



## S15

*Plastic and stainless steel tubular M18 photoelectric sensors every environment*

- Short case models for cost and space savings
- Plastic and stainless steel case with IP69K protection
- All optic functions at optimal operating distances
- Models with fixed settings or adjustment trimmer
- Cable, M12 connector and pig-tail models



SENSORS

### APPLICATIONS

- Processing and Packaging machinery
- Assembling and Conveyor lines



(\*) Stainless steel models.  
ATEX II 3DG

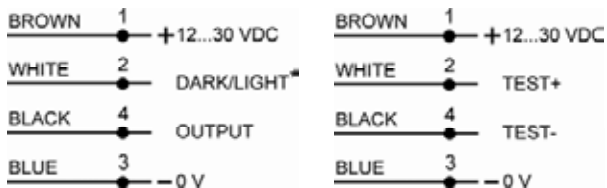
S15		
Through beam		0...20 m
Retroreflective (on R2 reflector)		0,1...5 m
Polarized retroreflective		0,1...4 m
Retroreflective for transparent (on R2 reflector)		0,1...0,8 m
Diffuse proximity		short distance 0...100 mm medium distance 0...350 mm long distance 1 m
Fixed focus		0...50 mm
Background suppression		40...120 mm
Power supply	Vdc	10...30 V
	Vac	
	Vac/dc	
Output	PNP	▪
	NPN	▪
	NPN/PNP	
	relay	
	other	
Connection	cable	▪
	connector	▪
	pig-tail	▪
Approximate dimensions (mm)		M18x44/48
Housing material		ABS, INOX AISI 316L
Mechanical protection		IP65 - IP67 - IP69K

TECHNICAL DATA	
Power supply	12 ... 30 Vdc (limit values)
Ripple	2 Vpp max.
Consumption	25 mA max.
Light emission	red LED 660 nm (mod. S15...B/D/T/M) IR LED 880 nm (mod. S15...A/C/G)
Setting	mono-turn trimmer (mod. S15...A01/B01/Cx1/T01/F01) and 4 turns (mod. S15...M01)
Operating mode	white wire or pin 2 not connected: LIGHT mode (mod. S15...C/D/M)/DARK mode (mod. S15...A/B/T/F) white wire or pin 2 connected to: 0 V DARK mode, +Vcc LIGHT mode
Indicators	yellow OUTPUT LED green STABILITY LED, POWER LED (mod. S15...G)
Output	PNP or NPN
Output current	100 mA max.
Saturation voltage	2 V max.
Response time	1 ms (mod. S15...A/B/C/T/M) 2 ms (mod. S15...F) 500 µs (mod. S15...D)
Switching frequency	500 Hz (mod. S15...A/B/C/T/M) 250 Hz (mod. S15...F) 1 kHz (mod. S15...D)
Connection	M12 4-pole connector, 2 m cable Ø 4 mm, 150 mm length Ø 4 mm cable with M12 4-pole connector (pig-tail vers.)
Dielectric strength	500 Vac 1 min., between electronics and housing
Insulation resistance	>20 MΩ 500 Vdc, between electronics and housing
Mechanical protection	IP65, IP67, IP69K
Ambient light rejection	according to EN 60947-5-2
Vibrations	0.5 mm amplitude, 10 ... 55 Hz frequency, for each axis (EN60068-2-6)
Housing material	ABS TERLURAN, INOX AISI 316L (mod. S15-PA) - (mod. S15-NA)
Lens material	plastic PMMA
Operating temperature	-25 ... 55°C
Storage temperature	-25 ... 70°C
Weight	40 g max. conn. vers., 55 g max. cable vers., 35 g max. pig-tail vers.

## CONNECTIONS

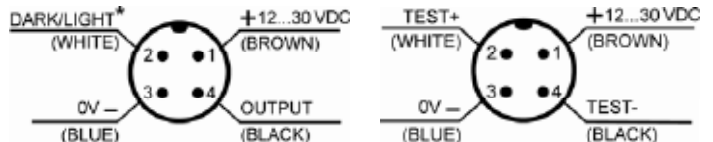
### CABLE AND PIG-TAIL

Through beam emitter



### M12 CONNECTOR

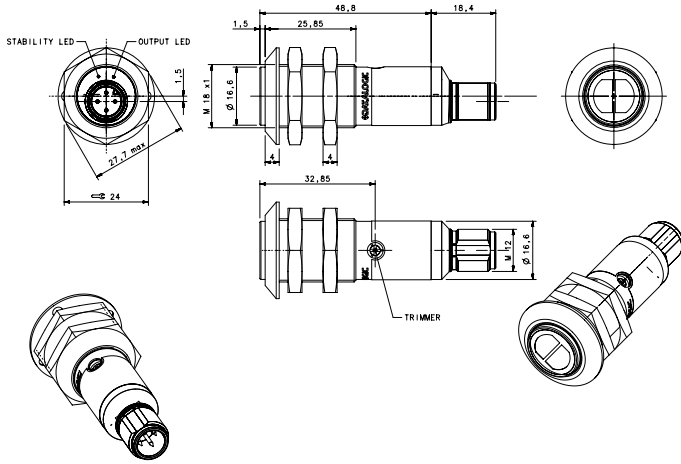
Through beam emitter



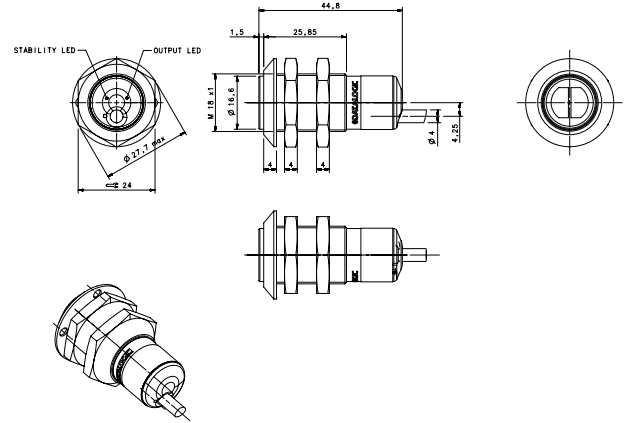
## DIMENSIONS

### PLASTIC

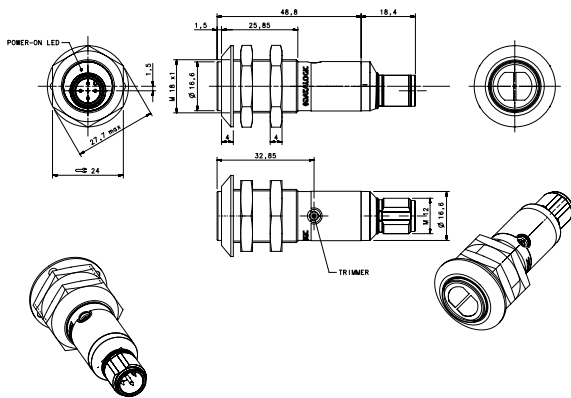
M12 connector version



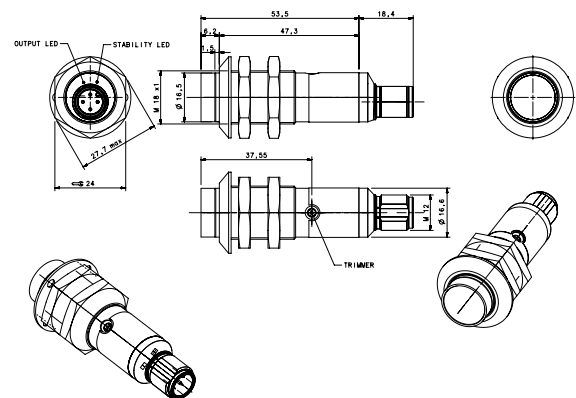
Cable version



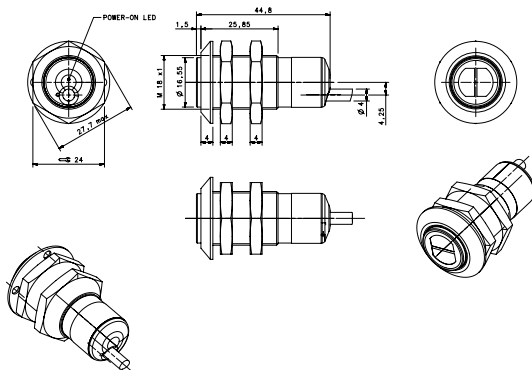
Through beam emitter - M12 connector version



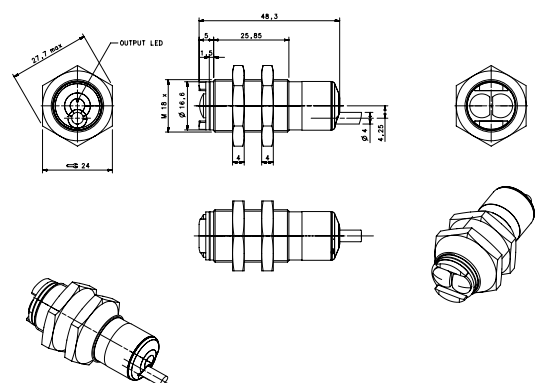
Background suppression - M12 connector version



Through beam emitter - cable version

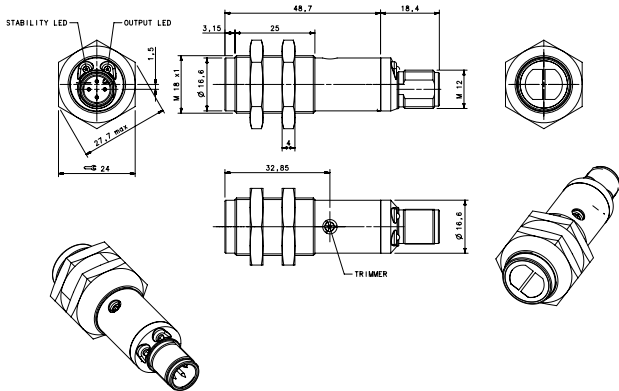


Diffuse proximity - cable version

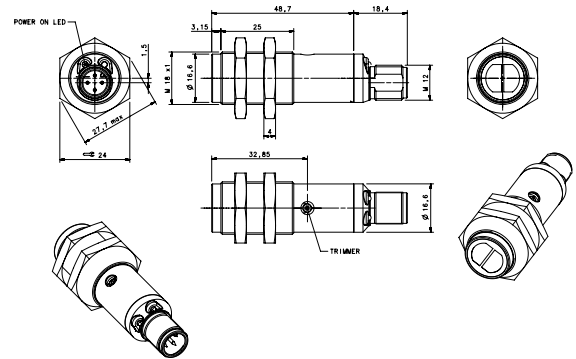


## STAINLESS STEEL

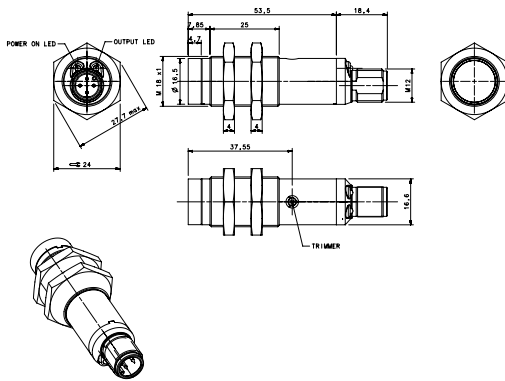
M12 connector version



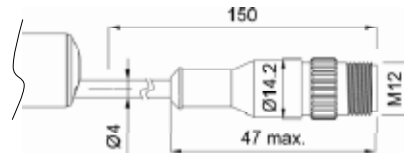
Through beam emitter - M12 connector version



Background suppression - M12 connector version

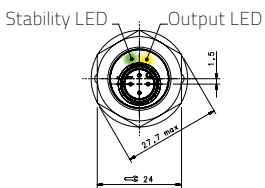


Pig-tail version

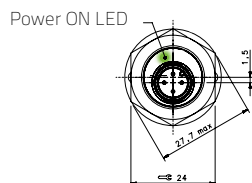


## INDICATORS AND SETTINGS

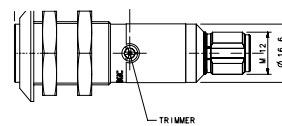
Plastic/metal case with trimmer, M12 connector



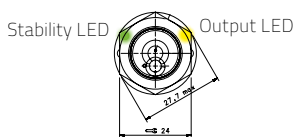
A01, B01, C11, C31, T01, F01, M01



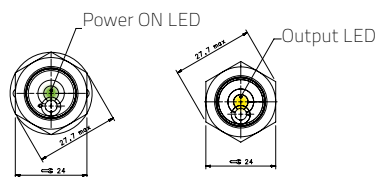
G01



Plastic, no trimmer, Cable, Pig Tail

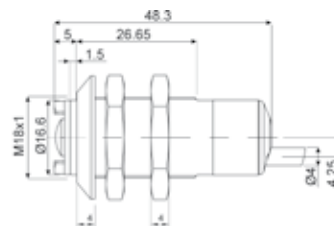


A00, B00, C10, C00, T01, D50

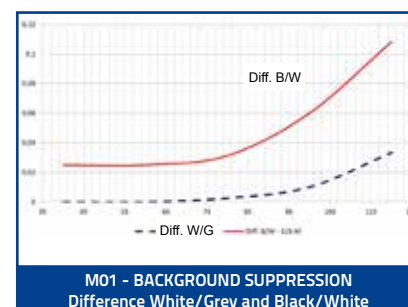
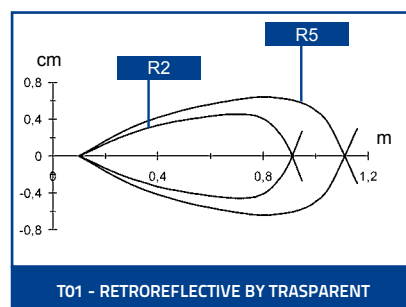
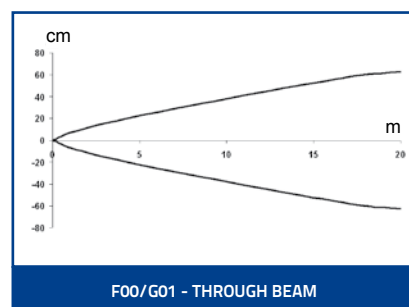
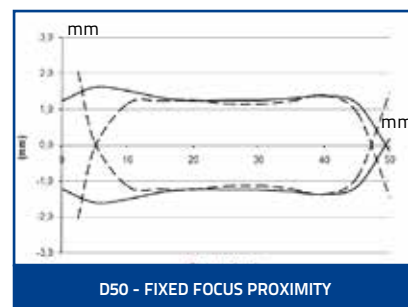
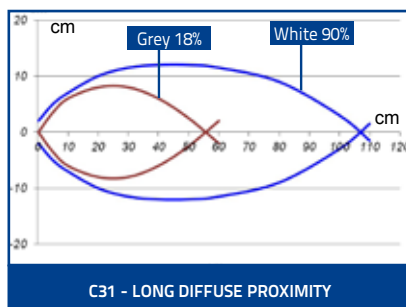
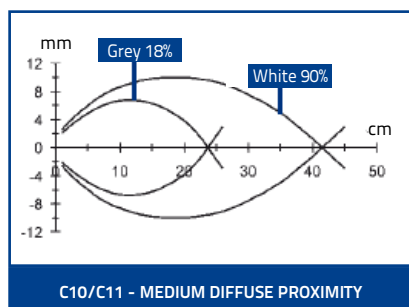
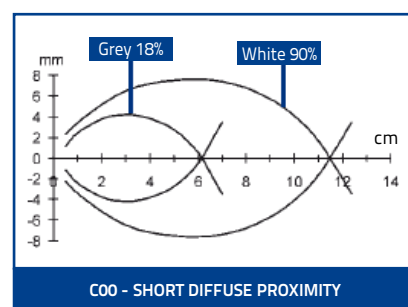
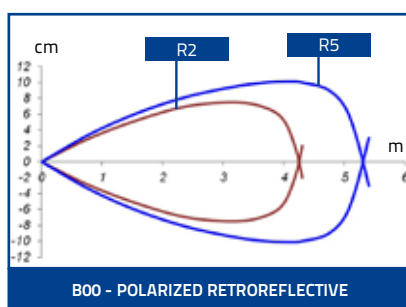
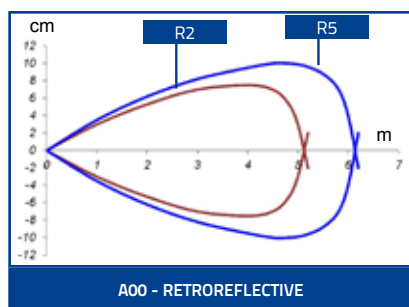


G00

F00



## DETECTION DIAGRAMS

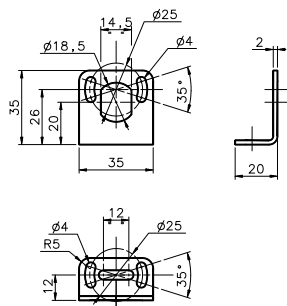


## MODEL SELECTION AND ORDER INFORMATION

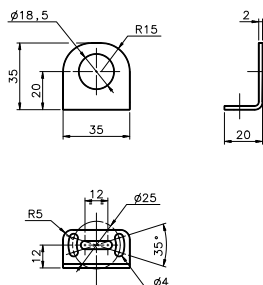
OPTIC FUNCTION	HOUSING	CONNECTION	OUTPUT	MODEL	ORDER No.
Retroreflective	Plastic	2 m cable	NPN	S15-PA-2-A00-NK	952301051
			PNP	S15-PA-2-A00-PK	952301001
		M12 connector	NPN	S15-PA-5-A01-NK	952301300
			PNP	S15-PA-5-A01-PK	952301220
		pig-tail	NPN	S15-PA-3-A00-NK	952301161
			PNP	S15-PA-3-A00-PK	952301111
	Stainless Steel	M12 connector	NPN	S15-NA-5-A01-NK	952301450
			PNP	S15-NA-5-A01-PK	952301370
Polarized Retroreflective	Plastic	2 m cable	NPN	S15-PA-2-B00-NK	952301061
			PNP	S15-PA-2-B00-PK	952301011
		M12 connector	NPN	S15-PA-5-B01-NK	952301310
			PNP	S15-PA-5-B01-PK	952301230
		pig-tail	NPN	S15-PA-3-B00-NK	952301171
			PNP	S15-PA-3-B00-PK	952301121
	Stainless Steel	M12 connector	NPN	S15-NA-5-B01-NK	952301460
			PNP	S15-NA-5-B01-PK	952301380
Diffuse proximity (short distance)	Plastic	2 m cable	NPN	S15-PA-2-C00-NK	952301071
			PNP	S15-PA-2-C00-PK	952301021
		pig-tail	NPN	S15-PA-3-C00-NK	952301181
			PNP	S15-PA-3-C00-PK	952301131
Diffuse proximity (medium distance)	Plastic	2 m cable	NPN	S15-PA-2-C10-NK	952301081
			PNP	S15-PA-2-C10-PK	952301031
		M12 connector	NPN	S15-PA-5-C11-NK	952301330
			PNP	S15-PA-5-C11-PK	952301250
		pig-tail	NPN	S15-PA-3-C10-NK	952301191
			PNP	S15-PA-3-C10-PK	952301141
	Stainless Steel	M12 connector	NPN	S15-NA-5-C11-NK	952301480
			PNP	S15-NA-5-C11-PK	952301400
Diffuse proximity (long distance)	Plastic	M12 connector	NPN	S15-PA-5-C31-NK	952301340
			PNP	S15-PA-5-C31-PK	952301260
	Stainless Steel		NPN	S15-NA-5-C31-NK	952301490
			PNP	S15-NA-5-C31-PK	952301410
Fixed focus	Plastic	2 m cable	NPN	S15-PA-2-D50-NK	952301530
			PNP	S15-PA-2-D50-PK	952301520
		pig-tail	NPN	S15-PA-3-D50-NK	952301550
			PNP	S15-PA-3-D50-PK	952301540
Through beam receiver	Plastic	2 m cable	NPN	S15-PA-2-F00-NK	952301091
			PNP	S15-PA-2-F00-PK	952301041
		M12 connector	NPN	S15-PA-5-F01-NK	952301360
			PNP	S15-PA-5-F01-PK	952301280
		pig-tail	NPN	S15-PA-3-F00-NK	952301201
			PNP	S15-PA-3-F00-PK	952301151
	Stainless Steel	M12 connector	NPN	S15-NA-5-F01-NK	952301510
			PNP	S15-NA-5-F01-PK	952301430
Through beam emitter	Plastic	2 m cable	-	S15-PA-2-G00-XG	952301101
		M12 connector	-	S15-PA-5-G01-XG	952301290
		pig-tail	-	S15-PA-3-G00-XG	952301211
	Stainless Steel	M12 connector	-	S15-NA-5-G01-XG	952301440
Background suppression	Plastic	M12 connector	NPN	S15-PA-5-M01-NK	952301350
			PNP	S15-PA-5-M01-PK	952301270
	Stainless Steel		NPN	S15-NA-5-M01-NK	952301500
			PNP	S15-NA-5-M01-PK	952301420
Transparent	Plastic	M12 connector	NPN	S15-PA-5-T01-NK	952301320
			PNP	S15-PA-5-T01-PK	952301240
	Stainless Steel		NPN	S15-NA-5-T01-NK	952301470
			PNP	S15-NA-5-T01-PK	952301390

## ACCESSORIES

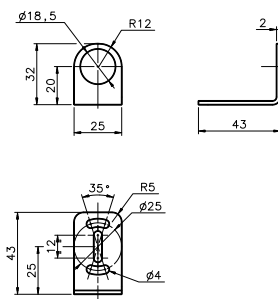
ST-5010



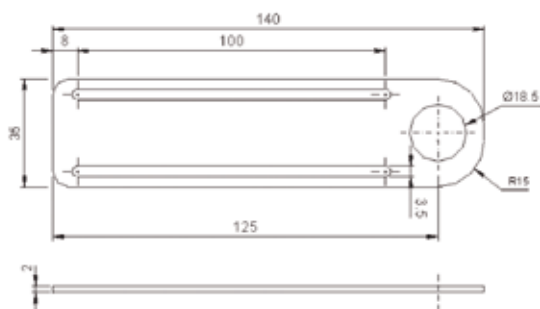
ST-5011



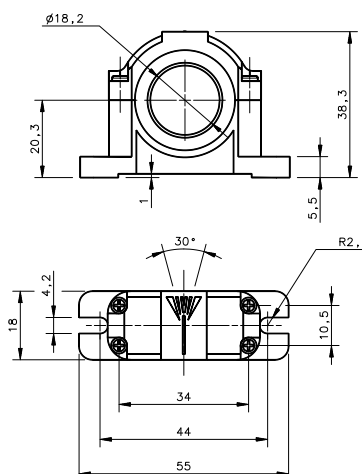
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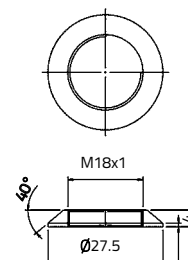
ST-5017



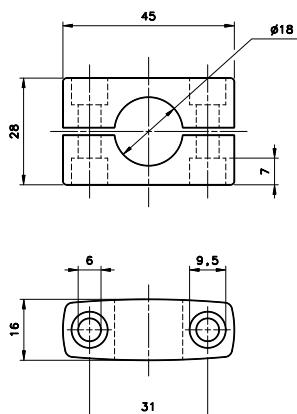
SWING-18



PLASTIC NUT



SP-40



mm

MODEL	DESCRIPTION	ORDER No.
ST-5010	M18/14 mounting bracket	95ACC5230
ST-5011	M18 mounting bracket short	95ACC5240
ST-5012	M18 mounting bracket long	95ACC5250
ST-5017	M18 mounting bracket	95ACC5270
ST1218	M12/M18 mounting brackets	95ACC3340
ST1830	M18/M30 mounting brackets	95ACC3350
SP-40	mounting bracket tubular	95ACC1370
SWING-18	Adjustable support for M18 tubular sensors	895000006
PLASTIC NUT	flared mounting nut	95ACC2630

## CABLES

TYPE	DESCRIPTION	LENGTH	MODEL	ORDER No.
Axial M12 Connector	4-pole, grey, P.V.C.	3 m	CS-A1-02-G-03	95A251380
		5 m	CS-A1-02-G-05	95A251270
		7 m	CS-A1-02-G-07	95A251280
		10 m	CS-A1-02-G-10	95A251390
	4-pole, P.U.R.	2 m	CS-A1-02-R-02	95A251540
		5 m	CS-A1-02-R-05	95A251560
Radial M12 Connector	4-pole, grey, P.V.C.	3 m	CS-A2-02-G-03	95A251360
		5 m	CS-A2-02-G-05	95A251240
		7 m	CS-A2-02-G-07	95A251245
		10 m	CS-A2-02-G-10	95A251260
	4-pole, P.U.R.	2 m	CS-A2-02-R-02	95A251550
		5 m	CS-A2-02-R-05	95A251570
Axial M12 Connector	4-pole, shielded, black, P.V.C.	3 m	CV-A1-22-B-03	95ACC1480
		5 m	CV-A1-22-B-05	95ACC1490
		10 m	CV-A1-22-B-10	95ACC1500
		15 m	CV-A1-22-B-15	95ACC2070
		25 m	CV-A1-22-B-25	95ACC2090
Radial M12 Connector	4-pole, shielded, black, P.V.C.	3 m	CV-A2-22-B-03	95ACC1540
		5 m	CV-A2-22-B-05	95ACC1550
		10 m	CV-A2-22-B-10	95ACC1560
Axial M12 Connector	4-pole, U.L., black, P.V.C.	3 m	CS-A1-02-U-03	95ASE1120
		5 m	CS-A1-02-U-05	95ASE1130
		10 m	CS-A1-02-U-10	95ASE1140
		15 m	CS-A1-02-U-15	95ASE1150
		25 m	CS-A1-02-U-25	95ASE1160
Radial M12 Connector	4-pole, black	Connector- not cabled	CS-A1-02-B-NC	G5085002
		Connector- not cabled	CS-A2-02-B-NC	G5085003