



LIMIT & PRESSURE SWITCHES & SENSORS

15

Experience unparalleled accuracy and reliability with our extensive range, engineered to deliver precise monitoring and control in a variety of industrial applications. Whether you're managing fluid levels, pressure thresholds, or mechanical positions, our sensors and switches offer the robustness and precision required to maintain optimal operation and safety.

PNEUMATIC EQUIPMENT - AIR PREPARATION

With its large product range, highly functional components and a wide choice of services, the MS Series from Festo offers a complete concept for compressed Air Preparation. All the functions required for modern compressed air are combined in this one product series.



MS Series Modular - Air Preparation Filters & Regulators

Code	Description	Pneumatic Connection (Inch)	Pressure Range (Bar)	Filter (Micron)	Con- densate	Gauge (Y/N)	Bowl (std)
531117	MS4 Filter/Reg/lubricator	1/4	0.5-12	40µm	Manual	Y	Plastic
530244	MS4 Filter/Reg/lubricator	1/2	0.5-12	40µm	Manual	Y	Plastic
529152	MS4 LFR Filter/Regulator	1/4	0.5-12	5µm	Manual	Y	Plastic
529154	MS4 LFR Filter/Regulator	1/4	0.5-12	5µm	Automatic	Y	Plastic
529156	MS4 LFR Filter/Regulator	1/4	0.5-12	40µm	Manual	Y	Plastic
529158	MS4 LFR Filter/Regulator	1/4	0.5-12	40µm	Automatic	Y	Plastic
529176	MS6 LFR Filter/Regulator	1/2	0.3-7	5µm	Manual	Y	Plastic
529184	MS6 LFR Filter/Regulator	1/2	0.5-12	5µm	Manual	Y	Plastic
529186	MS6 LFR Filter/Regulator	1/2	0.5-12	5µm	Automatic	Y	Plastic
529188	MS6 LFR Filter/Regulator	1/2	0.5-12	40µm	Manual	Y	Plastic
529190	MS6 LFR Filter/Regulator	1/2	0.5-12	40µm	Automatic	Y	Plastic
529415	MS4 Pressure Reg+Gauge	1/4	0.3-4	-	-	Y	-
529417	MS4 Pressure Reg+Gauge	1/4	0.3-7	-	-	Y	-
529419	MS4 Pressure Reg+Gauge	1/4	0.5-12	-	-	Y	-
529993	MS6 Pressure Reg+Gauge	1/2	0.5-12	-	-	Y	-
159500	LRP Precision Regulator	1/4	0.05-7	-	-	N	-
162834	LRP Precision Regulator	1/4	0.05-2.5	-	-	N	-
159501	LRP Precision Regulator	1/4	0.05-4	-	-	N	-

MS Series - Configurable Modular Units

Code	Description	Pneumatic Connection (Inch)	Pressure Range (Bar)	Filter (Micron)	Coil Voltage	Additional Information
542578	MS4 Electrical on/off Valve	1/4	4-10	-	24VDC	No Silencer
542582	MS6 Electrical on/off Valve	1/2	4-10	-	24VDC	No Silencer
541258	MS4 Manual on/off Valve	1/4	0-14	-	-	No Silencer
541267	MS6 Manual on/off Valve	1/2	0-18	-	-	No Silencer
541268	MS6 Manual on/off Valve	1/2	0-18	-	-	Silencer
529817	MS6 Pneumatic Soft-Start	1/2	4-18	-	-	-
529607	MS6 Standard Filter	1/2	0-20	5µm	-	Manual Drain
529609	MS6 Standard Filter	1/2	2-12	5µm	-	Auto Drain
529617	MS6 Standard Filter	1/2	2-12	40µm	-	Auto Drain
530506	MS6 Fine Filter	1/2	2-12	1µm	-	Auto Drain
529853	MS6 Branching Module	1/2	0-20	-	-	-
564870	MS6 Water Separator	1/2	2-12	No Filter	-	Auto Drain

Accessories

Code	Description
532798	MS4 module Connector
532185	MS4 Wall Mounting Bracket Clip-on
532184	MS4 Wall Mounting Bracket
532799	MS6 module Connector
526069	MS4 Sub Base mounting set
532195	MS6 Wall Mounting Bracket
526075	MS6 Ring Mounting Bracket
159503	Precision regulator wall mounting ring
161127	Precision pressure gauge 1/8" 40mm 6bar
532196	MS6 Wall Mounting Bracket Clip On

NEW

PNEUMATIC EQUIPMENT - SOLENOID VALVES

Range Characteristics

- Valve Functions include: 5/2, 2 x 3/2 way
- Coil Voltage: 24VDC
- Options include Manual override, internal pilot



Compact Solenoid Valve Type VUVG - Flow Rate from 90 to 1380 l/min

Code	Function		Pneumatic Connection (Inch)	Reset Method
Type H2 Horizontal Plug Connector				
8042562	2x3/2-way,N/C	Single-solenoid	1/8	Pneumatic spring
8042564	5/2-way	Double-solenoid	1/8	None
8042563	5/2-way	Single-solenoid	1/8	Pneumatic spring

R8 Electrical Connection Box

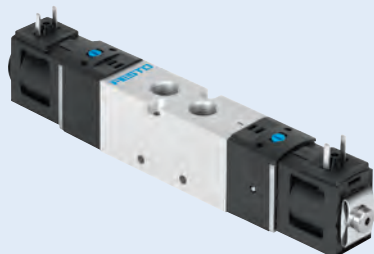
8042566	2x3/2-way, N/C	Single-solenoid	1/8	Pneumatic spring
8042568	5/2-way	Double-solenoid	1/8	None
8042567	5/2-way	Single-solenoid	1/8	Pneumatic spring

Accessories

Code	Description
566714	Horizontal plug connection, without cable for valve without connector (P3)
573919	M8/3-pin plug connection, without cable for valve without connector (P3)
566656	Plug socket with 2.5m flying leads, not sheathed (suits type code H2)
566660	Plug socket with 2.5m individual cable, sheathed (suits type code H2)
541338	3-pin open end cable with 2.5m lead (suits type code R8)
8043720	Seal

Features

- Valve functions include 5/2, 3/2 way
- Coil Voltage: 24VDC
- Options include internal pilot: without fitting



Robust Solenoid Valve Type VUVS - Flow Rate from 600 to 2400 l/min

Code	Function		Pneumatic Connection (Inch)	Reset Method
For use with Connection pattern Type C				
8043213	3/2-Way,N/C	Single-solenoid	1/8	Pneumatic spring
8043214	5/2-Way	Single-solenoid	1/8	Pneumatic spring
8043215	5/2-Way	Double-solenoid	1/8	None

For use with connection pattern Type B * Coming Soon!

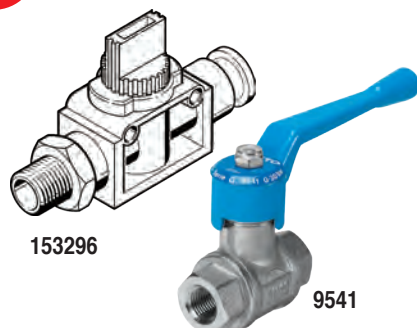
8043217*	3/2-Way, N/C	Single-solenoid	1/4	Pneumatic spring
8043218*	5/2-Way	Single-solenoid	1/4	Pneumatic spring
8043219*	5/2-Way	Double-solenoid	1/4	None

Accessories

Code	Description
30935	Type B: Plug Socket 2-pin/24vdc with 2.5m cable c/with LED
34431	Type B: Angled Plug Socket 3-pin/24vdc/kit Self assembly/without cable.PG9 c/gland
151687	Type C: Angled Plug Socket 3-pin/250vdc without cable PG7 c/gland

NEW

PNEUMATIC EQUIPMENT - ACCESSORIES/SPARES

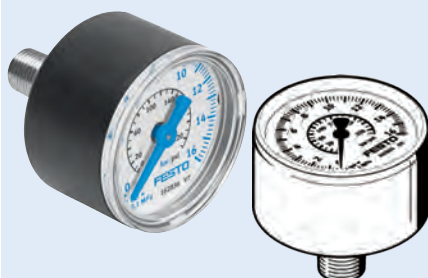


Shut-off Valves

Code	Function	Pneumatic Port 1	Pneumatic Port 2	Product Type
153296	3/2 Way	R1/8	R1/8	Shut-off Valve
153297	3/2 Way	R1/4	R1/4	Shut-off Valve
153298	3/2 Way	R3/8	R3/8	Shut-off Valve
153471	2/2 Way	R1/8	QS-6	Shut-off Valve
153472	2/2 Way	R1/4	QS-8	Shut-off Valve
9541	2/2 Way	G1/4	G1/4	Shut-off Valve
9543	2/2 Way	G1/2	G1/2	Shut-off Valve
9544	2/2 Way	G3/4	G3/4	Shut-off Valve
9545	2/2 Way	G1	G1	Shut-off Valve

Pressure Gauges

Code	Size (mm)	Display	Pressure Range (Bar)	Thread Type
359874	40	Bar	0-10	G1/8
183900	40	Bar	0-10	G1/4
345395	40	Bar	0-16	G1/8
183901	40	Bar	0-16	G1/4
359873	50	Bar	0-10	G1/4
356759	50	Bar	0-16	G1/4



PNEUMATIC EQUIPMENT - STANDARD CYLINDERS

Standard Cylinder - Type DSBC



Code	Bore (mm)	Stroke (mm)	Pneumatic Connection (Inch)	Piston Rod Thread (mm)	Force @ 6Bar (Newton)
1376467	32	25	1/8	M10X1.25	483N
1376469	32	50	1/8	M10X1.25	483N
1376471	32	100	1/8	M10X1.25	483N
1376905	40	50	1/4	M12X1.25	754N
1376907	40	100	1/4	M12X1.25	754N
1376908	40	125	1/4	M12X1.25	754N
1376910	40	200	1/4	M12X1.25	754N
1376305	50	50	1/4	M16x1.5	1178N
1376307	50	100	1/4	M16x1.5	1178N
1376310	50	200	1/4	M16x1.5	1178N

- Double-acting operation
- Integrated Magnet for position sensing
- Cushioning options: Self-Adjusting (PPS)
- Standard based on ISO 15552
- Compatible with other brands

Mounting Accessories

Code Ø32mm Bore	174383	174397	174404	174390	9256 M10	2674 M10
Code Ø40mm Bore	174384	174398	174405	174391	9257 M12	2675 M12
Code Ø50mm Bore	174385	174399	174406	174392	9258 M16	2676 M16
	Swivel Flange For End Caps Type SNC	Swivel Flange Spherical Bearing Type SNCS	Swivel Flange Type SNCL	Swivel Flange Type SNCB	Rod Eye Spherical Bearing Type SGS	Rod Clevis Swivel Motion Type SG

Standard Cylinder - Type DSNU

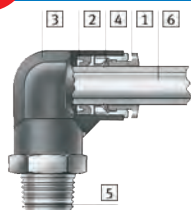


Code	Bore (mm)	Stroke (mm)	Pneumatic Connection (mm/inch)	Piston Rod Thread (mm)	Force @ 6Bar (Newton)
19190	12	25	M5	M5	65N
19199	16	25	M5	M5	120N
19200	16	40	M5	M5	120N
19201	16	50	M5	M5	120N
19210	20	50	1/8	1/8	188N
19221	25	50	1/8	1/8	295N
19222	25	80	1/8	1/8	295N
19223	25	100	1/8	1/8	295N

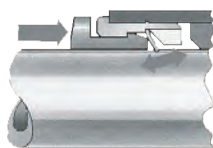
- Double-acting operation
- Integrated magnet for position sensing
- Cushioning: Fixed Elastic Pads (P)
- Standard based on ISO 6432
- Compatible with other brands

Mounting Accessories

Code Ø32mm Bore	6058 LBN-12/16	539927 SNB 20/25	5126 HBN-12/16	F5130 FBN-12/16	9254 M6	3110 M6
Code Ø40mm Bore	6059 LBN-20/25	—	5128 HBN-20/25	F5131 FBN-20/25	9255 M8	3111 M8
Code Ø50mm Bore	—	—	—	—	9261 M10	6144 M10
	Clevis Foot Type LBN	Swivel Mounting Type SBN	Foot Mounting Type HBN	Flange mounting Type FBN	Rod Eye Type SGS	Rod Clevis Type SG



- 1) Release Ring
- 2) Seal
- 3) Body
- 4) Tube Retaining Claw
- 5) Threaded Coupling
- 6) Plastic Tubing with a Standard O.D.



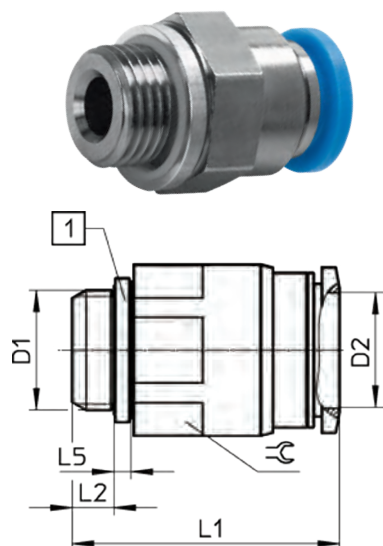
Simply Plug & Work

The stainless steel retaining claw within the Fitting holds the tubing securely without damage to surface



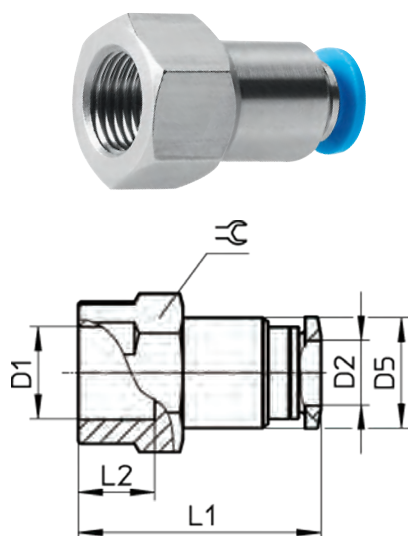
Orientable

Can align after fitting



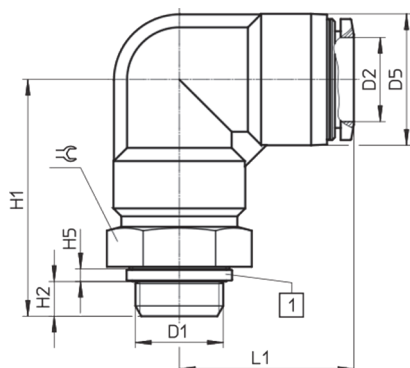
Push-in Fitting QS - Male thread with External Hex

Code	D1 Thread	D2 Tubing O.D. (mm)	L1 (mm)	L2 (mm)	L5 (mm)	
186095	G 1/8"	4	19.5	4.2	1.9	13
186096		6	20.6			13
186098		8	25.8			14
186097	G 1/4"	6	21.2	4.8	1.9	17
186099		8	21.9			17
186101		10	28.9			17
186350		12	34.1			21
186100	G 3/8"	8	21.7	5.8	2.4	19
186102		10	25.4			19
186103		12	31.5			21
186347		16	37.3			22
186104	G 1/2"	12	28	6.8	2.4	24
186105		16	35.3			24



Push-in Fitting QSF - Female thread with External Hex

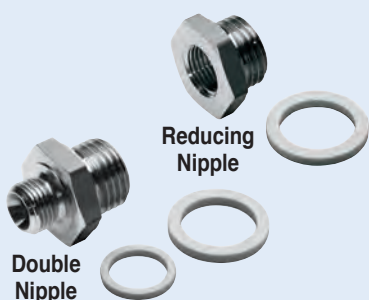
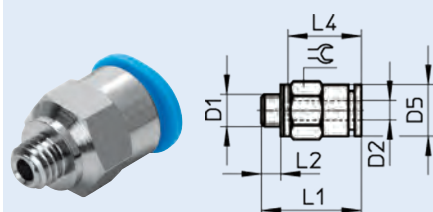
Code	D1 Thread	D2 Tubing O.D. (mm)	D5 Ø (mm)	L1 (mm)	L2 (mm)	
153022	G 1/8"	4	9.7	23.9	7	14
153023		6	11.8	26		14
153025		8	13.7	27.2		14
190650	G 1/4"	4	9.7	26.9	9.5	17
153024		6	11.8	29		17
153026		8	13.7	30.2		17
153028		10	17.5	32.7		17
190651	G 3/8"	12	20.8	34.8	11	21
190652		6	11.8	30.5		21
153027		8	13.7	31.7		21
153029		10	17.5	34.2		21
153030	G 1/2"	12	20.8	36.8	14	21
190653		16	25	41.6		24
190654						25



Push-in L Fitting QSL - Orientable, Male thread with External Hex

Code	D1 Thread	D2 Tubing O.D. (mm)	D5 Ø (mm)	H1 (mm)	H2 (mm)	H5 (mm)	L1 (mm)	
186116	G 1/8"	4	10	21.1	4.2	1.9	18.7	13
186117		6	12.5	21.6			20.3	13
186119		8	14.5	21.1			22.7	13
186118	G 1/4"	6	12.5	24.7	4.8	1.9	21.8	17
186120		8	14.5	24.7			23.7	17
186122		10	17.5	25.2			26	17
186351		12	21	26.5			29	17
186121	G 3/8"	8	14.5	27.2	5.8	2.4	24.7	19
186123		10	17.5	28.2			27	19
186124		12	21	28.7			29.7	19
186348		16	25	44.2			33.1	24
186125	G 1/2"	12	21	32.2	6.8	2.4	30.7	24
186126		16	25	45.2			33.1	24

PNEUMATIC EQUIPMENT - FITTINGS & CONNECTORS



Complimentary Fitting - Brass

Code	D1 Thread	D2 Tubing O.D (mm)	D5 Ø (mm)	L1 (mm)	L2 (mm)	L4 (mm)	
153302	M5	3	9.8	16.2	3	11.5	8
153304	M5	4	9.8	16.2	3	11.5	8
153306	M5	6	11.8	17.3	3	12	10

Nipple Dimensions - Brass

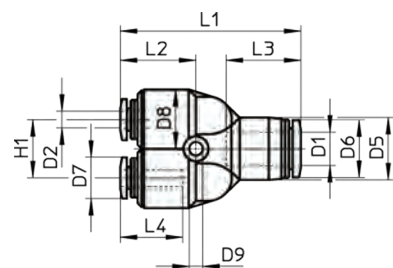
Code	Connection 1	Connection 2	Description
3577	1/8 Female	1/4 Male	Reducing Nipple
3581	1/4 Female	3/8 Male	
197633	1/4 Female	1/2 Male	
3585	3/8 Female	1/2 Male	
3588	1/2 Female	3/4 Male	
15621	1/8 Male	1/8 Male	Double Nipple
15623	1/4 Male	1/4 Male	
15627	1/2 Male	1/2 Male	

Tube Assembly/Disassembly

- 1) The Tube must be cut straight and deburred
- 2) Insert the Tubing into the Inside Seal, ensuring that the Tubing is fitted inside the Seal and not pushed against it.
- 3) To check that the Tubing is securely held, pull gently on the Tube.

Dismantling

- a) The Tubing can be detached easily by pressing down and holding the Release Ring. Remove the Tubing carefully from the Threaded Connector.
- b) Cut off the damaged (used) Tube End before re-use.



Push-in Y Connector QSY

Code	D1 Tubing O.D (mm)	D2 Tubing O.D (mm)	D5 Ø (mm)	D8 (mm)	D9 (mm)	H1 (mm)	L1 (mm)	L2 (mm)	L3 (mm)
153148	4	4	10	10	3.2	11	32.8	14.1	14.9
153149	6	6	13	12.5	3.4	12	37.7	15.8	17
153150	8	8	15	14.5	3.4	14	42.4	17.2	18.1
153151	10	10	17.5	17.5	4.2	18	48.4	19.5	20.7
153152	12	12	21	21	4.2	20	54.9	22.3	23.4

Push-in T Connector QST

Code	D1 Tubing O.D (mm)	D2 Tubing O.D (mm)	D5 Ø (mm)	D6 Ø (mm)	B1 (mm)	H1 (mm)	H2 (mm)	L1 (mm)	L2 (mm)
153128	4	4	10	3.2	10.4	17.2	6.5	34.4	13
153129	6	6	13	3.2	13.5	20.1	8	40.2	16
153130	8	8	15	3.2	15.6	22.2	9	44.4	18
153131	10	10	17.5	4.2	18.2	25.2	12	50.4	24
153132	12	12	21	4.2	21.7	28.4	14	56.8	28
153133	16	16	25	4.2	25.6	33.1	12	66.2	24

Reducing

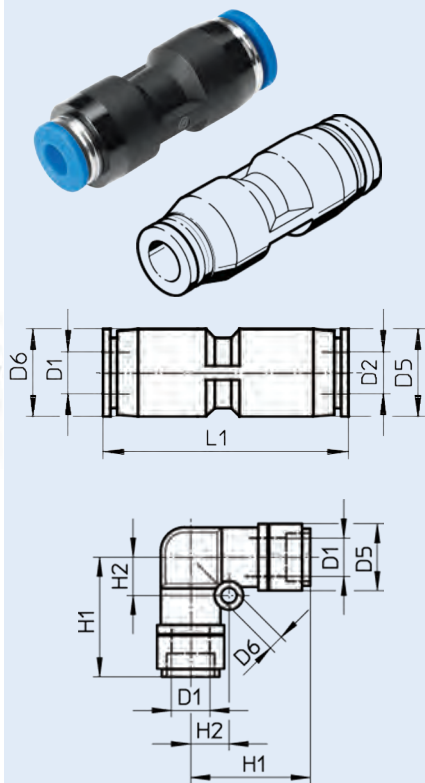
153134	6	4	13	3.2	13	19.5	8	40.1	16
130613	8	4	14.5	3.2	15.1	21.7	9	44.4	18
153135	8	6	14.5	3.2	15.1	22.3	9	44.4	18
130614	10	6	17.5	4.2	18.2	25.0	12	50.4	24
153136	10	8	17.5	4.2	18.2	24.9	12	50.4	24
130615	12	8	21	4.2	21.7	27.7	14	56.8	28
153137	12	10	21	4.2	21.7	28.0	14	56.8	28
130616	16	12	25	4.2	25.7	33.2	12	66.2	24

Push-in Bulkhead Connector QSS

Code	D1 Tubing O.D (mm)	D5 Ø (mm)	D6 Ø (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	
153157	4	M12 x 1	10.8	30.8	14.8	9.5	4	14
153158	6	M14 x 1	12.5	34.9	19	9.5	4	17
153159	8	M16 x 1	14.6	37.4	19.4	10.5	4	19
153160	10	M20 x 1	18.5	42.4	21.6	11.9	5	24
153161	12	M22 x 1	20.4	47.6	24.2	13.2	6	27

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PNEUMATIC EQUIPMENT - FITTINGS, CONNECTORS & TUBING



Push-in Connector QS

Code	D1 Tubing O.D (mm)	D2 Tubing O.D (mm)	D5 Ø (mm)	D6 Ø (mm)	L1 (mm)
153031	4	4	10	-	30.8
153032	6	6	12.5	-	34.9
153033	8	8	14.5	-	37.8
153034	10	10	17.5	-	41.4
153035	12	12	21	-	47.8

Reducing

153037	6	4	12.5	12.5	34.4
130606	8	4	10.7	14.5	36.6
153038	8	6	14.5	14.5	37.9
130607	10	6	13	17.5	39.8
153039	10	8	17.5	17.5	41.1
130608	12	8	14.5	21	44
153040	12	10	21	21	47.6

Push-in L Connector

Code	D1 Tubing O.D (mm)	D5 Ø (mm)	D6 Ø (mm)	H1 (mm)	H2 (mm)
153070	4	10	3.2	16.9	6.5
153071	6	12.5	3.2	20.1	8
153072	8	15	4.2	22.4	10
153073	10	17.5	4.2	26.2	12
153074	12	21	4.2	29.4	14
153075	16	25	4.2	33.1	12

Range Characteristics

- Operating pressure: -0.95...10 Bar
- Ambient temperature: -35...60°C
- Polyurethane
- High resistance to abrasion and Kinks
- Operating Media: Compressed Air, vacuum (PU-13)

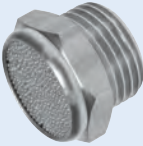


Pneumatic Tubing - Type: PUN

Code	Code (50-metre)	Outside Diameter (mm)	Inside Diameter (mm)	Wall Thickness (mm)	Colour
159662	159662/50M	4	2.5	0.75	Blue
159664	159664/50M	6	4	1	Blue
159666	159666/50M	8	5.5	1.25	Blue
159668	159668/50M	10	7	1.5	Blue
159670	159670/50M	12	8	2	Blue
159663	159663/50M	4	2.5	0.75	Black
159665	159665/50M	6	4	1	Black
159667	159667/50M	8	5.5	1.25	Black
159669	159669/50M	10	7	1.5	Black
159671	159671/50M	12	8	2	Black
152584	152584/50M	4	2.5	0.75	Silver
152586	152586/50M	6	4	1	Silver
152587	152587/50M	8	5.5	1.25	Silver
152588	152588/50M	10	7	1.5	Silver
152589	152589/50M	12	8	2	Silver

NEW

PNEUMATIC EQUIPMENT - OTHER ACCESSORIES

Brass Button Silencer			Brass Silencer			Aluminium Silencer			Polymer Silencer		
											
Code	Size (Inch)	Pack Qty	Code	Size (Inch/mm)	Pack Qty	Code	Size (Inch)	Pack Qty	Code	Size (Inch)	Pack Qty
1206622	1/8	20	1205858	M5	20	6841	1/8	1	2307	1/8	1
1206623	1/4	20	1205860	1/8	20	6842	1/4	1	2316	1/4	1
1206625	1/2	10	1205861	1/4	20	6843	3/8	1	2309	3/8	1
			1205862	3/8	10	6844	1/2	1	2310	1/2	1
			1205863	1/2	10						
			1205865	1	10						

AIR LINE FILTERS & REGULATORS

Type	Filter	Regulator	Filter/ Regulator	Oil Sprayer	TC Series Treatment Dual Regulator & Air Lubricator	TC Series Treatment Triplet Filter/Regulator/Lubricator
						
Code 3/4"	TF4000-06	TR4000-06	TW4000-06	TL4000-06	TC4010-06	TC4000-06
Code 1"	TF5000-10	TR5000-10	TW5000-10	TL5000-10	TC5010-10	TC5000-10

Specifications

- Filtration: 5µm
- Applicable Pressure Range: 0-1.0MPa
- Applicable Temperature: 0-60°C
- Gauge Port Size: G1/4
- Material (Body): Aluminium Alloy Die-cast
(Bowl): Polycarbonate (PC)

Auto Drain Valve

Code 3/8"	TAD402-03
Code 1/2"	TAD402-04



TAD

SOLENOID VALVES

US Series



UW Series



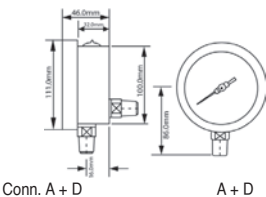
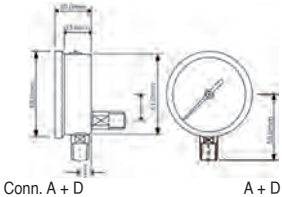
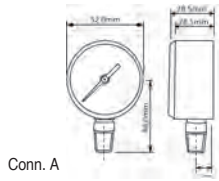
Code	US-10 *	US-15 *	US-20 *	US-25 *	UW-15 *	UW-20 *	UW-25 *
Spare Coil Code	USC *				UWC *		
Spare Solenoid c/w Coil	USSC *				UWSC *		
Material of body	Brass						
Operating method	Plunger Pilot				Film Pilot		
Pipe size	ZG3/8"	ZG1/2"	ZG3/4"	ZG1"	ZG1/2"	ZG3/4"	ZG1"
Nominal diameter (mm)	17	17	17	20	20	20	25
Applicable fluid	Air, Water, Oil (50CST below) & Steam				Air, Water, Oil (50CST below)		
Pressure range	0.05 – 1.5Mpa				0 – 0.8Mpa		
Applicable temperature	-5 to 185°C				-5 to 99°C		
Operating voltage range	± 10%						
Minimum activating time	0.05S						

*Add Voltage to Code: 12VDC, 24VDC, 24VAC, 110VAC, 230VAC

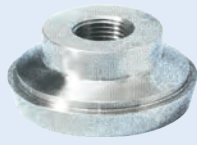
Pressure Switches

	Pressure (Bar)		Contact Rating	Pipe Thread (NPT)	Code
	Min.	Max.			
PS-02A	1.4	2.8	2 Pole 20A N/C	1/4"	PS-02A 2.8
PS-02B	2.1	3.5	2 Pole 20A N/C	1/4"	PS-02A 3.5
	2.8	4.3	2 Pole 20A N/C	1/4"	PS-02A 4.3
	3.5	5.6	2 Pole 20A N/C	1/4"	PS-02B 5.6
	4.9	7.2	2 Pole 20A N/C	1/4"	PS-02B 7.2

PROCESS GAUGES

Type	Stainless Steel Case	Robust Liquid Filled	Economic
			
Code	PBB- * - ** - *** - **** - *****	PBG- * - ** - *** - **** - *****	PBN- * - ** - *** - **** - *****
Connection A-Bottom Connection D-Rear Connection	This gauge is ideally suited to most industrial applications where high accuracy and durability is required. Gauges are available with either brass/bronze internals, all stainless steel internals, or Manel Bourdan tube and socket with stainless steel movement.	For heavy duty services where vibration or shock of medium would cause excessive wear on a dry gauge or corrosive ambient conditions prevail. Applications include hydraulic equipment, mining equipment and irrigation.	For non-corrosive liquids and gases on light duty service in more corrosive environments. Applications include coastal application for valve positioner and regulators, swimming pool pumps and stationary irrigation systems.
Case	Brush finish 304 SS, Bayonet Bezel	304 SS, Crimped Bezel	Steel Black, Powder Coated
Internals	Available with either Brass/Bronze, or SS	Brass	Brass
Range (Max)	6000 kPa	6000 kPa	6000 kPa
Temperature	-25°C to 60°C	-25°C to 60°C	-25°C to 60°C
Accuracy	100Ø 1% @ FSD / 63Ø 1.6% @FSD	1.6% @ FSD	1.6% @ FSD
Configuration			
Thread			
Code	Fitting		
02	1/4 NPT		
04	1/2 NPT		
12	1/4 BSP		
14	1/2 BSP		
Add to code			
* Connection	A (Bottom) & D (Rear)	A (Bottom) & D (Rear)	A (Bottom) only
** Add size (mm)	63 100	63 only	54 only
*** System material	BB&SS	BB	BB
**** Thread size	02, 12 02, 04, 12, 14	02, 12	02, 12
***** Add pressure	100kPa, 160kPa, 250kPa, 400kPa, 600kPa, 1000kPa, 1600kPa, 2500kPa, 4000kPa, 6000kPa. Other ranges available on request.		

Process Gauges Accessories

Steam Line Piping	Valve	Dairy Seals		Chemical Seals	Flanged Seals
					
Code	U-TYPE	Code	NW40-* NW50-*	XWD4-*	NFD01-*
	Isolation valves and gauge cocks to isolate pressure from gauge. Equipped with a facility to vent the gauge. Suitable for use with gases, liquids and vapours. Material - Brass	Material	Grade 316 SS	316 Stainless Steel	Grade 316 SS
Code	PIGTAIL	Max Pressurer	40 MPA	150 Mpa	150 Mpa
• Steam line piping should be installed on all live steam applications to protect the gauge from the high temperatures encountered. • Available in either "pigtail" or "U-type" configurations for installation on horizontal or vertical line respectively Material - Steel.		Gauge Port	1/4", NPT or BSP	1/4" or 1/2", NPT or BSP	1/4" and 1/2", NPT
		Application	Is used in health and dairy application, can be used for pulp/paper. For non-corrosive liquids and gases on light duty service in more corrosive environments.	Is used in applications where the process fluid (medium) is corrosive or viscous (could even contain waste particles) and could clog the instruments internals.	Flanged seals, one for continuous use for safety concerns. Cleanout type for easy cleaning with flushing connections available.
		Thread Size	*Add Thread Type to Code: 02, 12	*Add Thread Type to Code: 02, 04,12,14	*Add Thread Type to Code: 02, 04

ELECTRONIC AIR PRESSURE SENSORS & SWITCHES



EDR & EDI

Electronic Air Pressure Controllers

Code	Relay Output	1C/O only	Supply	Code	4-20mA Supply Output	Supply	Cut-out-pressure	Cut-in-pressure	Maximum pressure	Repeat Accuracy at 25°C
—	—	—	—	EDI-10	—	12-30VAC	0.5-10 bar	0-50% of cut-out pressure	25 bar	+/-0.1 bar
EDR-16	—	—	230VAC	EDI-16	—	12-30VDC	1-16 bar	—	25 bar	+/-0.15 bar

Note: 4mA = 0 bar. 20mA = measuring range highest value

- Accurate compressor and process control
- Electronic pressure switch with integrated pressure sensor
- Push-on connector for air tube inlet (Festo PAN 6 x 16mm)
- Adjustable relay set point and hysteresis
- Fail safe
- User friendly menu programming
- Relay output – (All models) 6A @ 250VAC
- 0-10V Analogue output and digital LED display (EDRA only)
- Din rail mounting

Autonics

NEW



Electronic Pressure Sensor

Code	NPN N/O	PSA-01	PSA-1
Code	PNP N/O	PSA-01P	PSA-1P
Pressure Range	—	0-100.0kPa (0-1.000 Bar)	0-1000.0kPa (0-10.00 Bar)

Specifications

- Power Supply: 12V to 24VDC $\pm$ 10%. 50mA
- Output Current: Max. 100mA 30VDC
- Analog Output: 1V-5VDC $\pm$ 2% F.S.
- Pressure Display: kPa, kg/cm², bar, psi
- Size: 30x30x38.5(D)mm
- Hysteresis: 1 digit (2 digit/psi) fixed
- Repeat Error: $\pm$ 0.2% F.S. $\pm$ 1 digit
- Response Time: Selectable 2.5ms, 5ms, 100ms, 500ms, 1000ms

Accessories

Code	Description
PS-01	Bracket for panel mount. Size of cutout 36X36mm
PS-02	Clear protection cover

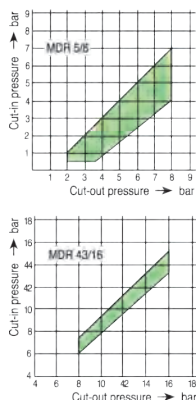
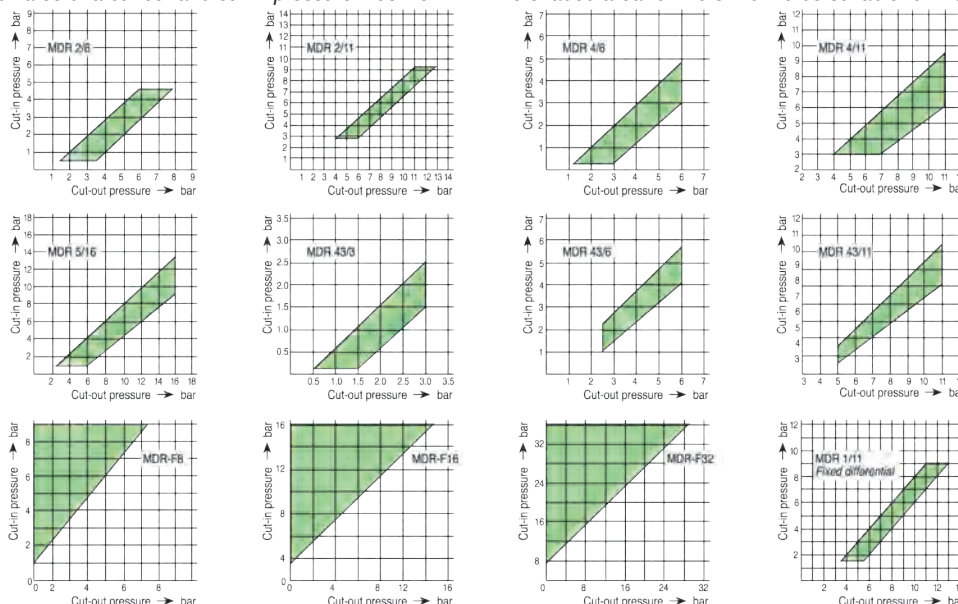
2-Wire Electronic Air Pressure Transducer IP65

Code	Description	Pipe Thread	Measuring Range	Output	Repeat Accuracy	Supply
EDS-16	Transducer	External G1/4" DIN3852 Form E	0-16 bar	4-20mA	+/-1%	11-30VDC
EDS-ST	Connection plug	—	—	—	—	—

- Accurate process control
- 2-Wire device installs directly on the machinery
- Ceramic sensor technology
- Service friendly plug-in electrical connection
- Converts measured pressure to 4-20mA

Pressure Switch Diagrams

The co-ordinates of a cut out and cut in pressure must lie within the shaded area for the switch to be suitable for the application.



PRESSURE SWITCHES

Direct Motor Switching $U_i = 500V$



MDR1/11



MDR1/11/EA



MDR2/6 or /11



MDR2 or 4/EA



MDR5/8 or /16



With Overload

Cut-out Pressure (Bar)			Contacts AC3	Features	Pipe Thread	Code	Code with Auto-Off Switch
Min	Max	Diff					

MDR1 For use with air, water, mineral oils, sea/salt water, butane, acetylene, carbon dioxide etc.
Medium temperature: Air -5 to +80°C. Water +70°C max. **IP44**
Contacts 2 N.C. lth 20Amps, 2,2/4kW @ 240V. Bursting strength $P_z > 35$ Bar.

2.5	6.0	Adj	1ph 4.0kW	For Pumps only Factory set 1.5-3 Bar	1/4" BSP	MDR1/6/DIF	–
2.5	11.0	2 Bar	1ph 2.2kW	For Compressor only Factory set 6-8 Bar	1/4" BSP	MDR1/11	MDR1/11/EA

MDR2 For use with air, water.
Medium temperature: Water +80°C max. **IP44**
Contacts 2 N.C. lth 20Amps, AC3 2.2kW @ 240V. Bursting strength $P_z > 35$ Bar.

1.5	7.0	Adj	1ph 2.2kW		1/4" BSP	MDR2/6	–
4.0	12.0	Adj	1ph 2.2kW		1/4" BSP	MDR2/11	MDR2/11/EA

MDR4 For use with air, water.
Medium temperature: Water +80°C max. **IP44**
Contacts 3 N.C. lth 20Amps, AC3 5.5kW @ 400V. Bursting strength $P_z > 35$ Bar.

1.5	6.0	Adj	3ph 5.5kW		1/2" BSP	MDR4/6	MDR4/6/EA4
4.0	11.0	Adj	3ph 5.5kW		1/2" BSP	MDR4/11	MDR4/11/EA4
6.0	16.0	Adj	3ph 5.5kW		1/2" BSP	MDR4/16	MDR4/16/EA4

MDR5 For use with air, water, sea water, petrol, diesel, natural gas, butane, carbon dioxide etc.
Medium temperature: Air -5 to +80°C. Water +80°C max. **IP54**
Contacts 3 N.C. lth 25Amps, AC3 5.5kW @ 400V. Bursting strength $P_z > 40$ Bar.

2.0	8.0	Adj	3ph 5.5kW		1/2" BSP	MDR5/8	
2.5	16.0	Adj	3ph 5.5kW		1/2" BSP	MDR5/16	

Fitted with Unloader Valve, Overload & Start/Stop Buttons

Range: 2.4-4.2A	1/2" BSP	MDR5/16/4.2
4.0-7.0A	1/2" BSP	MDR5/16/7
6.1-10.3A	1/2" BSP	MDR5/16/10
9.0-14.0A	1/2" BSP	MDR5/16/14
11.0-18.0A	1/2" BSP	MDR5/16/18

Accessories

Spare Covers for MDR5



H5-COVER

Description	Code
Plain	H5-COVER
With On/Off buttons	H5K-COVER



H5K-COVER



EV1S
EV2
EV4



EV5

Unloader Valve	Code
For MDR1	EV1S
For MDR2	EV2
For MDR4/43	EV4
For MDR5	EV05

Control Circuit Switching **IP65** 10Amp 250VAC $U_i = 400V$

MDR43 For use with a wide range of mediums including air, water, oils and refrigerants.
Medium temperature: Air -25 to +100°C. Water +100°C max. **IP54**



MDR43

Cut-out Pressure (Bar)			Contacts	Bursting Strength	Pipe Thread	Code
Min	Max	Diff				
0.5	3.0	Adj	1 NO + 1 NC	$P_z > 60$ Bar	1/4" BSP	MDR43/3
2.5	6.0	Adj	1 NO + 1 NC	$P_z > 60$ Bar	1/4" BSP	MDR43/6
5.0	11.0	Adj	1 NO + 1 NC	$P_z > 60$ Bar	1/4" BSP	MDR43/11
8.0	16	Adj	1 NO + 1 NC	$P_z > 60$ Bar	1/4" BSP	MDR43/16

MDR-F High pressure range – for use with air, water, sea water, petrol, diesel, natural gas butane, propane, nitrogen etc.
Medium temperature: +70°C max. **IP54**



MDR-F

0.5	8.0	Adj	1 C/O 10A	$P_z > 40$ Bar	3/8" BSP	MDR-F8H-S
1.0	16.0	Adj	1 C/O 10A	$P_z > 48$ Bar	3/8" BSP	MDR-F16H-S
2.0	32.0	Adj	1 C/O 10A	$P_z > 64$ Bar	3/8" BSP	MDR-F32H-S
8.0	60.0	Adj	1 C/O 10A	$P_z > 120$ Bar	3/8" BSP	MDR-F60HH-S

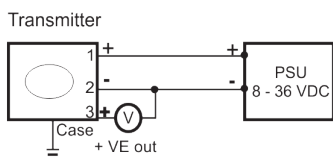
PRESSURE TRANSMITTERS

Pressure Transmitter IP65



Transducer Range	Code (1/4" NPT Fitting)	Code (1/2" NPT Fitting)	Code (1/4" BSP Fitting)	Code (1/2" BSP Fitting)
1 Bar	PT1X0010P02R01	PT1X0010P04R01	PT1X0010P12R01	PT1X0010P14R01
4 Bar	PT1X0040P02R01	PT1X0040P04R01	PT1X0040P12R01	PT1X0040P14R01
6 Bar	PT1X0060P02R01	PT1X0060P04R01	PT1X0060P12R01	PT1X0060P14R01
10 Bar	PT1X0100P02R01	PT1X0100P04R01	PT1X0100P12R01	PT1X0100P14R01
16 Bar	PT1X0160P02R01	PT1X0160P04R01	PT1X0160P12R01	PT1X0160P14R01
25 Bar	PT1X0250P02R01	PT1X0250P04R01	PT1X0250P12R01	PT1X0250P14R01
40 Bar	PT1X0400P02R01	PT1X0400P04R01	PT1X0400P12R01	PT1X0400P14R01
100 Bar	PT1X1000P02R01	PT1X1000P04R01	PT1X1000P12R01	PT1X1000P14R01
400 Bar	PT1X4000P02R01	PT1X4000P04R01	PT1X4000P12R01	PT1X4000P14R01

Wiring Diagram



WIRING CONNECTIONS

- 1 Red: + Us
- 2 Black: - Vs
- 3 Yellow: GND

Features

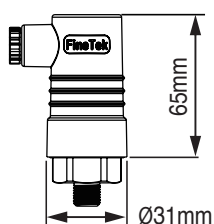
- Accuracy to better than 0.5%FS (including linearity and repeatability)
- Transducer rated at 50 million cycles
- Metalwork made of Type 316 Stainless Steel
- Protected against reverse voltage and overvoltage
- Protected against noise on the supply line
- Wide supply range, 8 to 36VDC - allows a wide range of load resistance
- Transducer is temperature compensated by means of laser-trimmed resistors
- Operating temperature range from 0°C to +85°C
- Internal Trimpots for field calibration

General Specifications

Output: 4 - 20mA
Excitation: 10 - 36V DC
Accuracy (BFSL): < 0.5% FS
Compensated Temp. Range: 0° to 85° C
Temperature error zero: < -0,02% FS / K
Temperature error span: < -0,01% FS / K (0-70°C)
Ingress protection: IP65
Burst pressure: 1.5 x FS (except when indicated)
Wetted Parts/Connection: 316 Stainless steel, ceramic, Nitrile (Specify media where Nitrile is not compatible)

NEW

PRESSURE SWITCHES

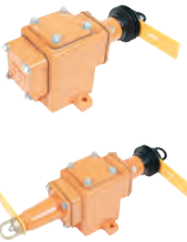


Optional Dust cover for SQ246



Code	SQ246-RL1A-1U-N-W	SQ275-RL1C-2U-N-C	SQ276-RL1C-2U-N-C
Pressure Range	1 - 19 Bar	1 - 19 Bar	1 - 19 Bar
Pressure Regulation	Field Adjustable	Field Adjustable	Field Adjustable
Thread Type	NPT male - 1/8"	NPT male - 1/4"	NPT male - 1/4"
Contact Model	SPST-NO	SPDT	SPDT
Body/Housing Material	SUS 316	Zinc-plated steel	SUS 316
Membrane Material	NBR	NBR	NBR
Connector / Wiring	Screw Terminal	DIN43650A	DIN43650A
Size (Hex size x length)	24 x 46mm	27 x 63mm	27 x 63mm
Optional Dust Cover	SQXCM1P-PGA	-	-

CONVEYOR SAFETY SWITCHES

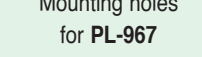
	Safety Cable Pull Switch		Belt Alignment Switch		Speed Monitor			
	IP67 		IP67 		IP65 			
Code	SRS		SRT		ED400			
Switching Capacity	SPDT x 2 10A@250VAC		SPDT x 2 10A@250VAC		• Speed: 0~999rpm • Speed output: 4~20mA			
Action Force	49 ± 9.8n (5±1kgf.m)		3.4-5.4N.m(0.35-0.55kgf.m)		• 7-seg LED display: 0~999 • Supply: 85~265VAC			
Reset	Manual		Auto		• Alarm set point: 1~1999rpm • Ambient Temperature: -20°~70°C			
Ambient Temp	-20-60°C		-20-60°C		• Rotate direction: CW or CCW			
Enclosure Material	Die-Cast Aluminium		Die-Cast Aluminium		• Alarm: Underspeed, Standstill, Reverse, Power Failure			
Weight Approx.	2.9kg		2.9kg		• Housing: Die-cast Aluminium			
Certified for use in Zone 21/22	Standard Conveyor Belt Trip Switch	Slack Rope Conveyor Belt Trip Switch	Ripped/Torn Conveyor Belt Trip Switch		Conveyor Belt Alignment Switch			
								
 CHW53201  PT125CW5000								
Code Single End	CHW53198	CHW53198A	CHW53198B		Code	CHW93053	CHW93058	
Code Double End	CHW53197	CHW53197A	-		Type	1NO/NC	2NO/2NC	
Rated Continuous Current			10A @ 230VAC		Switching Capacity	3A @ 230VAC	10A @ 230VAC	
Protection rating			IP66		Protection rating	IP65		
Cable Entries			3 x M20		Cable Entries	1 x M20		
Accessories for Conveyor Belt Trip Switches								
Code					Description			
CHW53201					Padlock Attachment			
PT125CW5000					Pigtail M10 x 125mm			

ROPE PULL SWITCHES



Rope Pull Latching
6A/400VAC
PL-967-7.5kg
PL-967-15kg

Mounting holes for PL-967



34mm
72mm



Latching on Rope Pull Break
6A/400VAC
PL-967

Rope Pull Switches IP65

Code	Description	Contacts
PL-967	6kg rope pull/break switch	1NO+1NO (NC when tensioned)
PL-967-7.5KG	7.5kg rope pull switch	1NO+1NC
PL-967-15KG	15kg rope pull switch	1NO+1NC

Rope Accessories

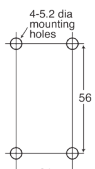
MET							
Code	PWR*	SB209331/6	SB209332/6.5	SB209333/M8	SB209333/M10	SB209333/M12	SB209336/8
	Steel Wire. PVC Sheathed Rope. 100m. Ø5mm Red.	Thimble 6mm	Clamp 6.5mm	M8 Eye Bolt	M10 Eye Bolt	M12 Eye Bolt	Tensioner 8mm

*Add /1 to code for /meter pricing of cut lengths

LIMIT SWITCHES

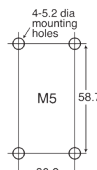
Steel Type AH8 (28mm) IP65

• Contact: NC & NO 5A • Cable entry: Rubber Grommet

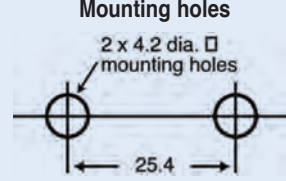
									
Code	AH8111	AH8112	AH8122	AH8104	AH8107	AH8108	AH8166	AH8101	AH8169

Steel Type WL5 (40mm) IP65

• Contact: NC & NO 10A • Cable entry: 20mm

	Pushbutton	Pushroller	Rollerball	180° Tilt	Wobble	180° Tilt	180° Tilt	Maintained
								
Code	WL5101	WL5102	WL5103	WL5104	WL5106	WL5107-2	WL5108-2	WL5105

Compact Enclosed Type AH-7 IP65

				
Code	AH-7100	AH-7110	AH-7310	AH-7311
				
Code	AH-7312	AH-7120	AH-7140	AH-7121
				Mounting holes 2 x 4.2 dia. □ mounting holes 
Code	AH-7141	AH-7124	AH-7144	

Specifications

- Contact resistance: 25mΩ max (initial)
- Insulation resistance: 100MΩ min (at 500VDC)
- Dielectric strength: 1 000VAC 50/60Hz for 1 min

- Service life:
- Current rating:

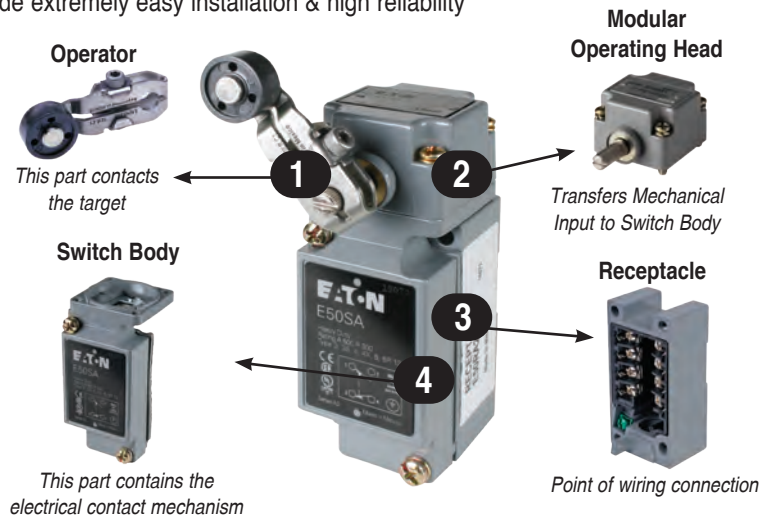
Mechanically: 1 000 000 operations min
Electrically: 100 000 operations min
10A @ 250VAC C/O

NEW

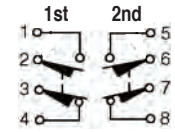
MODULAR LIMIT SWITCHES IP66

Modular Limit Switches - Provide extremely easy installation & high reliability

The E50 Modular plug-in Limit Switch allows for complete Part Replacement and the convenience of configuring your Switch for your application. Maintenance downtime can be shortened by way of replacing either the Operating Head, the Switch Body, or the Single or Double Pole Receptacle. E50 Limit Switches offer high precision in terms of accuracy and repeatability. This is primarily due to the fact that they make direct contact with the Target.



Double Pole - Wiring Diagram



Single Pole - Wiring Diagram



1. Operators for Switches

Code	E50KL200	E50KL355	E50KL204	E50KL201	E50KW4	EK50KW3
Description	Standard Roller Stainless Steel with Nylatron Roller	Standard Roller Stainless Steel with Metal Roller	Fork Lever with Nylatron Roller	Adjustable Roller Stainless Steel with Nylatron Roller	Coil Spring for Wobble Head	Stainless Steel Rod For Wobble Head

2. Operating Heads

Code	E50DR1	E50DT3	E50DS3	E50DS1	E50DT1	E50DS2	E50DT2	E50DW1
Description	Side Rotary Spring Return	Top Push-Roller Spring Return	Side Push-Roller Spring Return	Side Pushbutton Spring Return	Top Pushbutton Spring Return	Side Pushbutton Adj.Spring Return	Top Pushbutton Adj.Spring Return	Wobble Head - Spring Return

3. Receptacles - M20 Gland Entry

	Single Pole	Double Pole	Single Pole	Double Pole
Code	E50RA20	E50RB20	E50SA	E50SB
Contact	1 N.O. / 1 N.C	2 N.O. / 2 N.C	1 N.O. / 1 N.C	2 N.O. / 2 N.C

Electrical Data - Maximum Contact Ratings (Same Polarity each Pole)

AC Volts	Current (Amps)			DC Volts	Current (Amps)	
	Make	Break	Cont*		Make/Break	
120	60	6	10	125	0.22	1.0
240	30	3	-	250	0.11	1.0
480	15	1.5	-			
600	12	1.3	-			
Nema A600 Rating				Nema R300		

Construction Material Zink Die-Cast

Mechanical Life

Side Rotary 13 000 000 operations minimum

Side or top Push 10 000 000 operations minimum

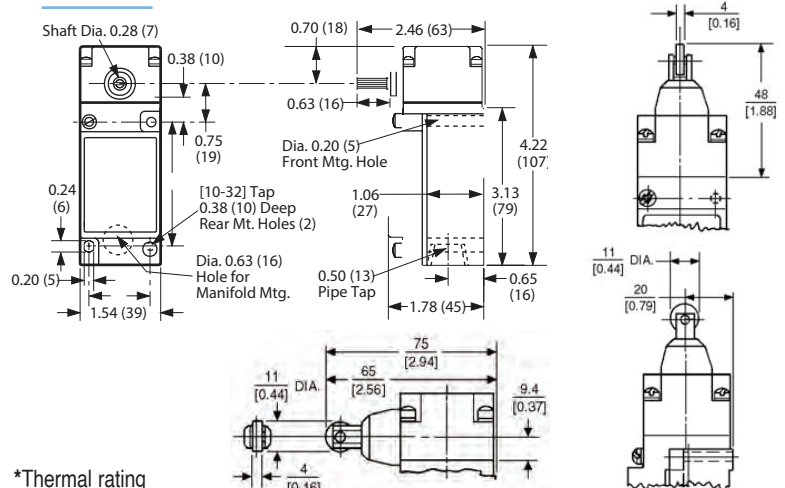
Electrical Life

Single Pole 1 000 000 operations typical at full load

Double Pole 100 000 operations typical at full load

Wire Size 0.5 - 4mm²

Dimensions

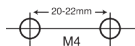


*Thermal rating

LIMIT SWITCHES

Plastic Type AP1 – 30mm Width **IP65**

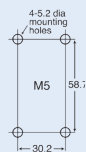
- EN50047
- Contact:
NC & NO
10A@24VAC
3A@240VAC
- Cable entry:
M20x1.5



Code	AP5T11	AP5T13	AP5T31	AP5T41	AP5T51	AP5T52	AP5T71	AP5T91	AP5T92	AP5-T98

Plastic Type BP1 – 40mm Width **IP65**

- EN50041
- Contact:
NC & NO
10A@24VAC
3A@240VAC
- Cable entry:
M20x1.5



Code	BP5H12	BP5H19	BP5H33	BP5H43	BP5H53	BP5H54	BP5H91	BP5H92	BP5H93

Plastic Type DP1 – 50mm Width **IP65**

- Contact:
1N/O & 1NC
10A@24VAC
3A@240VAC
- M20x1.5
Cable entry
- 2 x cable
entries



Code	DP5T11	DP5T13	DP5T31	DP5T41	DP5T51	DP5T52	DP5T71	DP5T91	DP5T92

NEW



Rated currents:
10A@24VAC
3A@240VAC
6A@24Vdc

Contact Blocks

Code	Description
GZ11	Snap Action Contact Block: 1NO + 1NC
GX11	Non-overlapping Slow Action Contact: 1NO + 1NC
GX12P	Non-overlapping Slow Action Contact: 1NO + 2NC
GW02	Slow Action Contact: 2NC

LIMIT SWITCHES

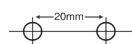
Metal Pre-Wired • Type EM1 30W x 50H (mm) **IP67** • Type EM2 33W x 70H (mm) **IP67**

COMEPI

- IEC 947-1
- EN60947-1
- Contact: 1N/O & 1N/C
5A@24VAC
1A@240VAC
- Cable: 1m



EM2 mounting holes



EM1 mounting holes

								
Code side cable	EM1G11Z	EM1G12Z	EM1G14Z	EM1G21Z	EM1G22Z	EM1G24Z	EM1G41Z	EM1G42Z
Code bottom cable	EM2G11Z	EM2G12Z	EM2G14Z	EM2G21Z	EM2G22Z	EM2G24Z	EM2G41Z	EM2G42Z

FOOT SWITCHES

Footswitch

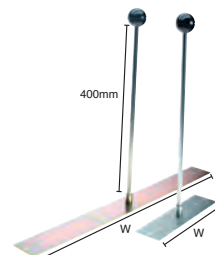
COMEPI

With locking device in neutral position (Pedal in the up position)

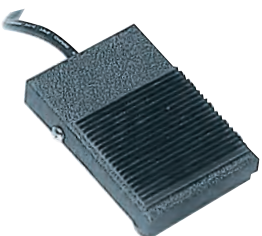
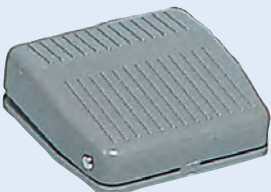


Steel Mounting Frames

Without foot switch



Code 1NO+1NC	FS-PS1211 (SPDT)	Code	Description	Width
Code 2NO+2NC	FS-PS1213 (DPDT)			
Contacts	10A 250VAC	PD-1000	For 2 foot switches	350mm
Enclosure material	Shock resistant ABS			
IP rating	IP65	PD-1002	For 4 foot switches	700mm
Cable/Entry	Not supplied (PG16 entry)			
Spare contact for 1NO+1NC	Z11			

				 Heavy Duty
Code 1NO + 1NC	FS-1	FS-2	FS-3	FS-4 (SPDT)
Code 2NO + 2NC	-	-	-	FS-4/DP (DPDT)
Contacts	10A 250VAC (SPDT)	10A 250V (SPDT)	10A 250V (SPDT)	15A 250VAC
Enclosure material	Steel cover	Poly-carb	Aluminium	Aluminium
Cable/Entry	PVC 0.75mm x 3 core	PVC 0.75mm x 3 core	PVC 0.75mm x 3 core	Not supplied (16mm entry)
IP rating	IP40	IP40	IP40	IP54
Spare contact 1NO + 1NC	-	-	-	Z15G-1704

MICRO SWITCHES

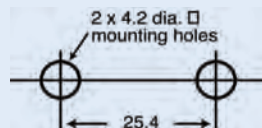
General purpose Z-type

				
Code	Z15G-1701	Z15G-1702	Z15G-1703	Z15G-1704
				
Code	Z15G-1744	Z15G-1300	Z15G-1305	Z15G-1306
				
Code	Z15G-1307	Z15G-1705	Z15G-1308	Z15G-1318

Specifications

- Contact resistance: 15mΩ max (initial)
- Insulation resistance: 100MΩ min (at 500VDC)
- Dielectric strength: 1 000VAC 50/60Hz for 1 min
- Service life: Mechanically: 1 000 000 operations p/min
Electrically: 100 000 operations p/min
- Current rating: 15A @ 250VAC C/O

Mounting holes



AA8000

Terminal Cover for
Z-type Micro Switches

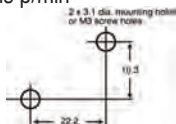
Type VS Micro switch (High mechanical life)

				
Code	VS15P01C	VS15P02C	VS15P03C	VS15P04C
				
Code	VS15P05C	VS15P06C	VS15P07C	P-CS-71

Specifications

- Contact resistance: 15mΩ max (initial)
- Insulation resistance: 100MΩ min (at 500VDC)
- Dielectric strength: 1 000VAC 50/60Hz for 1 min
- Service life: Mechanically: 1 000 000 operations p/min
Electrically: 100 000 operations p/min
- Current rating: VS: 1C/O 15A @ 250V
P-CS: 1C/O 5A @ 250V

Mounting holes



Push Buttons

Fits onto VS15P01C Micro Switch Hole Size 10mm



Code VAQ-5* VAQ-4* AB6161-* AB5151-*

Hole Size 12mm

*Add colour of button: ●R, ●Y, ●GN

SAFETY LIMIT SWITCHES

Limit Switches IP67

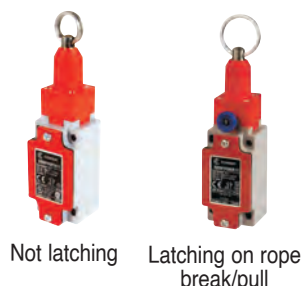
Latching Limit Switch Manual Pull to reset						
Code	EDR-6-1-21	EDR-6-1-22	EDR-6-1-27	EDR-6-1-31	EDR-6-1-32	EDR-6-1-62
Contacts	1NO + 1NC (3A 230VAC)					
Cable/Entry	Cable Entry 20mm					
Enclosure	IP67 Glass-filled polybutylene terephthalate					

Safety Limit Switches

	 90° Adjustable Head 360° Fully Turnable Head 90° Adjustable Head			 90° Adjustable Head		 K100 K101			
Code	SP5K20		SP5K120		SBM5K40X12		K100	K101	
Key (Not Included)	K101/K100					K101/K100		Key fits on front or top of the limit switches	
Contact	1NO + 1NC (3A@240VAC)					*1NO + 1NC (3A@240VAC)		Order key separately	
Enclosure	IP65 Plastic body					IP66 Metal Casing			
Dimensions (mm)	30 x 30 x 90 – M20 entry					40 x 40 x 13 – M20 entry			
*Slow break before make									

COMEPI

- Complies to IEC-947-5-1
- 1NO + 1NC Positive Action
- AC-15 = 3A at 230V. ui = 690V
- For cable lengths up to 6 metres
- Contact operates on rope break or rope pull



Safety Rope Break Switches

With reset	SM5K98X11	SBM5K99X11
Without reset	SM5K96X11	SBM5K97X11
Weight	4.7kg	6.7kg
Dimensions	30 x 30 x 143	40 x 44 x 162
	M20 entry	M20 entry
IP Rating	IP65	IP66
Enclosure	Die-cast Body	Die-cast Body

Rope Accessories

MET							
Code	PWR*	SB209331/6	SB209332/6.5	SB209333/M8	SB209333/M10	SB209333/M12	SB209336/8
	Steel Wire. PVC Sheathed Rope. 100m. Ø5mm Red.	Thimble 6mm	Clamp 6.5mm	M8 Eye Bolt	M10 Eye Bolt	M12 Eye Bolt	Tensioner 8mm

*Add /1 to code for /meter pricing of cut lengths

MAGNETIC PROXIMITY SWITCHES IP54

Reed Contact Magnetic Switches



Nickel Plated Brass Housing

Code	SM03	SM05	SM09	SM13	SM17	SM06	SM08	SM14	SM14
Contact	NO	NO	NO	NO	NO	NO+NC	NO+NC	NO+NC	NO+NC
Max. V	250VAC	250VAC	250VAC/200VDC	250VAC	250VAC	150VAC/VDC	150VAC/VDC	220VAC/VDC	220VAC/VDC
Max. W	10W	10W	50W	100W	100W	5W	5W	60W	60W
Max. A	0.15A	0.15A	0.15A	0.4A	0.4A	0.25A	0.25A	1A	1A
Size O x L	M8x34mm	M10x33mm	M10x33mm	M12x72mm	M18x70mm	M10x40mm	M12x42mm	M12x72mm	M18x70mm



E560



SM02

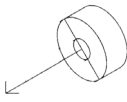
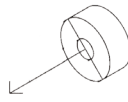
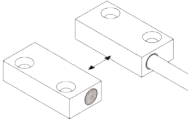
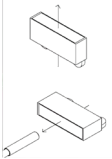
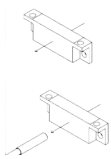
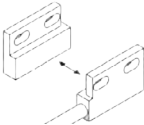


SM21 / SM22

Plastic Housing

Code	E560-1ADA0147	E560-1BDA0147	E560-1MDA0147	E560-1SDA0147	E560-2PDA0147	E560-2TDA0147	SM02	SM21	SM22
Contact	NO	NO	NC	NO+NC	NO+NO	NC+NC	NO+NC	NO	BISTABLE NO
Max. V	150VAC/100VDC	250VAC/200VDC	150VAC/200VDC	150VAC/VDC	125VAC/100VDC	150VAC/VDC	150VAC/VDC	250VAC/VDC	250VAC/VDC
Max. W	10W	50W	10W	10W	10W	10W	5W	100W	100W
Max. A	0.5A	1A	0.5A	0.5A	0.5A	0.5A	0.25A	3A	3A
Size (mm)	29x19x9	29x19x9	29x19x9	29x19x9	29x19x9	29x19x9	6x38	M12x100	M12x100

Reed Contact Switch/ Magnet Switching Distances (mm)

												
Code	MG01		MG02		MG03		MG04		MG05		MG06	
												
Sensor	Distance	Hysteresis	Distance	Hysteresis	Distance	Hysteresis	Distance	Hysteresis	Distance	Hysteresis	Distance	Hysteresis
SM02	12	1	17	1	-	-	-	-	-	-	13	1
SM03	13	5	8	5	-	-	-	-	-	-	-	-
SM05	16	3	12	3	-	-	-	-	-	-	-	-
SM06	18	5	13	4	-	-	-	-	-	-	-	-
SM08	18	5	13	4	-	-	-	-	-	-	-	-
SM09	16	3	12	2	-	-	-	-	-	-	-	-
SM13	16	7	4	4	-	-	-	-	-	-	-	-
SM14	10	15	-	-	-	-	-	-	-	-	-	-
SM17	-	-	-	-	-	-	-	-	-	-	-	-
SM18	-	-	-	-	-	-	-	-	-	-	-	-
E560-1ADA0147	14	1	-	-	-	-	-	-	-	-	11	1
E560-1BDA0147	13	2	-	-	-	-	-	-	-	-	10	7
E560-1MDA0147	11	2	-	-	-	-	-	-	-	-	10	2
E560-1SDA0147	10	5	-	-	-	-	-	-	-	-	8	3
E560-1VDA0147	13	-	-	-	-	-	-	-	-	-	10	7
E560-2PDA0147	-	-	-	-	-	-	-	-	-	-	-	-
E560-2TDA0147	-	-	-	-	-	-	-	-	-	-	-	-

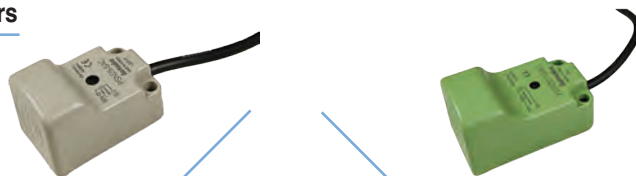
COMPACT RECTANGULAR/SQUARE INDUCTIVE SENSORS IP67

3 Wire DC Inductive Sensors



NPN NO	PS17-5DN	PS17-8DN	PFI25-8DN	PSN25-5DN	PSN30-10DN	PSN30-15DN	PSN40-20DN	PS50-30DN
PNP NO	PS17-5DP	PS17-8DP	PFI25-8DP	PSN25-5DP	PSN30-10DP	PSN30-15DP	PSN40-20DP	PS50-30DP
NPN NC	PS17-5DN2	PS17-8DN2	PFI25-8DN2	PSN25-5DN2	PSN30-10DN2	PSN30-15DN2	PSN40-20DN2	PS50-30DN2
PNP NC	—	—	PFI25-8DP2	PSN25-5DP2	PSN30-10DP2	PSN30-15DP2	PSN40-20DP2	PS50-30DP2
Switching Distance	5mm ±10%	8mm ±10%		5mm ±10%	10mm ±10%	15mm ±10%	20mm ±10%	30mm ±10%
Hysteresis	Max. 10% of switching distance							
Standard Detecting Target	18 x 18 x 1mm (Iron)	25 x 25 x 1mm (Iron)			30 x 30 x 1mm (Iron)	45 x 45 x 1mm (Iron)	60 x 60 x 1mm (Iron)	90 x 90 x 1mm (Iron)
Response Frequency	700Hz	200Hz		300Hz	250Hz	200Hz	100Hz	50Hz
Dimensions (mm)	17 x 17 x 31		26 x 10 x 49	25 x 25 x 39	30 x 30 x 53		40 x 40 x 53	53 x 53 x 35
Protection Circuit	Surge protection circuit. Reverse polarity protection			Surge protection circuit. Reverse polarity protection Overload & short-circuit protection				
Power Supply (Operation Voltage)	12-24VDC (10-30VDC)							
Leakage Current	Max. 10mA							
Residual Voltage	Max. 1.5V							
Control Output	200mA							
Insulation Resistance	Min. 50MΩ (at 500VDC)							
Indicator	Operation indicator (Red LED)							
Ambient Temperature	-25 – +70°C (at non-freezing status)							

2 Wire AC Inductive Sensors



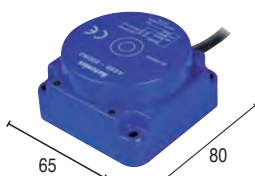
2 Wire DC



NO Output	PSN25-5AO	PSN30-10AO	PSN30-15AO	PSN40-20AO	PST17-5DO
NC Output	PSN25-5AC	PSN30-10AC	PSN30-15AC	PSN40-20AC	PST17-5DC
Switching Distance	5mm ±10%	10mm ±10%	14mm ±10%	14mm ±10%	5mm ±10%
Hysteresis	Max. 10% of switching distance				Max. 10% of switching distance
Standard Detecting Target	25 x 25 x 1mm (Iron)	30 x 30 x 1mm (Iron)	45 x 45 x 1mm (Iron)	60 x 60 x 1mm (Iron)	18 x 18 x 1mm (Iron)
Dimensions (mm)	25 x 25 x 39	30 x 30 x 53	30 x 30 x 53	40 x 40 x 53	17 x 17 x 31
Power Supply (Operation Voltage)	100-240VAC (85-264VAC)				12-24VDC (10-30VDC)
Leakage Current	Max. 2.5mA				Max. 10mA
Response Frequency	20Hz				700Hz
Residual Voltage	Max. 10V				Max. 4V
Control Output	5-200mA				2-100mA
Insulation Resistance	Min. 50MΩ (at 500VDC)				Min. 50MΩ (at 500VDC)
Indicator	Operation indicator (Red LED)				Red LED
Ambient Temperature	-25 to +70°C				-25 to +70°C
Protection Circuit	Surge protection circuit				-

Features

- Max. Output Current: 200mA
- Operating LED
- Hysteresis: Max 15% of Sensing Distance
- Response Frequency: 30Hz



Square Inductive Switches 4-Wire 80x80mm - Supply Voltage 12 - 48VDC

Code (2m Cable)	Code Plug	Type	Size (mm)	Max. Sensing Distance	Output
AS80-50DN3	-	Shielded	80 x 80 x 45	50mm	NPN NO+NC
AS80-50P3	-	Shielded	80 x 80 x 45	50mm	PNP NO+NC

SQUARE INDUCTIVE PROXIMITY SWITCHES IP67

Features

- Max. Output Current: 200mA
- Operating LED



8x8mm



Square 40x40x106mm
c/w Terminal Block



Square 40x40x106mm
c/w M12 Connectors

Square Inductive Switches DC 3-Wire 8x8mm - Supply Voltage: 10-30VDC

Code (2m Cable)	Code Plug (M8 Connector)	Type	Nominal Sensing Distance	Output
IS-88-Q1-03	IS-88-Q1-S1	-	1.5mm	PNP NO

Square Inductive Switches DC 4-Wire 40x40mm - Supply Voltage: 10-30VDC

Code (Terminal Block)	Code Plug (M12 Connector)	Type	Nominal Sensing Distance	Output
IS-40-W5-03	IS-40-X5-S2	Shielded	15mm	PNP NO+NC
IS-40-W6-03	-	Shielded	15mm	NPN NO+NC
IS-40-Y5-03	-	Non-Shielded	30mm	PNP NO+NC
IS-40-Y6-03	-	Non-Shielded	30mm	NPN NO+NC

Square Inductive Switches Standard Housing AC/DC 2-Wire 40x40mm -

Supply Voltage: 20 - 250VAC/DC

Code (Terminal Block)	Code Plug (M12 Connector)	Type	Nominal Sensing Distance	Output
IS-40-W7-03	-	Shielded	15mm	AC/DC NO
IS-40-W8-03	-	Shielded	15mm	AC/DC NC
IS-40-Y7-03	-	Non-Shielded	30mm	AC/DC NO
IS-40-Y8-03	-	Non-Shielded	30mm	AC/DC NC

SPECIAL DC INDUCTIVE PROXIMITY SWITCHES IP67

Features

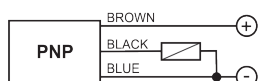
- Operating Temperature: -25-70°C
- Max. Output Current: 200mA
- Operating LED
- Supply Voltage: 10-30VDC
- Stainless Steel Housing



Weld Immune



Metal Face



Inductive Proximity Switches DC 3-Wire - Weld Field Immune

Size	Code (2M Cable)	Code Plug (M12 Connector)	Type	Nominal Sensing Distance	Output
M12	-	IS-F12-S1-S2	Shielded	2mm	PNP NO
M12	-	IS-F12-T1-S2	Non-Shielded	4mm	PNP NO
M18	-	IS-F18-S1-S2	Shielded	5mm	PNP NO
M18	-	IS-F18-T1-S2	Non-Shielded	8mm	PNP NO

Inductive Proximity Switches DC 3-Wire - Metal Face

Size	Code (2M Cable)	Code Plug (M12 Connector)	Type	Nominal Sensing Distance	Output
M12	-	IS-12-I1-S2	Shielded	2mm	PNP NO
M12	-	IS-12-L1-S2	Non-Shielded	4mm	PNP NO
M18	-	IS-18-I1-S2	Shielded	5mm	PNP NO
M18	-	IS-18-L1-S2	Non-Shielded	8mm	PNP NO

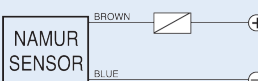
NAMUR INDUCTIVE PROXIMITY SWITCHES IP67

Features

- Output Current: <1-3mA
- Operating LED
- Operating Temperature: -25-60°C
- Nominal Voltage: 7.7-9VDC
- Nickel Plated Brass Housing



Namur



Namur Inductive Proximity Switches DC 2-Wire

Size	Code (2m Cable)	Code Plug (M12 Connector)	Type	Nominal Sensing Distance	Output
M8	IS-08-A20-03	IS-08-A20-S2	Shielded	1mm	Namur
M8	IS-08-C20-03	IS-08-C20-S2	Non-Shielded	2mm	Namur
M12	IS-12-A20-03	IS-12-A20-S2	Shielded	2mm	Namur
M12	IS-12-C20-03	IS-12-C20-S2	Non-Shielded	4mm	Namur
M18	IS-18-A20-03	IS-18-A20-S2	Shielded	5mm	Namur
M18	IS-18-C20-03	IS-18-C20-S2	Non-Shielded	8mm	Namur
M30	IS-30-A20-03	IS-30-A20-S2	Shielded	10mm	Namur
M30	IS-30-C20-03	IS-30-C20-S2	Non-Shielded	15mm	Namur

DC 3-WIRE INDUCTIVE PROXIMITY SWITCHES IP67

Features

- Operating LED
- Supply Voltage: 10-30VDC
- M5 Housing Material: Stainless Steel
- M6.5-M30 Housing Material: Nickel Plated Brass



M5 Shielded



M6.5 Shielded



M6.5 Non-Shielded



M12 Shielded



M12 Non Shielded



M18 Shielded



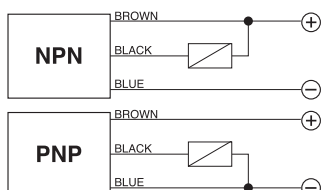
M18-Non Shielded



M30 Shielded



M30-Non Shielded



M5 Standard Housing DC 3-Wire - Switching Frequency: 2000Hz

Code (2M Cable)	Code Plug (M8 Connector)	Type	Nominal Sensing Distance	Output
IS-05-A3-03	IS-05-A3-S1	Shielded	0.8mm	PNP NC
IS-05-A1-03	IS-05-A1-S1	Shielded	0.8mm	PNP NO

M6 Standard Housing DC 3-Wire

IS-65-A1-03	IS-65-A1-S1	Shielded	1.5mm	PNP NO
IS-65-A2-03	IS-65-A2-S1	Shielded	1.5mm	PNP NC
IS-65-A3-03	-	Shielded	1.5mm	NPN NO
IS-65-A4-03	IS-65-A4-S1	Shielded	1.5mm	NPN NC
IS-65-C1-03	IS-65-C1-S1	Non-Shielded	2mm	PNP NO
IS-65-C2-03	IS-65-C2-S1	Non-Shielded	2mm	PNP NC
IS-65-C3-03	IS-65-C3-S1	Non-Shielded	2mm	NPN NO
IS-65-C4-03	IS-65-C4-S1	Non-Shielded	2mm	NPN NC

M8 Standard Housing DC 3-Wire - Switching Frequency: 1000Hz

Code (2m Cable)	Code Plug (M12 Connector)	Type	Nominal Sensing Distance	Output
-	IS-08-A1-S2	Shielded	1.5mm	PNP NO

M12 Standard Housing DC 3-Wire - Switching Frequency: 1000Hz

IS-12-A1-03	IS-12-A1-S2	Shielded	2mm	PNP NO
IS-12-A2-03	IS-12-A2-S2	Shielded	2mm	PNP NC
IS-12-A3-03	IS-12-A3-S2	Shielded	2mm	NPN NO
IS-12-A4-03	IS-12-A4-S2	Shielded	2mm	NPN NC
IS-12-C1-03	IS-12-C1-S2	Non-Shielded	4mm	PNP NO
IS-12-C2-03	IS-12-C2-S2	Non-Shielded	4mm	PNP NC
IS-12-C3-03	IS-12-C3-S2	Non-Shielded	4mm	NPN NO
IS-12-C4-03	IS-12-C4-S2	Non-Shielded	4mm	NPN NC

M18 Standard Housing DC 3-Wire - Switching Frequency: 1000Hz

IS-18-A1-03	IS-18-A1-S2	Shielded	5mm	PNP NO
IS-18-A2-03	IS-18-A2-S2	Shielded	5mm	PNP NC
IS-18-A3-03	IS-18-A3-S2	Shielded	5mm	NPN NO
IS-18-A4-03	IS-18-A4-S2	Shielded	5mm	NPN NC
IS-18-C1-03	IS-18-C1-S2	Non-Shielded	8mm	PNP NO
IS-18-C2-03	IS-18-C2-S2	Non-Shielded	8mm	PNP NC
IS-18-C3-03	IS-18-C3-S2	Non-Shielded	8mm	NPN NO
IS-18-C4-03	IS-18-C4-S2	Non-Shielded	8mm	NPN NC

M30 Standard Housing DC 3-Wire - Switching Frequency: 300Hz

IS-30-A1-03	IS-30-A1-S2	Shielded	10mm	PNP NO
IS-30-A2-03	IS-30-A2-S2	Shielded	10mm	PNP NC
IS-30-A3-03	IS-30-A3-S2	Shielded	10mm	NPN NO
IS-30-A4-03	IS-30-A4-S2	Shielded	10mm	NPN NC
IS-30-C1-03	IS-30-C1-S2	Non-Shielded	15mm	PNP NO
IS-30-C2-03	IS-30-C2-S2	Non-Shielded	15mm	PNP NC
IS-30-C3-03	IS-30-C3-S2	Non-Shielded	15mm	NPN NO
IS-30-C4-03	IS-30-C4-S2	Non-Shielded	15mm	NPN NC

DC 3-WIRE INDUCTIVE PROXIMITY SWITCHES IP67

Features

- Operating LED
- Operating Temperature: -25-70°C
- Supply Voltage: 10-30VDC
- **X2**: Longer Sensing Distance
- Nickel Plated Brass Housing



M8 Shielded



M12 Shielded

M12 Non Shielded



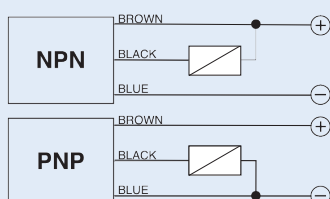
M18 Shielded

M18 Non Shielded



M30 Shielded

M30 Non Shielded



M8 Short Housing DC 3-Wire - Switching Frequency: 500Hz

Code (2m Cable)	Code Plug (M8 Connector)	Code Plug (M12 Connector)	Type	Nominal Sensing Distance	Output
IS-08-G1-03	IS-08-G1-S1	IS-08-G1-S2	Shielded	2mm	PNP NO
IS-08-G2-03	IS-08-G2-S1	IS-08-G2-S2	Shielded	2mm	PNP NC
IS-08-G3-03	IS-08-G3-S1	IS-08-G3-S2	Shielded	2mm	NPN NO
IS-08-G4-03	IS-08-G4-S1	IS-08-G4-S2	Shielded	2mm	NPN NC

M12 Short Housing DC 3-Wire - Switching Frequency: 500Hz

Code (2m Cable)	Code Plug (M12 Connector)	Type	Nominal Sensing Distance	Output
IS-12-G1-03	IS-12-G1-S2	Shielded	4mm	PNP NO
IS-12-G2-03	IS-12-G2-S2	Shielded	4mm	PNP NC
IS-12-G3-03	IS-12-G3-S2	Shielded	4mm	NPN NO
IS-12-G4-03	IS-12-G4-S2	Shielded	4mm	NPN NC
IS-12-H1-03	IS-12-H1-S2	Non-Shielded	8mm	PNP NO
IS-12-H2-03	IS-12-H2-S2	Non-Shielded	8mm	PNP NC
IS-12-H3-03	IS-12-H3-S2	Non-Shielded	8mm	NPN NO
IS-12-H4-03	IS-12-H4-S2	Non-Shielded	8mm	NPN NC

M18 Short Housing DC 3-Wire - Switching Frequency: 400Hz

IS-18-G1-03	IS-18-G1-S2	Shielded	8mm	PNP NO
IS-18-G2-03	IS-18-G2-S2	Shielded	8mm	PNP NC
IS-18-G3-03	IS-18-G3-S2	Shielded	8mm	NPN NO
IS-18-G4-03	IS-18-G4-S2	Shielded	8mm	NPN NC
IS-18-H1-03	IS-18-H1-S2	Non-Shielded	14mm	PNP NO
IS-18-H2-03	IS-18-H2-S2	Non-Shielded	14mm	PNP NC
IS-18-H3-03	IS-18-H3-S2	Non-Shielded	14mm	NPN NO
IS-18-H4-03	IS-18-H4-S2	Non-Shielded	14mm	NPN NC

M30 Housing DC 3-Wire - Switching Frequency: 200Hz

IS-30-H1-03	IS-30-H1-S2	Non-Shielded	15mm	PNP NO
IS-30-H2-03	IS-30-H2-S2	Non-Shielded	15mm	PNP NC
IS-30-H3-03	IS-30-H3-S2	Non-Shielded	15mm	NPN NO
IS-30-H4-03	IS-30-H4-S2	Non-Shielded	15mm	NPN NC
IS-30-G1-03	IS-30-G1-S2	Shielded	20mm	PNP NO
IS-30-G2-03	IS-30-G2-S2	Shielded	20mm	PNP NC
IS-30-G3-03	IS-30-G3-S2	Shielded	20mm	NPN NO
IS-30-G4-03	IS-30-G4-S2	Shielded	20mm	NPN NC

DC 2-WIRE INDUCTIVE PROXIMITY SWITCHES IP67

Features

- Operating LED
- Nickel Plated Brass Housing
- Supply Voltage: 10-30VDC



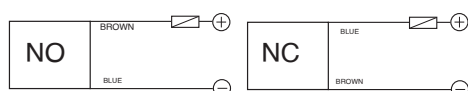
M12 Shielded



M18 Non Shielded



M30 Shielded



M12 Standard Housing DC 2-Wire - Switching Frequency: 200Hz

Code (2M Cable)	Code Plug (M12 Connector)	Type	Nominal Sensing Distance	Output
IS-12-A9-03	IS-12-A9-S2	Shielded	2mm	NO/NC
IS-12-C9-03	IS-12-C9-S2	Non-Shielded	4mm	NO/NC

M18 Standard Housing DC 2-Wire - Switching Frequency: 200Hz

IS-18-A9-03	IS-18-A9-S2	Shielded	5mm	NO/NC
IS-18-C9-03	IS-18-C9-S2	Non-Shielded	8mm	NO/NC

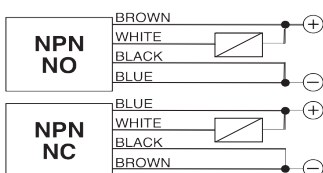
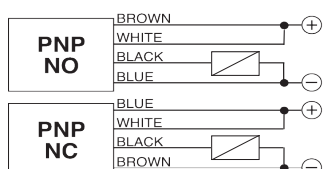
M30 Standard Housing DC 2-Wire - Switching Frequency: 250Hz

IS-30-A9-03	IS-30-A9-S2	Shielded	10mm	NO/NC
IS-30-C9-03	IS-30-C9-S2	Non-Shielded	15mm	NO/NC

DC 4-WIRE INDUCTIVE PROXIMITY SWITCHES IP67

Features

- Operating LED
- Operating Temp.: -25-70°C
- Supply Voltage: 10-30VDC
- Nickel Plated Brass Housing
- X2 - Longer Sensing Distance



M12 Standard Housing - DC 4-Wire Programmable Output - Switching Freq.: 1000Hz

Code (2m Cable)	Code Plug (M12 Connector)	Type	Nominal Sensing Distance	Output
IS-12-A0-03	IS-12-A0-S2	Shielded	2mm	NPN/PNP - NO/NC
IS-12-C0-03	IS-12-C0-S2	Non-Shielded	4mm	NPN/PNP - NO/NC

M18 Standard Housing - DC 4-Wire Programmable Output - Switching Freq.: 1000Hz

Code (2m Cable)	Code Plug (M12 Connector)	Type	Nominal Sensing Distance	Output
IS-18-A0-03	IS-18-A0-S2	Shielded	5mm	NPN/PNP - NO/NC
IS-18-C0-03	IS-18-C0-S2	Non-Shielded	8mm	NPN/PNP - NO/NC

M30 Standard Housing - DC 4-Wire Programmable Output - Switching Freq.: 300Hz

Code (2m Cable)	Code Plug (M12 Connector)	Type	Nominal Sensing Distance	Output
IS-30-A0-03	IS-30-A0-S2	Shielded	10mm	NPN/PNP - NO/NC
IS-30-C0-03	IS-30-C0-S2	Non-Shielded	15mm	NPN/PNP - NO/NC

X2 M12 Standard Housing - DC 4-Wire Programmable Output - Switching Freq.: 500Hz

Code (2m Cable)	Code Plug (M12 Connector)	Type	Nominal Sensing Distance	Output
IS-12-E0-03	IS-12-E0-S2	Shielded	4mm	NPN/PNP - NO/NC
IS-12-F0-03	IS-12-F0-S2	Non-Shielded	8mm	NPN/PNP - NO/NC

X2 M18 Standard Housing - DC 4-Wire Programmable Output - Switching Freq.: 400Hz

Code (2m Cable)	Code Plug (M12 Connector)	Type	Nominal Sensing Distance	Output
IS-18-E0-03	IS-18-E0-S2	Shielded	8mm	NPN/PNP - NO/NC
IS-18-F0-03	IS-18-F0-S2	Non-Shielded	14mm	NPN/PNP - NO/NC

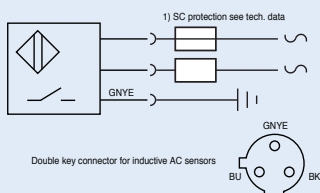
X2 M30 Standard Housing - DC 4-Wire Programmable Output - Switching Freq.: 200Hz

Code (2m Cable)	Code Plug (M12 Connector)	Type	Nominal Sensing Distance	Output
IS-30-E0-03	IS-30-E0-S2	Shielded	15mm	NPN/PNP - NO/NC
IS-30-F0-03	IS-30-F0-S2	Non-Shielded	20mm	NPN/PNP - NO/NC

AC INDUCTIVE PROXIMITY SWITCHES IP67

Features

- Operating LED
- Switching frequency: 25Hz
- Supply Voltage: 20 - 250VAC
- Nickel Plated Brass Housing



AC Inductive Proximity Switches

Code (2M Cable)	Code Plug (M12 Connector)	Type	Size	Nominal Sensing Distance	Output
IS-12-A15-03	IS-12-A15-S2	Shielded	M12	2mm	NO
IS-18-A15-03	IS-18-A15-S2	Shielded	M18	5mm	NO
IS-30-A15-03	IS-30-A15-S2	Shielded	M30	10mm	NO



M12 Shielded



M18 Shielded

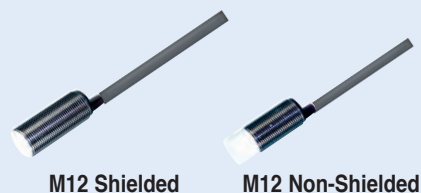


M30 Shielded

3-WIRE DC INDUCTIVE PROXIMITY SWITCHES

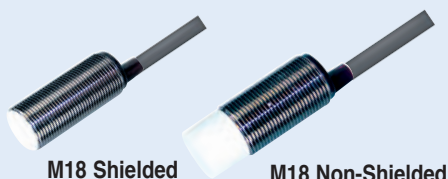
Features

- Operating Temperature: -20-70°C
- Supply Voltage: 10-30VDC



M12 Shielded

M12 Non-Shielded



M18 Shielded

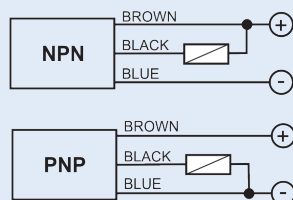
M18 Non-Shielded



M30 Shielded

M30 Non-Shielded

Wiring Diagram



M12 Nickel Plated Brass Housing IP67 - DC 3 Wire - Switching Frequency: 2000Hz

Code (2m Cable)	Code Plug (M12 Connector)	Type	Nominal Sensing Distance	Output
IS4-1202F-NOMTC	IS4-1202F-NOMTP	Shielded	2mm	PNP NO
IS4-1202F-NCMTC	IS4-1202F-NCMTP	Shielded	2mm	PNP NC
IS5-1202F-NOMTC	IS5-1202F-NOMTP	Shielded	2mm	NPN NO
IS5-1202F-NCMTC	IS5-1202F-NCMTP	Shielded	2mm	NPN NC
IS4-1204S-NOMTC	IS4-1204S-NOMTP	Non-Shielded	4mm	PNP NO
IS4-1204S-NCMTC	IS4-1204S-NCMTP	Non-Shielded	4mm	PNP NC
IS5-1204S-NOMTC	IS5-1204S-NOMTP	Non-Shielded	4mm	NPN NO
IS5-1204S-NCMTC	IS5-1204S-NCMTP	Non-Shielded	4mm	NPN NC

M18 Nickel Plated Brass Housing IP67 - DC 3 Wire - Switching Frequency: 1000Hz

IS4-1805F-NOMTC	IS4-1805F-NOMTP	Shielded	5mm	PNP NO
IS4-1805F-NCMTC	IS4-1805F-NCMTP	Shielded	5mm	PNP NC
IS5-1805F-NOMTC	IS5-1805F-NOMTP	Shielded	5mm	NPN NO
IS5-1805F-NCMTC	IS5-1805F-NCMTP	Shielded	5mm	NPN NC
IS4-1808S-NOMTC	IS4-1808S-NOMTP	Non-Shielded	8mm	PNP NO
IS4-1808S-NCMTC	IS4-1808S-NCMTP	Non-Shielded	8mm	PNP NC
IS5-1808S-NOMTC	IS5-1808S-NOMTP	Non-Shielded	8mm	NPN NO
IS5-1808S-NCMTC	IS5-1808S-NCMTP	Non-Shielded	8mm	NPN NC

M30 Aluminium Housing IP68 - DC 3 Wire - Switching Frequency: 500Hz

RI4-3010F-NOMTC	RI4-3010F-NOMTP	Shielded	10mm	PNP NO
RI4-3010F-NCMTC	RI4-3010F-NCMTP	Shielded	10mm	PNP NC
RI5-3010F-NOMTC	RI5-3010F-NOMTP	Shielded	10mm	NPN NO
RI5-3010F-NCMTC	RI5-3010F-NCMTP	Shielded	10mm	NPN NC
RI4-3015S-NOMTC	RI4-3015S-NOMTP	Non-Shielded	15mm	PNP NO
RI4-3015S-NCMTC	RI4-3015S-NCMTP	Non-Shielded	15mm	PNP NC
RI5-3015S-NOMTC	RI5-3015S-NOMTP	Non-Shielded	15mm	NPN NO
RI5-3015S-NCMTC	RI5-3015S-NCMTP	Non-Shielded	15mm	NPN NC

M40 Aluminium Housing IP68 - DC 3 Wire - Switching Frequency: 500Hz

RI4-4020F-NOMTC	-	Shielded	20mm	PNP NO
RI4-4020F-NCMTC	-	Shielded	20mm	PNP NC
RI5-4020F-NOMTC	-	Shielded	20mm	NPN NO
RI5-4020F-NCMTC	-	Shielded	20mm	NPN NC
RI4-4025S-NOMTC	-	Non-Shielded	25mm	PNP NO
RI4-4025S-NCMTC	-	Non-Shielded	25mm	PNP NC
RI5-4025S-NOMTC	-	Non-Shielded	25mm	NPN NO
RI5-4025S-NCMTC	-	Non-Shielded	25mm	NPN NC

NAMUR INDUCTIVE PROXIMITY SWITCHES IP68

Features

- Operating Temperature: -20-70°C
- Supply Voltage 8.2-10VDC
- Sensing Current: <1mA (0.8mA Typical)
- Non-Sensing Current: >2.2mA (4mA Typical)
- Aluminium Housing

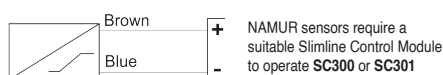


M12
Shielded

M18 Non
Shielded

M140 Non
Shielded

Wiring Diagram



M12 Namur Inductive Sensors

Code (2m Cable)	Code Plug (M12 Connector)	Type	Nominal Sensing Distance	Output
RI0-1202F-NCMTC	-	Shielded	2mm	NC
RI0-1204S-NCMTC	-	Non-Shielded	4mm	NC

M18 Namur Inductive Sensors

RI0-1805F-NCMTC	RI0-1805F-NCMTP	Shielded	5mm	NC
RI0-1808S-NCMTC	RI0-1808S-NCMTP	Non-Shielded	8mm	NC

M30 Namur Inductive Sensors

RI0-3010F-NCMTC	-	Shielded	10mm	NC
RI0-3015S-NCMTC	-	Non-Shielded	15mm	NC

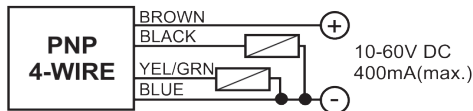
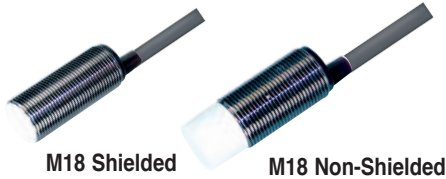
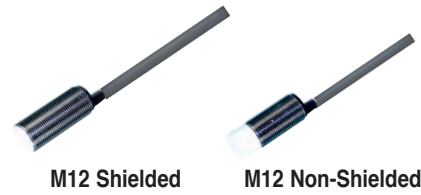
M40 Namur Inductive Sensors

RI0-4020F-NCMTC	-	Shielded	20mm	NC
RI0-4025S-NCMTC	-	Non-Shielded	25mm	NC

4-WIRE DC INDUCTIVE PROXIMITY SWITCHES

Features

- Operating Temperature: -20-70°C
- Supply Voltage: 10-60VDC



M12 Nickel Plated Brass Housing IP67 - DC 4 Wire - Switching Frequency: 2000Hz

Code (2m Cable)	Code Plug (M12 Connector)	Type	Nominal Sensing Distance	Output
RI4-1202F-NXMTC	RI4-1202F-NXMTP	Shielded	2mm	PNP NO/NC
RI5-1202F-NXMTC	RI5-1202F-NXMTP	Shielded	2mm	NPN NO/NC
RI4-1204S-NXMTC	RI4-1204S-NXMTP	Non-Shielded	4mm	PNP NO/NC
RI5-1204S-NXMTC	RI5-1204S-NXMTP	Non-Shielded	4mm	NPN NO/NC

M18 Nickel Plated Brass Housing IP67 - DC 4 Wire - Switching Frequency: 1000Hz

RI4-1805F-NXMTC	RI4-1805F-NXMTP	Shielded	5mm	PNP NO/NC
RI5-1805F-NXMTC	RI5-1805F-NXMTP	Shielded	5mm	NPN NO/NC
RI4-1808S-NXMTC	RI4-1808S-NXMTP	Non-Shielded	8mm	PNP NO/NC
RI5-1808S-NXMTC	RI5-1808S-NXMTP	Non-Shielded	8mm	NPN NO/NC

M30 Aluminium Housing IP68 - DC 4 Wire - Switching Frequency: 500Hz

RI4-3010F-NXMTC	RI4-3010F-NXMTP	Shielded	10mm	PNP NO/NC
RI5-3010F-NXMTC	RI5-3010F-NXMTP	Shielded	10mm	NPN NO/NC
RI4-3015S-NXMTC	RI4-3015S-NXMTP	Non-Shielded	15mm	PNP NO/NC
RI5-3015S-NXMTC	RI5-3015S-NXMTP	Non-Shielded	15mm	NPN NO/NC

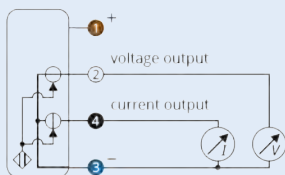
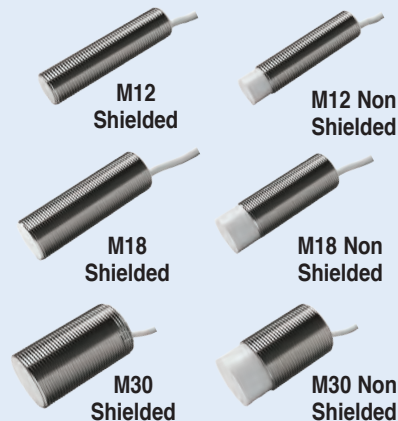
M40 Aluminium Housing IP68 DC 4 Wire - Switching Frequency: 500Hz

RI4-4020F-NXMTC	-	Shielded	20mm	PNP NO/NC
RI5-4020F-NXMTC	-	Shielded	20mm	NPN NO/NC
RI4-4025S-NXMTC	-	Non-Shielded	25mm	PNP NO/NC
RI5-4025S-NXMTC	-	Non-Shielded	25mm	NPN NO/NC

ANALOGUE DC INDUCTIVE PROXIMITY SWITCHES IP67

Features

- Operating Temperature: 0-70°C
- Output: 4-20mA/0-10V Analogue Output
- Supply Voltage: 18-30VDC



M12 Analogue Inductive Proximity Switches

Code (2M Cable)	Code Plug (M12 Connector)	Type	Nominal Sensing Distance	Output
NEW IA12-S6VI420-G2P	-	Shielded	0-6mm	0-10V/4-20mA
NEW IA12-N10VI420-G2P	-	Non-Shielded	0-10mm	0-10V/4-20mA

M18 Analogue Inductive Proximity Switches

IA18-S10V010-2NP	-	Shielded	0-10mm	0-10V
NEW IA18-S10VI420-G2P	-	Shielded	0-10mm	0-10V/4-20mA
NEW IA18-N20VI420-G2P	-	Non-Shielded	0-20mm	0-10V/4-20mA
IA18-N20I420-2NP	-	Non-Shielded	0-20mm	4-20mA

M30 Analogue Inductive Proximity Switches

IA30-S20I420-2NP	-	Shielded	0-20mm	4-20mA
NEW IA30-S20VI420-G2P	-	Shielded	0-20mm	0-10V/4-20mA
IA30-N40I420-2NP	-	Non-Shielded	0-40mm	4-20mA
NEW IA30-N40VI420-G2P	-	Non-Shielded	0-40mm	0-10V/4-20mA

2-WIRE AC INDUCTIVE PROXIMITY SWITCHES IP68

Features

- Operating Temperature: -20-70°C
- Supply Voltage: 20-250VAC
- Aluminium Housing



M12 Shielded

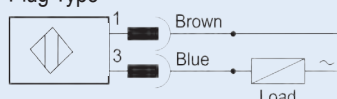
M18 Non Shielded



M30 Shielded

M40 Non Shielded

Plug Type



Cable Type



Note: These sensors are not protected against sustained current fault conditions. The fitting of an external inline 0, 4A fuse is therefore advised.

M12 AC Inductive Sensors - Switching Frequency: 10Hz

Code (2m Cable)	Code Plug (M12 Connector)	Type	Nominal Sensing Distance	Output
RI1-1202F-NOMTC	RI1-1202F-NOMTP	Shielded	2mm	NO
RI1-1202F-NCMTC	RI1-1202F-NCMTP	Shielded	2mm	NC
RI1-1204S-NOMTC	RI1-1204S-NOMTP	Non-Shielded	4mm	NO
RI1-1204S-NCMTC	RI1-1204S-NCMTP	Non-Shielded	4mm	NC

M18 AC Inductive Sensors - Switching Frequency: 10Hz

RI1-1805F-NOMTC	RI1-1805F-NOMTP	Shielded	5mm	NO
RI1-1805F-NCMTC	RI1-1805F-NCMTP	Shielded	5mm	NC
RI1-1808S-NOMTC	RI1-1808S-NOMTP	Non-Shielded	8mm	NO
RI1-1808S-NCMTC	RI1-1808S-NCMTP	Non-Shielded	8mm	NC

M30 AC Inductive Sensors - Switching Frequency: 10Hz

RI1-3010F-NOMTC	RI1-3010F-NOMTP	Shielded	10mm	NO
RI1-3010F-NCMTC	RI1-3010F-NCMTP	Shielded	10mm	NC
RI1-3015S-NOMTC	RI1-3015S-NOMTP	Non-Shielded	15mm	NO
RI1-3015S-NCMTC	RI1-3015S-NCMTP	Non-Shielded	15mm	NC

M40 AC Inductive Sensors - Switching Frequency: 10Hz

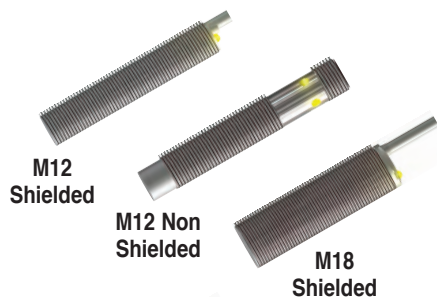
RI1-4020F-NOMTC	-	Shielded	20mm	NO
RI1-4020F-NCMTC	-	Shielded	20mm	NC
RI1-4025S-NOMTC	-	Non-Shielded	25mm	NO
RI1-4025S-NCMTC	-	Non-Shielded	25mm	NC

UNIVERSAL AC/DC INDUCTIVE PROXIMITY SWITCHES IP67

Features

- Operating Temperature: -25-75°C
- Operating LED
- Supply Voltage: 24 - 250VAC/VDC
- Nickel Plated Brass Housing
- Switching Frequency: 25Hz AC / 35Hz DC

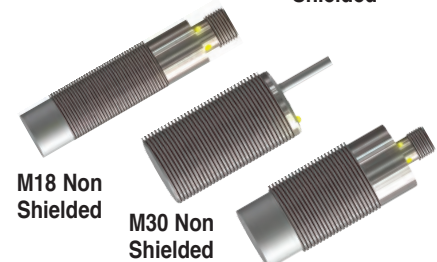
UNIVERSAL
24-250
VAC/VDC



M12
Shielded

M12 Non
Shielded

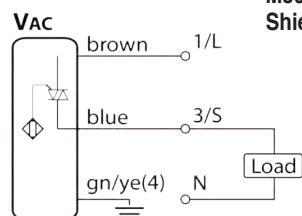
M18
Shielded



M18 Non
Shielded

M30 Non
Shielded

M30 Non
Shielded



M12 Universal Inductive Proximity Switches

Code (2m Cable)	Code Plug (M12 Connector)	Type	Nominal Sensing Distance	Output
IPS12-S2U060-A2P	IPS12-S2U068-A12	Shielded	2mm	NO
IPS12-S2UC60-A2P	IPS12-S2UC68-A12	Shielded	2mm	NC
IPS12-S4U060-A2P	IPS12-S4U068-A12	Shielded	4mm	NO
IPS12-S4UC60-A2P	IPS12-S4UC68-A12	Shielded	4mm	NC
IPS12-N4U060-A2P	IPS12-N4U068-A12	Non-Shielded	4mm	NO
IPS12-N4UC60-A2P	IPS12-N4UC68-A12	Non-Shielded	4mm	NC
IPS12-N8U060-A2P	IPS12-N8U068-A12	Non-Shielded	8mm	NO
IPS12-N8UC60-A2P	IPS12-N8UC68-A12	Non-Shielded	8mm	NC

M18 Universal Inductive Proximity Switches

IPS18-S5U055-A2P	IPS18-S5U079-A12	Shielded	5mm	NO
IPS18-S5UC55-A2P	IPS18-S5UC79-A12	Shielded	5mm	NC
IPS18-S8U055-A2P	IPS18-S8U079-A12	Shielded	8mm	NO
IPS18-S8UC55-A2P	IPS18-S8UC79-A12	Shielded	8mm	NC
IPS18-N8U055-A2P	IPS18-N8U079-A12	Non-Shielded	8mm	NO
IPS18-N8UC55-A2P	IPS18-N8UC79-A12	Non-Shielded	8mm	NC
IPS18-N16U055-A2P	IPS18-N16U079-A12	Non-Shielded	16mm	NO
IPS18-N16UC55-A2P	IPS18-N16UC79-A12	Non-Shielded	16mm	NC

M30 Universal Inductive Proximity Switches

IPS30-S10U055-A2P	IPS30-S10U079-A12	Shielded	10mm	NO
IPS30-S10UC55-A2P	IPS30-S10UC79-A12	Shielded	10mm	NC
IPS30-S16U055-A2P	IPS30-S16U079-A12	Shielded	16mm	NO
IPS30-S16UC55-A2P	IPS30-S16UC79-A12	Shielded	16mm	NC
IPS30-N15U055-A2P	IPS30-N15U079-A12	Non-Shielded	15mm	NO
IPS30-N15UC55-A2P	IPS30-N15UC79-A12	Non-Shielded	15mm	NC
IPS30-N25U055-A2P	IPS30-N25U079-A12	Non-Shielded	25mm	NO
IPS30-N25UC55-A2P	IPS30-N25UC79-A12	Non-Shielded	25mm	NC

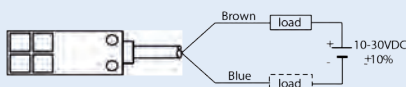
DC INDUCTIVE MICRO PROXIMITY SWITCHES **IP67**

Features

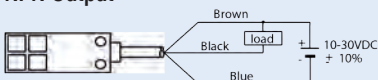
- Nominal Voltage: 10-30VDC - 3 Wire
- Nominal Voltage: 10-60VDC - 2 Wire
- Max. Load Current: 100mA
- Operation LED
- Temperature : -25° to 70°C
- Polycarbonate Housing
- Cable Length: 2m



DC 2-Wire



NPN Output



PNP Output



MPS-8 DC Inductive Micro Proximity Switches: 2 Wire (Non-shielded)

Code	Function	Size (mm)	Nominal Sensing Distance	Output
LQP2-882.5C-A2U2F	Front Sensing	8 x 8 x 23	2.5mm	NO
LQP2-882.5C-B2U2F				NC
LQP2-882.5C-A2U2T	Top Sensing	8 x 8 x 20	2.5mm	NO
LQP2-882.5C-B2U2T				NC

MPS-8 DC Inductive Micro Proximity Switches: 3 Wire (Non-shielded)

LQP2-882.5P-A3U2F	Front Sensing	8 x 8 x 23	2.5mm	PNP NO
LQP2-882.5P-B3U2F				PNP NC
LQP2-882.5N-A3U2F				NPN NO
LQP2-882.5N-B3U2F				NPN NC
LQP2-882.5P-A3U2T	Top Sensing	8 x 8 x 20	2.5mm	PNP NO
LQP2-882.5P-B3U2T				PNP NC
LQP2-882.5N-A3U2T				NPN NO
LQP2-882.5N-B3U2T				NPN NC

MPS-10 DC Inductive Micro Proximity Switches: 2 Wire (Non-shielded)

Code	Function	Size (mm)	Nominal Sensing Distance	Output
LQP2-1003C-A2U2T	Top Sensing	10 x 6 x 27	3mm	NO
LQP2-1003C-B2U2T				NC

MPS-10 DC Inductive Micro Proximity Switches: 3 Wire (Non-shielded)

LQP2-1003P-A3U2T	Top Sensing	10 x 6 x 27	3mm	PNP NO
LQP2-1003P-B3U2T				PNP NC
LQP2-1003N-A3U2T				NPN NO
LQP2-1003N-B3U2T				NPN NC

MPS-12 DC Inductive Micro Proximity Switches **IP67**: 2 Wire (Non-shielded)

Code	Function	Size (mm)	Nominal Sensing Distance	Output
LQP2-1203C-A2U2T	Top Sensing	12 x 7 x 27	3mm	NO
LQP2-1203C-B2U2T				NC

MPS-12 DC Inductive Micro Proximity Switches **IP67**: 3 Wire (Non-shielded)

LQP2-1203P-A3U2T	Top Sensing	12 x 7 x 27	3mm	PNP NO
LQP2-1203P-B3U2T				PNP NC
LQP2-1203N-A3U2T				NPN NO
LQP2-1203N-B3U2T				NPN NC

MPS-15 DC Inductive Micro Proximity Switches **IP67**: 2 Wire (Non-shielded)

Code	Function	Size (mm)	Nominal Sensing Distance	Output
LQP2-156.4C-A2U2T	Top Sensing	15 x 8 x 32	6.4mm	NO
LQP2-156.4C-B2U2T				NC
LQP2-156.4C-A2U2F	Front Sensing	15 x 15 x 30	6.4mm	NO
LQP2-156.4C-B2U2F				NC

MPS-15 DC Inductive Micro Proximity Switches **IP67**: 3 Wire (Non-shielded)

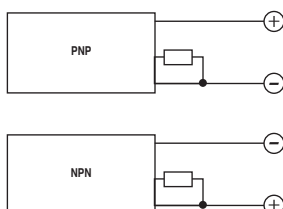
LQP2-156.4P-A3U2T	Top Sensing	15 x 8 x 32	6.4mm	PNP NO
LQP2-156.4P-B3U2T				PNP NC
LQP2-156.4N-A3U2T				NPN NO
LQP2-156.4N-B3U2T				NPN NC
LQP2-156.4P-A3U2F	Front Sensing	15 x 15 x 30	6.4mm	PNP NO
LQP2-156.4P-B3U2F				PNP NC
LQP2-156.4N-A3U2F				NPN NO
LQP2-156.4N-B3U2F				NPN NC

DC INDUCTIVE SPEED SENSORS **IP67**

Features

- Nominal Voltage: 10-30VDC
- Max. Load Current: 200mA
- Operation LED
- Temperature : -25-70°C
- Power Up Delay: 0.5-10sec

SCA



M30 - DC 3-Wire Inductive Speed Sensors - Nickel Plated Brass Housing

Code 60-150rpm	Code 120-3000rpm	Type	Nominal Sensing Distance	Output
FCM1-3010P-A3U2/S	FCM1-3010PA3U2/F	Shielded	10mm	PNP
FCM1-3010P-B3U2/S	FCM1-3010P-B3U2/F	Shielded	10mm	PNP
FCM1-3010N-A3U2/S	FCM1-3010N-A3U2/F	Shielded	10mm	NPN
FCM1-3010N-B3U2/S	FCM1-3010N-B3U2/F	Shielded	10mm	NPN
FCM2-3015P-A3U2/S	FCM2-3015P-A3U2/F	Non-Shielded	15mm	PNP
FCM2-3015P-B3U2/S	FCM2-3015P-B3U2/F	Non-Shielded	15mm	PNP
FCM2-3015N-A3U2/S	FCM2-3015N-A3U2/F	Non-Shielded	15mm	NPN
FCM2-3015N-B3U2/S	FCM2-3015N-B3U2/F	Non-Shielded	15mm	NPN

Square DC 3-Wire Inductive Speed Sensors - PBT Housing

FQP1-Q4020P-A3U/S	FQP1-Q4020P-A3U/F	Shielded	20mm	PNP
FQP1-Q4020P-B3U/S	FQP1-Q4020P-B3U/F	Shielded	20mm	PNP
FQP1-Q4020N-A3U/S	FQP1-Q4020N-A3U/F	Shielded	20mm	NPN
FQP1-Q4020N-B3U/S	FQP1-Q4020N-B3U/F	Shielded	20mm	NPN
FQP2-Q4030P-A3U/S	FQP2-Q4030P-A3U/F	Non-Shielded	30mm	PNP
FQP2-Q4030P-B3U/S	FQP2-Q4030P-B3U/F	Non-Shielded	30mm	PNP
FQP2-Q4030N-A3U/S	FQP2-Q4030N-A3U/F	Non-Shielded	30mm	NPN
FQP2-Q4030N-B3U/S	FQP2-Q4030N-B3U/F	Non-Shielded	30mm	NPN

Intelligent Canline Sensor **IP67**

RHOMBERG



The Intelligent Can Line Sensor has been specifically designed and developed for detecting the presence and movement of cans and automated can making and can filling lines. When interfaced with Programmable Logic Controller (PLC) the sensor's integrated intelligence released the PLC from time-consuming computing activities.

The Can Line Sensor is versatile enough to be used in a variety of applications.

Some of these are:

- Gap-detection (missing cans)
- Pile-up detection
- Proximity and motion detection
- Built-back control
- Detection of missing tops or crowns on bottling lines

CAN MATERIAL	Sn
Mild Steel	20
Stainless Steel	15
Aluminium	8

Code	Description
RI4-9020F-NOPBC	PNP, N.O., c/w Fly Lead
RI4-9020F-NOPBP	PNP, N.O., c/w M.Plug
RI5-9020F-NOPBC	NPN, N.O., c/w Fly Lead
RI5-9020F-NOPBP	NPN, N.O., c/w M.Plug

NAMUR CAPACITIVE PROXIMITY SWITCHES

Features

- Operating Temperature: -20°C to 70°C
- Supply Voltage 8.2-10VDC
- Sensing Current: <1mA (0.8mA Typical)
- Non-Sensing Current: >2.2mA (4mA Typical)

RHOMBERG



M30 Namur Capacitive Sensors **IP68** Aluminium Housing

Code (2m Cable)	Code Plug (M12 Connector)	Type	Nominal Sensing Distance	Output
RC0-3010F-NCMTC	RC0-3010F-NCMTP	Shielded	10mm	NC
RC0-3020S-NCMTC	RC0-3020S-NCMTP	Non-Shielded	20mm	NC

1.5" BSP Namur Capacitive Sensors **IP67** PVC Housing

Code (2m Cable)	Code Plug (Terminal)	Type	Nominal Sensing Distance	Output
-	RC0-4020S-NCPBT	Non-Shielded	20mm	NC

NAMUR control module

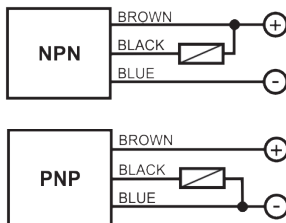


NAMUR sensors require a suitable Slimline Control module to operate **SC300** or **SC301**

3-WIRE DC CAPACITIVE PROXIMITY SWITCHES IP67

Features

- Operating Temperature: -25-70°C
- Switching Frequency: 100Hz
- M12-M18 Supply Voltage: 10-30VDC
- 1.5" BSP Supply Voltage: 10-60VDC
- Sensitivity Adjustment: Multiturn Potentiometer



M12 DC 3-Wire Capacitive Sensors Nickel Plated Brass Housing

Code (2m Cable)	Code Plug (M12 Connector)	Type	Nominal Sensing Distance	Output
CS4-1204F-NOMTC	CS4-1204F-NOMTP	Shielded	4mm	PNP NO, Plug
CS4-1204F-NCMTC	CS4-1204F-NCMTP	Shielded	4mm	PNP NC, Plug
CS5-1204F-NOMTC	CS5-1204F-NOMTP	Shielded	4mm	NPN NO, Plug
CS5-1204F-NCMTC	CS5-1204F-NCMTP	Shielded	4mm	NPN NC, Plug
CS4-1208S-NOMTC	CS4-1208S-NOMTP	Non-Shielded	8mm	PNP NO, Plug
CS4-1208S-NCMTC	CS4-1208S-NCMTP	Non-Shielded	8mm	PNP NC, Plug
CS5-1208S-NOMTC	CS5-1208S-NOMTP	Non-Shielded	8mm	NPN NO, Plug
CS5-1208S-NCMTC	CS5-1208S-NCMTP	Non-Shielded	8mm	NPN NC, Plug

M18 DC 3-Wire Capacitive Sensors Nickel Plated Brass Housing

CS4-1808F-NOMTC	CS4-1808F-NOMTP	Shielded	8mm	PNP NO
CS4-1808F-NCMTC	CS4-1808F-NCMTP	Shielded	8mm	PNP NC
CS5-1808F-NOMTC	CS5-1808F-NOMTP	Shielded	8mm	NPN NO
CS5-1808F-NCMTC	CS5-1808F-NCMTP	Shielded	8mm	NPN NC
CS4-1815S-NOMTC	CS4-1815S-NOMTP	Non-Shielded	15mm	PNP NO
CS4-1815S-NCMTC	CS4-1815S-NCMTP	Non-Shielded	15mm	PNP NC
CS5-1815S-NOMTC	CS5-1815S-NOMTP	Non-Shielded	15mm	NPN NO
CS5-1815S-NCMTC	CS5-1815S-NCMTP	Non-Shielded	15mm	NPN NC

M30 DC 3-Wire Capacitive Sensors Nickel Plated Brass Housing

CS4-3020F-NOMTC	CS4-3020F-NOMTP	Shielded	20mm	PNP NO
CS4-3020F-NCMTC	CS4-3020F-NCMTP	Shielded	20mm	PNP NC
CS5-3020F-NOMTC	CS5-3020F-NOMTP	Shielded	20mm	NPN NO
CS5-3020F-NCMTC	CS5-3020F-NCMTP	Shielded	20mm	NPN NC
CS4-3030S-NOMTC	CS4-3030S-NOMTP	Non-Shielded	30mm	PNP NO
CS4-3030S-NCMTC	CS4-3030S-NCMTP	Non-Shielded	30mm	PNP NC
CS5-3030S-NOMTC	CS5-3030S-NOMTP	Non-Shielded	30mm	NPN NO
CS5-3030S-NCMTC	CS5-3030S-NCMTP	Non-Shielded	30mm	NPN NC

1.5" BSP DC 3-Wire Capacitive Sensors PVC Housing

Code (2m Cable)	Code (Terminal)	Type	Nominal Sensing Distance	Output
-	RC4-4020S-NOPBT	Non-Shielded	20mm	PNP NO
-	RC4-4020S-NCPBT	Non-Shielded	20mm	PNP NC
-	RC5-4020S-NOPBT	Non-Shielded	20mm	NPN NO
-	RC5-4020S-NCPBT	Non-Shielded	20mm	NPN NC

AC CAPACITIVE PROXIMITY SWITCHES IP67

Features

- Operating Temperature: -25-70°C
- Switching Frequency: 100Hz
- Supply Voltage: 20-250VAC



M18 AC Capacitive Sensors - 2 Wire Nickel Plated Brass Housing

Code (2m Cable)	Code Plug (M12 Connector)	Type	Nominal Sensing Distance	Output
CS1-1808F-NOMTC	-	Shielded	8mm	NO
CS1-1808F-NCMTC	-	Shielded	8mm	NC
CS1-1815S-NOMTC	-	Non-Shielded	15mm	NO
CS1-1815S-NCMTC	-	Non-Shielded	15mm	NC

M30 AC Capacitive Sensors - 2 Wire Nickel Plated Brass Housing

CS1-3020F-NOMTC	-	Shielded	20mm	NO
CS1-3020F-NCMTC	-	Shielded	20mm	NC
CS1-3030S-NOMTC	-	Non-Shielded	30mm	NO
CS1-3030S-NCMTC	-	Non-Shielded	30mm	NC

1.5" BSP AC Capacitive Sensors - 2 Wire PVC Housing

Code (2m Cable)	Code Plug (M12 Connector)	Type	Nominal Sensing Distance	Output
-	RC1-4020S-NCPBT	Non-Shielded	20mm	NC
-	RC1-4020S-NOPBT	Non-Shielded	20mm	NO

SQUARE CAPACITIVE PROXIMITY SENSORS IP67

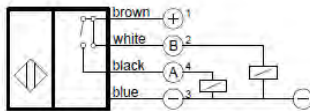
Features

- Supply Voltage: 10-30VDC
- Operating Temperature: -25-70°C
- Switching Frequency: 100Hz
- Operation LED
- Sensitivity Adjustable



Square 40x40mm DC 4-Wire

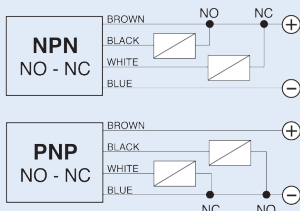
Code (Terminal)	Code Plug (M12 Connector)	Type	Nominal Sensing Distance	Output
CQP2-4030P-54U	-	Non-Shielded	30mm	PNP NO+NC



DC 4-WIRE CAPACITIVE PROXIMITY SENSORS IP67

Features

- Operating Temperature: -25-70°C
- Switching Frequency: 10Hz
- Supply Voltage: 12-30VDC
- Adjustable Sensitivity



M18 DC Capacitive Proximity Sensors

Code (2m Cable)	Code (M12 Connector)	Type	Nominal Sensing Distance	Output
CS-07	-	Shielded	1-5mm	NPN NO-NC
CS-08	-	Shielded	1-5mm	PNP NO-NC
CS-13	-	Non-Shielded	1-10mm	NPN NO-NC
CS-14	-	Non-Shielded	1-10mm	PNP NO-NC

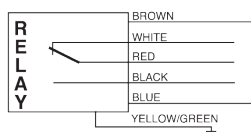
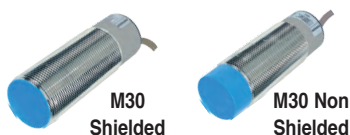
M30 DC Capacitive Proximity Sensors

Code (2m Cable)	Code (M12 Connector)	Type	Nominal Sensing Distance	Output
CS-09	-	Shielded	1-20mm	NPN NO-NC
CS-10	-	Shielded	1-20mm	PNP NO-NC
CS-15	-	Non-Shielded	1-25mm	NPN NO-NC
CS-16	-	Non-Shielded	1-25mm	PNP NO-NC

AC/DC CAPACITIVE PROXIMITY SENSORS IP67

Features

- Operating Temperature: -25-70°C
- Switching Frequency: 10Hz
- Supply Voltage: 18-230VAC



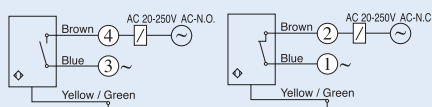
M30 AC/DC Capacitive Proximity Sensors - Relay Output

Code (2m Cable)	Delay On	Type	Nominal Sensing Distance	Output
CS-31	NO	Shielded	1-20mm	1 C/O
CS-31TE	1sec-5min (Adj)	Shielded	1-20mm	1 C/O
CS-32	NO	Non-Shielded	2-30mm	1 C/O
CS-32TE	1sec-5min (Adj)	Non-Shielded	2-30mm	1 C/O

AC CAPACITIVE PROXIMITY SENSORS IP67

Features

- Operating Temperature: -25-70°C
- Switching Frequency: 25Hz
- Supply Voltage: 20-250VAC



M18 AC 3-Wire Capacitive Proximity Sensors

Code (2m Cable)	Code (M12 Connector)	Type	Nominal Sensing Distance	Output
CCM1-1808A-A3L2	-	Shielded	2-8mm	NO
CCM1-1808A-B3L2	-	Shielded	2-8mm	NC
CCM2-1815A-A3L2	-	Non-Shielded	2-15mm	NO
CCM2-1815A-B3L2	-	Non-Shielded	2-15mm	NC

M30 AC 3-Wire Capacitive Proximity Sensors

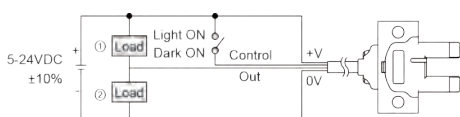
Code (2m Cable)	Code (M12 Connector)	Type	Nominal Sensing Distance	Output
CCM1-3020A-A3L2	-	Shielded	2-15mm	NO
CCM1-3020A-B3L2	-	Shielded	2-15mm	NC
CCM2-3030A-A3L2	-	Non-Shielded	2-30mm	NO

MICRO PHOTOELECTRIC SENSORS IP50

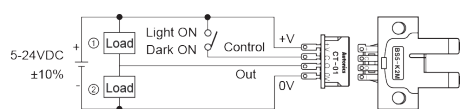
Features

- Supply Voltage: 5-24VDC
- Output Current: 100mA max
- Switching Frequency: 2000Hz
- Operation LED
- Temperature: -25-70°C
- Housing Material: PBT
- Operation Mode: Light On / Dark On
- Groove-Depth 9 mm

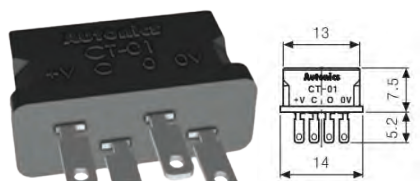
Wiring Diagrams



Cable Type



Connector Type



CT-01



CT-02

BS5 Micro Photoelectric Sensors

Code (Cable)	Code (Connector)	Package Type	Sensing Distance	Output
BS5-K1M-P	BS5-K2M-P	K-Type	5mm	PNP
BS5-K1M	BS5-K2M	K-Type	5mm	NPN
BS5-T1M-P	BS5-T2M-P	T-Type	5mm	PNP
BS5-T1M	BS5-T2M	T-Type	5mm	NPN
BS5-L1M-P	BS5-L2M-P	L-Type	5mm	PNP
BS5-L1M	BS5-L2M	L-Type	5mm	NPN
BS5-Y1M-P	BS5-Y2M-P	Y-Type	5mm	PNP
BS5-Y1M	BS5-Y2M	Y-Type	5mm	NPN
BS5-V1M-P	BS5-V2M-P	V-Type	5mm	PNP
BS5-V1M	BS5-V2M	V-Type	5mm	NPN



K-Type



T-Type



L-Type



Y-Type



V-Type

Accessories

Code	Description
CT-01	Solder connector for BS5 series
CT-02	Connector for BS5 Micro Photo Sensor with 1 meter cable

Socket: **CT-01** or **CT-02**: Connect the unit using socket. If it is soldered on terminal pin directly without socket, it may cause product damage

FRONT / SIDE MOUNT PHOTOELECTRIC SENSORS IP67

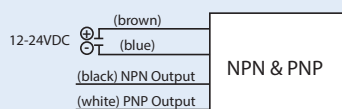
Features

- Supply Voltage: 12-24VDC
- Load Current: ≤100mA
- Operation LED
- Housing Material: Polycarbonate
- Operation Mode: Light On / Dark On - Selectable by Switch

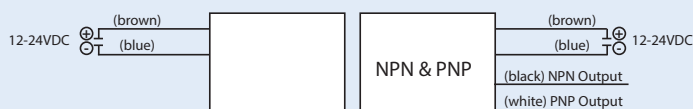
BH-Series M18 Front / Side Mount Photoelectric Sensors

Code (2m Cable)	Function	Size (mm) H x W x D	Sensing Distance	Output
BH300-DDT	Diffuse: Red LED 660nm	35 x 14 x 28	300mm	NPN & PNP
BH1M-DDT	Diffuse: Infrared LED 850nm	35 x 14 x 28	1m	NPN & PNP
BH4M-PDT	Polarized Retro-Reflective: Red LED 660nm	35 x 14 x 28	4m	NPN & PNP
BH20M-TDT	Through Beam: Red LED 660nm	35 x 14 x 28	20m	NPN & PNP

Wiring Diagrams



Polarized Retro-reflective



Through Beam



ULTRA SLIM PHOTOELECTRIC SENSORS IP67

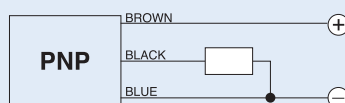
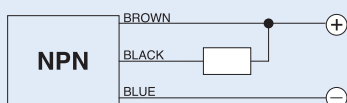
Features

- Supply Voltage: 12-24VDC
- Load Current: ≤ 50 mA
- Operation LED
- Housing Material: PBT/PMMA
- Cable Length: 2m



BTF-Series Ultra Slim Photoelectric Sensors - 13(W) x 24(H) x 4.6(D)mm

Code (Light On)	Code (Dark On)	Function	Sensing Distance	Output
BTF30-DDTL-P	BTF30-DDTD-P	Diffuse: Red LED 650nm	30mm	PNP
BTF30-DDTL	BTF30-DDTD			NPN
BTF15-BDTL-P	BTF15-BDTD-P	Background Suppression: Red LED 650nm	15mm	PNP
BTF15-BDTL	BTF15-BDTD			NPN
BTF1M-TDTL-P	BTF1M-TDTD-P	Through Beam: Red LED 650nm	1m	PNP
BTF1M-TDTL	BTF1M-TDTD			NPN



Accessories

Code	Description
SUS304	Fixing Bracket - Stainless Steel
SWCH10A	M2 Fixing Bolt

ULTRA COMPACT PHOTOELECTRIC SENSORS IP67

Features

- Supply Voltage: 12-24VDC
- Load Current: ≤ 50 mA
- Operation LED
- Temperature: -20-50°C
- Housing Material: PBT/PMMA
- Cable Length: 2m



BTS-Series Ultra Compact Photoelectric Sensors - 24.6(W) x 7.2(H) x 10.8(D)mm

Code (Light On)	Code (Dark On)	Function	Sensing Distance	Output
BTS15-LDTL-P	BTS15-LDTD-P	Fixed Focus: Red LED 650nm	15mm	PNP
BTS15-LDTL	BTS15-LDTD			NPN
BTS30-LDTL-P	BTS30-LDTD-P		30mm	PNP
BTS30-LDTL	BTS30-LDTD			NPN
BTS200-MDTL-P	BTS200-MDTD-P	Retro-Reflective: Red LED 650nm	200mm	PNP
BTS200-MDTL	BTS200-MDTD			NPN
BTS1M-TDTL-P	BTS1M-TDTD-P	Through Beam: Red LED 650nm	1m	PNP
BTS1M-TDTL	BTS1M-TDTD			NPN



AUTO DOOR SENSOR



Auto Door Sensor

Code	ADS-A
Supply Voltage	24-240VAC
Relay Output	0.1A @ 50VDC
Mounting Height	2-2.7m (max. detecting distance: 3m)
Output Delay Time	2/7/15 sec selectable by dip switch
Detection	Four angles for front detection area, 7.5°, 14.5°, 21.5°, 28.5° Right/Left detection area elimination function

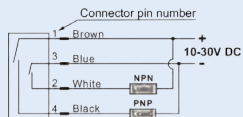
MINI BEAM PHOTOELECTRIC SENSORS IP67

Features

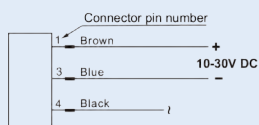
- Supply Voltage: 10-30VDC
- Output Current: ≤150mA
- Operation LED
- Temperature : -20-70°C
- Housing Material: PA66
- Operation Mode: Light-ON / Dark-ON selectable with Switch

Wiring Diagrams

NPN/PNP



Emitter of Thru-beam Mode



MP-Series M18 Photoelectric Sensors

Code (2m Cable)	Code (M8 Pigtail)	Function	Sensing Distance	Output
MP-D0380D-CX9C4U2	MP-D0380D-CX9P4UP	Diffuse Proximity: Infrared LED 880nm	380mm	NPN & PNP
MP-C0016D-CX9C4U2	MP-C0016D-CX9P4UP	Fixed Focus: Infrared LED 880nm	16mm	NPN & PNP
MP-L5000D-CX6C4U2	MP-L5000D-CX6P4UP	Retro-Reflective: Red LED 650nm	0.1 - 5m	NPN & PNP
MP-L2000D-CX6C4U2-PF	MP-L2000D-CX6P4UP-PF	Polarized Retro-Reflective: Red LED 650nm	2m	NPN & PNP
MP-T3000D-CX9C4U2	MP-T3000D-CX9P4UP	Through Beam Receiver: Infrared LED 880nm	0-3m	NPN & PNP
MP-T030MD-CX9C4U2	MP-T030MD-CX9P4UP	Through Beam Receiver: Infrared LED 880nm	0-30m	NPN & PNP
MP-T3000D-EX9C3L2	MP-T3000D-EX9P4LP	Through Beam: Emitter: Infrared LED 880nm	0-3m	-
MP-T030MD-EX9C3L2	MP-T030MD-EX9P4LP	Through Beam: Emitter: Infrared LED 880nm	0-30m	-

M12 DC PHOTOELECTRIC SENSORS PLASTIC & METAL IP67

Features

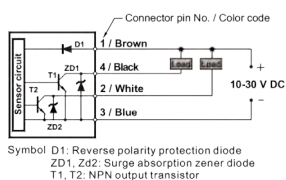
- Supply Voltage: 10-30VDC
- Output Current: ≤150mA
- Operation LED
- Temperature: -25-55°C
- Nickel Plated Brass Housing (Metal)
- PBT Housing (Plastic)
- Operation Mode: Light-ON / Dark-ON selectable

Scan M12 DC Tubular Photoelectric Sensors

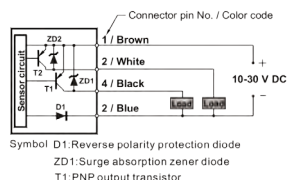
Code Plastic Housing	Code Metal Housing	Function	Sensing Distance	Output	Connection
M12P-D0200N-CX9C4U2	M12B-D0200N-CX9C4U2	Diffuse Proximity: Infrared LED 880nm	200mm	NPN	2m Cable
M12P-D0200P-CX9C4U2	M12B-D0200P-CX9C4U2		200mm	PNP	2m Cable
M12P-D0200N-CX9Q4UE	M12B-D0200N-CX9Q4UE		200mm	NPN	M12 Connector
M12P-D0200P-CX9Q4UE	M12B-D0200P-CX9Q4UE		200mm	PNP	M12 Connector
M12P-L2000N-CX9C4U2	M12B-L2000N-CX9C4U2	Retro-Reflective-Non-Polarized: Infrared LED 880nm	2m	NPN	2m Cable
M12P-L2000P-CX9C4U2	M12B-L2000P-CX9C4U2		2m	PNP	2m Cable
M12P-L2000N-CX9Q4UE	M12B-L2000N-CX9Q4UE		2m	NPN	M12 Connector
M12P-L2000P-CX9Q4UE	M12B-L2000P-CX9Q4UE		2m	PNP	M12 Connector
M12P-L1000N-CX6C4U2-PF	M12B-L1000N-CX6C4U2-PF	Polarized Retro-Reflective: Red LED 660nm	1m	NPN	2m Cable
M12P-L1000P-CX6C4U2-PF	M12B-L1000P-CX6C4U2-PF		1m	PNP	2m Cable
M12P-L1000N-CX6Q4UE-PF	M12P-L1000N-CX6Q4UE-PF		1m	NPN	M12 Connector
M12P-L1000P-CX6Q4UE-PF	M12P-L1000P-CX6Q4UE-PF		1m	PNP	M12 Connector
M12P-T5200N-CX9C4U2	M12B-T5200N-CX9C4U2	Through Beam Receiver: Infrared LED 880nm	5.2m	NPN	2m Cable
M12P-T5200P-CX9C4U2	M12B-T5200P-CX9C4U2		5.2m	PNP	2m Cable
M12P-T5200N-CX9Q4UE	M12B-T5200N-CX9Q4UE		5.2m	NPN	M12 Connector
M12P-T5200P-CX9Q4UE	M12B-T5200P-CX9Q4UE		5.2m	PNP	M12 Connector
M12P-T5200D-EX9C3L2	M12B-T5200D-EX9C3L2	Through Beam Emitter: Infrared LED 880nm	5.2m	-	2m Cable
M12P-T5200D-EX9Q4LE	M12B-T5200D-EX9Q4LE		5.2m	-	M12 Connector

Wiring Diagrams

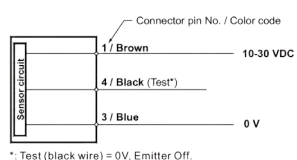
NPN Output Type



PNP Output Type



Emitter of Thru-beam Mode



NEW

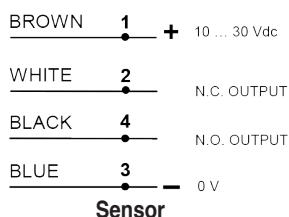
S5N-SERIES M18 PHOTOELECTRIC SENSORS IP67

Features

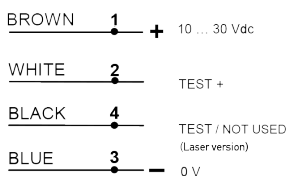
- Supply Voltage: 10-30VDC
- Output Current: ≤100mA
- Operation LED
- Temperature : -25-55°C
- Housing Material:
Plastic: PBT
Metal: Nickel Plated Brass



Connections

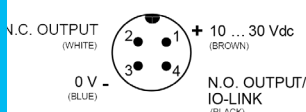
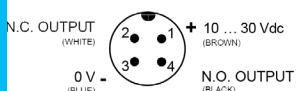


Through beam emitter



Through Beam Emitter

M12 Connector



DC Standard Housing - NO/NC Output or IO-Link

Code Plastic Housing	Code Metal Housing	Function	Sensing Distance	Output	Connector Type
S5N-PA-2-A00-NN	S5N-MA-2-A00-NN	Retro-Reflective: IR LED 880nm	5m	NPN NO/NC	2m Cable
S5N-PA-2-A00-PP	S5N-MA-2-A00-PP		4m	PNP NO/NC	2m Cable
S5N-PA-5-A00-NN	S5N-MA-5-A00-NN		4m	NPN NO/NC	M12 Connector
S5N-PA-5-A00-PP	S5N-MA-5-A00-PP		4m	PNP NO/NC	M12 Connector
S5N-PA-2-B01-NN	S5N-MA-2-B01-NN	Polarised Retro-Reflective: Red LED 660nm	4m	NPN NO/NC	2m Cable
S5N-PA-2-B01-PP	S5N-MA-2-B01-PP		4m	PNP NO/NC	2m Cable
S5N-PA-5-B01-NN	S5N-MA-5-B01-NN		4m	NPN NO/NC	M12 Connector
S5N-PA-5-B01-PP	S5N-MA-5-B01-PP		4m	PNP NO/NC	M12 Connector
S5N-PA-5-B01-OZ	-		4m	IO-LINK	M12 Connector
S5N-PA-2-C01-NN	S5N-MA-2-C01-NN	Long Diffuse Proximity: IR LED 880nm	700mm	NPN NO/NC	2m Cable
S5N-PA-2-C01-PP	S5N-MA-2-C01-PP		700mm	PNP NO/NC	2m Cable
S5N-PA-5-C01-NN	S5N-MA-5-C01-NN		700mm	NPN NO/NC	M12 Connector
S5N-PA-5-C01-PP	S5N-MA-5-C01-PP		700mm	PNP NO/NC	M12 Connector
S5N-PA-5-C01-OZ	-		700mm	IO-LINK	M12 Connector
S5N-PA-2-C10-NN	S5N-MA-2-C10-NN	Short Diffuse Proximity: IR LED 880nm	100mm	NPN NO/NC	2m Cable
S5N-PA-2-C10-PP	S5N-MA-2-C10-PP		100mm	PNP NO/NC	2m Cable
S5N-PA-5-C10-NN	S5N-MA-5-C10-NN		100mm	NPN NO/NC	M12 Connector
S5N-PA-5-C10-PP	S5N-MA-5-C10-PP		100mm	PNP NO/NC	M12 Connector
S5N-PA-2-C21-NN	S5N-MA-2-C21-NN	Medium Diffuse Proximity: IR LED 880nm	400mm	NPN NO/NC	2m Cable
S5N-PA-2-C21-PP	S5N-MA-2-C21-PP		400mm	PNP NO/NC	2m Cable
S5N-PA-5-C21-NN	S5N-MA-5-C21-NN		400mm	NPN NO/NC	M12 Connector
S5N-PA-5-C21-PP	S5N-MA-5-C21-PP		400mm	PNP NO/NC	M12 Connector
S5N-PA-2-D00-NN	-	Fixed Focus: Red LED 630nm	100mm	NPN NO/NC	2m Cable
S5N-PA-2-D00-PP	-		100mm	PNP NO/NC	2m Cable
S5N-PA-5-D00-NN	S5N-MA-5-D00-NN		100mm	NPN NO/NC	M12 Connector
S5N-PA-5-D00-PP	S5N-MA-5-D00-PP		100mm	PNP NO/NC	M12 Connector
S5N-PA-2-F01-NN	S5N-MA-2-F01-NN	Through-Beam Receiver	20m	NPN NO/NC	2m Cable
S5N-PA-2-F01-PP	S5N-MA-2-F01-PP		20m	PNP NO/NC	2m Cable
S5N-PA-5-F01-NN	S5N-MA-5-F01-NN		20m	NPN NO/NC	M12 Connector
S5N-PA-5-F01-PP	S5N-MA-5-F01-PP		20m	PNP NO/NC	M12 Connector
S5N-PA-2-G00-XG	S5N-MA-2-G00-XG	Through-Beam Emitter: IR LED 880nm	20m	N/A	2m Cable
S5N-PA-5-G00-XG	S5N-MA-5-G00-XG		20m	N/A	M12 Connector
S5N-PA-2-T01-NN	S5N-MA-2-T01-NN	Retro-Reflective for Transparent: Red LED 660nm	1.3m	NPN NO/NC	2m Cable
S5N-PA-2-T01-PP	S5N-MA-2-T01-PP		1.3m	PNP NO/NC	2m Cable
S5N-PA-5-T01-NN	S5N-MA-5-T01-NN		1.3m	NPN NO/NC	M12 Connector
S5N-PA-5-T01-PP	S5N-MA-5-T01-PP		1.3m	PNP NO/NC	M12 Connector
S5N-PA-5-T01-OZ	-		1.3m	IO-LINK	M12 Connector
S5N-PA-2-W03-NN	-	Contrast: White LED 400-700nm	10mm	NPN NO/NC	2m Cable
S5N-PA-2-W03-PP	S5N-MA-2-W03-PP		10mm	PNP NO/NC	2m Cable
S5N-PA-5-W03-NN	S5N-MA-5-W03-NN		10mm	NPN NO/NC	M12 Connector
S5N-PA-5-W03-PP	S5N-MA-5-W03-PP		10mm	PNP NO/NC	M12 Connector
S5N-PA-5-W03-OZ	-		10mm	IO-LINK	M12 Connector

Operating Mode

- LIGHT mode on N.O. output / DARK mode on N.C. output (mod.S5N...C01/C10/C21/D00/M03...PP/NN)
- DARK mode on N.O. output / LIGHT mode on N.C. output (mod.S5N...A00/B01/F01/T01/W03...PP/NN)

NEW

S5N-SERIES M18 PHOTOELECTRIC SENSORS IP67

Features

- Supply Voltage: 10-30VDC
- Output Current: ≤100mA
- Operation LED
- Temperature : -25-55°C
- Housing Material:
Plastic - PBT
Metal Nickel Plated Brass



Radial Optic

Connections

BROWN	1	+	10 - 30 Vdc
WHITE	2		LIGHT/DARK
BLACK	4		NO OUTPUT
BLUE	3	-	0 V

Sensor

BROWN	1	+	10 - 30 Vdc
WHITE	2		TEST +
BLACK	4		TEST -
BLUE	3	-	0 V

Through Beam Emitter

Standard Housing-L/D Input

Code Plastic Housing	Code Metal Housing	Function	Sensing Distance	Output	Connector Type
S5N-PA-2-A00-NK	-	Retro-Reflective: IR LED 880nm	4m	NPN	2m Cable
S5N-PA-2-A00-PK	-		4m	PNP	2m Cable
S5N-PA-5-A00-NK	S5N-MA-5-A00-NK		4m	NPN	M12 Connector
S5N-PA-5-A00-PK	S5N-MA-5-A00-PK		4m	PNP	M12 Connector
S5N-PA-2-B01-NK	-	Polarised Retro-Reflective: Red LED 660nm	3m	NPN	2m Cable
S5N-PA-2-B01-PK	-		3m	PNP	2m Cable
S5N-PA-5-B01-NK	S5N-MA-5-B01-NK		3m	NPN	M12 Connector
S5N-PA-5-B01-PK	S5N-MA-5-B01-PK		3m	PNP	M12 Connector
S5N-PA-2-C01-NK	S5N-MA-2-C01-NK	Diffuse Proximity: IR LED 880nm	400mm	NPN	2m Cable
S5N-PA-2-C01-PK	S5N-MA-2-C01-PK		400mm	PNP	2m Cable
S5N-PA-5-C01-NK	S5N-MA-5-C01-NK		400mm	NPN	M12 Connector
S5N-PA-5-C01-PK	S5N-MA-5-C01-PK		400mm	PNP	M12 Connector
S5N-PA-2-C10-NK	S5N-MA-2-C10-NK	Short Diffuse Proximity: IR LED 880nm	100mm	NPN	2m Cable
S5N-PA-2-C10-PK	S5N-MA-2-C10-PK		100mm	PNP	2m Cable
S5N-PA-5-C10-NK	S5N-MA-5-C10-NK		100mm	NPN	M12 Connector
S5N-PA-5-C10-PK	S5N-MA-5-C10-PK		100mm	PNP	M12 Connector
S5N-PA-2-F00-NK	-	Through-Beam Receiver	20m	NPN	2m Cable
S5N-PA-5-F00-NK	S5N-MA-5-F00-NK		20m	NPN	M12 Connector
S5N-PA-5-F00-PK	S5N-MA-5-F00-PK		20m	PNP	M12 Connector
S5N-PA-2-G00-XG	S5N-MA-2-G00-XG	Through-Beam Emitter: IR LED 880nm	20m	N/A	2m Cable
S5N-PA-5-G00-XG	S5N-MA-5-G00-XG		20m	N/A	M12 Connector

Standard Housing with Radial Optic L/D Input

Code Plastic Housing	Code Metal Housing	Function	Sensing Distance	Output	Connector Type
S5N-PR-2-A00-NK	-	Retro-Reflective: IR LED 880nm	4m	NPN	2m Cable
S5N-PR-2-A00-PK	-		4m	PNP	2m Cable
S5N-PR-5-A00-PK	-		4m	NPN	M12 Connector
S5N-PR-2-B01-NK	-	Polarised Retro- Reflective: Red LED 660nm	3m	PNP	2m Cable
S5N-PR-2-B01-PK	-		3m	NPN	2m Cable
S5N-PR-5-B01-PK	-		3m	PNP	M12 Connector
S5N-PR-2-C01-NK	-	Diffuse Proximity: IR LED 880nm	400mm	NPN	2m Cable
S5N-PR-2-C01-PK	-		400mm	PNP	2m Cable
S5N-PR-5-C01-PK	-		400mm	NPN	M12 Connector
S5N-PR-2-C10-NK	-	Short Diffuse Proximity: IR LED 880nm	100mm	PNP	2m Cable
S5N-PR-2-C10-PK	-		100mm	NPN	2m Cable
S5N-PR-5-C10-PK	-		100mm	PNP	M12 Connector
S5N-PR-5-F00-PK	-	Through-Beam Receiver	20m	NPN	M12 Connector
S5N-PR-2-G00-XG	-		20m	PNP	2m Cable
S5N-PR-5-G00-XG	-	Through-Beam Emitter: IR LED 880nm	20m	N/A	M12 Connector

Operating Mode

- L/D input white wire or pin 2, not connected on **S5N-Px/Mx...PK/NK**:
LIGHT mode (mod. **S5N-Px/Mx...C/D/M...PK/NK**)
DARK mode (mod. **S5N-Px/Mx...A/B/T/F...PK/NK**)
- White wire or pin 2 connected to: 0 V DARK mode, +Vcc LIGHT mode

NEW

S5N-SERIES M18 PHOTOELECTRIC SENSORS

Features

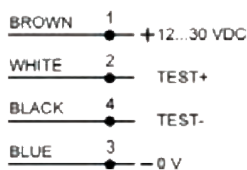
- Supply Voltage: 10-30VDC
- Output Current: ≤100mA
- Operation LED
- Temperature : -25-55°C
- Housing Material:
Plastic: ABS
Metal: AISI316L Stainless Steel



Connections



Sensor



Through Beam Emitter

Short Housing-L/D Input - IP65/67/69K

Code Plastic Housing	Code Metal Housing	Function	Sensing Distance	Output	Connector Type
S5N-SA-2-B00-NK	-	Polarised Retro-Reflective: Red LED 660 nm	4m	NPN	2m Cable
S5N-SA-2-B00-PK	-		4m	PNP	2m Cable
-	S5N-NA-5-B01-NK		4m	NPN	M12 Connector
-	S5N-NA-5-B01-PK		4m	PNP	M12 Connector
S5N-SA-3-B00-PK	-	Diffuse Proximity: IR LED 880nm	4m	PNP	Pig Tail M12
S5N-SA-2-C00-NK	-		350mm	NPN	2m-Cable
S5N-SA-2-C00-PK	-		350mm	PNP	2m Cable
S5N-SA-3-C00-PK	-		350mm	PNP	Pig Tail M12
-	S5N-NA-5-C11-NK	Short Diffuse Proximity: IR LED 880nm	350mm	NPN	M12 Connector
-	S5N-NA-5-C11-PK		350mm	PNP	M12 Connector
S5N-SA-3-C10-PK	-	Fixed Focus Red LED 660nm	100mm	PNP	Pig Tail M12
S5N-SA-3-D50-PK	-	Through-Beam Receiver	50mm	PNP	Pig Tail M12
S5N-SA-3-F00-PK	-		20m	PNP	Pig Tail M12
-	S5N-NA-5-F01-NK		20m	NPN	M12 Connector
-	S5N-NA-5-F01-PK	Through-Beam Emitter: IR LED 880nm	20m	PNP	M12 Connector
S5N-SA-3-G00-XG	-		20m	N/A	Pig Tail M12
-	S5N-NA-5-G01-XG	Background Suppression: Red LED 660nm	120mm	NPN	M12 Connector
S5N-SA-5-M01-NK	-		120mm	PNP	M12 Connector
S5N-SA-5-M01-PK	-	Retro-Reflective for Transparent: Red LED 660nm	8m	NPN	M12 Connector
S5N-SA-5-T01-NK	S5N-NA-5-T01-NK		8m	PNP	M12 Connector
S5N-SA-5-T01-PK	S5N-NA-5-T01-PK				

Operating Mode

- L/D input white wire or pin 2, if pin not connected on **S5N-Px/Mx...PK/NK**:
LIGHT mode (mod. **S5N-Px/Mx...C/D/M...PK/NK**)
DARK mode (mod. **S5N-Px/Mx...A/B/T/F...PK/NK**)
- White wire or pin 2 connected to: 0 V DARK mode, +Vcc LIGHT mode



Laser



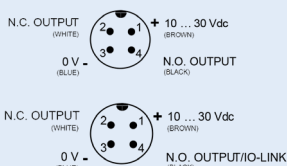
Standard Housing - NO/NC Output & IO-Link IP67

Code Plastic Housing	Code Metal Housing	Function	Sensing Distance	Output	Connector Type
S5N-PL-5-B01-NN	-	Polarized Retro-Reflective: Red Laser 650nm	16m	NPN	M12 Connector
S5N-PL-5-B01-PP	-		16m	PNP	M12 Connector
S5N-PL-5-B01-OZ	-		16m	IO-LINK	M12 Connector
S5N-PL-5-C01-NN	-	Long Diffuse Proximity: Red Laser 650nm	350mm	NPN	M12 Connector
S5N-PL-5-C01-PP	-		350mm	PNP	M12 Connector
S5N-PL-5-C01-OZ	-		350mm	IO-LINK	M12 Connector
S5N-PL-5-F01-NN	-	Through-Beam Receiver:	60m	NPN	M12 Connector
S5N-PL-5-F01-PP	-		60m	PNP	M12 Connector
S5N-PL-5-G00-XG	-	Through-Beam Emitter: Red Laser 650nm	60m	N/A	M12 Connector

Operating Mode

- LIGHT mode on N.O. output / DARK mode on N.C. output (mod. **S5N...C01/C10/C21/D00/M03...PP/NN**)
- DARK mode on N.O. output / LIGHT mode on N.C. output (mod. **S5N...A00/B01/F01/T01/W03...PP/NN**)

M12 Connector



WHILE
STOCKS
LAST

AC PHOTOELECTRIC SENSORS 3-WIRE DARK/LIGHT MODE IP67

Features

- Supply Voltage: 15-264VAC
- Max. Output Current: 100mA
- Operation LED
- Temperature Range: -25-55°C
- Housing Material: ABS
- Operation Mode:
Light On / Dark On



S5-Series M18 AC Photoelectric Sensors 3-Wire

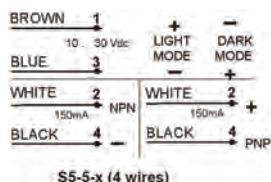
Code (Cable)	Code (M12 Connector)	Function	Sensing Distance	Output
S5-1-D15-20	S5-1-D15-10	Fixed Focus Proximity: Infrared LED 880nm	15mm	Light = NO Dark = NC
S5-1-F8-20	S5-1-F8-10	Through Beam Receiver	8m	Light = NO Dark = NC
S5-1-G8-00	-	Through Beam Emitter: Infrared LED 880nm	8m	-

WHILE
STOCKS
LAST

DC PHOTOELECTRIC SENSORS 4-WIRE DARK/LIGHT MODE IP67

Features

- Supply Voltage: 10-30VDC
- Max. Output Current: 150mA
- Operation LED
- Temperature Range: -25-55°C
- Housing Material: ABS
- Operation Mode: Light/Dark selected by Wiring



S5 Series M18 DC Photoelectric Sensors 4 Wire

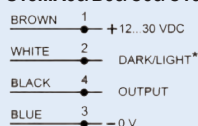
Code (Cable)	Code (M12 Connector)	Function	Sensing Distance	Output
S5-5-C10-30	S5-5-C10-32	Diffuse Proximity Short Distance: Infrared LED 880nm	100mm	NPN & PNP Dark/Light
S5-5-C35-30	S5-5-C35-32	Diffuse Proximity Medium Distance: Infrared LED 880nm	350mm	NPN & PNP Dark/Light
S5-5-C60-30	S5-5-C60-32	Diffuse Proximity Long Distance: Infrared LED 880nm	600mm	NPN & PNP Dark/Light
S5-5-D15-30	S5-5-D15-32	Diffuse Proximity Fixed Focus: Infrared LED 880nm	15mm	NPN & PNP Dark/Light
S5-5-A4-30	S5-5-A4-32	Retro-Reflective: Infrared LED 880nm	4m (R2 Reflector)*	NPN & PNP Dark/Light
S5-5-B3-30	S5-5-B3-32	Polarized Retro-Reflective: Infrared LED 880nm	3m (R2 Reflector)*	NPN & PNP Dark/Light
S5-5-F12-30	S5-5-F12-32	Through Beam Receiver	12m	NPN & PNP Dark/Light
S5-5-G12-00	S5-5-G12-02	Through Beam Receiver: Red LED 880nm	12m	NPN & PNP Dark/Light

Features

- Supply Voltage: 12-30VDC
- Max. Output Current: 100mA
- Operation LED
- Temp. Range: -25-55°C
- Operation Mode: Light/Dark Selectable



Cable S15...A00/B00/C00/C10/F00/D50



S15 Series M18 DC Photoelectric Sensors Short Housing IP67 & IP69K

Code (Plastic)	Code (Stainless Steel)	Function	Sensing Distance	Output	Connector Type
S15-PA-2-C10-NK	-	Diffuse Proximity Medium Distance: Infrared LED 880nm	1-35cm	NPN	Cable
S15-PA-5-C31-NK	S15-NA-5-C31-NK	Diffuse Proximity Long Distance: Infrared LED 880nm	1-100cm	NPN	M12 Connector
S15-PA-2-A00-NK	-			NPN	Cable
S15-PA-5-A01-NK	S15-NA-5-A01-NK	Retro-Reflective: Infrared LED 880nm	0.1-5m (R2 Reflector)	NPN	M12 Connector
-	S15-NA-5-A01-PK			PNP	M12 Connector
S15-PA-5-B01-NK	-	Polarized Retro-Reflective: Infrared LED 880nm	0.1-5m (R2 Reflector)	NPN	M12 Connector
S15-PA-5-F01-NK	-	Through Beam Receiver	0-20m	NPN	M12 Connector
S15-PA-2-G00-XG	-	Through Beam Emitter: Infrared LED 880nm	0-20m	-	Cable

DC PHOTOELECTRIC SENSORS PLASTIC & METAL IP67

Features

- Supply Voltage: 10-30VDC
- Max. Output Current: ≤100mA
- Operation LED
- Temp. Range: -25-55°C
- Housing Material: PBT (Plastic)/Nickel Plated Brass
- Operation Mode: Light/Dark Selectable



Radial Optic

Connections

BROWN	1	+	10 ... 30 Vdc
WHITE	2		DARK- / LIGHT+ *
BLACK	4		N.O. OUTPUT
BLUE	3	-	0 V

Sensor

BROWN	1	+	10 ... 30 Vdc
WHITE	2		TEST +
BLACK	4		TEST -
BLUE	3	-	0 V

Through Beam Emitter

S51 Series M18 DC Photoelectric Sensors

Code (Plastic)	Code (Metal)	Function	Sensing Distance	Output	Connector Type
-	S51-MA-2-A00-NK	Retro-Reflective: Infrared LED 880nm	0.1-4m	NPN	Cable
-	S51-MA-2-A00-PK			PNP	Cable
-	S51-MA-2-B01-NK	Polarized Retro-Reflective: Red LED 650nm	0.1-3m	NPN	Cable
-	S51-MA-2-B01-PK			PNP	Cable
S51-PA-2-F00-PK	-	Through Beam Receiver: Infrared LED 880nm	20m	PNP	Cable

S51 Series M18 DC Photoelectric Sensors - Radial Optics

Code (Plastic)	Code (Metal)	Function	Sensing Distance	Output	Connector Type
-	S51-MR-2-B01-NK	Polarized Retro-Reflective	0.1-3m	NPN	Cable
-	S51-MR-2-C01-NK	Medium Diffuse Proximity	400mm	NPN	Cable
-	S51-MR-2-C01-PK	Medium Diffuse Proximity	400mm	PNP	Cable
S51-PR-2-F00-NK	-	Through Beam: Receiver: Infrared LED 880nm	20m	NPN	Cable
S51-PR-2-F00-PK	-			PNP	Cable
S51-PR-5-A00-NK	-	Retro-Reflective	0.1-4m	NPN	M12 Connector
S51-PR-5-B01-NK	-	Polarized Retro-Reflective	0.1-3m	NPN	M12 Connector
S51-PR-5-C01-NK	-	Medium Diffuse Proximity	400mm	NPN	M12 Connector
S51-PR-5-C10-NK	-	Short Diffuse Proximity	100mm	NPN	M12 Connector
S51-PR-5-F00-NK	-	Through Beam Receiver: Infrared LED 880nm	20m	NPN	M12 Connector

DC LASER SENSORS - 50X50MM IP67

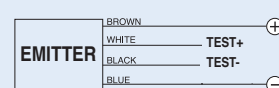
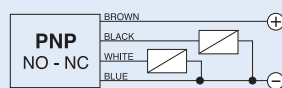
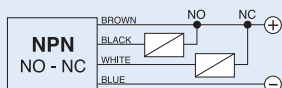
Features

- Supply Voltage: 10-30VDC
- Output Current: ≤100mA
- Operating Mode: Light Mode on NO (C01), Dark Mode on NO (B01/F01)
- Operation LED
- Temp. Range: -10-50°C
- Housing Material: ABS
- Size: 50 x 50 x 15mm



Datalogic S60 Series - 50x50mm Laser Photoelectric Sensors

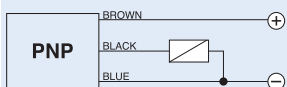
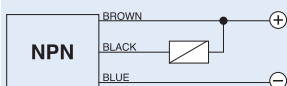
Code (2m Cable)	Code (M12 Connector)	Function	Sensing Distance	Output
-	S60-PL-5-C01-PP	Diffuse Proximity: Red Laser 650nm	0-600mm	PNP NO/NC
-	S60-PL-5-C01-NN			NPN NO/NC
S60-PL-2-B01-PP	S60-PL-5-B01-PP	Polarized Retro-Reflective: Red Laser 650nm	0.1-20m	PNP NO/NC
-	S60-PL-5-B01-NN			NPN NO/NC
-	S60-PL-5-F01-PP	Through Beam Receiver	0-60m	PNP NO/NC
-	S60-PL-5-F01-NN			NPN NO/NC
-	S60-PL-5-G00-XG	Through Beam Emitter: Red Laser 650nm	0-60m	-



DC MINIATURE PHOTOELECTRIC SENSORS IP67

Features

- Supply Voltage: 10-30VDC
- Output Current: ≤100mA
- Operation LED
- Temperature Range: -25-55°C
- Housing Material: PC/PBT
- Operation Mode: Light/Dark
- Size: 32 x 11 x 33mm



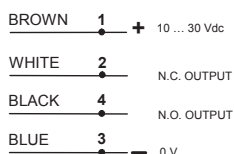
S3Z Series - DC Miniature Photoelectric Sensors

Code (2m Cable)	Code (M8 Connector)	Function	Sensing Distance	Output
S3Z-PR-2-C11-PP	S3Z-PR-5-C11-PP	Long Diffuse Proximity: Infrared LED 850nm	0-700mm	PNP Light/Dark
S3Z-PR-2-C11-NN	S3Z-PR-5-C11-NN			NPN Light/Dark
S3Z-PR-2-C11-PL	S3Z-PR-5-C11-PL			PNP Light
S3Z-PR-2-C11-PD	S3Z-PR-5-C11-PD			PNP Dark
S3Z-PR-2-C11-NL	S3Z-PR-5-C11-NL			NPN Light
S3Z-PR-2-C11-ND	S3Z-PR-5-C11-ND			NPN Dark
S3Z-PR-2-B01-PP	S3Z-PR-5-B01-PP	Polarized Retro-Reflective: Red LED 665nm	0.05-4m (R5 Reflector)*	PNP Light/Dark
S3Z-PR-2-B01-NN	S3Z-PR-5-B01-NN			NPN Light/Dark
S3Z-PR-2-B01-PL	S3Z-PR-5-B01-PL			PNP Light
S3Z-PR-2-B01-PD	S3Z-PR-5-B01-PD			PNP Dark
S3Z-PR-2-B01-NL	S3Z-PR-5-B01-NL			NPN Light
S3Z-PR-2-B01-ND	S3Z-PR-5-B01-ND			NPN Dark
S3Z-PR-2-C01-PP	S3Z-PR-5-C01-PP	Narrow Beam Diffuse Proximity: Red LED 665nm	150mm	PNP Light/Dark
S3Z-PR-2-C01-NN	S3Z-PR-5-C01-NN			NPN Light/Dark
S3Z-PR-2-C01-PL	S3Z-PR-5-C01-PL			PNP Light
S3Z-PR-2-C01-PD	S3Z-PR-5-C01-PD			PNP Dark
S3Z-PR-2-C01-NL	S3Z-PR-5-C01-NL			NPN Light
S3Z-PR-2-C01-ND	S3Z-PR-5-C01-ND			NPN Dark
S3Z-PR-2-FG01-PP	S3Z-PR-5-FG01-PP	Through Beam (Receiver/Emitter): Infrared LED 870nm	15mm	PNP Light/Dark
S3Z-PR-2-FG01-NN	S3Z-PR-5-FG01-NN			NPN Light/Dark
S3Z-PR-2-FG01-PL	S3Z-PR-5-FG01-PL			PNP Light
S3Z-PR-2-FG01-PD	S3Z-PR-5-FG01-PD			PNP Dark
S3Z-PR-2-FG01-NL	S3Z-PR-5-FG01-NL			NPN Light
S3Z-PR-2-FG01-ND	S3Z-PR-5-FG01-ND			NPN Dark

DC SUBMINIATURE SMALL PHOTOELECTRIC SENSORS IP67

Features

- Supply Voltage: 10-30VDC
- Operation LED
- Temperature Range: -20-55°C
- Output Current: ≤50mA
- Housing Material: Polycarbonate
- Dimensions: 8 x 23 x 12mm



SM-ALL Series DC Subminiature Photoelectric Sensors

Code (2m Cable)	Function	Sensing Distance	Output
SM-PR-2-D00-PP	Fixed Focus Short: Red LED 640nm	15mm	PNP NO/NC
SM-PR-2-D00-NN			NPN NO/NC
SM-PR-2-D10-PP	Fixed Focus: Red LED 640nm	20mm	PNP NO/NC
SM-PR-2-D10-NN			NPN NO/NC
SM-PR-2-D20-PP	Fixed Focus Medium: Red LED 640nm	30mm	PNP NO/NC
SM-PR-2-D20-NN			NPN NO/NC
SM-PR-2-D30-PP	Fixed Focus Long: Red LED 640nm	50mm	PNP NO/NC
SM-PR-2-D30-NN			NPN NO/NC
SM-PR-2-A00-PP	Retro-Reflective: Red LED 640nm	1.5m	PNP NO/NC
SM-PR-2-A00-NN			NPN NO/NC
SM-PR-2-B00-PP	Polarized Retro-Reflective: Red LED 640nm	1m	PNP NO/NC
SM-PR-2-B00-NN			NPN NO/NC
SM-PR-2-F00-PP	Through Beam Receiver	2m	PNP NO/NC
SM-PR-2-F00-NN			NPN NO/NC
SM-PR-2-G00-XG	Through Beam Emitter: Red LED 640nm	2m	-

ECONOMY DC MINIATURE SENSORS IP67

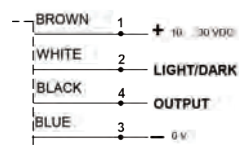
Features

- Supply Voltage: 10-30VDC
- Output Current: ≤100mA
- Operation LED
- Temp. Range: -25-55°C
- Housing Material: ABS/PMMA
- Size: 32 x 12 x 20mm
- Operation Mode: Light/Dark Selectable

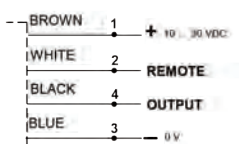


Wiring Diagrams

S100-A00/Bx0/Cx0/D00/F00



S100-M00



S100 Series Economy DC Miniature Sensors

Code (2m Cable)	Code (M8 Connector)	Function	Sensing Distance	Output
S100-PR-2-C00-PK	S100-PR-5-C00-PK	Short Diffuse Proximity: Red LED 632nm	300mm	PNP
S100-PR-2-C00-NK	S100-PR-5-C00-NK			NPN
S100-PR-2-C10-PK	S100-PR-5-C10-PK	Long Diffuse Proximity: Red LED 632nm	500mm	PNP
S100-PR-2-C10-NK	S100-PR-5-C10-NK			NPN
S100-PR-2-D00-PK	S100-PR-5-D00-PK	Fixed Focus: Red LED 632nm	70mm	PNP
S100-PR-2-D00-NK	S100-PR-5-D00-NK			NPN
S100-PR-2-A00-PK	S100-PR-5-A00-PK	Retro-Reflective: Infrared LED 860nm	7m	PNP
S100-PR-2-A00-NK	S100-PR-5-A00-NK			NPN
S100-PR-2-B10-PK	S100-PR-5-B10-PK	Polarized Retro-Reflective: Red LED 632nm	5m	PNP
S100-PR-2-B10-NK	S100-PR-5-B10-NK			NPN
S100-PR-2-M00-PH	S100-PR-5-M00-PH	Background Suppression: Red LED 632nm with Remote Teach-in	30-100mm	PNP
S100-PR-2-M00-NH	S100-PR-5-M00-NH			NPN
S100-PR-2-FG00-PK	S100-PR-5-FG00-PK	Through Beam: Infrared LED 860nm	12m	PNP
S100-PR-2-FG00-NK	S100-PR-5-FG00-NK			NPN

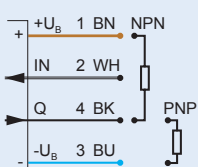
HIGH PERFORMANCE MINATURE SENSORS ALL-IN ONE IP67

Features

- Operation LED
- Teach-in button
- Operation Mode: Light / Dark
- Nominal Voltage 10-30VDC
- Output Current: ≤100mA
- Housing Material ABS
- Size: 34 x 20 x 12mm



Wiring Diagrams



Series S45 High Performance Miniature Sensors

Code (2m Cable)	Code (M8 Connector)	Function	Sensing Distance	Output
S45-PR-2-C03-PH	S45-PR-5-C03-PH	Diffuse Proximity: Red LED 632nm	800mm	PNP
S45-PR-2-C03-NH	S45-PR-5-C03-NH			NPN
S45-PR-2-B03-PH	S45-PR-5-B03-PH	Polarized Retro-Reflective: Red LED 632nm	2m	PNP
S45-PR-2-B03-NH	S45-PR-5-B03-NH			NPN
-	S45-PR-5-B53-PH	Polarized Retro-Reflective: Red LED 632nm	7m	PNP
-	S45-PR-5-B53-NH			NPN
S45-PR-2-T53-PH	S45-PR-5-T53-PH	Polarized Retro-Reflective for Transparent: Red LED 632nm	2m	PNP
S45-PR-2-T53-NH	S45-PR-5-T53-NH			NPN
S45-PR-2-M13-PH	S45-PR-5-M13-PH	Background Suppression: Red LED 632nm	400mm	PNP
S45-PR-2-M13-NH	S45-PR-5-M13-NH			NPN
-	S45-PR-5-W13-OH	Contrast Sensor: RGB LED	12mm	PUSH-PULL
-	S45-PR-5-W43-OH			
-	S45-PR-5-Y13-PV	Distance: Red LED 632nm	200mm	PNP (0-10V)
-	S45-PR-5-Y13-NV			NPN (0-10V)
S45-PR-2-F03-PH	S45-PR-5-F03-PH	Through Beam Receiver	15mm	PNP
S45-PR-2-F03-NH	S45-PR-5-F03-NH			NPN
S45-PR-2-G00-XE	S45-PR-5-G00-XE	Through Beam Emitter: Red LED 632nm	15mm	-

WHILE
STOCKS
LAST

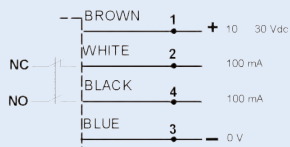
MINIATURE PHOTOELECTRIC SENSORS BASIC LINE IP66

Features

- Supply Voltage: 10-30VDC
- Output Current: ≤100mA
- Operation LED
- Temperature Range: -25-55°C
- Housing Material: PMMA



Wiring Diagrams



S41 Series Miniature Photoelectric Sensors

Code (Cable)	Code (M8 Connector)	Function	Sensing Distance	Output
-	S41-5-C-P	Diffuse Proximity: Infrared LED 880nm	0.2-350mm	PNP NO/NC
S41-2-C-N	-			NPN NO/NC
-	S41-5-B-P	Polarized Retro-Reflective: Red LED 660nm	0.1-2.5m	PNP NO/NC
S41-2-B-N	S41-5-B-N			NPN NO/NC
S41-2-T-P	S41-5-T-P	Retro-Reflective for Transparents: Red LED 660nm	0.1-0.7m	PNP NO/NC
S41-2-T-N	S41-5-T-N			NPN NO/NC
S41-2-G	S41-5-G	Through Beam Emitter: Infrared LED 880nm	0.1-6m	-
S41-2-F-P	S41-5-F-P	Through Beam Receiver	0.1-6m	PNP NO/NC
S41-2-F-N	S41-5-F-N			NPN NO/NC

WHILE
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LAST

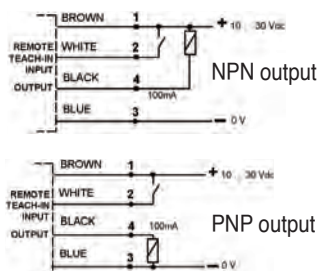
PHOTOELECTRIC SENSORS MICROPROCESSOR-BASED TEACH-IN IP67

Features

- Supply Voltage: 10-30VDC
- Output Current: ≤100mA
- Operation LED
- Housing Material: ABS
- Temperature Range: -20-60°C
- EASYtouch™ microprocessor teach in and Remote setting



Wiring Diagrams



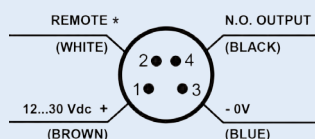
S40 Series Photoelectric Sensors

Code (Cable)	Code (M8 Connector)	Function	Sensing Distance	Output
-	S40-PR-5-C03-PH	Diffuse Proximity: Red LED 660nm	0.5-300mm	PNP
S40-PR-2-C03-NH	-			NPN
S40-PR-2-B03-PH	S40-PR-5-B03-PH	Polarized Retro-Reflective: Red LED 660nm	0.1-2.5m	PNP
S40-PR-2-B03-NH	S40-PR-5-B03-NH			NPN
S40-PR-2-T03-PH	S40-PR-5-T03-PH	Retro-Reflective Transparents: Red LED 660nm	0.1-7m	PNP
-	S40-PR-5-T03-NH			NPN
S40-PR-2-M03-PH	-	Background Suppression: Red LED 660nm	15-100mm	PNP
S40-PR-2-M03-NH	S40-PR-5-M03-NH			NPN

DC ADVANCED PHOTOELECTRIC SENSORS IP67

Features

- Supply Voltage: 12-30VDC
- Operation LED
- Teach-in button
- Operation Mode : Light / Dark
- Output Current: $\leq 100\text{mA}$
- Housing Material: ABS
- Temp. Range: -10-55°C
- Size: 42 x 14 x 25mm



- * Remote Input (mod. W, T53)
- * Light / Dark Input (mod. M53)
- * Delay (mod. M Laser)
- * Test Input (mod. G),
- * Alarm Output (mod. B, T51)
- * Not Used (mod. C, M, F)

S8 Series DC Photoelectric Sensors for Challenging Applications

Code (M8 Connector)	Function		Sensing Distance	Output
S8-PR-5-C01-PP	Diffuse Proximity:		500mm	PNP NO
S8-PR-5-C01-NN	Red LED 660nm			NPN NO
S8-PR-5-B01-PP	Polarized Retro-Reflective:		5m	PNP NO
S8-PR-5-B01-NN	Red LED 660nm			NPN NO
S8-PR-5-T51-PP	Retro-Reflective for Transparents:		0-800mm	PNP NO
S8-PR-5-T51-NN	Red LED 660nm			NPN NO
S8-PR-5-T53-PP	Retro-Reflective for Transparents:		2000mm	PNP NO
S8-PR-5-T53-NN	Red LED 660nm			NPN NO
S8-PR-5-F01-PP	Through Beam Receiver:		25m	PNP NO
S8-PR-5-F01-NN	Red LED 660nm			NPN NO
S8-PR-5-G00-XG	Through Beam Emitter:		25m	-
S8-PR-5-M53-PP	Background Suppression for clear: Red LED 660nm			PNP NO
S8-PR-5-M01-PP	Background Suppression:		50-300mm	PNP
S8-PR-5-M01-NN	Red LED 660nm			NPN
S8-PH-5-M01-PP	Background Suppression:		20-200mm	PNP
S8-PH-5-M01-NN	Red Laser 645-665nm			NPN
S8-PR-5-W03-PP	Contrast: 10KHz, RGB LED		10mm	PNP
S8-PR-5-W03-NN				NPN
S8-PR-5-W13-PP	Contrast: 25KHz, RGB LED		10mm	PNP

AC/DC UNIVERSAL SENSORS - 50X50MM IP67

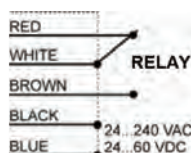
Features

- Supply Voltage: 24-240VAC/24-60VDC
- Operation LED
- Operating Mode: Light/Dark set by Trim Pot
- Output Current: $\leq 2\text{A}$
- Housing Material: ABS
- Temp. Range: -10-55°C



S62 Series AC/DC Sensors - 50x50mm Housing c/w Relay Output

Code (2m Cable)	Function		Sensing Distance	Output
S62-PA-1-C01-RX	Diffuse Proximity Short:		900mm	1 C/O
S62-PA-1-C11-RX	Red LED 640nm			
S62-PA-1-C11-RX	Diffuse Proximity Long:		2000mm	1 C/O
S62-PA-1-B01-RX	Red LED 640nm			
S62-PA-1-B01-RX	Polarized Retro-Reflective:		8m	1 C/O
S62-PA-1-A01-RX	Red LED 640nm			
S62-PA-1-A01-RX	Retro-Reflective :		13m	1 C/O
S62-PA-1-F01-RX	Red LED 640nm			
S62-PA-1-F01-RX	Through Beam Receiver		25m	1 C/O
S62-PA-1-G00-XX	Through Beam Emitter:			-
S62-PA-1-G00-XX	Red LED 640nm			



Sensor



Through Beam Emitter

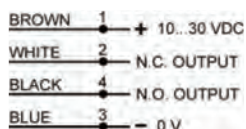
DC UNIVERSAL SENSORS - 50X50MM IP67

Features

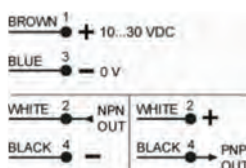
- Supply Voltage: 10-30VDC
- Operation LED
- Operating Mode: Light/Dark
- Output Current DC: ≤100mA
- Housing Material ABS
- Temperature Range:
-10 to 55°C
- Size: 50 x 50 x 18mm



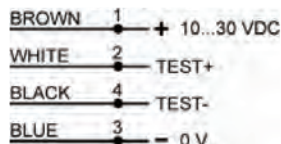
Wiring Diagrams



Sensors PP/NN Type



Sensors PN Type



Through Beam Emitter

S62 Series DC Sensors - 50x50mm Housing

Code (Cable)	Code (M12 Connector)	Function	Sensing Distance	Output
S62-PA-2-C01-NN	S62-PA-5-C01-NN	Short Diffuse Proximity: Red LED 640nm	0-900mm	NPN NO/NC
S62-PA-2-C01-PP	S62-PA-5-C01-PP			PNP NO/NC
S62-PA-2-C01-PN	S62-PA-5-C01-PN			NPN/PNP
S62-PA-2-C11-NN	S62-PA-5-C11-NN	Long Diffuse Proximity: Red LED 640nm	0-2000mm	NPN NO/NC
S62-PA-2-C11-PP	S62-PA-5-C11-PP			PNP NO/NC
S62-PA-2-C11-PN	S62-PA-5-C11-PN			NPN/PNP
S62-PA-2-A01-PN	S62-PA-5-A01-PN	Retro-Reflective: Red LED 640nm	0.1-13m	NPN/PNP
-	S62-PA-5-B01-NN	Polarized Retro-Reflective: Red LED 640nm	0.1-8m	NPN NO/NC
S62-PA-2-B01-PP	S62-PA-5-B01-PP			PNP NO/NC
S62-PA-2-B01-PN	S62-PA-5-B01-PN			NPN/PNP
S62-PA-2-F01-NN	S62-PA-5-F01-NN	Through Beam Receiver	0-25m	NPN NO/NC
S62-PA-2-F01-PP	S62-PA-5-F01-PP			PNP NO/NC
S62-PA-2-F01-PN	S62-PA-5-F01-PN			NPN/PNP
S62-PA-2-G00-XG	S62-PA-5-G00-XG	Through Beam Emitter: Red LED 640nm	0-25m	-
-	S62-PA-5-M01-NN	Background Suppression: Red LED 640nm	30-300mm	NPN NO/NC
S62-PA-2-M01-PP	S62-PA-5-M01-PP			PNP NO/NC
-	S62-PA-5-M05-NN	Background Suppression With Timer: Red LED 640nm	30-300mm	NPN NO/NC
-	S62-PA-5-M05-PP			PNP NO/NC
-	S62-PA-5-M11-NN	Background Suppression: Red LED 640nm	60-600mm	NPN NO/NC
S62-PA-2-M11-PP	S62-PA-5-M11-PP			PNP NO/NC
-	S62-PA-5-M15-NN	Background Suppression With Timer: Red LED 640nm	60-1200mm	NPN NO/NC
-	S62-PA-5-M15-PP			PNP NO/NC
-	S62-PA-5-M21-NN	Background Suppression: Infrared 880nm	60-1200mm	NPN NO/NC
S62-PA-2-M21-PP	S62-PA-5-M21-PP			PNP NO/NC
-	S62-PA-5-M25-NN	Background Suppression With Timer: Infrared 880nm	60-1200mm	NPN NO/NC
-	S62-PA-5-M25-PP			PNP NO/NC
-	S62-PA-5-M31-NN	Background Suppression: Infrared 880nm	200-2000mm	NPN NO/NC
S62-PA-2-M31-PP	S62-PA-5-M31-PP			PNP NO/NC
-	S62-PA-5-M35-NN	Background Suppression With Timer: Infrared 880nm	200-2000mm	NPN NO/NC
-	S62-PA-5-M35-PP			PNP NO/NC

MAXI SENSORS FOR HARSH ENVIRONMENTS IP67

Features

- Operation LED
- Output Current DC: $\leq 100\text{mA}$
- Output Current AC: $\leq 3\text{A}$
- Housing Material: PBT (30% Fibre-reinforced Glass)
- Temp. Range: $-40\text{--}55^\circ\text{C}$
- Operating Mode: Light/Dark Selectable
- Timing Functions: Delay on / Delay off / One Shot
- DC Connection: M12
- AC Connection: Terminal Block



S300 PR-Series Maxi Sensors - Supply Voltage: 10 - 30VDC

Code (No Timer)	Code (Timer)	Function	Sensing Distance	Output
S300-PR-5-C01-OC	S300-PR-5-C06-OC	Diffuse Proximity: Infrared LED 880nm	0.05-5m	NPN/PNP
S300-PR-5-B01-OC	S300-PR-5-B06-OC	Polarized Retro-Reflective: Red LED 660nm	0.1-22m	NPN/PNP
S300-PR-5-M01-OC	S300-PR-5-M06-OC	Background Suppression: Infrared LED 880nm	0.4-2.5m	NPN/PNP
S300-PR-5-F01-OC	S300-PR-5-F06-OC	Through Beam Receiver	0-60m	NPN/PNP
S300-PR-5-G00-EX	-	Through Beam Emitter: Infrared LED 880nm	0-60m	-

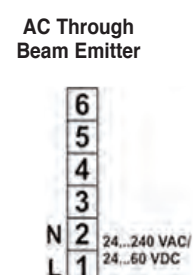
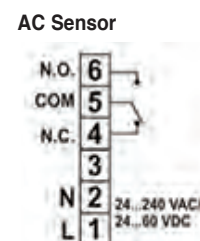
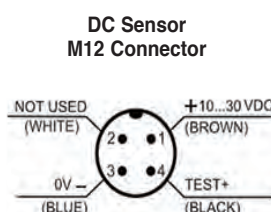
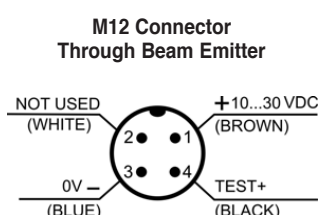
S300 PR Series Maxi Sensors - Supply Voltage: 24-240VAC / 24-60VDC

Code (No Timer)	Code (Timer)	Function	Sensing Distance	Output
S300-PR-1-C01-RX	S300-PR-1-C06-RX	Diffuse Proximity: Infrared LED 880nm	0.05-5m	1 C/O
S300-PR-1-B01-RX	S300-PR-1-B06-RX	Polarized Retro-Reflective: Red LED 660nm	0.1-22m	1 C/O
S300-PR-1-M01-RX	S300-PR-1-M06-RX	Background Suppression: Infrared LED 880nm	0.4-2.5m	1 C/O
S300-PR-1-F01-RX	S300-PR-1-F06-RX	Through Beam Receiver	0-60m	1 C/O
S300-PR-1-G00-EX	-	Through Beam Emitter: Infrared LED 880nm	0-60m	-

S300 PR Series Maxi Sensors - With defogging functions | Supply Voltage: 24-240VAC / 24-60VDC

Code (No Timer)	Code (Timer)	Function	Sensing Distance	Output
-	S300-PR-1-C06-RX-M	Diffuse Proximity: Infrared LED 880nm	0.05-5m	1 C/O
-	S300-PR-1-B06-RX-M	Polarized Retro-Reflective: Red LED 660nm	0.1-22m	1 C/O
-	S300-PR-1-M06-RX-M	Background Suppression: Infrared LED 880nm	0.4-2.5m	1 C/O
-	S300-PR-1-F06-RX-M	Through Beam Receiver	0-60m	1 C/O
S300-PR-1-G00-EX-M	-	Through Beam Emitter: Infrared LED 880nm	0-60m	-

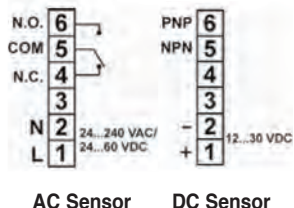
Wiring Diagrams



ADVANCED COST EFFECTIVE MAXI SENSORS IP67

Features

- Operation LED
- Output Current DC: ≤100mA
- Output Current AC: ≤3A
- Housing Material: PBT (30% Fibre-reinforced Glass)
- Temperature Range: -25-55°C
- Connection: Terminal Block
- Operating Mode: Light/Dark Selectable by Dip Switch
- Size: 100 x 70 x 25mm
- Timing Functions: Delay on, Delay off, One shot



S300 PA Series Advanced Cost Effective Maxi Sensors - Supply Voltage: 12-30VDC

Code (No Timer)	Code (Timer)	Function	Sensing Distance	Output
S300-PA-2-C01-OC	S300-PA-2-C06-OC	Diffuse Proximity: Infrared LED 940nm	5-200cm	NPN/PNP
S300-PA-2-A01-OC	S300-PA-2-A06-OC	Retro-Reflective: Infrared LED 880nm	0.1-15m	NPN/PNP
S300-PA-2-B01-OC	S300-PA-2-B06-OC	Polarized Retro-Reflective: Red LED 660nm	0.1-10m	NPN/PNP
S300-PA-2-M01-OC	S300-PA-2-M06-OC	Background Suppression: Infrared LED 880nm	20-200cm	NPN/PNP
S300-PA-2-F01-OC	S300-PA-2-F06-OC	Through Beam Receiver	0-50m	NPN/PNP
S300-PA-2-G00-EX	-	Through Beam Emitter: Infrared LED 880nm	0-50m	-

S300 PA Series Advanced Cost Effective Maxi Sensors - Supply Voltage: 24-240VAC / 24-60VDC

Code (No Timer)	Code (Timer)	Function	Sensing Distance	Output
S300-PA-1-C01-RX	S300-PA-1-C06-RX	Diffuse Proximity: Infrared LED 940nm	5-200cm	1 C/O
S300-PA-1-A01-RX	S300-PA-1-A06-RX	Retro-Reflective: Infrared LED 880nm	0.1-15m	1 C/O
S300-PA-1-B01-RX	S300-PA-1-B06-RX	Polarized Retro-Reflective: Red LED 660nm	0.1-10m	1 C/O
S300-PA-1-M01-RX	S300-PA-1-M06-RX	Background Suppression: Infrared LED 880nm	20-200cm	1 C/O
S300-PA-1-F01-RX	S300-PA-1-F06-RX	Through Beam Receiver: Infrared LED 880nm	0-50m	1 C/O
S300-PA-1-G00-EX	-	Through Beam Emitter: Infrared LED 880nm	0-50m	-

ADVANCED COLOUR SENSORS IP67

Features

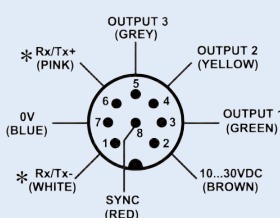
- Operation LED
- Output Current: ≤100mA
- Supply Voltage: 10-30VDC
- Housing Material: ABS
- Temp. Range: -10-55°C
- 3 channel color sensor with 10 tolerance levels
- 2 push button setting with 4 digit display indicator

S65-V Series Colour Sensors

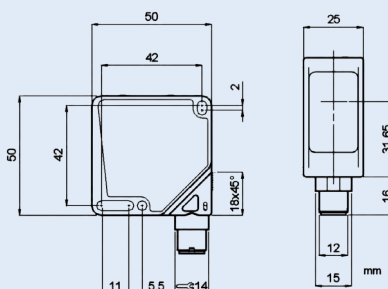
Code (Vertical)	Function	Sensing Distance	Output	Connector Type
S65-PA-5-V09-NNN	Colour Sensor: White LED 400-700nm	5-45mm	3 x NPN	M12 8-Pole Connector
S65-PA-5-V09-PPP	Colour Sensor: White LED 400-700nm	5-45mm	3 x PNP	M12 8-Pole Connector

Wiring Diagrams

M12 Connector



Dimensions



CONTRAST & REGISTRATION MARK SENSORS IP67

Features

- Operation LED
- Setting: Teach-in with Pushbuttons / Remote
- Output Current : $\leq 200\text{mA}$
- Supply Voltage: 10-30VDC
- Housing Material : ZAMA
- Temp. Range: -10-55°C
- Size: 81 x 58 x 31mm
- Operating Mode: Light/Dark, Automatic Sensing
- Analogue Out: 0-5V

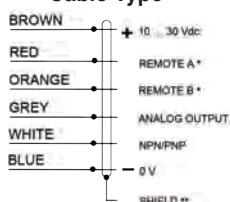


TLU Series Contrast Sensors

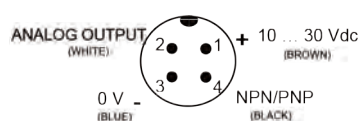
Code (Vertical Spot)	Code (Horizontal Spot)	Function	Sensing Distance	Output	Connector Type
TLU-011	TLU-011L	Contrast: LED Red/Green 9mm Optic	6-12mm	NPN + Analogue	3m Cable
TLU-015	TLU-015L	Contrast: LED Red/Green 9mm Optic	6-12mm	NPN + Analogue	M12 Connector
TLU-111	TLU-111L	Contrast: LED Red/Green 9mm Optic	6-12mm	PNP + Analogue	3m Cable
TLU-115	TLU-115L	Contrast: LED Red/Green 9mm Optic	6-12mm	PNP + Analogue	M12 Connector

Wiring Diagrams

Cable Type



M12 Type



Features

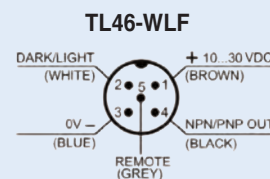
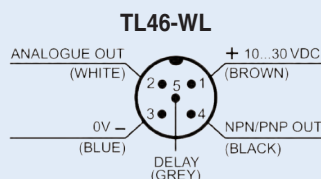
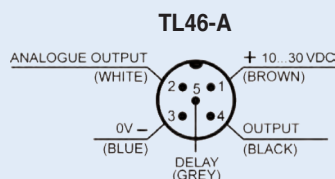
- Operation LED
- Setting: Pushbuttons (W) or Trimmer (A)
- Output Current: $\leq 100\text{mA}$
- Supply Voltage: 10-30VDC
- Housing Material : Aluminium
- Temp. Range: -10-55°C
- Size: 81 x 58 x 31mm
- Operating mode: Light/Dark, Automatic Setting
- Analogue out: 0-5V



TL46 Series Ultra High Speed Contrast Sensors for Coloured Marks

Code (Vertical)	Code (Horizontal)	Function	Sensing Distance	Output	Connector Type
TL46-A-425	-	Contrast: White LED	9±3mm	NPN	M12 5-Pole Connector
TL46-A-415	-	400-700nm		PNP	
TL46-W-815	TL46-W-815L	Contrast: RGB LED	9±3mm	NPN/PNP + Analogue	M12 5-Pole Connector
TL46-WL-815	TL46-WL-815L			NPN/PNP + Analogue	
TL46-WLF-815	TL46-WLF-815L			NPN/PNP	

Wiring Diagrams



LUMINESCENCE SENSORS IP67

Features

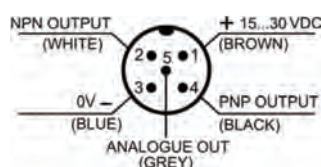
- Operation LED
- Output Current : $\leq 100\text{mA}$
- Supply Voltage: 15-30VDC
- Housing Material: Aluminium
- Temp. Range: -10-55°C
- High sensitivity on fluorescent marks
- Size: 81 x 58 x 31mm
- Analogue Output: 0-5V

LD46 Series Luminescence Sensors Vertical Spot

Code (Vertical Spot)	Function	Sensing Distance	Output	Connector Type
LD46-UL-715	Luminescence Sensor: UV HP LED	10 - 20mm	NPN/PNP + Analogue	M12 5-Pole Connector



Wiring Diagram



DC FIBRE OPTIC AMPLIFIER SENSORS IP65

Features

- Supply Voltage: 12-24VDC $\pm 10\%$
- Output Current: $\leq 100\text{mA}$
- Housing Material: ABS
- Temperature Range: -10 to 50°C
- For Small Object Detection in Limited Spaces

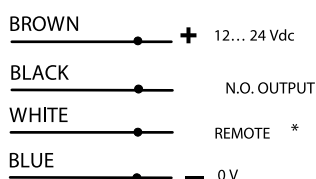


Fibre Optic Amplifier DIN Rail Mounting

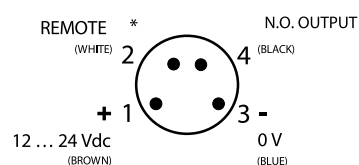
Code	Function	Max. Measuring Distance	Output	Connector Type
S7-6-E-P	Through Beam / Proximity: Red LED 670nm c/w Pushbuttons	Normal Mode Through Beam: 300mm Proximity: 100mm	PNP NO	M8 Connector
S7-6-E-N			NPN NO	M8 Connector
S7-5-E-P	Through Beam / Proximity: Red LED 670nm c/w Display & Pushbuttons	Normal Mode Through Beam: 300mm Proximity: 100mm	PNP NO	M8 Connector
S7-5-E-N			NPN NO	M8 Connector
S7-2-E-P		Fast Mode Through Beam: 150mm Proximity: 50mm	PNP NO	2m Cable
S7-2-E-N			NPN NO	2m Cable
S7-1-E-P	Through Beam / Proximity: White LED 400-700nm c/w Display & Pushbuttons	Normal/Fast Mode Through Beam: 75mm Proximity: 25mm	PNP NO	2m Cable
S7-1-E-N			NPN NO	2m Cable

Wiring Diagrams

CABLE



M8 CONNECTOR



Fibre Optic Cables

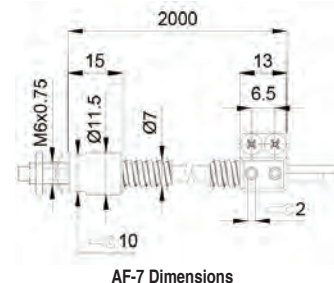
Optic Function	Terminal/Tips	Fibre Type	Length	Code
Coaxial Proximity	M6 x 1mm	Standard 1mm	2m	OF-36-ST-20
Proximity	M6 x 1mm	Standard 1mm	1m	OF-18-ST-10
Proximity	M6 x 1mm*	Standard 1mm	2m	OF-22-ST-20
Proximity	M3 x 0.5mm	Thin 0.5mm	1m	OF-26-TN-10
Proximity	M6 x 0.75mm	Standard 1mm	1m	OF-42-ST-20
Proximity	M6 x 0.75mm	High Efficiency 1.5mm	2m	OF-42-HP-20
Through Beam	M4 x 0.7mm	Standard 1mm	1m	OF-19-ST-10
Through Beam	M4 x 0.7mm*	Standard 1mm	2m	OF-23-ST-20
Through Beam	M2 x 0.4mm	Thin 0.5mm	1m	OF-25-TN-10
Through Beam	M4 x 0.7mm	Standard 1mm	1m	OF-43-ST-20
Through Beam	M4 x 0.7mm	High Efficiency 1.5mm	2m	OF-43-HP-20



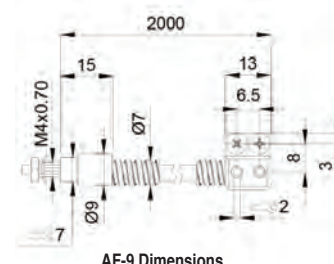
Stainless Steel Protective Metal Sheath 2m

Code	Suitable Fibres
AF-7	M6 x 0.75mm fibres OF-42-xx
AF-9	M4 x 0.7mm fibres OF-43-xx**

** 2 Sheaths have to be ordered for both the emitter-receiver fibres



AF-7 Dimensions



AF-9 Dimensions

Special Application Fibre Optics

Optic Function	Terminal/Emission	Fibre Length	Code
Through Beam	Axial, 16 Beam Array	2m	OFA-1-AE-20
Through Beam	Radial, 16 Beam Array	2m	OFA-1-AS-20
Proximity	Axial, 32 Beam Array	2m	OFA-2-AE-20
Proximity	Radial, 32 Beam Array	2m	OFA-2-AS-20



* A bendable stainless steel extension 90mm long protrudes from the threaded optic head

PHOTOELECTRIC SLOT SENSORS IP65

Features

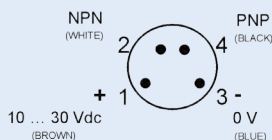
- Output LED
- Supply Voltage: 10-30VDC
- High 25kHz switching frequency
- Output Current: $\leq 100\text{mA}$
- Housing Material: ZAMA
- Temp. Range: $-20\text{--}60^\circ\text{C}$
- Operating Mode: Light/Dark configurable



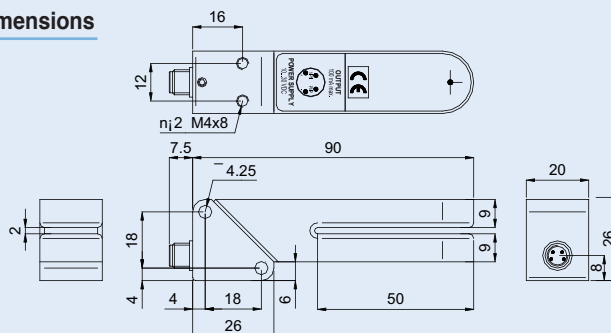
SR21 Series High Resolution Slot Sensors - For Packaging & Labelling

Code	Function	Slot Width	Output	Connector Type
SR21-IR	Slot sensor for Labels: Infrared LED 880nm	2mm	PNP/NPN	M8 4-Pole Connector
SR21-RG	Slot sensor for Transparent Films: Red/Green LED	2mm	PNP/NPN	

Wiring Diagrams



Dimensions



Features

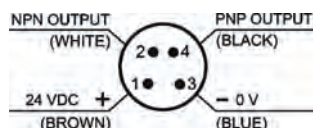
- Output Current: $\leq 200\text{mA}$
- Housing Material: Aluminium
- Temp. Range: $-10\text{--}60^\circ\text{C}$



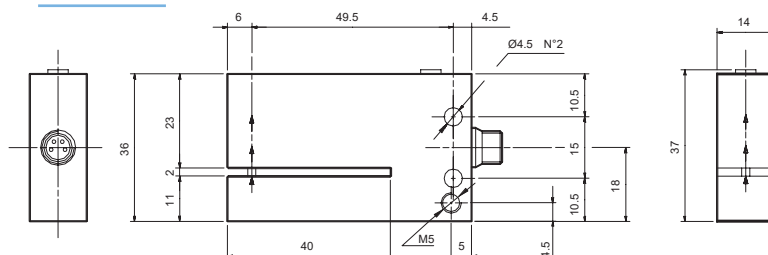
SR22 Series Slot Sensors - Switching Frequency: 10kHz

Code (Dark)	Code (Light)	Function	Slot Width	Output	Connector Type
SR22-5-IR-OD	-	Slot sensor: infrared 880nm	1mm	NPN/PNP	M8 4-Pole Connector

Wiring Diagrams



Dimensions



Features

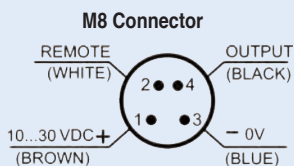
- Supply Voltage: 10-30VDC
- Output Current: $\leq 100\text{mA}$
- Teach-in Button
- Housing Material: Aluminum
- Temp. Range: $-20\text{--}55^\circ\text{C}$
- For Booklet or Multilayer labels detection



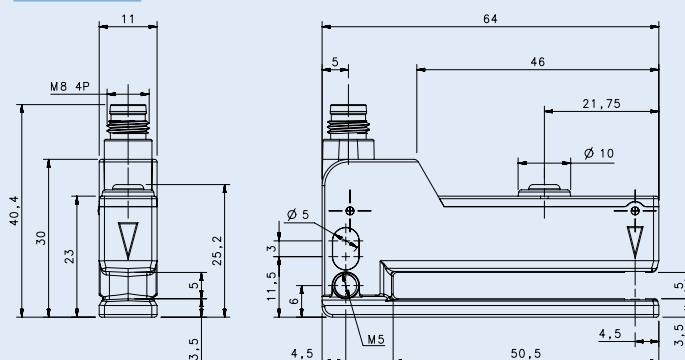
SR23 Series Slot Sensors - Switching Frequency: 12kHz

Code (Cable)	Code (M8)	Function	Slot Width	Output
SR23-2-IR-NH	SR23-5-IR-NH	Slot sensor: Infrared LED 850nm	5mm	NPN
SR23-2-IR-PH	SR23-5-IR-PH	Slot sensor: Infrared LED 850nm	5mm	PNP

Wiring Diagrams



Dimensions



PHOTOELECTRIC FORK SENSORS

Features

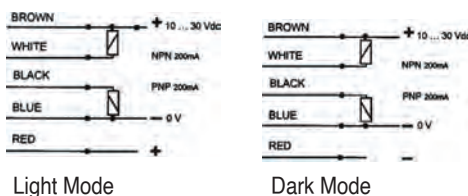
- Nominal Voltage: 10-30VDC
- Output Current: $\leq 200\text{mA}$
- Housing Material: ZAMA/Glass
- Temperature Range: -10-60°C



SR31 Series Fork Sensors IP60 - Switching Frequency: 10kHz max

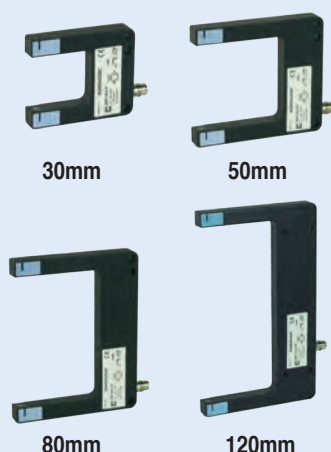
Code (Cable)	Function	Fork Width	Output
SR31	Fork Sensor: Infrared LED 950nm	30mm	NPN & PNP

Wiring Diagrams



Features

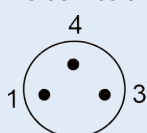
- Nominal Voltage 10-30VDC
- Output Current: $\leq 200\text{mA}$
- Operating Mode: Light/Dark Set by Trimmer
- Housing Material: Gd-Zn Alloy
- Temperature Range: -10-60°C
- Sensitivity adjustment trimmer



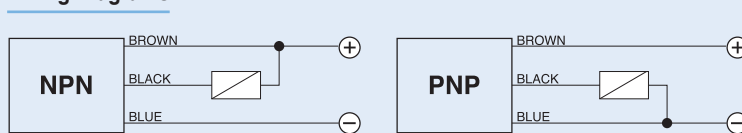
SRF Series Ultimate Precision Fork Sensors IP67 - Switching Frequency: 1.5kHz

Code (M8)	Function	Fork Width	Output
SRF-30-5-P	Fork Sensor:	30mm	PNP NO/NC
SRF-30-5-N	Red LED 640nm		NPN NO/NC
SRF-50-5-P	Fork Sensor:	50mm	PNP NO/NC
SRF-50-5-N	Red LED 640nm		NPN NO/NC
SRF-80-5-P	Fork Sensor:	80mm	PNP NO/NC
SRF-80-5-N	Red LED 640nm		NPN NO/NC
SRF-120-5-P	Fork Sensor:	120mm	PNP NO/NC
SRF-120-5-N	Red LED 640nm		NPN NO/NC

M8 Connector



Wiring Diagrams



ULTRASONIC FORK SENSORS IP54

Features SRX-3 Series

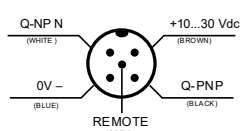
- Switching speed/frequency: 500Hz
- Supply Voltage: 10-30VDC
- Output Current: $\leq 250\text{mA}$
- Max Tape Speed: 60m/min
- Detectable size: $>2\text{mm}$
- Tape size: $>16\text{mm}$
- Output LED
- Housing Material: Aluminium



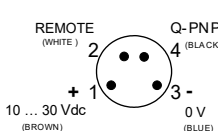
SRX3 Series - Ultrasonic Slot Sensors for Transparent Label Detection

Code	Function	Slot Width	Output	Connector Type
SRX3-5-US-M12-PNH	Dynamic Teach-in with External Teach-in.	3mm	PNP/NPN	M12 Connector - 5Pin
SRX3-5-US-3-M12-PNH	Static Teach-in with External Teach-in.		PNP/NPN	
SRX3-6-US-M8-PH	Dynamic Teach-in with External Teach-in.	3mm	PNP	M8 Connector - 4Pin
SRX3-6-US-3-M8-PH	Static Teach-in with External Teach-in.		PNP	

M12 Connector - 5 Pin



M8 Connector - 8 Pin



TIME OF FLIGHT LASER MEASUREMENT DISTANCE SENSORS IP67

Features

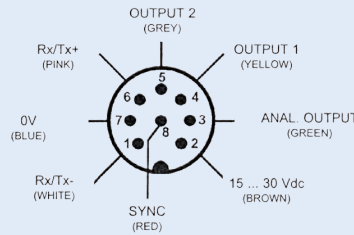
- Supply Voltage: 15-30VDC
- Serial Interface: RS485
- Output Current: ≤100mA
- Housing Material: Aluminium
- Temperature Range: -10-50°C
- Size: 90 x 73 x 34mm



S80 Series Time Of Flight Analogue Distance Sensors

Code	Function	Sensing Distance	Output	Connector Type
S80-MH-5-Y09-PPIZ	Distance Sensor: Red Laser 658nm	0.3-4m	2 x PNP + 4-20mA analogue	M12 8-Pole Connector
S80-MH-5-Y19-PPIZ	Distance Sensor: Red Laser 658nm	0.3-20.3m	2 x PNP + 4-20mA analogue	M12 8-Pole Connector
S80-MH-5-Y29-PPIZ	Distance Sensor: Red Laser 658nm	0.3-10.3m	2 x PNP + 4-20mA analogue	M12 8-Pole Connector

Wiring Diagrams



Features

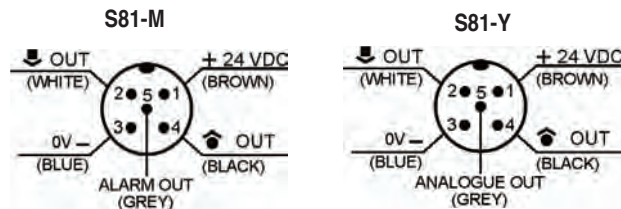
- Supply Voltage: 24VDC+/-20%
- Output Current: ≤100mA
- Housing Material: ABS/PMMA
- Temperature Range: -0-50°C



S81 Series Time Of Flight Analogue Distance Sensors

Code	Function	Sensing Distance	Output	Connector Type
S81-PL-5-M03-PPC	Distance Sensor Background suppression: 	0.3-4m	2 x PNP + 1 x PNP Alarm	M12 5-pole connector
S81-PL-5-M03-NNC	Distance Sensor Red Laser 665nm		2 x NPN + 1 x NPN Alarm	
S81-PL-5-Y03-PPV	Distance Sensor Background suppression: 	0.3-4m	2 x PNP + 0-10V Analogue	M12 5-pole connector
S81-PL-5-Y03-NNV			2 x NPN + 0-10V Analogue	
S81-PL-5-Y03-PPVK			2 x PNP + Scalable 0-10V Analogue	

Wiring Diagrams



DC SENSOR READER

For M12 Connector, Cable & Terminal DC Sensors



Code	Description
ST-02	• PNP (sourcing) and NPN (sinking) Testing • M12-5-Pin Plug Input • Terminal Inputs • Two Output LED's • Battery Powered

RHOMBERG PHOTOELECTRIC SENSORS

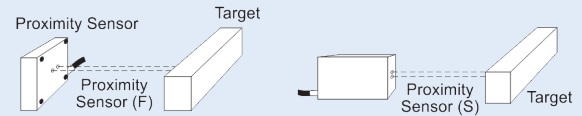
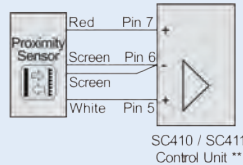
- Directly interfaces with **SC410/SC411** Opto-electronic Control Unit
- Programmable for dark or light response
- Adjustable on and off response delay of 0-5 seconds



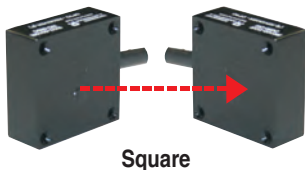
Opto - Proximity **IP66**

Code	Function	Sensing Distance	Output	Connector Type
RO2-5005P-NOMBC	Diffuse Proximity: Front Sensing	2m	PNP NO	Cable
RO2-2005P-NOMBC	Diffuse Proximity: Side Sensing			

Wiring Diagrams



- Directly interfaces with **SC410/SC411** Opto-electronic Control Unit
- Programmable for dark or light response
- Adjustable on and off response delay of 0-5 seconds
- Signal modulated beam to stop foreign light source interference
- Adjustable light intensity

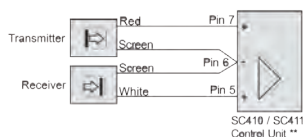


Square



M12

Wiring Diagrams



Opto - Barrier Square **IP66**: Transmitter/Receiver Pair

Code	Function	Sensing Distance	Output	Connector Type
RO2-5010B-NOMBC	Through beam: Front sensing	10m	PNP NO	Cable
RO2-2010B-NOMBC	Through beam: Side sensing			

Opto - Barrier Square **IP66**: Components

Code	Function	Sensing Distance	Output	Connector Type
RO2-5010T-NOMBC	Through Beam Transmitter: Front sensing	10m	PNP NO	Cable
RO2-5010R-NOMBC	Through Beam Receiver: Front sensing			
RO2-2010T-NOMBC	Through Beam Receiver: Side sensing	10m	PNP NO	Cable
RO2-2010R-NOMBC	Through Beam Receiver: Side sensing			

M12 Opto - Barrier **IP67** - Transmitter/Receiver Pair

Code	Function	Sensing Distance	Output	Connector Type
RO2-1210B-NOMTC	Through beam: Front sensing	5m	PNP NO	Cable

Cylindrical-Separate Parts (i.e. not Tx+Rx): (Compatible with SC410/SC411 Control Relay)

RO2-1210T-NOMTC	Through Beam Transmitter: Front sensing	5m	PNP NO	Cable
RO2-1210R-NOMTC	Through Beam Receiver: Front sensing			

Features

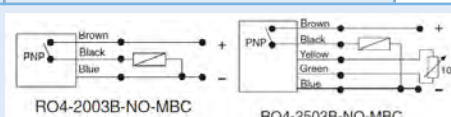
- Supply Voltage: 10-30VDC
- Output Current: ≤400mA
- Housing Material: ABS
- Temperature Range: 0-70°C
- Operating mode: Dark/Light



Opto - Slot Sensors **IP67**

Code	Function	Slot Width	Output	Connector Type
RO4-2003B-NOMBC	Slot Sensor: Infrared 910nm	3.5mm	PNP NO	Cable
RO4-2503B-NOMBC	Slot Sensor: Infrared 910nm (with remote sensitivity adjustment)			

Wiring Diagrams



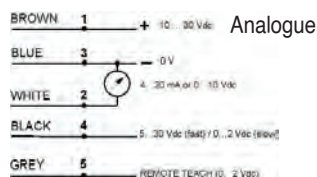
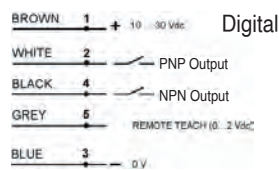
ULTRASONIC SENSORS FOR MEASUREMENT AND INSPECTION IP67

Features

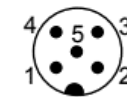
- Supply Voltage: 10-30VDC
- Setting: Teach-in or Remote input
- Output LED
- Housing Material: Thermoplastic Polyester
- Operating Temp.: -25-55°C
- High precision detection of clear and transparent objects

M18 Tubular Ultrasonic Sensors - Ultrasonic Frequency: 300kHz

Code	Housing Type	Sensing Distance	Output	Connector Type
US18-PA-5-N03-OH	AXIAL	30 - 300mm	NPN & PNP	M12 Connector - 5 Pole
US18-PA-5-N03-VH			Analogue (0-10VDC)	
US18-PA-5-N03-IH			Analogue (4-20mA)	
US18-PR-5-N03-OH	RADIAL	30 - 300mm	NPN & PNP	
US18-PR-5-N03-VH			Analogue (0-10 VDC)	
US18-PR-5-N03-IH			Analogue (4-20mA)	



M12 CONNECTOR

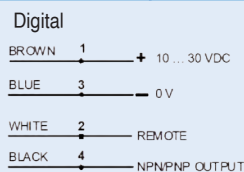
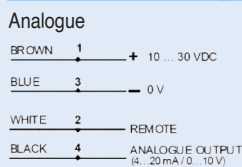


Features

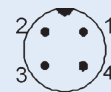
- Supply Voltage: 10-30VDC
- Output Current: ≤100mA
- Setting: Mode Push-button
- Output LED
- Housing Material: PBT
- Temperature: -40-70°C
- Colour independence and transparent object detection

M30 Ultrasonic Sensors - Ultrasonic Frequency: 174/224kHz

Code	Housing Type	Sensing Distance	Output	Connector Type
US30-PR-5-N13-OH	RADIAL	100 - 1000mm	NPN & PNP	M12 Connector - 4 Pole
US30-PR-5-N13-VH			Analogue 0-10VDC)	
US30-PR-5-N13-IH			Analogue (4-20mA)	
US30-PR-5-N23-OH	RADIAL	200 - 2000mm	NPN & PNP	
US30-PR-5-N23-VH			Analogue (0-10 VDC)	
US30-PR-5-N23-IH			Analogue (4-20mA)	



M12 4-POLE CONNECTOR



Features

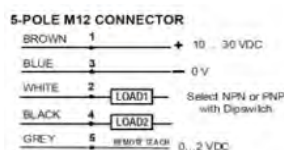
- Supply Voltage: 10-30VDC
- Setting: Teach-in/Analogue Push-button or Remote Teach-in
- Easy Teach-in & 3 Signalling LEDs
- Housing Material: ABS polycarbonate
- Temperature: -20-70 °C
- Ideal for long distance target detection in industrial applications.
- DIP SWITCH selectable Functions

M50 Ultrasonic Sensors - Ultrasonic Frequency: 75kHz

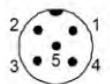
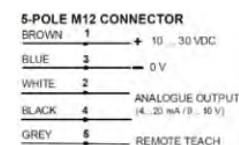
Code	Type	Sensing Distance	Output	Connector Type
US50-PR-5-N43-OH	RADIAL	0.2 - 8.0m	NPN/PNP	M12 Connector - 5 Pole
US50-PR-5-N43-IVH	RADIAL		Analogue (0-10V/4-20mA)	



Digital Version



Analogue Version



Accessories

Code	Type
ST-30SC	US50 Mounting Bracket
ST-30MM	US50 Stainless Steel Bracket

DATALOGIC INCREMENTAL & ABSOLUTE OPTICAL ROTARY ENCODERS

Features

- Case Dimension: Ø40.5 x 34mm
- Supply Voltage: 5-30VDC
- Output Current: ≤40mA
- Output Circuit: Smart Push-Pull & Line Driver



Ø41mm Basic Line Incremental Rotary Encoders **IP64** - Counting Frequency: 50kHz max

Type	Code	Shaft	Output Signals/Code	Connection
Fixed Output Pulses	ENC41-H06-*-C15	Hollow shaft Ø6mm	AB0 and /A/B/0	Cable 1.5m
	ENC41-S06-*-C15	Solid shaft Ø6mm		

*Add Pulses/Revolution to code: 0100, 0360, 0500, 1000, 1024, 2048, 4096

Features

- Case Dimension: Ø58 x 54mm
- Supply Voltage: 5-30VDC
- Output Current: ≤70mA
- Output Circuit: Smart Push-Pull & Line Driver

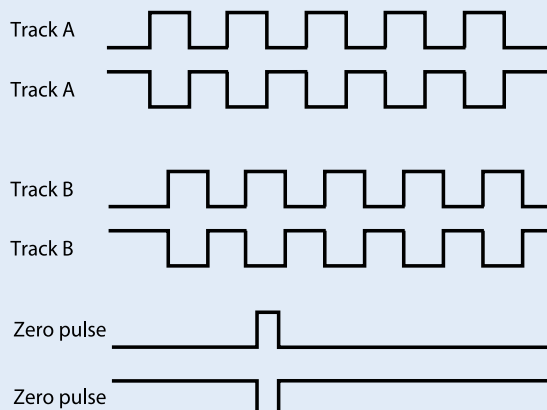


Ø58mm Extended Line Incremental Rotary Encoders - Counting Frequency: 100kHz max

Type	Code	Shaft	Output Signals/Code	Connection
Fixed Output Pulses	ENC58-H14-*-C15	Hollow shaft Ø14mm	AB0 and /A/B/0	Cable 1.5m
	ENC58-H14-*-M12			M12 connector
	ENC58-H14-*-M23			M23 connector
Programmable Output Pulse	ENC58-H14-PROG-M23			M23 connector
Fixed Output Pulses	ENC58-H15-*-C15	Hollow shaft Ø15mm	AB0 and /A/B/0	Cable 1.5m
	ENC58-H15-*-M12			M12 connector
	ENC58-H15-*-M23			M23 connector
Programmable Output Pulse	ENC58-H15-PROG-M23			M23 connector
Smart Push-Pull & Line Driver	ENC58-S06-*-C15	Solid shaft Ø6mm	AB0 and /A/B/0	Cable 1.5m
	ENC58-S06-*-M23			M23 connector
Fixed Output Pulses	ENC58-S10-*-C15	Solid shaft Ø10mm	AB0 and /A/B/0	Cable 1.5m
	ENC58-S10-*-M12			M12 connector
	ENC58-S10-**-M23			M23 connector
Programmable Output Pulse	ENC58-S10-PROG-M23			M23 connector

** Add Pulses/Revolution to code: 0500, 1000, 1024, 2000, 2048, 5000, 10000

OUTPUT SIGNALS



The incremental encoders supply A and B, 90° phase shifted signals, and their related complement outputs.

A single channel can provide the rotation speed only, whereas two phase shifted channels can give also the rotation direction and increase resolution.

The 0 index is used as reference mark for the "home" position.

SSI & FIELDBUS ABSOLUTE OPTICAL ROTARY ENCODERS

Features

- Case Dimension: Ø58 x 48mm
- Supply Voltage: 7.5-34VDC
- Input Functions: Counting, Direction & Zero Setting / Preset



Ø58mm SSI Multi-turn Absolute Encoders IP65 - Counting Frequency: ≤220kHz

Output Circuit	Code	Shaft	Output Signals/Code	Connection
SSI® (RS422) tree format	AMT58-H15-13X12-C15	Hollow shaft Ø15mm	Grey	Cable 1.5m
	AMT58-H15-13X12-M12			M12 connector
	AMT58-H15-13X12-M23			M23 connector
SSI® (RS422) tree format	AMT58-S06-13X12-C15	Solid shaft Ø6mm	Grey	Cable 1.5m
	AMT58-S06-13X12-M12			M12 connector
	AMT58-S06-13X12-M23			M23 connector
SSI® (RS422) tree format	AMT58-S10-13X12-C15	Solid shaft Ø10mm	Grey	Cable 1.5m
	AMT58-S10-13X12-M12			M12 connector
	AMT58-S10-13X12-M23			M23 connector

Resolution: 13 x 12 bit = up to 8192 CPR x 4096 turns

Features

- Case Dimension: Ø58 x 71mm
- Supply Voltage: 10-30VDC
- Input Functions: Counting, Direction & Zero Setting / Preset



Ø58mm Multi-turn with Integrated Fieldbus Absolute Encoders IP65 - Counting Frequency: ≤220kHz

Output Circuit	Code	Shaft	Output Signals/Code	Connection
Canopen integrated	AMT58-H15-13X12-CB	Hollow shaft Ø15mm	-	M12 connector
Devicenet integrated	AMT58-H15-13X12-DN		-	
Ethercat integrated	AMT58-H15-13X14-EC		-	
Profibus integrate	AMT58-H15-13X12-PB		-	
Profinet integrated	AMT58-H15-13X14-PN		-	
Canopen integrated	AMT58-S10-13X12-CB	Solid shaft Ø10mm	-	M12 connector
Devicenet integrated	AMT58-S10-13X12-DN		-	
Ethercat integrated	AMT58-S10-13X14-EC		-	
Profibus integrate	AMT58-S10-13X12-PB		-	
Profinet integrated	AMT58-S10-13X14-PN		-	

Resolution: 16 x 14 Bit = 65536CPR x 16384 Turns

DATALOGIC ABSOLUTE OPTICAL ROTARY ENCODERS

Features

- Case Dimension: Ø58 x 48mm
- Supply Voltage: 7.5-34VDC
- Input Functions: Counting Direction & Zero Setting / Preset



Ø 58mm SSI Single-turn Absolute Rotary Encoders IP65 - Counting Frequency: >150kHz

Output Circuit	Code	Shaft	Output Signals/Code	Connection
SSI® (RS422) tree format	AST58-H15-13X01-C15	Hollow shaft Ø15mm	Grey	Cable 1.5m
	AST58-H15-13X01-M12			M12 connector
	AST58-H15-13X01-M23			M23 connector
SSI® (RS422) tree format	AST58-S06-13X01-C15	Solid shaft Ø6mm	Grey	Cable 1.5m
	AST58-S06-13X01-M12			M12 connector
	AST58-S06-13X01-M23			M23 connector
SSI® (RS422) tree format	AST58-S10-13X01-C15	Solid shaft Ø10mm	Grey	Cable 1.5m
	AST58-S10-13X01-M12			M12 connector
	AST58-S10-13X01-M23			M23 connector

Resolution: 13 bit = up to 8192 count per revolution (CPR)

SSI & FIELDBUS ABSOLUTE OPTICAL ROTARY ENCODERS

Features

- Case Dimension: Ø58 x 71mm depth (encoder+interface module)
- Supply Voltage: 10-30VDC
- Consumption: 2.2W

Note: Base supplied without Interface Module



Ø58mm Multi-Turn with Modular Absolute Encoder Base

Output Circuit	Code - Base	Shaft	Connection
Fieldbus interface module	AMT58-H15-16x14-FBUS	Hollow shaft Ø15mm	M12 connector
	AMT58-S06-16x14-FBUS	Solid shaft Ø6mm	
	AMT58-S10-16x14-FBUS	Solid shaft Ø10mm	

Resolution: 16 x 14 bit = up to 65536 CPR x 16384 turns

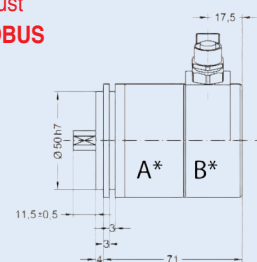
Accessories for Fieldbus Encoders

Code	Description
CN-M12-CB/DN-KIT	Canopen/ Devicenet 2 connectors kit
CN-M12-5P-5M-CB/DN-O	Canopen/ Devicenet output cable 5m
CN-M12-5P-5M-CB/DN-I	Canopen/ Devicenet input cable 5m
CN-M12-PBUS-KIT	Profibus 3 connectors kit
CN-M12-4P-5M-BUS-PS	Pbus/Ecat/Pnet power supply cable 5m
CN-M12-5P-5M-PBUS-I	Profibus input cable 5m
CN-M12-5P-5M-PBUS-O	Profibus output cable 5m
CN-M12-4P-5M-EC/PN-RJ	Ethercat/Profinet programming cable 5m
CN-M12-4P-5M-EC/PN-IO	Ethercat/Profinet input-output cable 5m
CN-M12-4P-00-EC/PN-IO	Ethercat/Profinet input-output plug

Fieldbus Interface Modules

Description	Code
CANopen interface module*	AMT58-FBUS-CB
Devicenet interface module*	AMT58-FBUS-DN
Profibus DP interface module*	AMT58-FBUS-PB

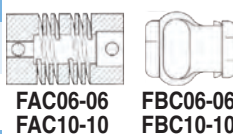
*The encoder base unit must be ordered with the **FIELDBUS** interface module.



ACCESSORIES FOR ENCODERS

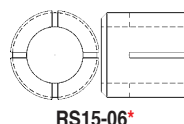
Aluminium and Plastic Couplings Ø6mm & Ø10mm

Code	FAC06-06	FBC06-06	FAC10-10	FBC10-10
Diameter	Ø6mm	Ø6mm	Ø10mm	Ø10mm



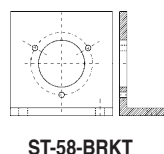
Encoder Reducing Sleeve

Code	RS15-06*
	* For 8 / 10 / 11 / 12mm use 08, 10, 11, 12



Encoder Mounting Brackets for Ø58 Encoders

Code	ST-58-KIT	ST-58-BELL	ST-58-BRKT	ST-58-FLNG
Type	Fixing Clamps	Mounting Bell	L-Bracket	Flange



Cables & Connectors

Code	Description
CS-A1-06-U-05*	M12 8 Pin 5m cable
CN-M23A-12P-05*	M23 12 Pin 5m cable
CS-A1-06-B-NC	M12 8 Pin connector no cable
CN-M23-12P-00	M23 12 Pin connector no cable



Code	Description
OEK-4	Encoder Kit PNP 250PPR. Bracket, Spring and Wheel
IEP58-PROG-TOOL	Programming tool for ENC58
CN-M12-PROG-CABLE	M12 Cable for Programming Tool
CN-M23-PROG-CABLE	M12 Cable for Programming Tool
DWA*-5000	Draw Wire

*For integral encoder replace A with I



*For Absolute Encoder Plug and Cable Add A / *For 10m Cable replace 05 with 10

INCREMENTAL ROTARY ENCODERS

Ø20mm Housing Incremental Rotary Encoders IP50



E20S2

Type	Code	Max. Response Frequency	Shaft	Supply Volts	Output Signals/ Phase
Voltage Output	E20S2*-3-V-R	100KHz	Solid shaft Ø2 mm	12VDC	A, B, Z
NPN NO Output	E20S2*-3-N-R	100KHz	Solid shaft Ø2mm	12VDC	A, B, Z
Line Driver Output	E20S2*-3-L-R	100KHz	Solid shaft Ø2 mm	5VDC	A, $\bar{A}$, B, $\bar{B}$, Z, $\bar{Z}$

* Add pulses/ revolution to code: 100, 200, 320, 360

Ø40mm Housing Incremental Rotary Encoders IP50



E40S6

Type	Code	Max Response Frequency	Shaft	Supply Volts	Output Signals/ Phase
Totem Pole Output	E40S6*-3-1	300kHz	Solid Ø6mm	12 -24VDC	A, B, Z
NPN NO Output	E40S6*-3-2	300kHz	Solid Ø6mm	12 -24VDC	A, B, Z
Line Driver Output	E40S6*-6-L	300kHz	Solid Ø6mm	5VDC	A, $\bar{A}$, B, $\bar{B}$, Z, $\bar{Z}$

* Add pulses/ revolution to code: 100, 360, 500, 1000, 1024

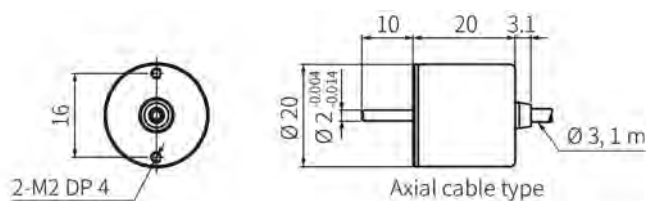
Ø50mm Housing Incremental Rotary Encoders IP50



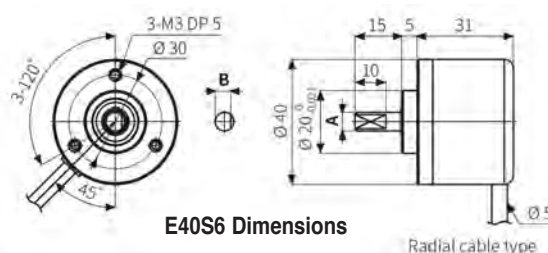
E50S8

Type	Code	Max. Response Frequency	Shaft	Supply Volts	Output Signals/ Phase
Totem Pole Output	E50S8**-3-1	300KHz	Solid Ø8mm	12 - 24 VDC	A, B, Z
NPN NO Output	E50S8**-3-2	300KHz	Solid Ø8mm	12 - 24 VDC	A, B, Z
Line Driver Output	E50S8**-6-L	300KHz	Solid Ø8mm	5 VDC	A, $\bar{A}$, B, $\bar{B}$, Z, $\bar{Z}$

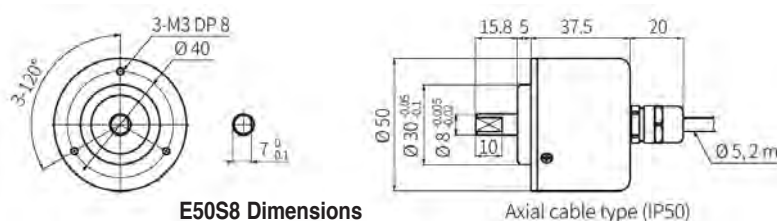
**Add pulses/ revolution to code: 50, 100, 200, 250, 360, 1000, 1024, 1800, 2500, 3600



E20S2 Dimensions



E40S6 Dimensions



E50S8 Dimensions

Coupling for Shaft Type



Coupling

Code
E4DC-6/6
E5DC-8/8
E5DC-10/10"

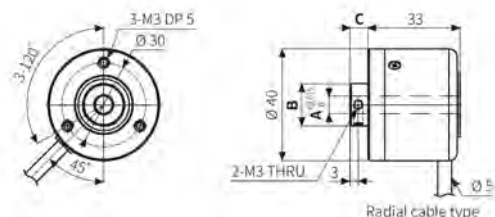
INCREMENTAL ROTARY ENCODERS

Ø40mm Housing Incremental Rotary Encoders IP50



Type	Code	Max. Response Frequency	Shaft	Supply Voltage	Output Signals/ Phase
Totem Pole Output	E40H6-*-3-T-24	300KHz	Hollow Ø6mm	12-24VDC	A, B, Z
NPN NO Output	E40H6-*-3-N-24			12-24VDC	A, B, Z
Line Driver Output	E40H6-*-6-L-5			5VDC	A, $\bar{A}$, B, $\bar{B}$, Z, $\bar{Z}$
Totem Pole Output	E40H8-*-3-T-24	300KHz	Hollow Ø8mm	12-24VDC	A, B, Z
NPN NO Output	E40H8-*-3-N-24			12-24VDC	A, B, Z
Line Driver Output	E40H8-*-6-L-5			5VDC	A, $\bar{A}$, B, $\bar{B}$, Z, $\bar{Z}$
Totem Pole Output	E40H10-*-3-T-24	300KHz	Hollow Ø10mm	12-24VDC	A, B, Z
NPN NO Output	E40H10-*-3-N-24			12-24VDC	A, B, Z
Line Driver Output	E40H10-*-6-L-5			5VDC	A, $\bar{A}$, B, $\bar{B}$, Z, $\bar{Z}$
Totem Pole Output	E40H12-*-3-T-24	300KHz	Hollow Ø12mm	12-24VDC	A, B, Z
NPN NO Output	E40H12-*-3-N-24			12-24VDC	A, B, Z
Line Driver Output	E40H12-*-6-L-5			5VDC	A, $\bar{A}$, B, $\bar{B}$, Z, $\bar{Z}$

* Add pulses/revolution to code: 20, 50, 75, 100, 125, 150, 200, 250, 360, 500, 1000, 1024, 1800, 2048, 2500, 3600, 5000



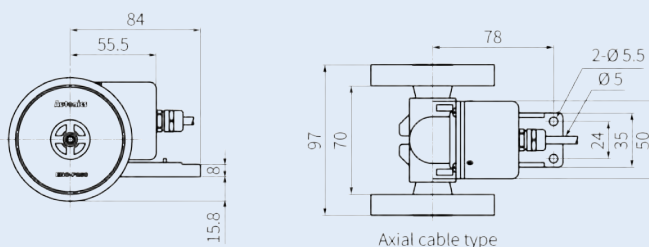
- Used to measure length or speed of continuously moving objects



Wheel Type Encoder

250mm Incremental Wheel Type Encoders IP50

Type	Code	Max. Response Frequency	Unit of Length/Pulse	Supply Volts	Pulse/Revolution
Totem Pole Output	ENC-1-1-T-24	180KHz	1mm	12 - 24 VDC	250 Pulses/Revolution
NPN NO Output	ENC-1-1-N-24				
Totem Pole Output	ENC-1-2-T-24	180KHz	1cm	12 - 24 VDC	25 Pulses/Revolution
NPN NO Output	ENC-1-2-N-24				
Totem Pole Output	ENC-1-3-T-24	180KHz	1m	12 - 24 VDC	1 Pulses/4 Revolution
NPN NO Output	ENC-1-3-N-24				



SAFETY LIGHT CURTAINS & RELAYS IP65

Type 2 or 4	SG4 Finger and Hand Base	SG2 Hand Base	SG Body Compact Base	SG4 Body Big Reflector Base	SG2-B-50/SG2-B-90 Presence Base
- According to IEC61496-1 and IEC61496-2 - High reliability - Easy installation and alignment - Cost effective solution				Passive/Reflector → ← Active	
Sensing Distance	6m 19m	19m	50m	Up to 8m	19m
Power Supply	24VDC	24VDC	24VDC	24VDC	24VDC
Resolution (mm)	14mm 30mm	30mm	500-800-900-1200mm	500-800-900-1200mm	50/90mm
Controlled Height	150-1800mm	150-1800mm			300-1800mm
Response Time	10-51ms 9-28ms	8-24ms	14-16ms	12ms	20-80ms (50 vers)
Output	2 x PNP transistors	2 x PNP transistors	2 x PNP transistors	2 x PNP transistors	2 x PNP
Connection	Rx: M12 8-Pole, Tx: M12 4-Pole	Rx: M12 5-Pole, Tx: M12 4-Pole	Rx: M12 8-Pole, Tx: M12 4-Pole	Active units: M12 8-Pole Passive units: non connected	Rx: M12 5-Pole, Tx: M12 4-Pole
Profile (mm)	32 x 37	32 x 37	35 x 40	52 x 57	32 x 37
Device Function	Reset Test, Manual/Auto Restart selection, EDM selection		Dip-switches, present on the Receiver Guarantee rapid and safe device settings		Reset/Test/Auto Restart
Plus Functions		Test, Automatic Restart	Test, Manual/Auto Restart selection. EDM	Test, Manual/Auto Restart selection. EDM selection	

Controlled Height/Beams ^ ^Units with even longer controlled heights available on request.

150mm	SG4-14-015-00-E	SG4-30-015-00-E	SG2-30-015-00-X	SG2**-S2-050-PP-E	Active	
300mm	SG4-14-030-00-E	SG4-30-030-00-E	SG2-30-030-00-X	SG2**-S3-080-PP-E	SG4-RB2-050-00-E	SG2-50*-030-00-X
450mm	SG4-14-045-00-E	SG4-30-045-00-E	SG2-30-045-00-X	SG2**-S4-090-PP-E	SG4-RB3-080-00-E	SG2-50*-045-00-X
600mm	SG4-14-060-00-E	SG4-30-060-00-E	SG2-30-060-00-X	SG2**-S4-120-PP-E	SG4-RB4-090-00-E	SG2-50*-060-00-X
750mm	SG4-14-075-00-E	SG4-30-075-00-E	SG2-30-075-00-X		SG4-RB4-120-00-E	SG2-50*-075-00-X
900mm	SG4-14-090-00-E	SG4-30-090-00-E	SG2-30-090-00-X		Passive/Reflector	SG2-50*-090-00-X
1050mm	SG4-14-105-00-E	SG4-30-105-00-E	SG2-30-105-00-X		SG4-RDB2	SG2-50*-105-00-X
1200mm	SG4-14-120-00-E	SG4-30-120-00-E	SG2-30-120-00-X		SG4-RDB3	SG2-50*-120-00-X

* For units with 90mm resolution replace 50 with 90 e.g. SG2-90-030-00-X

** For type 4 units replace 2 with 4 e.g. SG4-S3-050-PP-E or SG4-L2-050-PP-W

Safety Relays - Supply

Volts 24VDC IP20



SG-BWS-T4 SG-BWS-T4-MT SE-SR2

Code	Compatibility	Outputs	Type of Safety System	No. of Curtains
SE-SR2	All Safety Light Curtains	3 x NO, 1 x NC	Type 2 & 4	1
SG-BWS-T4	S5/SL5/S300 Single Beam Photocells	2 x PNP	Type 2 & 4	4 Single Beams
SG-BWS-T4-MT	All Safety Light Curtains	2 x PNP	Type 2 & 4	2 Light Curtains & 4 Single Beams

Safety Photocells for Safety Relays IP67



Cables

c/w M12 Connector



Axial

Code	Function	Output	Connections	Distance
S5-5-G8-62-SG-ST2	Emitter Type 2	PNP	M12 4-Pole	0-8m
S5-5-F8-92-SG-ST2	Receiver Type 2	PNP	M12 4-Pole	0-8m
S5-5-G8-62-SG-ST4	Emitter Type 4	PNP	M12 4-Pole	0-8m
S5-5-F8-92-SG-ST4	Receiver Type 4	PNP	M12 4-Pole	0-8m
SL5-5-G-82-SG-ST4	Laser Emitter Type 4	PNP	M12 4-Pole	0-40m
SL5-5-F-92-SG-ST4	Laser Receiver Type 4	PNP	M12 4-Pole	0-40m
S300-PR-5-G00-EX-SG-ST2	Emitter Type 2	PNP NC	Terminal Block	0-50m
S300-PR-5-F00-OC-SG-ST2	Receiver Type 2	PNP NC	Terminal Block	0-50m
S300-PR-5-G00-EX-SG-ST4	Emitter Type 4	PNP NC	Terminal Block	0-40m
S300-PR-5-F00-OC-SG-ST4	Receiver Type 4	PNP NC	Terminal Block	0-40m

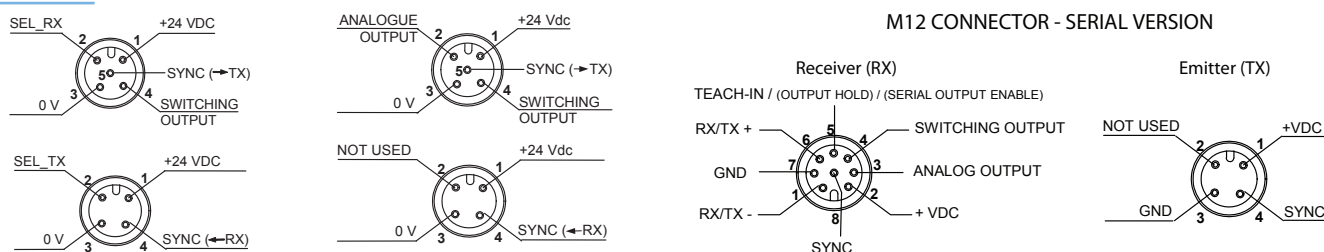
Code	Description	Code	Description
CS-A1-02-U-03	4 Pole 3m Cable	CS-A1-03-U-03	5 Pole 3m Cable
CS-A1-02-U-05	4 Pole 5m Cable	CS-A1-03-U-05	5 Pole 5m Cable
CS-A1-06-U-03	8 Pole 3m Cable	For complete range of safety light curtains and accessories, see Industrial Automation SFC	
CS-A1-06-U-05	8 Pole 5m Cable		

CAB-ETH-M01: M12 Ethernet Cable for connecting SG4 Dongle to PC

AREA SENSORS / LIGHT GRIDS

Type DC Areascan TM Series	AS1		DS1		DS2	
					Serial RS485	Ethernet
- Nominal Voltage 24VDC - Output PNP - Output Current 100mA max - Current Consumption TX 100mA Max - Current Consumption RX 40mA Max - Housing Material Black electro-painted aluminium						
Sensing Area (Controlled Height)	100mm		100mm-300mm		150-1650mm	600-1650mm
Sensing Distance	2.1m	3m	2m	4m	0.3 - 10m	0.3 - 5mm
DC Supply Voltage	24VDC		24VDC		24VDC	
Output	PNP		PNP and Analog		PNP, 0-10V & RS485 PNP, 0-10V & Ethernet	
Emission	IR LED 880nm		IR LED 880nm		IR LED 880nm	
Response Time	1,75ms. 2,75 - 8ms.		1-2, 75ms		5-90ms	
Resolution	Flat: 0,2 x 75mm. Cylindrical: @6mm		4mm-7mm		6mm(5m)/25mm(10m)	6mm
Output LED	Yellow Output - Green Power		Yellow Output - Green Power		Yellow Output - Green Power	
Connection	Rx: M12 5-Pole Tx: M12 4-Pole		Rx: M12 5-Pole Tx: M12 4-Pole		Rx: M12 8-Pole Tx: M12 4-Pole	
Dimensions (mm)	22 x 43 x 150		22 x 43 x (150-300)		35 x 40 x (256-1726)	

Wiring Diagrams



OUTPUT:

PNP High Resolution	AS1-LD-HR-010-J*	AS1-HD-HR-010-J	-	-	-	-
PNP Standard Resolution	AS1-LD-SR-010-J*	AS1-HD-SR-010-J	-	-	-	-
100mm (7mm resolution)	-	-	DS1-LD-S**R-010-J ^{AV}	DS1-HD-SR-010-JV	-	-
150mm (7mm resolution)	-	-	DS1-LD-S**R-015-J ^{AV}	DS1-HD-SR-015-JV	DS2-05-07-015-JV	-
300mm (7mm resolution)	-	-	DS1-LD-SR-030-J ^{AV}	DS1-HD-SR-030-JV	DS2-05-07-030-JV	-
450mm	-	-	-	-	DS2-05-07 ^{AA} -045-JV	-
600mm	-	-	-	-	DS2-05-07 ^{AA} -060-JV	DS2-05-07-060-JE
750mm	-	-	-	-	DS2-05-07 ^{AA} -075-JV	DS2-05-07-075-JE
900mm	-	-	-	-	DS2-05-07 ^{AA} -090-JV	DS2-05-07-090-JE
1050mm	-	-	-	-	DS2-05-07-105-JV	-
1200mm	-	-	-	-	DS2-05-07-120-JV	DS2-05-07-120-JE

* For units with trimmers replace J with P e.g. AS1-LD-HR-010-P

**For units with 4mm High resolution replace S with H e.g. DS1-HR-010-JV

^AFor units with adjustment trimmer replace J with P e.g. DS1-SR-010-PV (adjustment trimmer only available in 7mm resolution units)

^{AA}For units with 25mm resolution change 07 to 25 e.g. DS2-05-25-045-JV

DISTRIBUTION BOXES & CABLES



Distribution Boxes

Code	Description
Cable Type - 54 x 127mm	
DSTR8-5/4AZ-1205	5P 4 Wire 250VAC
DSTR8-5/4PA-1205	5P 4 Wire PNP 10-30VDC LED's
DSTR8-5/4NA-1205	5P 4 Wire NPN 10-30VDC LED's
Plug Type	
DLTR8-5/4NA-T12	5P 4 Wire NPN 10-30VDC LED's
DLTR8-5/4PA-T12	5P 4 Wire PNP 10-30VDC LED's
DM8C8-4/4PC-12705	M8 4P PNP 10-30VDC LED's

M23 Female Connectors for Plug Type Distribution Boxes

Code	Description
Z-FS12KAT5005	M23 12P Plug & 5m Cable

M12 Male to Female Cable Connectors

Code	Description
R-MS5TZU822+R-FS5TZU822	M12 5P Male to Female - Straight
R-MS5TZU822+R-FA5TZU822	M12 5P Male to Female - Right Angle

Micro Splitters with Cable - M12 Splitter with 2 x M12 plugs

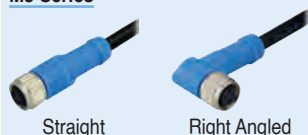
Code	Description
U2-R4R-FS4KPV062	Male to Female Straight (PNP)
U2-R4R-FS4KZV062	Male to Female Straight
U2-R4R-FA4KPV062	Male to Female Right Angle (PNP)
U2-R4R-FA4KZV062	Male to Female Right Angle

Micro Splitters

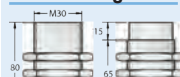
Code	Description
U2-R5/4Z-R4	M12 5P Male - M12 4P Female
U2-R5/5Z-R5	M12 5P Male - M12 5P Female

SENSOR CABLES & CONNECTORS

M8 Series



M8 PIN Assignment



M12 PIN Assignment

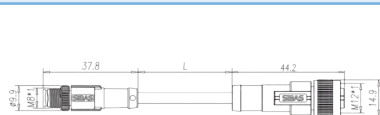
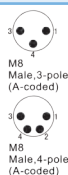


M12 Series

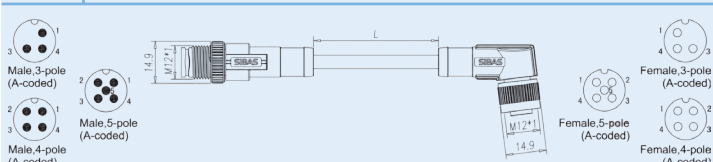


PIN	Wire Colour		
	3-Pole	4-Pole	5-Pole
1	Brown	Brown	Brown
2		White	White
3	Blue	Blue	Blue
4	Black	Black	Black
5			Grey

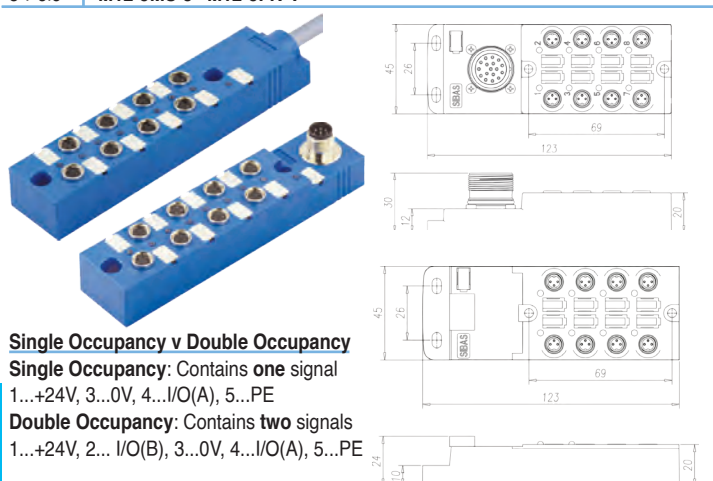
A-code, Female, 3, 4, 5-pole



Poles	M8 Male Straight to M12 Female Straight
3-Pole	M8-3MS-3**-M12-3FS-V*
4-Pole	M8-4MS-3**-M12-4FS-V*
5-Pole	-



Poles	M12 Male Straight to M12 Female Right Angled
3-Pole	M12-3MS-3**M12-3FR-V*
4-Pole	M12-4MS-3**M12-4FR-V*
5-Pole	M12-5MS-3**M12-5FR-V*



Single Occupancy v Double Occupancy

Single Occupancy: Contains one signal

1...+24V, 3...0V, 4...I/O(A), 5...PE

Double Occupancy: Contains two signals

1...+24V, 2... I/O(B), 3...0V, 4...I/O(A), 5...PE



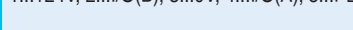
Single Occupancy v Double Occupancy

Single Occupancy: Contains one signal

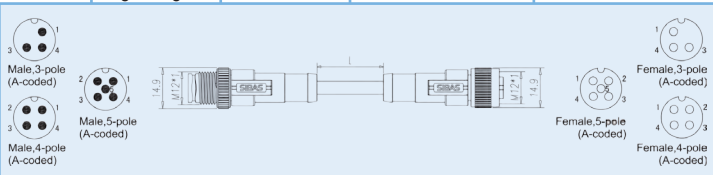
1...+24V, 3...0V, I/O(B), 5...PE

Double Occupancy: Contains two signals

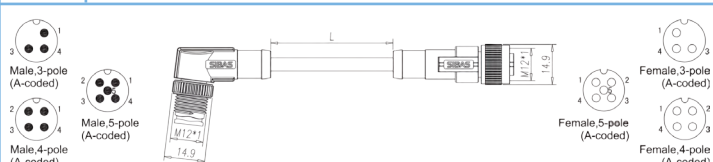
1...+24V, 2...I/O(B), 3...0V, 4...I/O(A), 5...PE



Poles	Angle	Cable Type	M8 Female Code	M12 Female Code
3-Pole	Straight	Non-Shielded	M8FS-3V*-3**	M12FS-3V*-3**
4-Pole	Straight	Non-Shielded	M8FS-4V*-3**	M12FS-4V*-3**
5-Pole	Straight	Non-Shielded		M12FS-5V*-3**
3-Pole	Straight	Shielded	M8FS-3V*-3**SH	M12FS-3V*-3**SH
4-Pole	Straight	Shielded	M8FS-4V*-3**SH	M12FS-4V*-3**SH
5-Pole	Straight	Shielded		M12FS-5V*-3**SH
3-Pole	Right Angled	Non-Shielded	M8FR-3V*-3**	M12FR-3V*-3**
4-Pole	Right Angled	Non-Shielded	M8FR-4V*-3**	M12FR-4V*-3**
5-Pole	Right Angled	Non-Shielded		M12FR-5V*-3**
3-Pole	Right Angled	Shielded		M12FR-3V*-3**SH
4-Pole	Right Angled	Shielded		M12FR-4V*-3**SH
5-Pole	Right Angled	Shielded		M12FR-5V*-3**SH



Poles	M12 Male Straight to M12 Female Straight
3-Pole	M12-3MS-3**-M12-3FS-V*
4-Pole	M12-4MS-3**-M12-4FS-V*
5-Pole	M12-5MS-3**-M12-5FS-V*



Poles	M12 Female Straight to M12 Male Right Angled
3-Pole	M12-3FS-3**M12-3MR-V*
4-Pole	M12-4FS-3**M12-4MR-V*
5-Pole	M12-5FS-3**M12-5MR-V*

M8 PNP Sensor Actuator Boxes Single or Double Occupancy. Cable or M23 Plug Versions with LED's IP67

Poles	Cable Length	Ports	Code
3/4-Pole	5m	4	M8PSL-3*4P-5U ^{AA}
3/4-Pole	10m	4	M8PSL-3*4P-10U
3/4-Pole	5m	6	M8PSL-3*6P-5U ^{AA}
3/4-Pole	10m	6	M8PSL-3*6P-10U
3/4-Pole	5m	8	M8PSL-3*8P-5U ^{AA}
3/4-Pole	10m	8	M8PSL-3*8P-10U
3/4-Pole	5m	10	M8PSL-3*10P-5U ^{AA}
3/4-Pole	10m	10	M8PSL-3*10P-10U

* For PUR version cables replace V with U e.g. M8FS-3U-3

** For 1.5m, 5m or 10m Cable lengths replace 3 with 1.5, 5 or 10 e.g. M8F3-3V-5

^{AA} For M23 plug types replace U with M23 e.g. M8PSL-34P-M23

[†]For Double Occupancy Boxes, replace PSL-3 with PDL-4 e.g. M8PDL-44P-5U^{AA}

M8PDL-44P-5U^{AA}

Note: 4-Pole units are Double Occupancy Boxes

M12 PNP/NPN Sensor Actuator Boxes Single or Double Occupancy. Cable or M23 Plug Versions with LED's IP67

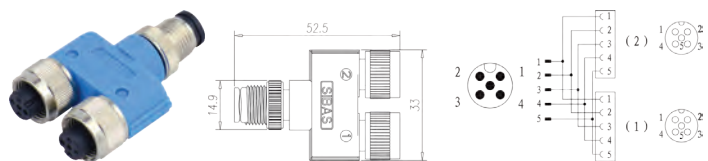
Poles	Cable Length	Ports	Code
5-Pole	5m	4	M12P [†] SL-54P-5U ^{AA}
5-Pole	10m	4	M12P [†] SL-54P-10U
5-Pole	5m	6	M12P [†] SL-56P-5U ^{AA}
5-Pole	10m	6	M12P [†] SL-56P-10U
5-Pole	5m	8	M12P [†] SL-58P-5U ^{AA}
5-Pole	10m	8	M12P [†] SL-58P-10U

^{AA} For M23 plug types replace U with M23 e.g. M12PSL-54P-M23

For Double Occupancy Boxes, replace S with D e.g. M12PDL-54P-5U

[†]For NPN versions replace P with N e.g. M12NSL-54P-M23

SENSOR CABLES & CONNECTORS

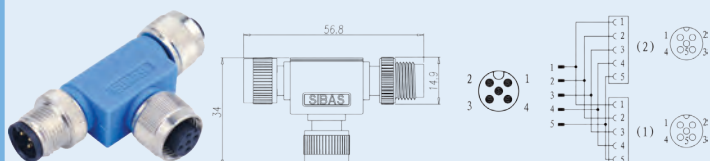


Poles M12 Y Straight Distributor Connector IP67

3-Pole M12MS-3M12-Y1

4-Pole M12MS-4M12-Y1

5-Pole M12MS-5M12-Y1

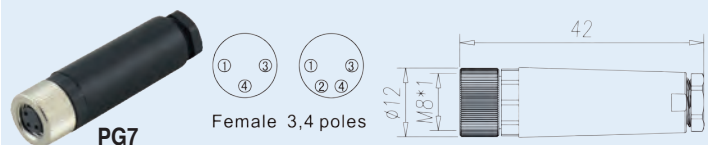


Poles M12 T Straight Distributor Connector IP67

3-Pole M12MS-3M12-T1

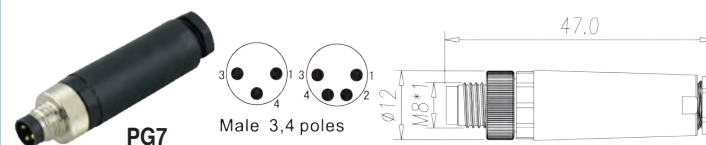
4-Pole M12MS-4M12-T1

5-Pole M12MS-5M12-T1



PG7

Female 3,4 poles



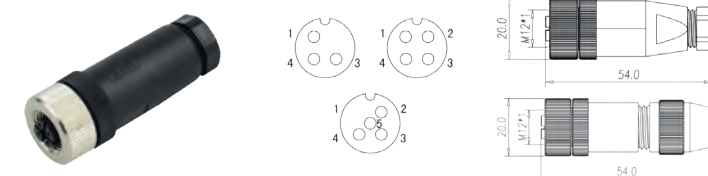
PG7

Male 3,4 poles

Poles M8 Female Screw Connection Straight IP67

3-Pole M8FS-3PG7-M

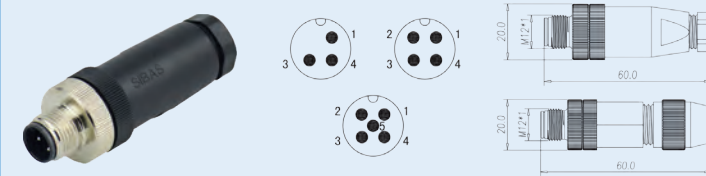
4-Pole M8FS-4PG7-M



Poles M8 Male Screw Connection Straight IP67

3-Pole M8MS-3PG7-M

4-Pole M8MS-4PG7-M



Poles M12 Female Screw Connection Straight IP67

3-Pole M12FS-3PG7-M^

4-Pole M12FS-4PG7-M^

5-Pole M12FS-5PG7-M^



Shielded

Poles M12 Male Screw Connection Straight IP67

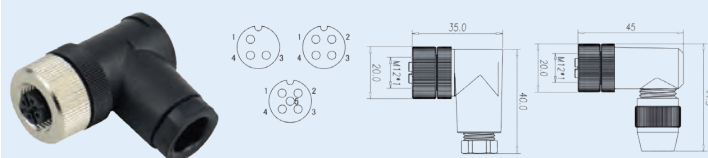
3-Pole M12MS-3PG7-M^

4-Pole M12MS-4PG7-M^

5-Pole M12MS-5PG7-M^



Shielded



Poles M12 Female Screw Connection Right Angled IP67

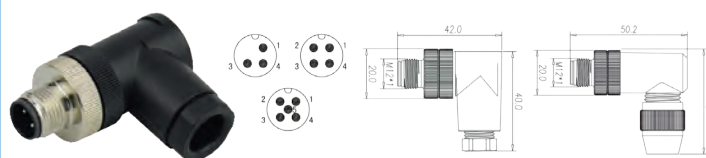
3-Pole M12FR-3PG7-M^

4-Pole M12FR-4PG7-M^

5-Pole M12FR-5PG7-M^



Shielded



Poles M12 Male Screw Connection Right Angled IP67

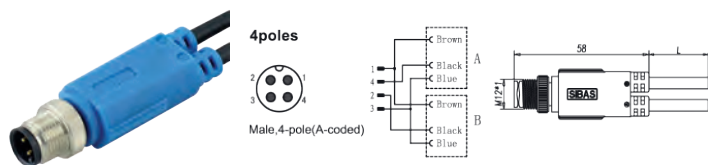
3-Pole M12MR-3PG7-M^

4-Pole M12MR-4PG7-M^

5-Pole M12MR-5PG7-M^



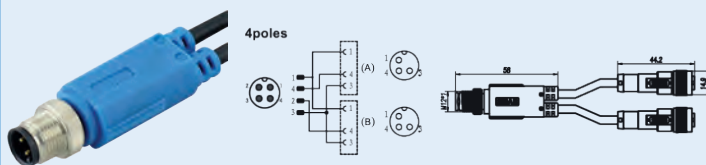
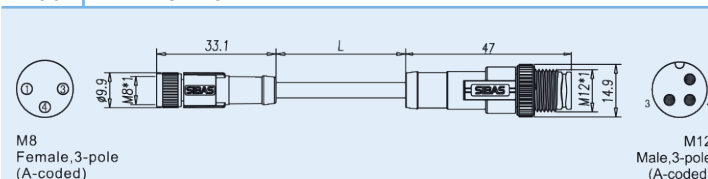
Shielded



Poles M12 Male Straight Y Connector IP67

3-Pole -

4-Pole M12Y-MS4-V*3**



Poles M12 Male Straight Y Connector IP67

3-Pole -

4-Pole M12Y-4MS3**-2M12-3FSV*



WIR

Poles M8 Female Staright to M12 Male Straight IP67

3-Pole M83FS-1.5**-M12-3MS-V*

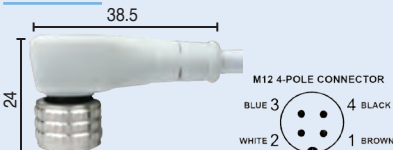
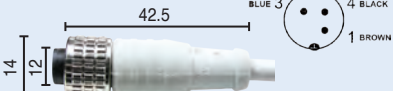
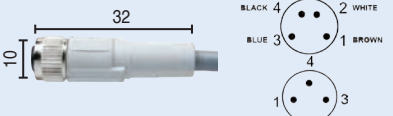
4-Pole M84FS-3**-M12-4MS-V*

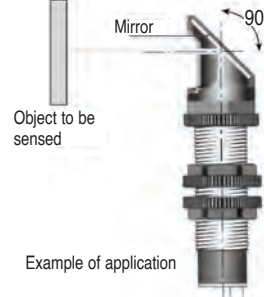
^ For Shielded versions replace M with SH e.g. M12FS-3PG7-SH

Code Description

WS-3	3 core x 0.34mm ² grey cable, core colour ● ● ●
WS-4	4 core x 0.34mm ² grey cable, core colour ● ○ ● ●
WS-5	5 core x 0.34mm ² grey cable, core colour ● ○ ● ● ●

CABLE & ACCESSORIES FOR PROXIMITY SWITCHES & SENSORS

Dimensions		Cable Length*		Code
Female connector and cable M12 Plug				
90° Version		4 Pin 4 Wire	3m 5m	CS-A2-02-G-03 CS-A2-02-G-05
		3 Pin 3 Wire	5m	CS-A2-11-G-05
Straight Version		Connector with no cable		CS-A2-02-B-NC
		4 Pin 4 Wire	3m 5m	CS-A1-02-G-03 CS-A1-02-G-05
		3 Pin 3 Wire	5m	CS-A1-01-G-05
		Connector with no cable		CS-A1-02-B-NC
Female connector and cable M8 Plug				
		4 Pin 4 Wire	3m 5m	CS-B1-02-G-03 CS-B1-02-G-05
		3 Pin 3 Wire	3m 5m	CS-B1-01-G-03 CS-B1-01-G-05
*10mm versions available on request				

Accessories for 90° Sensing		
Code	DEV90	90° Adaptor
For use with M18 photo electric sensors		
		
Example of application		
Nuts		
M30*-NUTS/2		
M18*-NUTS/2		
M12*-NUTS/2		
M8-NUTS/2		
M5-NUTS/2		
*For Plastic Type, add P to code		

*10m versions available on request

Accessories for 90° Sensing

Code	DEV90	90° Adaptor
For use with M18 photo electric sensors		

Nuts

M30*-NUTS/2	M18*-NUTS/2	M12*-NUTS/2	M8-NUTS/2	M5-NUTS/2

*For Plastic Type, add **P** to code

Reflectors

Code	R2	R5
Code	R4	DAC100

Shutter for Emitter-Receiver Thru Beam

Accessory to sense small size object with emitter-receiver cylindrical barriers M18.

Code	P180TT	Shutter kit
Note: Each package contains three shutter disks.		
Shutting Diam.	Min. Object to be Sensed	Distance Attenuation
⊙ 2mm	≥ 2mm	97%
⊙ 4mm	≥ 4mm	84%
⊙ 8mm	≥ 8mm	54%
Note: The datum "Minimum object to be sensed" refers to the condition of shutter mounted on emitter/receiver.		
Example of Application 		

Mounting Brackets for Proximity Switches and Photo Sensors

(Stainless Steel)

Code	ST1218	ST1830	ST-505	ST-5072	ST-5100	ST-5049
Description	For M12 & M18	For M18 & M30	100 and S3Z Mounting Bracket	S8 Mounting Bracket	S300-PR Mounting Bracket	SM-Series Mounting Bracket
Code	JOINT-62	JOINT-18	ST-5039	ST-504	ST-S3Z-M18	
Description	Adjustable S62 Mounting Bracket	S5N mounting support/ Adjustable M18 Mounting Bracket	S100 and S3Z Mounting Bracket	S62 Mounting Bracket	M18 Threaded Adapter Nose for S100 & S3Z	