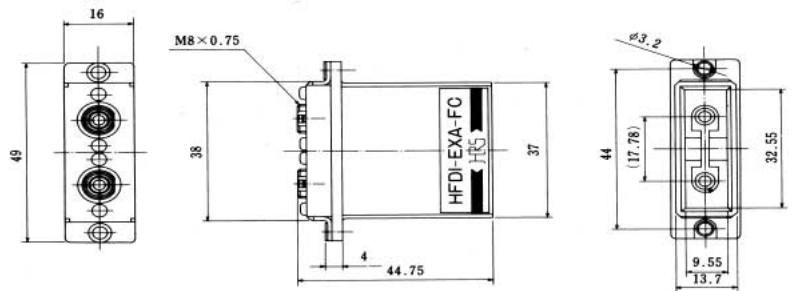
## ■Adapters



HRS No.	Product Number	Guide Key Type
CL705-0024-8	HFDI-2A-B	None
CL705-0025-0	HFDI-2A-B (A)	A
CL705-0026-3	HFDI-2A-B (B)	B
CL705-0027-6	HFDI-2A-B (M)	M
CL705-0028-9	HFDI-2A-B (S)	S

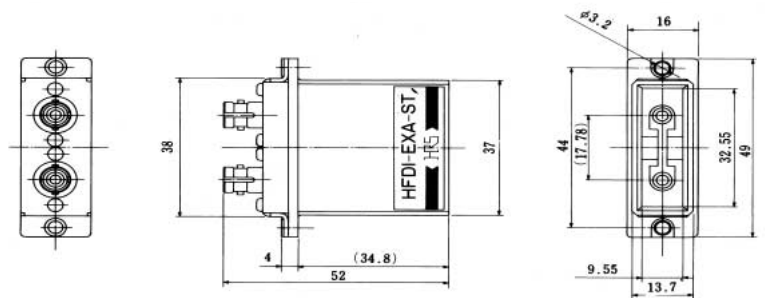
## ■Conversion Adapters

### ●FC Conversion Type



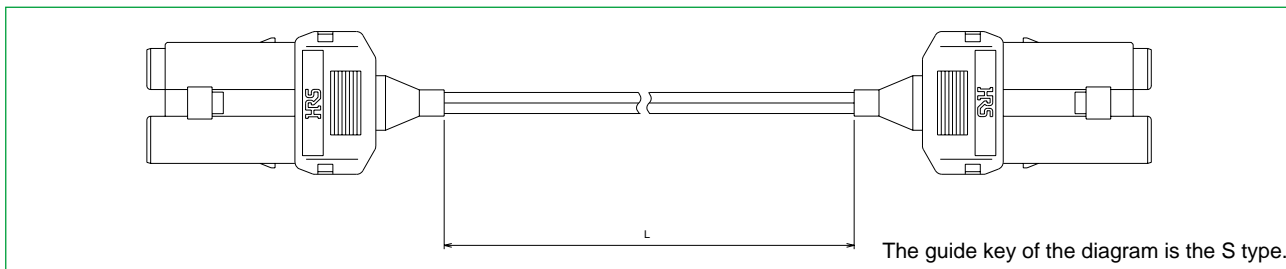
HRS No.	Product Number	Guide Key Type	Notes
CL705-0016-0	HFDI-EXA-FC	None	FDDI to FC conversion adapter
CL705-0017-2	HFDI-EXA-FC (A)	A	
CL705-0018-5	HFDI-EXA-FC (B)	B	
CL705-0019-8	HFDI-EXA-FC (M)	M	
CL705-0020-7	HFDI-EXA-FC (S)	S	

### ●ST Conversion Type



HRS No.	Product Number	Guide Key Type	Notes
CL705-0029-1	HFDI-EXA-ST	None	FDDI to ST conversion adapter
CL705-0030-0	HFDI-EXA-ST (A)	A	
CL705-0031-3	HFDI-EXA-ST (B)	B	
CL705-0032-6	HFDI-EXA-ST (M)	M	
CL705-0033-9	HFDI-EXA-ST (S)	S	

## ■Connectors with Cable Attached



Product Number	Connector Mounting End	Suitable Optical Fiber	Type of Polishing	Reflection Attenuation	Cable Diameter	Housing
HFDI-FP1-F3BW-L	One end	GI-50/125	Flat	-	φ3 zip cord	HFDI-2P-EX
HFDI-FP2-F3BW-L	Both ends					
HFDI-FP1-F3CW-L	One end	GI-62.5/125				
HFDI-FP2-F3CW-L	Both ends					
HFDI-SP1-F3BW-L	One end	GI-50/125	PC	≥22		
HFDI-SP2-F3BW-L	Both ends					
HFDI-SP1-F3CW-L	One end	GI-62.5/125				
HFDI-SP2-F3CW-L	Both ends					

※The guide key part will be appended.

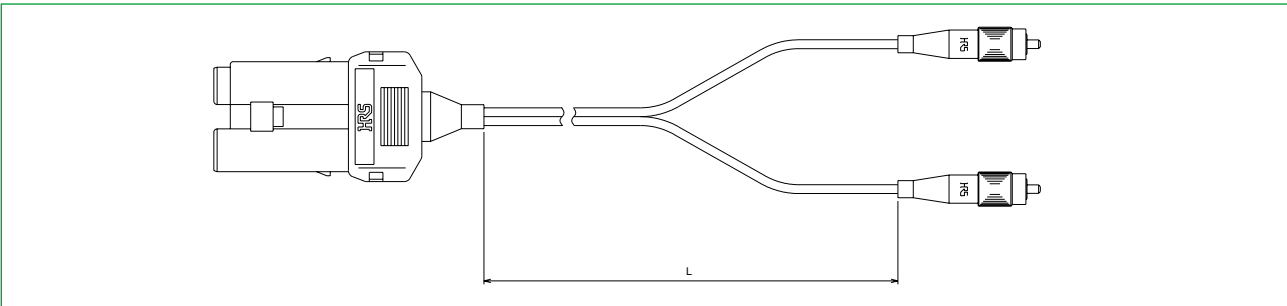
※The "L" within the Product Number indicates the length of the cable illustrated in the diagram.

Please specify values in meter units.



■Conversion Cables

●FC Conversion Type

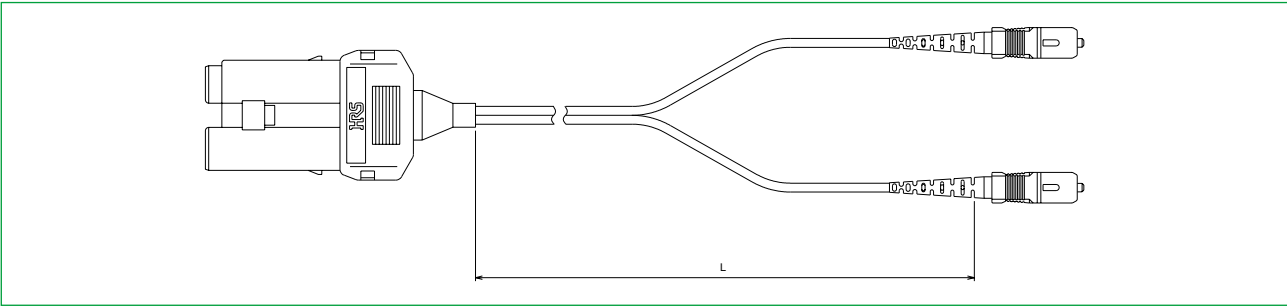


The guide key of the diagram is the S type.

HRS No.	Suitable Optical Fiber	Type of Polishing	Reflection Attenuation	Cable Diameter	Housing
CA011055-FBW-L	GI-50/125	Flat	-	ϕ3 zip cord	HFDI-2P-EX or HRFC-P1-H
CA011055-FCW-L	GI-62.5/125				
CA011055-SBW-L	GI-50/125	PC	≧22		
CA011055-SCW-L	GI-62.5/125				

※The guide key part will be appended.  
※The "L" within the Product Number indicates the length of the cable illustrated in the diagram. Please specify values in meter units.

●SC Conversion Type



The guide key of the diagram is the S type.

HRS No.	Suitable Optical Fiber	Type of Polishing	Reflection Attenuation	Cable Diameter	Housing
CA041055-FBW-L	GI-50/125	Flat	-	φ3 zip cord	HFDI-2P-EX or HSC-PH3-A2
CA041055-FCW-L	GI-62.5/125				
CA041055-SBW-L	GI-50/125	PC	≥22		
CA041055-SCW-L	GI-62.5/125				

※The guide key part will be appended.  
※The "L" within the Product Number indicates the length of the cable illustrated in the diagram. Please specify values in meter units.

■Crimping Tool (For Cable Crimping)



Product Number	Product Number
HFDI-T1	HFDI-2P-EX

