

# Information of Discontinued Models

## 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	
<ul style="list-style-type: none"> <li>Thru-beam type fiber</li> </ul>	<ul style="list-style-type: none"> <li>Reflective type fiber</li> </ul>
Model No. (Note)	Model No. (Note)
FT-FM□	FD-FM□
FT-FM□-S☆	FD-FM□-S☆
FT-FM□L	FD-NFM2-S☆
FT-NFM2-S☆	FD-H20-M□
FT-H20-M□	FD-H20-500
FT-H20-500	FD-H35-M□
FT-H20W-M□	
FT-H35-M□	
FT-Z80□Y	

- Refer to 'Guide to interchanging fiber length and sleeve length' for details on recommended replacements.

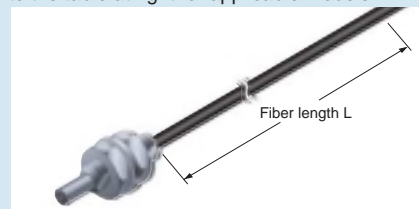
Note: Discontinued models come with semi-standard fibers only. The standard fibers shown in the table below are not included.

### 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

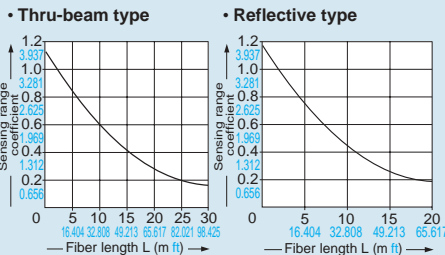
Extension up to 30 m 98.425 ft in units of 1 m 3.281 ft is possible, with the actual extension length varying depending on the model. Refer to the table at right for applicable models.



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

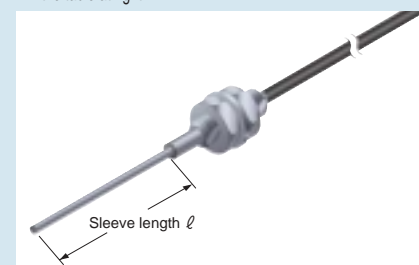
- Fiber length and sensing range damping ratio characteristics

Note that the longer the fiber length, the shorter the sensing range.



#### Sleeve length change

Extension is possible up to 12 cm 4.724 in in units of 1 cm 0.394 in. Applicable models are sleeve extension-type models indicated by ▲ in the table at right.



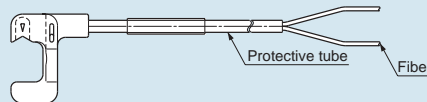
Note: Note that the model number differs from previous models with changed lengths.

#### Extended protective tube

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

★ : Models which can have extended protective tube (fluorine resin)

☆ : Models which can have extended metal jacket sheath



#### Applicable models

Maximum extension length: 30 m 98.425 ft Units: 1 m 3.281 ft		Maximum extension length: 10 m 32.808 ft Units: 0.5 m 1.640 ft		Maximum extension length: 6.5 m 21.325 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-K21V-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-M2S6
FT-FM2S	★ FD-F705	FT-V41			
▲ 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				
▲ FT-NFM2S4	☆ FD-G6X				
FT-P2	FD-H13-FM2				
FT-P40	FD-NFM2				
FT-P60	FD-NFM2S				
FT-P80	▲ FD-NFM2S4				
FT-PS1	FD-P2				
FT-R80	FD-P40				
FT-SFM2	FD-P50				
FT-SFM2L	FD-P60				
FT-SNFM2	FD-P80				
FT-T80	FD-R80				
FT-V10	FD-S80				
★ FT-V8Y	FD-SNFM2				
FT-W4	FD-T40				
FT-W8	FD-T80				
FT-WS3	FD-W44				
FT-WS4	FD-W8				
FT-WS8	FD-WG4				
FT-WS8L	FD-WKZ1				
FT-WZ8	FD-WS8				
FT-WZ8E	FD-WSG4				
FT-WZ8H	FD-WT4				
FT-Z8	FD-WT8				
FT-Z802Y	Retroreflective type				
FT-Z8E	FR-WKZ11				
FT-Z8H					

※ The FD-H30-L32 extension length is in units of 0.1 m 0.328 ft.

Protective tube extension length: 10 m 32.808 ft  
Units: 0.5 m 1.640 ft (FD-G6X: 0.1m 0.328 ft)

Thru-beam type	Reflective type
FT-F902	FD-F705
FT-L8Y	FD-G6X※
FT-V8Y	

※ The FD-G6X allows the length of the metal jacket sheath to be extended.

★ : Models which can have extended protective tube (fluorine resin)

☆ : Models which can have extended metal jacket sheath

▲ : Models which can have extended sleeve

## Information of Discontinued Models

**Thru-beam type fiber • Reflective type fiber**  
(Some vacuum resistant fiber models)

Order cut-off date:

30 Sep 2006

Date of production discontinuance: 31 Mar 2007

### Advantages of switching to recommended replacements

#### Improved heat resistance

The heat-resistant temperature for discontinued models is  $+120^{\circ}\text{C}$   $+248^{\circ}\text{F}$ , but the recommended replacements can be used in environments where the temperature reaches up to  $+300^{\circ}\text{C}$   $+572^{\circ}\text{F}$ .

#### Highly resistant to repeated bending

Because it has a bending durability of over 100,000 times (at R20 mm  $\text{R0.787 in}$ ), it is highly resistant to repeated bending and is optimal for mounting on moving parts such as robot arms.



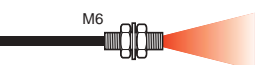
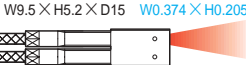
#### Compact routing in space way

We've realized an allowable bending radius of R18 mm  $\text{R0.709 in}$ . (Discontinued models are R30 mm  $\text{R1.181 in}$  / R200 mm  $\text{R7.874 in}$ .) 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
<ul style="list-style-type: none"> <li>Vacuum resistant thru-beam type fiber</li> </ul>	<ul style="list-style-type: none"> <li>Vacuum resistant thru-beam type fiber</li> </ul>	
Model No. <b>FT-6V</b> <b>FT-60V</b>	Model No. <b>FT-H30-M1V-S</b>	<ul style="list-style-type: none"> <li>The recommended replacements have a sensing range of 250 mm <math>\text{9.843 in}</math> (<b>FX-301</b> in LONG mode).</li> <li>The recommended replacements are supplied with an <b>FV-BR1</b> photo-terminal and an <b>FT-J8</b> atmospheric side fiber as accessories.</li> </ul>
<ul style="list-style-type: none"> <li>Vacuum resistant reflective type fiber</li> </ul>	<ul style="list-style-type: none"> <li>Vacuum resistant reflective type fiber</li> </ul>	
Model No. <b>FD-6V</b>	Model No. <b>FD-H30-KZ1V-S</b> (Note 1)	<ul style="list-style-type: none"> <li>The recommended replacements have a sensing range of 20 to 200 mm <math>\text{0.787 to 7.874 in}</math> (<b>FX-301</b> in LONG mode).</li> <li>The recommended replacements are supplied with an <b>FV-BR1</b> photo-terminal and an <b>FT-J8</b> atmospheric side fiber as accessories.</li> </ul> <p>Note: The discontinued model (<b>FD-6V</b>) has shape of fiber head of M6. Recommended replacements (<b>FD-H30-KZ1V-S</b>) have a square-shaped tip.</p>
<ul style="list-style-type: none"> <li>Atmospheric side fiber</li> </ul>	<ul style="list-style-type: none"> <li>Atmospheric side fiber</li> </ul>	
Model No. <b>FT-J6</b>	Model No. <b>FT-J8</b>	<ul style="list-style-type: none"> <li>The recommended replacements have a sensing range of 20 to 200 mm <math>\text{0.787 to 7.874 in}</math> (<b>FX-301</b> in LONG mode).</li> <li>The <b>FT-J8</b> atmospheric side fiber is included as an accessory with the <b>FT-H30-M1V-S</b> and the <b>FD-H30-KZ1V-S</b>.</li> </ul>

### Shape of fiber head

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

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