

High power

**Enclosure rating
IP67**

Easy to install

**Bending radius
1 mm 0.04"**

The New Standard for Thrubeam Fibers

The built-in lens harnesses the high power of the amplifier.

The built-in lens enables the FU-70TZ to harness the high power of the amplifier. This allows for consistently stable detection, even in harsh environments. The built-in lens also eliminates any concerns of the lens coming loose due to vibration.



Built-in glass lens

The use of multiple fiber cores allows the bending radius to get as low as 1mm 0.04".

By using multiple fiber cores, the FU-70TZ can reach a bend radius of 1mm 0.04", while still maintaining stable detection.



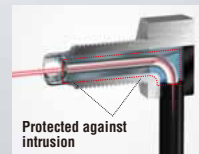
90°

The hex-shape design allows for easier installation and also conserves space.

The hex-shaped threaded heads makes installation even easier; since each head can be secured in place using only one nut. The hex-shape also allows the cable to exit the head at a 90 degree angle, effectively conserving space.

The resin-filled structure provides excellent protection against dirt and water.

An epoxy resin fills the stainless steel heads (SUS303) of the FU-70TZ, protecting it against the intrusion of water or dirt. This resin-filled structure also helps the FU-70TZ achieve an IP67 enclosure rating.



Protected against intrusion

IP67

Thrubeam fiber unit
FU-70TZ

Digital fiberoptic amplifier
FS-NEO Series



**Value
Priced**

Fiberoptic amplifier **FS-NEO Series**

Optimized for use in harsh environments

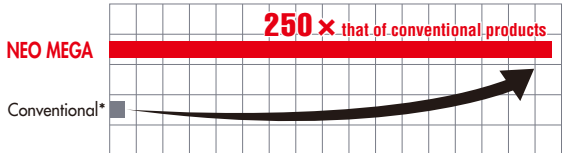
KEYENCE's waterproof fiberoptic amplifier

The FS-NEO Series provides stable detection in the harshest of environments.

NEO MEGA power mode

Using the NEO MEGA power mode makes it possible to receive a quantity of light that is 250 times that of a conventional fiber amplifier. Increasing the quantity of light that is received not only enables longer detection distances, but also increases the threbeam strength, thus eliminating the influences of dust and dirt.

Estimate of the amount of light received



The amount of light generated is approximately 4 times that of conventional products.

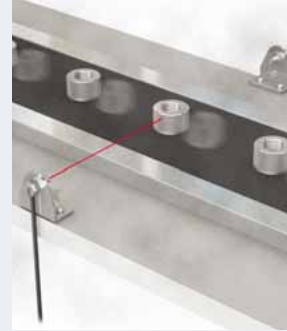
* FINE mode of the FS-V30 Series

FS-N15CN/N15CP



IP66

Applications



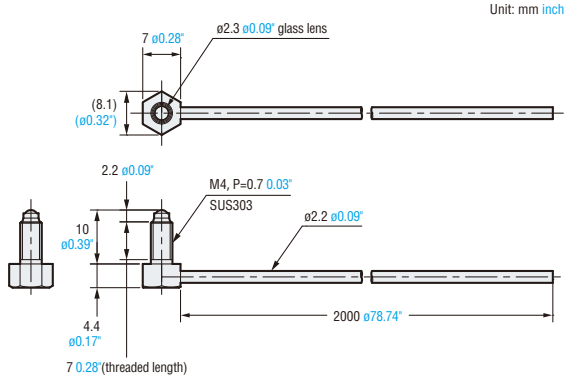
Checking products as they pass along a conveyor belt in a dusty environment.



Checking washed products as they pass along a conveyor belt.

Dimensions

FU-70TZ



[Accessories]

- M4 nut: flat size = 7 0.28[°], t = 2.4 0.09[°], stainless steel
- M4 lock washer: $\phi 8.5 \phi 0.33^*$, t = 0.5 0.02[°], stainless steel
- M4 plain washer: $\phi 8 \phi 0.32^*$, t = 0.8 0.03[°], stainless steel
- Fiber cutter

CAD DATA DOWNLOAD www.keyence.com/CADG

Specifications

Type	Built-in lens thrubeam	
	Standard	
Model	FU-70TZ	
Optical axis diameter (standard detection target)	$\phi 2.3 \text{ mm } \phi 0.09^*$	
Detection distance ¹ (mm inch)	MEGA	3600 141.73 [°]
	ULTRA	3600 141.73 [°]
	SUPER	2100 82.68 [°]
	TURBO	1500 59.06 [°]
	FINE	1100 43.31 [°]
	HSP	640 25.20 [°]
Minimum detectable object ²	$\phi 0.1 \text{ mm } \phi 0.004^*$ opaque object	
Enclosure rating	IP67(IEC60529), Type 4X, 6, 12 (NEMA250)	
Operating ambient temperature	-20 to +50 °C -4 to +122 °F (no freezing)	
Operating ambient humidity	35 to 85 % RH (no condensation)	
Fiber allowable bend radius	R1 mm 0.04 [°]	
Allowable tightening torque	0.8N·m	
Cable length	2 m 6.56 [°] (free cut)	
Material	Case: SUS303, PBT	
	Lens: glass	
	Fiber sheath: polyethylene	
	Core fiber: acrylic	
Weight	Approximately 22 g	

*1 The maximum detection distance is 3600 mm 141.73[°] because the fiber length of both the transmitter side and the receiver side is 2 m 6.56[°].

*2 The minimum detectable object was determined at the optimal detecting distance and sensitivity setting.

KEYENCE

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SAFETY INFORMATION

Please read the instruction manual carefully in order to safely operate any KEYENCE product.

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