

## Sensors

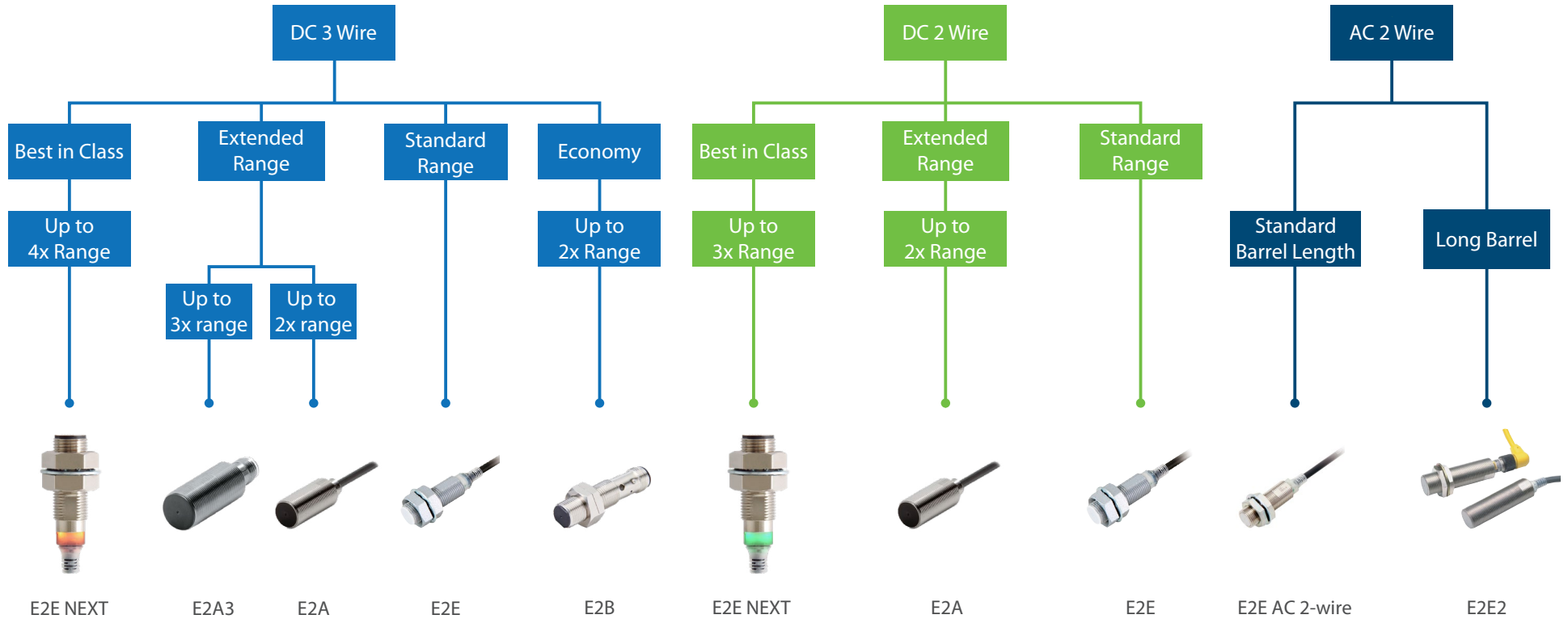
### Product selection guide



INTEGRATED | INTELLIGENT | INTERACTIVE

# General Purpose Inductive Proximity Sensors

What is supply type and wiring configuration?



Product Family	Main Features	Recommended Cordset Families
E2E NEXT	1x, 2x, 3x, & 4x for DC 3-wire models, 1x and 3x for DC 2-wire models, IP67, IP69K, IP67G, IO-Link for 3-wire PNP Models	Connector Terminal Box – XW3D Compatible with M12 plug connectors/cordsets M12 4-pin cordset – XS2 screw-type M12 4-pin cordset – XS5 (Smartclick, oil-resistive, fire retardant, spatter resistant models available) M12 field wireable connector XS2 M8 3-pin cordset –XS3 Compatible with M8 sensors only M8 4-pin cordset – XS3 Compatible with M8 sensors only
E2A3	3x sensing range, DC 3-wire, Long barrel, IP69K	
E2A	Up to 2x sensing range, DC 3-wire and 2-wire, Long barrel options, IP69K	
E2E	Standard range proximity sensor, DC 3-wire, DC 2-wire, AC 2-wire (short barrel), IP67	
E2B	Low price leader, 1x and 2x sensing range, DC 3-wire and DC 2-wire, Long barrel options, IP67	
E2E2	Long Barrel DC and AC 2-wire options, IP67	

# Suggested part numbers - General purpose proximity sensors

Family	Size	Sensing Distance	Connection Type	PNP Model	NPN Model	Suggested Accessories	
E2E NEXT DC 3-wire	M8	1.5 mm	M12 4pin	E2E-X1R5B1D8-M1	E2E-X1R5C18-M1	XS2FM4 - XS2 M12 4pin single-ended cordsets XS2WD- M12 4pin double-ended cordsets XW3D- Terminal connector block	
		2 mm		E2E-X2B1D8-M1	E2E-X2C18-M1		
		4 mm		E2E-X4B1D8-M1	E2E-X4C18-M1		
		1.5 mm	M8 3pin	<b>E2E-X1R5B1T8-M5</b>	<b>E2E-X1R5C18-M5</b>		XS3FM3- M8 3pin single-ended cordsets XS3W3- M8 3pin double-ended cordsets
		2 mm		<b>E2E-X2B1T8-M5</b>	<b>E2E-X2C18-M5</b>		
		4 mm		<b>E2E-X4B1T8-M5</b>	<b>E2E-X4C18-M5</b>		
	M12	2 mm	M12 4pin	<b>E2E-X2B1D12-M1</b>	<b>E2E-X2C112-M1</b>	XS2FM4 - XS2 M12 4pin single-ended cordsets XS2WD- M12 4pin double-ended cordsets XW3D- Terminal connector block	
		4 mm		<b>E2E-X4B1D12-M1</b>	<b>E2E-X4C112-M1</b>		
		9 mm		<b>E2E-X9B1D12-M1</b>	<b>E2E-X9C112-M1</b>		
	M18	5 mm		<b>E2E-X5B1D18-M1</b>	<b>E2E-X5C118-M1</b>		
		8 mm		<b>E2E-X8B1D18-M1</b>	<b>E2E-X8C118-M1</b>		
		14 mm		<b>E2E-X14B1D18-M1</b>	<b>E2E-X14C118-M1</b>		
	M30	10 mm		<b>E2E-X10B1D30-M1</b>	E2E-X10C130-M1		
		15 mm		<b>E2E-X15B1D30-M1</b>	<b>E2E-X15C130-M1</b>		
		23 mm		<b>E2E-X23B1D30-M1</b>	<b>E2E-X23C130-M1</b>		
	E2B DC 3-wire	M8	1 mm	M8 3pin	E2B-S08KS01-MC-B1	E2B-S08KS01-MC-C1	XS3FM3- M8 3pin single-ended cordsets XS3W3- M8 3pin double-ended cordsets
2 mm			E2B-S08KS02-MC-B1		E2B-S08KS02-MC-C1		
M12		2 mm	M12 4pin	E2B-M12KS02-M1-B1	E2B-M12KS02-M1-C1	XS2FM4 - XS2 M12 4pin single-ended cordsets XS2WD- M12 4pin double-ended cordsets XW3D- Terminal connector block	
		4 mm		E2B-M12KS04-M1-B1	E2B-M12KS04-M1-C1		
M18		5 mm		E2B-M18KS05-M1-B1	E2B-M18KS05-M1-C1		
		8 mm		E2B-M18KS08-M1-B1	E2B-M18KS08-M1-C1		
M30		10 mm		E2B-M30KS10-M1-B1	E2B-M30KS10-M1-C1		
		15 mm		E2B-M30KS15-M1-B1	E2B-M30KS15-M1-C1		
Family		Size	Sensing Distance	Part Number		Suggested Accessories	
E2E NEXT DC 2-wire <sup>2</sup>		M8	1.5 mm	E2E-X1R5D1-M1TGJ-T 0.3M		XS2FM4 - XS2 M12 4pin single-ended cordsets XS2WD- M12 4pin double-ended cordsets XW3D- Terminal connector block	
	3 mm		E2E-X3D18-M1TGJ-T 0.3M				
	M12	2.5 mm	E2E-X2R5D1-M1TGJ-T 0.3M				
		7 mm	E2E-X7D112-M1TGJ-T 0.3M				
	M18	5 mm	E2E-X5D1-M1TGJ-T 0.3M				
		11 mm	E2E-X11D118-M1TGJ-T 0.3M				
M30	20 mm	E2E-X20D130-M1TGJ-T 0.3M					

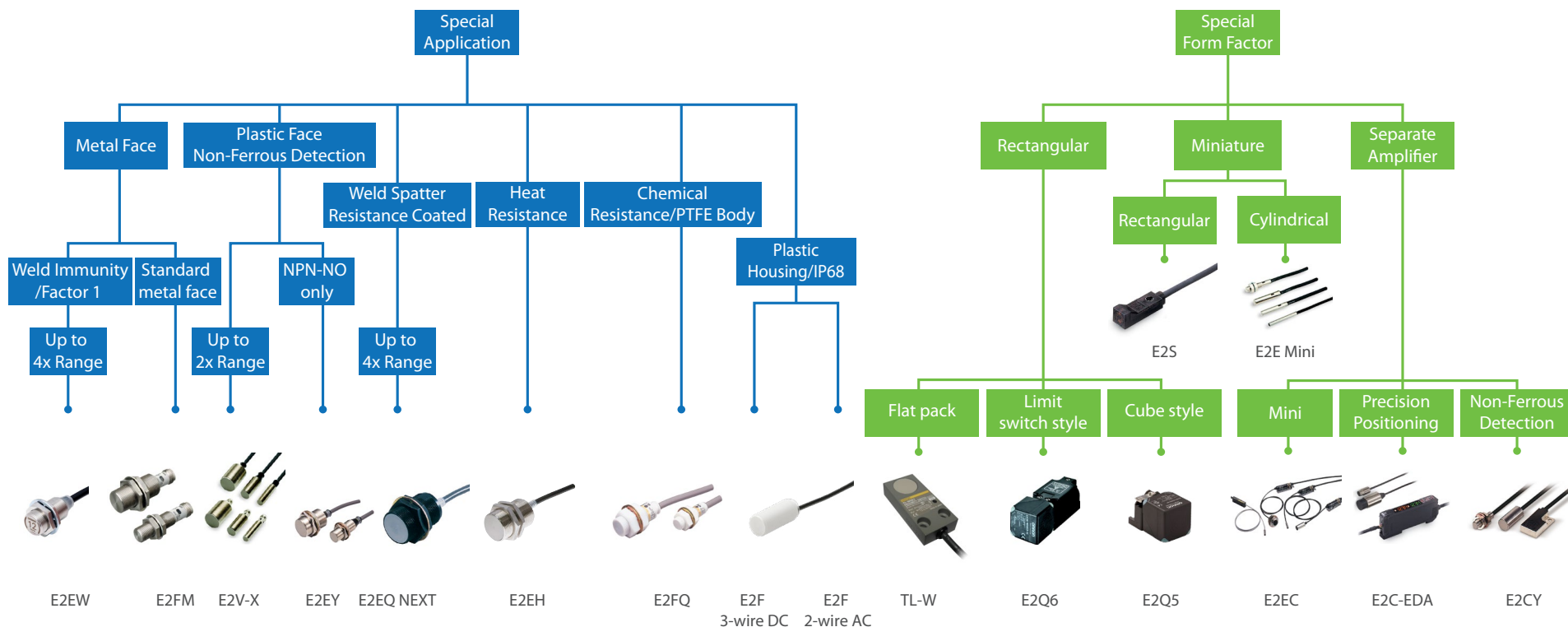
1: Options shown focus on shielded, normally open, M12 or M8 connections. Unshielded, normally closed, and other connection types are available.

2: Options shown focus on shielded, normally open, M12. Unshielded, normally closed, and other connection types are available. The E2E family offers DC 2-wire options.

Note: Bolded parts are preferred items

# Specialty Inductive Proximity Sensors

Special application or special form factor?



Product Family	Main Features	Recommended Cordset Families
E2EW	1x, 3x, & 4x for DC 3-wire models, 3x & 4x models have weld immunity, factor 1 sensing, and IO-Link, IP67, improved spatter resistance models available	Connector Terminal Box – XW3D Compatible with M12 plug connectors/ cordsets
E2EQ NEXT	Weld spatter resistant 1x, 2x, 3x, & 4x for DC 3-wire models, 1x and 3x for DC 2-wire models, IO-Link for 3-wire PNP Models	M12 4 pin cordset – XS2 screw-type, XS5 smartclick
E2EH	High heat resistance (120°C max), stainless steel body, IP69K, Ecolab,	M12 4pin field wireable connector XS2 screw-type connector, XS5 Smartclick connector
E2FQ	PTFE Body for chemical resistance, AC 2-wire, DC 2-wire, and DC 3-wire, shielded only, conforms to NEMA 1, 4X, 6, 12, and 13, IP67	M12 4-pin Y92E-S_PP – IP69K rated cordsets
E2S	Mini rectangular sensors, 5.5mm or 8mm width versions, top and front sensing surfaces, IP67	M12 4pin field wireable connector XS2 screw type connector, XS5 Smartclick connector
E2E Mini	Mini cylindrical proximity sensors in 3,5,4.5, 6.5mm dia, and M4 and M5 sizes, shielded/unshielded, IP67	M8 3pin cordset –XS3

Note: For product families not described in detail please click on the product images to visit our product pages.

# Suggested Part Numbers -Specialty proximity sensors

Family	Range	Size	Connection	Sensing Distance	PNP	NPN
E2EW	1x	M12	M12 pigtail	2 mm	E2EW-X2B112-M1TJ 0.3M	E2EW-X2C112-M1TJ 0.3M
		M18		5 mm	E2EW-X5B118-M1TJ 0.3M	E2EW-X5C118-M1TJ 0.3M
		M12	2m Cable	2 mm	E2EW-X2B112 2M	E2EW-X2C112 2M
		M18		5 mm	E2EW-X5B118 2M	E2EW-X5C118 2M
	4x	M12	M12 4pin	7 mm	E2EW-X7B1T12-M1	E2EW-X7C112-M1
				12 mm	E2EW-X12B1T18-M1	E2EW-X12C118-M1
				22 mm	E2EW-X22B1T30-M1	E2EW-X22C130-M1
		M18	M12 pigtail	7 mm	E2EW-X7B1T12-M1TJ 0.3M	E2EW-X7C112-M1TJ 0.3M
				12 mm	E2EW-X12B1T18-M1TJ 0.3M	E2EW-X12C118-M1TJ 0.3M
				22 mm	E2EW-X22B1T30-M1TJ 0.3M	E2EW-X22C130-M1TJ 0.3M
		M30	2m Cable	7 mm	E2EW-X7B1T12 2M	E2EW-X7C112 2M
				12 mm	E2EW-X12B1T18 2M	E2EW-X12C118 2M
	M30		22 mm	E2EW-X22B1T30 2M	E2EW-X22C130 2M	
	E2EW (Spatter resistant)	1x	M12	M12 pigtail	2 mm	E2EW-QX2B112-M1TJ 0.3M
M18			5 mm		E2EW-QX5B118-M1TJ 0.3M	E2EW-QX5C118-M1TJ 0.3M
4x		M12	M12 4pin	7 mm	E2EW-QX7B1T12-M1TJ 0.3M	E2EW-QX7C112-M1TJ 0.3M
				12 mm	E2EW-QX12B1T18-M1TJ 0.3M	E2EW-QX12C118-M1TJ 0.3M
				22 mm	E2EW-QX22B1T30-M1TJ 0.3M	E2EW-QX22C130-M1TJ 0.3M
		M18	M12 pigtail	7 mm	E2EW-QX7B1T12-M1	E2EW-QX7C112-M1
				12 mm	E2EW-QX12B1T18-M1	E2EW-QX12C118-M1
				22 mm	E2EW-QX22B1T30-M1	E2EW-QX22C130-M1
M30						

Family	Range	Size	Connection	Sensing Distance	PNP	NPN
E2S <sup>2</sup>	Pre-wired 1m	Front		1.6 mm	E2S-Q15 1M	E2S-Q13 1M
				2.5 mm	E2S-Q25 1M	E2S-Q23 1M
		Top		1.6 mm	E2S-W15 1M	E2S-W13 1M
				2.5 mm	E2S-W25 1M	E2S-W23 1M
	Connection	Shielding	Sensing Distance	Output Configuration	Part Number	
TL-W	Pre-wired 2m	Unshielded		1.5 mm	NPN	TL-W1R5MC1
				3 mm		TL-W3MC1
				5 mm		TL-W5MC1
				20 mm		TL-W20ME1
		Shielded		NPN	TL-W5E1	
				PNP	TL-W5F1	

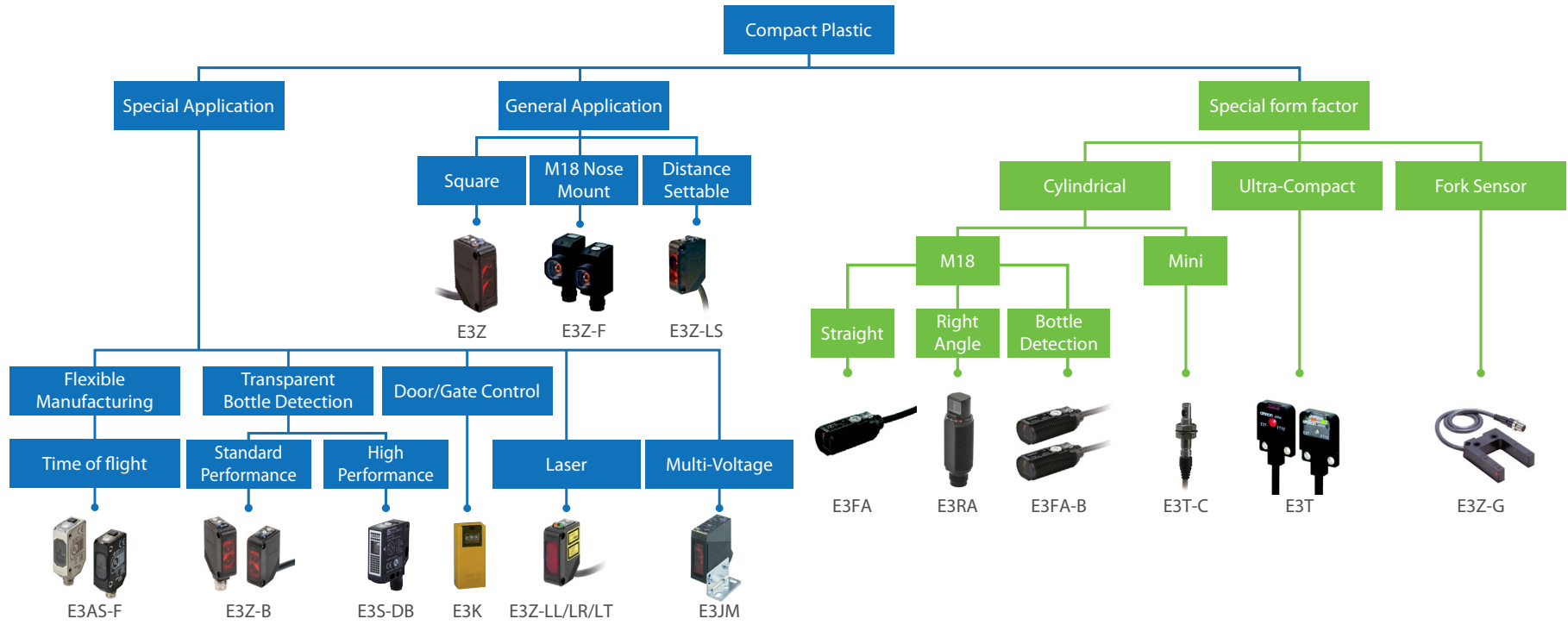
1: M1TJ 0.3M indicates pre-wired pigtail with an M12 connector.

2: DC 2-wire models available.

Note: Bolded parts are preferred items

# Plastic Photoelectric Sensors

Is this for general use, a special application, or is a special form factor required?



Product Family	Main Features	Recommended Cordset Families
E3Z	Compact square body photoelectric sensor, available sensing modes: through-beam (30m), retro-reflective (with or without MSR function, 4m or 2M, respectively), diffuse reflective (up to 1m), distance settable (E3Z-LS – up to 200mm), Red LED and IR options available, IP67	M8 4-pin cordsets – XS3
E3Z-F	Square body M18 nose mount photoelectric sensor, available sensing modes: through-beam (20m), retro-reflective with MSR (4M), diffuse reflective (up to 1m), Red LED and IR options available, IP69K	M12 4-pin cordsets – XS2 screw-type, XS5 Smartclick
E3AS-F	Plastic or stainless steel body time-of-flight photoelectric sensor, up to 1.5m range, IR laser light source, background or object teach function, IO-Link, IP67, IP67G (oil resistance), IP69K, Ecolab	Connector terminal box – XW3D –applicable with M12 pigtail versions M8 4-pin – XS3
E3Z-B	E3Z retro-reflective variant specifically for transparent bottle detection, sensing up to 2m, IP67	M8 4-pin cordset – XS3
E3FA/RA	M18 cylindrical photoelectric sensor, straight (E3FA) and right-angle (E3RA) detection, available sensing modes: through-beam (up to 20m), retro-reflective (up to 4m), diffuse reflective (up to 1m), distances may vary depending on straight or right-angle model, Red LED and IR options available, IP67, IP69K	M12 4-pin cordsets –XS2 screw-type, XS5 Smartclick, Y92E-S_PP IP69K M12 Field wireable connector - XS2 screw-type, XS5 Smartclick
E3T/E3T-C	Rectangular/cylindrical photoelectric sensors, rectangular: side view model: 18.5 H x 7 W x 9.5 D mm flat model: 19 H x 12 W x 3.5 D mm, cylindrical: M5 and M6. sensing modes, through-beam (up to 2M), retro-reflective (up to 200mm), diffuse reflective (up to 30mm), rectangular-IP67, cylindrical-IP65	M12 4-pin field wireable connector XS2 screw type connector, XS5 Smartclick connector

Note: For product families not described in detail please click on the product images to visit our product pages.

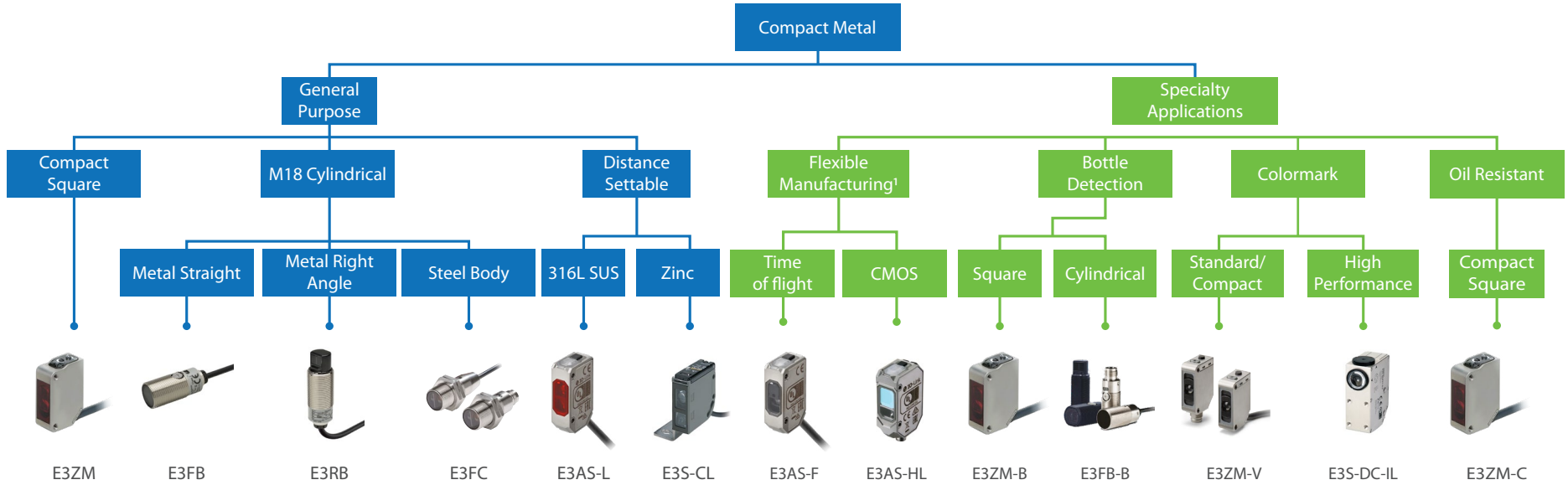
# Suggested Part Numbers -Plastic body photoelectric sensors

Family	Sensor Type	Sensor Distance	Connection	PNP Model	NPN Model	
E3Z <sup>1</sup>	Through-beam (emitter+receiver)	10m (Red LED)	M8 Connector (4 pins)	<b>E3Z-T86A</b>	E3Z-T66A	
		15m (Infrared LED)	2m Cable	<b>E3Z-T81</b>	<b>E3Z-T61</b>	
	M8 Connector (4 pins)		<b>E3Z-T86</b>	<b>E3Z-T66</b>		
	Retro-reflective with MSR function	0.1 to 4m (Red LED)	2m Cable	<b>E3Z-R81</b>	<b>E3Z-R61</b>	
			M8 Connector (4 pins)	<b>E3Z-R86</b>	<b>E3Z-R66</b>	
	Diffuse-reflective	1m (Infrared LED)	2m Cable	<b>E3Z-D82</b>	<b>E3Z-D62</b>	
			M8 Connector (4 pins)	<b>E3Z-D87</b>	<b>E3Z-D67</b>	
	Background suppression	20 to 200mm (Red LED)	2m Cable	<b>E3Z-LS81</b>	<b>E3Z-LS61</b>	
			M8 Connector (4 pins)	<b>E3Z-LS86</b>	<b>E3Z-LS66</b>	
	E3Z-F	Through-beam (emitter+receiver) <sup>2</sup>	20 m	2m Cable	E3Z-FTP11 2M	E3Z-FTN11 2M
M12 Connector (4 pins)				<b>E3Z-FTP21</b>	E3Z-FTN21	
Retro-reflective with MSR Function		0.1 to 4m	2m Cable	E3Z-FRP11 2M	E3Z-FRN11 2M	
			M12 Connector (4 pins)	<b>E3Z-FRP21</b>	<b>E3Z-FRN21</b>	
Diffuse-reflective <sup>1</sup>		100 mm	2m Cable	E3Z-FDP11 2M	E3Z-FDN11 2M	
			M12 Connector (4 pins)	<b>E3Z-FDP21</b>	E3Z-FDN21	
		300 mm	2m Cable	E3Z-FDP12 2M	E3Z-FDN12 2M	
			M12 Connector (4 pins)	<b>E3Z-FDP22</b>	E3Z-FDN22	
		500 mm	2m Cable	E3Z-FDP13 2M	E3Z-FDN13 2M	
			M12 Connector (4 pins)	<b>E3Z-FDP23</b>	E3Z-FDN23	
		1 m	2m Cable	E3Z-FDP14 2M	E3Z-FDN14 2M	
			M12 Connector (4 pins)	<b>E3Z-FDP24</b>	E3Z-FDN24	
E3FA		Through-beam (emitter + receiver) <sup>1</sup>	20m (Red LED)	2m Cable	E3FA-TP11 2M	<b>E3FA-TN11 2M</b>
				M12 Connector (4 pins)	E3FA-TP21	<b>E3FA-TN21</b>
	Retro-reflective with MSR function	0.1 to 4m (Red LED)	2m Cable	<b>E3FA-RP11 2M</b>	<b>E3FA-RN11 2M</b>	
			M12 Connector (4 pins)	<b>E3FA-RP21</b>	<b>E3FA-RN21</b>	
	Diffuse-reflective <sup>2</sup>	100mm (Red LED)	2m Cable	<b>E3FA-DP11 2M</b>	<b>E3FA-DN11 2M</b>	
			M12 Connector (4 pins)	<b>E3FA-DP21</b>	<b>E3FA-DN21</b>	
		300mm (Red LED)	2m Cable	<b>E3FA-DP12 2M</b>	<b>E3FA-DN12 2M</b>	
			M12 Connector (4 pins)	<b>E3FA-DP22</b>	<b>E3FA-DN22</b>	
		1m (Red LED)	2m Cable	<b>E3FA-DP13 2M</b>	E3FA-DN13 2M	
			M12 Connector (4 pins)	<b>E3FA-DP23</b>	<b>E3FA-DN23</b>	
		<b>Sensor Type</b>	<b>Sensing Distance</b>	<b>Body Material</b>	<b>PNP Model</b>	<b>NPN Model</b>
	E3AS-F <sup>3</sup>	Time of Flight (TOF)	50 - 1500 mm	Stainless Steel	<b>E3AS-F1500IMT-M1TJ 0.3M</b>	<b>E3AS-F1500IMN-M1TJ 0.3M</b>
Plastic				E3AS-F1500IPT-M1TJ 0.3M	<b>E3AS-F1500IPN-M1TJ 0.3M</b>	
50 - 1000 mm			Stainless Steel	E3AS-F1000IMT-M1TJ 0.3M	E3AS-F1000IMN-M1TJ 0.3M	
			Plastic	E3AS-F1000IPT-M1TJ 0.3M	E3AS-F1000IPN-M1TJ 0.3M	

1: Infrared models are available for Through beam and retroreflective modes. 2: Infrared models are available for Through beam and retroreflective modes. 3: E3AS-F sensors are available with pre-wired cables or with M8 connectors.

# Metal Photoelectric Sensors

Is this a general or special application?



Product Family	Main Features	Recommended Cordset Families
E3ZM	316L SUS compact square photoelectric sensor, sensing modes: through-beam (up to 15m), retro reflective (4m), diffuse reflective (1m), background suppression (up to 200mm), Red LED and IR light source options, IP69K, Ecolab	M8 4-pin cordsets – XS3
E3FB/RB	M18 cylindrical nickel plated brass (E3FB/RB)/stainless steel (E3FC), E3FB/RB includes straight and right angle models, sensing modes: Through beam (20m), retro-reflective (4m), diffuse reflective (1m), BGS (200mm), both metal options are IP69K	M12 4-pin cordsets –XS2 screw-type, XS5 Smartclick, Y92E-S_PP IP69K rated
E3FC		M12 Field wireable connector - XS2 screw-type, XS5 Smartclick
E3AS-L	316L SUS compact square background suppression sensor, improved differential travel and black/white error, includes Omron's GIGA ray technology to thin part detection, 80mm and 200mm versions, IP67, IP67G, IP69K, Ecolab	Connector terminal box – XW3D –applicable with M12 pigtail versions M8 4-pin – XS3, Y92E-S_PP IP69K
E3AS-HL	316L SUS CMOS photoelectric sensor for small, thin or variable part detection, 500mm and 150mm options, spot or line beam versions, IP67, IP67G, IP69K, Ecolab	Connector terminal box – XW3D –applicable with M12 pigtail versions M8 4-pin – XS3, Y92E-S_PP IP69K M12 4-pin cordsets - XS2, XS5 Smartclick, Y92E-S PP IP69K rated
E3ZM-V	E3ZM colormark variant for colormark detection, same familiar form factor of E3ZM, white LED light source and RGB , 12 mm sensing distance, IP69K, Ecolab	M8 4-pin cordsets – XS3 M8 4-pin or M12 4-pin Y92E-S_PP IP69K rated
E3S-DC-IL	SUS colormark sensor, 9x improved signal:noise ratio compared E3ZM-V, white LED light source, 10mm sensing distance, IO-Link capable, IP67	M12 4-pin cordsets- XS2 screw-type, XS5 Smartclick
E3ZM-C	Oil resistant sensing options in E3ZM body, E3ZM-C sensing modes and distances are equivalent to E3ZM. IP67 and IP69K.	M8 4-pin cordsets (E3ZM-C) – XS3, Y92E-S_PP IP69K



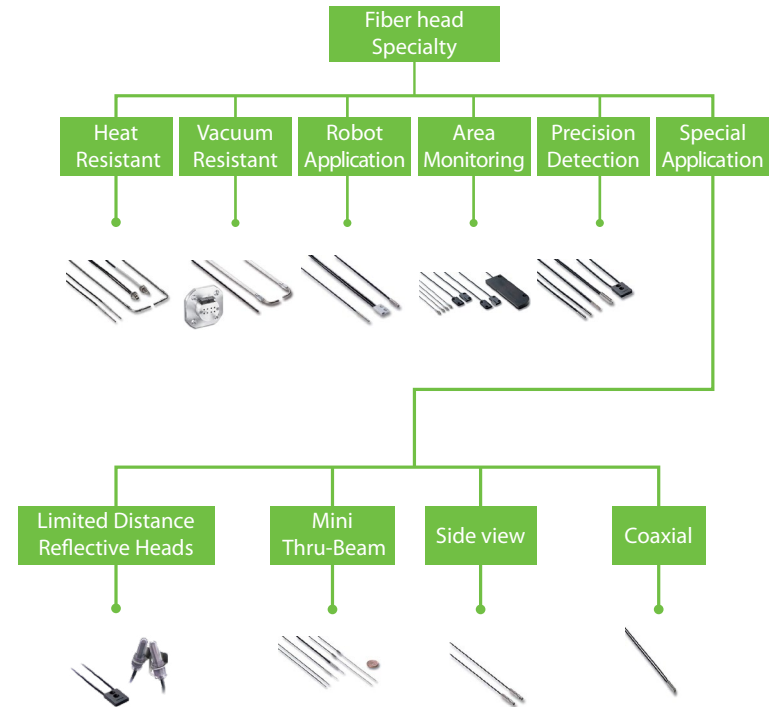
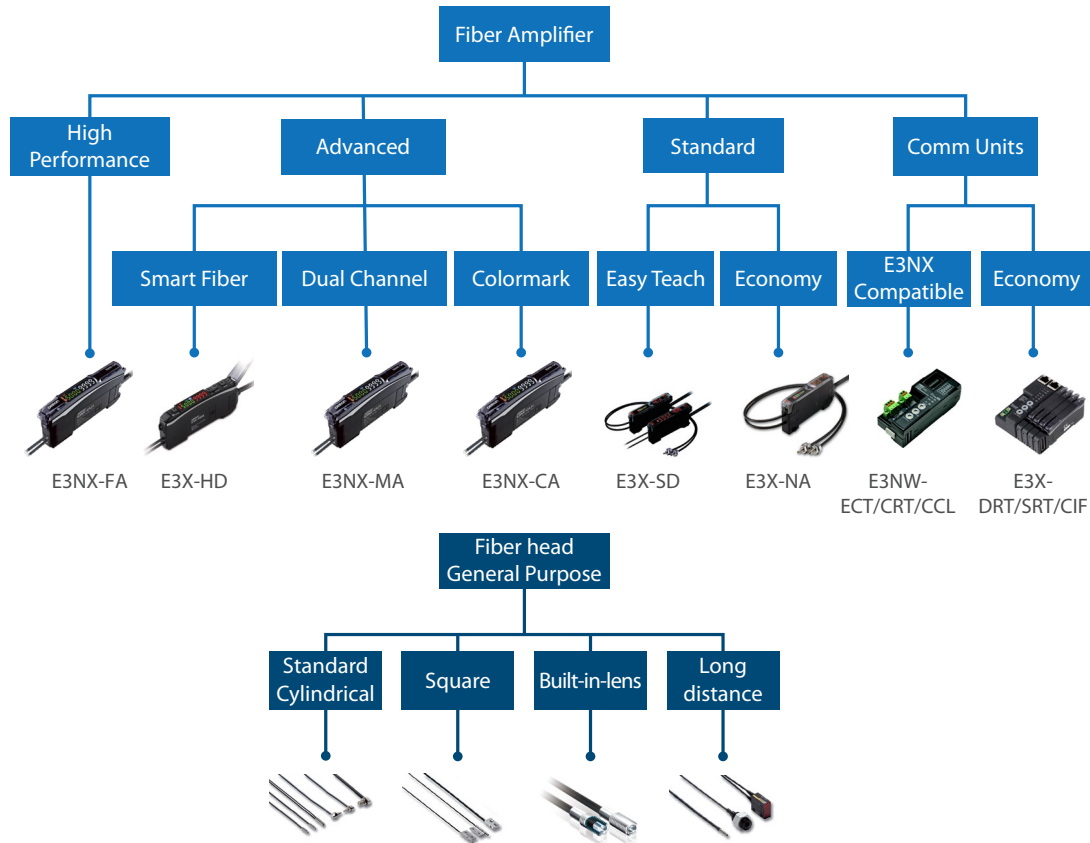
# Suggested Part Numbers -Metal body photoelectric sensors

Family <sup>1</sup>	Sensor Type	Sensor Distance	Connection	PNP Model	NPN Model
E3AS-HL	CMOS Spot Beam	500 mm	2m Cable	<b>E3AS-HL500MT 2M</b>	<b>E3AS-HL500MN 2M</b>
			M12 Pigtail	<b>E3AS-HL500MT-M1TJ 0.3M</b>	<b>E3AS-HL500MN-M1TJ 0.3M</b>
			M8, 4pin Connector	<b>E3AS-HL500MT M3</b>	<b>E3AS-HL500MN M3</b>
	CMOS Line Beam	500 mm	M12 Pigtail	<b>E3AS-HL500LMT-M1TJ 0.3M</b>	<b>E3AS-HL500LMN-M1TJ 0.3M</b>
			M8, 4pin Connector	<b>E3AS-HL500LMT M3</b>	<b>E3AS-HL500LMN M3</b>
	CMOS Spot Beam	150 mm	M12 Pigtail	<b>E3AS-HL150MT-M1TJ 0.3M</b>	<b>E3AS-HL150MN-M1TJ 0.3M</b>
			M8, 4pin Connector	<b>E3AS-HL150MT M3</b>	<b>E3AS-HL150MN M3</b>
	CMOS Line Beam	150 mm	M12 Pigtail	<b>E3AS-HL150LMT-M1TJ 0.3M</b>	<b>E3AS-HL150LMN-M1TJ 0.3M</b>
M8, 4pin Connector			<b>E3AS-HL150LMT M3</b>	<b>E3AS-HL150LMN M3</b>	
E3AS-F <sup>3</sup>	Time of Flight (TOF)	50 - 1500 mm	Stainless Steel	<b>E3AS-F1500IMT-M1TJ 0.3M</b>	<b>E3AS-F1500IMN-M1TJ 0.3M</b>
		50 - 1000 mm	Plastic	E3AS-F1500IPT-M1TJ 0.3M	<b>E3AS-F1500IPN-M1TJ 0.3M</b>
	50 - 1000 mm		Stainless Steel	E3AS-F1000IMT-M1TJ 0.3M	E3AS-F1000IMN-M1TJ 0.3M
		50 - 1000 mm	Plastic	E3AS-F1000IPT-M1TJ 0.3M	E3AS-F1000IPN-M1TJ 0.3M
E3AS-L	Background suppression		200 mm	2m Cable	<b>E3AS-L200MD 2M</b>
		M12 Pigtail		<b>E3AS-L200MD-M1TJ 0.3M</b>	<b>E3AS-L200MN-M1TJ 0.3M</b>
		M8, 4pin Connector		<b>E3AS-L200MD-M3</b>	E3AS-L200MN-M3
	80 mm	2m Cable	<b>E3AS-L80MD 2M</b>	<b>E3AS-L80MN 2M</b>	
		M12 Pigtail	<b>E3AS-L80MD-M1TJ 0.3M</b>	<b>E3AS-L80MN-M1TJ 0.3M</b>	
		M8, 4pin Connector	<b>E3AS-L80MD M3</b>	<b>E3AS-L80MN M3</b>	
E3ZM	Through-beam (emitter+receiver)	15 m	2m Cable	<b>E3ZM-T81 2M</b>	<b>E3ZM-T61 2M</b>
	Retro-reflective with MSR function	4 m	M8, 4pin Connector	E3ZM-T66	E3ZM-T86
			M8, 4pin Connector	<b>E3ZM-R86</b>	E3ZM-R66
	Diffuse-reflective	1 m	2m Cable	<b>E3ZM-D82 2M</b>	<b>E3ZM-D62 2M</b>
			M8, 4pin Connector	<b>E3ZM-D87</b>	E3ZM-D67
	Background suppression	10-100mm	M8, 4pin Connector	<b>E3ZM-LS86H</b>	E3ZM-LS66H
10-200mm		E3ZM-LS89H		E3ZM-LS69H	
E3FB	Through-beam (emitter+receiver)	20 m	M12 Connector	<b>E3FB-TP21</b>	<b>E3FB-TN21</b>
	Retro-reflective with MSR function	0.1- 4 m		<b>E3FB-RP11</b>	<b>E3FB-RN11</b>
	Diffuse-reflective	100 mm		<b>E3FB-DP21</b>	E3FB-DN21
		300 mm		<b>E3FB-DP22</b>	<b>E3FB-DN22</b>
		1 m		<b>E3FB-DP23</b>	E3FB-DN23
	Background suppression	100 mm		<b>E3FB-LP21</b>	E3FB-LN21
<b>Colormark</b>					
Family <sup>2</sup>	Sensor Type	Sensor Distance	Connection	PNP Model	NPN Model
E3ZM-V	Colormark Sensor (Diffuse)	12 ± 2 mm	2m Cable	<b>E3ZM-V81 2M</b>	<b>E3ZM-V61 2M</b>
E3S-DC-IL	Colormark Sensor (Diffuse, high signal:noise)	10 ± 3 mm	M12 Connector	<b>E3S-DCP21-IL3</b>	E3S-DCN21

1: transparent bottle, limited diffuse, and coaxial retroreflective options are available as well as pre-wired options. 2: M8 Connector options for the E3ZM-V are available.

# Fiber Optic Sensors

## Fiber amplifier or head<sup>1</sup>?



Fiber Amplifier	Main Features	Communication Capabilities
E3NX-FA	1 and 2 output versions, Red LED and IR light sources, Analog amplifier options, response speed up to 30us, network communication options	Compatible with E3NW communications module which can support up to 30 E3NX-FA fiber amplifiers. Communication with EtherCAT, CompoNet, CC-Link
E3X-HD	1 output only, Red LED light source, up to 50us response time, network communication options	Compatible with E3X communications module which can support up to 30 E3X-HD (ECAT) fiber amplifiers. Communication with EtherCAT, CompoNet, DeviceNet, Serial
E3NX-MA	Dual channel fiber amplifier, Red LED light source, up to 100us response time, network communication options	Compatible with E3NW communications module which can support up to 30 E3NX-MA (ECAT) fiber amplifiers. Communication with EtherCAT, CompoNet, CC-Link
E3NX-CA	Colormark fiber amplifier, high signal:noise ratio, 1 and 2 output versions, up to 50us response time, network communication options	Compatible with E3NW communications module which can support up to 30 E3NX-CA fiber amplifiers. Communication with EtherCAT, CompoNet, CC-Link
E3X-SD/NA	Base model fiber amplifiers, bar or digital read out,	N/A

<sup>1</sup>: Omron offers a wide variety of sensing heads for different sensing modes. Please refer to our web pages to learn more about available sensor heads.

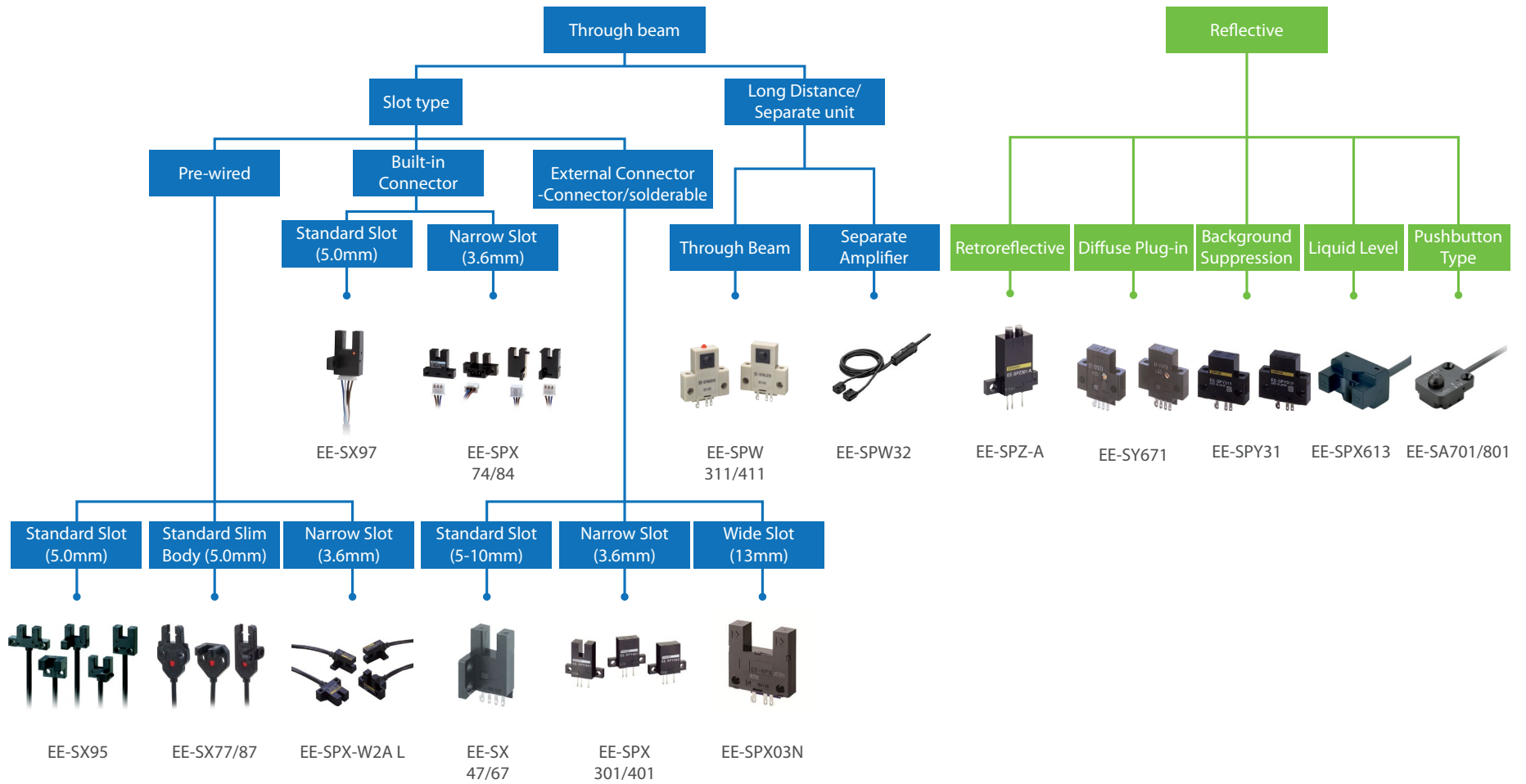
# Suggested Part Numbers<sup>1</sup> -Fiber optic sensors

E3NX-FA	Setting/Function	Inputs/Outputs	Connection	PNP Model	NPN Model	Communications Module
	Standard Models	1 output	2 m	E3NX-FA41 2M	E3NX-FA11 2M	E3NW-ECT, E3NW-CCL, E3NW-CRT, E3NW-DS
	Infrared Models	1 output		E3NX-FAH41 2M	E3NX-FAH11 2M	
	Advanced Models	2 outputs + 1 input		E3NX-FA51 2M	E3NX-FA21 2M	
Analog Output Models	2 outputs	E3NX-FA41AN 2M		E3NX-FA11AN 2M		
E3X-HD	Advanced digital amplifier	1 output	2m Cable	<b>E3X-HD41 2M</b>	<b>E3X-HD11 2M</b>	E3X-ECT; E3X-CRT; E3X-DRT21; E3XCIF11
			M8 Connector	<b>E3X-HD44</b>	<b>E3X-HD14</b>	
E3X-NA/SD	Potentiometer and Bargraph	1 output	2m Cable	<b>E3X-NA41</b>	<b>E3X-NA11</b>	N/A
	Teach Button and digital display			<b>E3X-SD51 2M</b>	<b>E3X-SD21</b>	
E3NX-CA	Model	Inputs/Outputs	Connection	PNP Model	NPN Model	Communications Module
	Standard Model	1 output	2m Cable	<b>E3NX-CA41 2M</b>	<b>E3NX-CA11 2M</b>	E3NW-ECT, E3NW-CCL, E3NW-CRT, E3NW-DS
	Advanced Model	2 outputs / 1 input		<b>E3NX-CA51 2M</b>	E3NX-CA21 2M	
Select Stock Fibers <sup>2</sup>	Fiber Type	Part Number	Description			
	Threaded	E32-C31N 2M	Coaxial reflective, nut type head with M3 threaded barrel, R4 bend radius			
		E32-C91N 2M	Coaxial reflective, nut type head with M6 threaded barrel, R4 bend radius			
		E32-C31 2M	Coaxial reflective, M3 threaded barrel, R1 bend radius			
		E32-LD11 2M	Coaxial reflective, M6 threaded barrel, R25 bend radius			
	Cylindrical	E32-T22B	Through-beam, 1.5 mm dia., R4 bend radius			
		E32-T12R	Through-beam, 3.0 mm dia., R1 bend radius			
		E32-D22R	Reflective, 3.0 mm dia., R1 bend radius			
		E32-D32L	Coaxial reflective, 3.0 mm dia., R25 bend radius			
		E32-D33	Reflective, 3.0 mm to 0.8 mm dia., R25 bend radius			
	Heat Resistant	E32-T51	Through-beam, M4 threaded barrel, R2 bend radius, heat resistant to 100C			
		E32-T61-S	Through-beam, M4 threaded barrel, R25 bend radius, heat resistant to 350C			
	Bend Resistant	E32-D21	Coaxial reflective, M3 barrel, R4 bend radius			
		E32-D11	Coaxial reflective, M6 barrel, R4 bend radius			
Lens	Part Number	Description	Spot size			
	E39-F1	Aperture Angle 12°	0.1 mm dia			
	E39-F2	Aperture Angle 60°	0.1 mm dia			
	E39-F3B	Lens for E32-C41, E32-21, E32-C31N	0.2 - 0.5mm dia			
Accessories	Part Number	Description				
	E39-F9	Thin fiber attachment				
	E39-F4	Fiber Cutter				

1: Note: Omron makes hundreds of different fibers this is only a small sampling  
 2: Standard fiber length is 2M.

# Photomicrosensors

Is this a through beam or reflective type application?

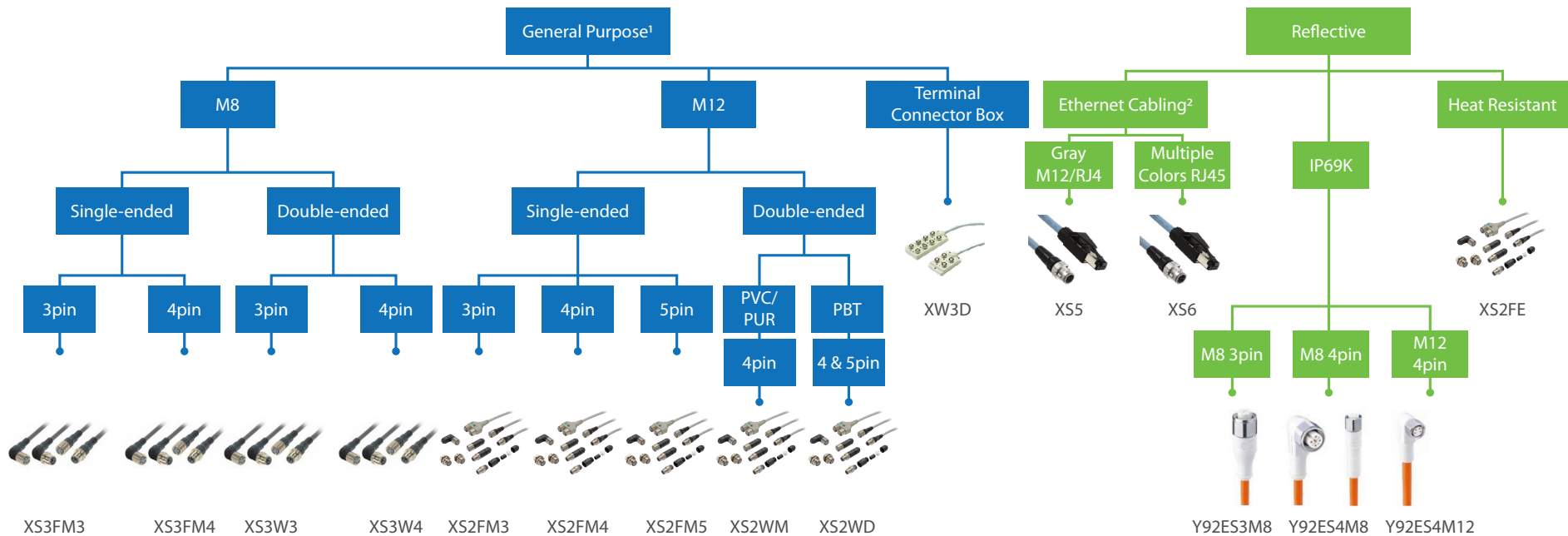


# Suggested Part Numbers -photomicrosensors

Family	Sensor Type	Form Factor	Connection	Description	PNP Model	NPN Model
EE-SX67	Through-Beam	Slot Type	Connector	Standard	EE-SX670	EE-SX670P
					EE-SX670R	EE-SX670A
				L-shaped	EE-SX671P	EE-SX671
					EE-SX671R	EE-SX671A
				T-shaped	EE-SX672P	EE-SX672
					EE-SX672R	EE-SX672A
EE-SX95		Slot Type	Pre-wired	U-shaped	EE-SX954P-W 1M	EE-SX954-W 1M
					-	EE-SX954-R 1M
				R-shaped	EE-SX953P-W 1M	EE-SX953-W 1M
					-	EE-SX953-R 1M
				F-shaped	EE-SX952P-W 1M	EE-SX952-W 1M
					-	EE-SX952-R 1M
L-shaped	EE-SX951P-W 1M	EE-SX951-W 1M				
	-	EE-SX951-R 1M				
EE-SX77/87	Slim Compact	Pre-wired		Standard Dark-ON	EE-SX770P	EE-SX770
					EE-SX770R	EE-SX770A
				Standard Light-ON	EE-SX870P	EE-SX870
					EE-SX870R	EE-SX870A
			L-shaped Dark-ON	EE-SX771P	EE-SX771	
				EE-SX771A	EE-SX771R	
			L-shaped Light-ON	EE-SX871P	EE-SX871	
				EE-SX871R	EE-SX871A	
			T-shaped Dark-ON	EE-SX772P	EE-SX772	
				EE-SX772R	EE-SX772A	
			T Light-ON	EE-SX872P	EE-SX872	
				EE-SX872A	EE-SX872R	
Family	Description	Part Number	Compatible Sensors			
EE-CN	Connector	EE-1001	EE-SX67/47; EE-SY67, EE-SPY31/41, EE-SPX303/403, EE-SPW311/411			
	Connector with 1m cable	EE-1006				
	Connector w/ locking mechanism	EE-1009				
	Connector with 1m cable	EE-1003				

# Cordsets and Connectors

Is this a general or special application?



# Suggested Part Numbers -Cordsets

Material	Connector Size	No. of Pins	Length	Straight Connector	Right Angle Connector	
PUR	M8	3 Pins	2 m	XS3F-M8PUR3S2M	XS3F-M8PUR3A2M	
			5 m	<b>XS3F-M8PUR3S5M</b>	<b>XS3F-M8PUR3A5M</b>	
			10 m	<b>XS3F-M8PUR3S10M</b>	<b>XS3F-M8PUR3A10M</b>	
		4 Pins	2 m	XS3F-M8PUR4S2M	XS3F-M8PUR4A2M	
			5 m	<b>XS3F-M8PUR4S5M</b>	<b>XS3F-M8PUR4A5M</b>	
			10 m	<b>XS3F-M8PUR4S10M</b>	<b>XS3F-M8PUR4A10M</b>	
	M12	4 Pins	2 m	XS2F-M12PUR4S2M	XS2F-M12PUR4A2M	
			5 m	<b>XS2F-M12PUR4S5M</b>	<b>XS2F-M12PUR4A5M</b>	
			10 m	<b>XS2F-M12PUR4S10M</b>	<b>XS2F-M12PUR4A10M</b>	
	PVC	M8	3 Pins	2 m	XS3F-M8PVC3S2M	XS3F-M8PVC3A2M
				5 m	<b>XS3F-M8PVC3S5M</b>	<b>XS3F-M8PVC3A5M</b>
				10 m	<b>XS3F-M8PVC3S10M</b>	<b>XS3F-M8PVC3A10M</b>
4 Pins			2 m	<b>XS3F-M8PVC4S2M</b>	XS3F-M8PVC4A2M	
			5 m	<b>XS3F-M8PVC4S5M</b>	<b>XS3F-M8PVC4A5M</b>	
			10 m	<b>XS3F-M8PVC4S10M</b>	<b>XS3F-M8PVC4A10M</b>	
M12		3 Pins	2 m	XS2F-M12PVC3S2M	XS2F-M12PVC3A2M	
			5 m	XS2F-M12PVC3S5M	XS2F-M12PVC3A5M	
			10 m	XS2F-M12PVC3S10M	XS2F-M12PVC3A10M	
		4 Pins	2 m	<b>XS2F-M12PVC4S2M</b>	<b>XS2F-M12PVC4A2M</b>	
			5 m	<b>XS2F-M12PVC4S5M</b>	<b>XS2F-M12PVC4A5M</b>	
			10 m	<b>XS2F-M12PVC4S10M</b>	<b>XS2F-M12PVC4A10M</b>	

## Double-ended cordsets

Material	Connector Size	No. of Pins	Length	Straight Connector	Right Angle (Socket)/Straight (Plug)
PVC	M12	4 Pins	2 m	<b>XS2W-D421-D81-F</b>	XS2W-D424-D81-F
			5 m	<b>XS2W-D421-G81-F</b>	XS2W-D424-G81-F
			10 m	XS2W-D421-J81-F	XS2W-D424-J81-F



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