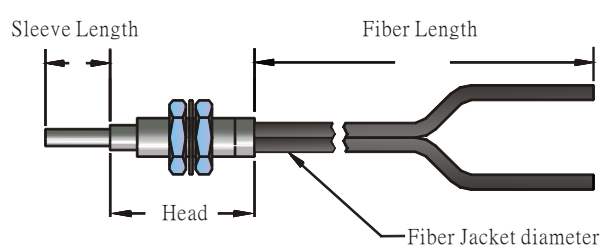
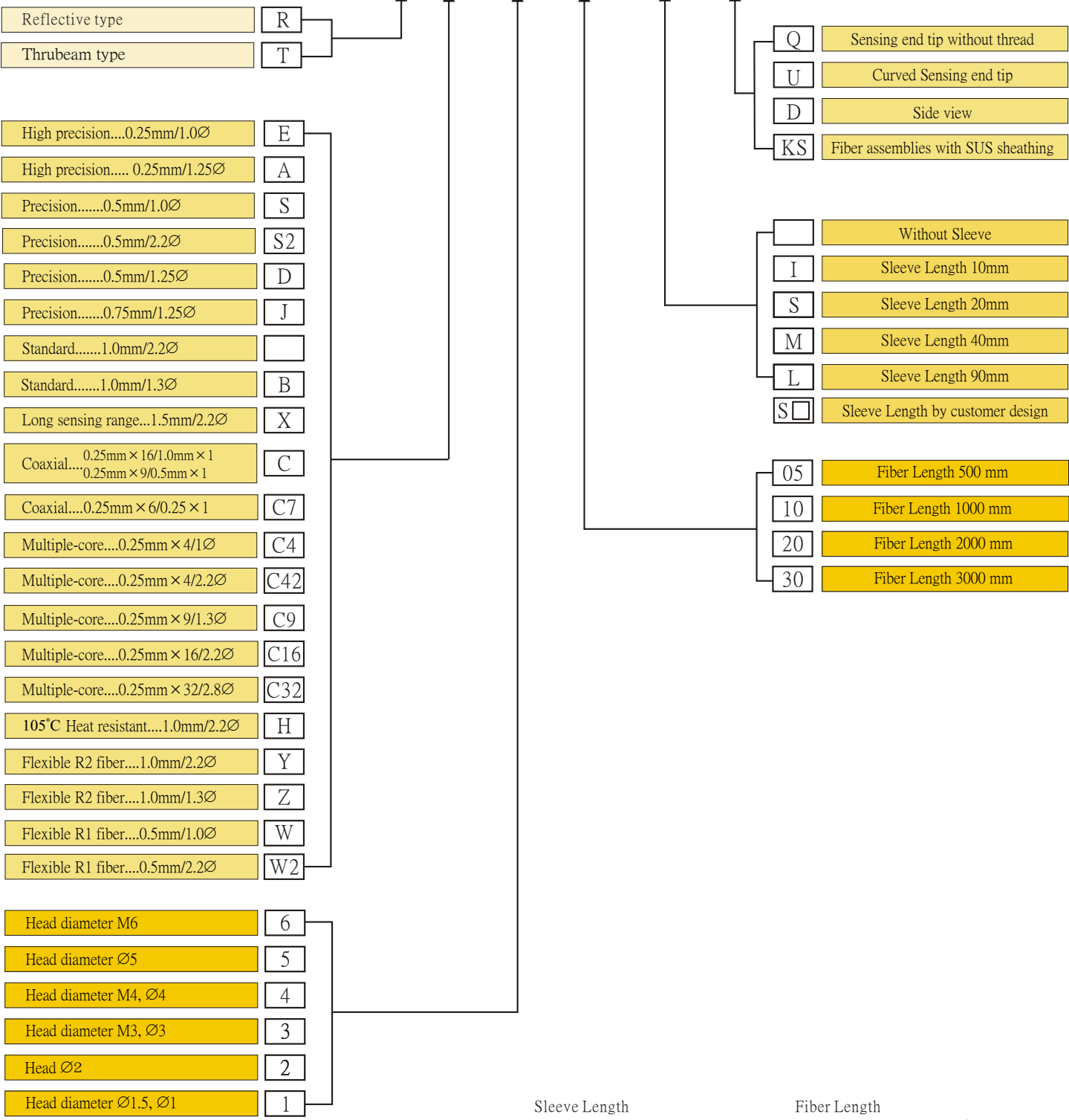


◆ **Order Information :**

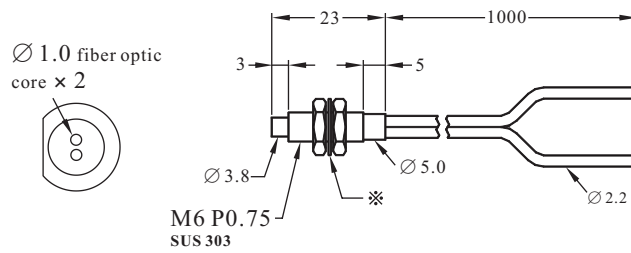
FR - 6 10 - -



# Reflective M6 Type

## FR-610

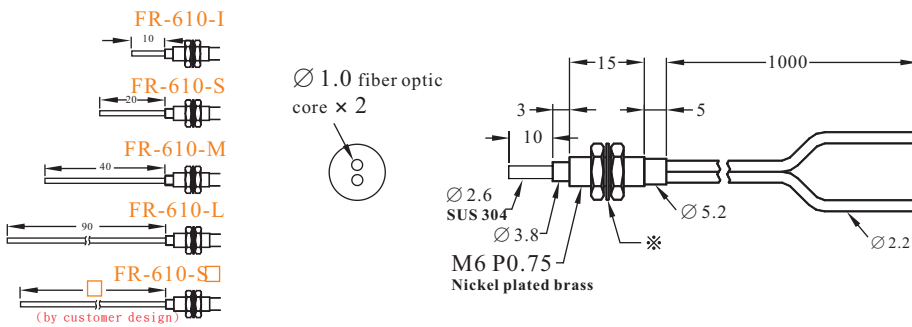
Free cut



Fiber material	Plastic
Fiber Type	Standard
Fiber diameter	D $\varnothing 2.2$ d $\varnothing 1.0$
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R25
Sensing distance/FZ-KP2	90mm

## FR-610-I

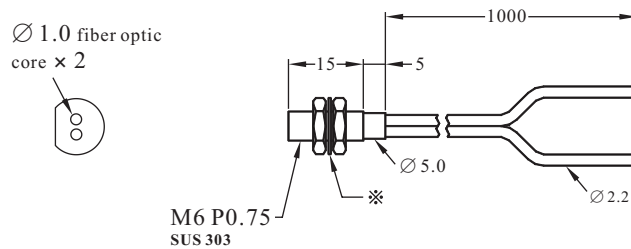
Free cut



Fiber material	Plastic
Fiber Type	Standard
Fiber diameter	D $\varnothing 2.2$ d $\varnothing 1.0$
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R25
Sensing distance/FZ-KP2	90mm

## FR-610-F

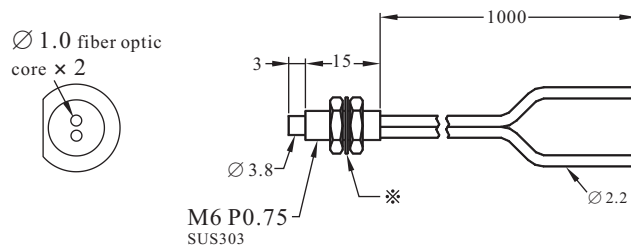
Free cut



Fiber material	Plastic
Fiber Type	Standard
Fiber diameter	D $\varnothing 2.2$ d $\varnothing 1.0$
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R25
Sensing distance/FZ-KP2	90mm

## FR-610-F1

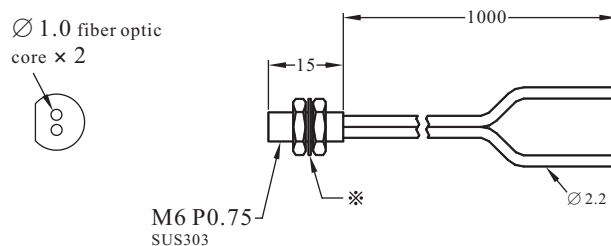
Free cut



Fiber material	Plastic
Fiber Type	Standard
Fiber diameter	D $\varnothing 2.2$ d $\varnothing 1.0$
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R25
Sensing distance/FZ-KP2	90mm

## FR-610-F2

Free cut



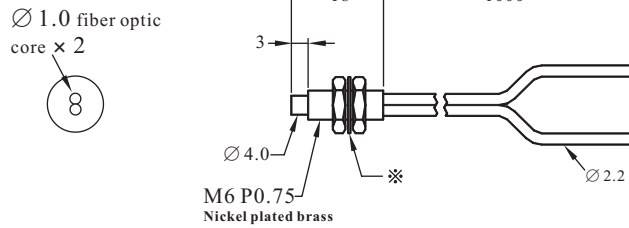
※ Washer toothed lock  $\varnothing 11$ ;  
 Nuts width across flats 10 mm, thickness 2.5 mm

# Reflective M6 Type

# RIKO M6

## FR-610-6F

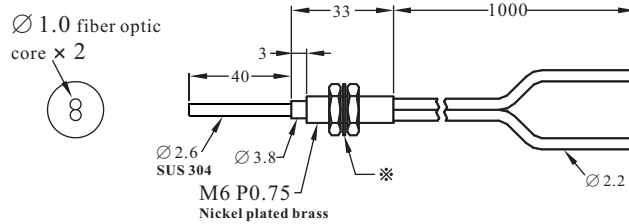
Free cut



Fiber material	Plastic
Fiber Type	Standard
Fiber diameter	D $\varnothing 2.2$ d $\varnothing 1.0$
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R25
Sensing distance/FZ-KP2	90mm

## FR-610-M-H33

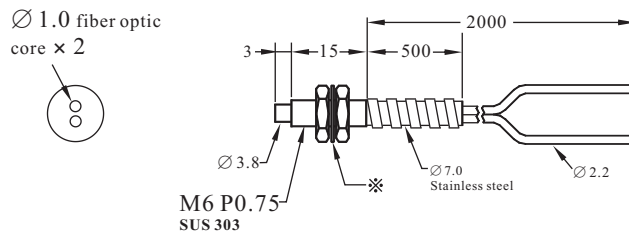
Free cut



Fiber material	Plastic
Fiber Type	Standard
Fiber diameter	D $\varnothing 2.2$ d $\varnothing 1.0$
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R25
Sensing distance/FZ-KP2	90mm

## FR-620-KS5

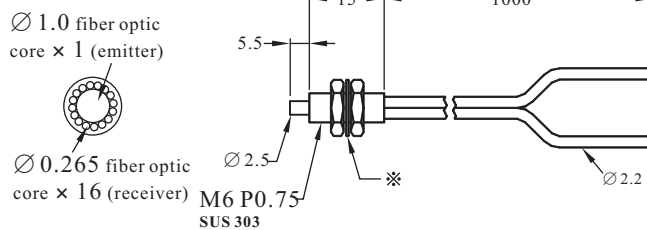
Free cut



Fiber material	Plastic
Fiber Type	Standard
Fiber diameter	D $\varnothing 2.2$ d $\varnothing 1.0$
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R25
Sensing distance/FZ-KP2	90mm

## FRC-610

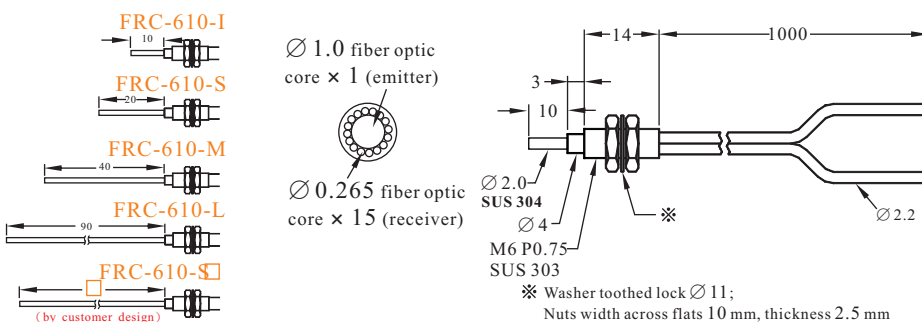
Free cut



Fiber material	Plastic
Fiber Type	Coaxial
Fiber diameter	D $\varnothing 2.2\text{mm} \times 1$ $\varnothing 2.2\text{mm} \times 1$ d $\varnothing 1.0\text{mm} \times 1$ $\varnothing 0.265\text{mm} \times 16$
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R25
Sensing distance/FZ-KP2	70mm

## FRC-610-I

Free cut



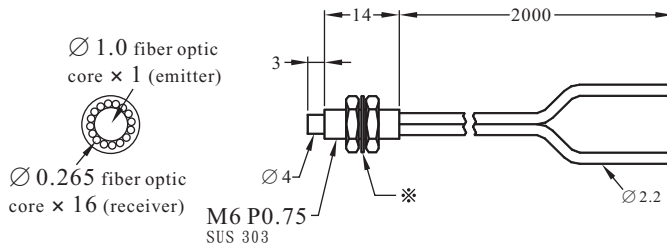
Fiber material	Plastic
Fiber Type	Coaxial
Fiber diameter	D $\varnothing 2.2\text{mm} \times 1$ $\varnothing 2.2\text{mm} \times 1$ d $\varnothing 1.0\text{mm} \times 1$ $\varnothing 0.265\text{mm} \times 16$
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R25
Sensing distance/FZ-KP2	70mm

# Reflective M6 Type



## FRC-620-25

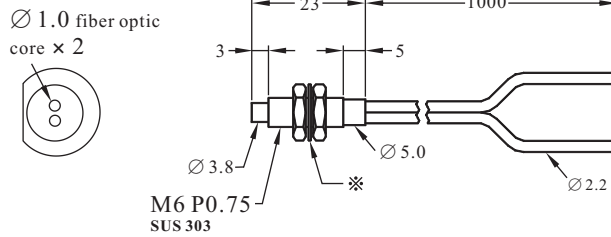
Free cut



Fiber material	Plastic
Fiber Type	Coaxial
Fiber diameter	D $\varnothing$ 2.2mm x1 d $\varnothing$ 1.0mm x1 $\varnothing$ 0.265mm x16
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R25
Sensing distance/FZ-KP2	70mm

## FRH-610

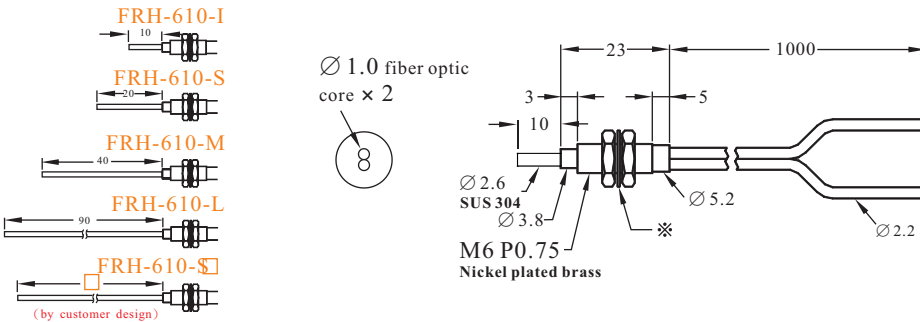
Free cut



Fiber material	Plastic
Fiber Type	Heat Resistant
Fiber diameter	D $\varnothing$ 2.2 d $\varnothing$ 1.0
Operate temperature	-55°C ~ +105°C
Minimum bending radius	R25
Sensing distance/FZ-KP2	80mm

## FRH-610-I

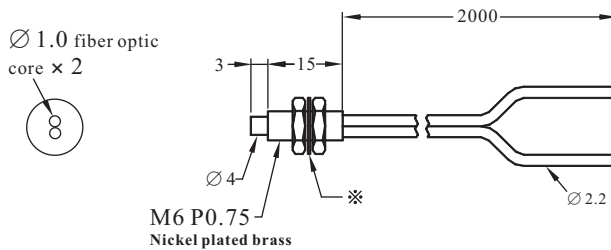
Free cut



Fiber material	Plastic
Fiber Type	Heat Resistant
Fiber diameter	D $\varnothing$ 2.2 d $\varnothing$ 1.0
Operate temperature	-55°C ~ +105°C
Minimum bending radius	R25
Sensing distance/FZ-KP2	80mm

## FRH-620-6F

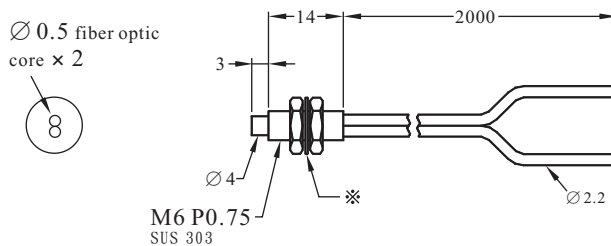
Free cut



Fiber material	Plastic
Fiber Type	Heat Resistant
Fiber diameter	D $\varnothing$ 2.2 d $\varnothing$ 1.0
Operate temperature	-55°C ~ +105°C
Minimum bending radius	R25
Sensing distance/FZ-KP2	80mm

## FRS2-620

Free cut



Fiber material	Plastic
Fiber Type	Precision
Fiber diameter	D $\varnothing$ 2.2 d $\varnothing$ 0.5
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R15
Sensing distance/FZ-KP2	25mm

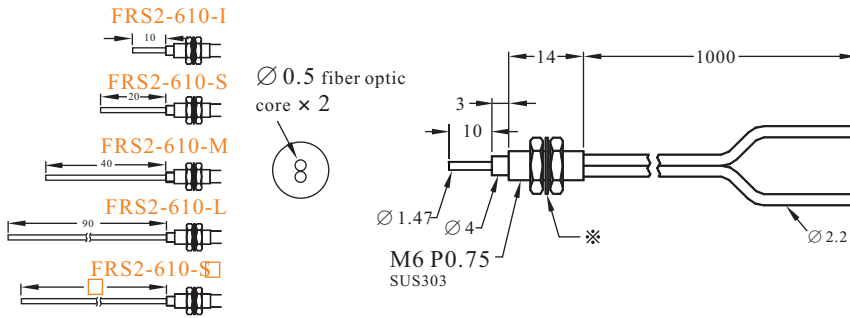
※ Washer toothed lock  $\varnothing$ 11;  
Nuts width across flats 10 mm, thickness 2.5 mm

# Reflective M6 Type

# RIKO M6

## FRS2-610-I

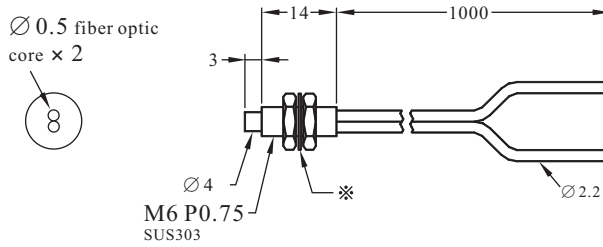
Free cut



Fiber material	Plastic
Fiber Type	Standard
Fiber diameter	D Ø2.2 d Ø0.5
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R15
Sensing distance/FZ-KP2	25mm

## FRW2-610

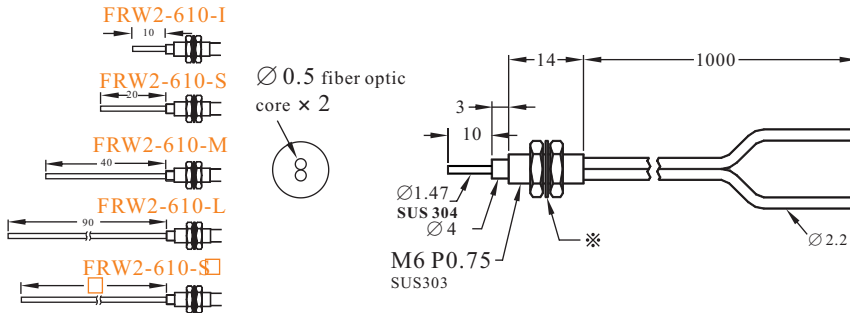
Free cut



Fiber material	Plastic
Fiber Type	Flexible
Fiber diameter	D Ø2.2 d Ø0.5
Operate temperature	-40°C ~ +70°C
Minimum bending radius	R1
Sensing distance/FZ-KP2	20mm

## FRW2-610-I

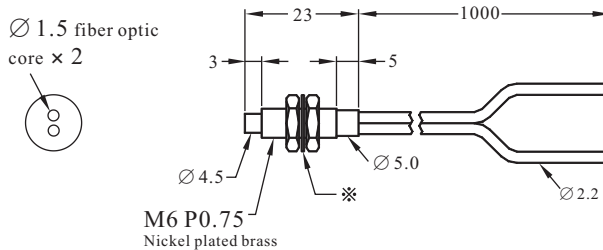
Free cut



Fiber material	Plastic
Fiber Type	Flexible
Fiber diameter	D Ø2.2 d Ø0.5
Operate temperature	-40°C ~ +70°C
Minimum bending radius	R1
Sensing distance/FZ-KP2	20mm

## FRX-610

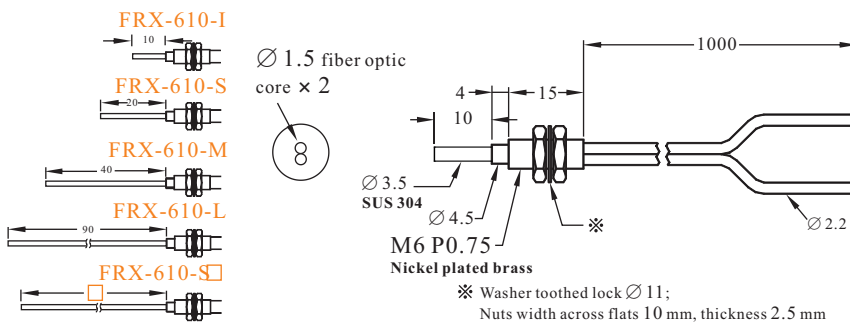
Free cut



Fiber material	Plastic
Fiber Type	Long sensing range
Fiber diameter	D Ø2.2 d Ø1.5
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R40
Sensing distance/FZ-KP2	120mm

## FRX-610-I

Free cut



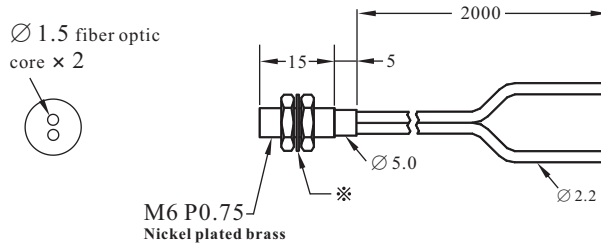
Fiber material	Plastic
Fiber Type	Long sensing range
Fiber diameter	D Ø2.2 d Ø1.5
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R40
Sensing distance/FZ-KP2	120mm

# Reflective M6 Type

# RIKO M6

## FRX-620-F

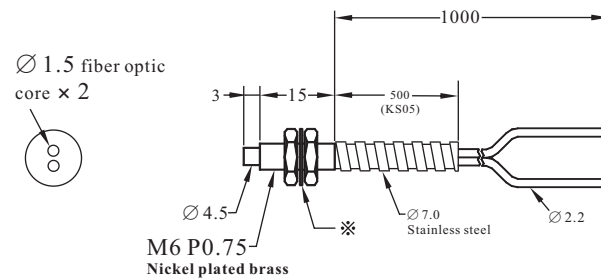
Free cut



Fiber material	Plastic
Fiber Type	Long sensing range
Fiber diameter	D Ø2.2 d Ø1.5
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R40
Sensing distance/FZ-KP2	120mm

## FRX-610-KS5

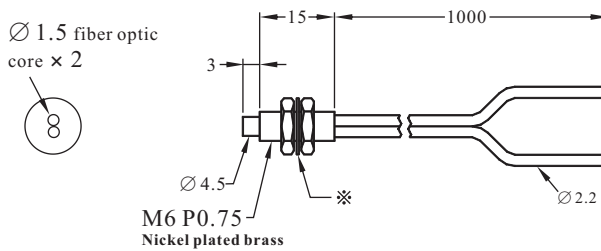
Free cut



Fiber material	Plastic
Fiber Type	Long sensing range
Fiber diameter	D Ø2.2 d Ø1.5
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R40
Sensing distance/FZ-KP2	120mm

## FRX-610-6F

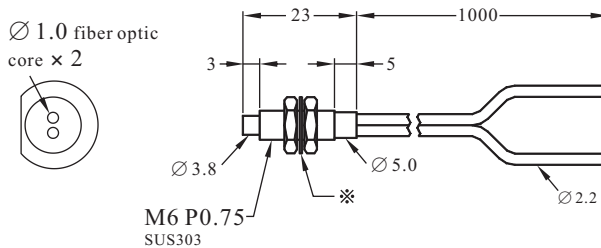
Free cut



Fiber material	Plastic
Fiber Type	Long sensing range
Fiber diameter	D Ø2.2 d Ø1.5
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R40
Sensing distance/FZ-KP2	120mm

## FRY-610

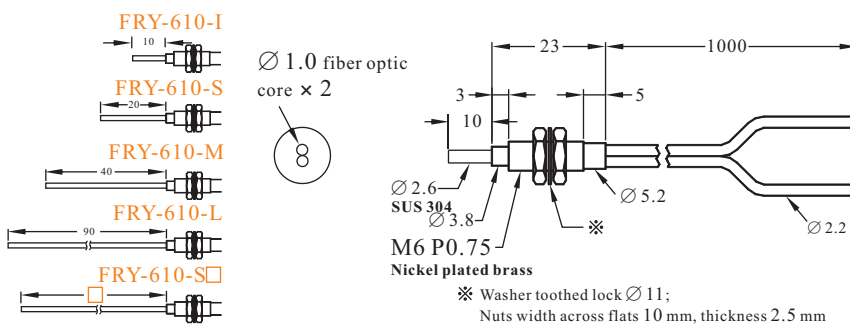
Free cut



Fiber material	Plastic
Fiber Type	Flexible
Fiber diameter	D Ø2.2 d Ø1.0
Operate temperature	-40°C ~ +70°C
Minimum bending radius	R2
Sensing distance/FZ-KP2	70mm

## FRY-610-I

Free cut

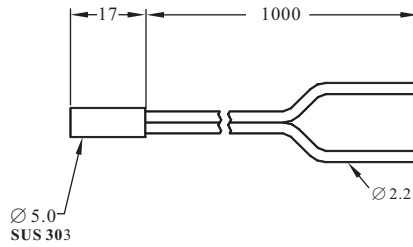
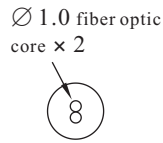


Fiber material	Plastic
Fiber Type	Flexible
Fiber diameter	D Ø2.2 d Ø1.0
Operate temperature	-40°C ~ +70°C
Minimum bending radius	R2
Sensing distance/FZ-KP2	70mm

# Reflective Ø5 Type

## FR-510

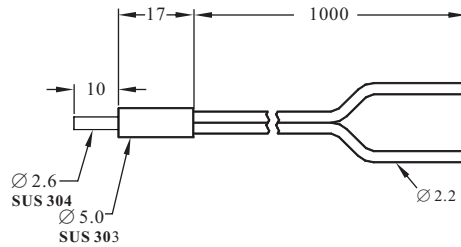
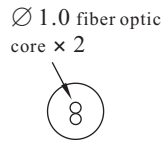
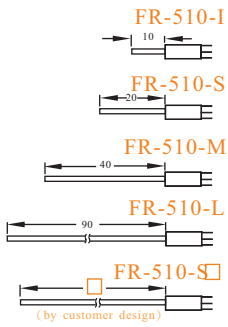
Free cut



Fiber material	Plastic
Fiber Type	Standard
Fiber diameter	D Ø2.2 d Ø1.0
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R25
Sensing distance/FZ-KP2	90mm

## FR-510-I

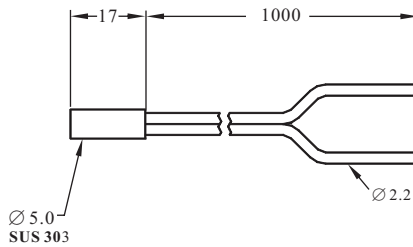
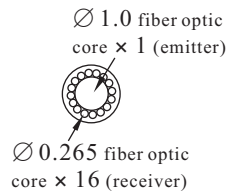
Free cut



Fiber material	Plastic
Fiber Type	Standard
Fiber diameter	D Ø2.2 d Ø1.0
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R25
Sensing distance/FZ-KP2	90mm

## FRC-510

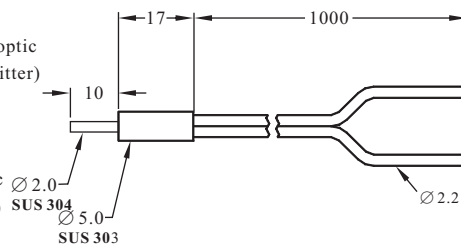
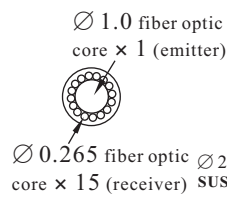
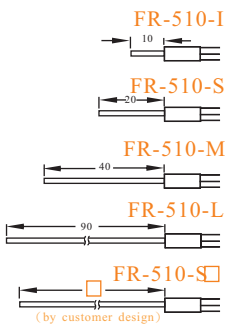
Free cut



Fiber material	Plastic
Fiber Type	Coaxial
Fiber diameter	D Ø2.2mm x1 Ø2.2mm x1 d Ø1.0mm x1 Ø0.265mm x15
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R25
Sensing distance/FZ-KP2	70mm

## FRC-510-I

Free cut

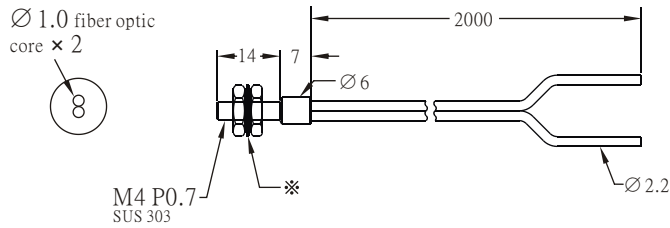


Fiber material	Plastic
Fiber Type	Coaxial
Fiber diameter	D Ø2.2mm x1 Ø2.2mm x1 d Ø1.0mm x1 Ø0.265mm x15
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R25
Sensing distance/FZ-KP2	70mm

# Reflective M4 Type

## FR-420

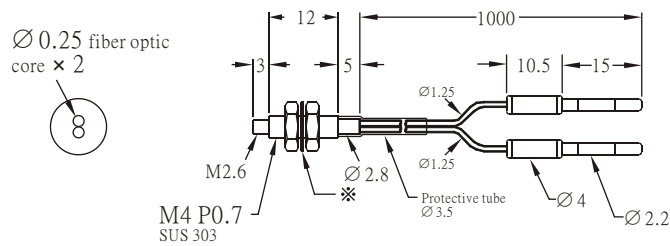
Free cut



Fiber material	Plastic
Fiber Type	Standard
Fiber diameter	D $\varnothing 2.2$ d $\varnothing 1.0$
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R25
Sensing distance/FZ-KP2	90mm

## FRA-410

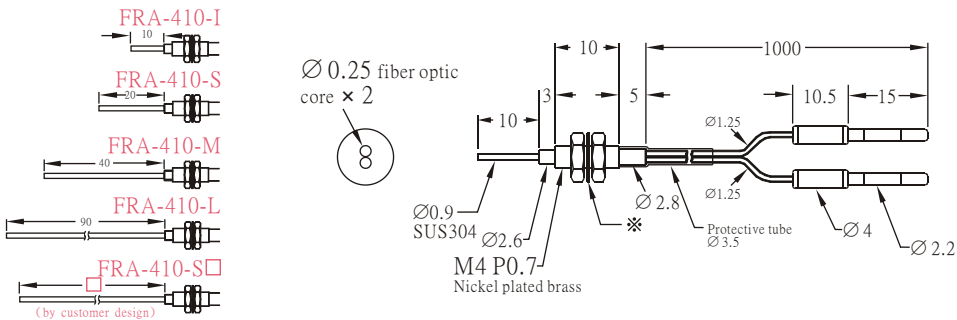
Free cut



Fiber material	Plastic
Fiber Type	Precision
Fiber diameter	D $\varnothing 1.25$ d $\varnothing 0.25$
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R10
Sensing distance/FZ-KP2	5mm

## FRA-410-I

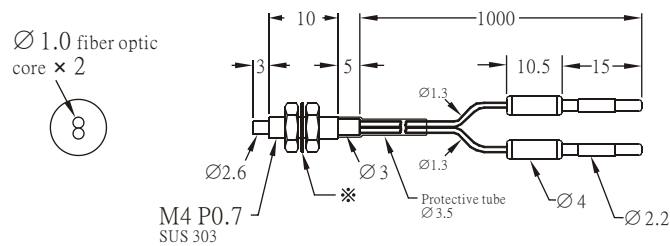
Free cut



Fiber material	Plastic
Fiber Type	Precision
Fiber diameter	D $\varnothing 1.25$ d $\varnothing 0.25$
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R10
Sensing distance/FZ-KP2	5mm

## FRB-410

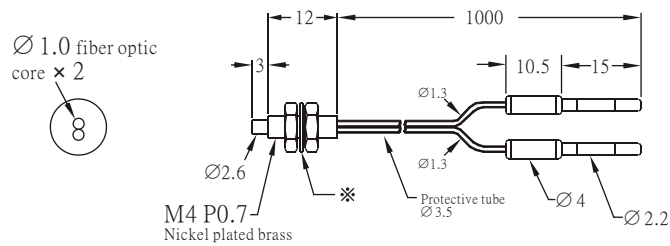
Free cut



Fiber material	Plastic
Fiber Type	Standard
Fiber diameter	D $\varnothing 1.3$ d $\varnothing 1.0$
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R25
Sensing distance/FZ-KP2	80mm

## FRB-410-6F

Free cut



Fiber material	Plastic
Fiber Type	Standard
Fiber diameter	D $\varnothing 1.3$ d $\varnothing 1.0$
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R25
Sensing distance/FZ-KP2	80mm

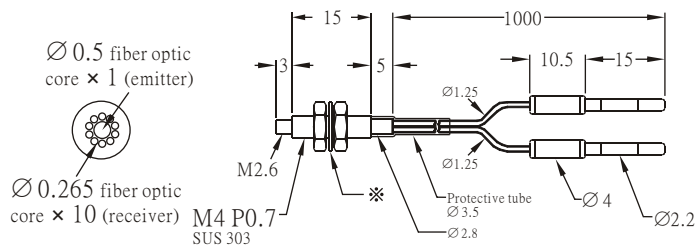
※ Washer toothed lock  $\varnothing 8.3$ ;  
Nuts width across flats 8 mm, thickness 2.3 mm



# Reflective M4 Type

## FRC-410

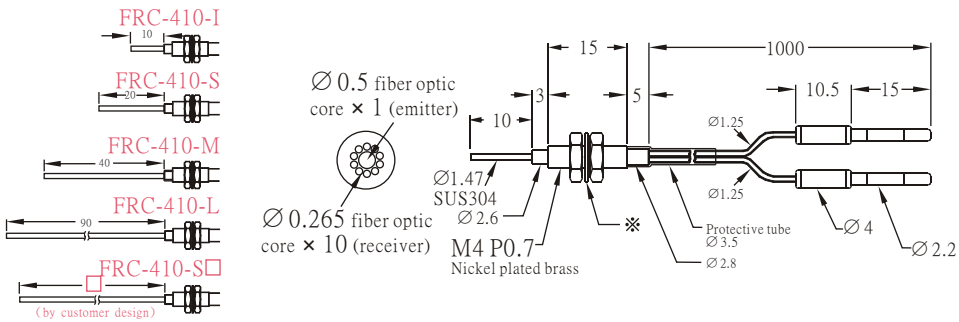
Free cut



Fiber material	Plastic
Fiber Type	Coaxial
Fiber diameter	D $\varnothing 1.25\text{mm} \times 1$ d $\varnothing 1.25\text{mm} \times 1$ $\varnothing 0.5\text{mm} \times 1$ $\varnothing 0.265\text{mm} \times 10$
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R15
Sensing distance/FZ-KP2	30mm

## FRC-410-I

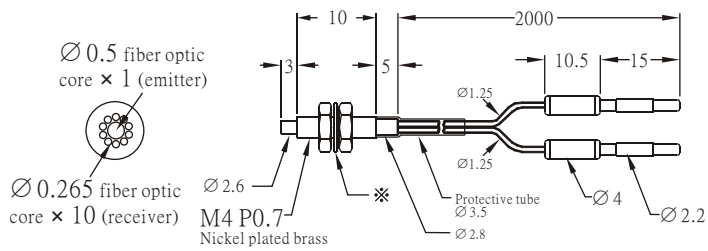
Free cut



Fiber material	Plastic
Fiber Type	Coaxial
Fiber diameter	D $\varnothing 1.25\text{mm} \times 1$ d $\varnothing 1.25\text{mm} \times 1$ $\varnothing 0.5\text{mm} \times 1$ $\varnothing 0.265\text{mm} \times 10$
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R15
Sensing distance/FZ-KP2	30mm

## FRC-420-84BC

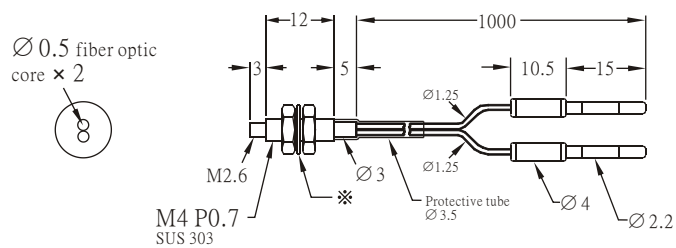
Free cut



Fiber material	Plastic
Fiber Type	Coaxial
Fiber diameter	D $\varnothing 1.25\text{mm} \times 1$ d $\varnothing 1.25\text{mm} \times 1$ $\varnothing 0.5\text{mm} \times 1$ $\varnothing 0.265\text{mm} \times 10$
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R15
Sensing distance/FZ-KP2	30mm

## FRD-410

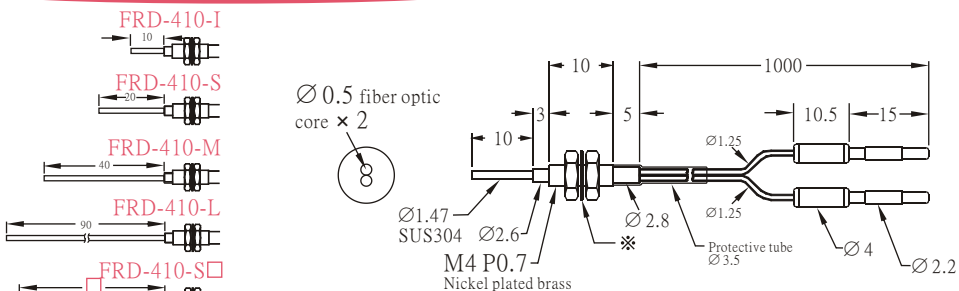
Free cut



Fiber material	Plastic
Fiber Type	Precision
Fiber diameter	D $\varnothing 1.25$ d $\varnothing 0.5$
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R15
Sensing distance/FZ-KP2	25mm

## FRD-410-I

Free cut



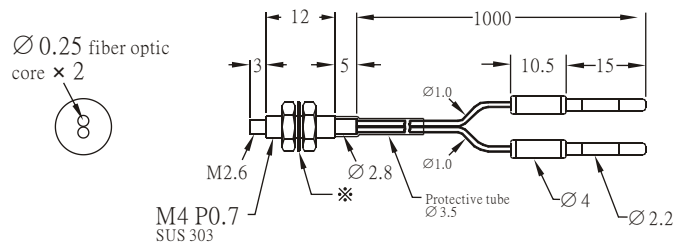
Fiber material	Plastic
Fiber Type	Precision
Fiber diameter	D $\varnothing 1.25$ d $\varnothing 0.5$
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R15
Sensing distance/FZ-KP2	25mm

※ Washer toothed lock  $\varnothing 8.3$ ;  
Nuts width across flats 8 mm, thickness 2.3 mm

# Reflective M4 Type

## FRE-410

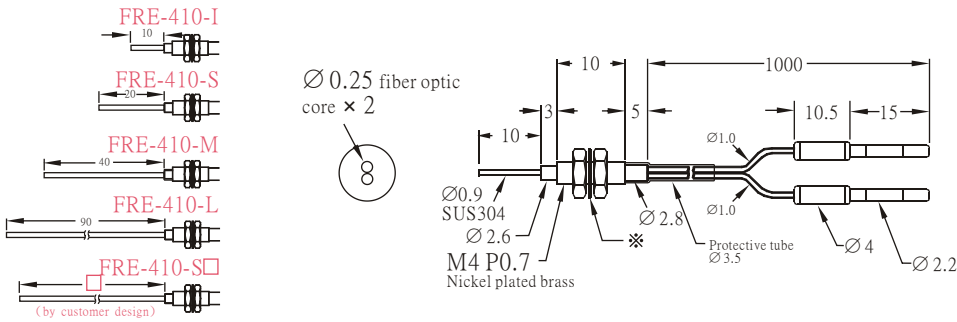
Free cut



Fiber material	Plastic
Fiber Type	Precision
Fiber diameter	D $\varnothing 1.0$ d $\varnothing 0.25$
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R10
Sensing distance/FZ-KP2	5mm

## FRE-410-I

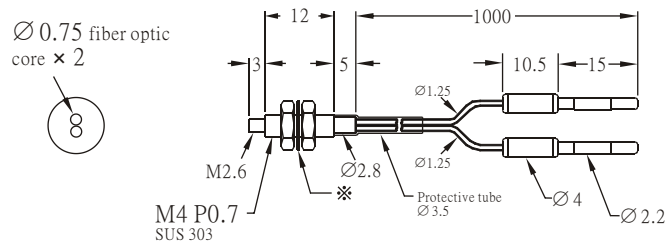
Free cut



Fiber material	Plastic
Fiber Type	High precision
Fiber diameter	D $\varnothing 1.0$ d $\varnothing 0.25$
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R10
Sensing distance/FZ-KP2	5mm

## FRJ-410

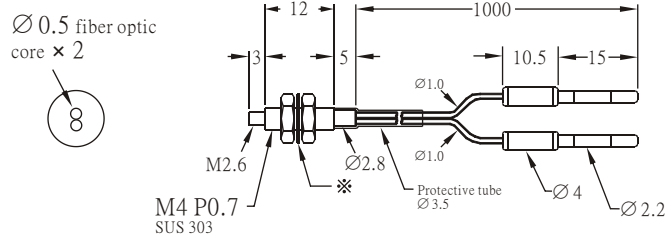
Free cut



Fiber material	Plastic
Fiber Type	Precision
Fiber diameter	D $\varnothing 1.25$ d $\varnothing 0.75$
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R20
Sensing distance/FZ-KP2	60mm

## FRS-410

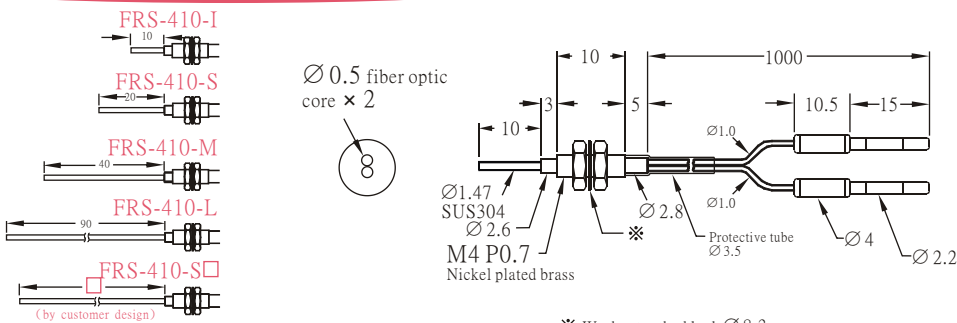
Free cut



Fiber material	Plastic
Fiber Type	Precision
Fiber diameter	D $\varnothing 1.0$ d $\varnothing 0.5$
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R15
Sensing distance/FZ-KP2	25mm

## FRS-410-I

Free cut



Fiber material	Plastic
Fiber Type	Precision
Fiber diameter	D $\varnothing 1.0$ d $\varnothing 0.5$
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R15
Sensing distance/FZ-KP2	25mm

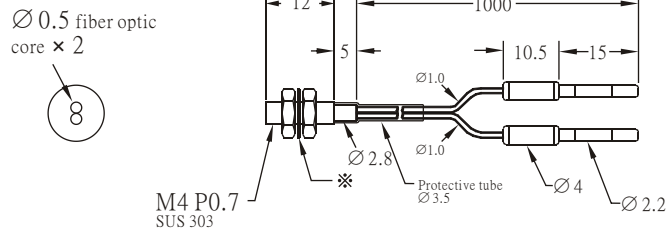
※ Washer toothed lock  $\varnothing 8.3$ ;  
 Nuts width across flats 8 mm, thickness 2.3 mm

# Reflective M4 Type



## FRS-410-F

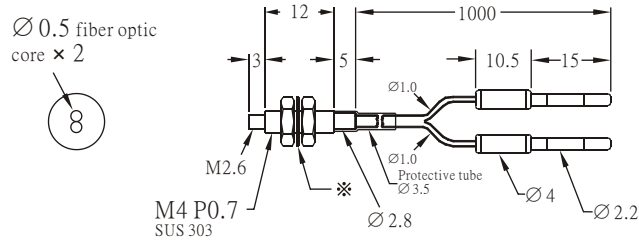
Free cut



Fiber material	Plastic
Fiber Type	Precision
Fiber diameter	D $\varnothing 1.0$ d $\varnothing 0.5$
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R15
Sensing distance/FZ-KP2	25mm

## FRW-410

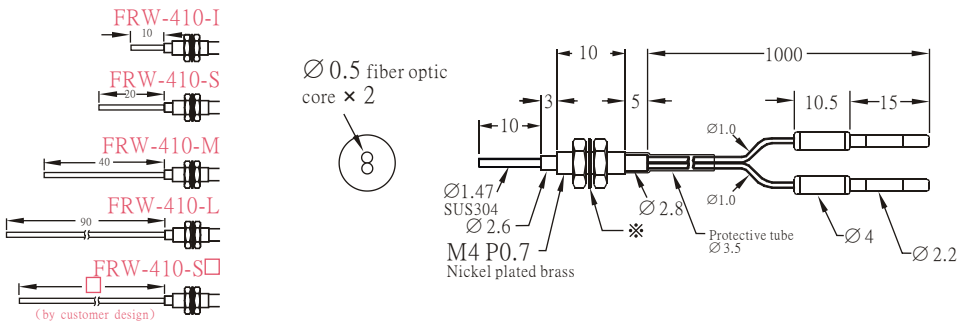
Free cut



Fiber material	Plastic
Fiber Type	Flexible
Fiber diameter	D $\varnothing 1.0$ d $\varnothing 0.5$
Operate temperature	-40°C ~ +70°C
Minimum bending radius	R1
Sensing distance/FZ-KP2	20mm

## FRW-410-I

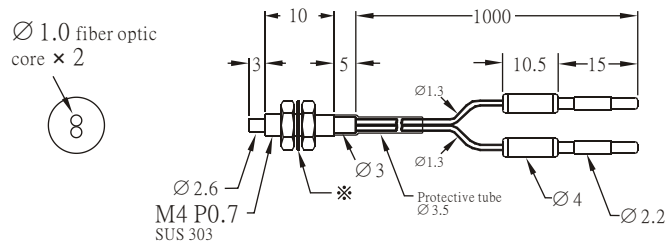
Free cut



Fiber material	Plastic
Fiber Type	Flexible
Fiber diameter	D $\varnothing 1.0$ d $\varnothing 0.5$
Operate temperature	-40°C ~ +70°C
Minimum bending radius	R1
Sensing distance/FZ-KP2	20mm

## FRZ-410

Free cut



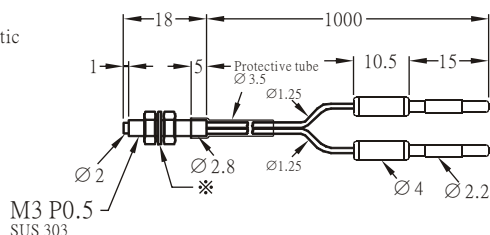
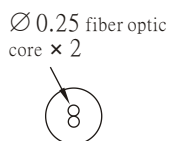
Fiber material	Plastic
Fiber Type	Flexible
Fiber diameter	D $\varnothing 1.3$ d $\varnothing 1.0$
Operate temperature	-40°C ~ +70°C
Minimum bending radius	R2
Sensing distance/FZ-KP2	70mm

※ Washer toothed lock  $\varnothing 8.3$ ;  
 Nuts width across flats 8 mm, thickness 2.3 mm

# Reflective $\varnothing 3/M3$ Type

## FRA-310

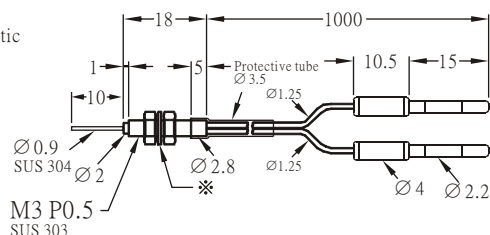
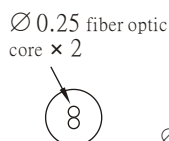
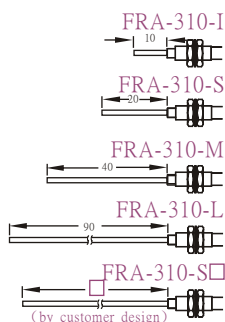
Free cut



Fiber material	Plastic
Fiber Type	High precision
Fiber diameter	D $\varnothing 1.25$ d $\varnothing 0.25$
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R10
Sensing distance/FZ-KP2	5mm

## FRA-310-I

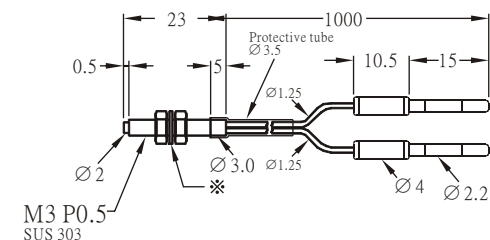
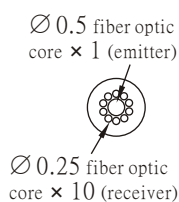
Free cut



Fiber material	Plastic
Fiber Type	High precision
Fiber diameter	D $\varnothing 1.25$ d $\varnothing 0.25$
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R10
Sensing distance/FZ-KP2	5mm

## FRC-310

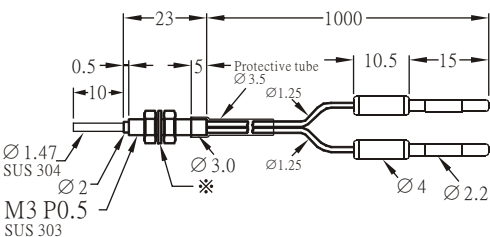
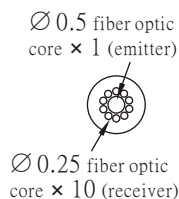
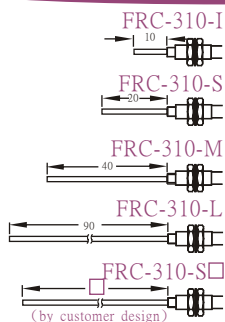
Free cut



Fiber material	Plastic
Fiber Type	Coaxial
Fiber diameter	D $\varnothing 1.25\text{mm} \times 1$ $\varnothing 1.25\text{mm} \times 1$ d $0.5\text{mm} \times 1$ $0.25\text{mm} \times 9$
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R15
Sensing distance/FZ-KP2	30mm

## FRC-310-I

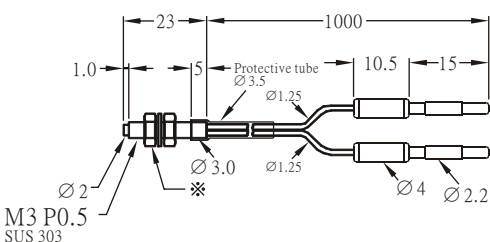
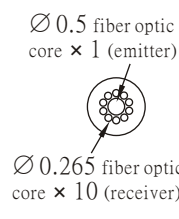
Free cut



Fiber material	Plastic
Fiber Type	Coaxial
Fiber diameter	D $\varnothing 1.25\text{mm} \times 1$ $\varnothing 1.25\text{mm} \times 1$ d $0.5\text{mm} \times 1$ $0.25\text{mm} \times 9$
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R15
Sensing distance/FZ-KP2	30mm

## FRC-310-35FA

Free cut



※ Washer toothed lock  $\varnothing 6.4$ ;  
Nuts width across flats 5 mm, thickness 2.2 mm

Fiber material	Plastic
Fiber Type	Coaxial
Fiber diameter	D $\varnothing 1.25\text{mm} \times 1$ $\varnothing 1.25\text{mm} \times 1$ d $\varnothing 0.5\text{mm} \times 1$ $\varnothing 0.25\text{mm} \times 10$
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R15
Sensing distance/FZ-KP2	30mm

# Reflective M3 Type

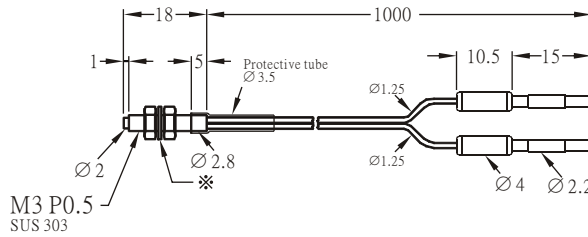
## FRC-310-35FZ

Free cut

Ø 0.5 fiber optic core × 1 (emitter)



Ø 0.265 fiber optic core × 10 (receiver)



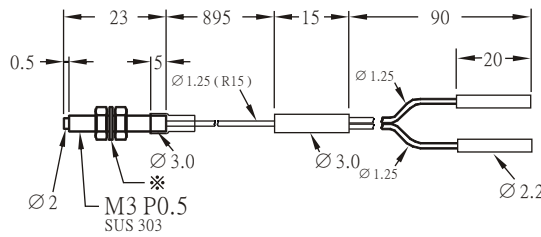
Fiber material	Plastic
Fiber Type	Coaxial
Fiber diameter	D d
	Ø1.25mm x1 Ø1.25mm x1 Ø0.5mm x1 Ø0.265mm x10
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R15
Sensing distance/FZ-KP2	30mm

## FRC7-310-FA

Ø 0.265 fiber optic core × 1 (emitter)



Ø 0.265 fiber optic core × 6 (receiver)



Fiber material	Plastic
Fiber Type	Coaxial
Fiber diameter	D d
	Ø1.25mm x1 Ø0.265mm x7
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R15
Sensing distance/FZ-KP2	20mm

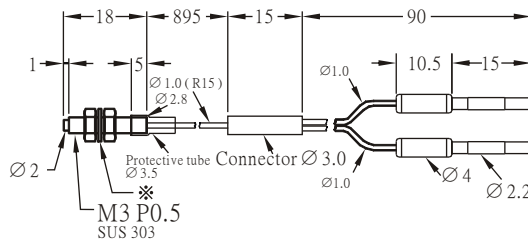
## FRC4-310

Free cut

Ø 0.25 fiber optic core × 2 (emitter)



Ø 0.25 fiber optic core × 2 (receiver)



Fiber material	Plastic
Fiber Type	Coaxial
Fiber diameter	D d
	Ø1mm x1 Ø0.25mm x4
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R15
Sensing distance/FZ-KP2	7mm

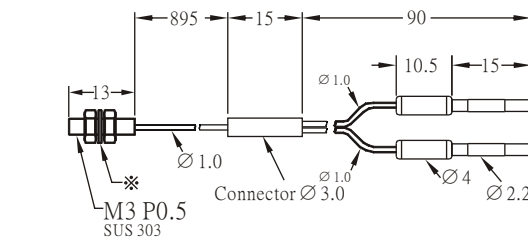
## FRC4-320-H13

Free cut

Ø 0.25 fiber optic core × 2 (emitter)



Ø 0.25 fiber optic core × 2 (receiver)

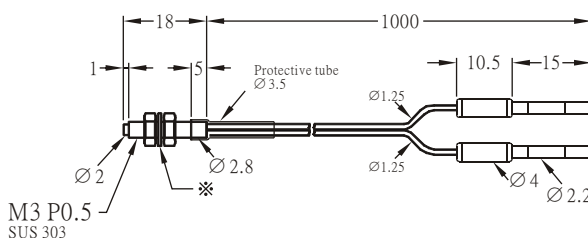


Fiber material	Plastic
Fiber Type	Coaxial
Fiber diameter	D d
	Ø1mm x1 Ø0.25mm x4
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R15
Sensing distance/FZ-KP2	7mm

## FRD-310

Free cut

Ø 0.5 fiber optic core × 2



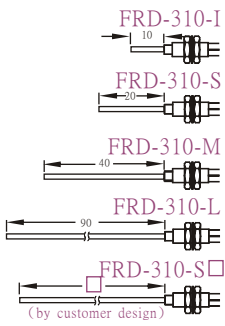
Fiber material	Plastic
Fiber Type	Precision
Fiber diameter	D d
	Ø1.25 Ø0.5
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R15
Sensing distance/FZ-KP2	25mm

※ Washer toothed lock Ø 6.4;  
Nuts width across flats 5 mm, thickness 2.2 mm

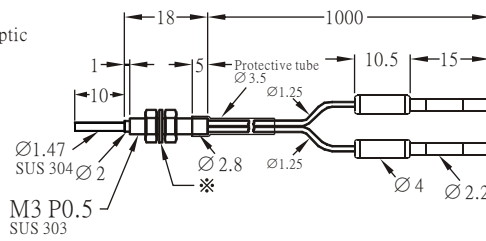
# Reflective M3 Type

## FRD-310-I

Free cut



Ø 0.5 fiber optic core × 2

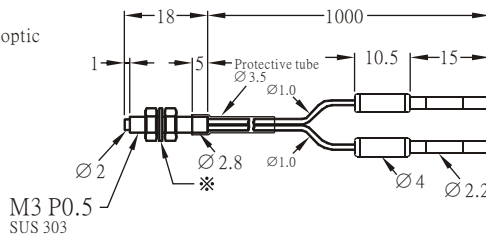


Fiber material	Plastic
Fiber Type	Precision
Fiber diameter	D d
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R15
Sensing distance/FZ-KP2	25mm

## FRE-310

Free cut

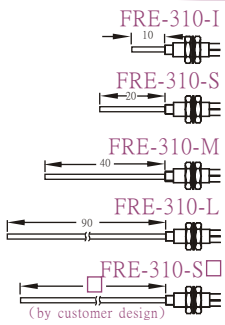
Ø 0.25 fiber optic core × 2



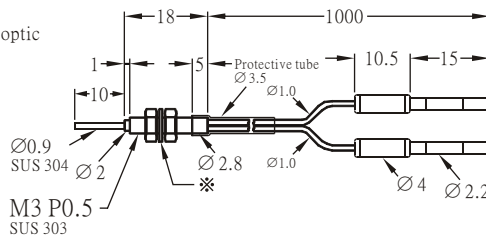
Fiber material	Plastic
Fiber Type	High precision
Fiber diameter	D d
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R10
Sensing distance/FZ-KP2	5mm

## FRE-310-I

Free cut



Ø 0.25 fiber optic core × 2

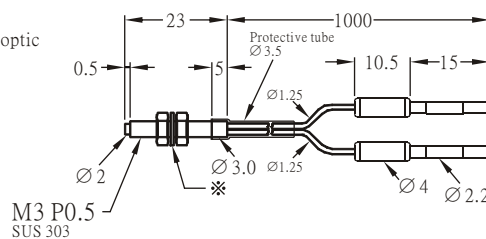


Fiber material	Plastic
Fiber Type	High precision
Fiber diameter	D d
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R10
Sensing distance/FZ-KP2	5mm

## FRJ-310

Free cut

Ø 0.75 fiber optic core × 2

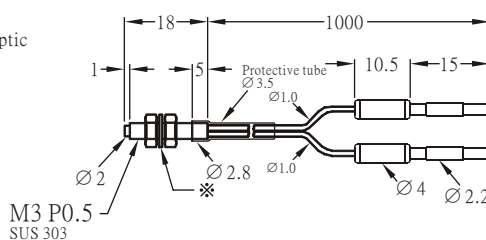


Fiber material	Plastic
Fiber Type	Precision
Fiber diameter	D d
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R15
Sensing distance/FZ-KP2	60mm

## FRS-310

Free cut

Ø 0.5 fiber optic core × 2



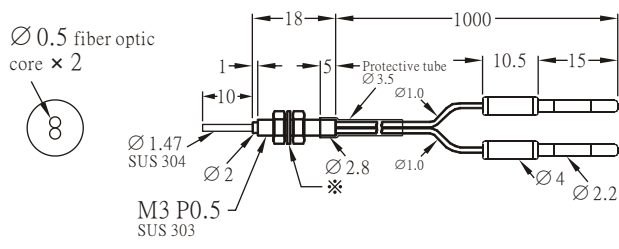
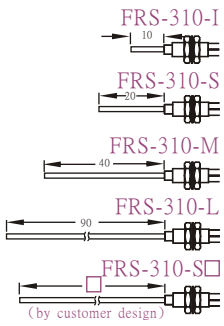
Fiber material	Plastic
Fiber Type	Precision
Fiber diameter	D d
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R15
Sensing distance/FZ-KP2	25mm

※ Washer toothed lock Ø 6.4;  
Nuts width across flats 5 mm, thickness 2.2 mm

# Reflective M3 Type

## FRS-310-I

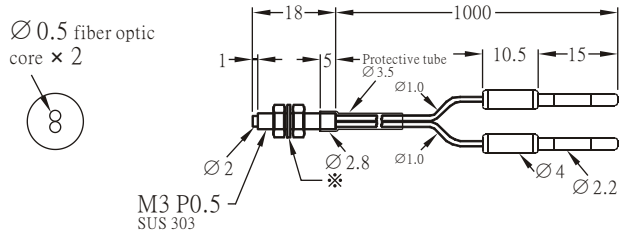
Free cut



Fiber material	Plastic
Fiber Type	Precision
Fiber diameter	D Ø1.0 d Ø0.5
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R15
Sensing distance/FZ-KP2	25mm

## FRW-310

Free cut



Fiber material	Plastic
Fiber Type	Flexible
Fiber diameter	D Ø1.0 d Ø0.5
Operate temperature	-40°C ~ +70°C
Minimum bending radius	R1
Sensing distance/FZ-KP2	20mm

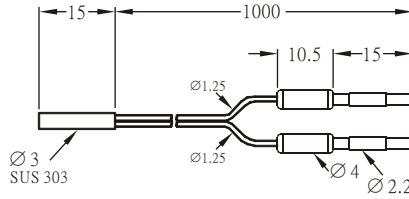
※ Washer toothed lock Ø 6.4;  
Nuts width across flats 5 mm, thickness 2.2 mm

# Reflective $\varnothing 3$ Type

## FRA-310-Q

Free cut

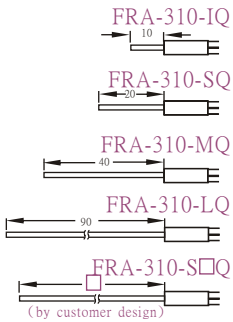
$\varnothing 0.25$  fiber optic core  $\times 2$



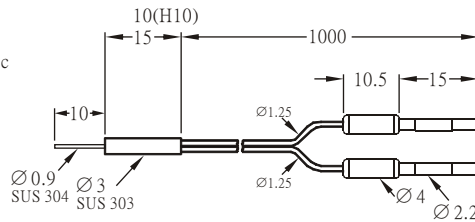
Fiber material	Plastic
Fiber Type	High precision
Fiber diameter	D $\varnothing 1.25$ d $\varnothing 0.25$
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R10
Sensing distance/FZ-KP2	5mm

## FRA-310-IQ(H10)

Free cut



$\varnothing 0.25$  fiber optic core  $\times 2$

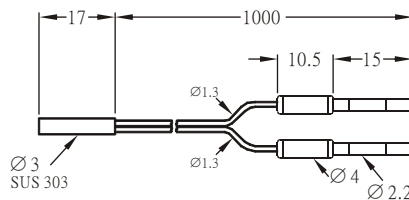


Fiber material	Plastic
Fiber Type	High precision
Fiber diameter	D $\varnothing 1.25$ d $\varnothing 0.25$
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R10
Sensing distance/FZ-KP2	5mm

## FRB-310-Q

Free cut

$\varnothing 1.0$  fiber optic core  $\times 2$



Fiber material	Plastic
Fiber Type	Standard
Fiber diameter	D $\varnothing 1.3$ d $\varnothing 1.0$
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R25
Sensing distance/FZ-KP2	80mm

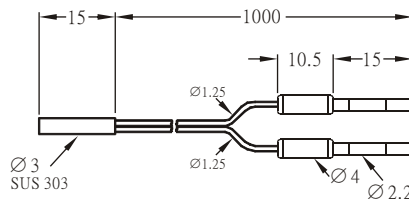
## FRC-310-Q

Free cut

$\varnothing 0.5$  fiber optic core  $\times 1$  (emitter)



$\varnothing 0.265$  fiber optic core  $\times 10$  (receiver)



Fiber material	Plastic
Fiber Type	Coaxial
Fiber diameter	D $\varnothing 1.25\text{mm} \times 1$ $\varnothing 1.25\text{mm} \times 1$ d $\varnothing 0.5\text{mm} \times 1$ $\varnothing 0.265\text{mm} \times 10$
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R15
Sensing distance/FZ-KP2	30mm

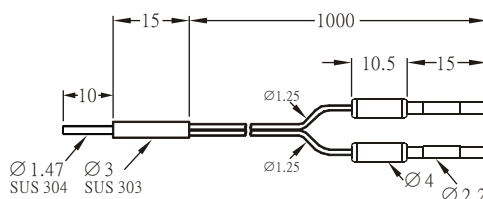
## FRC-310-IQ

Free cut

$\varnothing 0.5$  fiber optic core  $\times 1$  (emitter)



$\varnothing 0.265$  fiber optic core  $\times 10$  (receiver)



Fiber material	Plastic
Fiber Type	Coaxial
Fiber diameter	D $\varnothing 1.25\text{mm} \times 1$ $\varnothing 1.25\text{mm} \times 1$ d $\varnothing 0.5\text{mm} \times 1$ $\varnothing 0.265\text{mm} \times 10$
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R15
Sensing distance/FZ-KP2	30mm



# Reflective Ø3 Type

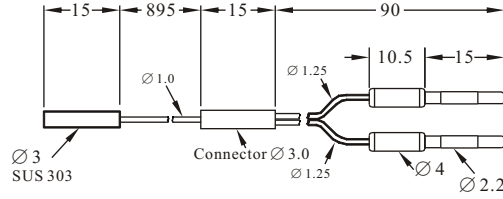
## FRC4-310-Q

Free cut

Ø 0.25 fiber optic core × 2 (emitter)



Ø 0.25 fiber optic core × 2 (receiver)

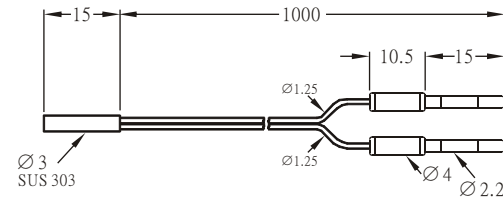


Fiber material	Plastic
Fiber Type	Coaxial
Fiber diameter	D d
	Ø1.0mm x1 Ø0.25mm x4
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R15
Sensing distance/FZ-KP2	7mm

## FRD-310-Q

Free cut

Ø 0.5 fiber optic core × 2

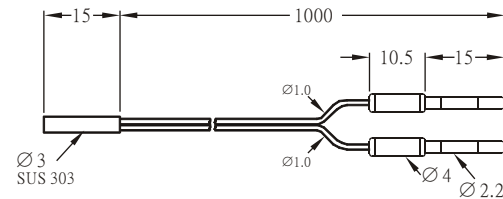


Fiber material	Plastic
Fiber Type	Precision
Fiber diameter	D d
	Ø1.25 Ø0.5
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R15
Sensing distance/FZ-KP2	25mm

## FRE-310-Q

Free cut

Ø 0.25 fiber optic core × 2



Fiber material	Plastic
Fiber Type	High precision
Fiber diameter	D d
	Ø1.0 Ø0.25
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R10
Sensing distance/FZ-KP2	5mm

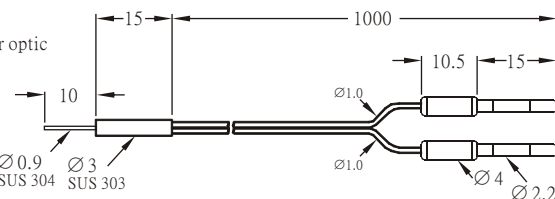
## FRE-310-IQ

Free cut

Ø 0.25 fiber optic core × 2



- FRE-310-IQ
- FRE-310-SQ
- FRE-310-MQ
- FRE-310-LQ
- FRE-310-S□Q  
(by customer design)

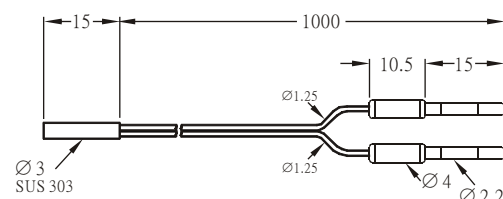


Fiber material	Plastic
Fiber Type	High precision
Fiber diameter	D d
	Ø1.0 Ø0.25
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R10
Sensing distance/FZ-KP2	5mm

## FRJ-310-Q

Free cut

Ø 0.75 fiber optic core × 2

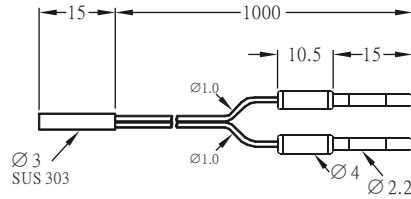
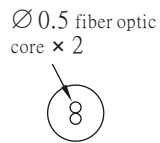


Fiber material	Plastic
Fiber Type	Precision
Fiber diameter	D d
	Ø1.25 Ø0.75
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R15
Sensing distance/FZ-KP2	60mm

# Reflective Ø3 Type

## FRS-310-Q

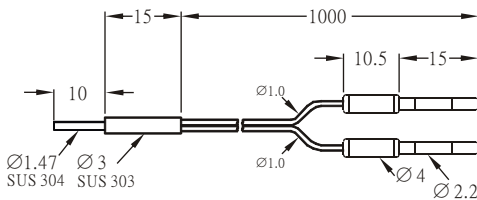
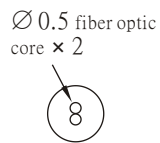
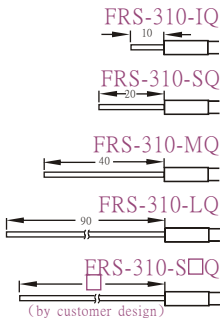
Free cut



Fiber material	Plastic
Fiber Type	Precision
Fiber diameter	D Ø1.0 d Ø0.5
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R15
Sensing distance/FZ-KP2	25mm

## FRS-310-IQ

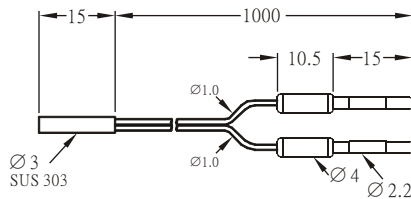
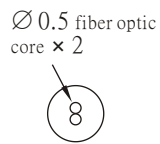
Free cut



Fiber material	Plastic
Fiber Type	Precision
Fiber diameter	D Ø1.0 d Ø0.5
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R15
Sensing distance/FZ-KP2	25mm

## FRW-310-Q

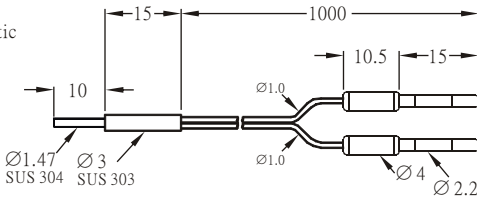
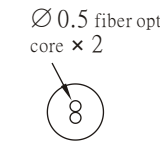
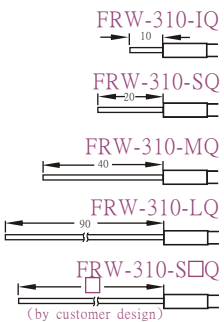
Free cut



Fiber material	Plastic
Fiber Type	Flexible
Fiber diameter	D Ø1.0 d Ø0.5
Operate temperature	-40°C ~ +70°C
Minimum bending radius	R1
Sensing distance/FZ-KP2	20mm

## FRW-310-IQ

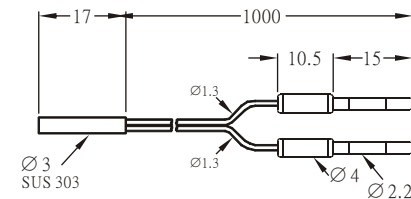
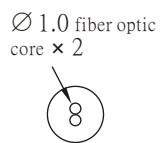
Free cut



Fiber material	Plastic
Fiber Type	Flexible
Fiber diameter	D Ø1.0 d Ø0.5
Operate temperature	-40°C ~ +70°C
Minimum bending radius	R1
Sensing distance/FZ-KP2	20mm

## FRZ-310-Q

Free cut

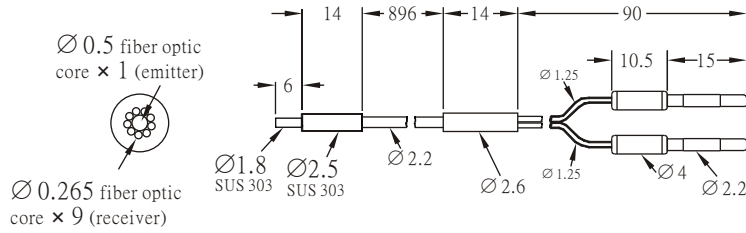


Fiber material	Plastic
Fiber Type	Flexible
Fiber diameter	D Ø1.3 d Ø1.0
Operate temperature	-40°C ~ +70°C
Minimum bending radius	R2
Sensing distance/FZ-KP2	70mm

# Reflective Ø2 Type

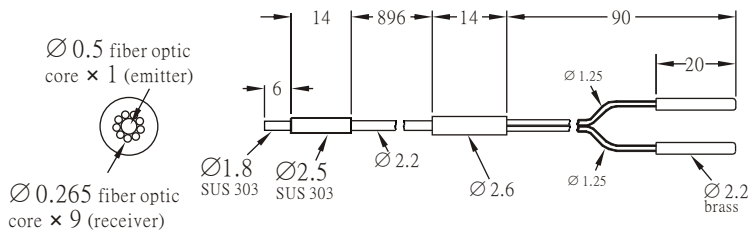
## FRC-210-22X

Free cut



Fiber material	Plastic
Fiber Type	Coaxial
Fiber diameter	D Ø2.2 d Ø0.5x1 Ø0.265x9
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R15
Sensing distance/FZ-KP2	30mm

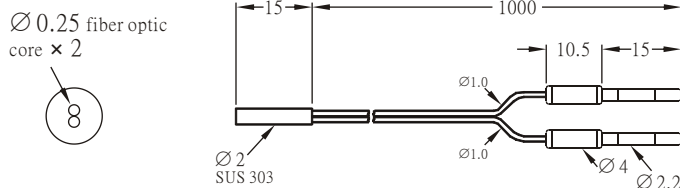
## FRC-210-22X(Brass)



Fiber material	Plastic
Fiber Type	Coaxial
Fiber diameter	D Ø2.2 d Ø0.5x1 Ø0.265x9
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R15
Sensing distance/FZ-KP2	30mm

## FRE-210

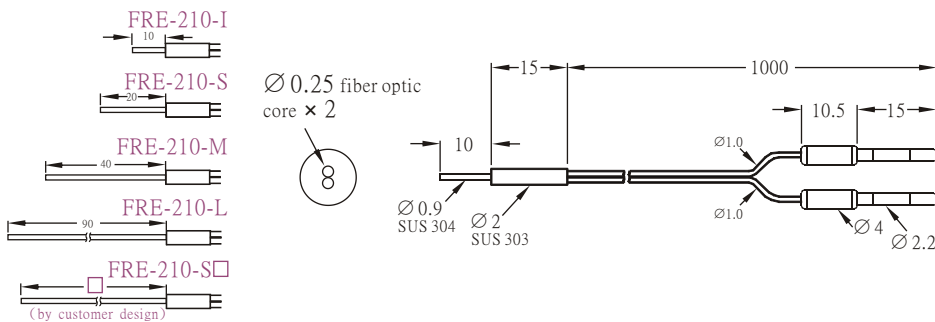
Free cut



Fiber material	Plastic
Fiber Type	High precision
Fiber diameter	D Ø1.0 d Ø0.25
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R10
Sensing distance/FZ-KP2	5mm

## FRE-210-I

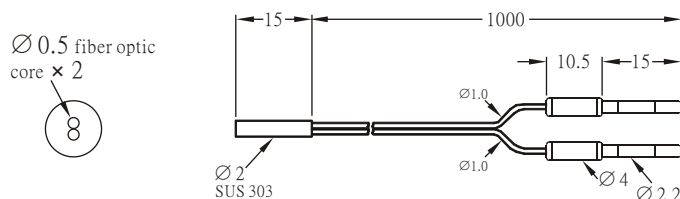
Free cut



Fiber material	Plastic
Fiber Type	High precision
Fiber diameter	D Ø1.0 d Ø0.25
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R10
Sensing distance/FZ-KP2	5mm

## FRS-210

Free cut

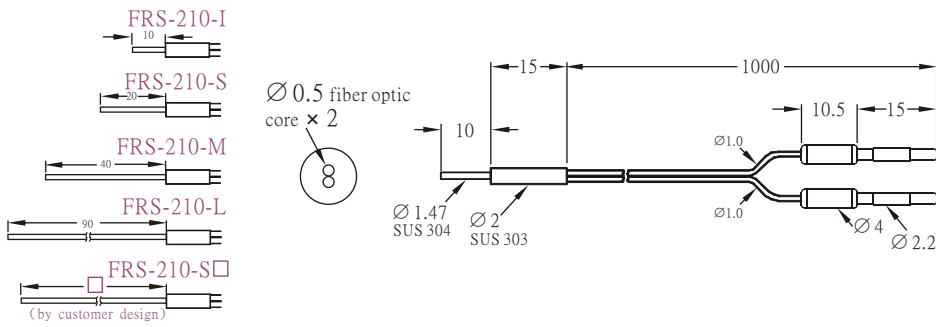


Fiber material	Plastic
Fiber Type	Precision
Fiber diameter	D Ø1.0 d Ø0.5
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R15
Sensing distance/FZ-KP2	25mm

# Reflective $\varnothing 1.5$ Type

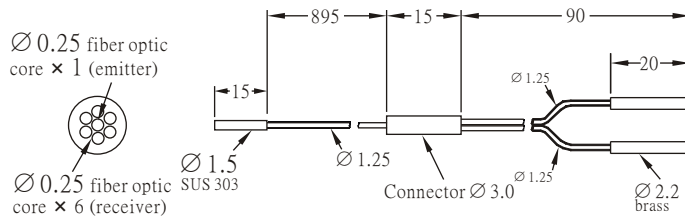
## FRS-210

Free cut



Fiber material	Plastic
Fiber Type	Precision
Fiber diameter	D $\varnothing 1.0$ d $\varnothing 0.5$
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R15
Sensing distance/FZ-KP2	25mm

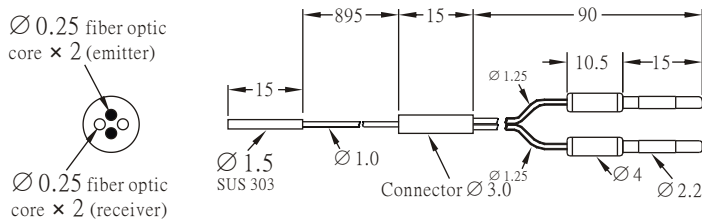
## FRC7-110-Q20



Fiber material	Plastic
Fiber Type	Coaxial
Fiber diameter	D $\varnothing 1.25$ d $\varnothing 0.25 \times 7$
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R15
Sensing distance/FZ-KP2	20mm

## FRC4-110-49X

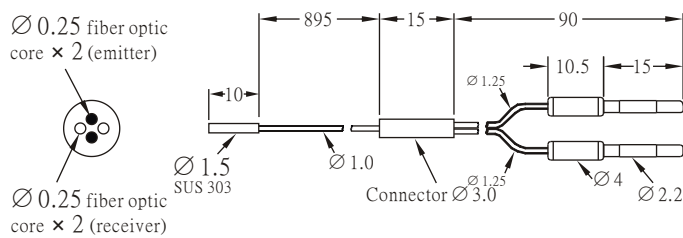
Free cut



Fiber material	Plastic
Fiber Type	Multiple-core
Fiber diameter	D $\varnothing 1.0$ d $\varnothing 0.25 \times 4$
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R15
Sensing distance/FZ-KP2	7mm

## FRC4-110-H10

Free cut



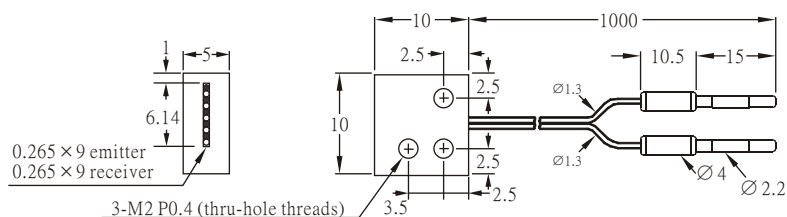
Fiber material	Plastic
Fiber Type	Multiple-core
Fiber diameter	D $\varnothing 1.0$ d $\varnothing 0.25 \times 4$
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R15
Sensing distance/FZ-KP2	7mm

# Reflective Other Type



## FR-10ML-10

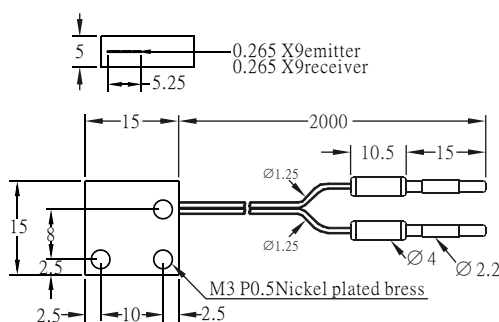
Free cut Array Fiber



Fiber material	Plastic
Fiber Type	Multiple-core
Fiber diameter	$\frac{D}{d}$ $\frac{\text{Ø}1.25 \times 2}{(\text{Ø}0.265 \times 9) \times 2}$
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R25
Sensing distance/FZ-KP2	25mm

## FR-15MLD-20

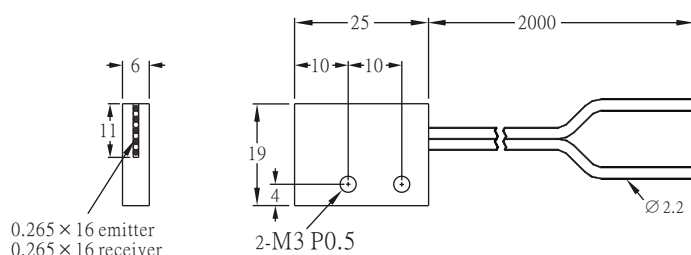
Free cut Array Fiber



Fiber material	Plastic
Fiber Type	Multiple-core
Fiber diameter	$\frac{D}{d}$ $\frac{\text{Ø}1.25 \times 2}{(\text{Ø}0.265 \times 9) \times 2}$
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R25
Sensing distance/FZ-KP2	20mm

## FR-20ML-20

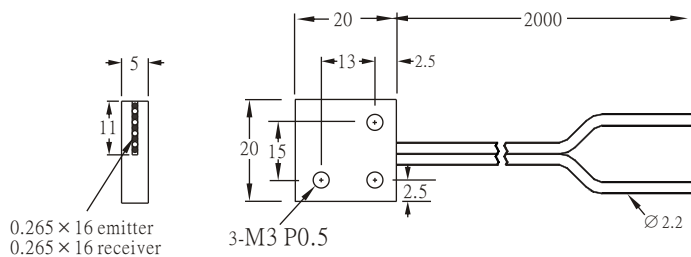
Free cut Array Fiber



Fiber material	Plastic
Fiber Type	Multiple-core
Fiber diameter	$\frac{D}{d}$ $\frac{\text{Ø}2.2 \times 2}{(\text{Ø}0.265 \times 16) \times 2}$
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R25
Sensing distance/FZ-KP2	70mm

## FR-20MLS-20

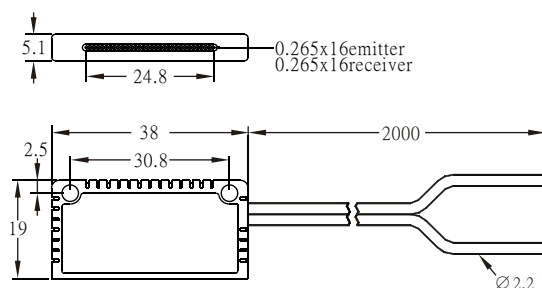
Free cut Array Fiber



Fiber material	Plastic
Fiber Type	Multiple-core
Fiber diameter	$\frac{D}{d}$ $\frac{\text{Ø}2.2 \times 2}{(\text{Ø}0.265 \times 16) \times 2}$
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R25
Sensing distance/FZ-KP2	60mm

## FR-30ML-20

Free cut Array Fiber



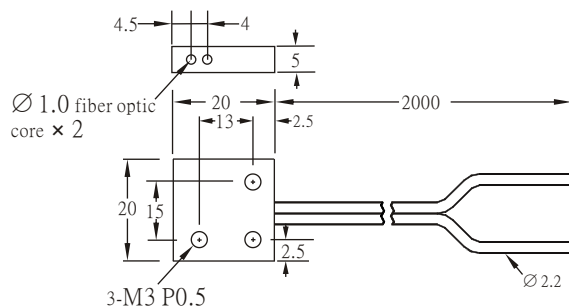
Fiber material	Plastic
Fiber Type	Multiple-core
Fiber diameter	$\frac{D}{d}$ $\frac{\text{Ø}2.2 \times 2}{(\text{Ø}0.265 \times 16) \times 2}$
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R25
Sensing distance/FZ-KP2	70mm

# Reflective Other Type



## FRY-20MLSD-20

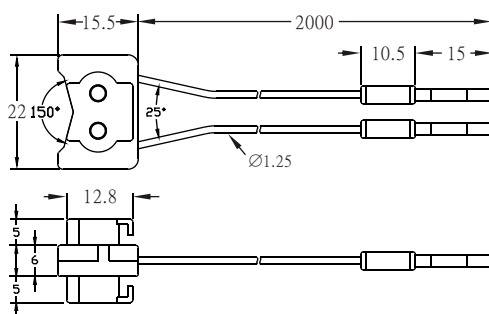
Free cut



Fiber material	Plastic
Fiber Type	Flexible
Fiber diameter	D d
	Ø2.2 Ø1.0
Operate temperature	-40°C ~ +70°C
Minimum bending radius	R2
Sensing distance/FZ-KP2	70mm

## FRD-FU901-20

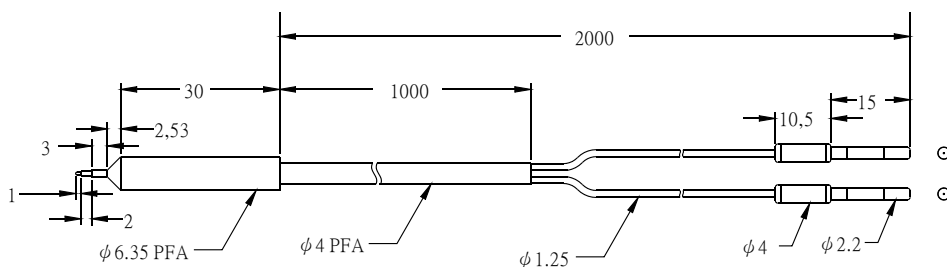
Free cut



Fiber material	Plastic
Fiber Type	Precision
Fiber diameter	D d
	Ø1.25 Ø0.5
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R15
Tube	Ø4-Ø26

## FRJ-9310-20

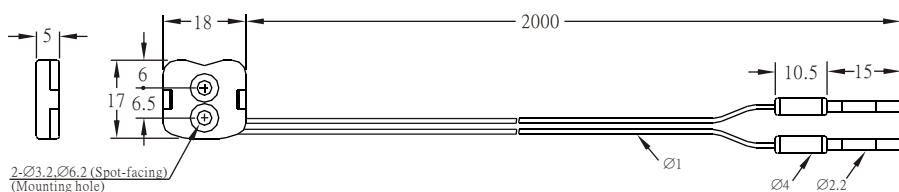
Free cut



Fiber material	Plastic
Fiber Type	Precision
Fiber diameter	D d
	Ø1.25 Ø0.75
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R15 / R40

## FRW-K10-20

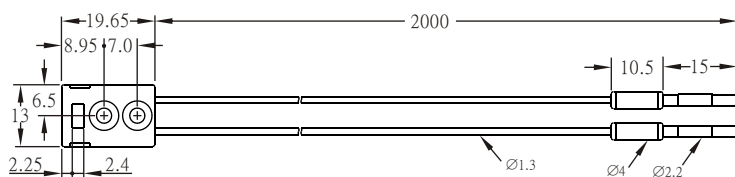
Free cut



Fiber material	Plastic
Fiber Type	Flexible
Fiber diameter	D d
	Ø1.0 Ø0.5
Operate temperature	-40°C ~ +70°C
Minimum bending radius	R1
Sensing distance/FZ-KP2	5 ~ 10mm

## FRB-38V-20

Free cut



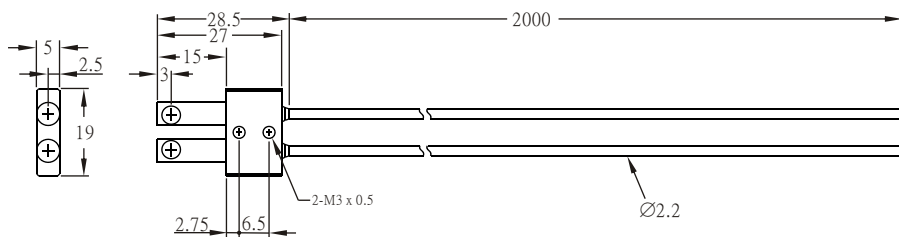
Fiber material	Plastic
Fiber Type	Standard
Fiber diameter	D d
	Ø1.3 Ø1.0
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R25
Sensing distance/FZ-KP2	1 ~ 6mm

# Reflective Other Type



## FRH-38H-20

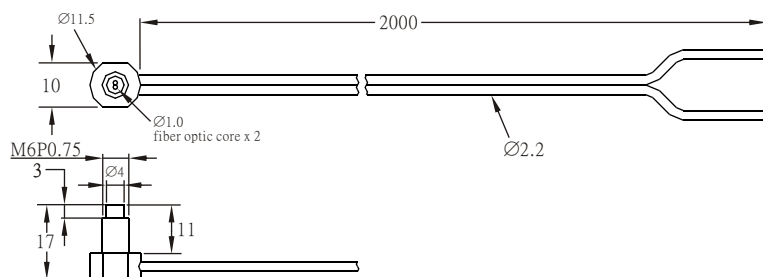
Free cut



Fiber material	Plastic
Fiber Type	Heat Resistant
Fiber diameter	D $\varnothing$ 2.2 d $\varnothing$ 1.0
Operate temperature	-55°C ~ +115°C
Minimum bending radius	R25
Sensing distance/FZ-KP2	5 ~ 18mm

## FRY-67TZ-20

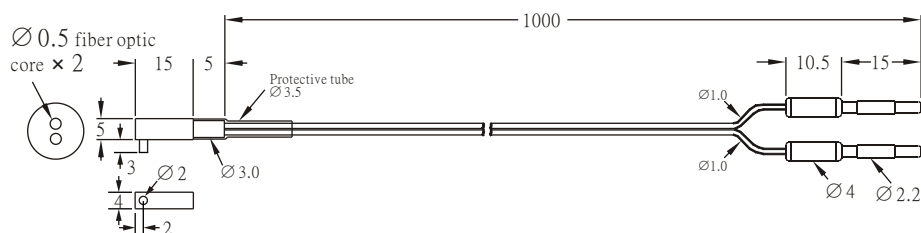
Free cut



Fiber material	Plastic
Fiber Type	Flexible
Fiber diameter	D $\varnothing$ 2.2 d $\varnothing$ 1.0
Operate temperature	-40°C ~ +70°C
Minimum bending radius	R2
Sensing distance/FZ-KP2	70mm

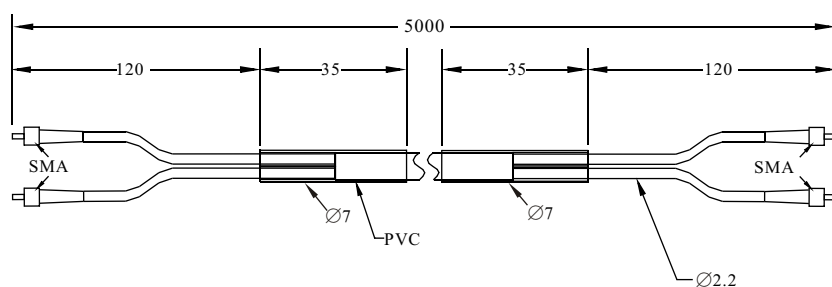
## FRW-11-10

Free cut



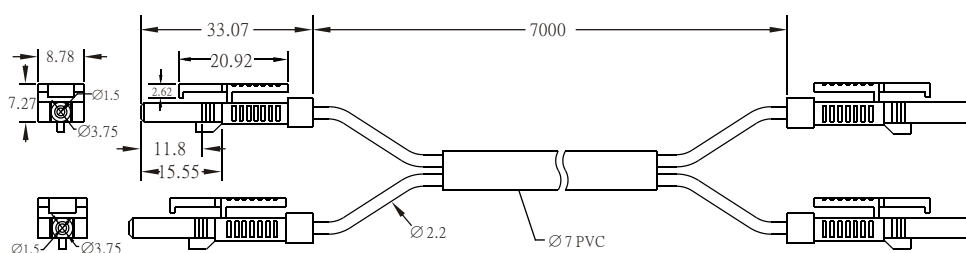
Fiber material	Plastic
Fiber Type	Flexible
Fiber diameter	D $\varnothing$ 1.0 d $\varnothing$ 0.5
Operate temperature	-40°C ~ +70°C
Minimum bending radius	R1
Sensing distance/FZ-KP2	20mm

## FRX-50-SMA



Fiber material	Plastic
Fiber Type	Long sensing range
Fiber diameter	D $\varnothing$ 2.2 d $\varnothing$ 1.5
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R40

## FRX-70-FSC



Fiber material	Plastic
Fiber Type	Long sensing range
Fiber diameter	D $\varnothing$ 2.2 d $\varnothing$ 1.5
Operate temperature	-55°C ~ +70°C
Minimum bending radius	R40