

Ordering Information

Omron offers fiber-optic cables in through-beam, diffuse and retroreflective types. Each cable has a different sensing distance depending on the amplifier selected. The ordering information provides the sensing distance and compatibility with two general classes of amplifiers: DIN rail-mounting DC amplifiers and block style amplifiers with different attributes, such as AC/DC supply

voltage, analog output and color sensing.

 indicates models that customers can cut to length for their application. Models without this mark are pre-cut by the factory to maintain their respective specifications.

■ E3X-SERIES, DIN RAIL-MOUNTING AMPLIFIERS

The table specifies the sensing characteristics of each fiber when used with the following amplifiers:

Legend:

A E3X-A (General purpose amplifier)

DAN-HS E3X-DAN (Digital amplifier- high speed mode)

DAN-LD E3X-DAN (Digital amplifier- long distance mode)

DAN-SM E3X-DAN (Digital amplifier- standard distance mode)

F E3X-F (High performance amplifier- high speed)

H E3X-H11 (High gain amplifier)

NM E3X-NM (4 channel auto-tuning amplifier)

NT E3X-NT (Auto-tuning amplifier: general purpose)

NH E3X-NH (High-precision, auto-tuning amplifier)

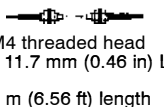
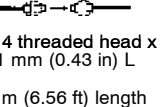
NHB . . . E3X-NHB (High-precision, blue LED, auto-tuning amp)

NV E3X-NV21 (Water-resistant, red light source amplifier)

NVG . . . E3X-NVG21 (Water-resistant, green light source amp)

VG E3X-VG (Mark sensing amplifier)

■ THROUGH-BEAM, GENERAL PURPOSE TYPE

Application	Features	Appearance	Type	Detection distance	Min. detectable object (opaque)	Part number
Flexible, resists breaking	Ideal for mounting on moving sections 4 mm bending radius	 M4 threaded head x 11.7 mm (0.46 in) L 2 m (6.56 ft) length	A	180 (1,000*) mm	0.2 mm dia.	E32-T11 
			DAN-HS	250 (1,300*) mm	-----	
			DAN-LD	850 (4,000**) mm	-----	
			DAN-SM	680 (3,600*) mm	0.01 mm dia.	
			F	80 (400*) mm	0.2 mm dia.	
			H	360 (2,000*) mm	0.3 mm dia.	
			NH	360 (2,000*) mm	0.04 mm dia.	
			NHB	50 mm	0.04 mm dia.	
			NM	240 (1,300*) mm	0.2 mm dia.	
			NT	260 (1,400*) mm	0.1 mm dia.	
			NV	260 (1,400*) mm	0.1 mm dia.	
			NVG	10 (120*) mm	0.2 mm dia.	
			VG	10 (120*) mm	0.2 mm dia.	
Long distance	Compact M4, head, 1.4 mm ID fiber; 25 mm bending radius	 M4 threaded head x 11 mm (0.43 in) L 2 m (6.56 ft) length	A	350 (1,000*) mm	0.5 mm dia.	E32-T11L 
			DAN-HS	490 (1,200*) mm	-----	
			DAN-LD	1,660 (4,000**) mm	-----	
			DAN-SM	1,330 (3,200*) mm	0.02 mm dia.	
			F	150 (550*) mm	0.5 mm dia.	
			H	700 (2,000*) mm	0.5 mm dia.	
			NH	700 (2,000*) mm	0.06 mm dia.	
			NHB	90 (250*) mm	0.06 mm dia.	
			NM	500 (1,200 *) mm	0.2 mm dia.	
			NT	540 (1,280*) mm	0.15 mm dia.	
			NV	540 (1,280*) mm	0.15 mm dia.	
			NVG	40 (120*) mm	0.5 mm dia.	
			VG	40 (120*) mm	0.5 mm dia.	

Note: * Value in parentheses represents the sensing distance of the fiber when the E39-F1 lens is attached to its tip.

** Value in parentheses is based on each fiber having a cable length of 2 m.

■ THROUGH-BEAM, GENERAL PURPOSE TYPE

The table specifies the sensing characteristics of each fiber when used with the following amplifiers:

Legend:

A E3X-A (General purpose amplifier)

DAN-HS E3X-DAN (Digital amplifier- high speed mode)

DAN-LD E3X-DAN (Digital amplifier- long distance mode)

DAN-SM E3X-DAN (Digital amplifier- standard distance mode)

F E3X-F (High performance amplifier- high speed)

H E3X-H11 (High gain amplifier)

NM E3X-NM (4 channel auto-tuning amplifier)

NT E3X-NT (Auto-tuning amplifier: general purpose)

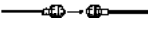
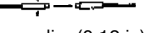
NH E3X-NH (High-precision, auto-tuning amplifier)

NHB E3X-NHB (High-precision, blue LED, auto-tuning amp)

NV E3X-NV21 (Water-resistant, red light source amplifier)

NVG E3X-NVG21 (Water-resistant, green light source amp)

VG E3X-VG (Mark sensing amplifier)

Application	Features	Appearance	Type	Detection distance	Min. detectable object (opaque)	Part number
Flexible (resists breaking)	Can be bent like electric wires; 1 mm bending radius	 M4 screw x 14 mm (0.55 in) 2 m (6.56 ft) length	A	140 (1,000*)	0.2 mm dia.	E32-T11R 
			DAN-HS	200 (1,400*) mm	-----	
			DAN-LD	670 (4,000**) mm	-----	
			DAN-SM	530 (3,700*) mm	0.01 mm dia.	
			F	Contact Omron	Contact Omron	
			H	280 (2,100*)	Contact Omron	
			NH	280 mm (2,100*)	0.1 mm dia.	
			NHB	Contact Omron	Contact Omron	
			NM	180 (1,300*) mm	0.2 mm dia.	
			NT	200 (1,400*) mm	0.1 mm dia.	
			NV	200 (1,400*) mm	0.1 mm dia.	
			NVG	Contact Omron	Contact Omron	
			VG	Contact Omron	Contact Omron	
Long distance	Compact unthreaded head; 1 mm ID fiber	 3 mm dia. (0.12 in) x 14 mm (0.55 in) 2 m (6.56 ft) length	A	350 mm	0.5 mm dia.	E32-T12L 
			DAN-HS	490 mm	-----	
			DAN-LD	1,660 mm	-----	
			DAN-SM	1,330 mm	0.01 mm dia.	
			F	150 mm	0.5 mm dia.	
			H	700 mm	0.5 mm dia.	
			NH	700 mm	0.06 mm dia.	
			NHB	90 mm	0.06 mm dia.	
			NM	500 mm	0.2 mm dia.	
			NT	540 mm	0.15 mm dia.	
			NV	540 mm	0.15 mm dia.	
			NVG	40 mm	0.5 mm dia.	
			VG	40 mm	0.5 mm dia.	

Note: * Value in parentheses represents the sensing distance of the fiber when the E39-F1 lens is attached to its tip.

** Value in parentheses is based on each fiber having a cable length of 2 m.

■ THROUGH-BEAM, GENERAL PURPOSE TYPE

The table specifies the sensing characteristics of each fiber when used with the following amplifiers:

Legend:

A E3X-A (General purpose amplifier)

DAN-HS E3X-DAN (Digital amplifier- high speed mode)

DAN-LD E3X-DAN (Digital amplifier- long distance mode)

DAN-SM E3X-DAN (Digital amplifier- standard distance mode)

F E3X-F (High performance amplifier- high speed)

H E3X-H11 (High gain amplifier)

NM E3X-NM (4 channel auto-tuning amplifier)

NT E3X-NT (Auto-tuning amplifier: general purpose)

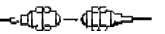
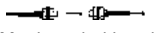
NH E3X-NH (High-precision, auto-tuning amplifier)

NHB E3X-NHB (High-precision, blue LED, auto-tuning amp)

NV E3X-NV21 (Water-resistant, red light source amplifier)

NVG E3X-NVG21 (Water-resistant, green light source amp)

VG E3X-VG (Mark sensing amplifier)

Application	Features	Appearance	Type	Detection distance	Min. detectable object (opaque)	Part number
Long distance	Magnifying lens extends sensing distance; ideal for explosion-proof applications; 25 mm bending radius; M14 head, 1 mm ID fiber	 M14 threaded head x 23 mm (0.91 in) L 10 m (32.8 ft) length	A	7,000 mm	0.8 mm dia.	E32-T17L 
			DAN-HS	9,800 mm	-----	
			DAN-LD	20,000 mm *	-----	
			DAN-SM	20,000 mm *	0.01 mm dia.	
			F	3,000 mm	1.5 mm dia.	
			H	14,000 mm	2.1 mm dia.	
			NH	14,000 mm	0.2 mm dia.	
			NHB	2,000 mm	0.2 mm dia.	
			NM	7,000 mm	0.7 mm dia.	
			NT	7,500 mm	0.5 mm dia.	
			NV	7,500 mm	0.5 mm dia.	
			NVG	800 mm	2.1 mm dia.	
			VG	800 mm	2.1 mm dia.	
Flexible (resists breaking)	Ideal for mounting on moving sections; 4 mm bending radius; 0.5 mm ID fiber	 M3 threaded head x 11 mm (0.43 in) L 2 m (6.56 ft) length	A	50 mm	0.2 mm dia.	E32-T21 
			DAN-HS	80 mm	-----	
			DAN-LD	220 mm	-----	
			DAN-SM	200 mm	0.01 mm dia.	
			F	26 mm	0.2 mm dia.	
			H	100 mm	0.2 mm dia.	
			NH	100 mm	0.04 mm dia.	
			NHB	Contact Omron	Contact Omron	
			NM	65 mm	0.2 mm dia.	
			NT	70 mm	0.1 mm dia.	
			NV	70 mm	0.1 mm dia.	
			NVG	6 mm	0.1 mm dia.	
			VG	6 mm	0.2 mm dia.	

Note: * Value is based on each fiber having a cable length of 10 m.

■ THROUGH-BEAM, GENERAL PURPOSE TYPE

The table specifies the sensing characteristics of each fiber when used with the following amplifiers:

Legend:

A E3X-A (General purpose amplifier)

DAN-HS E3X-DAN (Digital amplifier- high speed mode)

DAN-LD E3X-DAN (Digital amplifier- long distance mode)

DAN-SM E3X-DAN (Digital amplifier- standard distance mode)

F E3X-F (High performance amplifier- high speed)

H E3X-H11 (High gain amplifier)

NM E3X-NM (4 channel auto-tuning amplifier)

NT E3X-NT (Auto-tuning amplifier: general purpose)

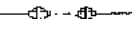
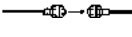
NH E3X-NH (High-precision, auto-tuning amplifier)

NHB E3X-NHB (High-precision, blue LED, auto-tuning amp)

NV E3X-NV21 (Water-resistant, red light source amplifier)

NVG E3X-NVG21 (Water-resistant, green light source amp)

VG E3X-VG (Mark sensing amplifier)

Application	Features	Appearance	Type	Detection distance	Min. detectable object (opaque)	Part number
Long distance	Compact mounting head; 25 mm bending radius; 0.5 mm ID fiber	 M3 threaded head x 9 mm (0.35 in) L 2 m (6.56 ft) length	A	100 mm	0.2 mm dia.	E32-T21L 
			DAN-HS	180 mm	-----	
			DAN-LD	500 mm	-----	
			DAN-SM	440 mm	0.01 mm dia.	
			F	50 mm	0.2 mm dia.	
			H	200 mm	0.2 mm dia.	
			NH	200 mm	0.04 mm dia.	
			NHB	Contact Omron	Contact Omron	
			NM	150 mm	0.2 mm dia.	
			NT	160 mm	0.1 mm dia.	
			NV	160 mm	0.1 mm dia.	
			NVG	10 mm	0.2 mm dia.	
			VG	10 mm	0.2 mm dia.	
					0.2 mm dia.	
Flexible (resists breaking)	Can be bent like electric wires; 1 mm bending radius	 M3 threaded head x 9.5 mm (0.37 in) L 2 m (6.56 ft) length	A	30 mm	0.2 mm dia.	E32-T21R 
			DAN-HS	50 mm	-----	
			DAN-LD	150 mm	-----	
			DAN-SM	130 mm	0.01 mm dia.	
			F	Contact Omron	Contact Omron	
			H	60 mm	0.2 mm dia.	
			NH	60 mm	0.1 mm dia.	
			NHB	Contact Omron	Contact Omron	
			NM	40 mm	0.2 mm dia.	
			NT	41 mm	0.1 mm dia.	
			NV	41 mm	0.1 mm dia.	
			NVG	Contact Omron	Contact Omron	
			VG	Contact Omron	Contact Omron	
					Contact Omron	

■ THROUGH-BEAM, GENERAL PURPOSE TYPE

The table specifies the sensing characteristics of each fiber when used with the following amplifiers:

Legend:

A E3X-A (General purpose amplifier)

DAN-HS E3X-DAN (Digital amplifier- high speed mode)

DAN-LD E3X-DAN (Digital amplifier- long distance mode)

DAN-SM E3X-DAN (Digital amplifier- standard distance mode)

F E3X-F (High performance amplifier- high speed)

H E3X-H11 (High gain amplifier)

NM E3X-NM (4 channel auto-tuning amplifier)

NT E3X-NT (Auto-tuning amplifier: general purpose)

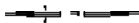
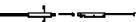
NH E3X-NH (High-precision, auto-tuning amplifier)

NHB E3X-NHB (High-precision, blue LED, auto-tuning amp)

NV E3X-NV21 (Water-resistant, red light source amplifier)

NVG E3X-NVG21 (Water-resistant, green light source amp)

VG E3X-VG (Mark sensing amplifier)

Application	Features	Appearance	Type	Detection distance	Min. detectable object (opaque)	Part number
Minute objects	2 mm dia. head fits in space-confined areas; 25 mm bending radius; 0.5 mm ID fiber	 2 mm dia. (0.8 in) x 22 mm (0.87 in) 2 m (6.56 ft) length	A	50 mm	0.1 mm dia.	E32-T22 
			DAN-HS	90 mm	-----	
			DAN-LD	250 mm	-----	
			DAN-SM	220 mm	0.01 mm dia.	
			F	26 mm	0.1 mm dia.	
			H	100 mm	0.1 mm dia.	
			NH	100 mm	0.04 mm dia.	
			NHB	Contact Omron	Contact Omron	
			NM	70 mm	0.2 mm dia.	
			NT	75 mm	0.1 mm dia.	
			NV	75 mm	0.1 mm dia.	
			NVG	7 mm	0.1 mm dia.	
			VG	7 mm	0.1 mm dia.	
Long distance	2 mm dia. head fits in space-confined areas; 25 mm bending radius; 0.5 mm ID fiber	 2 mm dia. (0.8 in) x 22 mm (0.87 in) 2 m (6.56 ft) length	A	100 mm	0.2 mm dia.	E32-T22L 
			DAN-HS	180 mm	-----	
			DAN-LD	500 mm	-----	
			DAN-SM	440 mm	0.01 mm dia.	
			F	50 mm	0.2 mm dia.	
			H	200 mm	0.2 mm dia.	
			NH	200 mm	0.04 mm dia.	
			NHB	Contact Omron	Contact Omron	
			NM	150 mm	0.2 mm dia.	
			NT	160 mm	0.1 mm dia.	
			NV	160 mm	0.1 mm dia.	
			NVG	10 mm	0.2 mm dia.	
			VG	10 mm	0.2 mm dia.	

■ THROUGH-BEAM, GENERAL PURPOSE TYPE

The table specifies the sensing characteristics of each fiber when used with the following amplifiers:

Legend:

A E3X-A (General purpose amplifier)

DAN-HS E3X-DAN (Digital amplifier- high speed mode)

DAN-LD E3X-DAN (Digital amplifier- long distance mode)

DAN-SM E3X-DAN (Digital amplifier- standard distance mode)

F E3X-F (High performance amplifier- high speed)

H E3X-H11 (High gain amplifier)

NM E3X-NM (4 channel auto-tuning amplifier)

NT E3X-NT (Auto-tuning amplifier: general purpose)

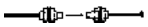
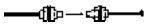
NH E3X-NH (High-precision, auto-tuning amplifier)

NHB . . . E3X-NHB (High-precision, blue LED, auto-tuning amp)

NV E3X-NV21 (Water-resistant, red light source amplifier)

NVG . . . E3X-NVG21 (Water-resistant, green light source amp)

VG E3X-VG (Mark sensing amplifier)

Application	Features	Appearance	Type	Detection distance	Min. detectable object (opaque)	Part number
General purpose	Compact threaded head; short cable length; 25 mm bending radius; 1 mm ID fiber	 M4 threaded head x 14 mm (0.55 in) L 50 cm (1.64 ft) length	A	200 (1,500*) mm	0.2 mm dia.	E32-TC50 
			DAN-HS	Contact Omron	Contact Omron	
			DAN-LD	Contact Omron	Contact Omron	
			DAN-SM	Contact Omron	Contact Omron	
			F	80 mm	0.2 mm dia.	
			H	400 (3,000*) mm	0.2 mm dia.	
			NH	Contact Omron	Contact Omron	
			NHB	Contact Omron	Contact Omron	
			NM	Contact Omron	Contact Omron	
			NT	Contact Omron	Contact Omron	
			NV	Contact Omron	Contact Omron	
			NVG	Contact Omron	Contact Omron	
			VG	28 mm (190*) mm	0.2 mm dia.	
					0.2 mm dia.	
General purpose	Compact threaded head; 25 mm bending radius; 1 mm ID fiber	 M4 threaded head x 14 mm (0.55 in) L 2 m (6.56 ft) length	A	200 (1,500*) mm	0.2 mm dia.	E32-TC200 
			DAN-HS	280 (2,100*) mm	-----	
			DAN-LD	950 (4,000**) mm	-----	
			DAN-SM	760 (4,000**) mm	0.01 mm dia.	
			F	80 (670*) mm	0.2 mm dia.	
			H	400 (3,000*) mm	0.2 mm dia.	
			NH	400 (3,000*) mm	0.04 mm dia.	
			NHB	55 (420*) mm	0.04 mm dia.	
			NM	270 (2,000*) mm	0.2 mm dia.	
			NT	290 (2,100*) mm	0.1 mm dia.	
			NV	290 (2,100*) mm	0.1 mm dia.	
			NVG	28 mm (190*) mm	0.2 mm dia.	
			VG	28 mm (190*) mm	0.2 mm dia.	
					0.2 mm dia.	
					0.2 mm dia.	

Note: * Value in parentheses represents the sensing distance of the fiber when the E39-F1 lens is attached to its tip.

** Value in parentheses is based on each fiber having a cable length of 2 m.

■ THROUGH-BEAM, GENERAL PURPOSE TYPE

The table specifies the sensing characteristics of each fiber when used with the following amplifiers:

Legend:

A E3X-A (General purpose amplifier)

DAN-HS E3X-DAN (Digital amplifier- high speed mode)

DAN-LD E3X-DAN (Digital amplifier- long distance mode)

DAN-SM E3X-DAN (Digital amplifier- standard distance mode)

F E3X-F (High performance amplifier- high speed)

H E3X-H11 (High gain amplifier)

NM E3X-NM (4 channel auto-tuning amplifier)

NT E3X-NT (Auto-tuning amplifier: general purpose)

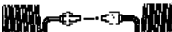
NH E3X-NH (High-precision, auto-tuning amplifier)

NHB E3X-NHB (High-precision, blue LED, auto-tuning amp)

NV E3X-NV21 (Water-resistant, red light source amplifier)

NVG E3X-NVG21 (Water-resistant, green light source amp)

VG E3X-VG (Mark sensing amplifier)

Application	Features	Appearance	Type	Detection distance	Min. detectable object (opaque)	Part number
General purpose	M3; possible to mount the reflective side-view conversion attachment (E39-F5); 25 mm bending radius; 1 mm ID fiber	 M3 threaded head x 7 mm (0.28 in) L 2 m (6.56 ft) length	A	180 mm	0.2 mm dia.	E32-TC200A 
			DAN-HS	250 mm	-----	
			DAN-LD	850 mm	-----	
			DAN-SM	680 mm	0.01 mm dia.	
			F	80 mm	0.2 mm dia.	
			H	360 mm	0.3 mm dia.	
			NH	360 mm	0.04 mm dia.	
			NHB	55 mm	0.04 mm dia.	
			NM	250 mm	0.2 mm dia.	
			NT	270 mm	0.1 mm dia.	
			NV	270 mm	0.1 mm dia.	
			NVG	28 mm	0.2 mm dia.	
			VG	28 mm	0.2 mm dia.	
General purpose	Spiral coiled cable withstands repeated stretching from reciprocating machine parts; 25 mm bending radius; 1 mm ID fiber	 M4 threaded head x 11 mm (0.43 in) L Coiled 56.5 cm (1.8 ft) L; 2 m (6.56 ft) extended	A	150 (800*) mm	0.2 mm dia.	E32-TC200C 
			DAN-HS	Contact Omron	Contact Omron	
			DAN-LD	Contact Omron	Contact Omron	
			DAN-SM	Contact Omron	Contact Omron	
			F	60 (350*) mm	0.2 mm dia.	
			H	300 (1,600*) mm	0.2 mm dia.	
			NH	300 (3,600*) mm	0.04 mm dia.	
			NHB	Contact Omron	Contact Omron	
			NM	200 (800*) mm	0.2 mm dia.	
			NT	210 (850*) mm	0.1 mm dia.	
			NV	210 (850*) mm	0.1 mm dia.	
			NVG	18 (100*) mm	0.2 mm dia.	
			VG	18 (100*) mm	0.2 mm dia.	

Note: *Value in parentheses represents the sensing distance of the fiber when the E39-F1 lens is attached to its tip.

THROUGH-BEAM, GENERAL PURPOSE TYPE

Legend:

A E3X-A (General purpose amplifier)

DAN-HS E3X-DAN (Digital amplifier- high speed mode)

DAN-LD E3X-DAN (Digital amplifier- long distance mode)

DAN-SM E3X-DAN (Digital amplifier- standard distance mode)

F E3X-F (High performance amplifier- high speed)

H E3X-H11 (High gain amplifier)

NM E3X-NM (4 channel auto-tuning amplifier)

NT E3X-NT (Auto-tuning amplifier: general purpose)

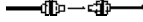
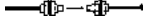
NH E3X-NH (High-precision, auto-tuning amplifier)

NHB E3X-NHB (High-precision, blue LED, auto-tuning amp)

NV E3X-NV21 (Water-resistant, red light source amplifier)

NVG E3X-NVG21 (Water-resistant, green light source amp)

VG E3X-VG (Mark sensing amplifier)

Application	Features	Appearance	Type	Detection distance	Min. detectable object (opaque)	Part number
General purpose	M3; suitable for detecting minute objects; 25 mm bending radius; 0.5 mm ID fiber	 M3 threaded head x 11 mm (0.43 in) L 2 m (6.56 ft) length	A	50 mm	0.1 mm dia.	E32-TC200E 
			DAN-HS	90 mm	-----	
			DAN-LD	250 mm	-----	
			DAN-SM	220 mm	0.01 mm dia.	
			F	26 mm	0.1 mm dia.	
			H	100 mm	0.1 mm dia.	
			NH	100 mm	0.04 mm dia.	
			NHB	Contact Omron	Contact Omron	
			NM	70 mm	0.2 mm dia.	
			NT	75 mm	0.1 mm dia.	
			NV	75 mm	0.1 mm dia.	
			NVG	8 mm	0.1 mm dia.	
			VG	8 mm	0.1 mm dia.	
General purpose	Extended length and sensing distance; 25 mm bending radius; 1 mm ID fiber	 M4 threaded head x 14 mm (0.55 in) L 5 m (16.4 ft) length	A	200 (1,500*) mm	0.2 mm dia.	E32-TC500 
			DAN-HS	Contact Omron	Contact Omron	
			DAN-LD	Contact Omron	Contact Omron	
			DAN-SM	Contact Omron	Contact Omron	
			F	80 mm	0.2 mm dia.	
			H	400 (3,000*) mm	0.2 mm dia.	
			NH	Contact Omron	Contact Omron	
			NHB	Contact Omron	Contact Omron	
			NM	Contact Omron	Contact Omron	
			NT	Contact Omron	Contact Omron	
			NV	Contact Omron	Contact Omron	
			NVG	Contact Omron	Contact Omron	
			VG	28 mm	0.2 mm dia.	
General purpose	Extended length and sensing distance; 25 mm bending radius; 1 mm ID fiber	 M4 threaded head x 14 mm (0.55 in) L 10 m (32.8 ft) length	A	500 (1000*) mm	0.01 mm dia.	E32-TC1000 
			DAN-HS	Contact Omron	Contact Omron	
			DAN-LD	Contact Omron	Contact Omron	
			DAN-SM	Contact Omron	Contact Omron	
			F	500(1,000*) mm	0.01 mm dia.	
			H	500 (1,000*) mm	0.01 mm dia.	
			NH	Contact Omron	Contact Omron	
			NHB	Contact Omron	Contact Omron	
			NM	Contact Omron	Contact Omron	
			NT	Contact Omron	Contact Omron	
			NV	Contact Omron	Contact Omron	
			NVG	Contact Omron	Contact Omron	
			VG	500 (1,000*) mm	0.01 mm dia.	

Note: *Value in parentheses represents the sensing distance of the fiber when the E39-F1 lens is attached to its tip.

■ THROUGH-BEAM, ARMORED TYPE

The table specifies the sensing characteristics of each fiber when used with the following amplifiers:

Legend:

A E3X-A (General purpose amplifier)

DAN-HS E3X-DAN (Digital amplifier- high speed mode)

DAN-LD E3X-DAN (Digital amplifier- long distance mode)

DAN-SM E3X-DAN (Digital amplifier- standard distance mode)

F E3X-F (High performance amplifier- high speed)

H E3X-H11 (High gain amplifier)

NM E3X-NM (4 channel auto-tuning amplifier)

NT E3X-NT (Auto-tuning amplifier: general purpose)

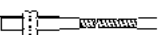
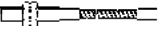
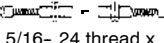
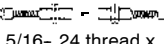
NH E3X-NH (High-precision, auto-tuning amplifier)

NHB E3X-NHB (High-precision, blue LED, auto-tuning amp)

NV E3X-NV21 (Water-resistant, red light source amplifier)

NVG E3X-NVG21 (Water-resistant, green light source amp)

VG E3X-VG (Mark sensing amplifier)

Application	Features	Appearance	Type	Detection distance	Min. detectable object (opaque)	Part number
General purpose	Can withstand temperatures to 150°C (302°F)		A	200 mm	0.2 mm dia.	E32-UTAT1-3F
			DAN-HS	Contact Omron	Contact Omron	
			DAN-LD	Contact Omron	Contact Omron	
			DAN-SM	Contact Omron	Contact Omron	
			F	Contact Omron	Contact Omron	
			H	Contact Omron	Contact Omron	
			NH	Contact Omron	Contact Omron	
			NHB	Contact Omron	Contact Omron	
			NM	Contact Omron	Contact Omron	
			NT	Contact Omron	Contact Omron	
			NV	Contact Omron	Contact Omron	
			NVG	Contact Omron	Contact Omron	
			VG	Contact Omron	Contact Omron	
General purpose	Can withstand temperatures to 150°C (302°F)		A	170 mm	0.2 mm dia.	E32-UTAT1-6F
			DAN-HS	Contact Omron	Contact Omron	
			DAN-LD	Contact Omron	Contact Omron	
			DAN-SM	Contact Omron	Contact Omron	
			F	Contact Omron	Contact Omron	
			H	Contact Omron	Contact Omron	
			NH	Contact Omron	Contact Omron	
			NHB	Contact Omron	Contact Omron	
			NM	Contact Omron	Contact Omron	
			NT	Contact Omron	Contact Omron	
			NV	Contact Omron	Contact Omron	
			NVG	Contact Omron	Contact Omron	
			VG	Contact Omron	Contact Omron	
General purpose	Can withstand temperatures to 200°C (392°F)	 5/16- 24 thread x 38.1 mm (1.5 in) L 0.91 m (3 ft) length	E3JU-X amp only	400 mm	0.25 mm dia.	E32-UTBT1-3F
General purpose	Can withstand temperatures to 200°C (392°F)	 5/16- 24 thread x 38.1 mm (1.5 in) L 1.83 m (6 ft) length	E3JU-X amp only	400 mm	0.25 mm dia.	E32-UTBT1-6F

■ THROUGH-BEAM, PROBE TYPE

The table specifies the sensing characteristics of each fiber when used with the following amplifiers:

Legend:

A E3X-A (General purpose amplifier)

DAN-HS E3X-DAN (Digital amplifier- high speed mode)

DAN-LD E3X-DAN (Digital amplifier- long distance mode)

DAN-SM E3X-DAN (Digital amplifier- standard distance mode)

F E3X-F (High performance amplifier- high speed)

H E3X-H11 (High gain amplifier)

NM E3X-NM (4 channel auto-tuning amplifier)

NT E3X-NT (Auto-tuning amplifier: general purpose)

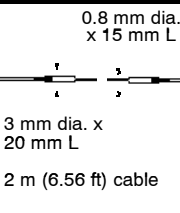
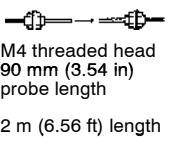
NH E3X-NH (High-precision, auto-tuning amplifier)

NHB E3X-NHB (High-precision, blue LED, auto-tuning amp)

NV E3X-NV21 (Water-resistant, red light source amplifier)

NVG E3X-NVG21 (Water-resistant, green light source amp)

VG E3X-VG (Mark sensing amplifier)

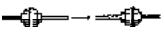
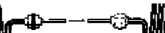
Application	Features	Appearance	Type	Detection distance	Min. detectable object (opaque)	Part number
Needle probe	303 stainless steel probe for ultra small objects; 12 mm heat shrink tubing can provide extra sealing and strain relief; 25 mm bending radius; 0.25 mm ID fiber		A	15 mm	0.06 mm dia.	E32-T33-1 
			DAN-HS	Contact Omron	Contact Omron	
			DAN-LD	Contact Omron	Contact Omron	
			DAN-SM	Contact Omron	Contact Omron	
			F	15 mm	0.06 mm dia.	
			H	15 mm	0.06 mm dia.	
			NH	Contact Omron	Contact Omron	
			NHB	Contact Omron	Contact Omron	
			NM	Contact Omron	Contact Omron	
			NT	Contact Omron	Contact Omron	
			NV	Contact Omron	Contact Omron	
			NVG	Contact Omron	Contact Omron	
			VG	15 mm	0.06 mm dia.	
					0.2 mm dia.	
Thin fiber	Probe for space-confined sensing areas; 25 mm bending radius; 1 mm ID fiber.		A	180 mm	0.2 mm dia.	E32-TC200B 
			DAN-HS	280 mm	-----	
			DAN-LD	950 mm	-----	
			DAN-SM	760 mm	0.01 mm dia.	
			F	80 mm	0.2 mm dia.	
			H	400 mm	0.2 mm dia.	
			NH	400 mm	0.04 mm dia.	
			NHB	55mm	0.04 mm dia.	
			NM	270 mm	0.2 mm dia.	
			NT	290 mm	0.1 mm dia.	
			NV	290 mm	0.1 mm dia.	
			NVG	28 mm	0.2 mm dia.	
			VG	28 mm	0.2 mm dia.	
					0.2 mm dia.	

■ THROUGH-BEAM, PROBE TYPE (CONT.)

Legend:

A E3X-A (General purpose amplifier)
 DAN-HS E3X-DAN (Digital amplifier- high speed mode)
 DAN-LD E3X-DAN (Digital amplifier- long distance mode)
 DAN-SM E3X-DAN (Digital amplifier- standard distance mode)
 F E3X-F (High performance amplifier- high speed)
 H E3X-H11 (High gain amplifier)

NM E3X-NM (4 channel auto-tuning amplifier)
 NT E3X-NT (Auto-tuning amplifier: general purpose)
 NH E3X-NH (High-precision, auto-tuning amplifier)
 NHB E3X-NHB (High-precision, blue LED, auto-tuning amp)
 NV E3X-NV21 (Water-resistant, red light source amplifier)
 NVG E3X-NVG21 (Water-resistant, green light source amp)
 VG E3X-VG (Mark sensing amplifier)

Application	Features	Appearance	Type	Detection distance	Min. detectable object (opaque)	Part number
Thin fiber	Probe for space-confined sensing areas; 25 mm bending radius; 1 mm ID fiber	 M4 threaded head 40 mm (1.57 in) probe length 2 m (6.56 ft) length	A	180 mm	0.2 mm dia.	E32-TC200B4 
			DAN-HS	280 mm	-----	
			DAN-LD	950 mm	-----	
			DAN-SM	760 mm	0.01 mm dia.	
			F	80 mm	0.2 mm dia.	
			H	400 mm	0.2 mm dia.	
			NH	400 mm	0.04 mm dia.	
			NHB	55 mm	0.04 mm dia.	
			NM	270 mm	0.2 mm dia.	
			NT	290 mm	0.1 mm dia.	
			NV	290 mm	0.1 mm dia.	
			NVG	28 mm	0.2 mm dia.	
			VG	28 mm	0.2 mm dia.	
Thin probe	Sensing head with 90 mm probe; spiral coiled cable with-stands repeated stretching from reciprocating machine parts; 25 mm bending radius; 1 mm ID fiber	 M4 threaded head 90 mm (3.54 in) probe length Coiled 56.6 cm (1.85 ft); 2 m (6.56 ft) when extended	A	150 mm	0.2 mm dia.	E32-TC200D 
			DAN-HS	Contact Omron	Contact Omron	
			DAN-LD	Contact Omron	Contact Omron	
			DAN-SM	Contact Omron	Contact Omron	
			F	60 mm	0.2 mm dia.	
			H	300 mm	0.2 mm dia.	
			NH	300 mm	0.04 mm dia.	
			NHB	Contact Omron	Contact Omron	
			NM	Contact Omron	Contact Omron	
			NT	Contact Omron	Contact Omron	
			NV	Contact Omron	Contact Omron	
			NVG	Contact Omron	Contact Omron	
			VG	18 mm	0.2 mm dia.	
Thin probe	Sensing head with 40 mm probe; spiral coiled cable withstands repeated stretching from reciprocating machine parts; 25 mm bending radius; 1 mm ID fiber	 M4 threaded head 40 mm (1.57 in) probe length Coiled 56.6 cm (1.85 ft); 2 m (6.56 ft) when extended	A	150 mm	0.2 mm dia.	E32-TC200D4 
			DAN-HS	Contact Omron	Contact Omron	
			DAN-LD	Contact Omron	Contact Omron	
			DAN-SM	Contact Omron	Contact Omron	
			F	60 mm	0.2 mm dia.	
			H	300 mm	0.2 mm dia.	
			NH	300 mm	0.04 mm dia.	
			NHB	Contact Omron	Contact Omron	
			NM	Contact Omron	Contact Omron	
			NT	Contact Omron	Contact Omron	
			NV	Contact Omron	Contact Omron	
			NVG	Contact Omron	Contact Omron	
			VG	18 mm	0.2 mm dia.	

■ THROUGH BEAM, PROBE TYPE (CONT.)

Legend:

A E3X-A (General purpose amplifier)

DAN-HS E3X-DAN (Digital amplifier- high speed mode)

DAN-LD E3X-DAN (Digital amplifier- long distance mode)

DAN-SM E3X-DAN (Digital amplifier- standard distance mode)

F E3X-F (High performance amplifier- high speed)

H E3X-H11 (High gain amplifier)

NM E3X-NM (4 channel auto-tuning amplifier)

NT E3X-NT (Auto-tuning amplifier: general purpose)

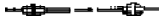
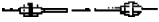
NH E3X-NH (High-precision, auto-tuning amplifier)

NHB E3X-NHB (High-precision, blue LED, auto-tuning amp)

NV E3X-NV21 (Water-resistant, red light source amplifier)

NVG E3X-NVG21 (Water-resistant, green light source amp)

VG E3X-VG (Mark sensing amplifier)

Application	Features	Appearance	Type	Detection distance	Min. detectable object (opaque)	Part number
Thin probe	Sensing head with 90 mm probe; 25 mm bending radius; 0.5 mm ID fiber	 M3 threaded head 90 mm (3.54 in) length probe 2 m (6.56 ft) length	A	50 mm	0.1 mm dia.	E32-TC200F 
			DAN-HS	90 mm	-----	
			DAN-LD	250 mm	-----	
			DAN-SM	220 mm	0.01 mm dia.	
			F	26 mm	0.1 mm dia.	
			H	100 mm	0.1 mm dia.	
			NH	100 mm	0.04 mm dia.	
			NHB	Contact Omron	Contact Omron	
			NM	70 mm	0.2 mm dia.	
			NT	75 mm	0.1 mm dia.	
			NV	75 mm	0.1 mm dia.	
			NVG	8 mm	0.1 mm dia.	
			VG	8 mm	0.1 mm dia.	
Thin probe	Sensing head with 40 mm probe; 25 mm bending radius; 0.5 mm ID fiber	 M3 threaded head 40 mm (1.57 in) length probe 2m (6.56 ft) length	A	50 mm	0.1 mm dia.	E32-TC200F4 
			DAN-HS	90 mm	-----	
			DAN-LD	250 mm	-----	
			DAN-SM	220 mm	0.01 mm dia.	
			F	26 mm	0.1 mm dia.	
			H	100 mm	0.1 mm dia.	
			NH	100 mm	0.04 mm dia.	
			NHB	Contact Omron	Contact Omron	
			NM	70 mm	0.2 mm dia.	
			NT	75 mm	0.1 mm dia.	
			NV	75 mm	0.1 mm dia.	
			NVG	8 mm	0.1 mm dia.	
			VG	8 mm	0.1 mm dia.	

■ THROUGH-BEAM, SIDE BEAM TYPE

The table specifies the sensing characteristics of each fiber when used with the following amplifiers:

Legend:

A E3X-A (General purpose amplifier)

DAN-HS E3X-DAN (Digital amplifier- high speed mode)

DAN-LD E3X-DAN (Digital amplifier- long distance mode)

DAN-SM E3X-DAN (Digital amplifier- standard distance mode)

F E3X-F (High performance amplifier- high speed)

H E3X-H11 (High gain amplifier)

NM E3X-NM (4 channel auto-tuning amplifier)

NT E3X-NT (Auto-tuning amplifier: general purpose)

NH E3X-NH (High-precision, auto-tuning amplifier)

NHB E3X-NHB (High-precision, blue LED, auto-tuning amp)

NV E3X-NV21 (Water-resistant, red light source amplifier)

NVG E3X-NVG21 (Water-resistant, green light source amp)

VG E3X-VG (Mark sensing amplifier)

Application	Features	Appearance	Type	Detection distance	Min. detectable object (opaque)	Part number
Long distance	Built-in lens provides long sensing distance; each sensing head has two 3.2 mm screw mounting holes; 25 mm bending radius; 1 mm ID fiber	 2 m (6.56 ft) length	A	900 mm	0.2 mm dia.	E32-T14 
			DAN-HS	1,250 mm	-----	
			DAN-LD	4,000 mm	-----	
			DAN-SM	3,400 mm	0.01 mm dia.	
			F	380 mm	0.2 mm dia.	
			H	1,800 mm	0.2 mm dia.	
			NH	1,800 mm	0.08 mm dia.	
			NHB	200mm	0.08 mm dia.	
			NM	1,000 mm	0.2 mm dia.	
			NT	1,070 mm	0.2 mm dia.	
			NV	1,070 mm	0.2 mm dia.	
			NVG	80 mm	0.2 mm dia.	
			VG	80 mm	0.2 mm dia.	
Long distance	Space-saving mounting; 25 mm bending radius; 1 mm ID fiber	 2 m (6.56 ft) length	A	120 mm	0.1 mm dia.	E32-T14L 
			DAN-HS	170 mm	-----	
			DAN-LD	570 mm	-----	
			DAN-SM	460 mm	0.01 mm dia.	
			F	30 mm	0.2 mm dia.	
			H	240 mm	0.2 mm dia.	
			NH	240 mm	0.08 mm dia.	
			NHB	30 mm	0.08 mm dia.	
			NM	130 mm	0.3 mm dia.	
			NT	140 mm	0.2 mm dia.	
			NV	140 mm	0.2 mm dia.	
			NVG	10 mm	0.1 mm dia.	
			VG	10 mm	0.1 mm dia.	

■ THROUGH-BEAM, SIDE BEAM TYPE (CONT.)

The table specifies the sensing characteristics of each fiber when used with the following amplifiers:

Legend:

A E3X-A (General purpose amplifier)

DAN-HS E3X-DAN (Digital amplifier- high speed mode)

DAN-LD E3X-DAN (Digital amplifier- long distance mode)

DAN-SM E3X-DAN (Digital amplifier- standard distance mode)

F E3X-F (High performance amplifier- high speed)

H E3X-H11 (High gain amplifier)

NM E3X-NM (4 channel auto-tuning amplifier)

NT E3X-NT (Auto-tuning amplifier: general purpose)

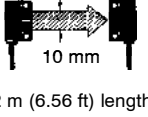
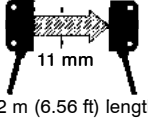
NH E3X-NH (High-precision, auto-tuning amplifier)

NHB . . . E3X-NHB (High-precision, blue LED, auto-tuning amp)

NV E3X-NV21 (Water-resistant, red light source amplifier)

NVG . . . E3X-NVG21 (Water-resistant, green light source amp)

VG E3X-VG (Mark sensing amplifier)

Application	Features	Appearance	Type	Detection distance	Min. detectable object (opaque)	Part number
Area sensing	10 mm wide beam, long sensing distance; 25 mm bending radius; 1 mm ID fiber; includes 0.5 mm and 1 mm slit masks		A	750 mm	6.0 mm dia.*	E32-T16 
			DAN-HS	1,000 mm	-----	
			DAN-LD	3,500 mm	-----	
			DAN-SM	2,800 mm	0.6 mm dia.	
			F	330 mm	7.0 mm dia.*	
			H	1,500 mm	6.0 mm dia.*	
			NH	1,500 mm	2.0 mm dia.*	
			NHB	700 mm	2.0 mm dia.*	
			NM	1,000 mm	5.0 mm dia.*	
			NT	1,070 mm	5.0 mm dia.*	
			NV	1,070 mm	5.0 mm dia.*	
			NVG	150 mm	7.0 mm dia.*	
			VG	150 mm	7.0 mm dia.*	
					2.0 mm dia.*	
Area sensing	11 mm wide beam; flexible cable allows 10 mm bending radius; 1 mm ID fiber; includes 0.5 mm and 1 mm slit masks		A	300 mm	2.0 mm dia.*	E32-T16P 
			DAN-HS	420 mm	-----	
			DAN-LD	1,400 mm	-----	
			DAN-SM	1,100 mm	0.2 mm dia.	
			F	Contact Omron	Contact Omron	
			H	Contact Omron	Contact Omron	
			NH	600 mm	0.4 mm dia.*	
			NHB	Contact Omron	Contact Omron	
			NM	400 mm	1.0 mm dia.*	
			NT	480 mm	1.3 mm dia.*	
			NV	480 mm	1.3 mm dia.*	
			NVG	Contact Omron	Contact Omron	
			VG	Contact Omron	Contact Omron	
					Contact Omron	
					Contact Omron	

Note: *This value was measured at a sensing distance of 100 mm.

■ THROUGH-BEAM, SIDE BEAM TYPE (CONT.)

The table specifies the sensing characteristics of each fiber when used with the following amplifiers:

Legend:

A E3X-A (General purpose amplifier)

DAN-HS E3X-DAN (Digital amplifier- high speed mode)

DAN-LD E3X-DAN (Digital amplifier- long distance mode)

DAN-SM E3X-DAN (Digital amplifier- standard distance mode)

F E3X-F (High performance amplifier- high speed)

H E3X-H11 (High gain amplifier)

NM E3X-NM (4 channel auto-tuning amplifier)

NT E3X-NT (Auto-tuning amplifier: general purpose)

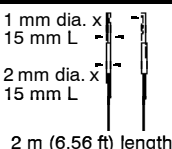
NH E3X-NH (High-precision, auto-tuning amplifier)

NHB E3X-NHB (High-precision, blue LED, auto-tuning amp)

NV E3X-NV21 (Water-resistant, red light source amplifier)

NVG E3X-NVG21 (Water-resistant, green light source amp)

VG E3X-VG (Mark sensing amplifier)

Application	Features	Appearance	Type	Detection distance	Min. detectable object (opaque)	Part number
Small objects; side view sensing	Suitable for detecting minute objects; 304 stainless steel needle tip; 25 mm bending radius; 0.5 mm ID fiber		A	45 mm	0.1 mm dia.	E32-T24 
			DAN-HS	55 mm	-----	
			DAN-LD	150 mm	-----	
			DAN-SM	130 mm	0.01 mm dia.	
			F	15 mm	0.3 mm dia.	
			H	90 mm	0.1 mm dia.	
			NH	90 mm	0.04 mm dia.	
			NHB	Contact Omron	Contact Omron	
			NM	45 mm	0.2 mm dia.	
			NT	48 mm	0.1 mm dia.	
			NV	48 mm	0.1 mm dia.	
			NVG	2 mm	0.2 mm dia.	
			VG	2 mm	0.2 mm dia.	

■ THROUGH-BEAM, HIGH TEMPERATURE TYPE

The table specifies the sensing characteristics of each fiber when used with the following amplifiers:

Legend:

A E3X-A (General purpose amplifier)

DAN-HS E3X-DAN (Digital amplifier- high speed mode)

DAN-LD E3X-DAN (Digital amplifier- long distance mode)

DAN-SM E3X-DAN (Digital amplifier- standard distance mode)

F E3X-F (High performance amplifier- high speed)

H E3X-H11 (High gain amplifier)

NM E3X-NM (4 channel auto-tuning amplifier)

NT E3X-NT (Auto-tuning amplifier: general purpose)

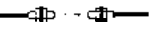
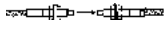
NH E3X-NH (High-precision, auto-tuning amplifier)

NHB E3X-NHB (High-precision, blue LED, auto-tuning amp)

NV E3X-NV21 (Water-resistant, red light source amplifier)

NVG E3X-NVG21 (Water-resistant, green light source amp)

VG E3X-VG (Mark sensing amplifier)

Application	Features	Appearance	Type	Detection distance	Min. detectable object (opaque)	Part number
Heat resistant	Resists 150°C; fiber sheath material: fluororesin . Operating ambient temperature: -40°C to 150°C (-40°F to 302°F); 1.5 mm ID fiber	 M4 threaded head x 17 mm (0.67 in) L 2 m (6.56 ft) length	A	200 mm	1.0 mm dia.	E32-T51 
			DAN-HS	280 mm	-----	
			DAN-LD	950 mm	-----	
			DAN-SM	760 mm	0.01 mm dia.	
			F	80 mm	1.0 mm dia.	
			H	400 mm	1.0 mm dia.	
			NH	400 mm	0.4 mm dia.	
			NHB	35 mm	0.4 mm dia.	
			NM	300 mm	0.4 mm dia.	
			NT	320 mm	0.3 mm dia.	
			NV	320 mm	0.3 mm dia.	
			NVG	20 mm	1.0 mm dia.	
			VG	20 mm	1.0 mm dia.	
Heat resistant	Resists 300°C, with spiral tube; high mechanical strength ; fiber sheath material: stainless steel . Operating ambient temperature: -40°C to 300°C (-40°F to 572°F); 1 mm ID fiber	 M4 threaded head x 20 mm (0.79 in) L 2 m (6.56 ft) length	A	150 (1,500*) mm	0.2 mm dia.	E32-T61
			DAN-HS	170 (1,300*) mm	-----	
			DAN-LD	570 (4,000**) mm	-----	
			DAN-SM	450 (3,400*) mm	0.01 mm dia.	
			F	60 (450*) mm	0.5 mm dia.	
			H	300 (3,000*) mm	0.3 mm dia.	
			NH	300 (3,000*) mm	0.12 mm dia.	
			NHB	Contact Omron	Contact Omron	
			NM	180 (2,000*) mm	0.2 mm dia.	
			NT	190 (2,100*) mm	0.15 mm dia.	
			NV	190 (2,100*) mm	0.15 mm dia.	
			NVG	18 (130*) mm	0.5 mm dia.	
			VG	18 (130*) mm	0.5 mm dia.	

Note: * Value in parentheses represents the sensing distance of the fiber when the E39-F1 lens is attached to its tip.

**Value in parentheses is based on each fiber having a cable length of 2,000 mm.

■ THROUGH-BEAM, SPECIAL PURPOSE TYPE

The table specifies the sensing characteristics of each fiber when used with the following amplifiers:

Legend:

A E3X-A (General purpose amplifier)

DAN-HS E3X-DAN (Digital amplifier- high speed mode)

DAN-LD E3X-DAN (Digital amplifier- long distance mode)

DAN-SM E3X-DAN (Digital amplifier- standard distance mode)

F E3X-F (High performance amplifier- high speed)

H E3X-H11 (High gain amplifier)

NM E3X-NM (4 channel auto-tuning amplifier)

NT E3X-NT (Auto-tuning amplifier: general purpose)

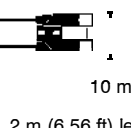
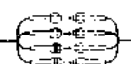
NH E3X-NH (High-precision, auto-tuning amplifier)

NHB E3X-NHB (High-precision, blue LED, auto-tuning amp)

NV E3X-NV21 (Water-resistant, red light source amplifier)

NVG E3X-NVG21 (Water-resistant, green light source amp)

VG E3X-VG (Mark sensing amplifier)

Application	Features	Appearance	Type	Detection distance	Min. detectable object (opaque)	Part number
Mark/edge detection	Ideal for mark sensing or belt alignment; no optical axis adjustment required; easy to mount; 1 mm ID fiber	 10 mm 2 m (6.56 ft) length	A	10 mm	0.5 mm dia.	E32-G14 
			DAN-HS	10 mm	-----	
			DAN-LD	10 mm	-----	
			DAN-SM	10 mm	0.16 mm dia.	
			F	10 mm	0.5 mm dia.	
			H	10 mm	Contact Omron	
			NH	10 mm	Contact Omron	
			NHB	Contact Omron	Contact Omron	
			NM	10 mm	0.7 mm dia.	
			NT	10 mm	0.4 mm dia.	
			NV	10 mm	0.4 mm dia.	
			NVG	10 mm	0.6 mm dia.	
			VG	10 mm	0.6 mm dia.	
					0.3 mm dia.	
Area sensing	Use with E3XA-CC4A for shape recognition; 0.5 mm ID fiber	 M3 threaded head x11 mm (0.43 in) L 2 m (6.56 ft) length	A	150 mm	0.3 mm dia.	E32-M21
			DAN-HS	250 mm	-----	
			DAN-LD	700 mm	-----	
			DAN-SM	610 mm	0.01 mm dia.	
			F	65 mm	0.3 mm dia.	
			H	300 mm	0.4 mm dia.	
			NH	300 mm	0.04 mm dia.	
			NHB	Contact Omron	Contact Omron	
			NM	200 mm	0.2 mm dia.	
			NT	210 mm	0.1 mm dia.	
			NV	210 mm	0.1 mm dia.	
			NVG	20 mm	0.3 mm dia.	
			VG	20 mm	0.3 mm dia.	
					0.3 mm dia.	

■ THROUGH-BEAM, SPECIAL PURPOSE TYPE (CONT.)

The table specifies the sensing characteristics of each fiber when used with the following amplifiers:

Legend:

A E3X-A (General purpose amplifier)

DAN-HS E3X-DAN (Digital amplifier- high speed mode)

DAN-LD E3X-DAN (Digital amplifier- long distance mode)

DAN-SM E3X-DAN (Digital amplifier- standard distance mode)

F E3X-F (High performance amplifier- high speed)

H E3X-H11 (High gain amplifier)

NM E3X-NM (4 channel auto-tuning amplifier)

NT E3X-NT (Auto-tuning amplifier: general purpose)

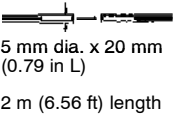
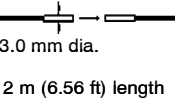
NH E3X-NH (High-precision, auto-tuning amplifier)

NHB E3X-NHB (High-precision, blue LED, auto-tuning amp)

NV E3X-NV21 (Water-resistant, red light source amplifier)

NVG E3X-NVG21 (Water-resistant, green light source amp)

VG E3X-VG (Mark sensing amplifier)

Application	Features	Appearance	Type	Detection distance	Min. detectable object (opaque)	Part number
Chemical resistant	Teflon-coated sensing head for harsh chemical environments. Operating ambient temperature: -30°C to 70°C (-22°F to 158°F); 1 mm ID fiber; 40 mm bending radius		A	800 mm	0.9 mm dia.	E32-T12F 
			DAN-HS	1,100 mm	-----	
			DAN-LD	3,800 mm	-----	
			DAN-SM	3,000 mm	0.01 mm dia.	
			F	300 mm	0.7 mm dia.	
			H	1,600 mm	0.7 mm dia.	
			NH	1,600 mm	0.12 mm dia.	
			NHB	220 mm	0.12 mm dia.	
			NM	1,000 mm	0.3 mm dia.	
			NT	1,070 mm	0.3 mm dia.	
			NV	1,070 mm	0.3 mm dia.	
			NVG	70 mm	0.6 mm dia.	
			VG	70 mm	0.6 mm dia.	
Wafer detection	Ultra narrow beam is ideal for sensing silicon wafers; 10 mm bending radius		A	Contact Omron	Contact Omron	E32-T22S 
			DAN-HS	700 mm	-----	
			DAN-LD	2,300 mm	-----	
			DAN-SM	1,900 mm	0.01 mm dia.	
			F	Contact Omron	Contact Omron	
			H	1,000 mm	Contact Omron	
			NH	1,000 mm	0.08 mm dia.	
			NHB	Contact Omron	Contact Omron	
			NM	650 mm	0.4 mm dia.	
			NT	650 mm	0.2 mm dia.	
			NV	650 mm	0.2 mm dia.	
			NVG	Contact Omron	Contact Omron	
			VG	Contact Omron	Contact Omron	