

# Model A906 “Little Dipper” IPI

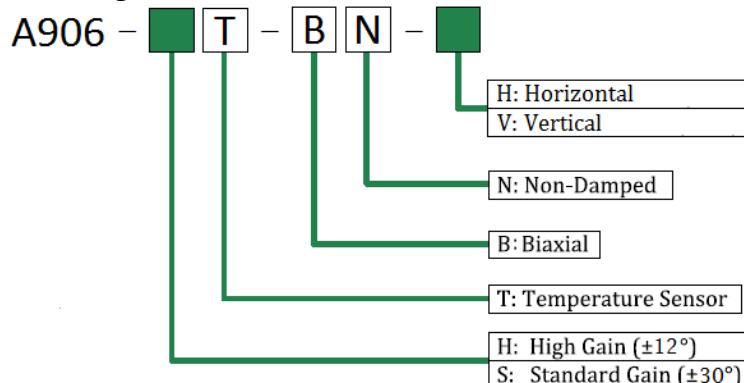
The model A906 “Little Dipper” is a precision, low-cost In-Place Inclinator (IPI) system for monitoring slopes, retaining walls, embankments, ground subsidence and settlement, and more. Units install easily in standard inclinometer casings, or can be grouted or buried directly into place. All A906 IPI’s are pressure rated to +72 psi. With  $\pm 3$  VDC output units also easily connect to any voltage input datalogger. The A906 is configurable for use in both vertical and horizontal boreholes. Units ship standard with 3m cable (specify additional cable length on order).



	High-Gain	Standard
Angular Range	$\pm 12^\circ$	$\pm 30^\circ$
Resolution <sup>1</sup>	$< 0.005^\circ$	$< 0.01^\circ$
Repeatability	$0.01^\circ$	$0.02^\circ$
Scale Factor <sup>2</sup>	$4^\circ/V$	$10/V$
Non-Linearity <sup>3</sup>	0.8% (full span)	1% (half span); 4% (full span)
Output	$\pm 3.0VDC$	
Channels	X-tilt, Y-tilt, Temperature	
Kz Coefficient (deg/C)	$\pm 5$ arcsec/C (typical)	
Ks Coefficient (%/C)	$\pm 0.03\%/C$ (typical)	
Time Constant	0.15 sec	
Natural Frequency	10 Hz	
Power	+8 to +24 VDC; 7mA, 250 mV ripple max, reverse polarity protected	
Environmental	-25 to +70 C; Submersible to 72psi (5 bar); 100% humidity (non-condensing)	
Dimensions	231 x 39 mm (9.25 x 1.55 in.), 0.35kg (0.75 lb.)	
Materials	Cylindrical ABS housing, Delrin (guide fins)	
Cable	Multiconductor, PVC jacket, polypropylene insulation, overall shield, 0.2 in. (5mm) dia.	

*\*Specifications subject to change without notice on account of continued development; <sup>1</sup>Resolution calculated at 1mV; <sup>2</sup>Linear scale factor calculated from BFSL through calibration curve; <sup>3</sup>Linearity calculated as max % deviation from BFSL. 0.05% linearity achievable using a polynomial*

### Ordering Code:

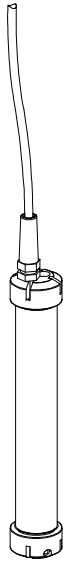


### Pin-out/Wiring:

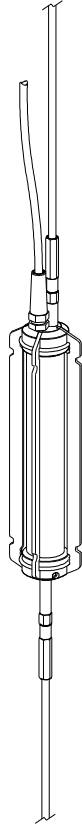
Color	Function
Red	V+
Black	GND
Blue	X-Out
Green	Y-Out
Yellow	Temp Out

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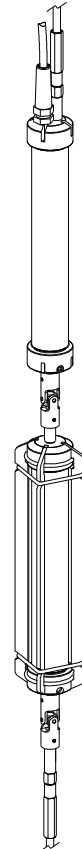
## A906 “Little Dipper” Installation Configurations



**Little Dipper Sensor Module**  
Direct Burial Installation

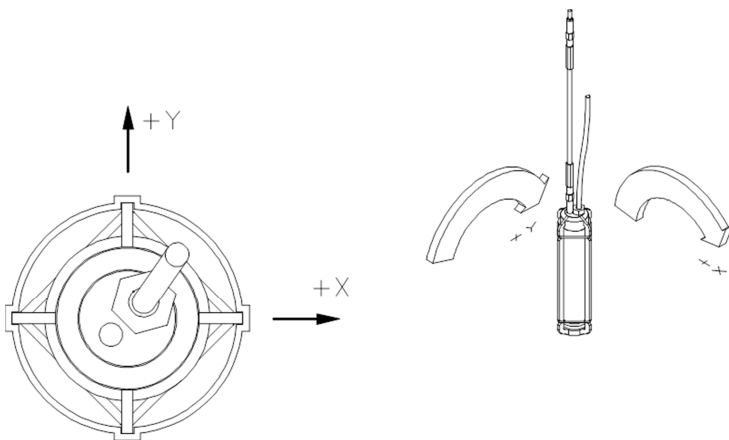


**Little Dipper with Guide Fins**  
Multiple-Point Installation



**Little Dipper with Universal Pivot**  
Multiple-Interval Installation

## Axis Configuration (Vertical Installations)



### Accessories:

Part No.	Description
86816-04	Set of 4 guide fins for 3.34 inch (85 mm) casing
86803-01	Universal pivot assembly (order guide fins separately)
86801	Fiberglass connecting rod (specify sensor spacing)
86802	Hanger assembly (vertical boreholes)
86818	Tensioning weight (vertical boreholes)
70369	6-conductor cable (specify total length on order)