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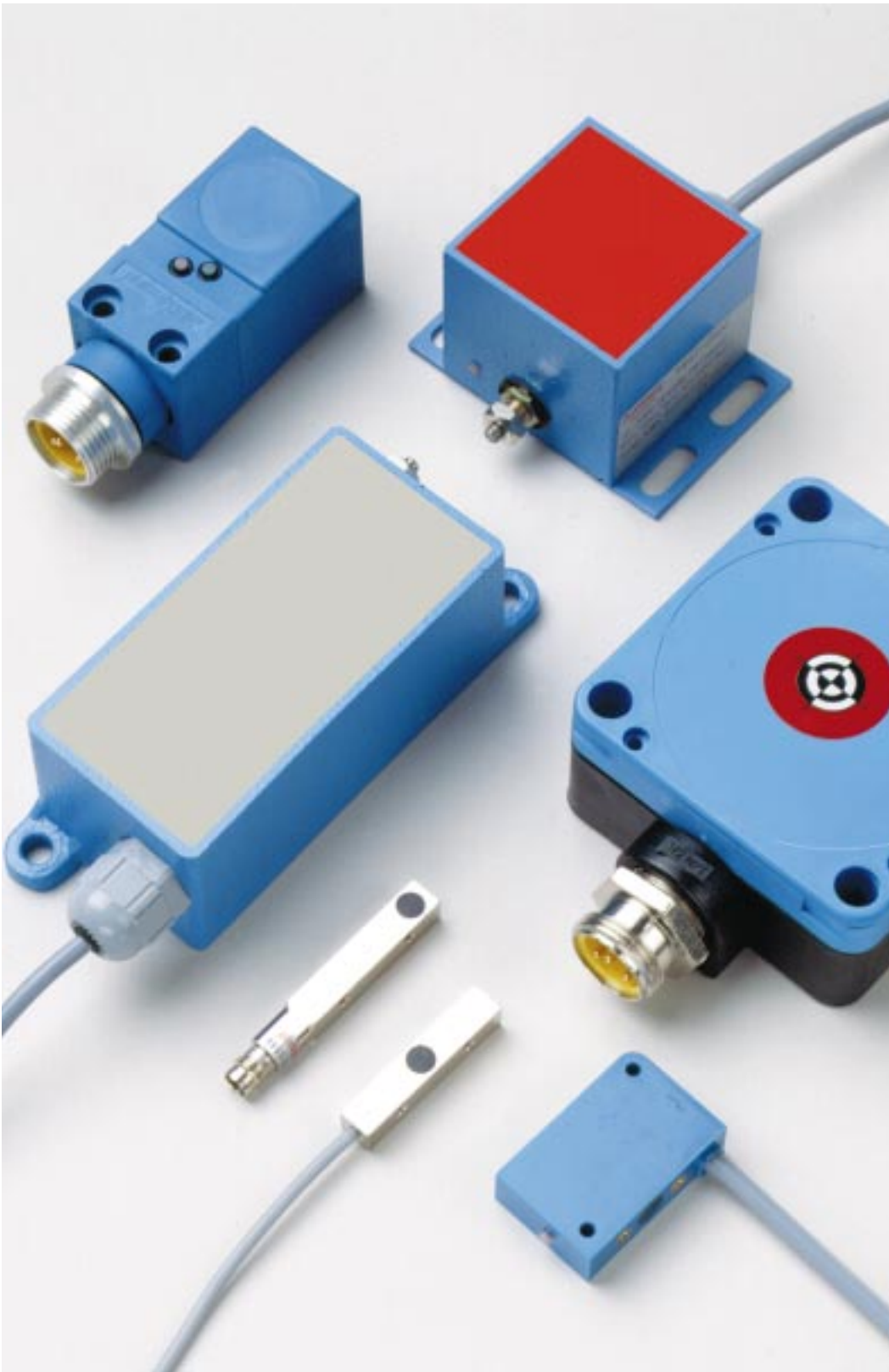
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All specifications subject to change without notice or obligation



## *Block Sensors*

## BLOCK INDUCTIVE PROXIMITY SENSORS

The Altech Inductive Proximity Block Sensor family has a wide selection of housings, with both fixed and adjustable sensing range. Units are available in DC, AC and AC/DC operating voltages.

## OUTPUTS NORMALLY OPEN (NO) OR NORMALLY CLOSED (NC)

AC – NO, NC. DC– NO, NC

## FLUSH MOUNT VS. NON-FLUSH MOUNT

Block Sensors that are flush mount and have electromagnetic fields directly in front of the sensing head may be mounted directly into metal without causing a false output. The sensing head must be clear of any non-target metal.

Block sensors that are Non-Flush mount have electromagnetic fields with a wide sensing angle. Therefore care must be taken to ensure that no non-target metal comes in contact with the sensing head.

See **Figure 11** for mounting details.

## OUTPUT CONNECTIONS

Block sensors are available in 2 meter fixed PVC output cables, quick disconnect connector, or 1/2" 14NPT hole opening for wiring to a terminal block. Please see selection guide on pages 82-83 and the product specification for more information.

## HOUSING MATERIAL

The following housing materials are used for housings in the Block Sensor family:

- Aluminum
- PBTP (GV-30)
- Trogamid T
- Aluminum/Trogamid T
- Nickel Plated Brass

## Sensing Distances – AC, DC, Block Sensors

Type	Voltage	Flush*	Partially Flush*	Non-Flush*
Mini Block	DC	1.5		
Standard	DC, AC	2		70
Weld Immune	DC, AC		13	2 - 15
Analog	DC			15 - 40

\*All Sensing Distances in mm.

## Operating Voltages – AC, DC Block Style

AC	20 - 250	90 - 250
DC	10 - 30	18 - 30

## Operating Current – AC, DC Block Style

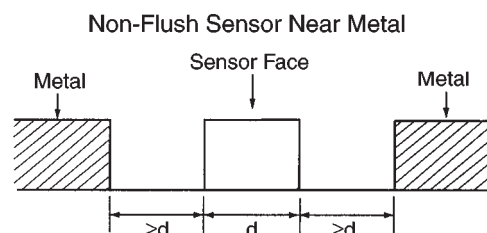
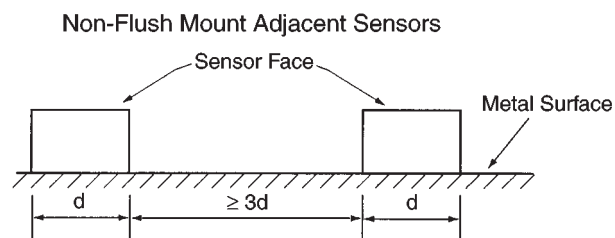
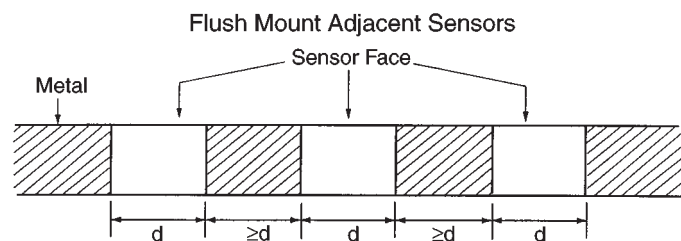
AC	180 mA	500 mA	
DC	5 mA	200 mA	400 mA

## Sensor Wiring Systems – AC, DC Block Style

AC	2-Wire	
DC	3-Wire	4-Wire

**Fig. 11**

## BLOCK SENSOR INSTALLATION



## DC BLOCK SENSORS – SELECTION GUIDE

Series	Size (mm)	Sensing Distance (mm)										Mounting			Function				
		1.5	2.0	4.0	6.0	13	15	40	50	70	Adjustable	PF	FL	NF	NPN	PNP	NO	NC	
<b>Mini Housing</b> 10-30V, 200 mA • LED on Connector Styles • Sensing Head at end or center	8 x 8 x 40	•													•		•	•	•
	<b>Standard Series</b> 10-30V, 200/400 mA • Plastic and Metal Housing • Large Sensing Distances • Adjustable Sensing for some models	53 x 22 x 9.5				•										•		•	•
	50 x 50 x 47							•				•			•		•	•	
	80 x 80 x 40							•	•			•	•		•		•	•	•
	100 x 50 x 40									•		•			•		•	•	•
	40 x 12 x 26		•	•											•	•	•	•	•
<b>Weld Immune</b> 10-30V, 200 mA • Protection from electro-magnetic interference • 2 LED's	34 x 34 x 80					•									•		•	•	
	<b>Analog Sensors</b> 10-30V, 5 mA • Output distance proportional to target distance • Excellent linearity ±3% • Determine target position information	80 x 80 x 40								•			•			•			

## AC BLOCK SENSORS – SELECTION GUIDE

Series	Size (mm)	Sensing Distance (mm)						Mounting			Function		Connection			
		2.0	4.0	13.0	20	40	50	PF	FL	NF	NO	NC	Cable	62	Terminal Block	
<b>Standard Series</b> 20-250V AC/ 90-250V • Metal and Plastic Housing • Large Sensing Distance	40 x 26 x 12	•							•		•	•	•			
	34 x 34 x 80			•				•			•	•	•			
	50 x 50 x 41				•				•		•	•	•	•		
	70 x 66 x 60					•					•	•	•	•		
	80 x 80 x 40						•			•	•	•	•	•		•
<b>Weld Immune</b> 20V-250V, 500 mA • Protection from electro-magnetic interference	34 x 34 x 80			•				•			•	•	•	•		

	Connection				No. of Wires	Housing Material	No. of LED's	Page
	Cable	Quick Disconnect		Terminal Block				
		59	64					
	•		•		3	Brass, Nickel Plated	1	84
	•				3	Tragamid T	1	88
	•	•			3	Aluminum	1	88
				•	3	PBTP	2	91
	•	•			3	Aluminum	1	90
	•		•	•	3	Trogamid T	1	86
	•				3	PBTP	2	93
				•	3	PBTP	0	92

	No. of Wires*	Housing Construction	No. of LED's	Page
	2	Tragamid T	1	94
	2	PBTP	2	94
	2	Aluminum	2	95
	2	Aluminum	1	95
	2	PBTP	2	95
	2	PBTP	2	96





\* A third wire is used for ground on metal sensors

## DC - 3 WIRE – MINI BLOCK HOUSING

Brass, Nickel Plated (BN),  
Block, 10-30V, 200mA  
active surface at front or  
centrally located

- Connector styles have LED for output energized
- Carries  $\text{C}\epsilon$  mark

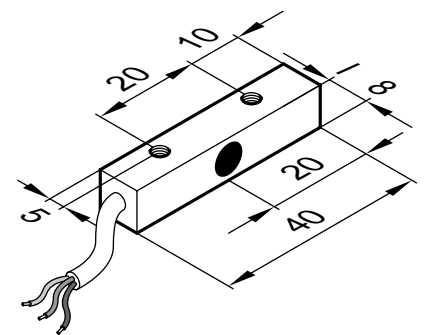
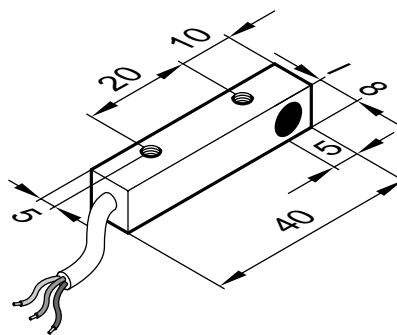
- IEC (529) IP67 (NEMA 1, 3, 4, 6, 12, 13) Protection
- Short Circuit Protection for PNP types
- Overload Protection
- Reverse Polarity Protection
- Wire Break Resistance
- Temperature Range: -25 to 70°C (-13 to 158°F)

Sensing Distance	Flush Mount Active Surface in Front		Flush Mount Active Surface Centered	
	1.5mm (.059 in.)		1.5mm (.059)	
Cable or Connector Style Cat. No.	Cable	64	Cable	64
<b>PNP</b> Normally Open 	9861-1000	9861-1064	9861-1100	9861-1164
	Normally Closed 			
<b>NPN</b> Normally Open 				
	Normally Closed 			
Ripple Voltage	$\leq 10\%$		$\leq 10\%$	
Voltage Range	10V - 30V		10V - 30V	
Supply Current	$\leq 9$ mA		$\leq 9$ mA	
Max. Load Current	200 mA		200 mA	
Voltage Drop Across Sensor	$\leq 1$ V		$\leq 1$ V	
Max. Leakage Current	$\leq 10$ $\mu$ A		$\leq 10$ $\mu$ A	
Switching Frequency	2000 Hz		2000 Hz	
Hysteresis	$\leq 15\%$		$\leq 15\%$	
Temperature Drift	$\leq 10\%$		$\leq 10\%$	
Repeatability	.15mm (.006 in.)		.15mm (.006 in.)	

Note: Sensor dimensions in mm.

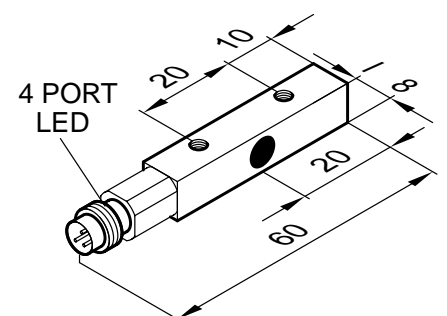
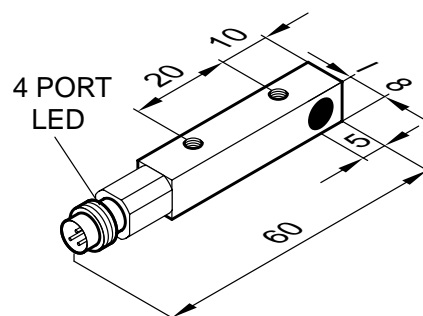
### Fixed Cable

PVC 2m (6ft. 6in.). For 5m (16 ft. 5 in.) cable length, change the last two digits of the part number to 02. For other cable lengths and/or PUR cable, please consult Altech.



### 64 Style Connector

3-pin, Pico style, 8mm (.31 in.).



## Metric/in. Conversion Table

1.0 mm = .04 in.	20.0 mm = .78 in.
5.0 mm = .19 in.	40.0 mm = 1.57 in.
8.0 mm = .31 in.	60.0 mm = 2.36 in.
10.0 mm = .39 in.	

This table converts millimeters to inches in reference to the illustrations included on these pages

## Accessories

### 2 meter (6 ft. 6 in.) DC Cable Assemblies for Quick Disconnect Sensors

64 Connector	8000-5220	Straight
64 Connector	8000-5230	PVC, Right Angle, 2 LED, PNP
64 Connector	8000-5240	PVC, Right Angle, 2 LED, NPN

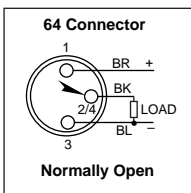
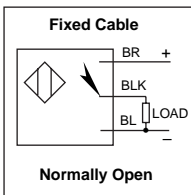
*Change last digit of connector number to 5 for 5 meter cable*

*Refer to pages 116-121 for more cable information*

## Wiring Diagrams

Note: Wire colors are applicable on cable purchased from Altech

### PNP





**DC - 3 WIRE**  
**PLASTIC BLOCK HOUSING**  
**10-30V, 400mA**  
**LED for Output Energized**

- **Block Sensors feature large sensing distances**
- **Carries  $\text{C}\epsilon$  mark**

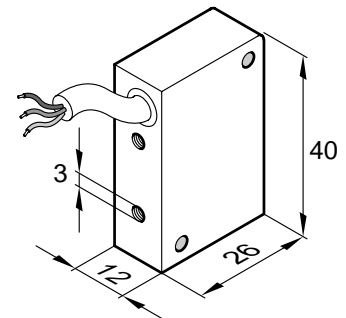
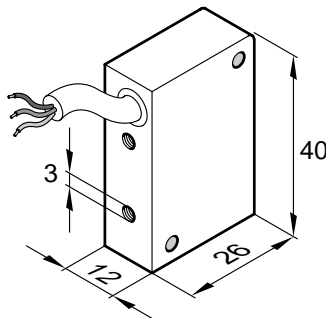
- IEC(529) IP67 (NEMA 1, 3, 4, 6, 12, 13) Protection
- Short Circuit Protection
- Overload Protection
- Reverse Polarity Protection
- Wire Break Resistance
- Temperature Range: -25 to 70°C (-13 to 158°F)

40 x 26 x 12mm Block Flush Mount			40 x 26 x 12mm Block Non-Flush Mount		
Sensing Distance 2mm (.08 in.)			4mm (.16 in.)		
Cable or Connector Style	Cat. No.	Cable	64	Cable	64
<b>PNP</b>	Normally Open	↖	9863-0400	9863-0464	9863-2700
	Normally Closed	↙			9863-2764
<b>NPN</b>	Normally Open	↖	9863-2100	9863-2164	9863-2900
	Normally Closed	↙			9863-2964
Ripple Voltage		≤10%		≤10%	
Voltage Range		10v - 30V		10v - 30V	
Supply Current		≤18mA		≤18mA	
Maximum Load Current		400 mA (n.o.) 200 mA (n.c.)		400 mA (n.o.) 200 mA (n.c.)	
Voltage Drop Across Sensor		≤2.2V		≤2.2V	
Maximum Leakage Current		≤10μA		≤10μA	
Switching Frequency		800Hz		800Hz	
Hysteresis		≤15%		≤15%	
Temperature Drift		≤10%		≤10%	
Repeatability		.20mm (.008 in.)		.20mm (.008 in.)	
Housing Material		Trogamid T		Trogamid T	

Note: Sensor dimensions in m.

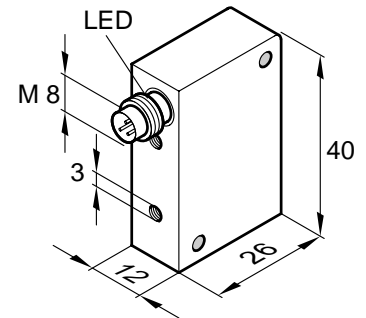
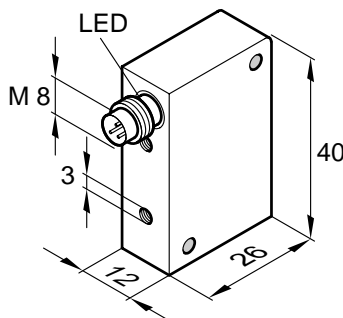
**Fixed Cable**

PVC 2m (6ft. 6in.). For 5m (16 ft. 5 in.) cable length, change the last two digits of the part number to 02. For other cable lengths and/or PUR cable, please consult Altech.



**64 Style Connector**

3-pin, Pico style, 8mm (.310 in.).





## Metric/in. Conversion Table

3.0 mm = .11 in.	26.0 mm = 1.02 in.
8.0 mm = .31 in.	40.0 mm = 1.57 in.
12.0 mm = .47 in.	

This table converts millimeters to inches in reference to the illustrations included on these pages

## Accessories

### 2 meter (6 ft. 6 in.) DC Cable Assemblies for Quick Disconnect Sensors

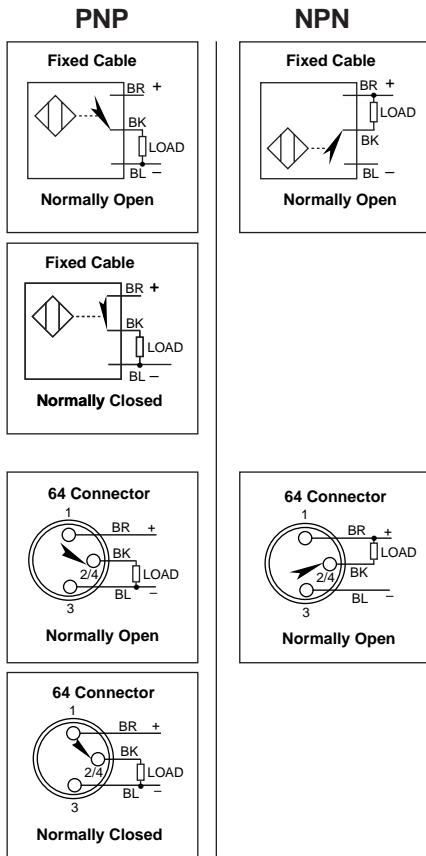
- 64 Connector 8000-5220 Straight
- 64 Connector 8000-5230 PVC, Right Angle, 2LED, PNP
- 64 Connector 8000-5240 PVC, Right Angle, 2LED, NPN

Change last digit of connector number to 5 for 5 meter cable

Refer to pages 116-121 for more cable information

## Wiring Diagrams




Note: Wire colors are applicable to cable purchased from Altech



**DC - 3 WIRE – METAL & PLASTIC BLOCK HOUSING**  
**10-30V, 400mA**  
**LED for Output Energized**

- **Block Sensors feature large sensing distances**
- **Some models feature adjustable sensing distance**
- **Carries C mark**

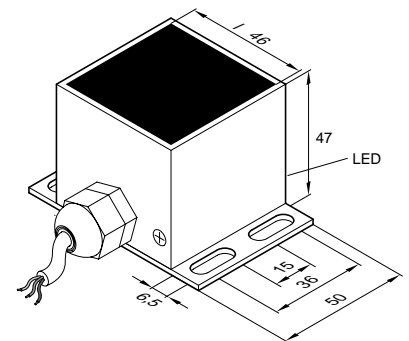
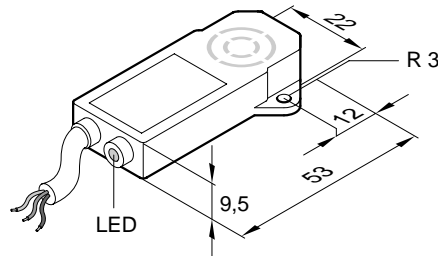
- IEC(529) IP67 (NEMA 1, 3, 4, 6, 12, 13) Protection
- Short Circuit Protection
- Overload Protection
- Reverse Polarity Protection
- Wire Break Resistance
- Temperature Range: -25 to 70°C (-13 to 158°F)

53 x 22 x 9.5mm Block Flush Mount		50 x 50 x 47mm Block Flush Mount		
Sensing Distance		Adjustable to 40mm (1.57 in.)		
Cable or Connector Style	Cat. No.	Cable	59	65
<b>PNP</b>	Normally Open 	9864-0200	9807-0900	9807-0959
	Normally Closed 			
<b>NPN</b>	Normally Open 	9807-0100	9807-0159	9807-0165
	Normally Closed 			
Ripple Voltage		≤10%	≤10%	
Voltage Range		10v - 30V	10v - 30V	
Supply Current		≤18mA	≤18mA	
Maximum Load Current		400 mA	400 mA	
Voltage Drop Across Sensor		≤2.4V	≤2.4V	
Maximum Leakage Current		≤10μ	≤10μ	
Switching Frequency		100Hz	300Hz	
Hysteresis		≤15%	≤15%	
Temperature Drift		≤10%	≤10%	
Repeatability		.3mm (.012 in.)	2mm (.08 in.)	
Housing Material		Trogamid T	Aluminum	

Note: Sensor dimensions in m

**Fixed Cable**

PVC 2m (6ft. 6in.). For 5m (16 ft. 5 in.) cable length, change the last two digits of the part number to 02. For other cable lengths and/or PUR cable, please consult Altech.



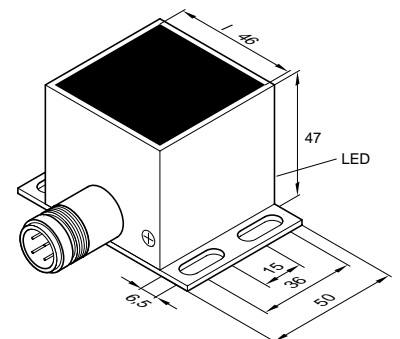
**59 Style Connector**

4-pin, Metal, 19mm (.75 in.) device.

**\* Also available**

**in a 65 Style Connector**

4-pin Micro style, 12mm (.47 in.). Consult Altech.



## Metric/in. Conversion Table

3.0 mm = .11 in.	36.0 mm = 1.41 in.
6.5 mm = .25 in.	46.0 mm = 1.81 in.
9.5 mm = .37 in.	47.0 mm = 1.85 in.
12.0 mm = .47 in.	50.0 mm = 1.96 in.
15.0 mm = .59 in.	53.0 mm = 2.08 in.
22.0 mm = .86 in.	

This table converts millimeters to inches in reference to the illustrations included on these pages

## Accessories

### 2 meter (6 ft. 6 in.) DC Cable Assemblies for Quick Disconnect Sensors

59 Connector 9512-0200 PVC, Straight

*Change last digit of connector number to 2 for 5 meter cable*

65 Connector 8000-5110 PVC, Straight

65 Connector 8000-5120 PVC, Right Angle

65 Connector 8000-5150 PVC, Right Angle, 2LED, NPN

65 Connector 8000-5160 PVC, Right Angle, 2LED, PNP

*Change last digit of connector number to 5 for 5 meter cable*

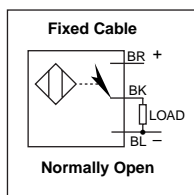
*Refer to pages 116-121 for more cable information*

## Mounting Brackets – see Pages 114-115

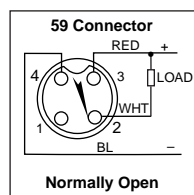
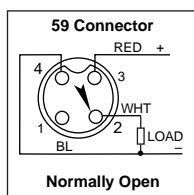
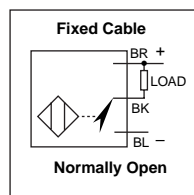
## Wiring Diagrams

Note: Wire colors are applicable to cable purchased from Altech

### PNP



### NPN



## DC - 3 WIRE METAL BLOCK HOUSING 10-30V, 400mA

Selection of operating frequency allows units to be mounted adjacently without interference

- **Block Sensors feature large sensing distances**
- **Some models feature adjustable sensing distance**
- **LED for Output Energized**
- **Carries C€ mark**

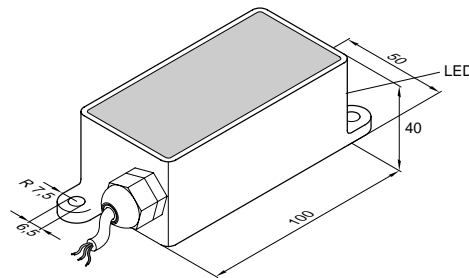
### 100 x 50 x 40mm Block Non-Flush Mount Sensing Distance Adjustable to 70mm (2.76 in.)

Sensing Distance		Adjustable to 70mm (2.76 in.)	
Cable or Connector Style	Cat. No.	Cable	59
<b>PNP</b>	Normally Open	9809-0100 (f1)*	9809-0159 (f1)*
		9809-3400 (f2)*	9809-3459 (f2)*
		9809-3500 (f3)*	9809-3559 (f3)*
<b>NPN</b>	Normally Open	9809-0300 (f1)*	9809-0359 (f1)*
		9809-0400 (f2)*	9809-0459 (f2)*
		9809-0500 (f3)*	9809-0559 (f3)*
Ripple Voltage		≤10%	≤10%
Voltage Range		10V - 30V	10V - 30V
Supply Current		≤12 mA	≤12 mA
Maximum Load Current		400 mA	400 mA
Voltage Drop Across Sensor		≤2.4V	≤2.4V
Maximum Leakage Current		≤10 μA	≤10 μA
Switching Frequency		300Hz	300Hz
Hysteresis		≤15%	≤15%
Temperature Drift		≤10%	≤10%
Repeatability		7mm (.28 in.)	7mm (.028 in.)
Housing Material		Aluminum	Aluminum
LED		One LED	One LED

Note: Sensor dimensions in mm.

#### Fixed Cable

PVC 2m (6ft. 6in.). For 5m (16 ft. 5 in.) cable length, change the last two digits of the part number to 02. For other cable lengths and/or PUR cable, please consult Altech.

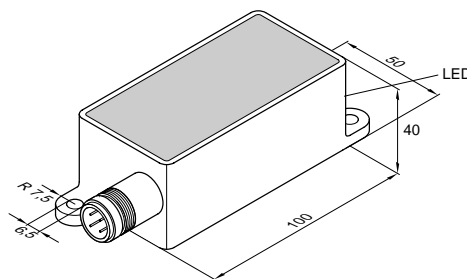


#### 59 Style Connector

4-pin, Metal, 19mm (.75 in.) device

#### \* Also available in a 65 Style Connector

4-pin Micro style, 12mm (.47 in.). Consult Altech.



- IEC(529) IP67 (NEMA 1, 3, 4, 6, 12, 13) Protection
- Short Circuit Protection
- Overload Protection
- Reverse Polarity Protection
- Wire Break Resistance
- Temperature Range: -25 to 70°C (-13 to 158°F)

\* For operation where units will be located adjacently, models with different operating frequencies must be selected

#### Metric/in. Conversion Table

6.5 mm = .25 in.	50 mm = 1.96 in.
7.5 mm = .29 in.	100 mm = 3.93 in.
40mm = 1.57 in.	

This table converts millimeters to inches in reference to the illustrations included on these pages

#### Accessories

##### 2 meter (6 ft. 6 in.) DC Cable Assemblies for Quick Disconnect Sensors

59 Connector 9512-0200 PVC Straight

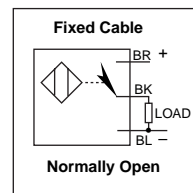
Change last digit of connector number to 2 for 5 meter cable

Refer to pages 116-121 for more cable information

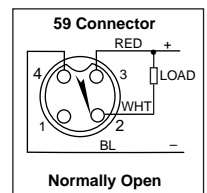
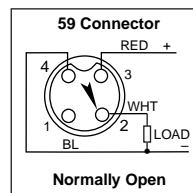
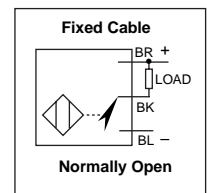
#### Wiring Diagrams

Note: Wire colors are applicable to cable purchased from Altech

##### PNP



##### NPN



**DC - 3 WIRE  
PLASTIC BLOCK HOUSING**  
10-30V, 200mA  
2 LEDs for Operating Voltage  
and Output Energized

- **Block Sensors feature large sensing distances**
- **Complementary Outputs**
- **Carries C mark**

- IEC(529) IP67 (NEMA 1, 3, 4, 6, 12, 13) Protection
- Short Circuit Protection
- Overload Protection
- Reverse Polarity Protection
- Wire Break Resistance
- Temperature Range: -25 to 70°C (-13 to 158°F)

80 x 80 x 40mm Block		
	Flush Mount	Non-Flush Mount
Sensing Distance	40mm (1.57 in.)	50mm (1.97 in.)
Cable or Connector Style Cat. No.	Screw Terminals	Screw Terminals
<b>PNP (Complementary NO/NC)</b>	9865-1133	9865-1033
<b>NPN (Complementary NO/NC)</b>		
Ripple Voltage	≤10%	≤10%
Voltage Range	10V - 30V	10V - 30V
Supply Current	≤22 mA	≤22 mA
Maximum Load Current	200 mA	200 mA
Voltage Drop Across Sensor	≤2.4V	≤2.4V
Maximum Leakage Current	≤10 μA	≤10 μA
Switching Frequency	100Hz	300Hz
Hysteresis	≤10%	≤15%
Temperature Drift	≤10%	≤10%
Repeatability	2mm (.08 in.)	2.5mm (.10 in.)
Housing Material	PBTP	PBTP
LED	Two LEDs	Two LEDs

**Metric/in. Conversion Table**

11 mm	=	.43 in.
40 mm	=	1.57 in.
80 mm	=	3.15 in.

This table converts millimeters to inches in reference to the illustrations included on these pages

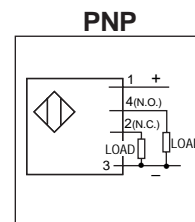
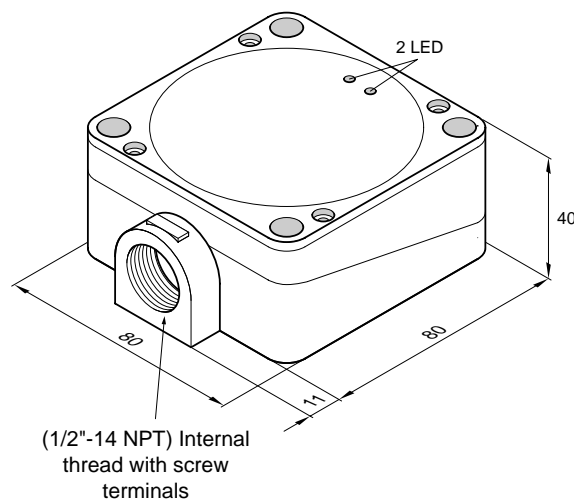
*Note: Sensor dimensions in mm.*

**Wiring Diagrams**

Note: Wire colors are applicable to cable purchased from Altech

**Screw Terminals**

Screw terminals are located internally in housing for wire connections.



**DC ANALOG SENSORS  
BLOCK SERIES**  
**Plastic (PBTP) Housing**  
**18 - 30V DC**  
**Analog Output 1V - 9V Analog**

- *Output voltage proportional to target distance*
- *Ideal for determining position information*
- *Excellent linearity  $\pm 3\%$*
- *Carries  $\text{C}\epsilon$  mark*

- IEC(529) IP67 (NEMA 1, 3, 4, 6, 12, 13) Protection
- Short Circuit Protection
- Overload Protection
- Temperature Range: -25 to 70°C (-13 to 158°F)

**80 x 80 x 40mm Block Non-Flush Mount**

<b>Sensing Distance</b>	<b>15mm (.59 in.) to 40mm (1.57 in.)</b>
<b>Cable or Connector Style Cat. No.</b>	<b>Screw Terminals</b>
	9814-2133
<b>Voltage Range</b>	18V - 30V
<b>Supply Current</b>	$\leq 10$ mA
<b>Maximum Load Current</b>	5 mA
<b>Maximum Switching Frequency</b>	20Hz
<b>Temperature Drift</b>	$\leq 0.3V$
<b>Repeatability</b>	$\leq 1\%$
<b>Output Voltage Range</b>	1-9V DC
<b>Housing Material</b>	PBTP

**Additional Information**

The Analog output voltage can be digitized by means of the 8100-2100 Switching Unit and the Modules 8100-2400/-2500

**Metric/in. Conversion Table**

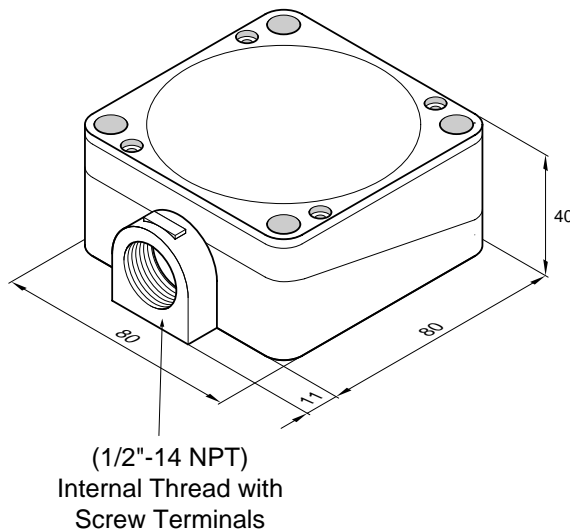
11.0 mm = .43 in.
40.0 mm = 1.57 in.
80.0 mm = 3.15 in.

This table converts millimeters to inches in reference to the illustrations included on these pages

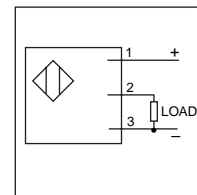
*Note: Sensor dimensions in mm.*

**Screw Terminals**

Screw terminals are located internally for wire connections.



**Wiring Diagrams**



**DC - 3 WIRE WELD IMMUNE  
BLOCK, Plastic (PBTP)  
10-30V, 200mA  
2 LEDs for Operating  
Voltage and Output Energized**

- *Circuitry that protects for electromagnetic interference*
- *Carries CЄ mark*

- IEC(529) IP67 (NEMA 1, 3, 4, 6, 12, 13) Protection
- Short Circuit Protection
- Overload Protection
- Reverse Polarity Protection
- Wire Break Resistance
- Temperature Range: -25 to 70°C (-13 to 158°F)

**34 x 34 x 80mm Block  
Partially Flush Mount**

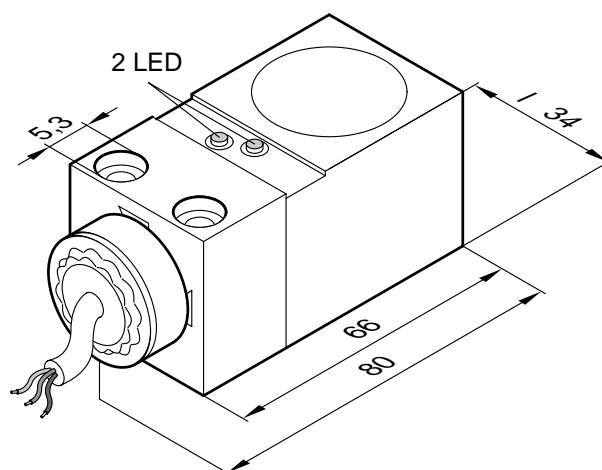
Sensing Distance		13mm (.51 in.)	
Cable or Connector Style	Cat. No.	Cable	Cable
<b>PNP</b>	Normally Open	9863-3800	9863-3900
	Normally Closed		
<b>NPN</b>	Normally Open	9863-3800	9863-3900
	Normally Closed		
Ripple Voltage		≤10%	≤10%
Voltage Range		10V - 30V	10V - 30V
Supply Current		≤18 mA	≤18 mA
Maximum Load Current		200 mA	200 mA
Voltage Drop Across Sensor		≤2.4V	≤2.4V
Maximum Leakage Current		≤10 μA	≤10 μA
Switching Frequency		15Hz	15Hz
Hysteresis		≤15%	≤15%
Temperature Drift		≤10%	≤10%
Repeatability		1.3mm (.051 in.)	1.3mm (.051 in.)
Housing Material		PBTP (GV 30)	PBTP (GV 30)
Sensing Head Position		Front	Top/Side Rotatable
LED		Two LEDs	Two LEDs

**Metric/in. Conversion Table**

1.0 mm = .04 in.	66.0 mm = 2.6 in.
5.3 mm = .21 in.	80.0 mm = 3.5 in.
34.0 mm = 1.57 in.	

This table converts millimeters to inches in reference to the illustrations included on these pages

*Note: Sensor dimensions in mm.*

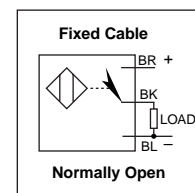


**Fixed Cable**

PVC 2m (6 ft. 6 in.). Other cable lengths available, please consult Altech.

**Wiring Diagrams**

Note: Wire colors are applicable to cable purchased from Altech





## AC - 2 WIRE BLOCK METAL & PLASTIC HOUSING

Models include:  
90-250V AC, 180 mA,  
20-250V AC, 500mA

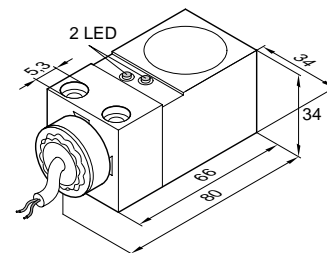
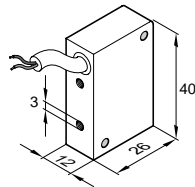
- One LED models for Output Energized
- Two LED models for Operating Voltage and Output Energized
- Large sensing distances
- Carries  $\text{C}$  mark

- IEC (529) IP67 (NEMA 1, 3, 4, 6, 12, 13) Protection
- Temperature Range:  
-25 to 50°C (-13 to 122°F)  
-25 to 70°C (-13 to 158°F)

Sensing Distance	40 x 26 x 12mm Block Flush Mount		34 x 34 x 80mm Block Partially Flush Mount	
	2mm (.08 in.)		13mm (.51 in.)	
Cable or Connector Style Cat. No.	Cable	Cable	Cable	Cable
Normally Open 	9853-2400	9853-3800	9853-3900	9853-3900
Normally Closed 	9853-2500	9853-3600	9853-3700	9853-3700
Voltage Range	90V-250V AC	20V - 250V AC	20V - 250V	20V - 250V
Operating Frequency	50/60Hz	50/60Hz	50/60Hz	50/60Hz
Supply Current	≤5 mA	≤2 mA	≤2 mA	≤2 mA
Max. Load Current	180 mA	500 mA	500 mA	500 mA
Voltage Drop Across Sensor	≤12V	≤5V	≤5V	≤5V
Max. Leakage Current	≤3mA/230V ≤1.5mA/110V	≤2mA	≤2mA	≤2mA
Short Term Current (20 ms, 1Hz)	1A	8A	8A	8A
Switching Frequency	25Hz	15Hz	15Hz	15Hz
Hysteresis	≤15%	≤15%	≤15%	≤15%
Temperature Drift	≤10%	≤10%	≤10%	≤10%
Repeatability	.2mm (.008 in.)	1.3mm (.051 in.)	1.3mm (.051 in.)	1.3mm (.051 in.)
Housing Material	Trogamid T	PBTP (GV 30)	PBTP (GV 30)	PBTP (GV 30)
Sensing Head Position	-	Active Surface in Front	Active Surface on Top - Rotatable	Active Surface on Top - Rotatable

### Fixed Cable

PVC 2m (6ft. 6in.). For 5m (16 ft. 5 in.) cable length, change the last two digits of the part number to 02. For other cable lengths and/or PUR cable, please consult Altech.



### 62 Connector

3-Pin Mini Style, 25.4mm (1.0 in.).

### Screw Terminals

Screw terminals are located internally in housing for wire connection.

### Metric/in. Conversion Table

3.0 mm = 0.1 in.	50.0 mm = 1.96 in.
5.3 mm = 0.2 in.	60.0 mm = 2.36 in.
6.5 mm = .25 in.	64.0 mm = 2.52 in.
12.0 mm = .47 in.	66.0 mm = 2.59 in.
24.0 mm = .94 in.	70.0 mm = 2.75 in.
26.0 mm = 1.02 in.	80.0 mm = 3.15 in.
34.0 mm = 1.33 in.	90.0 mm = 3.54 in.
40.0 mm = 1.57 in.	110.0 mm = 4.33 in.
41.0 mm = 1.61 in.	
45.0 mm = 1.77 in.	

This table converts millimeters to inches in reference to the illustrations included on these pages

### Accessories

#### 2 meter (6 ft. 6 in.) AC Cable Assemblies for Quick Disconnect Sensors

62 Connector 8000-5030 PVC Straight

*Change last digit of connector number to 5 for 5 meter cable*

Refer to pages 116-121 for more cable information

Mounting Brackets – see Pages 114-115

#### 50 x 50 x 41mm Block Flush Mount

#### 70 x 66 x 60mm Block Flush Mount

#### 80 x 80 x 40mm Block Non-Flush Mount

20mm (.79 in.)

40mm (1.57 in.)

50mm (1.97 in.)

62

Cable

Screw Terminals

9855-0062

9803-3000

9855-1000

9855-1100

20V - 250V

20V - 250V

20V - 250V

50/60Hz

50/60Hz

50/60Hz

≤2 mA

≤2 mA

≤2 mA

500 mA

500 mA

500 mA

≤5V

≤5V

≤5V

≤2 mA

≤2 mA

≤2 mA

8A

8A

8A

15Hz

25Hz

10Hz

≤15%

≤15%

≤15%

≤10%

≤10%

≤10%

2mm (.079 in.)

4mm (1.57 in.)

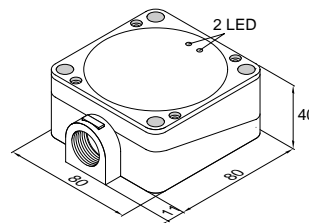
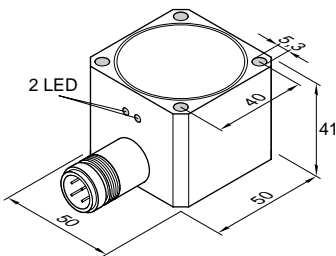
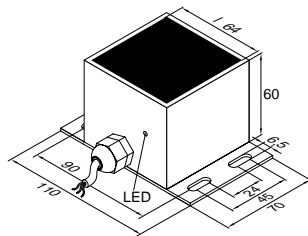
5mm (.197 in.)

Aluminum

Aluminum

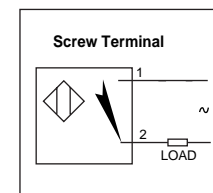
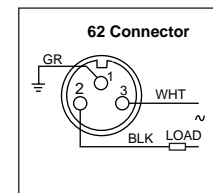
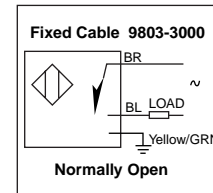
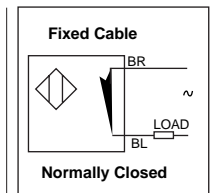
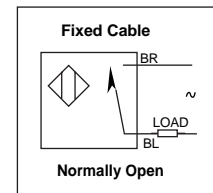
PBTP (GV 30)

Note: Sensor dimensions in mm.



### Wiring Diagrams

Note: Wire colors are applicable to cable purchased from Altech





**AC - 2 WIRE WELD IMMUNE  
BLOCK, Plastic Housing  
20-250V AC, 500mA  
2 LEDs for Operating  
Voltage and Output Energized**

• **Circuitry that protects for electromagnetic interference**

• **Carries C mark**

- IEC(529) IP67 (NEMA 1, 3, 4, 6, 12, 13) Protection
- Temperature Range: -25 to 70°C (-13 to 158°F)

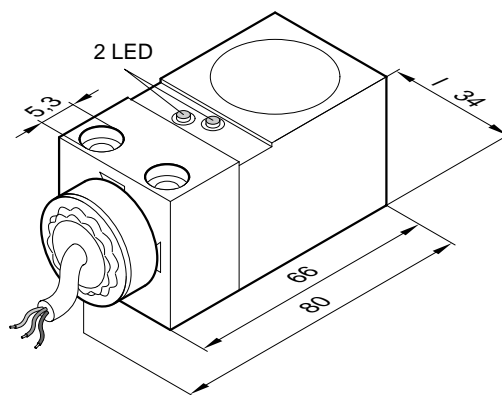
**34 x 34 x 80mm Block  
Partially Flush Mount**

Sensing Distance		13mm (.51 in.)	
Cable or Connector Style	Cat. No.	Cable	Cable
Normally Open		9853-3800	9853-3900
Normally Closed		9853-3600	9853-3700
Voltage Range		20V - 250V AC	20V - 250V AC
Operating Frequency		50/60Hz	50/60Hz
Supply Current		≤2 mA	≤2 mA
Maximum Load Current		500 mA	500 mA
Voltage Drop Across Sensor		≤5V	≤5V
Maximum Leakage Current		≤2 mA	≤2 mA
Short Term Current (20 ms, 1Hz)		8A	8A
Switching Frequency		15Hz	15Hz
Hysteresis		≤15%	≤15%
Temperature Drift		≤10%	≤10%
Repeatability		.65mm (.026 in.)	.65mm (.026 in.)
Housing Material		PBTP (GV 30)	PBTP (GV 30)
Sensing Head Position		Front	Top/Side Rotatable

*Note: Sensor dimensions in mm.*

**Fixed Cable**

PVC 2m (6ft. 6in.). For 5m (16 ft. 5 in.) cable length, change the last two digits of the part number to 02. For other cable lengths and/or PUR cable, please consult Altech.



**Metric/in. Conversion Table**

1.0 mm = .04 in.	66.0 mm = 2.6 in.
5.3 mm = .21 in.	80.0 mm = 3.5 in.
34.0 mm = 1.57 in.	

This table converts millimeters to inches in reference to the illustrations included on these pages

**Accessories**

**Mounting Brackets – see Pages 114-115**

**Wiring Diagrams**

Note: Wire colors are applicable to cable purchased from Altech

