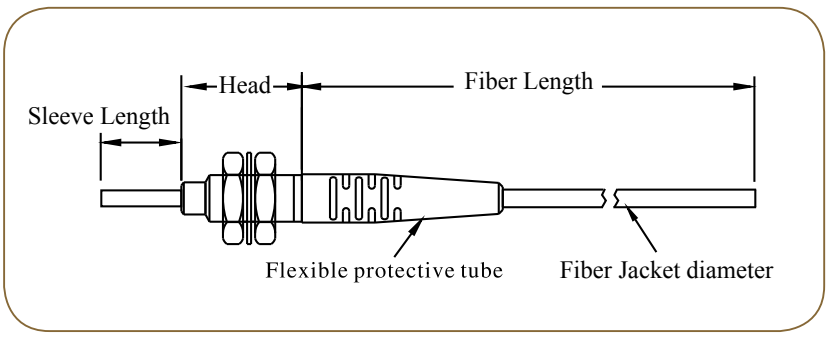
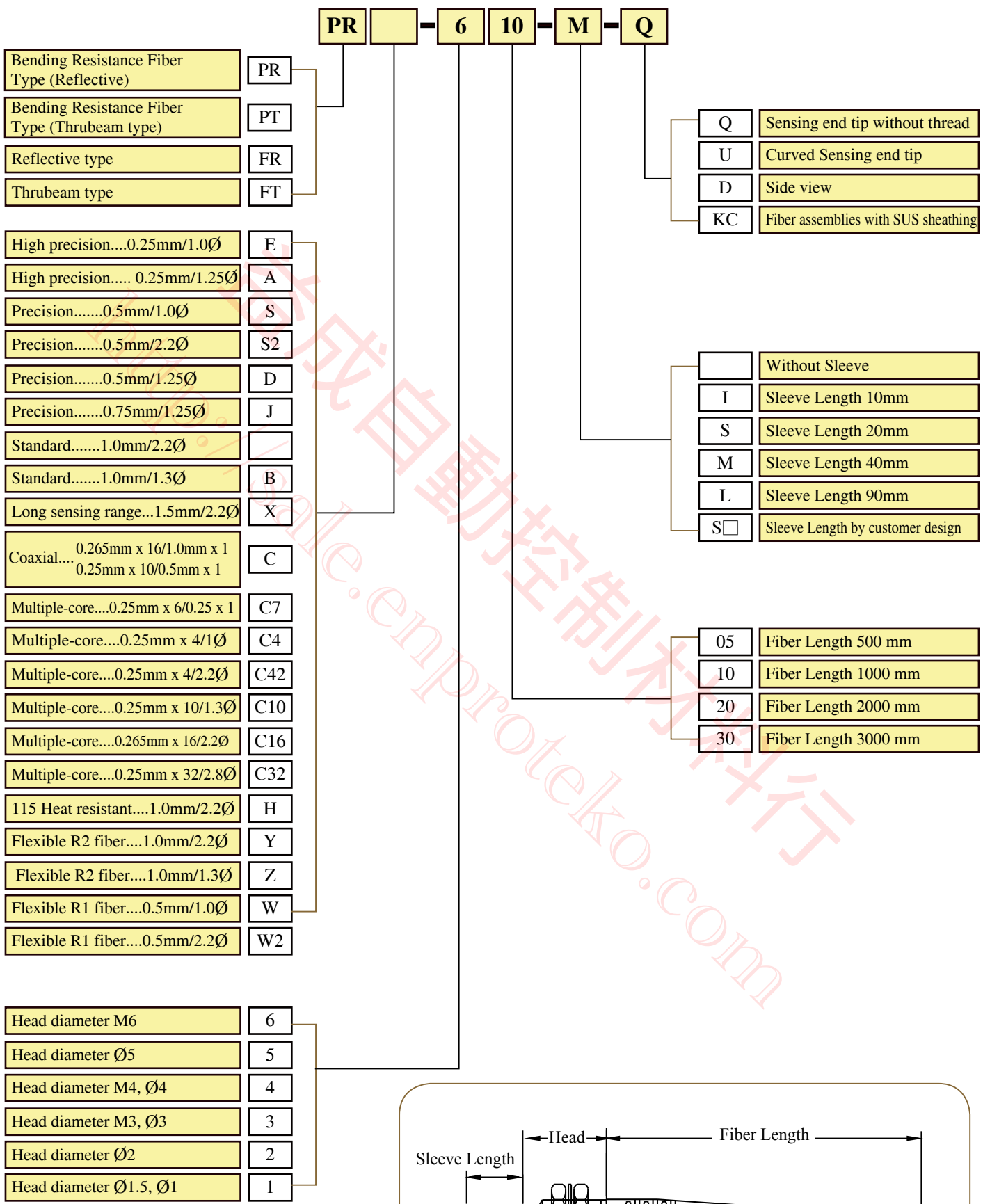


PR/PT/FR/FT Plastic fiber optics

OPTIONS

◆Order Information :



Fiber
Photo Sensor
Area Sensor
Ultrasonic Sensors
Inductive Proximity Sensor
Capacitive Proximity Sensor
Timer / Counter
Others
Accessories

FIBER

Anti-Bending Fiber Optic

Fiber

PR /PT

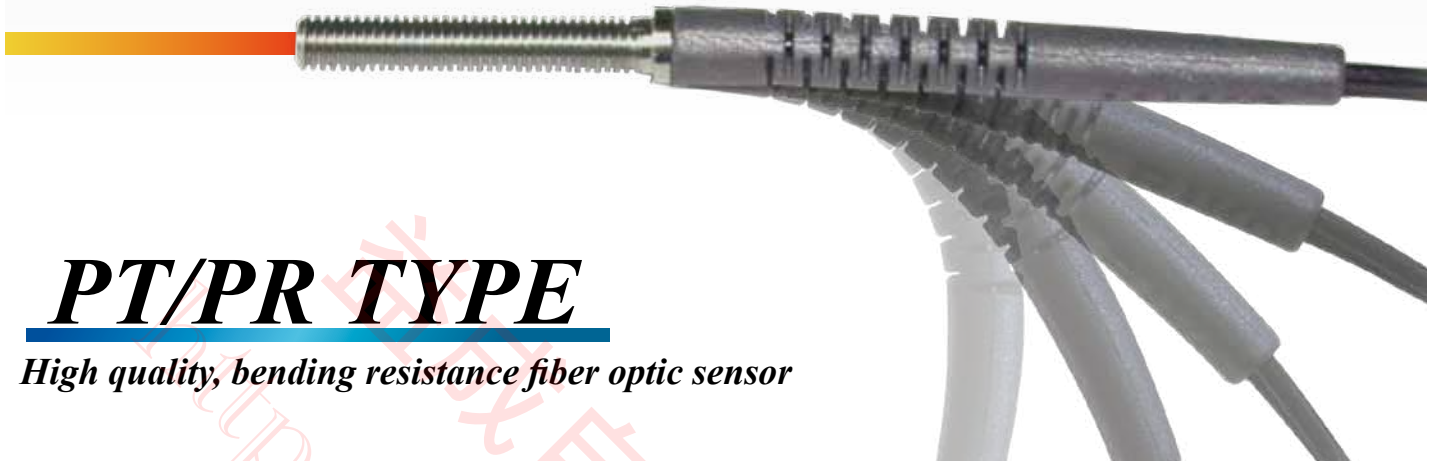
FR /FT

Glass Fiber

Light Guide

Silica Fiber

Access



PT/PR TYPE

High quality, bending resistance fiber optic sensor

Patent NO. : M368808 M380485

Protection against excessive bending /高彎曲保護

Special material for bending resistance (patent) /特殊耐彎材質(自有專利)

Special material for bending resistance : better curvature and protection from breakage of fiber in case of smaller bending radius in operation.

/特殊耐彎材質，繞曲度優，保護性佳，讓您在操作時，不會因為R角過小，造成光纖的斷裂。



Without overmoulding protection.
無保護光纖

Traditional types



With overmoulding protection.
保護光纖

M6 Types



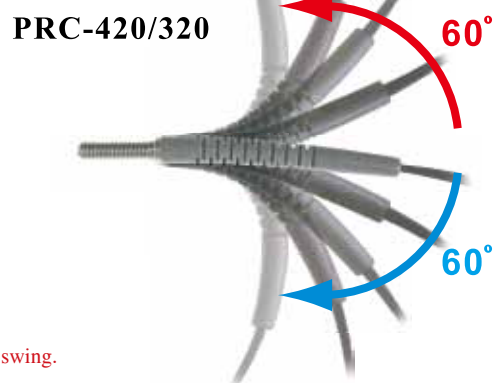
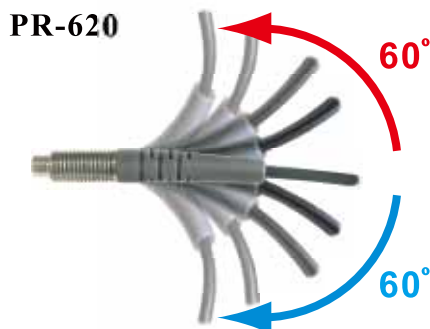
With overmoulding protection.
保護光纖

M3/M4 Types

Swinging tests /搖擺測試

Swings of PR620:1000 and PRC-320/420 are up to 30000. It will efficiently protect the fiber and extend its service life.

/PR-620搖擺次數可達1萬次，PRC-320/420搖擺次數更能夠達到3萬次，因此能有效的保護光纖，使光纖的壽命更長。



Standard of test : swinging from left to right total 10cm, 120 degree, speed : 12 seconds per swing.
測試標準:左右來回5公分，角度60(正負共120度)左右搖擺、速度來回12秒。

FIBER

Anti-Bending Fiber Optic

High tensile strength /高抗拉力(8kg)

Tensile strength : 8kg is three times more stronger than traditional type fiber. It will keep fiber far from careless damage in operation.

/PR-620可承受8kg的拉力，比一般的機型強上數倍，讓在使用時，不會因不小心，而造成光纖的損傷。



PR-620
Tensile strength : 8kg
可承受8kg的拉力



PRC-420/320
Tensile strength : 7kg
可承受7kg的拉力

High quality /高品質

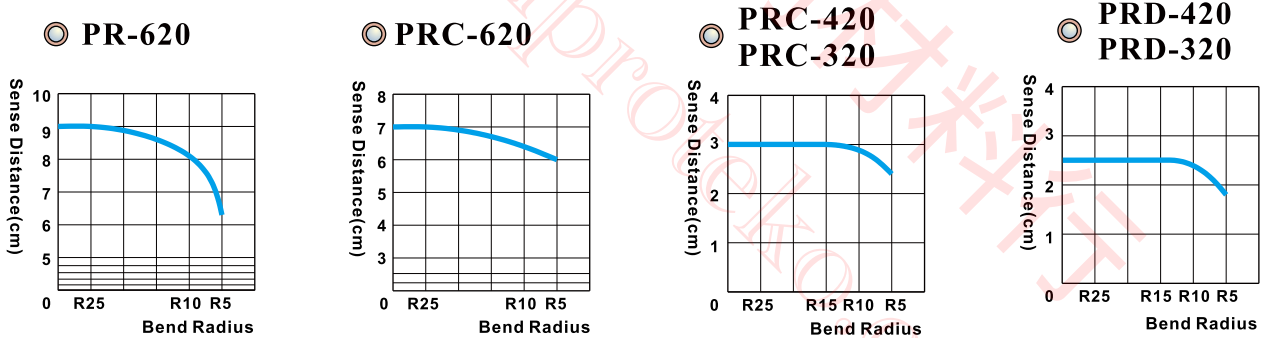
1. Stainless steel fiber head(Shorter Model) /高品質不鏽鋼接頭

光纖頭使用不鏽鋼材質，耐用度高。



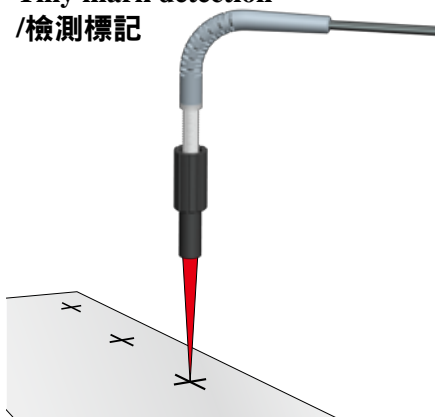
2. High quality fiber /高品質光纖

Superior fiber material from Japan. Lower attenuation. /使用日本進口光纖，光纖在彎折時，光耗損率更低

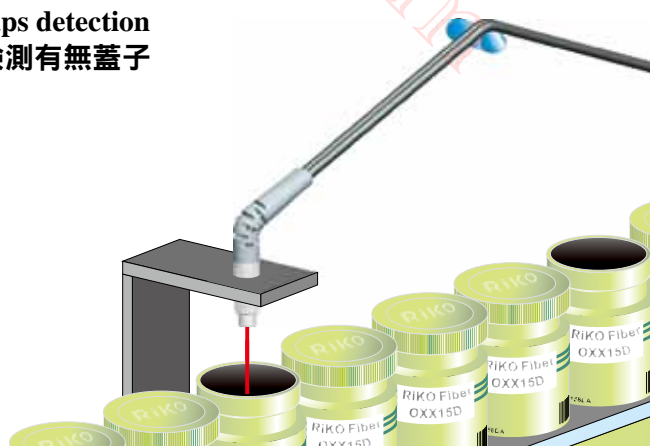


Enhanced protection /有效保護光纖

Tiny mark detection
/檢測標記



Caps detection
/檢測有無蓋子

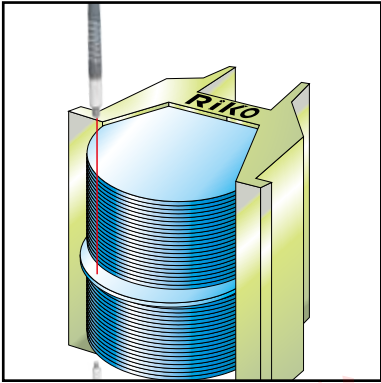


FIBER

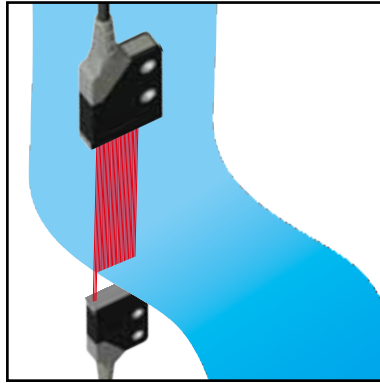
Anti-Bending Fiber Optic

Application / 應用例

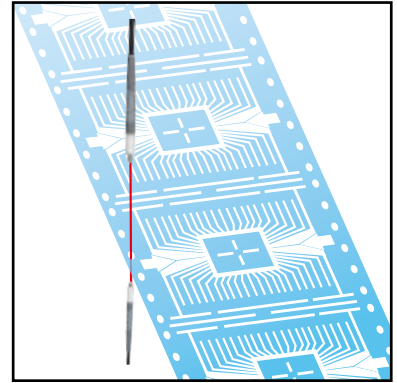
Fiber
PR /PT
FR /FT
Glass Fiber
Light Guide
Silica Fiber
Access



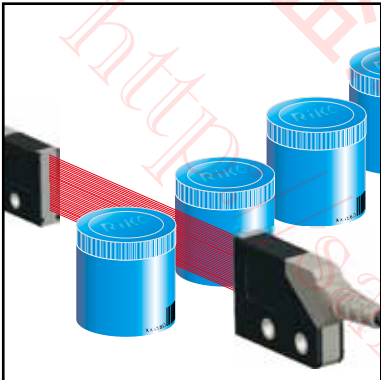
Abnormal position
檢測是否有凸出



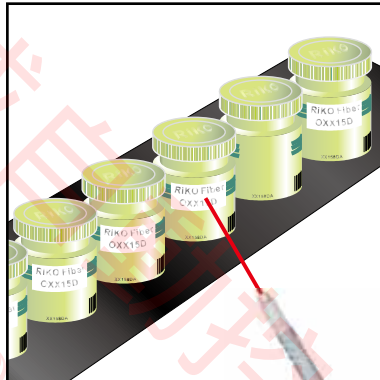
Thin film
薄膜檢測



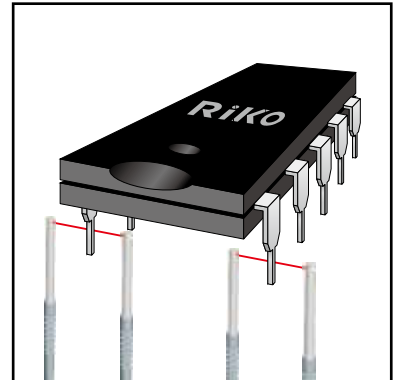
Leadframe
偵測導線架



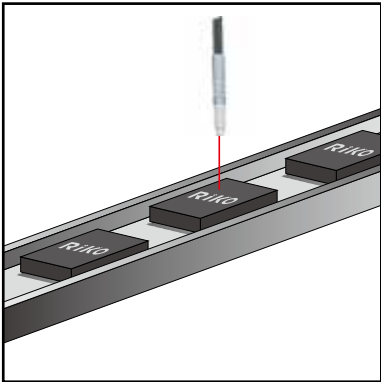
Round shape detection
檢測產品通過



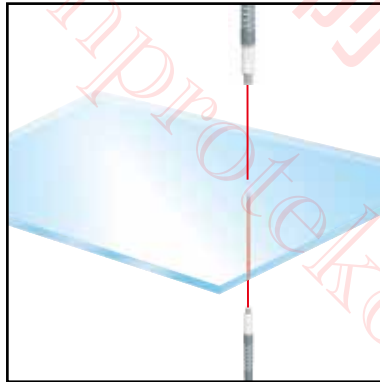
Labeling
檢測有無標籤



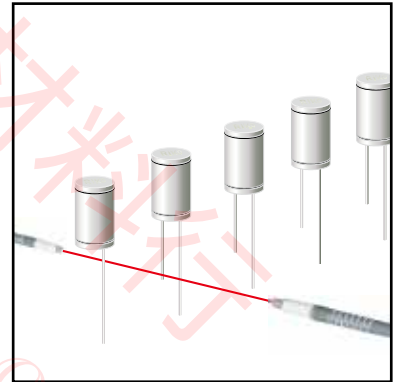
IC leg
監測IC腳位



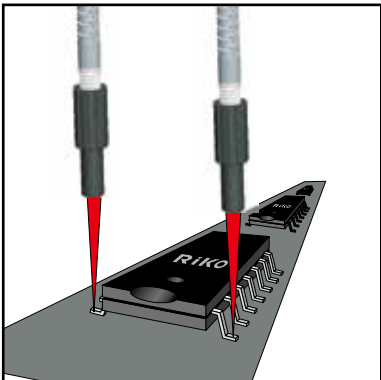
Upper detection
檢測產品通過



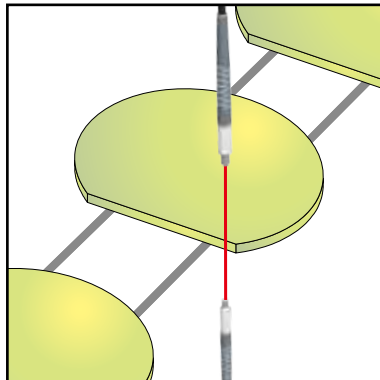
Glass
檢測玻璃



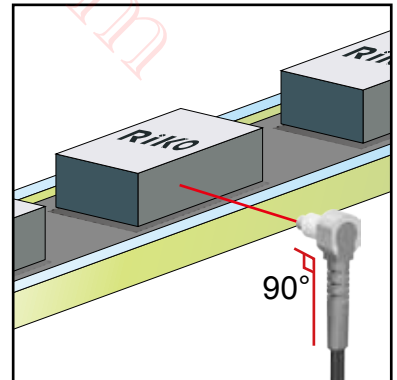
DIP
檢測電容腳



Small spot detection
檢測IC腳位



WAFER
檢測WAFER



90 angle detection
90度檢測

FIBER

Anti-Bending Fiber Optic

Specifications / 規格表

Type	Model	Dimensions	Fiber Type	Sensing distance (FZ1)	Operate temperature	Minimum bending radius	Fiber diameter	
							OD	ID
M6 反射型 (Reflective)	PR-620 Free cut		Standard	90mm	-55°C~+70°C	R25	Ø2.2	Ø1.0
	PR-620-I Free cut		Standard	90mm	-55°C~+70°C	R25	Ø2.2	Ø1.0
	PRC-620 Free cut		Coaxial	70mm	-55°C~+70°C	R25	Ø2.2	Ø1.0 x 1 ----- Ø0.265 x 16
	PRC-620-I Free cut		Coaxial	70mm	-55°C~+70°C	R25	Ø2.2	Ø1.0 x 1 ----- Ø0.265 x 16
PRH-620 Free cut		Heat Resistant	80mm	-55°C~+115°C	R25	Ø2.2	Ø1.0	
PRY-620 Free cut		Flexible	70mm	-40°C~+70°C	R2	Ø2.2	Ø1.0	

Fiber
PR /PT
FR /FT
Glass Fiber
Light Guide
Silica Fiber
Access

FIBER

Anti-Bending Fiber Optic

Specifications / 規格表

Type	Model	Dimensions	Fiber Type	Sensing distance (FZ1)	Operate temperature	Minimum bending radius	Fiber diameter	
							OD	ID
M4 反射型 (Reflective)	PRA-420 Free cut		Precision	5mm	-55°C ~ +70°C	R10	Ø1.25	Ø0.25
	PRC-420 Free cut		Coaxial	30mm	-55°C ~ +70°C	R15	Ø1.25	Ø0.5 x 1 ----- Ø0.25 x 10
	PRC-420-I Free cut	<div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;"> <p>PRC-420-I</p> </div> <div style="text-align: center;"> <p>PRC-420-S</p> </div> <div style="text-align: center;"> <p>PRC-420-M</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;"> <p>PRC-420-L</p> </div> <div style="text-align: center;"> <p>PRC-420-S□ (by customer design)</p> </div> </div>	Coaxial	30mm	-55°C ~ +70°C	R15	Ø1.25	Ø0.5 x 1 ----- Ø0.25 x 10
	PRC-420-9 Free cut		Coaxial	30mm	-55°C ~ +70°C	R15	Ø1.25	Ø0.5 x 1 ----- Ø0.25 x 10
	PRD-420 Free cut		Precision	25mm	-55°C ~ +70°C	R15	Ø1.25	Ø0.5
	PRD-420-I Free cut	<div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;"> <p>PRD-420-I</p> </div> <div style="text-align: center;"> <p>PRD-420-S</p> </div> <div style="text-align: center;"> <p>PRD-420-M</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;"> <p>PRD-420-L</p> </div> <div style="text-align: center;"> <p>PRD-420-S□ (by customer design)</p> </div> </div>	Precision	25mm	-55°C ~ +70°C	R15	Ø1.25	Ø0.5

FIBER

Anti-Bending Fiber Optic

Specifications / 規格表

Type	Model	Dimensions	Fiber Type	Sensing distance (FZ1)	Operate temperature	Minimum bending radius	Fiber diameter	
							OD	ID
反射型 (Reflective)	M4	<p>Ø0.5 fiber optic core x 2</p> <p>Flexible protective tube Toothed lock washer Ø8.3 Width Across Flats 8mm Thickness 2.3mm</p>	Precision	25mm	-55°C~+70°C	R15	Ø1.25	Ø0.5
		<p>Ø0.25 fiber optic core x 2</p> <p>Flexible protective tube Toothed lock washer Ø6.4 Width Across Flats 5mm Thickness 2.2mm</p>	High precision	5mm	-55°C~+70°C	R10	Ø1.25	Ø0.25
		<p>Ø0.5 fiber optic core x 1</p> <p>Ø0.25 fiber optic core x 10</p> <p>Flexible protective tube Toothed lock washer Ø6.4 Width Across Flats 5mm Thickness 2.2mm</p>	Coaxial	30mm	-55°C~+70°C	R15	Ø1.25	Ø0.5 x 1 ----- Ø0.25 x 10
	M3	<p>Ø0.5 fiber optic core x 1</p> <p>Ø0.25 fiber optic core x 10</p> <p>Flexible protective tube Toothed lock washer Ø6.4 Width Across Flats 5mm Thickness 2.2mm</p> <p>PRC-320-I PRC-320-S PRC-320-M PRC-320-L PRC-320-S (by customer design)</p>	Coaxial	30mm	-55°C~+70°C	R15	Ø1.25	Ø0.5 x 1 ----- Ø0.25 x 10
		<p>Ø0.5 fiber optic core x 1</p> <p>Ø0.25 fiber optic core x 10</p> <p>Flexible protective tube Toothed lock washer Ø6.4 Width Across Flats 5mm Thickness 2.2mm</p>	Coaxial	30mm	-55°C~+70°C	R15	Ø1.25	Ø0.5 x 1 ----- Ø0.25 x 10
		<p>Ø0.5 fiber optic core x 2</p> <p>Flexible protective tube Toothed lock washer Ø6.4 Width Across Flats 5mm Thickness 2.2mm</p>	Precision	25mm	-55°C~+70°C	R15	Ø1.25	Ø0.5

Fiber
PR /PT
FR /FT
Glass Fiber
Light Guide
Silica Fiber
Access

FIBER

Anti-Bending Fiber Optic

Specifications / 規格表

Type	Model	Dimensions	Fiber Type	Sensing distance (FZ1)	Operate temperature	Minimum bending radius	Fiber diameter	
							OD	ID
M3	PRD-320-I Free cut		Precision	25mm	-55°C ~ +70°C	R15	Ø1.25	Ø0.5
	PRD-320-9 Free cut		Precision	25mm	-55°C ~ +70°C	R15	Ø1.25	Ø0.5
反射型 (Reflective)	PRC-320-Q Free cut		Coaxial	30mm	-55°C ~ +70°C	R15	Ø1.25	Ø0.5 x 1 ----- Ø0.25 x 10
	PRC-320-IQ Free cut		Coaxial	30mm	-55°C ~ +70°C	R15	Ø1.25	Ø0.5 x 1 ----- Ø0.25 x 10
	PRD-320-Q Free cut		Precision	25mm	-55°C ~ +70°C	R15	Ø1.25	Ø0.5
	PRD-320-IQ Free cut		Precision	25mm	-55°C ~ +70°C	R15	Ø1.25	Ø0.5

Anti-Bending Fiber Optic

Specifications / 規格表

Type	Model	Dimensions	Fiber Type	Sensing distance (FZ1)	Operate temperature	Minimum bending radius	Fiber diameter		Fiber
							OD	ID	
反射型 (Reflective)	PRE-220 Free cut		High precision	5mm	-55°C ~ +70°C	R10	Ø1.0	Ø0.25	PR / PT
	PRS-220 Free cut		Precision	25mm	-55°C ~ +70°C	R15	Ø1.0	Ø0.5	FR / FT
	PRC4-120 Free cut		Multiple Core	7mm	-55°C ~ +70°C	R15	Ø1.0	Ø0.25 x 4	Glass Fiber
	PRC7-120		Coaxial	20mm	-55°C ~ +70°C	R15	Ø1.25	Ø0.25 x 7	Light Guide
	PT-420 Free cut		Standard	360mm	-55°C ~ +70°C	R25	Ø2.2	Ø1.0	Silica Fiber
透射型 (Transbeam)	PTD-420 Free cut		Precision	90mm	-55°C ~ +70°C	R15	Ø1.25	Ø0.5	Access
	PTH-420 Free cut		Heat Resistant	600mm	-55°C ~ +115°C	R25	Ø2.2	Ø1.0	
	PTS2-420 Free cut		Precision	130mm	-55°C ~ +70°C	R15	Ø2.2	Ø0.5	
	PTY-420 Free cut		Flexible	300mm	-40°C ~ +70°C	R2	Ø2.2	Ø1.0	

FIBER

Anti-Bending Fiber Optic

Specifications / 規格表

Type	Model	Dimensions	Fiber Type	Sensing distance (FZ1)	Operate temperature	Minimum bending radius	Fiber diameter	
							OD	ID
M3	PT-320 Free cut		Standard	500mm	-55°C~+70°C	R25	Ø2.2	Ø1.0
	PTD-320 Free cut		Precision	130mm	-55°C~+70°C	R15	Ø1.25	Ø0.5
	PTH-320 Free cut		Heat Resistant	600mm	-55°C~+115°C	R25	Ø2.2	Ø1.0
	PTS2-320 Free cut		Precision	130mm	-55°C~+70°C	R15	Ø2.2	Ø0.5
	PTY-320 Free cut		Flexible	300mm	-40°C~+70°C	R2	Ø2.2	Ø1.0
Ø3	PT-320-Q Free cut		Standard	500mm	-55°C~+70°C	R25	Ø2.2	Ø1.0
	PT-320-IQ Free cut		Standard	500mm	-55°C~+70°C	R25	Ø2.2	Ø1.0

特製設計 (Thru beam)

FIBER

Anti-Bending Fiber Optic

Specifications / 規格表

Type	Model	Dimensions	Fiber Type	Sensing distance (FZ1)	Operate temperature	Minimum bending radius	Fiber diameter		Fiber
							OD	ID	
Ø3	PTD-320-Q Free cut		Precision	130mm	-55°C~+70°C	R15	Ø1.25	Ø0.5	PR /PT FR /FT Glass Fiber Light Guide Silica Fiber Access
	PTD-320-IQ Free cut	 	Precision	130mm	-55°C~+70°C	R15	Ø1.25	Ø0.5	
Ø2	PTA-220 Free cut		High precision	20mm	-55°C~+70°C	R10	Ø1.25	Ø0.25	
	PTC4-220 Free cut		Multiple-core	100mm	-55°C~+70°C	R15	Ø1	Ø0.25 x 4	
	PTD-220 Free cut		Precision	130mm	-55°C~+70°C	R15	Ø1.25	Ø0.5	
	PTE-220 Free cut		High precision	30mm	-55°C~+70°C	R10	Ø1.0	Ø0.25	
	PTS-220 Free cut		Precision	130mm	-55°C~+70°C	R15	Ø1.0	Ø0.5	
Ø1.5	PTC4-120 Free cut		Multiple-core	100mm	-55°C~+70°C	R15	Ø1.0	Ø0.25 x 4	
	PTD-120 Free cut		Precision	130mm	-55°C~+70°C	R15	Ø1.0	Ø0.5	
	PTS-120 Free cut		Precision	130mm	-55°C~+70°C	R15	Ø1.0	Ø0.5	

特製 (Thru beam)

FIBER

Anti-Bending Fiber Optic

Specifications / 規格表

Type	Model	Dimensions	Fiber Type	Sensing distance (FZ1)	Operate temperature	Minimum bending radius	Fiber diameter	
							OD	ID
90° 反射型 (Reflective)	PRY-67TZ-20 Free cut		Flexible	70mm	-55°C ~ +70°C	R2	Ø2.2	Ø1.0
矩陣型 (array Fiber)	PR-20ML Free cut		Multiple-core	70mm	-55°C ~ +70°C	R25	Ø2.2	Ø0.25 X 16 ----- Ø0.25 X 16
莖型 (Thru-beam)	PT-20ML Free cut		Multiple-core	500mm	-55°C ~ +70°C	R60	Ø2.8	Ø0.25 X 32

Accessories / 配件

LENS / 聚焦鏡			
Product	Dimensions	Product	Dimensions
FL-M02		FLS-M02	
FT fiber type Scanning distance is increased 4 times if this FLM-02 unit is attached to the light emitter and receiver of a thru - scan fiber unit.		FT-410 unit can be changed to aside view type by attaching this unit to the light emitter or receiver of fiber unit.	
FL-M03		FL-M03-1	
Light converges to a spot diameter of 0.5mm if this unit is attached to a fiber unit at a distance of 8mm.		Light converges to a spot diameter of 2mm if this unit is attached to a fiber unit at a distance of 8mm.	
FL-M04		FL-M06	
Light converges to a spot diameter of 0.7mm if this unit is attached to a fiber unit at a distance of 10mm.		FTX-410 Scanning distance is increased 8 times if this unit is attached to the light emitter and receiver of a thru - scan fiber unit.	
Heat resistant adapter / 高溫轉接頭		Fiber Cutter / 光纖切刀	
FTG015-05041		C4530	
<ol style="list-style-type: none"> Suitable for High Temperature and Vacuum Environment Operating Temperature: -40°C ~ 250°C Effective against Air under Vacuum Sensing. Connected to a Plastic Fiber Sensor Applied in High Temperature Environment 		<p>(When pressed)</p> <p>USE EACH HOLE ONLY ONCE!</p>	