

NARROW BEAM, WAFER MAPPING

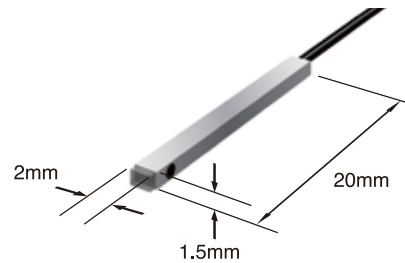
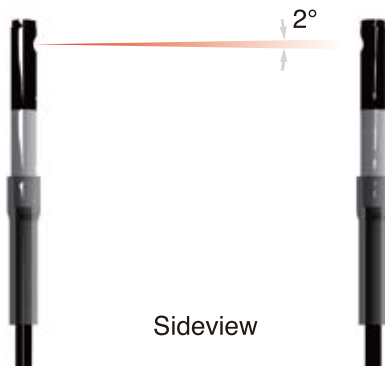


Ultra-narrow aperture light angle provides narrowest beam in an ultra-thin and ultra-compact size. Cross talk is reduced.

Super narrow beam and super thin type

Super narrow view type: Aperture is 2° max.
Ideal for wafer mapping.
Straight type: NF-TG01
Side type: NF-TG02,03

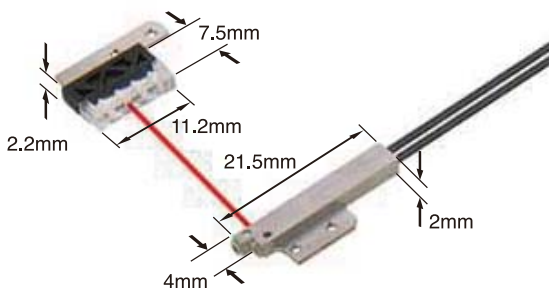
NF-TG04 features ultra-compact size sensing head (2mm x 1.5mm) and ultra-narrow 3 degree aperture for minimum object detection of 0.02mm diameter.



Retro-reflective and diffuse type

Super thin 2mm height Retro-reflective type enables wafer mapping saving space.

Retro-reflective type
NF-RG01



Diffuse type
NF-DR09





Specifications (Thru-beam/Thru-beam Side)

		Sensing head	Sensing distance (unit=mm) Value in parenthesis is the Minimum detectable object size, (copper wire)			Operation temperature (°C~°C)	Radius (mm)	Part Number	
			D3RF	D2RF	BRF				
Thru-beam	φ3.7	aperture2° Free cut 	7-EL 3,600 6-UL 3,600 5-PL 3,600 4-LG 3,600 3-ST 3,200 2-FS 2,100 1-HS 2,000 790	Long 3,000 Std 2,000 Fast 1,300	2,300	-40~70	R=25	NF-TG01	
		aperture3° Free cut 	7-EL 1,000 6-UL 900 5-PL 790 4-LG 690 3-ST 450 2-FS 260 1-HS 90	Long 500 Std 300 Fast 150	220	-40~55	R=10	NF-TG04	
Thru-beam side	2x1.5	aperture2° Free cut 	7-EL 3,600 6-UL 3,600 5-PL 3,600 4-LG 3,300 3-ST 2,100 2-FS 1,780 1-HS 510	Long 2,500 Std 1,600 Fast 800	900	-40~60	R=25	NF-TG03	
		aperture2° Flexible Free cut 	7-EL 3,600 6-UL 3,600 5-PL 3,600 4-LG 3,300 3-ST 2,100 2-FS 1,500 1-HS 520	Long 2,500 Std 1,600 Fast 800	1,000	-40~55	R=1	NF-TG02	
	φ4	aperture5° Free cut 	7-EL 4,000 6-UL 4,000 5-PL 4,000 4-LG 4,000 3-ST 3,000	3-ST 2,800 2-FS 2,000 1-HS 1,000	Long 4,000 Std 3,000 Fast 2,000	1,700	-40~70	R=25	NF-TS12
		aperture3° Free cut 	7-EL 4,000 6-UL 4,000 5-PL 4,000 4-LG 3,000	3-ST 2,000 2-FS 1,000 1-HS 300	Long 3,000 Std 1,600 Fast 700	750	-40~70	R=25	NF-TS22
		aperture3° Heat resistant Free cut 	7-EL 3,500 6-UL 2,500 5-PL 2,300 4-LG 1,900	3-ST 1,300 2-FS 650 1-HS 200	Long 1,200 Std 700 Fast 500	500	-40~70	R=10	NF-TS22H

Operating humidity is 35~85%RH. Please use in 0~40°C when it's 85%RH.

