Specifications (Thru-beam/Diffuse)

Specifications (Titro-beatify Diffuse)									
		Sensing head	Value in parenthe		nce (unit=mm) detectable object s D2RF	ize. (copper wire)	Operation temperature (°C ~°C)	Radius (mm)	Part Number
	φ1	Flexible 500 35 16.3	74 55 64 44 44 45 22 24 11	4 n. 0 1, . 4 4 8 8 8 8 8 8 7 7 8 8	Long 30 Std 18 Fast 8	10	-40~60	R=4	NF-TRO4
	φ1.5	Flexible Free cut	7-EL 850 6-UL 550 6-PL 450 4-LG 400	3-ST 275 2-FS 150 1-HS 50	200 Fast 90	110	− 40∼70	R=4	NF-TR03
Thru-beam		Free cut 40.5fiberx1 41.5 SUS 41.10 2000	7-EL 900 6-UL 550 5-PL 400 4-LG 350	3-ST 250 2-FS 140 1-HS 45	200 Fast 90	120	− 40∼70	R=15	NF-TM03
		\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	7-EL 170 6-UL 110 5-PL 80 4-LG 70	3-ST 50 2-FS 140 1-HS 45	Long 80 Std 40 Fast 20	30	− 40∼70	R=15	NF-TT01
	643	\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	14	7 n. 55. 1. 1 n. 1 n. 1 n. 1 n. 1 n. 1 n.	Long 6 Std 3.5 Fast 2	1	− 40∼70	R=5	NF-TP01
Diffuse	φ1.5	\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	14	8 n. 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	Long 18 Std 5 Fast N.A.	3	-40~60	R=10	NF-DP01

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

SCREEN BEAM ARRAY



NF-TS40 series

 40×3.5 mm Beam Array type with SUS (stainless steel) mounting metal.

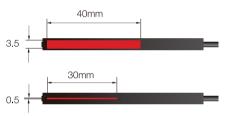
SUS (stainless steel) mounting

A rugged Stainless Steel mounting enables tough tightening of mounting position without breaking the mounting hole.



Adjustable line beam

40 x 3.5mm area of Beam Array is possible to change by using optional slit that limits the array into 30 x 0.5mm



Fine sensing of 0.4mm diameter

The Clear optical system of the NF-TS40 ensures 0.4mm diameter detection at a 3500mm sensing distance (with D3RF amplifier)

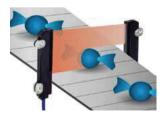
Applications







Control of meandering sheet



Counting on a conveyor

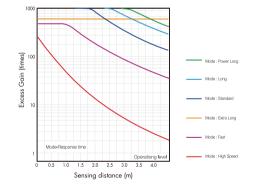
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Specifications (Thru-beam/Diffuse)

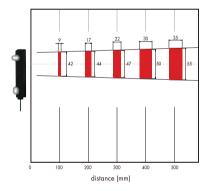
Sensing head	Sensing distance (unit=mm) Value in parenthesis is the Minimum detectable object size. (copper wire)			Operation temperature	Radius	Part Number
Censing head	D3RF	D2RF	BRF	(°C~°C)	(mm)	Part Number
22.3 40 Cptical axis Head Material : ABS 69.3 Head Material : ABS 2000 12.3 43 Bracket Material : SUS 2.6x9 Sportlanding det (Both sides)	3,500 set. 3,500 set. 3,500 set. 3,500 set. 3,500 set. 3,500 set. 2,500	Long 3,600 Std 3,600 Fast 3,600	300	− 40∼70	R=2	NF-TS40

Model	NF-TS40
Sensing Range (D3RF amplifier)	0 - 4mm
Spot Size	φ4mm @ 4mm
Bending Radius	R10
Fiber Lengfth	2000mm Free cut
Ambient Temp	-40~+60°C
Storage Temp	-40~+70°C
Demensions (W × D × H)	12 × 18 × 4.3 mm
Material	Base , Cover : PC Fiber : PMMA
Torque	3kgfcm max.
Weight	7g

Excess Gain Curves (Typical Value)



Spot size



Screen array

It can detect object going through an area utilizing beam screen. It's effective when the position of the object goes through is not stable. We have 11mm width and 32mm width types.

NF-DZ01 is head ON type screen array, 2×15mm, fiber unit that can detect object with holes.



Slit masks can be used to shorten detection distance and for very small object detection.

The screen array beam is very collimated which helps prevent cross talk between sensors.

Beam array

Beam array fibers that have core fibers aligned are also available.



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Specifications (Thru-beam)

Fiber Sensor

Spec	ifications (Thru-beam)						
	Sensing head	Sensing dista Value in parenthesis is the Minimum D3RF	nce (unit=mm) detectable object s	size. (copper wire)	Operation temperature (°C∼°C)	Radius (mm)	Part Number
	2,2 Optical axis Qt.3	3,700 6-01. 3,000 6-01. 3,000 6-01. 3,000 6-10. 2,200 8-87 2,500 8-98 2,000 1,500	Long 3,500 Std 2,500 Fast 1,800	2,500	− 40∼70	R=2	NF-TZ10
	2,2 Optical axis Q1.3	3,700 6-01. 3,000 6-01. 3,000 6-01. 3,000 6-01. 3,000 6-01. 2,500 6-01. 6-	Long 3,000 Std 2,500 Fast 1,200	2,000	− 40∼55	R=1	NF-TZ09
	91.3 optical axis 65 Head material : PC 15 2000 15 16 17 2000 18 19 10 10 10 10 10 10 10 10 10 10	7-EL 3,700 6-UL 3,700 6-PL 3,700 6-LG 3,700 8-87 3,700 8-9 3,000 1-US 1-US 1-US 1-US 1-US 1-US 1-US 1-US	Long 3,700 Std 3,000 Fast 2,500	2,500	− 40∼60	R=2	NF-TZ08
Thru-beam	91.3 2 2000 201.3	7-EL 3,700 6-UL 3,700 9-PL 3,700 4-LG 3,700 9-81 3,700 9-10 9-10 9-10 9-10 9-10 9-10 9-10 9-	Long 3,700 Std 3,000 Fast 2,500	2,500	− 40∼55	R=1	NF-TZ07
	5,25mm Screen beam array Head ON Free cut 15 2000 (93.2) protective tube/gotyclefny (90.265x16) 3,463-0,5 through hole threaded	7-8L 1,350 6-0L 1,260 6-PL 1,170 4-L0 990 3-81 660 3-46 400 1-16 130	Long 650 Std 400 Fast 250	300	− 40∼70	R=25	NF-TZ05
	5,25mm Screen beam array Side ON Free cut 100	7-EL 1,440 6-UL 1,350 6-PL 1,170 4-L0 1,080 3-SI 710 248 430 1-HS	Long 650 Std 400 Fast 250	300	− 40∼70	R=25	NF-TZ06
	5,25mm Screen beam array Head ON Free cut SSBM brass M3x90.5 2492.2 10 5.25 1 5.1 10 20 2000	7-EL 4,000 650 650 1,600 330 5-PL 1448 1,000 100 410 900	Long 800 Std 500 Fast 250	330	− 40∼70	R=25	NF-TS10
	10.5mm Screen beam array HeadON Free cut 1.11	7-EL 9-ST 4,000 650 6-UL 2-FS 1,600 330 5-PL 1-HS 1,000 100 4-L0 900	Long 800 Std 500 Fast 250	330	− 40∼70	R=25	NF-TS14

Specifications (Thru-beam/Diffuse)

	Sensing head	Sensing distar Value in parenthesis is the Minimum D3RF	nce (unit=mm) detectable object s	size, (copper wire)	Operation temperature (°C ~°C)	Radius (mm)	Part Number
Thru-beam	13mm Screen beam array detecting part detail	7-EL 4,000 est. 1,500 21,400 4-49 1,200 3-67 800 2+9 400 1-16	Long 850 Std 500 Fast 250	350	− 40~70	R=25	NF-TS28
	Screen beam array Head ON Free cut Screen beam array Head ON Free Cut Screen bea	280 620 640 580 570 640 440 387 280 388 388 388 389 59	Long 350 8td 250 Fast 100	N.A.	− 40∼60	R=25	NF-DZ01
	Screen beam array Head ON Free cut 10,05	7EL 600 641 560 671 490 440 430 987 277 848 1170 1186 51	320 88d 170 Fast 85	130	− 40∼70	R=25	NF-DZ02
Diffuse	Screen beam array Side ON Free cut 10,85	FEL 530 640 500 441 440 440 370 381 250 250 288 140 445	Long 320 Std 170 Fast 85	100	− 40∼70	R=25	NF-DZ03
	Screen beam array Head ON Free cut detecting part detail 1.125 1.025 1	AEL 950 D D D D D D D D D D D D D D D D D D D	Long 300 Std 180 Fast 80	35	− 40∼70	R=25	FD-ML02

Operating humidity is 35~85%RH. Please use in 0~40°C when it's 85%RH. Sensing distance of diffuse type is for 500 x 500mm white paper.