



Precision detection fiber sensor heads

Highest precision in design and manufacturing of the fibers and focal lenses ensure highest beam and spot accuracy allowing the detection of smallest objects and height differences of less than 100 µm.

- Coaxial fibers with focal lenses for spot diameters of 100 µm
- Through-beam models with highly focused beam and precise optical axis alignment
- Limited reflective models for height difference detection of less than 100 µm

Ordering information

Sensor type	Preferred usage	Size	Key feature	Sensing distance ^{*1} (in mm)		Order code
				E3X-HD	E3NX-FA	
	Precise thin object detection / accurate positioning	dia 3 mm	- High precision optical axis adjustment - Very focused beam	3800	4000	E32-T22S
		dia 2 mm		1780	2650	E32-A03 2M
				680	1000	E32-A04 2M
	Very small object detection	M6	–	600	900	E32-CC200 2M ^{*2}
		M3	Spot dia 0.5 mm	120	180	E32-EC31 2M
			Spot dia 0.2 mm	17		E32-EC41 1M + E39-F3B
			Spot dia 0.1 mm	7		E32-EC41 1M + E39-F3A-5
		dia 3 mm	–	300	450	E32-D32L
		dia 2 mm	–	150	220	E32-D32 2M ^{*2}
		M6	- 90° cable exit - Hexagonal back	350	520	E32-C11N 2M
				M3	130	190
		M3	90° cable exit	50	70	E32-C31N 2M
				Spot dia 0.5 to 3mm	8 - 25 adjustable	
Spot dia 0.5 to 1 mm	6 - 15 adjustable			E32-D32 2M + E39-F3A		
dia 2 mm ^{*3}	Spot dia 0.1 to 0.6 mm	6 - 15 adjustable		E32-C42 1M + E39-F3A		
	Precision height difference detection / flat surface detection Object detection in front of background	23 × 20 × 9 mm	–	26.5±11.5		E32-A09 2M
		16 × 18 × 4 mm	–	7.2±1.8		E32-L25L ^{*2}
		20 × 20 × 5 mm	–	3.3		E32-L25
		18 × 20 × 4 mm	Precise spot e.g. for detection of a flat / reflective surface	4±2		E32-L24L ^{*2}
		34 × 25 × 8 mm	High precision (detection accuracy 100 µm)	2.4		E32-EL24-1 2M
20.5 × 14 × 3.8 mm	Limited reflective wide beam e.g. for object detection on a flat surface	15		E32-L16-N 2M		

^{*1} Sensing distance measured in Standard Mode

^{*2} A high flex cable version is available. Add 'R' to the order code, e.g. E32-CC200R

^{*3} Outer diameter of the fiber. Outer diameter of the focal lens is dia 4mm (front part)