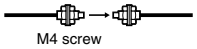
Sensing Distance

General purpose

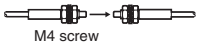
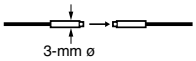
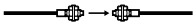
Throughbeam fiber units

High resolution mode
Super long-distance mode
Green light
Red light
Standard mode
Super high-speed mode
Infrared ray

Features	Shape	Applicable Amplifier Unit	Sensing distance (mm) *1 (Parentheses: With E39-F1 Lens Unit)	Standard object (min. sensing object *2) (Parentheses: Opaque object)	Model	Permissible bending radius
M4 Free-cut		E3X-DA□-S	1,000 (4,000)*3 760 (4,000)*3 200 (1,500)	1.0 mm ø (0.005 mm ø)	E32-TC200	25 mm
		E3X-DAG□-S E3X-DAB□-S	100 (700) 75 (550) 45 (350)			
		E3X-DA□-N	950 (4,000)*3 760 (4,000)*3 280 (2,100)	1 mm ø (0.01 mm ø)		
		E3X-DAB #-N	100 (700) 75 (550) 45 (350)			
		E3X-DAH□-N	250 200 70			
		E3X-MDA	650 (4,000)*3 500 (3,700) 200 (1,500)	1.0 mm ø (0.005 mm ø)		
		E3X-NA□(V)	400 (3,000)	1.0 mm ø (0.03 mm ø)		
		E3X-NAG□	75 (550)			
		E3X-NA□F	120 (900)	1.0 mm ø (0.2 mm ø)		
M4 Free-cut		E3X-DA□-S	700 (4,000)*3 530 (3,700) 140 (970)	1.0 mm ø (0.005 mm ø)	E32-ET11R	1 mm
		E3X-DA□-N	670 (4,000) 530 (3,700)*3 200 (1,400)	1.0 mm ø (0.03 mm ø)		
		E3X-MDA	450 (3,100) 350 (2,400) 140 (970)	1.0 mm ø (0.005 mm ø)		
		E3X-NA□(V)	280 (2,100)	1.0 mm ø (0.03 mm ø)		
		E3X-NAG□	50 (375)			
		E3X-NA□F	80	1.0 mm ø (0.2 mm ø)		

*1. Sensing distance based on white paper.
*2. Indicates values for standard mode.
*3. Longer sensing distance by using the lens unit E39-F1.

High resolution mode / Standard mode
Super long-distance mode / Super high-speed mode
Green light / Red light / Infrared ray

Features	Shape	Applicable Amplifier Unit	Sensing distance (mm) *1 (Parentheses: With E39-F1 Lens Unit)	Standard object (min. sensing object *2) (Parentheses: Opaque object)	Model	Permissible bending radius
M4 Fiber sheat material: fluorine resin Free-cut		E3X-DA□-S	900 (4,000)*2 680 (3,600) 180 (930)	1.0 mm ø (0.005 mm ø)	E32-T11U NEW	4 mm
		E3X-DA#-N	850 (4,000)*3 680 (3,800)*3 250 (1,300)	1.0 mm ø (0.01 mm ø)		
		E3X-MDA	580 (3,000)*3 450 (2,300) 180 (930)	1.0 mm ø (0.005 mm ø)		
		E3X--NA#(V)	360	1.0 mm ø (0.003 mm ø)		
		E3X--NA#F	100	1.0 mm ø (0.02 mm ø)		
3 mm ø Free-cut		E3X-DA□-S	700 530 140	1.0 mm ø (0.005 mm ø)	E32-T12R	1 mm
		E3X-DA□-N	670*3 530 200	1 mm ø (0.01 mm ø)		
		E3X-MDA	450 350 140	1.0 mm ø (0.005 mm ø)		
		E3X-NA□(V)	280	1.0 mm ø (0.03 mm ø)		
		E3X-NAG□	50			
		E3X-NA□F	80	1.0 mm ø (0.2 mm ø)		
M3 Possible to mount the E39-F5 reflective side-view conversion attachment Free-cut		E3X-DA□-S	900 680 180	1.0 mm ø (0.005 mm ø)	E32-TC200A	25 mm
		E3X-DA□-N	850 680 250	1 mm ø (0.01 mm ø)		
		E3X-MDA	580 450 180	1.0 mm ø (0.005 mm ø)		
		E3X-NA□(V)	360	1.0 mm ø (0.03 mm ø)		
		E3X-NAG□	65			
		E3X-NA□F	100	1.0 mm ø (0.2 mm ø)		

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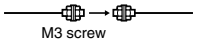
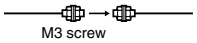
High resolution mode / Standard mode
Super long-distance mode / Super high-speed mode
Green light / Red light / Infrared ray

Features	Shape	Applicable Amplifier Unit	Sensing distance (mm) *1 (Parentheses: With E39-F1 Lens Unit)	Standard object (min. sensing object *2) (Parentheses: Opaque object)	Model	Permissible bending radius
M3 For detecting minute sensing objects Free-cut		E3X-DA□-S	270 220 50	0.5 mm ø (0.005 mm ø)	E32-TC200E	10 mm
		E3X-DAG□-S E3X-DAB□-S	25 20 12			
		E3X-DA□-N	250 220 90	0.5 mm ø (0.01 mm ø)		
		E3X-DAB#-N	25 20 12			
		E3X-MDA	170 130 50	0.5 mm ø (0.005 mm ø)		
		E3X-NA□(V)	100	0.5 mm ø (0.03 mm ø)		
		E3X-NAG□	20			
		E3X-NA□F	30	0.5 mm ø (0.1 mm ø)		
M3 Free-cut		E3X-DA□-S	160 130 30	0.5 mm ø (0.005 mm ø)	E32-ET21R	1 mm
		E3X-DA□-N	150 130 50	0.5 mm ø (0.005 mm ø)		
		E3X-MDA	100 75 45	0.5 mm ø (0.01 mm ø)		
		E3X-NA□(V)	60	0.5 mm ø (0.03 mm ø)		
		E3X-NAG□	12			
		E3X-NA□F	18	0.5 mm ø (0.1 mm ø)		

*1. Sensing distance based on white paper.
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*3. Longer sensing distance by using the lens unit E39-F1.

Diffuse reflective fibre units

High resolution mode | Standard mode
Super long-distance mode | Super high-speed mode
Green light | Red light | Infrared ray

Features	Shape	Applicable Amplifier Unit	Sensing distance (mm)*1	Standard object (min. sensing object *2) (Parentheses: Opaque object)	Model	Permissible bending radius
M6 Free-cut		E3X-DA□-S	500 300 90	400x400 (0.005 mm ø)	E32-DC200	25 mm
		E3X-DAG□-S E3X-DAB□-S	32 25 16	100x100 (0.1 mm ø)		
		E3X-DA□-N	400 300 100	400x400 (0.01 mm ø)		
		E3X-DAB#-N	32 25 16	100x100 (0.1 mm ø)		
		E3X-DAH□-N	100 75 25	100x100 (0.01 mm ø)		
		E3X-MDA	300 210 90	400x400 (0.005 mm ø)		
		E3X-NA□(V)	150	200x200 (0.01 mm ø)		
		E3X-NAG□	25	50x50 (0.1 mm ø)		
		E3X-NA□F	50	75x75 (0.015 mm ø)		
M6 Free-cut		E3X-DA□-S	300 170 50	300x300 (0.005 mm ø)	E32-D11R	1 mm
		E3X-DA□-N	220 170 80	300x300 (0.01 mm ø)		
		E3X-MDA	300 170 50	300x300 (0.005 mm ø)		
		E3X-NA□(V)	90	150x150 (0.01 mm ø)		
		E3X-NAG□	15	25x25 (0.1 mm ø)		
		E3X-NA□F	30	50x50 (0.02 mm ø)		

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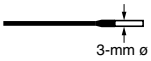
Features	Shape	Applicable Amplifier Unit	Sensing distance (mm)*1	Standard object (min. sensing object *2) (Parentheses: Opaque object)	Model	Permissible bending radius
M6 Fiber sheat material: fluorine resin Free-cut	 M6 screw	E3X-DA□-S	300 170 50	300x300 (0.005 mm ø)	E32-D11U NEW	4 mm
		E3X-DA#-N	220 170 80	300x300 (0.01 mm ø)		
		E3X-MDA	170 120 50	300x300 (0.005 mm ø)		
		E3X--NA#(V)	90	150x150 (0.01 mm ø)		
		E3X--NA#F	30	50x50 (0.0015 mm ø)		
3 mm ø Free-cut	 3-mm ø	E3X-DA□-S	300 170 50	300x300 (0.005 mm ø)	E32-D12R	1 mm
		E3X-DA□-N	220 170 80	300x300 (0.01 mm ø)		
		E3X-MDA	170 120 50	300x300 (0.005 mm ø)		
		E3X-NA□(V)	90	150x150 (0.01 mm ø)		
		E3X-NAG□	15	25x25 (0.1 mm ø)		
		E3X-NA□F	30	50x50 (0.02 mm ø)		
M3 Free-cut	 M3 screw	E3X-DA□-S	130 80 22	100x100 (0.005 mm ø)	E32-DC200E	10 mm
		E3X-DAG□-S E3X-DAB□-S	32 25 16	25x25 (0.2 mm ø)		
		E3X-DA□-N	100 80 30	100x100 (0.01 mm ø)		
		E3X-DAB#-N	8 6 4	25x25 (0.2 mm ø)		
		E3X-MDA	80 55 22	100x100 (0.005 mm ø)		
		E3X-NA□(V)	36	50x50 (0.01 mm ø)		
		E3X-NAG□	6	25x25 (0.1 mm ø)		
		E3X-NA□F	12	25x25 (0.02 mm ø)		

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High resolution mode　Standard mode
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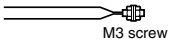
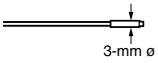
Green light　Red light　Infrared ray

Features	Shape	Applicable Amplifier Unit	Sensing distance (mm)*1	Standard object (min. sensing object *2) (Parentheses: Opaque object)	Model	Permissible bending radius
M3 (small ø) Free-cut		E3X-DA□-S	□50 ▒30 ▯8	50x50 (0.005 mm ø)	E32-ED21R	1 mm
		E3X-DA□-N	■40 ▒30 ▯10	50x50 (0.01 mm ø)		
		E3X-MDA	□30 ▯22 ▯8	50x50 (0.005 mm ø)		
		E3X-DA□-N	■40 ▒30 ▯10	50x50 (0.01 mm ø)		
		E3X-NA□(V)	▯15	25x25 (0.01 mm ø)		
		E3X-NA□F	▯5	25x25 (0.03 mm ø)		
3 mm ø (small ø) Free-cut		E3X-DA□-S	□50 ▒30 ▯8	50x50 (0.005 mm ø)	E32-D22R	1 mm
		E3X-DA□-N	■40 ▒30 ▯10	50x50 (0.01 mm ø)		
		E3X-MDA	□30 ▯22 ▯8	50x50 (0.005 mm ø)		
		E3X-NA□(V)	▯15	25x25 (0.01 mm ø)		
		E3X-NA□F	▯5	25x25 (0.03 mm ø)		

*1. Sensing distance based on white paper.
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