

PHOTOELECTRIC

THE SMALLEST ON THE MARKET

CYLINDRICAL SUBMINIATURE

KEY ADVANTAGES

- √ Ø 4 and M5 housings for target detection in limited spaces
- ✓ Rugged metal housing
- ✓ Accurate target detection due to cylindrical light beam
- √ Rugged sapphire glass or glass sensing face, scratch and chemically resistant
- ✓ Shock and vibration resistant due to fully vacuum potted electronics
- ✓ High system reserves (excess gain)



Precision processes



Electronics





INDUSTRIES

Precision engineering, semiconductors, electronics, vending machines

Housing size (s _n mm)	Ø 4 mm	M5
Diffuse	10 50	10 50
Through-beam		250

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M12 STANDARD SIZE FOR MULTIPLE USES **CYLINDRICAL MINIATURE**

KEY ADVANTAGES

- ✓ M12 miniature sensor series
- ✓ Rugged metal housing
- ✓ Accurate and speed independent target detection; response time 0.5 msec (laser: 0.1 msec)
- ✓ Shock and vibration resistant due to fully vacuum potted electronics
- ✓ High system reserves (excess gain)
- ✓ Easy adjustment (due to visible) red liaht)
- ✓ Laser sensor (protection class 2)



Packaging



Textiles





INDUSTRIES

Automotive manufacturing, machine tools, logistics, textiles, green energy, packaging, filling machines

Housing size (s _n mm)	M12	M12 Laser
Diffuse	300	-
Reflex	1500	-
Through-beam	10,000	50,000

SENSORS

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M18 STANDARD SIZE, INCLUDING 90° SENSING

CYLINDRICAL SMALL

KEY ADVANTAGES

- ✓ Small sensor M18
- ✓ Models for lateral sensing.
- ✓ Rugged metal housing
- ✓ Accurate and speedindependent target detection
- ✓ Shock and vibration resistant due to fully vacuum potted electronics
- ✓ High system reserves (excess gain)
- √ Easy adjustment (due to visible) red liaht)
- ✓ Laser sensor (protection class 2)



Textiles



Filling machines





INDUSTRIES

Automotive manufacturing, machine tools, logistics, textiles, green energy, packaging, filling machines, aerospace

Housing size (s _n mm)	M18	M18W (90°)	M18 Laser
Diffuse	40 600	40 600	40 250 / 60 600
Reflex	2000	2000	-
Through-beam	20,000	20,000	50,000
Background suppression	10 120	10 120	-

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5 X 7 MM STEEL HOUSING AND NARROW FOCUS CUBIC SUBMINIATURE

KEY ADVANTAGES

- ✓ Cubic 5 x 7 x 40 mm sensors
- ✓ Rugged metal housing
- ✓ Accurate target detection due to cylindrical light beam
- ✓ Rugged sapphire-glass sensing face, scratch and chemically resistant
- ✓ Shock and vibration resistant due to fully vacuum potted electronics
- ✓ High system reserves (excess gain)



Precision processes

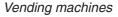




INDUSTRIES

Precision engineering, semiconductors, electronics, vending machines

Housing size (s _n mm)	□ 5 x 7 x 40 mm
Diffuse	20 / 50 / 90





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POWERFUL SENSORS IN 30 X 30 MM HOUSING

CUBIC MINIATURE

KEY ADVANTAGES

- ✓ Complete miniature sensor in rugged Crastin® housings
- ✓ Shock and vibration resistant due to fully vacuum potted electronics
- ✓ Diffuse sensors with precise background suppression
- √ Polarizing filter (reflex sensors)
- ✓ Changeover outputs
- ✓ Analog outputs



Conveyor solutions







INDUSTRIES

Packaging, logistics, filling machines

Housing size (s, mm)	□ 30 x 30 x 15 mm
Diffuse	600 / 1200
Reflex	2000 / 4000
Through-beam	6000 / 12,000
Background suppression	15 200
Analog output	10 100

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EXCELLENT VALUE FOR DEMANDING APPLICATIONS

CUBIC SMALL

KEY ADVANTAGES

- ✓ Small sensor series for peak performance
- ✓ Shock and vibration resistant due to fully vacuum potted electronics
- ✓ Ecolab tested and approved
- Sensing face of glass or coated plastic
- Fiber-optic amplifiers (blue light and high frequency)
- √ Color sensor



Sorting processes



Printing





INDUSTRIES

Logistics, packaging, filling machines, printing, quality control, sorting processes, food and tobacco, wood processing machines

Housing size (s _n mm)	☐ 40 x 40 x 19 mm	☐ 40 x 50 x 15 mm
Diffuse	2000	30 1200
Reflex	6000	4000
Through-beam	15,000	50,000
Background suppression	-	30 500
Color (diffuse)	-	30 40

SENSORS

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TOP QUALITY, RUGGED AND COST-EFFECTIVE **CUBIC COMPACT**

KEY ADVANTAGES

- ✓ Universal sensor series

 50 x 50 x 18 mm and

 65 x 83 x 25 mm for rough industrial applications
- ✓ Designed to cost
- √ AC/DC models
- √ Various connections possible



INDUSTRIES

Automotive manufacturing, machine tools, logistics, textiles, green energy, packaging, filling machines

Housing size (s _n mm)	☐ 50 x 50 x 18 mm	☐ 65 x 83 x 25 mm
Diffuse	300 / 800	2000
Reflex	4000	6000
Through-beam	15,000	
Background suppression	-	50 1000



Packaging



Logistics

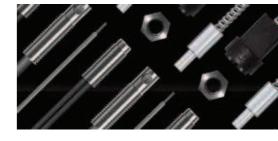


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FIBER-OPTIC AMPLIFIERS, **FIBERS**

HIGHLIGHTS

- ✓ Wide range of fiber-optic amplifiers, including IO-Link
- ✓ Fiber-optic solutions for the most demanding environments
- ✓ Wide range of synthetic and glass fibers available



Robotics



Printed circuit board production





INDUSTRIES

Precision engineering, printed circuit board production, electronics, handling systems, vending machines, special machinery

Housing size	_		
(s _n mm)	□ 30 x 30 x 15 mm	☐ 31 x 60 x 10 mm	☐ 40 x 40 x 19 mm
Fiber-optic amplifier	60 / 120	200	150
Fiber-optic amplifier blue light	-	100	-
Fiber-optic amplifier IO-Link	-	200	-