

Photoelectric Sensors Selection Guide



Specification	FA Series LED DC	FA Series Laser DC	SS Series DC	MS Series DC
Description	18mm plastic, DC	18mm plastic, DC	18mm plastic, DC	18mm plastic with background suppression, DC
Sensing Distances	Diffuse models: 1m Reflective models: 3m Through-beam: 20m	Diffuse models: 300mm Reflective models: 20m Through-beam: 50m	Diffuse models: 100mm, 200mm, 400mm Reflective models: 2m Through-beam models: 8m	Diffuse Reflection Standard distance models: 50mm Extended distance models: 100mm
Output State	Complementary N.O. / N.C.	Complementary N.O. / N.C.	N.O. / N.C. selectable	N.O. / N.C. selectable
Logic Output	NPN / PNP	NPN / PNP	NPN / PNP	NPN / PNP selectable
Connection Type	Axial cable / M12 connector	Axial cable / M12 connector	Axial cable / M12 connector	Axial cable / M12 connector
Supply Voltage	10-30VDC	10-30VDC	10-30VDC	10-30VDC
Switching Frequency	250Hz	Diffuse and reflective models: 800Hz Through-beam models: 1kHz	Diffuse and reflective models: 250Hz Through-beam models: 25Hz	80Hz
Rating	IEC IP67	IEC IP67	IEC IP67	IEC IP67
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Specification	FARS Series DC	MQ Series AC	MV Series AC	C5 Series DC	HE/HER Series DC
Description	18 mm diffuse with background suppression	18 mm diffuse with background suppression, 90° radial optic	18mm plastic, AC	5mm stainless steel, DC	8 mm Thru-Beam
Sensing Distances	30 to 130 mm	Standard distance models: 50mm Extended distance models: 100mm	Diffuse: 100mm, 200mm, 400mm Reflective: 3m Through-beam: 16m	Diffuse models: 50mm Through-beam models: 250mm	1000 mm / Ex. gain = 2
Output State	N.O./N.C. background suppression Light-on/Dark-on selectable Q/Qnot	N.O. / N.C. background suppression	N.O. / receiver dependent	N.O. / receiver dependent	N.O. / N.C.
Logic Output	NPN/PNP	Triac	Triac	NPN / PNP / N.O. only	NPN / PNP
Connection Type	Axial cable M12 quick disconnect	M12 quick disconnect	Axial cable M12 connector	Axial cable M8 connector	Axial cable M8 quick disconnect
Supply Voltage	10-30VDC	20-253VAC	20-253VAC	10-30VDC	10-30VDC
Switching Frequency	1 kHz	25Hz	25Hz	250Hz	10kHz
Rating	IEC IP67	IEC IP67	IEC IP67	IEC IP67	IEC IP67
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Specification	DM Series DC	C18 Series DC	FE Series DC	CX Series DC	QX Series DC
Description	12mm nickel-plated brass with Teach operating distance function, DC	18mm nickel-plated brass, DC	Mini-rectangular plastic, DC	Mini-rectangular plastic, DC	Rectangular plastic, DC
Sensing Distances	Diffuse models: 100mm, 300mm Reflective models: 2m Through-beam: 4m	Diffuse models w/ background suppression: 10 to 120mm Reflective models: 2m	Diffuse models: 800mm Reflective models: 4m Through-beam: 12m	Diffuse models: up to 600mm Diffuse models w/ background suppression: 15 to 150mm Reflective models: Up to 2m Through-beam models: Up to 6m	Diffuse models: 300mm Reflective models: 2.5m Through-beam models: 8m
Output State	Diffuse: N.O./N.C. selectable Polarized reflective: N.O./N.C. selectable Through-beam: N.O./N.C./ receiver dependent	N.O.	Light-on/Dark-on selectable	N.O.	N.O./receiver dependent
Logic Output	NPN / PNP	NPN/PNP/receiver dependent	NPN / PNP	NPN / PNP	NPN/PNP selectable/receiver dependent
Connection Type	Axial cable / M12 connector	Axial cable/M12 connector	Axial cable / M8 connector	Axial cable / M8 connector	Axial cable / M12 connector
Supply Voltage	10-30VDC	10-36VDC	10-30VDC	10-36VDC	10.8-30VDC
Switching Frequency	Diffuse and reflective models: 400Hz Through-beam models: 250Hz	Diffuse models w/ background suppression: 500Hz Reflective models: 1kHz	1kHz	Diffuse models: 1kHz Diffuse models w/ background suppression: 500Hz Reflective models: 1kHz Through-beam models: 1kHz	Diffuse and reflective models: 750Hz (Tr=0.5ms) Through-beam models: 500Hz (Tr=0.75ms)
Rating	IEC IP67	IEC IP67	IEC IP67	IEC IP65	IEC IP65
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Specification	FG Series AC/DC
Description	Rectangular plastic, AC/DC
Sensing Distances	Diffuse models: 550mm Reflective models: 9m Through-beam: 20m
Output State	N.O./N.C.
Logic Output	SPDT 3A relay
Connection Type	Axial cable
Supply Voltage	12-240VDC / 24-240VAC
Switching Frequency	33Hz
Rating	IEC IP67
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Specification	DFT Series Fiber Amp	DFP Series Fiber Amp	SSF Series Fiber Amp
Description	Compact rectangular plastic fiber optic amplifier with Teach operating distance function, DC	Compact rectangular plastic fiber optic amplifier, DC	18mm plastic fiber optic amplifier, DC
Sensing Distances	See Optical Fiber Tables following the amplifier's specifications	See Optical Fiber Tables following the amplifier's specifications	See Optical Fiber Tables following the amplifier's specifications
Output State	Light-on / Dark-on selectable	Light-on / Dark-on selectable	Light-on / Dark-on selectable
Logic Output	NPN / PNP	NPN / PNP	NPN / PNP
Connection Type	Axial cable / M8 connector	Axial cable / M8 connector	Axial cable / M12 connector
Supply Voltage	10-30VDC	10-30VDC	10 - 30 VDC
Switching Frequency	1.5kHz	1.5kHz	800Hz
Rating	IEC IP64	IEC IP64	IEC IP67
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Specification	CF Series Optical Fibers	BX Series Light Screen
Description	Cuttable diffuse reflection and through-beam fiber optic cables (2.2mm diameter)	Rectangular plastic high resolution area sensor, DC
Sensing Distances	Amplifier dependent. Refer to fiber optic tables for sensing distances.	Through-beam: 2m with 70mm height area
Output State	N/A	Selectable N.O / N.C.
Logic Output	N/A	NPN / PNP
Connection Type	N/A	M12 connector
Supply Voltage	N/A	12 - 24 VDC
Switching Frequency	N/A	-
Rating	IEC IP67	IEC IP67
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Custom Designed Sensors

AUTOMATIONDIRECT and Microdetectors (MD) have been partners in the sensor business for over 7 years. MD is located in Italy and has been in business for over 30 years. With high quality processes, including UL/CE design procedures, AUTOMATIONDIRECT and MD supply the North American market with industrial quality sensors at a very reasonable price. Based on this engineering quality and engineering design capabilities, MD and AUTOMATIONDIRECT are offering the opportunity for customized products for your special application needs. The MD Custom Design Service can add value to your products by implementing sensing technology ranging from optoelectronics to RFID.

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Micro Detectors

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