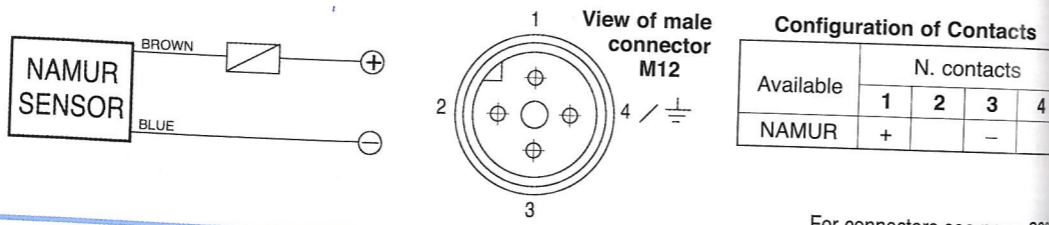


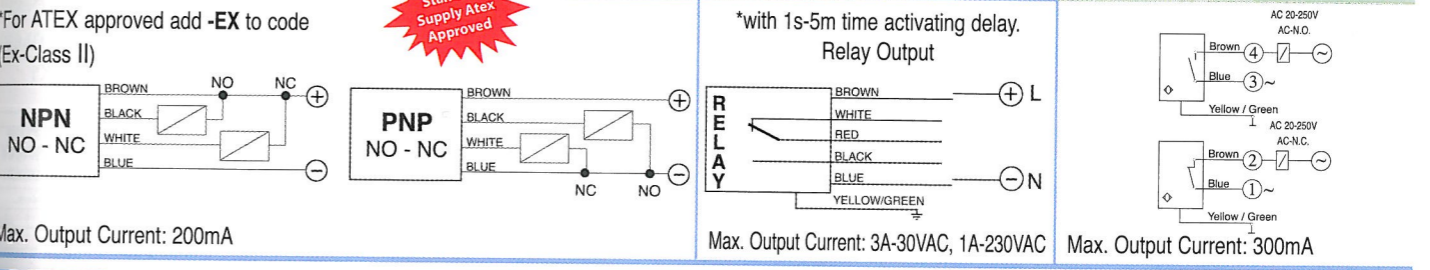
NAMUR INDUCTIVE SENSORS IP67

Diameter	DC Ø 8		DC Ø 12		DC Ø 18		DC Ø 30	
	● Shielded	○ Non Shielded	●	○	●	○	●	○
• Housing Material: Nickel-Plated Brass								
<b>Standard Supply Atex Approved</b>								
<b>CE</b>								
Switching Distance (± 20%)	1mm	2mm	2mm	4mm	5mm	8mm	10mm	15mm
Nominal Voltage (Load resistance 1K)	7.7-9VDC		7.7-9VDC		7.7-9VDC		7.7-9VDC	
Supply Voltage	5-24VDC		5-24VDC		5-24VDC		5-24VDC	
Switching Frequency	2000Hz		2000Hz		1000Hz		500Hz	
Cable	IS-02	IS-07	IS-03	IS-08	IS-04	IS-09	IS-05	IS-10
Plug-in (M12 connector)	IS-02K	IS-07K	IS-03K	IS-08K	IS-04K	IS-09K	IS-05K	IS-10K
NPN NO-NC	-	-	-	-	-	-	-	-
PNP NO-NC	-	-	-	-	-	-	-	-
Relay Output: 18 to 240VAC/DC	-	-	-	-	-	-	-	-



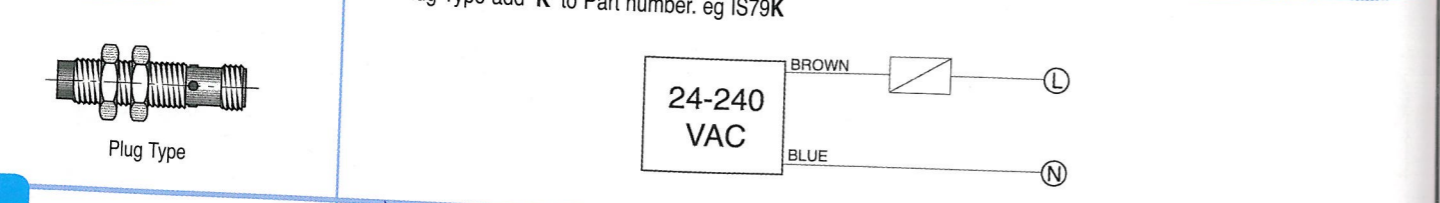
CAPACITIVE SENSORS 12-30VDC NPN OR PNP 18-240VAC/DC RELAY OUTPUT IP67

DC	Ø 18		DC Ø 30		AC Ø 30		AC Ø 18 / *Ø 30 Available	
	●	○	●	○	●	○	●	○
• Housing Material: Nickel-Plated Brass								
<b>Standard Supply Atex Approved</b>								
<b>CE</b>								
Switching Distance	1-5mm	1-10mm	1-20mm	1-25mm	1-20mm	2-30mm	2-8mm	2-20mm* 2-15mm 2-30mm*
Nominal Voltage	12-30VDC (-15/+10%)		12-30VDC (-15/+10%)		18-230VAC/DC (-15/+10%) 50Hz		20-250VAC (-15/+10%) 50Hz	
Switching Frequency	10Hz		10Hz		10Hz		25Hz (Ø18) 25Hz (Ø18)	
Cable	-	-	-	-	-	-	-	-
Plug-in (M12 connector)	-	-	-	-	-	-	-	-
NPN NO-NC	-	-	-	-	-	-	-	-
PNP NO-NC	-	-	-	-	-	-	-	-
Relay Output: 18 to 240VAC/DC	-	-	-	-	-	-	-	-



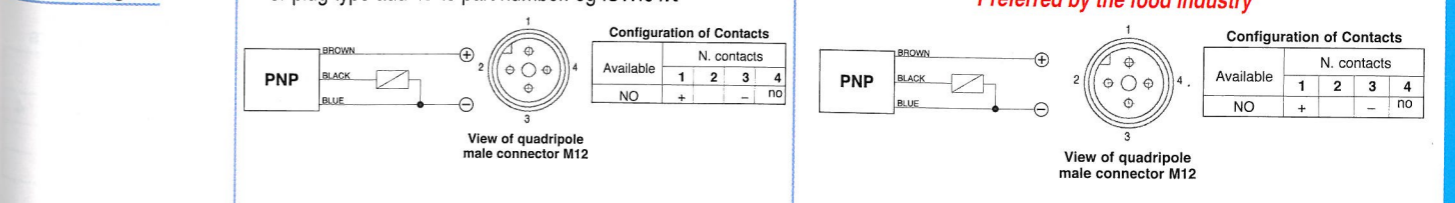
AC INDUCTIVE SENSORS NO OR NC OUTPUT IP67

Diameter	AC Ø 12				AC Ø 18				AC Ø 30			
	●	○	●	○	●	○	●	○	●	○	●	○
• Volts: 24-240VAC												
• Housing Material: Nickel-Plated Brass												
• Max Output Current: 300mA max.												
<b>CE</b>												
Switching Distance (± 20%)	2mm	4mm	4mm	8mm	5mm	8mm	8mm	14mm	10mm	15mm	15mm	20mm
AC Supply Voltage	24-230VAC (-15/+10%) 50/60Hz				24-230VAC (-15/+10%) 50/60Hz				24-230VAC (-15/+10%) 50/60Hz			
Switching Frequency	12Hz				12Hz				12Hz			
NO Output	IS79*	IS79D*	IS85*	IS85D*	IS81*	IS81D*	IS87*	IS87D*	IS83*	IS83D*	IS89*	IS89D*
NC Output	IS80*	IS80D*	IS86*	IS86D*	IS82*	IS82D*	IS88*	IS88D*	IS84*	IS84D*	IS90*	IS90D*



SPECIAL DC INDUCTIVE SENSORS IP67

Diameter	WELD IMMUNE Ø 12				WELD IMMUNE Ø 18				METAL FACE Ø 12				METAL FACE Ø 18			
	●	○	●	○	●	○	●	○	●	○	●	○	●	○	●	○
• Volts 10-30VDC																
• Housing Material: Stainless Steel																
• Max. Current Output: 200mA																
<b>CE</b>																
Switching Distance	2mm	4mm	5mm	8mm	2mm	4mm	5mm	8mm	2mm	4mm	5mm	8mm	2mm	4mm	5mm	8mm
Nominal Voltage	10-30 VDC (-15/+10%)				10-30 VDC (-15/+10%)				10-30 VDC (-15/+10%)				10-30 VDC (-15/+10%)			
Switching Frequency	200Hz				1000Hz				1000Hz				500Hz			
PNP NO	ISWI38*	ISWI64*	ISWI44*	ISWI70*	ISMF38*	ISMF64*	ISMF44*	ISMF70*	ISWI38*	ISWI64*	ISWI44*	ISWI70*	ISMF38*	ISMF64*	ISMF44*	ISMF70*



LIMIT & PRESSURE SWITCHES & SENSORS

LIMIT & PRESSURE SWITCHES & SENSORS

**DC INDUCTIVE SENSORS IP67**

**NEW RANGE**

	SQUARE & RECTANGULAR		NPN or PNP			
	8x8		16.5x30x10	Ø 5	Ø 6.5	
● Shielded ○ Non Shielded	side-headed	central headed				
Nominal Switching Distance (Sn)	1.5mm	1.5mm	1.5mm	0.8mm	1.5mm	2mm
Nominal Voltage	10-30 VDC (-15/+10%)		10-30 VDC (-15/+10%)	10-30 VDC (-15/+10%)	10-30 VDC (-15/+10%)	
Max. Output Current	200mA		200mA	100mA	200mA	
Switching Frequency	500Hz		500Hz	2000Hz	1000Hz	
NPN & PNP, (NO & NC) cable type	-	-	-	-	-	-
NPN & PNP, (NO & NC) M12 connector	-	-	-	-	-	-
NPN NO output	ISQ01*	ISQ07*	ISP01*	-	-	-
NPN NC output	ISQ02*	ISQ08*	ISP02*	IS25*	IS27*	IS53*
PNP NO output	ISQ04*	ISQ10*	ISP04*	-	IS28*	IS54*
PNP NC output	ISQ05*	ISQ11*	ISP05*	IS26*	IS29*	IS55*
Wiring Diagram	* For M8 connector output add 'K' to part number. eg ISQ01K			* For plug type M8 add 'K1' to part number. eg IS27K1		

**Wiring Diagram**

**CONTACTS CONFIGURATION**

**DC 2WIRE 10-30VDC INDUCTIVE SENSORS IP67**

**NEW RANGE**

Diameter	DC Ø 12		DC Ø 18		DC Ø 30	
	●	○	●	○	●	○
● Shielded ○ Non Shielded						
• Housing Material: Nickel-Plated Brass						
• Max. Output Current: 100mA						
Switching Distance	2mm	4mm	5mm	8mm	10mm	15mm
Nominal Voltage	10-30VDC		10-30VDC		10-30VDC	
Switching Frequency	1000Hz		1000Hz		300Hz	
NO-NC programmable Cable	IS11	IS17	IS13	IS19	IS15	IS21
NO-NC (M12 connector)	IS11K	IS17K	IS13K	IS19K	IS15K	IS21K
Wiring Diagrams						

**Configuration of Contacts**

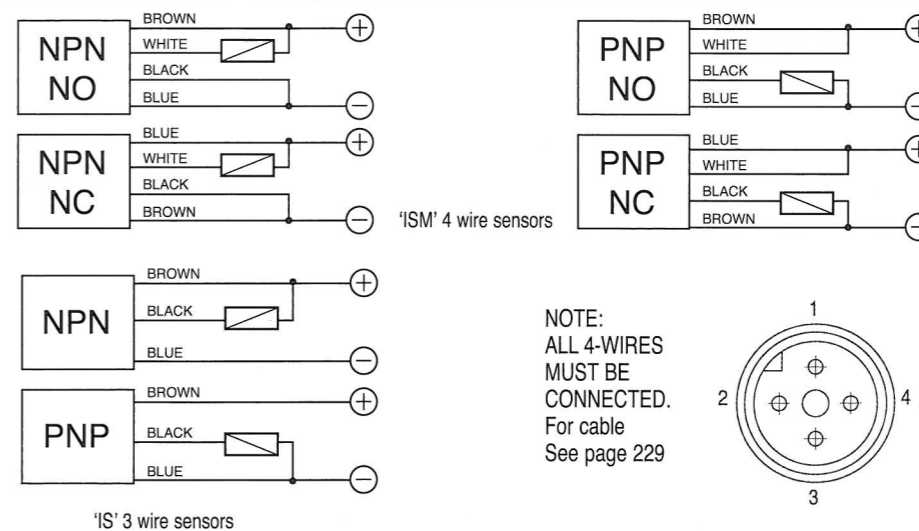
Available	N. contacts			
	1	2	3	4
NO	+	-	-	-
NC	-	-	+	-

**View of male connector M12**

**DC INDUCTIVE SENSORS PROGRAMMABLE OUTPUT IP67**

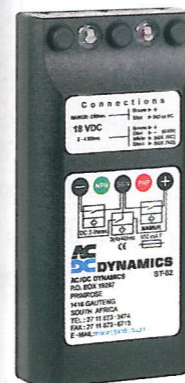
DC	Ø 8				Ø 12			Ø 18				Ø 30			
	●	○	●	○	●	○	●	○	●	○	●	○	●	○	
Volts: 10-30VDC															
2mm	2mm	2mm	4mm	4mm	8mm	5mm	8mm	8mm	14mm	10mm	15mm	15mm	20mm		
10-30VDC (-15/+10%)	10-30VDC (-15/+10%)				10-30VDC (-15/+10%)				10-30VDC (-15/+10%)						
200mA	200mA				200mA				200mA						
1500Hz	1000Hz				1000Hz				300Hz						
Cable Type	ISM01	ISM01D*	ISM02	ISM02D*	ISM03	ISM03D*	ISM04	ISM04D*	ISM05	ISM05D*	ISM06	ISM06D*			
Plug Type	ISM01K	ISM01DK	ISM02K	ISM02DK	ISM03K	ISM03DK	ISM04K	ISM04DK	ISM05K	ISM05DK	ISM06K	ISM06DK			
IS31D	IS31DK	IS35	-	IS61	-	IS41	-	IS67	-	IS47	-	IS73	-		
IS32D	IS32DK	IS36	-	IS62	-	IS42	-	IS68	-	IS48	-	IS74	-		
IS33D	IS33DK	IS38	-	IS64	-	IS44	-	IS70	-	IS50	-	IS76	-		
IS34D	IS34DK	IS39	-	IS65	-	IS45	-	IS71	-	IS51	-	IS77	-		
	*For ATEX Approved Add -EX to Code eg. ISM01D-EX				*For ATEX Approved Add -EX to Code eg. ISM03D-EX				*For ATEX Approved Add -EX to Code eg. ISM05D-EX						

**Wiring Diagrams**



**Sensor Tester**

Code	Description	Wiring Diagram
ST-02	<p><b>Sensor Tester for Proximity Sensors</b></p> <ul style="list-style-type: none"> <li>User friendly</li> <li>Easy failure testing</li> <li>Suitable for:                             <ul style="list-style-type: none"> <li>NPN 3/4 wires</li> <li>PNP 3/4 wires</li> <li>DC 2 wires</li> <li>Namur</li> </ul> </li> <li>Pocket size</li> <li>9V battery (not included)</li> </ul>	

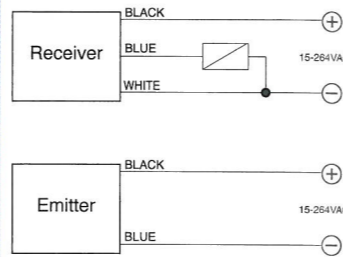
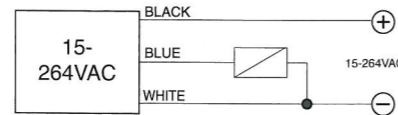
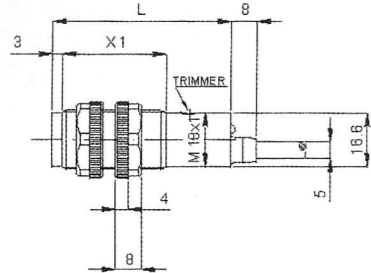




**AC PHOTOELECTRIC SENSORS 3 WIRE DARK/LIGHT MODE IP67**

Type AC M18 Ø18 S5 SERIES	Fixed focus Proximity	Short distance Diffuse Proximity	Medium distance Diffuse Proximity	Retroreflective	Through beam Receiver	Through beam Emitter
<ul style="list-style-type: none"> <li>• Volts 15-264VAC</li> <li>• Housing Material: ABS</li> <li>• Max. Output Current: 100mA</li> </ul>						
<b>CE</b>						
Sensing Distance	15mm	80mm	300mm	0.1-2M	0-80M	0-8M
AC Supply Voltage	15-264VAC	15-264VAC	15-264VAC	15-264VAC	15-264VAC	15-264VAC
Switching Frequency	25Hz	25Hz	25Hz	25Hz	25Hz	25Hz
Dark Mode Cable	<b>S5-1-D15-10</b>	<b>S5-1-C8-10</b>	<b>S5-1-C30-10</b>	<b>S5-1-A2-10</b>	<b>S5-1-F8-10</b>	<b>S5-1-G8-00</b>
Light Mode Cable	<b>S5-1-D15-20</b>	<b>S5-1-C8-20</b>	<b>S5-1-C30-20</b>	<b>S5-1-A2-20</b>	<b>S5-1-F8-20</b>	

**Wiring Diagrams**

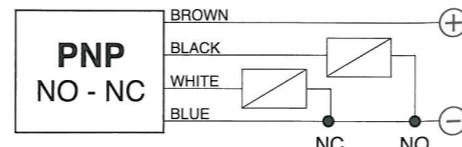
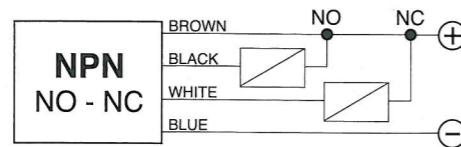


**DC PHOTOELECTRIC SENSORS PLASTIC AXIAL PNP/NPN NO-NC IP67**

Type DC M18 Ø18 S50 SERIES	Polarized Retroreflective	Retroreflex	Mid distance Diffuse Proximity	Fixed focus Proximity
<ul style="list-style-type: none"> <li>Housing Material: PBT-Lens PMMA</li> <li>Max. Output Current: ≤100mA</li> <li>• Versions with Trimmers</li> <li>• Cable or M12 Connection</li> <li>• EN standard NPN or PNP NO-NC configuration</li> </ul>				
<b>CE</b>				
Sensing Distance	4M	0.1-5M	0-400mm	0.5-100mm
DC Supply Voltage	10-30VDC	10-30VDC	10-30VDC	10-30VDC
Switching Frequency	1kHz	1kHz	1kHz	1kHz
NPN NO-NC Cable	<b>S50-PA-2*-B01-NN</b>	<b>S50-PA-2*-A00-NN</b>	<b>S50-PA-2*-C21-NN</b>	<b>S50-PA-2*-D00-NN</b>
PNP NO-NC Cable	<b>S50-PA-2*-B01-PP</b>	<b>S50-PA-2*-A00-PP</b>	<b>S50-PA-2*-C21-PP</b>	<b>S50-PA-2*-D00-PP</b>

\*For Plug type replace 2 with 5. eg S50-PA-5-B01-NN

**Wiring Diagrams**

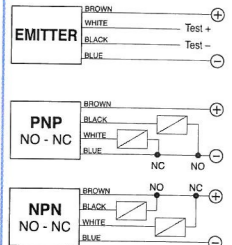
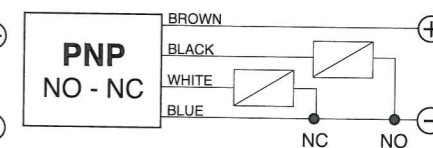
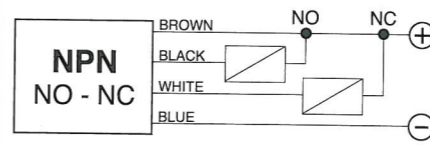


**DC PHOTOELECTRIC SENSORS PLASTIC AXIAL PNP/NPN NO-NC IP67**

Type DC M18 Ø18 S50 SERIES	Short distance Diffuse Proximity	Long distance Diffuse Proximity	Contrast Sensor	Retroreflex for Transparents	Through beam
<ul style="list-style-type: none"> <li>• Housing Material: PBT-Lens PMMA</li> <li>• Max. Output Current: ≤100mA</li> <li>• Versions with Trimmers</li> <li>• Cable or M12 Connection</li> <li>• EN standard NPN or PNP NO-NC configuration</li> </ul>					
<b>CE</b>					
Sensing Distance	0-100mm	0-700mm	10mm	0.1-1.7M	0-20M
DC Supply Voltage	10-30VDC	10-30VDC	10-30VDC	10-30VDC	10-30VDC
Switching Frequency	1kHz	1kHz	5kHz	1kHz	250kHz
NPN NO-NC Cable	<b>S50-PA-2*-C10-NN</b>	<b>S50-PA-2*-C01-NN</b>	<b>S50-PA-2*-W03-NN</b>	<b>S50-PA-2*-T01-NN</b>	<b>S50-PA-2*-F01-NN</b>
PNP NO-NC Cable	<b>S50-PA-2*-C10-PP</b>	<b>S50-PA-2*-C01-PP</b>	<b>S50-PA-2*-W03-PP</b>	<b>S50-PA-2*-T01-PP</b>	<b>S50-PA-2*-F01-PP</b>
Emitter Cable	-	-	-	-	<b>S50-PA-2*-G00-XG</b>

\*For Plug type replace 2 with 5, eg S50-PA-5-C10-NN

**Wiring Diagrams**

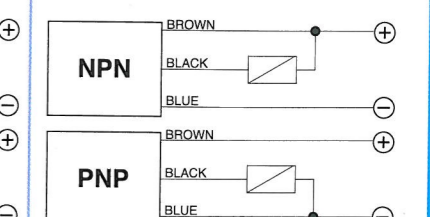
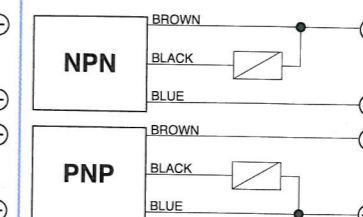
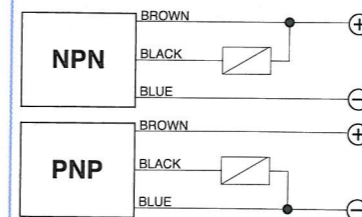


**DC PHOTOELECTRIC SENSORS PLASTIC AND METAL AXIAL PNP/NPN IP67**

Type DC M18 Ø18 S51 SERIES	Polarized Retroreflective	Short distance Proximity	Retroreflective
<ul style="list-style-type: none"> <li>Housing Material: PBT Lens PMMA</li> <li>Max Output Current: ≤100mA</li> <li>• Flat plastic or cylindrical metal housing</li> <li>• Cable M12 connection NPN or PNP output</li> <li>• Standard 3 wire connection configuration</li> </ul>			
<b>CE</b>			
Sensing Distance	0.1-3M	0-100mm	0.1-4M
DC Supply Voltage	10-30VDC	10-30VDC	10-30VDC
Switching Frequency	500Hz	500Hz	500Hz
NPN Plastic Cable	<b>S51-PA-2*-B01-NK</b>	<b>S51-PA-2*-C10-NK</b>	<b>S51-PA-2*-A00-NK</b>
PNP Plastic Cable	<b>S51-PA-2*-B01-PK</b>	<b>S51-PA-2*-C10-PK</b>	<b>S51-PA-2*-A00-PK</b>
NPN Metal Cable	<b>S51-MA-2*-B01-NK</b>	<b>S51-MA-2*-C10-NK</b>	<b>S51-MA-2*-A00-NK</b>
PNP Metal Cable	<b>S51-MA-2*-B01-PK</b>	<b>S51-MA-2*-C10-PK</b>	<b>S51-MA-2*-A00-PK</b>

\*For plug type replace 2 with 5. eg S51-PA-5-B01-PK

**Wiring Diagrams**

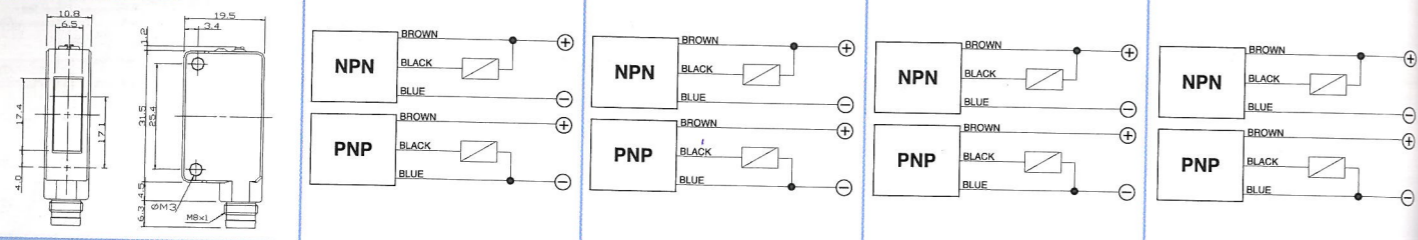


**DC MINIATURE PHOTOELECTRIC SENSORS NPN/PNP DARK/LIGHT MODE IP67**

Type DC S3Z SERIES	Diffuse Proximity	Polarized Retroreflective	Narrow beam Proximity	Through Beam
Housing Material: PC/PBT Max. Output Current: ≤100mA				
Sensing Distance	0-700mm	0.5-4M	150mm	15M
DC Supply Voltage	10-30VDC	10-30VDC	10-30VDC	10-30VDC
Switching Frequency	500Hz	500Hz	500Hz	500Hz
PNP Light Cable	S3Z-PR-2*-C11-PL	S3Z-PR-2*-B01-PL	S3Z-PR-2*-C01-PL	S3Z-PR-2*-FG01-PL
PNP Dark Cable	S3Z-PR-2*-C11-PD	S3Z-PR-2*-B01-PD	S3Z-PR-2*-C01-PD	S3Z-PR-2*-FG01-PD
NPN Light Cable	S3Z-PR-2*-C11-NL	S3Z-PR-2*-B01-NL	S3Z-PR-2*-C01-NL	S3Z-PR-2*-FG01-NL
NPN Dark Cable	S3Z-PR-2*-C11-ND	S3Z-PR-2*-B01-ND	S3Z-PR-2*-C01-ND	S3Z-PR-2*-FG01-ND

\*For plug type replace 2 with 5. eg S3Z-PR-5-C01-PL

**Wiring Diagrams**

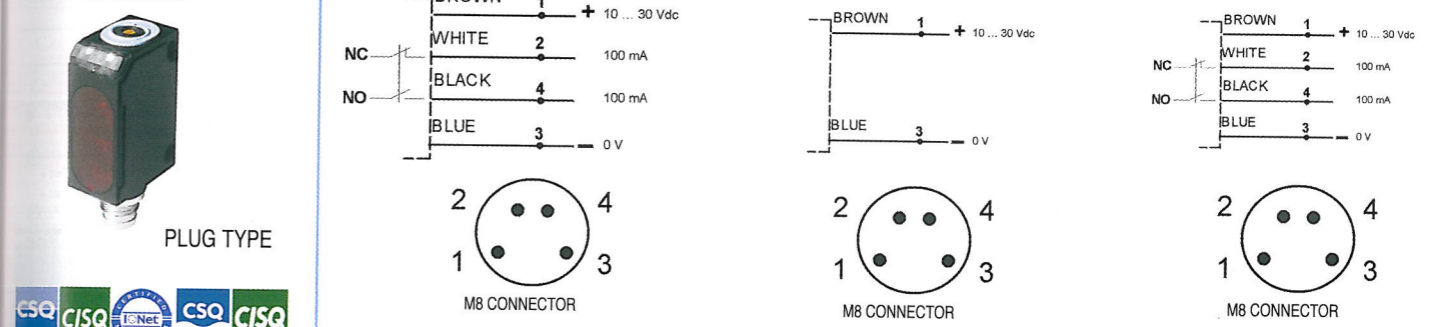


**MINIATURE PHOTOELECTRIC SENSOR BASIC LINE NPN or PNP NO-NC IP66**

Type DC S41 SERIES	Diffuse Proximity	Retroreflective For Transparents	Through Beam Emitter	Through Beam Receiver
Housing Material: PMMA Plastic Max Output Current: 100mA Models with trimmer setting NPN or PNP output Double NO-NC				
Sensing Distance	0.2-350mm	0.1-0.7M	0.1-6M	0.1-6M
Supply Voltage	10-30VDC	10-30VDC	10-30VDC	10-30VDC
Switching Frequency*	500Hz	500Hz	500Hz	500Hz
PNP NO-NC Cable	S41-2*-C-P	S41-2*-T-P	S41-2*-G	S41-2*-F-P
NPN NO-NC Cable	S41-2*-C-N	S41-2*-T-N	S41-2*-G	S41-2*-F-N

\*For plug type replace 2 with 5. eg S41-5-C-P \*S8 Series available with 10kHz switching frequency

**Wiring Diagrams**

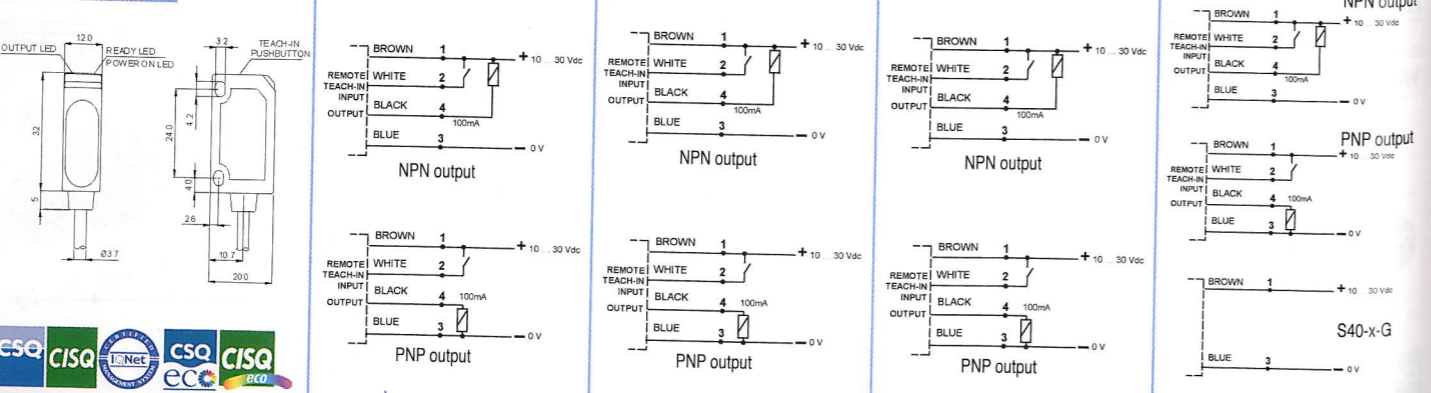


**PHOTOELECTRIC SENSORS MICROPROCESSOR-BASED TEACH IN NPN/PNP IP67**

Type DC S40 SERIES	Diffuse Proximity	Polarized Retroreflective	Retroreflective	Through Beam
Housing Material: ABS Max. Output Current: 100mA EASytouch™ microprocessor teach-in and Remote setting Cable or M8 connection NPN or PNP				
Sensing Distance	0.5-300mm	0.1-2.5M	0.1-3M	0.1-6M
DC Supply Voltage	10-30VDC	10-30VDC	10-30VDC	10-30VDC
Switching Frequency*	1kHz	1kHz	1kHz	1kHz
PNP Cable	S40-PR-2*-C03-PH	S40-PR-2*-B03-PH	S40-PR-2*-A03-PH	S40-PR-2*-FG3-PH
NPN Cable	S40-PR-2*-C03-NH	S40-PR-2*-B03-NH	S40-PR-2*-A03-NH	S40-PR-2*-FG3-NH

\*For plug type replace 2 with 5. eg S40-PR-5-A03-PH \*S8 Series available with 10kHz switching frequency

**Wiring Diagrams**



**SPECIAL INDUCTIVE SENSORS IP67**

	XSP	AS80-50	XSR
Available	10-30VDC Shielded Not Shielded	20-250 VAC/DC Shielded Not Shielded	12-48VDC
Switching Distance (Sn)	15mm 30mm	15mm 30mm	Long Distance 50mm
Max Current Output	200mA	200mA	200mA
Switching Frequency	100Hz	25Hz; 40Hz DC	100Hz
Connection	Terminal Block (long housing) M12 Connector (short housing)	Terminal Block	Cable
NPN NO + NC	XSP4003 XSP4017	-	AS80-50DN3
NPN NO + NC Short Housing	XSP4003SK	-	-
PNP NO + NC	XSP4006 XSP4020	-	AS80-50P3
PNP NO + NC Short Housing	XSP4006SK	-	-
2 Wires AC/DC NO	-	XSP4013 XSP4027	-
2 Wires AC/DC NC	-	XSP4014 XSP4028	-

LIMIT & PRESSURE SWITCHES & SENSORS

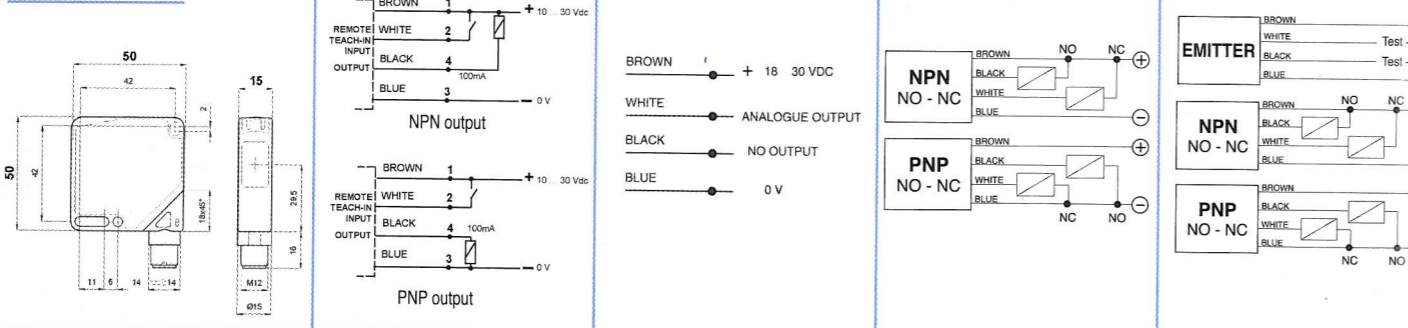
LIMIT & PRESSURE SWITCHES & SENSORS

**DC PHOTOELECTRIC SENSORS NPN PNP NO-NC 0-10V EASY TOUCH IP67**

Type DC S60 SERIES	Contrast	Analogue Distance	Retroreflective for Transparents	Through Beam
Housing Material: ABS Max. Output Current: ≤100mA <i>*Trimmer or EASYtouch™ setting with Remote and Keylock</i> <i>*Standard Cable or M12 connection with standard NPN or PNP configuration</i>				
Sensing Distance	19mm	150mm	2M	20M
DC Supply Voltage	10-30VDC	18-30VDC	10-30VDC	10-30VDC
Switching Frequency	5kHz	500Hz	1kHz	500Hz
PNP NO Cable	S60-PA-2*-W08-PH	-	-	-
NPN NO Cable	S60-PA-2*-W08-NH	-	-	-
PNP NO-NC Cable	-	-	S60-PA-2*-T51-PP	S60-PA-2*-F01-PP
NPN NO-NC Cable	-	-	S60-PA-2*-T51-NN	S60-PA-2*-F01-NN
PNP NO 0-10V Cable	-	S60-PA-2-Y03-PV†	-	-
Emitter	-	-	-	S60-PA-2*-G00-XG

\*For plug type replace 2 with 5. eg S60-PA-5-W08-NH †For NPN version replace PV with NV. eg, S60-PA-2-Y03-NV

**Wiring Diagrams**



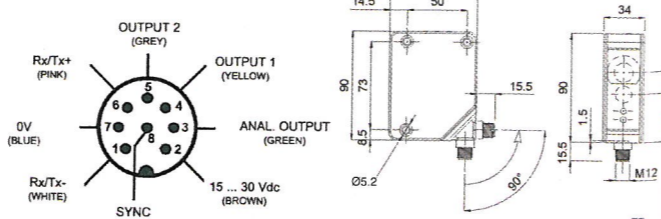
**DC ANALOGUE DISTANCE SENSOR**

Type DC S80 SERIES	Analogue Distance	Analogue Distance	Analogue Distance	Analogue Distance
Housing Material: Aluminium				
Distance	0.3-4m	0.3-7m	0.3-20.3m (on R80 reflector)	0.3-100.3m (on R80 reflector)
DC Supply Voltage	15-30VDC	15-30VDC	15-30VDC	15-30VDC
Switching Frequency	100Hz (normal) 500Hz (fast)	100Hz 500Hz (fast)	100Hz (normal) 500Hz (fast)	100Hz (normal) 500Hz (fast)
4-20mA, 2x PNP NO	S80-MH-5-Y09-PP*IZ	S80-MH-5-YL09-PP*IZ	S80-MH-5-Y19-PP*IZ	S80-MH-5-Y29-PP*IZ

**Wiring Diagrams**

\*For NPN replace PP with NN eg S80-NG-5-Y09-NN

**S80L-Y**

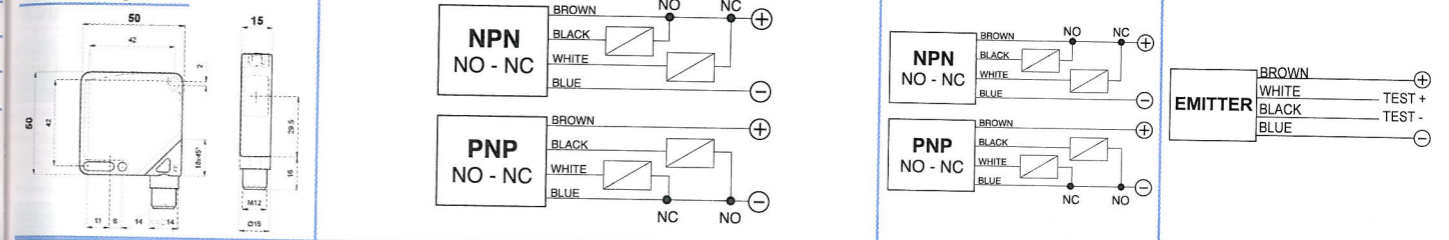


For cable use part no. CS-A1-06-B-03  
Use only R80 reflector

**DC LASER PNP/NPN NO-NC IP67**

Type DC S60 SERIES	Laser diffuse proximity	Laser Polarized Retroreflective	Laser Receiver	Laser Emmitter
Housing Material: ABS Max. Output Current: ≤100mA				
Sensing Distance	0-600mm	0.1-20M	0-60M	0-60M
Supply Voltage	10-30VDC	10-30VDC	10-30VDC	10-30VDC
Switching Frequency	2kHz	2kHz	1.5kHz	1.5kHz
PNP NO-NC M12	S60-PL-5-C01-PP	S60-PL-5-B01-PP	S60-PL-5-F01-PP	
NPN NO-NC M12	S60-PL-5-C01-NN	S60-PL-5-B01-NN	S60-PL-5-F01-NN	
				S60-PL-5-G00-XG

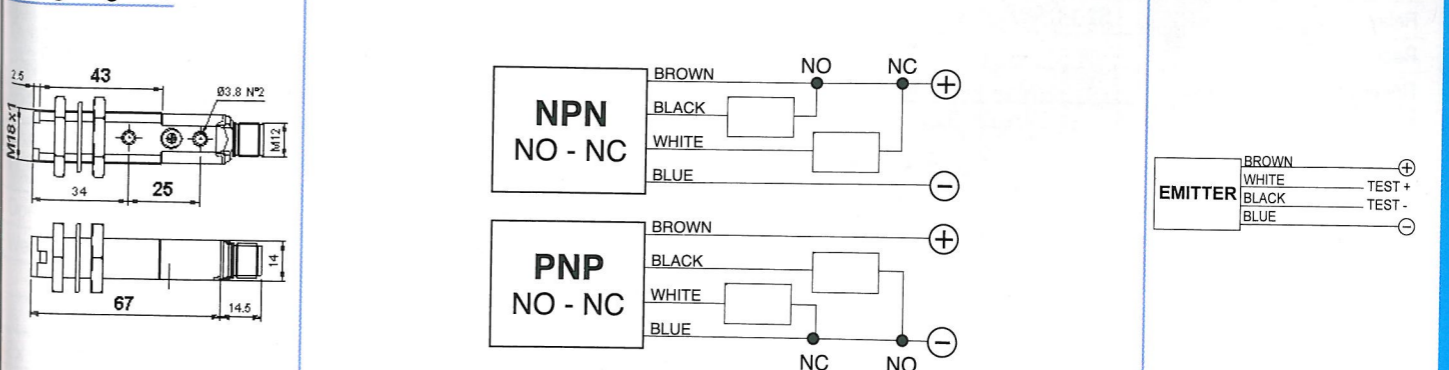
**Wiring Diagrams**



**DC LASER PNP/NPN NO-NC IP67**

Type DC M18 S50 SERIES	Laser Diffuse Proximity	Laser Retroreflex	Laser Receiver	Laser Emmitter
Max. Output Current: ≤100mA				
Sensing Distance	0-350mm	0-16M	0-60M	0-60M
Supply Voltage	10-30VDC	10-30VDC	10-30VDC	10-30VDC
Switching Frequency	1-5kHz	1-5kHz	1-5kHz	1-5kHz
PNP NO-NC M12	S50-PL-5-C01-PP	S50-PL-5-B01-PP	S50-PL-5-F01-PP	
NPN NO-NC M12	S50-PL-5-C01-NN	S50-PL-5-B01-NN	S50-PL-5-F01-NN	
				S50-PL-5-G00-XG

**Wiring Diagrams**



**DC LASER PNP/NPN IP67**

Type DC S40 SERIES	Laser diffuse proximity	Laser Polarised Retroreflective
<p><b>NEW</b></p> <ul style="list-style-type: none"> <li>Housing Material: PMMA Plastic</li> <li>Max. Output Current: 100mA</li> </ul>		
<p>CE</p>		
Switching Distance	4-150mm	0.1-6M
Supply Voltage	10-30VDC	10-30VDC
Switching Frequency	4kHz	4kHz
PNP M8	S40-PH-5-C03-PH	S40-PH-5-B03-PH
NPN M8	S40-PH-5-C03-NH	S40-PH-5-B03-NH
<b>Wiring Diagrams</b>		

**2mm U SHAPE SENSORS IP65**

Slot Width, SR21 SERIES	2mm	2mm
<ul style="list-style-type: none"> <li>High 25kHz switching frequency</li> <li>Detection of semi-transparent labels</li> <li>Detection of register marks on transparent</li> <li>NPN and PNP output</li> </ul>		
CE		
Switching Speed	25kHz	25kHz
DC Supply Voltage	10-30VDC	10-30VDC
Max. Output Current	100mA SCI protection	100mA SCI protection
PNP & NPN M8	SR21-IR	SR21-RG
<b>Wiring Diagrams</b>		

**MINIATURE AMPLIFIED PHOTOELECTRIC SENSORS NPN/PNP IP66**

Type DC S3 SERIES	Diffuse Proximity	Diffuse Proximity	Polarised Retroreflective	Through Beam	Through Beam
<p><b>NEW</b></p> <ul style="list-style-type: none"> <li>Housing Material: PMMA Plastic</li> <li>Max. Output Current: 100mA</li> <li>Miniature housing with axial or lateral optics</li> <li>Sensitivity adjustment and stability LED</li> <li>NPN/PNP and configurable output</li> </ul>					
CE					
Sensing Distance	0-500mm	0-100mm	0.1-2M	0-5M	0-5M
DC Supply Voltage	10-30VDC	10-30VDC	10-30VDC	10-30VDC	10-30VDC
Switching Frequency	500Hz	500Hz	500Hz	250Hz	250Hz
PNP & NPN Cable Axial	S3*-S-C50	S3*-S-C10	S3*-S-B2	S3*-S-G5	S3*-S-F5
PNP & NPN Cable Lateral	S3*-R-C50	S3*-R-C10	S3*-R-B2	S3*-R-G5	S3*-R-F5
*For plug type add T to part number. eg S3T-S-C50					
<b>Wiring Diagrams</b>					

**MULTI-FUNCTION PHOTOELECTRIC SENSORS PNP/NPN OR RELAY IP66**

Type AC/DC S2 SERIES	Diffuse Proximity	Retroreflective	Polarised Retroreflex	Through Beam	Through Beam
<p><b>NEW</b></p> <ul style="list-style-type: none"> <li>Housing Material: PBT Plastic</li> <li>Max. Current Output: 100mA</li> <li>Relay 1A</li> <li>Sensitivity adjustment and Stability LED</li> <li>Free voltage power supply and relay output</li> <li>Versions with 5 timing functions</li> </ul>					
CE					
Sensing Distance	1-900mm	0.1-5M	0.15-3M	0-50M	0-10M
Supply Voltage	10-30VDC/15-264VAC/VDC	10-30VDC/15-264VAC/VDC	10-30VDC/15-264VAC/VDC	15-264VAC/VDC	10-30VDC
Timing Function	Normal, ON-delay, OFF-delay, ON/OFF-delay, one-shot all adjustable from 0.6-16sec	Normal, ON-delay, OFF-delay, ON/OFF-delay, one-shot all adjustable from 0.6-16sec	Normal, ON-delay, OFF-delay, ON/OFF-delay, one-shot all adjustable from 0.6-16sec	Normal, ON-delay, OFF-delay, ON/OFF-delay, one-shot all adjustable from 0.6-16sec	Normal, ON-delay, OFF-delay, ON/OFF-delay, one-shot all adjustable from 0.6-16sec
Switching Frequency	500Hz(DC) 25Hz(AC)	500Hz(DC) 25Hz(AC)	500Hz(DC) 25Hz(AC)	500Hz(DC) 25Hz(AC)	500Hz(DC) 25Hz(AC)
PNP & NPN with Timer	S2-5-C90T	S2-5-A5T	S2-5-B3T		
Relay with Timer	S2-1-C90T*	S2-1-A5T*	S2-1-B3T*		
Relay	S2-1-C90*	S2-1-A5*	S2-1-B3*		
Receiver Relay				S2-1-F50*	
Receiver Relay with Timer				S2-1-F50T*	
NPN/PNP no relay					S2-5-F10
NPN/PNP no relay					S2-5-F10T
Emitter				S2-1-G50*	S2-5-G10
<b>Wiring Diagrams</b>					
<p>*VAC Versions</p>					

**CAN LINE SENSOR IP67**

Applications	
<ul style="list-style-type: none"> <li>Gap Detection (missing cans)</li> <li>Pile-up Detection</li> <li>Proximity and motion Detection</li> <li>Build-back Control</li> <li>Detection of missing tops or crowns on bottling lines</li> </ul>	<p><b>Supplied with accessories:</b></p> <ul style="list-style-type: none"> <li>Mounting brackets</li> <li>Transparent Protective cover</li> <li>O-Rings, Nuts, Bolts and Washers</li> </ul>
<b>Features</b>	
<ul style="list-style-type: none"> <li>Intelligent control of can line operation</li> <li>Suitable for single line or mass conveyor systems</li> <li>Manual set-up for one-touch auto set-up of motion detection.</li> <li>Independent output signals for proximity (ie. presence) and jam (ie. no motion)</li> <li>Sensing distance adjustable to 20mm</li> <li>Wide 120mm sensing face</li> <li>Separately adjustable ON and OFF time delays (up to 13 seconds)</li> </ul>	
<b>Dimensions</b>	
<b>Wiring Diagrams</b>	
<p>For full technical details see Rhomberg catalogue</p>	

LIMIT & PRESSURE SWITCHES & SENSORS

LIMIT & PRESSURE SWITCHES & SENSORS

**PHOTOELECTRIC SENSORS**

**Background Suppression Photoelectric Sensors**

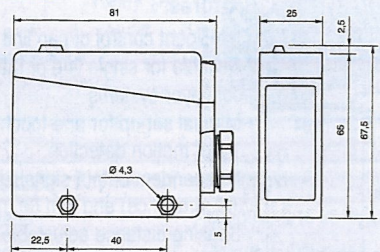
- For detecting black targets on white background
- Insensitive to colours
- Programmable output
- **IP66**



(1)Background suppression 2m, Determined with a white mat paper 20 x 20cm. On white target 3m.

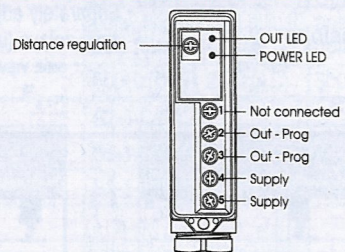
Switching Distance	0.2-3m <sup>(1)</sup>
Hysteresis	<5%
Emission	880nm
Supply	12-30VDC (-15/+10%)
Max Ripple	≤10%
Max Output	200mA
Configuration	NPN, PNP, NO, NC programmable
Consumption	25 to 40mA
Voltage Drop (On)	≤1.8V
Switching Frequency	500Hz
Response Time	100mS
Circuit Protection	S.C. + reverse polarity
Ambient	-10 to +60°C
Light Immunity	10000LUX
Housing Material	Housing ABS, lens Methacrylate
Weight (Approx)	110g
<b>Code</b> 12-30VDC	<b>FW-01BSD3</b>

**Dimensions**

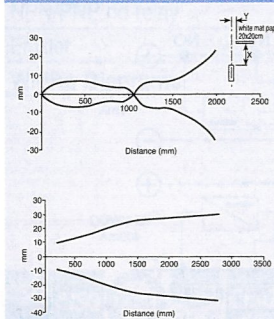


**Wiring Diagram**

Connection: Terminal Block



**Characteristic Curves**



**Connection Table**

Output	2	3	4	5
NPN NO	NO	-	+	-
NPN NC	NC	-	-	+
PNP NO	+	NO	-	+
PNP NC	+	NC	-	+

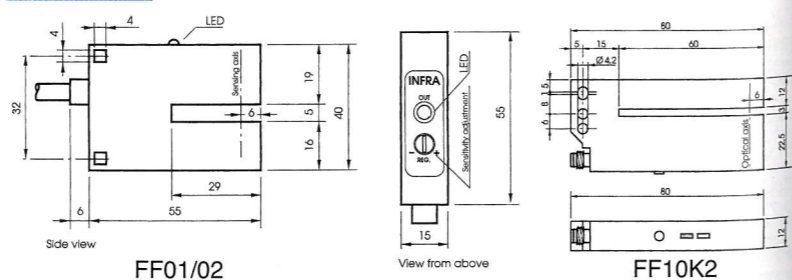
**Fork Photoelectric Sensors IP65**

Photoelectric Sensor Position

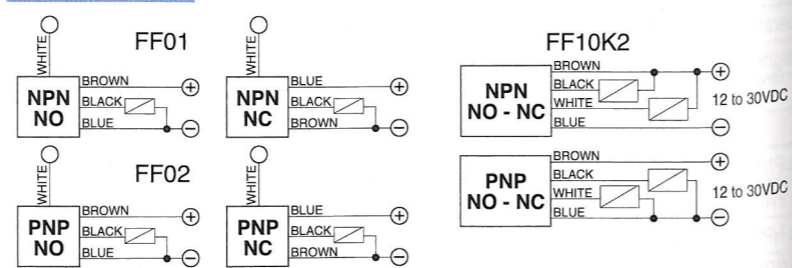


Application	Opaque Tags	Opaque and translucent Tags
Slot	5 x 29mm	3 x 60mm
Emission	Infrared (875nm)	Infrared (875nm)
Supply	12-30VDC (-15/+10%)	12-30VDC (-15/+10%)
Max Ripple	≤10%	≤10%
Max Output	200mA	100mA
Configuration	NPN or PNP, NO + NC	NPN, PNP, NO, NC programmable
Consumption @ 30V	30mA	≤40mA
Voltage Drop (On)	<1.5V (I = 100mA)	≤2V (I = 100mA)
Sensitivity Adj.	Trimmer 9 turns	<i>Teach-in</i>
Switching Frequency	200Hz	10.000Hz
Response Time	5mS	100mS
Start Up Delay	200mS	≤100mS
Circuit Protection	S.C. + reverse polarity	S.C. + reverse polarity
Ambient	-10 to +60°C	-10 to +60°C
Light Immunity	2000LUX	3000LUX
Cable	2m 4 x 0.25mm <sup>2</sup>	see <b>K2FDV5</b> connector page 229
Housing Material	Glass filled nylon + methacrylate lens	Anodised aluminium
Weight	110g	85g
<b>Code:</b> NPN NO+NC	<b>FF01</b>	-
PNP NO+NC	<b>FF02</b>	-
Programmable	-	<b>FF10K2</b>

**Dimensions**



**Wiring Diagram**



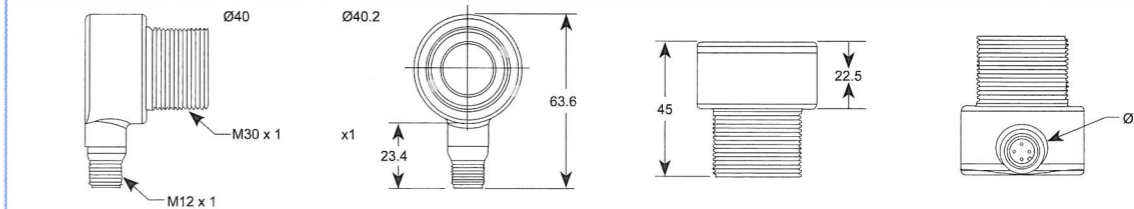
**M30 ULTRASONIC LEVEL SENSORS IP67**

**NEW**



Operating Distance	100-1000mm	200-2000mm	200-8000mm
Power Supply	10-30VDC	10-30VDC	10-30VDC
Settings	DISCRETE pushbutton (OH only) ANALOGUE pushbutton (VH and IH only) MODE pushbutton (OH, VH and IH)	DISCRETE pushbutton (OH only) ANALOGUE pushbutton (VH and IH only) MODE pushbutton (OH, VH and IH)	DISCRETE pushbutton (OH only) ANALOGUE pushbutton (VH and IH only) MODE pushbutton (OH, VH and IH)
Connections	M12, 4 Pole*	M12, 4 Pole*	M12, 5 Pole*
Temperature	-40°C to +70°C	-40°C to +70°C	-40°C to +70°C
Housing Material	BPT	BPT	BPT
Weight	68g	68g	68g

**Dimensions**



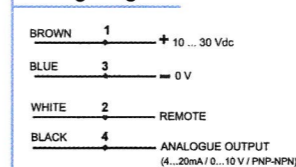
Use connector type **KFDC54** see page 229

PNP and NPN	<b>US30-PR-5-N13-OH</b>	<b>US30-PR-5-N23-OH</b>	<b>US50-PR-5-N23-OH</b>
ANALOGUE Output 0-10VDC	<b>US30-PR-5-N13-VH</b>	<b>US30-PR-5-N23-VH</b>	<b>US50-PR-5-N23-IVH</b>
ANALOGUE Output 4-20mA	<b>US30-PR-5-N13-IH</b>	<b>US30-PR-5-N23-IH</b>	(0-10V / 4-20mA configurable output)

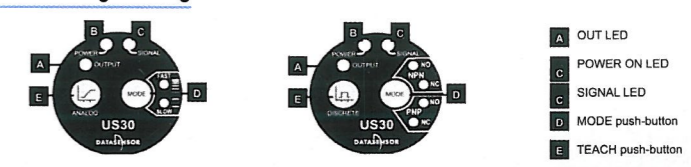
**Application**

The new US30 ultrasonic sensors detect all objects independent from the non sound absorbent material, reflectivity, transparency and colour, thus perfectly suiting applications in the automotive, packaging, machine tool fields and material transformation processes

**Wiring Diagram**



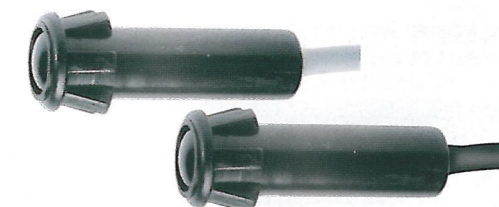
**Sensor Programming**



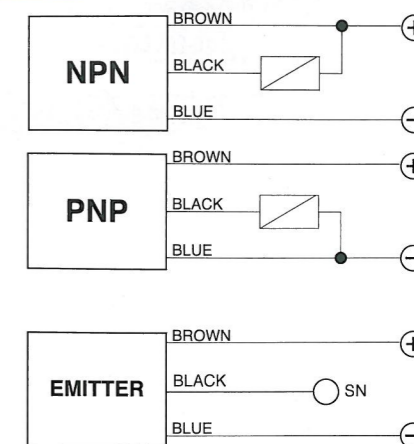
**MINI THRU BEAM PHOTOELECTRIC SENSOR IP65**

Type	BP	
	Receiver	Emitter
Switching Distance (Sn)	6-12m	6-12m
Size	42 x Ø11mm	42 x Ø11mm
Operating Voltage	12-30VDC	12-30VDC
Residual Ripple	<2Vpp	<2Vpp
Absorption	35mA	35mA
Emission	-	Infrared 900nm
Max. Output Current	Transistor 100mA	-
Switching Frequency	200Hz	200Hz
Response Time	5mS	5mS
Temperature Limits	-15°C to +50°C	-15°C to +50°C
Start-up Delay	<100ms	<100ms
Connection	Cable 5m	Cable 5m
NPN N/O / N/C	NPN N/O <b>BP100NO</b>	NPN N/C <b>BP100NC</b>
PNP N/O / N/C	PNP N/O <b>BP100PO</b>	PNP N/C <b>BP100PC</b>
Kit includes	Emitter & Receiver	

\* Used for elevator (lift) door holding beam



**Wiring Diagram**



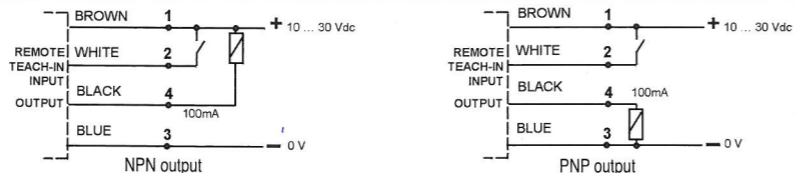
## DC FIBRE OPTIC AMPLIFIER IP67 DIN RAIL

Type DC S7 SERIES	Through Beam + Proximity	Through Beam + Proximity	Through Beam + Proximity
<p><b>NEW</b></p> <ul style="list-style-type: none"> <li>Housing Material: ABS</li> <li>10 bit resolution models with 500µs response for high operating distances</li> <li>12 bit resolution models with 50µs response and 4 digit display for high speed</li> <li>Cost-effective models with multiturn trimmer adjustment</li> <li>EASYtouch™ push-button setting with remote control, keylock and output delay</li> <li>Ultra-thin housing with CLEARLOCK™ patented fibre fixing system</li> </ul>			
Switching Speed	1KHz	5KHz	10KHz
DC Supply Voltage	12-24VDC ±10%	12-24VDC ±10%	12-24VDC ±10%
Max. Current Output	≤100mA	≤100mA	≤100mA
PNP NO Plg	S7-6-E-P	-	-
NPN NO Plg	S7-6-E-N	-	-
PNP NO Plg Display	-	S7-5-E-P	-
NPN NO Plg Display	-	S7-5-E-N	-
PNP NO Cable Display	-	S7-2-E-P	S7-1-E-P
NPN NO Cable Display	-	S7-2-E-N	S7-1-E-N

### Wiring Diagrams



PLUG TYPE



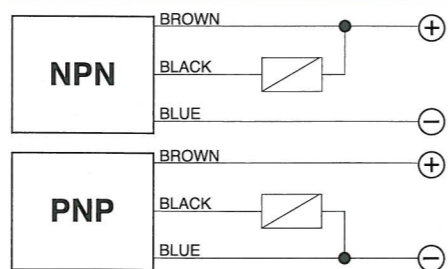
### Fibre Optics for above

Function	Terminal	Length	Part Number
1 Proximity	M6 x 1mm	1m	OF-18-ST-10
2 Through Beam	M4 x 0.7mm	1m	OF-19-ST-10
Function	Emission	Part Number	
1 Proximity	Axial 32 Beam	OFA-2-AE-20	
2 Through Beam	Axial 16 Beam	OFA-1-AE-20	
3 Fixed Focus	Axial	OFA-4-FE-20	

## SLOT TYPE PHOTOELECTRIC SENSOR PNP/NPN MODE

Slot Width	30mm	50mm	80mm	120mm
SRF SERIES				
Switching Speed	1.5kHz	1.5kHz	1.5kHz	1.5kHz
DC Supply Voltage	10-30VDC	10-30VDC	10-30VDC	10-30VDC
PNP M8	SRF-30-5-P	SRF-50-5-P	SRF-80-5-P	SRF-120-5-P
NPN M8	SRF-30-5-N	SRF-50-5-N	SRF-80-5-N	SRF-120-5-N

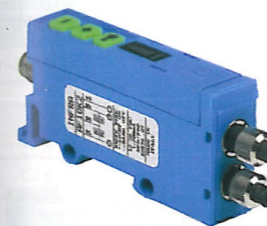
### Wiring Diagrams



For cable use part no. CS-B1-01-G-03 (Axial)

## FIBRE OPTICS

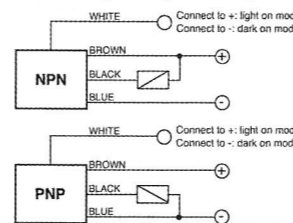
### Amplifier



Cable cutter supplied with each amplifier  
DIN rail mountable

Code	AF10K2
Connector Code (4 Wire)	K2FDV5
<b>Description</b>	
Emission	Red
Nominal Voltage	12-30VDC
Residual Ripple	< 10%
Output	NPN-PNP (programmable)
Max output current	100mA
Absorption at 30VDC	< 40mA
Voltage drop (sensor ON)	< 2V (I = 100mA)
Yellow LED	Present
Sensitivity adjustment	By key +/-
Switching frequency	1000Hz
Response time	≤ 500mS
Start up delay	≤ 300mS
Short circuit protection	Present (self resetting)
Electric protection	Against polarity reversal - inductive loads
Temperature limits	0 - +60°C
Light immunity	10000 Lux <sup>(1)</sup>
Protection degree	IP65
Cable section	3 x 0.25mm <sup>2</sup>
Housing material	ABS
Weight	100g

<sup>(1)</sup>Determined with halogen tungsten lamp 3000°K.



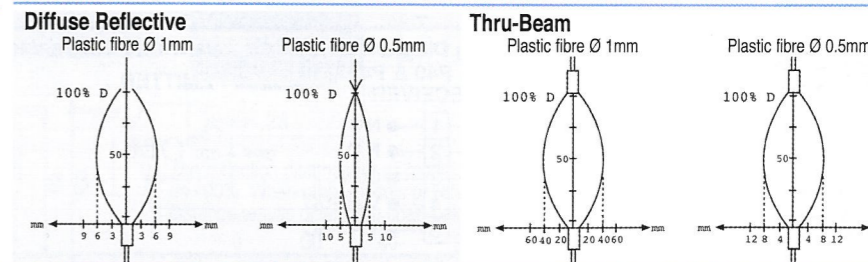
### Fibre Optic Cables (to be used with amplifier)

Code	Cable Length	Dimensions	Switching Distance	Type of Fibre
<b>Diffuse Reflective Selection Table</b>				
FPFDL010	2m		80mm	●
FPFDL110	2m		30mm	●
FPFDL100	2m		10mm	●
FPFDL310	2m		30mm	●

### Thru Beam Selection Table

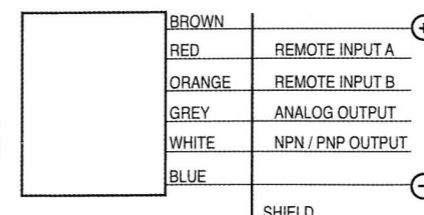
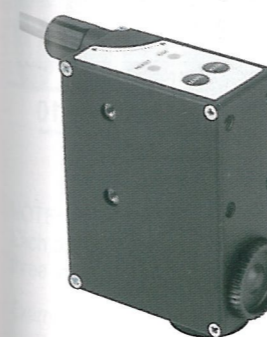
FPFTL000	2m		200mm	●
FPFTL200	2m		100mm	●
FPFTL301	2m		200mm	●

### Characteristic Curves



## CONTRAST SENSORS IP67

Code	Description	Mark Readers 10-30V DC Solid State and Analog Output	Description
MR-90VC	Vertical Spot	• Teach In	Light Emission: red 635nm / green 565nm LED
MR-90HC	Horizontal Spot	• Red/Green LED emission	Spot Dimension: 1.5 x 5mm (9mm lens)
		• Vertical or horizontal spot	Operating distance: (indicates the typical detection distance) 6 ... 12mm (9mm lens)
		• Remote setting	Depth of Field: ±3mm (9mm lens)
		• Models with Auto-Set Long operation life	Indicators: red Output LED / green Ready LED
		• Metal housing with orientable optic	Output Type: NPN or PNP, Res. pull-down/up 10 K ohm
		• Size 50 x 50 x 15mm	Saturation Voltage: 1V max. (NPN vers.) 2V max. (PNP vers.)
			Output Current: 200mA max., short-circuit protection
			Response Time: 50ms max.
			Switching Frequency: 10kHz max.
			Operating Mode: automatic dark/light selection
			Analogue Output Range: 0 ... 5.5VDC (2VDC on white 90%) 2.2K ohm out. resistance
			Timing Function: 20ms minimum output ON



LIMIT & PRESSURE SWITCHES & SENSORS

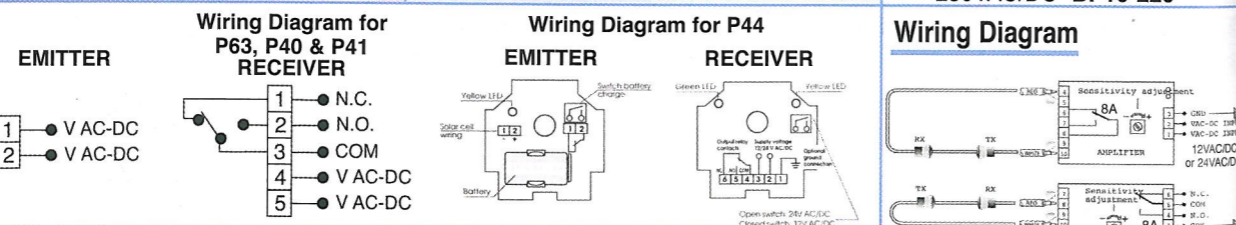
LIMIT & PRESSURE SWITCHES & SENSORS

## PHOTOELECTRIC SENSORS IP54

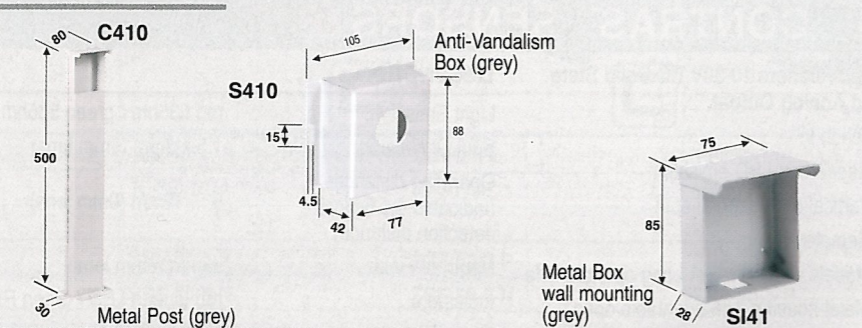
### Long Range Photoelectric Sensors

Type	Thru Beam Kits				Thru Beam Kit for Automatic Doors
	<p><b>NEW</b> Note: Each kit includes emitter and receiver.</p> <p>Receiver Emitter Receiver Emitter Receiver Emitter Receiver Emitter</p> <p>Receiver Emitter P41 – surface mount</p> <p>Receiver Emitter P40 – flush mount</p> <p>Receiver Emitter Battery operated 9V emitter-150 days minimum Solar cell power supply on request</p>				<p>Note: Each kit includes 1 pair of projectors.</p>
Switching Distance	15M	35M	55M	15M	10M
Available	Receiver & Emitter	Receiver & Emitter	Receiver & Emitter	Receiver & Emitter	One Beam Selection
Emission	Infrared (875nm)	Infrared (875nm)		Infrared (875nm)	Infrared (875nm)
Output	2 Relay SPDT	Relay: 1A @ 24VDC		2 Relay	Relay: 8A @ 250VAC
Consumption	40mA	40mA		70mA	70mA
Yellow LED	Output Indicator	Output indicator		Output Indicator	Output and activated thru beam indicator
Green LED	Supply Indicator	Supply indicator		Supply Indicator	Supply indicator
Sensitivity Adjustment	–	–		–	Present
Switching Frequency	50Hz - 60Hz	5Hz		1Hz	5Hz
Response Time	–	–		500mS	200mS
Start Up Delay	≤ 300mS	≤ 300mS		≤ 300mS	≤ 300mS
Ambient	-20 to +60°C	-20 to +60°C		-20 to +60°C	-20 to +60°C
Light Immunity	> 5000 Lux	> 5000 Lux		> 5000 Lux <sup>(1)</sup>	> 5000 Lux
Protection Degree	<b>IP54</b>	<b>IP54</b>		<b>IP54</b>	Amplifiers IP54. Projectors IP65
Housing Material	PMMA	Housing: glass-filled nylon – Filter: methacrylate		Housing: nylon/fibreglass; filter: methacrylate	Amplifiers ABS. Projectors Body – Lenses: methacrylate
Weight (Approx)	160 g	315 g		340 g	350 g
12-24VAC/DC	<b>P63</b>	<b>P41</b>	<b>P40</b>	<b>P44</b>	12VAC/DC <b>BP10-12</b>
9V alkaline battery P44	–	–	–	–	24VAC/DC <b>BP10-24</b>
230VAC/DC	–	–	–	–	230VAC/DC <b>BP10-220</b>

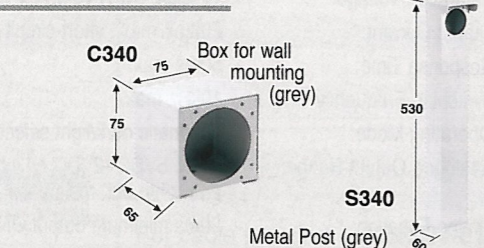
### Wiring Diagram



### Accessories for P41



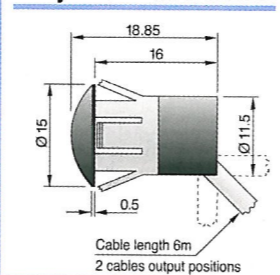
### Accessories for P40



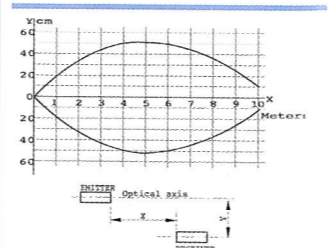
### Solar Accessory for P44



### Projector Dimensions



### Characteristic Curve BP10



## ACCESSORIES FOR SENSORS

### Connectors

Dimensions	Cable Length	Code
Female connector M12 with K Plug		
	4-wire 5m	KF90C54
	3-wire 5m	KF90C53
Connector with no cable		KF90
	4-wire 5m	KFDC54
	Connector with no cable	KFD
Female connector M8 with K1-K2 Plug		
	4-wire 5m	K2FDV5
	3-wire 5m	K1FDV5

### Distribution Boxes with Cable

- Single Assigned Slots

Code	Description
KB8PC5	8 Slots M12 Distribution Box with 5m cable
KB4PC5	4 Slots M12 Distribution Box with 5m cable
KB8DP	8 Slots M12 Distribution Box with cable gland entry

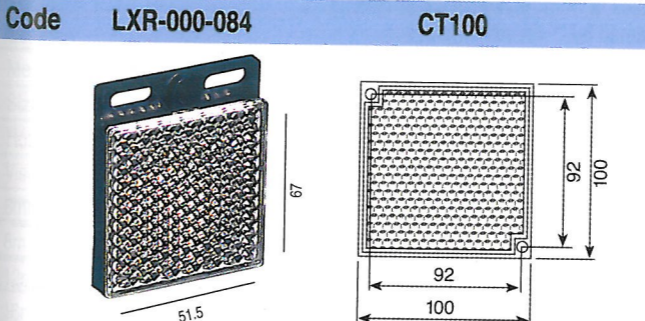
### M12 Male and Female Cable Connectors 4 Pin

- To be used with KB Distribution Boxes.
- Suitable for types: 18, MF, FQ, IS and ISM Sensors.

Code	Description
KFMDD060R	600mm Cable with Male & Female Connector
KFMDD150R	1500mm Cable with Male & Female Connector
KFMY	Y connector to accommodate 2 cables, 5 Pin

### Reflectors

Code	CT03	CT04
Diameter	47mm	87mm

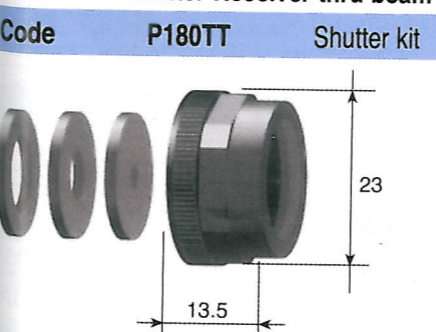


### Accessories for 90° Sensing

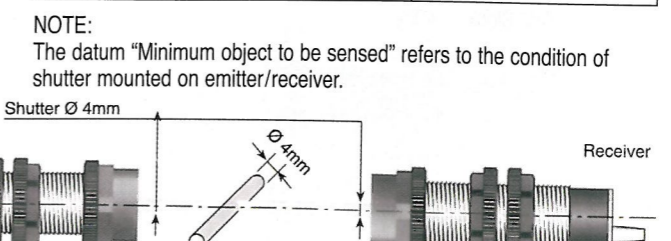
Code	DEV90	90° Adaptor
	For use with M18 photo electric sensors	

The reflection distance for all models is referred to CT04 as 100%. When other models or reflectors are used, the distance results differ. See chart below.

### Shutter for Emitter-Receiver thru beam

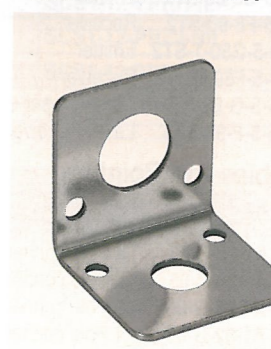


Shutting Dia.	Min. Object to be Sensed	Distance Attenuation
2mm	≥ 2mm	97%
4mm	≥ 4mm	84%
8mm	≥ 8mm	54%



### Mounting Brackets (Stainless Steel)

Code	Description
ST1218	For M12 & M18
ST1830	For M18 & M30

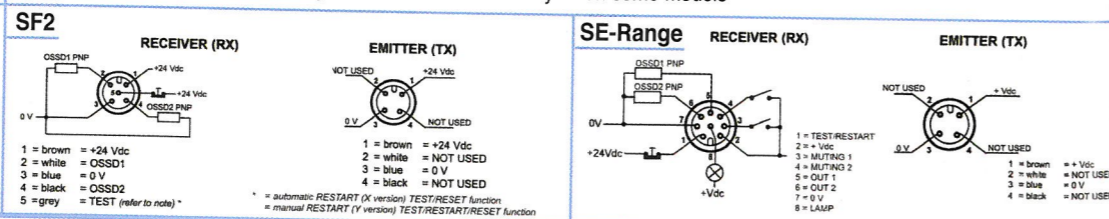


**SAFETY LIGHT CURTAINS IP65, SAFETY DEVICES & ACCESSORIES**

Series	SE4-14	SF2-30	SE2-35	SE4-30	SE2-P
Sensing distance According to IEC 61496-1 and IEC 61496-2	0.2-6m	0.2-15m	0.2-15m	0.2-15m	50m
Power Supply	24VDC	24VDC	24VDC	24VDC	24VDC
Resolution (mm)	14mm	30mm	35mm	30mm	2, 3, 4 beam
Controlled Height	150-900mm	150-1200mm	150-1200mm	150-1200mm	500-1200mm
Response Time	18-39ms	24ms max.	15-32ms	15-32ms	14ms
Output	2 x PNP transistors	2 x PNP transistors	2 x PNP transistors	2 x PNP transistors	2 x PNP transistors
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	Rx: M12 8-Pole Tx: M12 4-Pole	Rx: M12 8-Pole Tx: M12 4-Pole
Dimensions (mm)	35 x 40	31 x 32	35 x 40	35 x 40	35 x 40
Device Function	Test, Manual/Auto Restart selection. Total/ Partial Muting selection, override	Test, Manual Restart, Automatic Restart	Test, Manual/Auto Restart selection. Total/ Partial Muting selection, override	Test, Manual/Auto Restart selection. Total/ Partial Muting selection, override	Test, Manual/Auto Restart selection. Total/ Partial Muting selection, override
<b>Controlled Height</b>					
150mm	SE4-14-015-PP-W	SF2-30-015-PP-X*	SE2-35-015-PP-W	SE4-30-015-PP-W	-
300mm	SE4-14-030-PP-W	SF2-30-030-PP-X*	SE2-35-030-PP-W	SE4-30-030-PP-W	-
450mm, 500mm†	SE4-14-045-PP-W	SF2-30-045-PP-X*	SE2-35-045-PP-W	SE4-30-045-PP-W	SE2-P2-050-PP-W†
600mm	SE4-14-060-PP-W	SF2-30-060-PP-X*	SE2-35-060-PP-W	SE4-30-060-PP-W	-
750mm, 800mm†	SE4-14-075-PP-W	SF2-30-075-PP-X*	SE2-35-075-PP-W	SE4-30-075-PP-W	SE2-P3-080-PP-W†
900mm	SE4-14-090-PP-W	SF2-30-090-PP-X*	SE2-35-090-PP-W	SE4-30-090-PP-W	SE2-P4-090-PP-W
1050mm	-	SF2-30-105-PP-X*	SE2-35-105-PP-W	SE4-30-105-PP-W	-
1200mm	-	SF2-30-120-PP-X*	SE2-35-120-PP-W	SE4-30-120-PP-W	SE2-P4-120-PP-W

\*For version with manual restart in the SF2 series, replace 'X' with 'Y'. eg. SF-30-015-PP-Y  
†Please Note: SE2-P range has larger dimensions indicated by "†" on some models

**Wiring Diagrams**



**Safety Relays - Supply volts 24VDC**

Code	Input for Photocells	Outputs	Type of Safety System	No. of Curtains
SE-SR2		3 x NO, 1 x NC	Type 2 & 4	1
SG-BWS-T4-MT	4 (2 sets)	2 x NO, Muting	Type 2 & 4 (with double muting and EDM function)	2 (1 set)

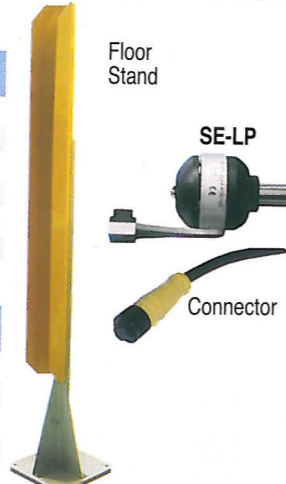


**Safety Photocells for Safety Relays**

Code	Function	Connection	Distance
S5-5-G8-60-ST2	Emitter	Cable	8m
S5-5-F8-90-ST2	Receiver	Cable	8m
S30-5-G50-1-ST2	Emitter	Cable	50m
S30-5-F50-1-ST2	Receiver	Cable	50m
SL5-5-G-82-ST4	Class 1 laser emitter	Terminal Block	40m
SL5-5-F-92-ST4	Laser Receiver	Terminal Block	40m

**Cables and Pointers**

Code	Description
CV-A1-22-B-05	4 Pole connector 5m cable for SE curtains (TX)
CV-A1-26-B-05	8 Pole connector 5m cable for SE curtains (RX)
CS-A1-03-G-05	5 Pole connector 5m cable for SF2 curtains (RX)
CS-A1-02-G-05	4 Pole connector 5m cable for SF2 curtains (TX)
SE-LP	Laser pointer for alignment over long distances



**Deviating Mirrors - Stand Mounting**

Code	Description
SE-DM150	Deviating mirror - 150mm(H)
SE-DM500	Deviating mirror - 550mm(H)
SE-DM600	Deviating mirror - 700mm(H)
SE-DM800	Deviating mirror - 900mm(H)
SE-DM900	Deviating mirror - 1000mm(H)
SE-DM1200	Deviating mirror - 1270mm(H)

**Floor Stands for safety Curtains & Mirrors**

Code	Description
SE-S800	Floor stand for mirror and SE series curtains 800mm
SE-S1000	Floor stand for mirror and SE series curtains 1000mm
SE-S1200	Floor stand for mirror and SE series curtains 1200mm

**VISION SENSORS & OBJECT RECOGNITION**

Series	DATAVS1	VSC Configurator	DATAVS2	SCS1
Applications	<ul style="list-style-type: none"> <li>Part presence verification</li> <li>Object counting</li> <li>Gauging</li> <li>Quality inspection</li> <li>Optical character verification (OCV)</li> <li>The flexibility together with the VSC configurator makes the sensor ideal for plants with frequent format changes.</li> </ul>	<ul style="list-style-type: none"> <li>VSC unit can provide real time monitoring of image, but is not required during functioning so it can be disconnected and used to set up multiple sensors.</li> </ul>	<ul style="list-style-type: none"> <li>Part presence verification</li> <li>Gauging</li> <li>Quality inspection</li> <li>Part position and orientation</li> <li>Object Counting</li> <li>Liquid Level measurement</li> <li>Overprinting control</li> <li>Assembly verification</li> <li>360° pattern matching</li> </ul>	<ul style="list-style-type: none"> <li>Part presence verification</li> <li>Gauging</li> <li>Quality inspection</li> <li>Part position and orientation</li> <li>Object Counting</li> </ul>
Power Supply	24VDC	24VDC	24VDC	24VDC
Ripple	1Vpp max with illuminator, 2Vpp without illuminator		1Vpp max illuminator, 2Vpp without illuminator	2Vpp max
Output Type	3 x PNP		3 x PNP	2 x PNP N/O
Output Current	100mA max.		100mA max.	100mA max.
Saturation Voltage	<2V		<2V	<2V
Connection	2 x M12 8-pole	M12 8-Pole	M12 8-Pole. M12 4 pole	RJ45 Ethernet, M12 8 pole, M12 4 pole
Integrated Illuminator	Yes		Yes	Optional
Frame Rate	60fps		60fps	
Optics	Integrated (6/8/12/16mm)		Integrated (6/8/12/16mm)	
Settings	VSC Configuration		TEACH push-button/ PC	PC graphic user interface
Mechanical protection	IP50	IP40	IP50	IP40
Size	60 x 50 x 34mm	96 x 96 x 39mm	60 x 50 x 34mm	100 x 75 x 40mm
Housing	Aluminium alloy/ ABS	ABS	Aluminium alloy/ ABS	Aluminium alloy
Vision sensor configurator		DATAVS1-VSC		
6mm lens, configurator connection	VS1-06-DC-S			
8mm lens, configurator connection	VS1-08-DC-S			
12mm lens, configurator connection	VS1-12-DC-S			
16mm lens, configurator connection	VS1-16-DC-S			
6mm lens, ethernet			VS2-06-DE-OBJ	VS2-06-DE-AOR
8mm lens, ethernet			VS2-08-DE-OBJ	VS2-08-DE-AOR
12mm lens, ethernet			VS2-12-DE-OBJ	VS2-12-DE-AOR
16mm lens, ethernet			VS2-16-DE-OBJ	VS2-16-DE-AOR
12mm PNP NO RS485 with illuminator				SCS1-12-PPZ4-ILR
12mm 2 x PNP inputs with illuminator				SCS1-12-PPHH-ILR
12mm PNP NO RS232 w/o illuminator				SCS1-12-PPZ2-NIL
12mm PNP NO RS485 w/o illuminator				SCS1-12-PPZ4-NIL
12mm 2 x PNP inputs w/o illuminator				SCS1-12-PPHH-NIL

**Accessories**

Code	Description	Code	Description
DATAS-ST-5068	Linear bracket for VS1/ VS2	DATAS-CV-RJ45C-03	Ethernet cable (3m crossed) for SCS1 and VS2
DATAS-ST-5066	Angle bracket for VS1/ VS2	DATAS-CV-RJ45D-03	Ethernet cable (3m straight) for SCS1 and VS2
DATAS-MK-01	Mounting Kit for VS1/ VS2	SCS-ST5047	Linear bracket for SCS1
DATAS-CV-VSC-02	Connection cable (2m) for VS1	SCS-ST5048	Angle bracket for SCS1
DATAS-CV-VSC-04	Connection cable (4m) for VS1		



LIMIT & PRESSURE SWITCHES & SENSORS

LIMIT & PRESSURE SWITCHES & SENSORS

## RFID TAGS, CONTROLLERS & ANTENNA

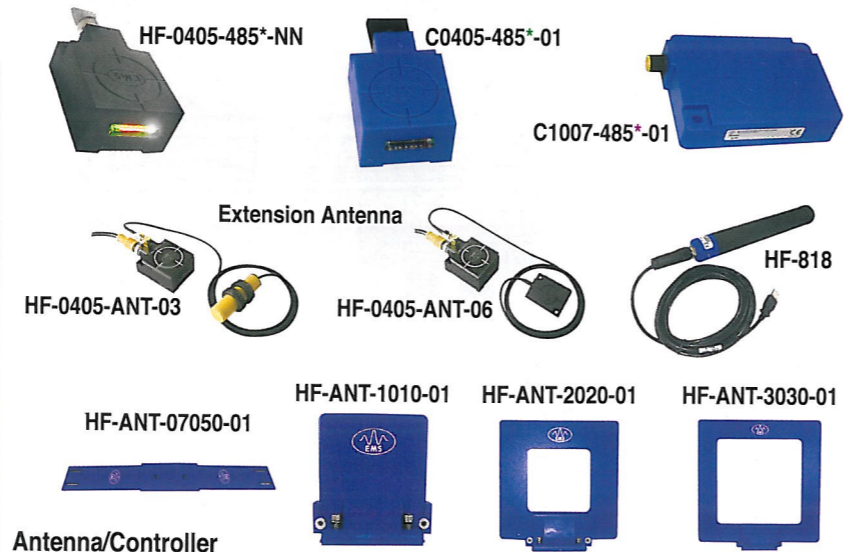
Note: For matching tag and antenna scanning distance to your application, please contact your nearest AC/DC consultant.

LRP Series 112 byte*, Long Range, High Frequency, Passive tags, 13.56MHz	
Encapsulated Chemical Resistant	PCB
PCB HT 200°C	High Temp 200°C
LRP108S	LRP108*
LRP125S	LRP125*
LRP250S	LRP250*
LRP525S	LRP525*
LRP-P108I	LRP-P108I*
LRP-P1212I*	LRP-P1212I* (1000 byte)
LRP125VS	LRP125VS
LRP-P3858S	LRP-P3858S
LRP-P972HTS	LRP-P972HTS
LRP125HTS	LRP125HTS
LRP250HTS	LRP250HTS

HMS Series 736 bytes, High Memory, High Frequency Passive tags 13.56MHz	
Encapsulated Chemical Resistant	Metal Mount
High Temp 200°C	Encapsulated, Chemical Resistant and Metal Mount
HMS108	HMS108
HMS112	HMS112
HMS125	HMS125
HMS150	HMS150
HMS112P002	HMS112P002
HMS125HT	HMS125HT
HMS150HT	HMS150HT
T130 on metal	T130 on metal
T130 recessed into metal	T130 recessed into metal
T5050/7036 free air	T5050/7036 free air
T5050/7036 on metal	T5050/7036 on metal

- L and H series = 100k writes, unlimited reads, data retention 10yrs  
 - T series = 10 billion writes, unlimited reads, data retention 10yrs

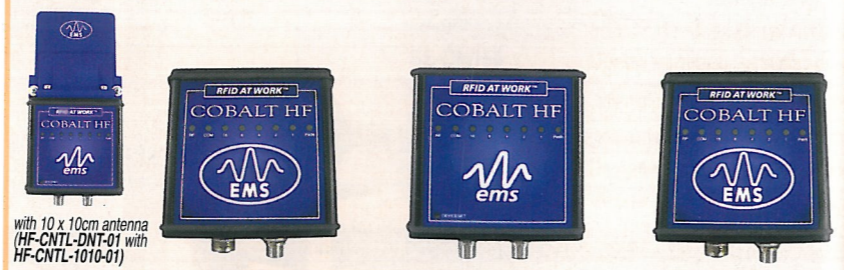


Antenna/Controller Codes	Technical Specifications
HF-0405-485*-NN	• Communication: RS232, RS422, RS485 • Power: 24VDC over RS485 cable • 13.56MHz • Mounting: M12 • IP Rating: <b>IP67</b>
HF-0405-ANT-03	• Cable length: 1m • Mounting: M18 • IP Rating: <b>IP67</b> • Antenna works with both the HF-0405 series and the C0405 series
HF-0405-ANT-06	• Cable length: 1m • Mounting: 2 x 3mm holes • IP Rating: <b>IP67</b> • Antenna works with both the HF-0405 series and the C0405 series
HF-818	• Communication: USB • Power: 5V over USB • IP Rating: <b>IP66</b> • Transfer Rate: 1000 Bytes/sec
C0405-485*-01	• Communication: RS485/ USB/ RS232 • Power: 24VDC over RS485 cable/ USB cable/ 24VDC into shared M12-RS232 • Mounting: M12/ USB/ M12 • IP Rating: <b>IP67</b> • Antenna: Built-in
C1007-485*-01	• Communication: RS485/ USB/ RS232 • Power: 24VDC over RS485 cable/ USB cable/ 24VDC into shared M12-RS232 • Mounting: M12/ M12 USB • IP Rating: <b>IP67</b> • Antenna: Built-in
HF-ANT-0750-01	• 50cm Conveyor Antenna • Use with: All HF-CNTL-XXX • Requires: HF-ANT-CBL-07 • Tuned to mount in metal conveyors
HF-ANT-4*-01	• 10/ 20/ 30cm Antenna • Use with: All HF-CNTL-XXX • Size: 10cm: 100 x 112mm 20cm: 200 x 200mm 30cm: 300 x 300mm

\* Change '485' in part number to 422 (for RS422 unit) or 232 (for RS232 unit) Eg. HF-0405-422-01  
 \* Change '485' in part number to USB (for USB unit) or 232 (for RS232 unit) Eg. C0405-USB-01  
 \* Change '485' in part number to USB (for USB unit) or 232 (for RS232 unit) Eg. C1007-USB-01  
 \* Add 1010 (for 10cm unit) or 2020 (for 20cm unit) or 3030 (for 30cm unit) Eg. HF-ANT-1010-01

### High Performance, Networked RFID Controllers IP66

Can be used with all HF-ANT-XXXX  
 Can be used with LRP, HMS and T series tags



Code	HF-CNTL-IND-01	HF-CNTL-DNT-01	HF-CNTL-485-01
Size	114 x 103 x 45	114 x 103 x 45	114 x 103 x 45
Frequer	13.56MHz	13.56MHz	13.56MHz
Connection	M12	M12	M12
Network	Industrial ethernet	DeviceNet	Direct connected

**NEW RANGE**

## 2D IMAGERS/ BARCODE READERS

Series	MATRIX 200-21-1	MATRIX 200-21-0	MATRIX 400-4	MATRIX 400-6
MATRIX 2D imagers are equipped with innovative X-PRESS™ Human Machine Interface, granting easy scanner installation and maintenance.				

Applications	Electronics: • PCBs assembly process • Electronic components manufacturing Pharmaceutical and chemical industries: • Supply chain trackability OEM: • Document handling machines • Access control systems • ATMs, Self service kiosks • Print & apply systems	Automotive: • DPM reading and verification • Tires sorting Electronics: • Large PCBs tracking Distribution: • Warehouse applications Pharmaceutical and chemical: • Medical devices trackability Food and Beverages: • Code quality control <i>Please Note: Supplied without lens. Please add the appropriate lens and internal illumination to your order.</i>
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Readable Symbolologies	<b>1D and stacked:</b> 1L 2/5, code 128, code39, EAN/UPC, PDF417, Micro PDF417, pharmacode, GS1 DataBar (RSS) family, <b>2D:</b> Data Matrix, QR Code, Micro QR, Maxicode, Aztec, Microglyph. <b>Postal:</b> Royal mail, Japan Post, Planet and Postnet			
Power Supply	10-30VDC	5VDC	10-30VDC	
Optical Features	WVGA (752 x 480) CMOS Sensor with Global Shutter		SXGA (1280x1024) CMOS Sensor	UXGA (1600x1200) CCD Sensor
Frame Rate	60fps		27fps	15fps
Reading Window	Direct	90°	-	
Digital Inputs	2 x SW programmable, optocoupled and polarity insensitive		2 x SW programmable, optocoupled and polarity insensitive	
Digital Outputs	2 x SW programmable, optocoupled, event driven		2 x SW programmable, optocouple, event driven	
Communication Interfaces	RS232 + RS232/ RS422/ RS485, ID-NET™ port, USB2.0		RS232 + RS232/ RS422/ RS485	
Device Programming	Windows™-based SW (VisiSet™) via USB link. Serial Host Mode Programming Sequences. X-PRESS™ human machine interface		Windows™-based SW (VisiSet™) via serial/ ethernet link. Serial Host Mode Programming Sequences. X-PRESS™ human machine interface	
Dimensions	50 x 25 x 42mm	54 x 32 x 45mm	123 x 60.5 x 87mm	
Weight	60g		428g	
Protection	<b>IP65</b>		<b>IP67</b>	
Housing Material	Aluminium		Aluminium	
	<i>Direct Version</i>		<i>90° Version</i>	
WVGA, Near Dist, 25 Pin	<b>200-211-10X</b>	<b>200-211-00X</b>		
WVGA, Medium Dist, 25 Pin	<b>200-212-10X</b>	<b>200-212-00X</b>		
WVGA, Far Dist, 25 Pin	<b>200-213-10X</b>	<b>200-213-00X</b>		
WVGA, Ultra High Density, 25 Pin	<b>200-214-10X</b>	<b>200-214-00X</b>		
WVGA, Near Dist, USB	<b>200-211-12X</b>	<b>200-211-02X</b>		
WVGA, Medium Dist, USB	<b>200-212-12X</b>	<b>200-212-02X</b>		
WVGA, Far Dist, USB	<b>200-213-12X</b>	<b>200-213-02X</b>		
WVGA, Ultra-high density, USB	<b>200-214-12X</b>	<b>200-214-02X</b>		
Base, C-Mount Lens, Serial			<b>400-400-000</b>	<b>400-600-000</b>
Base, C-Mount Lens, Ethernet			<b>400-400-010</b>	<b>400-600-010</b>

### Accessories for MATRIX 400

Internal Illuminations		Lenses (all C-Mount)		Cables	
Code	Description	Code	Size	Code	Description
LT-001	Internal Light, Red, Narrow Angle	LNS-1006	6mm	CAB-MS03	M16 IP67 cable to CBX 3m
LT-002	Internal Light, Red, Wide Angle	LNS-1109	9mm	CAB-ETH-M03	M12 IP67 cable Ethernet cable 3m
LT-003	Internal Light, White, Narrow Angle	LNS-1112	12.5mm		
LT-004	Internal Light, White, Wide Angle	LNS-1116	16mm		
LT-006	Internal Light, Red, Super Narrow Angle	LNS-1125	25mm		
		LNS-1135	35mm		
		LNS-1150	50mm		



LIMIT & PRESSURE SWITCHES & SENSORS

**NEW RANGE** **EMBEDDED BARCODE READERS**

Series	TC1100	DS1100-11	DS1100-21	DS1500-1100	DS1500-2100	DS2200-11	DS2200-21
Applications	<ul style="list-style-type: none"> <li>Access control Systems</li> <li>Chemical and biomedical analysis machines,</li> <li>Automated Tape</li> <li>Game Automation (lottery, etc)</li> <li>Automated Tape Libraries</li> </ul>	<ul style="list-style-type: none"> <li>Chemical and biomedical analysis,</li> <li>ATM's,</li> <li>Video rental machines,</li> <li>Film processing machines,</li> <li>Print and apply machines</li> </ul>	<ul style="list-style-type: none"> <li>OEM integration in automatic machines,</li> <li>Document handling machines</li> <li>Print &amp; Apply systems</li> <li>Packing machines</li> <li>Automated Tape Libraries</li> </ul>	<ul style="list-style-type: none"> <li>OEM integration in automatic machines,</li> <li>Document handling machines</li> <li>Print &amp; Apply systems</li> <li>Packing machines</li> <li>Automated Tape Libraries</li> </ul>			
Readable Codes	<b>2/5 Family, Code39, Code93, Code128, EAN/UPC, EAN128, Codabar, Pharmacode, Plessey, Telepen</b>						
Power Supply	5VDC	5VDC (4-30VDC with converter)		5VDC		5VDC (4-30VDC with converter)	
Reading Distance	305mm on 0.5mm (20mils) barcode	220mm on 0.50mm (20mils) barcodes	110mm on 0.3 mm (12mils) barcodes	240mm on 0.50mm (20mils) barcodes	125mm on 0.20mm (8mils) barcodes	220mm on 0.60mm (24mils) barcodes	125mm on 0.20mm (8mils) barcodes
Depth of Field	270mm on 0.5mm (20mils) barcode	190mm on 0.50mm (20mils) barcodes	100mm on 0.30mm (12mils) barcodes	200mm on 0.50mm (20mils) barcodes	75mm on 0.20mm (8mils) barcodes	170mm on 0.60mm (24mils) barcodes	85mm on 0.20mm (8mils) barcodes
Resolution	0.076mm (3mils)	0.20mm (8mils)	0.12mm (5mils)	0.15mm (6mils)	0.10mm (4mils)	0.15mm (6mils)	0.07mm (3mils)
Output Scan Pattern		Linear, 90deg and Raster		Linear		Linear and Raster	
Scanning Speed	270 scans/sec	500 scans/sec		800-1200 scans/sec		500 scans/sec	
Digital Inputs	one (external trigger), Optocoupled	2 x SW Programmable (NPN only)		External Trigger (NPN only)		External Trigger (NPN only)	
Digital Outputs	one (good read), Optocoupled	2 x SW Programmable, event driven		2 x SW Programmable, event driven		2 x SW Programmable, event driven	
Communication Interfaces	Main port RS232, Wedge, Pen emulation	Main port RS485, Auxiliary port RS232		1 x RS422/ RS485 or 2 x RS232		Main port RS485, Auxiliary port RS232	
Device programming	Windows™ SW via serial link. Serial Host Mode Programming sequences	Windows™ SW via serial link. Serial Host Mode Programming sequences		Windows™ SW via serial link. Serial Host Mode Programming sequences		Windows™ SW via serial link. Serial Host Mode Programming sequences	
Dimensions	60.5 x 63 x 27mm	80 x 50 x 22mm		40 x 30 x 22mm		50 x 40 x 28mm	
Weight	<100g	<100g		44g		150g	
Protection Class	<b>IP40</b>	<b>IP65</b>		<b>IP65</b>		<b>IP65</b>	
Housing Material	ABS	Magnesium body/polycarbonate cover		ZAMA		Die-Cast Zinc	

CCD Scan engine linear	<b>TC1100-0100</b>						
CCD scan direct, linear	<b>TC1100-1100</b>						
Std Resolution, RS232 + RS485, linear		<b>DS1100-1100</b>	<b>DS1100-2100</b>				
Std Resolution, RS232 + RS485, linear, 90°		<b>DS1100-1101</b>	<b>DS1100-2101</b>				
Std Resolution RS232 + RS485, R1		<b>DS1100-1110</b>	<b>DS1100-2110</b>				
Std Resolution RS232 + RS485, R1, 90°		<b>DS1100-1111</b>	<b>DS1100-2111</b>				
Std Resolution RS232 + RS485, linear, 5V				<b>DS1500-1100</b>			
Std Resolution RS232 + RS485, linear, 5V					<b>DS1500-2100</b>		
Std Resolution RS232 + RS485, 5V						<b>DS2200-1100</b>	<b>DS2200-2100</b>
Std Resolution RS232 + RS485, R1, 5V						<b>DS2200-1110</b>	<b>DS2200-2110</b>

**NEW RANGE** **INDUSTRIAL BARCODE READERS**

Series	DS2100N	DS2400N	DS4800-1000	DS4800-1100	DS6300-100	DS6300-105	DS6400-100	DS6400-105
Applications	<ul style="list-style-type: none"> <li>Small conveyor sorting,</li> <li>Picking systems,</li> <li>Items &amp; Part tracking</li> <li>Process control &amp; packaging</li> <li>Document handling machines</li> <li>Print &amp; apply machines</li> </ul>		<ul style="list-style-type: none"> <li>Automated warehousing,</li> <li>Reading on pallets,</li> <li>Picking systems,</li> <li>Automated shop floor,</li> <li>Items and part tracking</li> <li>Process control systems</li> </ul>		<ul style="list-style-type: none"> <li>Automated warehousing,</li> <li>Reading on forklift trucks,</li> <li>Picking systems,</li> <li>Automated shop floor,</li> </ul>		<ul style="list-style-type: none"> <li>Automated warehousing,</li> <li>Reading on forklift trucks,</li> <li>Picking systems,</li> <li>Automated shop floor,</li> </ul>	
Readable Codes	<b>Code 2/5, Code39, Code93, Code128, EAN/UPC, EAN128, Codabar, Pharmacode, ISBN128</b>							
Power Supply	10-30VDC		10-30VDC		15-30VDC		15-30VDC	
Reading Distance	Up to 310mm on 0.50mm barcodes	Up to 600mm on 0.50mm barcodes	1000mm on 0.50mm (20mils) barcodes		From 2m to 2m on 1.0mm (20mils) barcodes		From 350mm to 2m on 0.50mm (20mils) barcodes	
Depth of Field	Up to 260mm on 0.50mm codes	Up to 400mm on 0.50mm codes	600mm on 0.50mm (20mils) barcodes		Up to 1750mm on 1.0mm (20mils) barcodes		Up to 600mm on 0.50mm (20mils) barcodes	
Resolution	0.12mm (5mils)	0.20mm (8mils)	0.20mm (8mils)		0.20mm (8mils)		0.20mm (8mils)	
Output Scan Pattern	Linear, Raster and Oscillating Mirror		Linear or Oscillating Mirror		Linear or Oscillating Mirror		Linear or Oscillating Mirror	
Scanning Speed	500-1000scans/sec		600-1000scans/sec		600-1200 scans/sec SW programmable		600-1200 scans/sec SW programmable	
Digital Inputs	External trigger (optocoupled NPN and PNP) IN2 (not optocoupled, NPN only)		2 x SW programmable, optocoupled, PNP/NPN		4 x SW programmable, optocoupled, PNP/NPN		3 x SW programmable, and 1 x "Encoder", optocoupled, NPN/PNP	
Digital Outputs	2 x SW Prog, event driven, optocoupled		2 x SW Prog, event driven, optocoupled		3 x SW Prog, event driven, optocoupled		3 x SW Prog, event driven, optocoupled	
Communication Interfaces	Main port RS232/ RS422/ RS485. Auxiliary port RS232 ID-NET™		Main port RS232/ RS422/ RS485. Auxiliary port RS232 ID-NET™		Main port RS232/ RS485. Auxiliary port RS232		Main port RS232/ RS485. Auxiliary port RS232	
Device programming	X-PRESS™ Human Machine Interface. Windows SW via serial link. Serial Host Mode Programming sequences.		X-PRESS™ Human Machine Interface. Windows SW via serial link. Serial Host Mode Programming sequences.		Windows™ SW via serial link or Ethernet link. Serial Host Mode Programming sequences.		Windows™ SW via serial link or Ethernet link. Serial Host Mode Programming sequences.	
Dimensions	84 x 68 x 34mm		101x85x42mm 117x123x48mm		110x113x99mm 113x180x45mm		110x113x99mm 113x180x4.5mm	
Weight	330g		570g 780g		1.8kg 2kg		1.5kg 2kg	
Protection Class	<b>IP65</b>		<b>IP65</b>		<b>IP65</b>		<b>IP64, IP65</b> (on request)	
Housing Material	Aluminium		Aluminium		Aluminium		Aluminium	

Std resolution, linear, NSC	<b>DS2100N-1200</b>	adj. focus, linear	<b>DS4800-1000</b>		Dyn focus, lin, m/s	<b>DS6400-100-010</b>
High resolution, linear, NSC	<b>DS2100N-2200</b>	adj. focus, oscillating mirror	<b>DS4800-1100</b>		Dyn focus, lin, profibus	<b>DS6400-100-011</b>
Std resolution, raster, NSC	<b>DS2100N-1210</b>			adj. focus, linear, m/s	Dyn focus, lin, ethernet	<b>DS6400-100-012</b>
High resolution, raster, NSC	<b>DS2100N-2210</b>			adj. focus, linear, profibus	Dyn focus, lin, devicenet	<b>DS6400-100-015</b>
Std resolution, linear, hi, perf, NSC	<b>DS2100N-1204</b>			adj. focus, linear, ethernet		Dyn focus, osc mirror, m/s
High resolution, linear, hi, perf, NSC	<b>DS2100N-2204</b>			adj focus, linear, devicenet		Dyn focus, osc mirror, profibus
Std resolution, raster, hi, perf, NSC	<b>DS2100-1214</b>			adj, focus, oscillating mirror, m/s	<b>DS6300-105-010</b>	Dyn focus, osc mirror, ethernet
High resolution, raster, hi, perf, NSC	<b>DS2100N-2214</b>			adj focus, oscillating mirror, profibus	<b>DS6300-105-011</b>	Dyn focus, osc mirror devicenet
Short range, linear, NSC			<b>DS2400N-0200</b>	adj. focus, oscillating mirror, ethernet	<b>DS6300-105-012</b>	
Short range, raster, NSC			<b>DS2400N-0210</b>	adj. focus oscillating mirror, devicenet	<b>DS6300-105-015</b>	
Medium range, linear, NSC			<b>DS2400N-1200</b>			
Medium range, raster, NSC			<b>DS2400N-1210</b>			
Long range, linear, NSC			<b>DS2400N-2200</b>			
Long range, raster, NSC			<b>DS2400N-2210</b>			

## LOUD SPEAKERS



### Megaphones

Code	Description	Watts RMS	Effective Distance	Power Source	Power Duration
GT-1225	Hand Grip / Shoulder Type Megaphone	20	600m	UM-2 Dry Cell Batteries (10)	±7 hrs
GT-125	Hand Grip Type without Siren	20	600m	UM-2 Dry Cell Batteries (10)	±7 hrs
GT-125S	Hand Grip Type with Siren	20	600m	UM-2 Dry Cell Batteries (10)	±7 hrs

### Other Speakers

Code	Description	Watts RMS	Imp.	Input Line	Watts Adj.
CM-20	Aluminium Column Speakers weather proof IP65 c/w side mount bracket	20	4 OHM	100V	1, 1.25, 2.5, 5, 10, 20
CM-40	Aluminium Column Speakers weather proof IP65 c/w side mount bracket	40	8 OHM	100V	1, 1.25, 2.5, 5, 10, 20, 40
SPH-20W	White Plastic Sphere Ceiling Speaker with 3 metre cable	20	8 OHM	100V	2.5, 5, 10, 20
SPH-20WMT-W	White Plastic Spheré Ceiling Speaker with wall mount bracket	20	8 OHM	100V	2.5, 5, 10, 20
WS-10	Dual Cone/coaxial wall cabinet speaker complete with back mount box IP21	10	8 OHM	70/100V	0.25, 0.5, 0.75, 1.5, 3, 6, 10
MR-10	Weather Proof IP66 horn speaker complete with stainless steel bracket	10	8 OHM	100V	1, 3, 5, 10 Adj. Rotary Switch
MR-15	Weather Proof IP66 horn speaker complete with stainless steel bracket	15	8 OHM	100V	1, 3, 5, 10, 15 Adj. Rotary Switch
MR-30	Weather Proof IP66 horn speaker complete with stainless steel bracket	30	8 OHM	100V	1, 3, 5, 10, 15, 30 Adj. Rotary Switch

These robust, yet elegantly attractive loudspeakers are designed to give high quality sound reproduction and can be used in airports, churches, small theatres and other places of entertainment.

### Outdoor Speakers

Code	Description	Watts RMS	Imp.	Input Line	Frequency Range
CP-20A	Green Lawn Loudspeaker, size: Ø 220 x 420Hmm IP65	20	8 OHM	120V	70-12KHz
CP-20B	Green Lawn Loudspeaker, Ø 220 x 600Hmm IP65	20	8 OHM	120V	70-12KHz
CP-20	Green Lawn Loudspeaker, size: Ø 282 x 340Hmm IP65	20	8 OHM	120V	70-12KHz
Q130-5	Ceiling Speaker Ø 170 x 700Hmm	5	8 OHM	120V	95-12KHz
TF-35	ABS and Metal Casing. 960H x 190W x 170Dmm	35	8 OHM	120V	70-12KHz
TF-220	ABS and Metal Casing. 460H x 220W x 215Dmm	20	8 OHM	120V	70-12KHz



## LOUD SPEAKERS



Code	Description	Watts RMS	Imp.	Input Line	Watts Adj.
<b>Horn Speakers</b>					
KPH-86T	Black ABS Horn Speaker	15W	8 OHM	-	-
KPH-200T-8	White ABS Horn Speaker	15W	8 OHM	-	-
KPH-210R	White ABS Horn Speaker	20W	8 OHM	-	-
KPH-280	White ABS Horn Speaker	30W	8 OHM	-	-
PH-58	White ABS Horn Speaker	30W	8 OHM	-	-
PH-711	White ABS Horn Speaker	40W	8 OHM	-	-

### Ceiling Speakers



WS-631T	White Wall Flush/Ceiling Speaker with built-in Line Transformer 230Ø x 74mm	10W	5k, 2.5k, 1667 OHM	100V	2, 4, 6W
YX5-44T	Ceiling Speaker, Ø 245mm x 110mm, max 10W White 70-12KHz	8W	8 OHM	100V	-
YX3-33T	Ceiling Speaker, Ø 200mm x 115mm, max 8W White 100-12KHz	3W	8 OHM	100V	-
YX3-44T	Ceiling Speaker, Ø 239mm x 108mm, max 8W White 90-12KHz	3W	8 OHM	100V	-

### Wall-Mount Speakers



CS-667WT	White Wall Surface/Ceiling Speaker with built-in Line Transformer. 240 x 240 x 115	6W	5k, 2.5k, 1667 OHM	100V	2, 4, 6W
SPJ-53WHBS	White PA Sound Projector Speaker 140 Ø x 187	20W	2k, 1k, 500 OHM	100V	5, 10, 20W
CT-315WT1	Wall Mount Bass Reflex 2-Way Speaker System with Built-in Line Transformer. 180 x 133 x 107mm	15W	4k, 2k, 1k, 667 OHM	100V	5, 10W, 20W
G165-3	Box Speaker Wall Mount. 275H x 200W x 105Dmm	3W	8 OHM	100V	5, 10, 20W
G165-5	Box Speaker Wall Mount. 275H x 180W x 125Dmm	5W	8 OHM	100V	70-12KHz
G165-9	Wall Mount Speaker max 10W	10W	8 OHM	100V	70-12KHz

Code	Description	Watts RMS	Power Supply	Output
<b>PA Amplifiers</b>				
BAP-120	8A PA Booster Amplifier (19" Rack/Desktop Mounting)	120W	115/230VAC 50/60Hz, 24VDC	100V, 70V, 8Ω
BAP-240	15A PA Booster Amplifier (19" Rack/Desktop Mounting)	240W	115/230VAC 50/60Hz, 24VDC	100V, 70V, 8Ω
MIP-60E	4A PA Multi-zones Amplifier (19" Rack/Desktop Mounting)	60W	115/230VAC 50/60Hz, 24VDC	100V, 70V, 8Ω
MIP-120E	8A PA Multi-zones Amplifier (19" Rack/Desktop Mounting) 5 Channel + Master	120W	115/230VAC 50/60Hz, 24VDC	100V, 70V, 8Ω
DV-45PA	PA Amplifier 2 Mic + 1 Aux Input	30W	220VAC/12VDC	4, 8, 16 OHM (Without 100V)
DV-80PA	PA Amplifier 3 Mic + 2 Aux Input	60W	220VAC/1A 12VDC/10A	100V/4, 8, 16 OHM
DV-120PA	PA Amplifier 3 Mic + 2 Aux Input	120W	220VAC/1.5A 24VDC/10A	100V/4, 8, 16 OHM



## LOUD SPEAKERS

**NEW**

**Wall Mount Autoformer Volume Control**

Code	Watts RMS	Power	Specifications
VC-5093P	6	100V	<ul style="list-style-type: none"> <li>Designed for Emergency announcements or paging</li> <li>Mounting depth: 44mm</li> <li>Works with 4 or 8 OHM Speakers</li> <li>Material: Plastic front panel with plastic knob</li> </ul>
VC-5096P	35	100V	

VC-5093P/VC-5096P

Code	Volts (V)	Power Rating	Impedance (Ω)
AUTO 100/5	100	5-2.5-1.25W	2K-4K-8K
AUTO 100/12	100	10-5-2.5W	1K-2K-4K

• Wide frequency response and low insertion loss

### Communication Microphone With Volume Control

Code	CM-361VC
Polar Pattern:	Uni-Directional
Frequency Response:	100-10,000Hz
Impedance:	600+30%
Sensitivity:	-69dB+3dB
Cord Length:	1.8m



**Professional 2-Way Speaker System**

Code	PRO-200AMP
Drivers:	12" Woofer + 34mm Horn Tweeter
Frequency Range:	40-20,000Hz
Power Supply:	115VAC/230V 50/60Hz Switchable
Power Output:	200W Rms/250W Max. at 8 ohms
Size:	580(L) x 425(H) x 310(D)

**Microphone Table Top Stand**

Code	MD-13
Height extends from	41 to 54cm
Thread	5/8" x 27 thread
Base	Iron cast base
Weight:	0.83kg

**Microphone Clip**

Code	MC0004
Material	Plastic tiltable head
Attachment	Fixed with screw head for microphone stand.

### Teller Main Control Unit

Code	MBI-05H
Features	<ul style="list-style-type: none"> <li>Built-in mute function and headset function</li> <li>Priority conversation</li> <li>Hands-free communication</li> <li>Stainless Steel Casing</li> <li>Volume control for teller &amp; customer</li> <li>Power Source: DC 12V</li> <li>Dimensions: 155(W) x 43(H) x 130(D)mm</li> </ul>
Specifications for MBI-05/10	<ul style="list-style-type: none"> <li>Power: DC12V 230mA</li> <li>Type: Condenser Mic</li> <li>MIC Hz: 100 - 16 000Hz</li> <li>Sensitive: -40 ± 2dB</li> </ul>

Code	MBI-10
Features	<ul style="list-style-type: none"> <li>Full manual control</li> <li>Compact &amp; slim design</li> <li>Stainless Steel Casing</li> <li>Built-in Aux output for P.A System</li> <li>Volume control for teller &amp; customer</li> <li>Power Source: DC 12V</li> <li>Power light indicator</li> <li>OFF and TALK switch</li> <li>Dimensions: 75(W) x 40(H) x 96(D)mm</li> </ul>
Spare control box	Code MBI-10CBOX

### Accessories - Customer Units/ Speakers

Code	MBI-03
Function	3.5mm Stereo Phone Jack To suit MBI-05H

Code	MBI-11
Function	3.5mm Stereo Phone Jack To suit MBI-10

## DIGITAL UHF WIRELESS MICROPHONE

### Dual Channel, True Diversity Wireless Microphone - 32 channel with LCD display

Code	EW92KIT
Mode	Digital diversity
Sensitivity	<5dB @ S/N ≥ 110dB
Frequency	450-900MHz
Power	90-260VAC/DC 15V @ 400mA
Antenna	Receiver x 2
Display	LCD
Distance	100-180m
Kit Includes:	UHF Dual Receiver, 2 x Antennas, 2 x Transmitter Microphones, 1 x AC Adaptor

### Spare Microphone

Code	W101
RF Power Output	< 30mW
Volume Control	0~15 steps
Transmitting	Autoscan - PLL synthesized
Battery	9V
Duration	8hrs (continuous)
Modulation	±25KHz

## AUDIBLE & VISUAL ALARMS

**NEW**

LED Red Flasher	LED Flasher & Alarm	Buzzer Alarm	Strobe & Siren	Fire Horn/Strobe
Code: HC-901	Code: HC-902	Code: HC-903	Code: HPE-106A	Code: IM-86
12VDC 100mA	12VDC 250mA	12-30VDC 250mA	12VDC 250mA	24VDC@100mA
	100dB	125dB	100dB	112dB

**Bells - Red, 10 min duty cycle (not suitable for fire bells)**

Voltage	4" 100mm	6" 150mm	8" 200mm
12VDC	BL101	B15012DC	B20012DC
24VDC	BL102	B15024DC	B20024DC
24VAC	BL105	B15024	B20024
115VAC	BL103	B15110	B200110
230VAC	BL104	B15230	B200230
dB	95	109	115

**Fire Alarm Bells - Continuous rated**

Voltage	4" 100mm	6" 150mm	8" 200mm
12VDC	AH-9718*	HC-6012	HC-1012
24VDC	AH-9718*	HC-6024	HC-1024
24VAC	AH-9718*	-	-
115VAC	AH-9718*	HC-6120	HC-1120
230VAC	AH-9718*	HC-6220	HC-1220
dB	95	109	109

\*Add Voltage to Code  
Weatherproof Box IP65 for HC Bells only HC-BB

## AUDIBLE & VISUAL ALARMS

Break Glass	Manual Call Point - Fire	Manual Call Point - Gas Release	Manual Call Point - Door Release
Code	FD03	AH-0217-R	AH-0217-Y
Size (mm)	87 x 87 x 52	88 x 88 x 52	88 x 88 x 52

Manual Call Point	Gas Detector	Household Gas Detector	Carbon Monoxide Detector
Code	AH-9717	AHG-982-12B	LH-83
Size (mm)	140 x 45	120 x 70 x 35	120 x 70 x 40

<b>Power:</b> 24VDC/ 30mA When button is pressed, the fire alarm signal is activated. Phonejack and reset buttons behind cover.	<b>Power Type:</b> Control Panel, individual (110-230VAC adaptor) <b>Alarm Sound:</b> 85dB/m and above <b>Sensitivity:</b> 0.05-0.30% <b>Detection type:</b> natural gas & propane gas	<b>Power:</b> 230VAC 5W <b>Alarm Mode:</b> - flash & sound alarm - shut off gas valve - auto reset <b>Sensitivity:</b> 15% LEL <b>Detection Type:</b> Natural gas & LPG	<b>Power Supply:</b> 3" AA batteries (Incl.) <b>Sensitivity/Alarm Time:</b> Within 60-90 minutes @ 50ppm CO concentration; Within 10-40 minutes @ 100ppm CO concentration; Within 3 minutes @ 300ppm CO concentration; <b>Audibility:</b> 85dB@1m
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ALARMS & SPEAKERS

ALARMS & SPEAKERS