

Thru-beam type fiber • Reflective type fiber (Semi-standard fiber)

Order cut-off date: 30 Sep 2006 Date of production discontinuance: 31 Mar 2007

Advantages of switching to recommended replacements

The model numbers have been changed for thru-beam type fibers and reflective type fibers (semi-standard fibers). The current changes have been made to provide faster response resulting from changes to the ordering system. Features such as specifications and sensing performance have not been changed.

Main points of difference between recommended replacements and discontinued models

Discontinued models

 Thru-beam type fiber 	 Reflective type fiber 				
Model No. (Note)	Model No. (Note)				
FT-FM	FD-FM	• Refer to 'Guide to interchanging fiber length and			
FT-FM⊡-S☆	FD-FM⊡-S ☆	sleeve length' for details on recommended			
FT-FM_L	FD-NFM2-S☆	replacements.			
FT-NFM2-S☆	FD-H20-M	Note: Discontinued models come with semi-standard			
FT-H20-M	FD-H20-500	fibers only. The standard fibers shown in the table below are not included.			
FT-H20-500	FD-H35-M				
FT-H20W-M					
FT-H35-M					
FT-Z80 Y					

Guide to interchanging fiber length and sleeve length

Custom-ordered products are available with different fiber lengths and sleeve lengths in order to respond quickly to different requirements. Contact your nearest our office for details on model numbers, standard prices and delivery periods.

Fiber length change

Extended protective tube

Extension up to 30 m 98.425 ft in units of 1 m 3.281 ft is possible, with the actual extension length varying depending on the model. Refer to the table at right for applicable models.

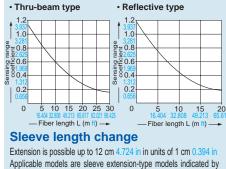
The chemical-resistant cover and metal jacket can be extended in accordance with the fiber length. Applicable models are indicated in the table below as follows \star : Models which can have extended protective tube (fluorine resin)

 $\stackrel{\scriptstyle \leftrightarrow}{}$: Models which can have extended metal jacket sheath



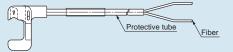
Note: Note that the model number differs from previous models with changed lengths.

• Fiber length and sensing range damping ratio characteristics Note that the longer the fiber length, the shorter the sensing range.



▲ in the table at right.

Note: Note that the model number differs from previous models with changed lengths.



Applicable models

M

*

	ength: 30 m 98.425 ft	Maximum extension I	ength: 10 m 32.808 ft	Maximum extension l	ength: 6.5 m 21.325 ft	
Units: 1 m 3.281 ft Units: 0.5 m 1.640 ft		Units: 0.1 m 0.328 ft				
Thru-beam type	Reflective type	Thru-beam type	Reflective type	Thru-beam type	Reflective type	
FT-AFM2	FD-A15	FT-K8	FD-P81X	FT-H20-M1	FD-H20-21	
FT-AFM2E	FD-AFM2	FT(-H10)-KV1	FD-SFM2SV2	FT-H20W-M1	FD-H20-M1	
FT-B8	FD-AFM2E	FT-KV8	FD-V41	FT-H30-M1V-S	FD-H30-KZ1V-S	
★ FT-F902	FD-B8	FT-P81X	FD-WV42	FT-H35-M2	FD-H30-L32V-S	
FT-FM10L	FD-F4	FT-SFM2SV2	Retroreflective type	▲ FT-H35-M2S6	FD-H35-20S	
FT-FM2	FD-F41	FT-V22	FR(-H10)-KV1		FD-H35-M2	
FT-FM2S	★ FD-F705	FT-V41			FD-H35-M2S6	
FT-FM2S4	FD-FM2	FT-WKV8				
FT-H13-FM2	FD-FM2S	FT-WV42				
★ FT-L8Y	FD-FM2S4					
FT-NFM2	FD-G4					
FT-NFM2S	FD-G6	Maximum extension		Maximum extension length: 3 m 9.843 ft		
FT-NFM2S4	☆ FD-G6X	Units: 1 n		Units: 0.1 m 0.328 ft		
FT-P2	FD-H13-FM2	<u>~</u>	eflective type	Thru-beam type	21	
FT-P40	FD-NFM2	FD-L4	FD-H18-L31	FT-E12	FD-E12	
FT-P60	FD-NFM2S	FD-L41	FD-L51	FT-E22	FD-E22	
FT-P80	FD-NFM2S4	FD-L43	FD-L52		FD-EG1	
FT-PS1	FD-P2	FD-L44	FD-L53		FD-EG2	
FT-R80	FD-P40	FD-L44S	FD-L54		FD-EG3	
FT-SFM2	FD-P50	FD-L45	FD-WL41		FD-EN500S1	
FT-SFM2L	FD-P60	FD-L46	FD-WL48		FD-ENM1S1	
FT-SNFM2	FD-P80	FD-H30-L32%				
FT-T80	FD-R80	%The FD-H30	-L32 extension			
FT-V10	FD-S80	length is in units of 0.1 m 0.328 ft.				
★ FT-V8Y	FD-SNFM2					
FT-W4	FD-T40	Protoctivo tubo ovtoncio	n longth: 10 m 22 909 ft			
FT-W8	FD-T80	Protective tube extension length: 10 m 32.808 ft Units: 0.5 m 1.640 ft (FD-G6X: 0.1m 0.328 ft)				
FT-WS3	FD-W44	Thru-beam type Reflective type				
FT-WS4	FD-W8	FT-F902	FD-F705			
FT-WS8	FD-WG4	FT-L8Y	FD-F705			
FT-WS8L	FD-WKZ1	FT-U8Y	FD-G6X%			
FT-WZ8	FD-WS8	· · · · · · · · · · · · · · · · · · ·				
FT-WZ8E	FD-WSG4	%The FD-G6X allows the length of the				
FT-WZ8H	FD-WT4	metal jacket sheath to be extended.				
FT-Z8	FD-WT8	★: Models which can have extended protective tube (fluorine resin)				
FT-Z802Y	Retroreflective type	★: Models which can have extended protective tube (nuorine resin)				
FT-Z8E	FR-WKZ11	▲: Models which can have extended metal jacket sheath				
FT-Z8H						



Thru-beam type fiber • Reflective type fiber (Some vacuum resistant fiber models)						
Advantages of switching to recommended replacements						
Improved heat resistance						
The heat-resistant temperature for discontinued models is \exists in environments where the temperature reaches up to \pm 300	+ 120 °C + 248 °F, but the recommended replacements can be used 0°C + 572 °F.					
Highly resistant to repeated bending						
Because it has a bending durability of over 100,000 times (at R20 mm R0.787 in), it is highly resistant to repeated bending and is optimal for mounting on moving parts such as robot arms.						
Compact routing in space way We've realized an allowable bending radius of R18 mm R0.709 in. (Discontinued models are R30 mm R1.181 in / R200 mm R7.874 in.) They can be routed easily and space savings can be achieved. Main points of difference between recommended replacements and discontinued models						
Discontinued models Recommended replacements	Main points of difference from discontinued models					
Vacuum resistant thru-beam type fiber Vacuum resistant thru-beam type file	ber					
Model No. Model No.						
FT-6V → FT-H30-M1V-S →	• The recommended replacements have a sensing range of 250 mm 9.843 in (FX-301 in LONG mode).					
Vacuum resistant reflective type fiber Vacuum resistant reflective type fi	• The recommended replacements are supplied with an FV-BR1 photo-terminal and an FT-J8 atmospheric side fiber as accessories.					
Model No. Model No.						
FD-6V → FD-H30-KZ1V-S (Note 1)	 The recommended replacements have a sensing range of 20 to 200 mm 0.787 to 7.874 in (FX-301 in LONG mode). 					
	 The recommended replacements are supplied with an FV-BR1 photo-terminal and an FT-J8 atmospheric side fiber as accessories. 					
Atmospheric side fiber Atmospheric side fiber	Note: The discontinued model (FD-6V) has shape of fiber head of M6. Recommended replacements (FD-H30-KZ1V-S) have a square-shaped tip.					
Model No. Model No.						
FT-J6 →FT-J8	 The recommended replacements have a sensing range of 20 to 200 mm 0.787 to 7.874 in (FX-301 in LONG mode). The FT-J8 atmospheric side fiber is included as an accessory with the FT-H30-M1V-S and the FD-H30-KZ1V-S. 					

Shape of fiber head						
Type Discontinued mo Shape of fiber head (mm in)		models	Recommended replacements			
		Model No.	Shape of fiber head (mm in)	Model No.		
Thru-beam type fiber	Lens mountable (FV-LE1)	FT-6V FT-60V	Lens mountable (FV-LE1, FV-SV2) M4 □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	FT-H30-M1V-S		
Reflective type fiber		FD-6V	W9.5×H5.2×D15 W0.374×H0.205×D0.591	FD-H30-KZ1V-S		

Refer to 'Sensor general catalog '03-'04 or SUNX website: http://www.sunx.co.jp/' for details.