

Hanwell IceSpy

Sensor Options

The **Hanwell IceSpy** Sensor options technical data sheet details all the sensors available to use with the Hanwell IceSpy Series products.

Please select your product first from the relevant Hanwell IceSpy product datasheets, then add your required sensor appropriately as below. *Please note that sensor temperature ranges may be restricted by the instrument it is used with. Please check the relevant instrument data sheet.*

Note - This datasheet covers our standard and readily available cable lengths. Other lengths may be available than those listed. Please contact Hanwell Solutions with your requirements.



Temperature



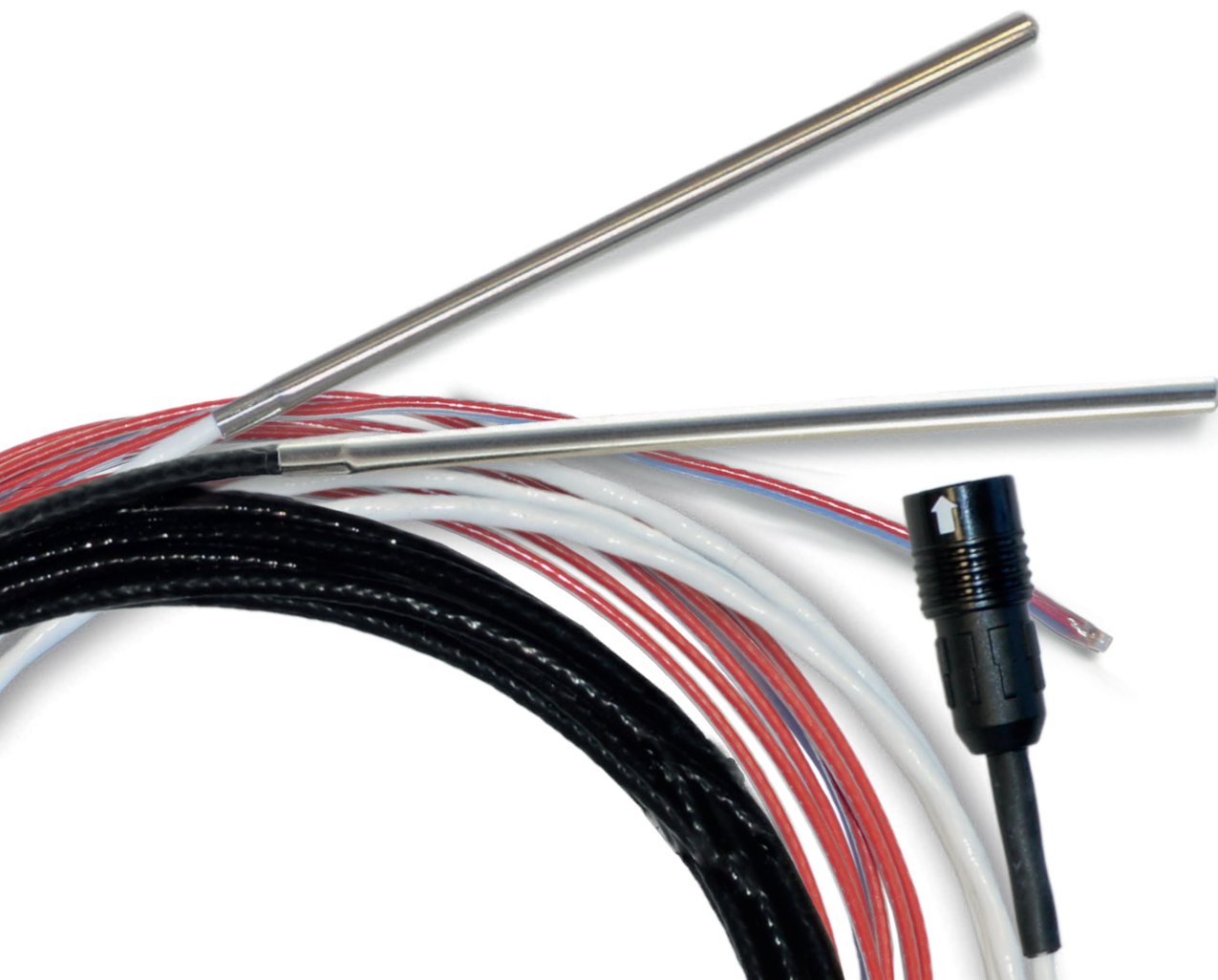
Humidity



Carbon
Dioxide



Airflow



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Version 8 - EC26588

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Sensor Options

		Probe Family								
Product family	Unit Type	Thermistor	Thermocouple		PT100	Door	Analogue	Airflow	CO ₂	RH/T
		IN-TH	J043	J044	IN-PT	IN-DC	IN-LSC	IN-AF	IN-CO2	IN-HUM
IN-TH	External thermistor	✓								
IN-THD	External thermistor + door	✓				✓				
IN-TT	Thermocouple		✓	✓						
IN-TTD	Thermocouple + door		✓	✓		✓				
IN-PT	PT100				✓					
IN-PTD	PT100 + door				✓	✓				
IN-RH	RH/T									✓
IN-VT001	0-1V						✓			
IN-VT002	0-5V						✓	✓	✓	
IN-VT003	0-10V						✓			
IN-MA001	4-20mA						✓			
Hanwell Lite:										
IN-WT	External thermistor (+ door *)	✓				✓				

* If door variant

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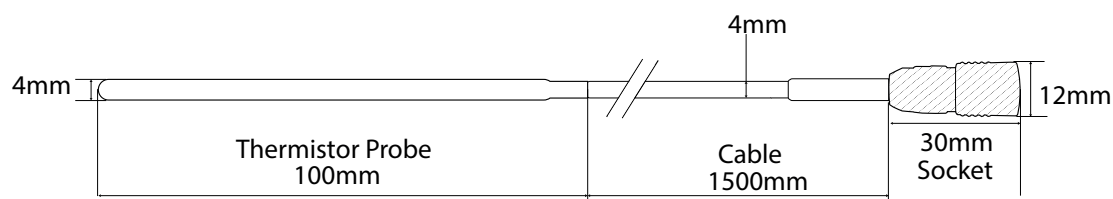
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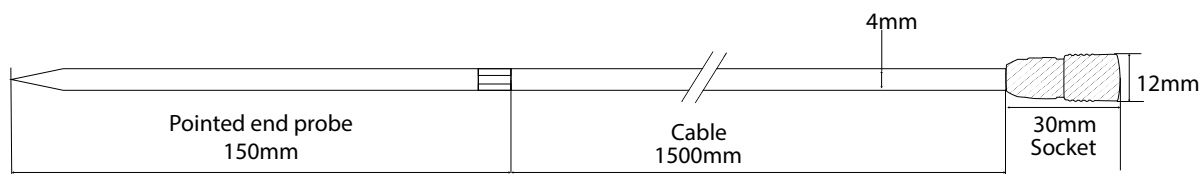
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IN-TH Thermistor Probes

Standard	Part codes	Specifications
Non-waterproof		Probe diameter 4mm
1.5 metre cable	IN-TH150	Probe operating range -40°C to +100°C
3 metre cable	IN-TH300	Accuracy +/- 0.5°C
Waterproof		Long term drift < 0.1°C per year
1.5 metre cable	IN-TH150-WP	IP rating IP68 (Waterproof version only)
3 metre cable	IN-TH300-WP	



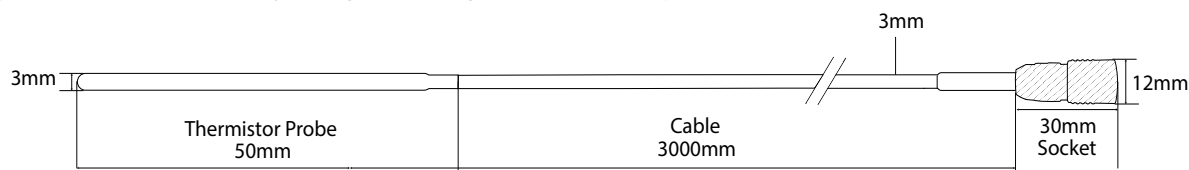
Pointed	Part codes	Specifications
Non-waterproof		Probe diameter 4mm (pointed end)
1.5 metre cable	IN-TH150-P	Probe operating range -40°C to +100°C
Waterproof		Accuracy +/- 0.5°C
1.5 metre cable	IN-TH150-P-WP	Long term drift < 0.1°C per year
		IP rating IP68 (Waterproof version only)



Thin	Part codes	Specifications
Non-waterproof		Probe diameter 3mm
3 metre cable	IN-TH300-3	Probe operating range -40°C to +100°C
Waterproof		Accuracy +/- 0.5°C
3 metre cable	IN-TH300-3-WP	Long term drift < 0.1°C per year
		IP rating IP68 (Waterproof version only)

*additional lengths available upon request.

(Thin probe and cable for easy routing around fridge/freezer door seals)



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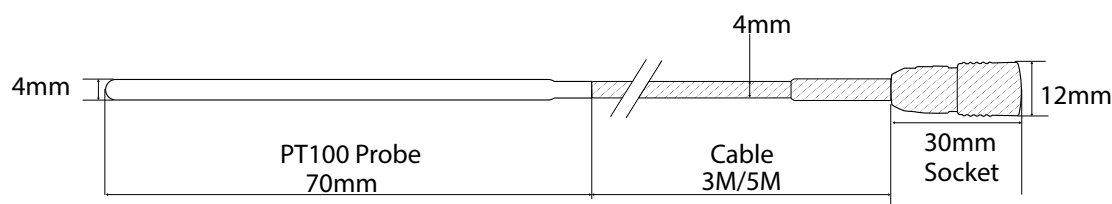
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PT100 Probes

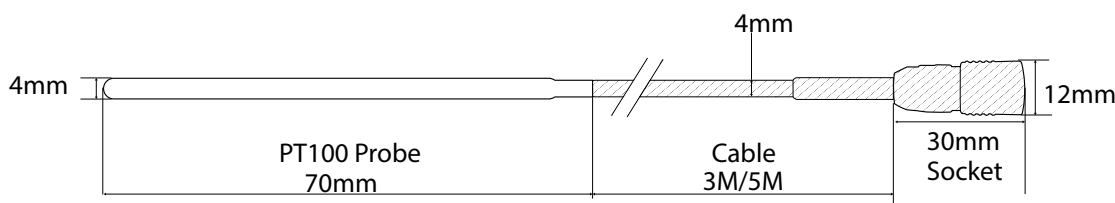
IN-PT143	Part codes	Specifications
Non-waterproof		Type Class A Flat film
3 metre cable	IN-PT143	Probe diameter 4mm
5 metre cable	IN-PT145	Probe operating range -90°C to +250°C
Waterproof		Accuracy -50°C to +250°C $\pm(0.15+0.002 \cdot t)^{\circ}\text{C}$
3 metre cable	IN-PT143-WP	Accuracy Below -50°C $\pm(0.3+0.005 \cdot t)^{\circ}\text{C}$
5 metre cable	IN-PT145-WP	Long term drift < 0.1°C per year *dependent on conditions of use
		IP Rating IP68 (Waterproof version only)

*additional lengths available upon request.



IN-PT143	Part codes	Specifications
Non-waterproof		Type Class A Wire wound
3 metre cable	IN-PT143-CAL	Probe diameter 4mm
5 metre cable	IN-PT145-CAL	Probe operating range -200°C to +250°C
Waterproof		Accuracy -100°C to +250°C $\pm(0.15+0.002 \cdot t)^{\circ}\text{C}$
3 metre cable	IN-PT143-CAL-WP	Accuracy Below -100°C $\pm(0.3+0.005 \cdot t)^{\circ}\text{C}$
5 metre cable	IN-PT145-CAL-WP	Long term drift < 0.05°C per year *dependent on conditions of use
		IP Rating IP68 (Waterproof version only)

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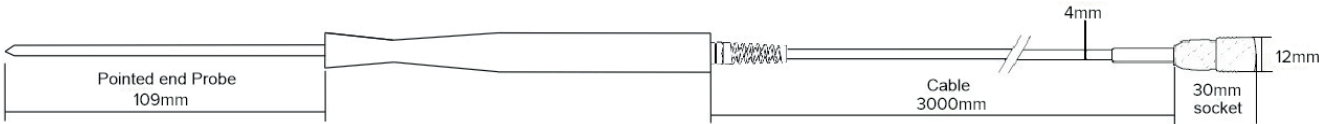
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PT100 Probes cont'd

IN-PT100-WP	Part codes	Specifications	
Stabbing probe	IN-PT100-WP	Type Class A	Flat film
		Probe diameter	4mm
		Probe operating range	-90°C to +250°C
		Accuracy -50°C to +250°C	+/- (0.15+0.002* t)°C
		Accuracy Below -50°C	+/- (0.3+0.005* t)°C
		Long term drift	< 0.1°C per year *dependent on conditions of use
		IP Rating	IP68 (Waterproof version only)

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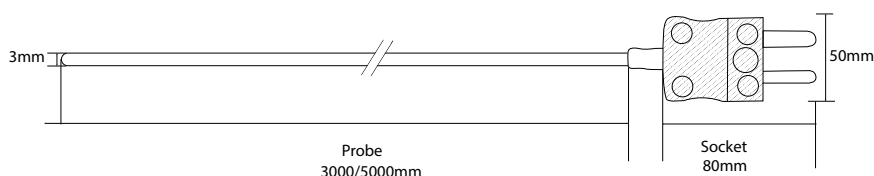


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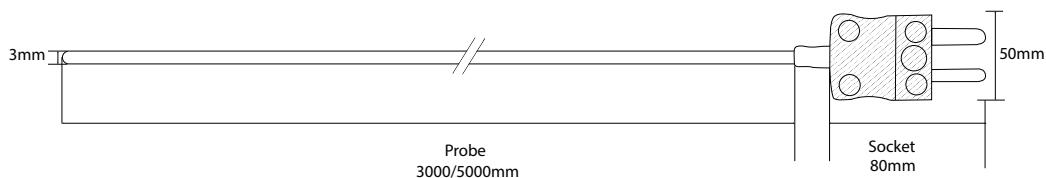
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J043/J044 Thermocouple Probes

Teflon coated	Part codes	Specifications
3 metre cable	J043-3-09	Type
5 metre cable	J043-5-09	Ultra precision Teflon coated Type T (Thermocouple junction is isolated)
		Probe diameter
		3mm
		Probe operating range
		-200°C to +200°C
		Accuracy
		BS EN 60584 - 1:2013 Class 1 +/- 0.5°C or +/-0.4%, (whichever is greater) above -40°C
		Below -40°C +/-1 or 1.5% of reading
		Long term drift
		< 0.1°C per year



Mineral Insulated	Part codes	Specifications
3 metre cable	J044-3-09	Type
5 metre cable	J044-5-09	Mineral insulated Type T (Thermocouple junction is isolated)
		Probe diameter
		3mm
		Probe operating range
		-200°C to +350°C
		Accuracy
		BS EN 60584 - 1:2013 Class 1 +/- 0.5°C or +/-0.4%, (whichever is greater) above -40°C
		Below -40°C +/-1 or 1.5% of reading
		Long term drift
		< 0.1°C per year



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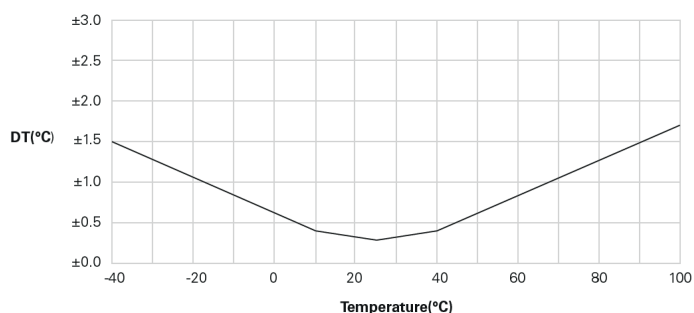
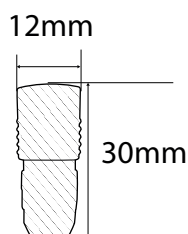
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RH/T Probe

IN-HUM	Part codes	Specifications
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IN-HUM



Extension cables	Part codes	Specifications
1.5 metre cable	IN-EXT150	Temperature Operating range -25°C to +85°C

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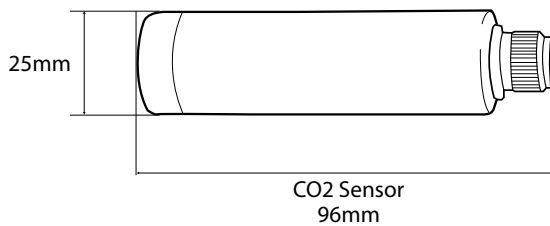
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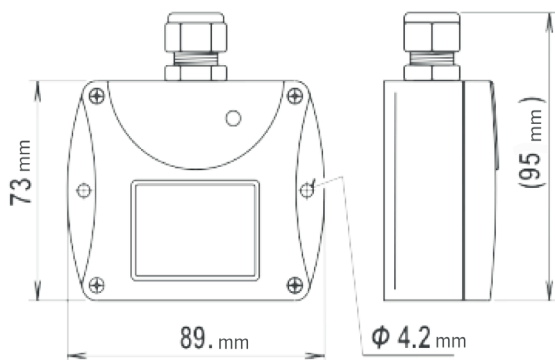
IN-CO2 CO₂ Sensors

External	Part codes	Specifications
(0-5% CO ₂)	IN-CO2-5	Operating Temperature of CO ₂ Measurement -40°C to +60°C
(0-10% CO ₂)	IN-CO2-10	Accuracy @ 25°C and 1013 PA ±0.1% CO ₂
		Temperature Dependence with Compensation, 0 to 20%CO ₂ between -40°C and +60°C ±0.045% of reading/°C
		Long term drift +/- 0.3% CO ₂ per year
		Housing PET plastic
		Cable 1.5 metre
		Output 0-5VDC



Recommended Installation: The probe can be installed in an environment with an operating temperature range -40 °C to +60 °C. Make sure the probe is in a location that represents the measurement environment properly.

Concentration	Part codes	Specifications
	IN-CO2-2000	Operating Temperature of CO ₂ Measurement -30°C to +60°C
		Measuring range 0 to 2000ppm
		Accuracy ±50ppm +2% of measured value
		Temperature Dependence -20°C to +45°C typ. 2ppm CO ₂ / °C
		Analog output 4-20mA
		IP Rating of housing IP30
		Cable 3 metre



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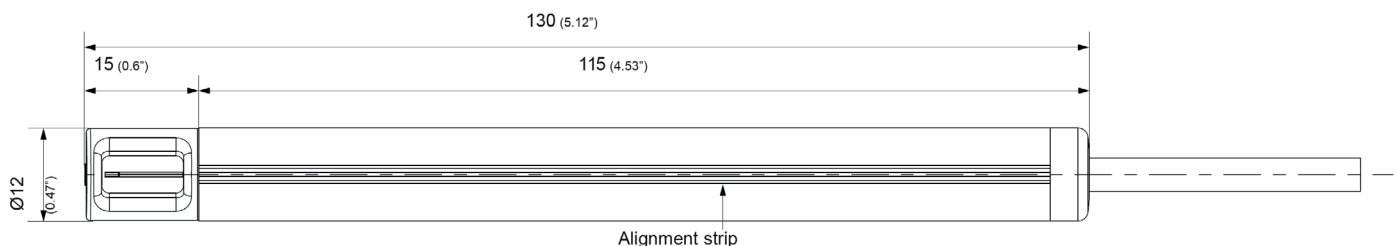
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Airflow Sensors

0-5M/S	Part codes	Specifications
	IN-AF05MS	
		Probe operating range 0-5m/s (0... 1000ft/min)
		Analogue Output 0-5V
		Working range temperature -20°C to +60°C
		Storage temperature -30°C to +60°C
		Working range 0-5m/s (0... 1000ft/min)
		Accuracy $\pm(0.2\text{m/s} / 40\text{ft/min} + 3\% \text{ of measuring value})$
		Cable length 2 metres
		Power supply 12V via external universal power supply

0-10M/S	Part codes	Specifications
	IN-AF10MS	
		Probe operating range 0-10m/s (0...2000ft/min)
		Analogue Output 0-5V
		Working range temperature -20°C to +60°C
		Storage temperature -30°C to +60°C
		Working range 0-10m/s (0...2000ft/min)
		Accuracy $\pm(0.3\text{m/s} / 60\text{ft/min} + 4\% \text{ of measuring value})$
		Cable length 2 metres
		Power Supply 12V via external universal power supply

0-20M/S	Part codes	Specifications
	IN-AF20MS	
		Probe operating range 0-20m/s (0...4000ft/min)
		Analogue Output 0-5V
		Working range temperature -20°C to +60°C
		Storage temperature -30°C to +60°C
		Working range 0-20m/s (0...4000ft/min)
		Accuracy $\pm(0.4\text{m/s} / 80\text{ft/min} + 6\% \text{ of measuring value})$
		Cable length 2 metres
		Power supply 12V via external universal power supply



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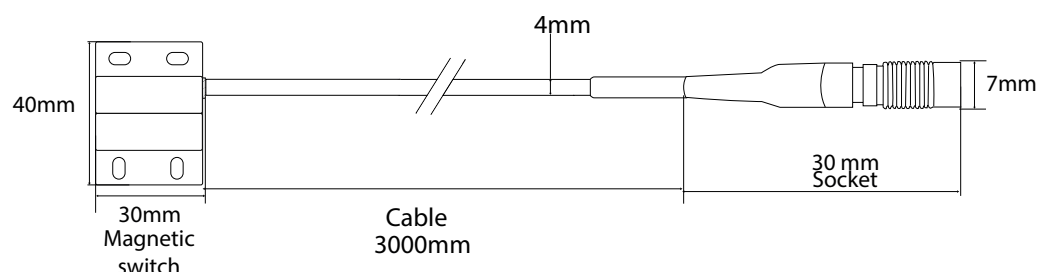
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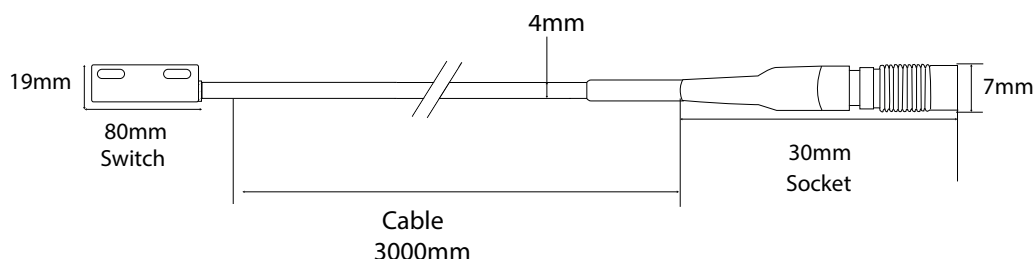
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IN-DC Door Sensors

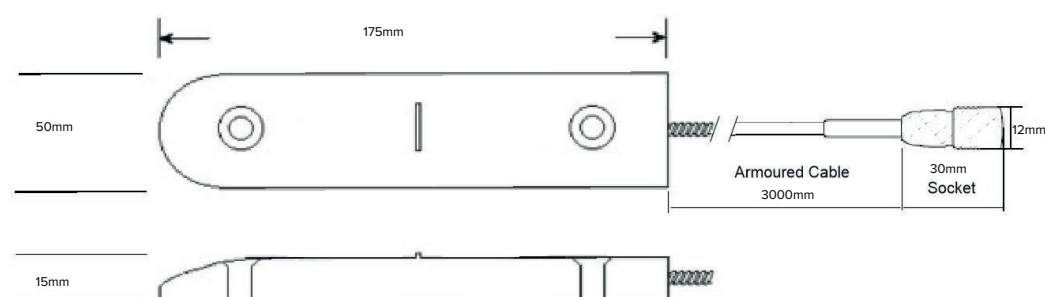
IN-DC001 (Light weight Door switch)	Part codes	Specifications
	IN-DC001	Cable length 3 metre cable



IN-DC002 (Medium duty Door switch with Hirose)	Part codes	Specifications
	IN-DC002	Cable length 3 metre cable



IN-DC003 (Industrial Door events sensor)	Part codes	Specifications
	IN-DC003	Cable length 3 metre cable



Extension cables	Part codes	Specifications
3 metre cable	IN-DSC-3.0	Temperature Operating range -20°C to +70°C

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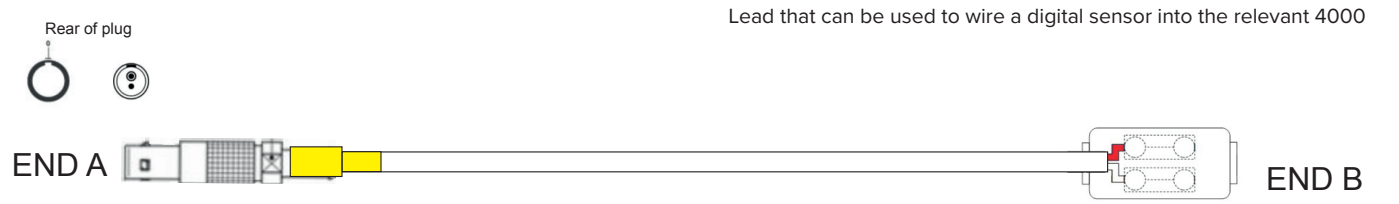
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IN-LSC & Y546

IN-LSC	Part codes	Specifications
5 metre cable	IN-LSC-0.5	Lead that can be used to attach linear sensors to the IceSpy range
3 metre cable	IN-LSC-3.0	



Y546	Part codes	Specifications
	Y546	Cable length 3 metre cable



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