

# Fiber Cable

## ■ Specifications(Through-beam)

| Dimension   | Model       | (Note1)<br>Cable length (L) | (Note2)<br>Detecting distance (mm) | (Note3)<br>Min. detecting target | Allowable bend radius | Fiber hood fixed nut torque | Tensile strength | Temperature                          |
|---|-------------|-----------------------------|------------------------------------|----------------------------------|-----------------------|-----------------------------|------------------|--------------------------------------|
| <b>Free cut</b><br>                                 | FT-320-05   | 2m                          | 150                                | φ 0.5                            | 15R                   | Max. 3kg · f · cm           | Max. 2kg · f     | -40 ~ +70°C<br>(Humidity 35 ~ 85%RH) |
| <b>Free cut</b><br>                                 | FT-420-10   | 2m                          | 500                                | φ 1                              | 30R                   | Max. 8kg · f · cm           | Max. 2kg · f     |                                      |
| <b>Free cut</b><br><b>Cylinder type</b><br>         | FTC-220-05  | 2m                          | 150                                | φ 0.5                            | 15R                   | Max. 3kg · f · cm           | Max. 2kg · f     |                                      |
| <b>Free cut</b><br><b>Cylinder type</b><br>         | FTC-320-10  | 2m                          | 500                                | φ 1                              | 30R                   | Max. 3kg · f · cm           | Max. 2kg · f     |                                      |
| <b>Free cut</b><br><b>SUS Cylinder type</b><br>     | FTCS-220-05 | 2m                          | 150                                | φ 1                              | 30R                   | Max. 3kg · f · cm           | Max. 2kg · f     |                                      |
| <b>Free cut</b><br><b>Plastic type</b><br>          | FTP-320-10  | 2m                          | 500                                | φ 1                              | 30R                   | Max. 3kg · f · cm           | Max. 2kg · f     |                                      |
| <b>Free cut</b><br><b>90° bending type</b><br>      | FTR-420-10  | 2m                          | 500                                | φ 1                              | 30R                   | Max. 8kg · f · cm           | Max. 2kg · f     |                                      |
| <b>Free cut</b><br><b>SUS type</b><br>              | FTS-320-05  | 2m                          | 150                                | φ 0.5                            | 30R (SUS part 10R)    | Max. 3kg · f · cm           | Max. 2kg · f     |                                      |
|   | FTS2-320-05 |                             |                                    |                                  |                       |                             |                  |                                      |
| <b>Free cut</b><br><b>SUS type</b><br>              | FTS-420-10  | 2m                          | 500                                | φ 1.0                            | 30R (SUS part 10R)    | Max. 8kg · f · cm           | Max. 2kg · f     |                                      |
|   | FTS2-420-10 |                             |                                    |                                  |                       |                             |                  |                                      |
| <b>Free cut</b><br><b>SUS type</b><br>              | FTS1-320-05 | 2m                          | 150                                | φ 0.5                            | 15R                   | Max. 8kg · f · cm           | Max. 2kg · f     |                                      |
| <b>Free cut</b><br><b>Heat-resistant type</b><br>   | FT-420-10H  | 2m                          | 300                                | φ 1.0                            | 30R                   | Max. 8kg · f · cm           | Max. 2kg · f     |                                      |
| <b>Free cut</b><br><b>Heat-resistant type</b><br>   | FT-420-10H1 | 2m                          | 500                                | φ 1.0                            | 30R                   | Max. 8kg · f · cm           | Max. 2kg · f     | -40 ~ +150°C                         |
| <b>Glass type</b><br><b>Heat-resistant type</b><br> | GT-420-14H2 | 2m                          | 500                                | φ 1.4                            | 50R                   | Max. 8kg · f · cm           | Max. 2kg · f     | -40 ~ +250°C                         |

- ※ (Note1) The length of fiber optic cable is optional.
- ※ (Note2) Above detecting distance is measured from detecting non-glossy white paper by using BF4R series's maximum sensitivity. For BF4G series, the detecting distance is 10% of BF4G series.
- ※ (Note3) The smallest detecting target is detected by maximum sensitivity, so this value is not standard.
- ※ **Free cut** The detecting distance can be shorten about 20% than normal according to condition of the cable. [(FC-2) should be used for cutting fiber cable.]

(A) Counter

(B) Timer

(C) Temp. controller

(D) Power controller

(E) Panel meter

(F) Tacho/Speed/Pulse meter

(G) Display unit

(H) Sensor controller

(I) Proximity sensor

**(J) Photo electric sensor**

(K) Pressure sensor

(L) Rotary encoder

(M) 5-Phase stepping motor & Driver & Controller

# Fiber Cable

## ■ Specifications (Diffuse reflective)

| Dimension                                  | Model       | (Note1)<br>Cable<br>length<br>(L) | (Note2)<br>Detecting<br>distance<br>(mm) | (Note3)<br>Min.<br>detecting<br>target | Allowable<br>bend<br>radius | Fiber hood<br>fixed nut<br>torque | Tensile<br>strength | Tempe-<br>rature                             |
|--|-------------|-----------------------------------|--|--|-----------------------------|-----------------------------------|---------------------|--|
| Free cut<br>                               | FD-320-05   | 2m                                | 40                                       | φ 0.03                                 | 15R                         | Max.<br>3kg · f · cm              | Max.<br>2kg · f     | -40 –<br>+70℃<br>(Humidity<br>35 –<br>85%RH) |
| Free cut<br>                               | FD-420-05   | 2m                                | 40                                       | φ 0.03                                 | 15R                         | Max.<br>8kg · f · cm              | Max.<br>2kg · f     |  |
| Free cut<br>                               | FD-620-10   | 2m                                | 120                                      | φ 0.03                                 | 30R                         | Max.<br>10kg · f · cm             | Max.<br>3kg · f     |  |
| Free cut<br>Cylinder<br>type<br>           | FDC-320-05  | 2m                                | 40                                       | φ 0.03                                 | 15R                         | Max.<br>3kg · f · cm              | Max.<br>2kg · f     |  |
| Free cut<br>SUS<br>Cylinder<br>type<br>    | FDCS-320-05 | 2m                                | 40                                       | φ 0.03                                 | 15R                         | Max.<br>3kg · f · cm              | Max.<br>2kg · f     |  |
| Free cut<br>Plastic<br>type<br>            | FDP-320-10  | 2m                                | 120                                      | φ 0.03                                 | 30R                         | Max.<br>3kg · f · cm              | Max.<br>2kg · f     |  |
| Free cut<br>SUS type<br>                   | FDS-320-05  | 2m                                | 40                                       | φ 0.03                                 | 15R<br>(SUS<br>part<br>10R) | Max.<br>3kg · f · cm              | Max.<br>2kg · f     |  |
|  | FDS2-320-05 |                                   |  |  |                             |                                   |                     |  |
| Free cut<br>SUS type<br>                   | FDS-420-05  | 2m                                | 40                                       | φ 0.03                                 | 15R<br>(SUS<br>part<br>10R) | Max.<br>8kg · f · cm              | Max.<br>2kg · f     |  |
|  | FDS2-420-05 |                                   |  |  |                             |                                   |                     |  |
| Free cut<br>SUS type<br>                   | FDS-620-10  | 2m                                | 120                                      | φ 0.03                                 | 30R<br>(SUS<br>part<br>10R) | Max.<br>10kg · f · cm             | Max.<br>3kg · f     |  |
|  | FDS2-620-10 |                                   |  |  |                             |                                   |                     |  |
| Free cut<br>Coaxial<br>type<br>            | FD-320-F    | 2m                                | 60                                       | φ 0.03                                 | 15R                         | Max.<br>3kg · f · cm              | Max.<br>2kg · f     |  |
| Free cut<br>Coaxial<br>type<br>            | FD-320-F1   | 2m                                | 40                                       | φ 0.03                                 | 15R                         | Max.<br>3kg · f · cm              | Max.<br>2kg · f     |  |
| Free cut<br>Coaxial<br>type<br>            | FD-620-F2   | 2m                                | 120                                      | φ 0.03                                 | 30R                         | Max.<br>10kg · f · cm             | Max.<br>3kg · f     |  |
| Free cut<br>Heat-<br>resistant<br>type<br> | FD-620-10H  | 2m                                | 120                                      | φ 0.03                                 | 30R                         | Max.<br>10kg · f · cm             | Max.<br>3kg · f     | -40–<br>+125℃                                |
| Free cut<br>Heat-<br>resistant<br>type<br> | FD-620-15H1 | 2m                                | 160                                      | φ 0.03                                 | 50R                         | Max.<br>10kg · f · cm             | Max.<br>3kg · f     | -40–<br>+150℃                                |

※ (Note1) The length of fiber optic cable is optional.

※ (Note2) Detecting distance is detecting with max. sensitivity from white non-glossy paper □ 50mm by BF4R Series.

For BF4G series, the detecting distance is 10% of BF4G series.

(But, above specification of FD-620 type is detecting with max. sensitivity from white non-glossy paper □ 100mm)

※ (Note3) The smallest detecting target is detected by maximum sensitivity, so this value is not standard.

※ Free cut The detecting distance can be shorten about 20% than normal according to condition of the cable.

[(FC-2) should be used for cutting fiber cable.]

# Fiber Cable

## Dimensions

| Model  | Diffuse reflective | Model   | Through-beam |
|--|--------------------|---|--------------|
| <b>FD-320-F1</b><br>Co-axial M3<br>φ0.5, φ0.25×9         |                    | <b>FTS1-320-05</b><br>M3-D0.5<br>SUS φ1.0×35mm                        |              |
| <b>FD-620-F2</b><br>Co-axial M6<br>φ1.0 φ0.25×16         |                    | <b>FT-420-10H</b><br>M4-D1.0<br>Heat RESISTANT<br>125°C               |              |
| <b>FD-620-10H</b><br>M6-D1.0<br>Heat Resistant<br>125°C  |                    | <b>FT-420-10H1</b><br>M4-D1.0<br>Heat Resistant<br>150°C              |              |
| <b>FD-620-15H1</b><br>M6-D1.5<br>Heat Resistant<br>150°C |                    | <b>GT-420-14H2</b><br>M4-D1.4<br>Heat Resistant<br>Max.250°C<br>Glass |              |

## Fiber optic cable protection

●Usage : Protect from impact or cutting

Unit:mm

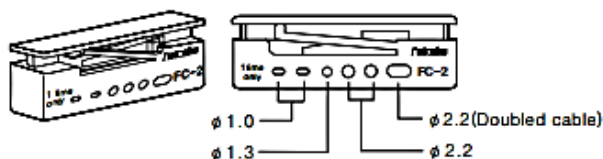
| Model          | Dimension |
|----------------|-----------|
| <b>FTH-310</b> |           |
| <b>FTH-410</b> |           |
| <b>FDH-610</b> |           |

## Accessories

### Fiber cutter

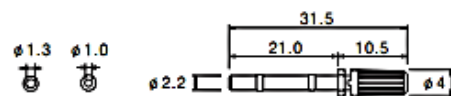
Usage : Free cut type, fiber optic cable cutting

●FC-2



### Adapter

Adapter : should be used.



※ Note1) The inside diameter φ1.0(Standard)  
The inside diameter φ1.3(Only applied light receiver)

Unit:mm