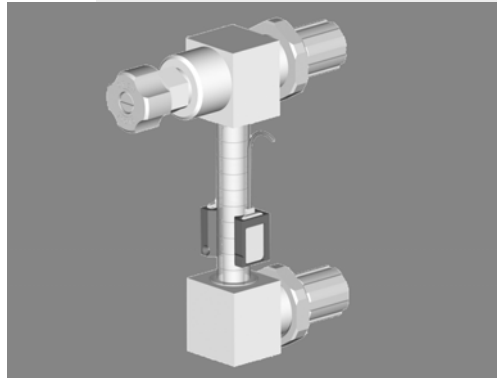


***Electronic Sentinel Series
Sensors provide non-contact
monitoring of float position on
Pathfinder® and Odyssey®
Series flowmeters, providing a
signal to systems controls for
alarm and flow switch
functions.***

Sentinel depicted on Pathfinder tube.



Electronic Sentinel®

Accurate, Reliable and Repeatable Performance

- Non-intrusive installation requires minimal process flow interruption
- Non-contact, non-intrusive operation does not disrupt the process flow during use
- Easily moveable along the site tube to accommodate changing process requirements
- Single or multiple sensors can be used to provide high and low flow sensing or alarm functions
- Serialization provided for quality control tracking and custom configurations.
- Visual indicator light for easy reference
- Small footprint allows close proximity mounting of flowmeters

s e n s o r s

Operation

The Electronic Sentinel® operates in the opposed mode with light passing from an emitter to a receiver on the opposite side. The emitter and receiver are self contained miniature sensors generating a 660nm visible red sensing beam. Different versions of the Electronic Sentinel are available to provide a signal under various conditions such as float interrupting the beam or not interrupting the beam. Each of these versions are available both as PNP or NPN outputs.

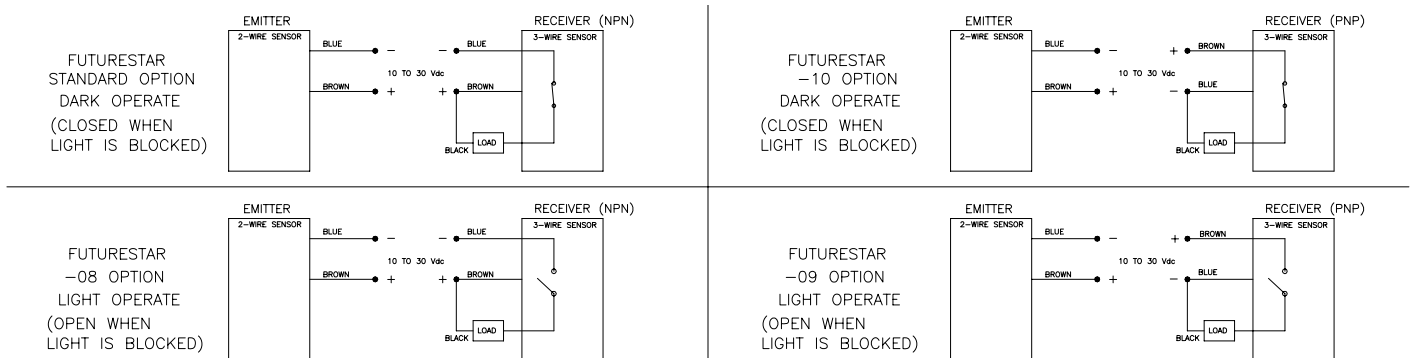
The sensors are powered by a 10 to 30 VDC input and provide the same signal for alarm functions. The Electronic Sentinel integrates an indicator light that tells the user visually whether the beam is being broken by the float or not. The sensors are mounted in black polypropylene brackets that fit on the sight tubes of all Futurestar flowmeters.

The Electronic Sentinel is easy to hook up electronically. The emitter has 2 wires for power, positive and negative. The receiver requires positive and negative wires to be hooked up along with a third signal output wire. The sensors provide an output rating of 50 mA.

Specifications

-08 -09 -10

CABLE				
2 m (6.5')	X	X	X	X
SUPPLY VOLTAGE & CURRENT				
10-30V dc @ 25 mA (10% MAXIMUM RIPPLE)	X	X	X	X
EMITTER: 25 mA	X	X	X	X
RECEIVER: 25 mA	X	X	X	X
OUTPUT TYPE				
NPN	X	X		
PNP			X	X
LIGHT OPERATE, SOLID STATE SWITCH		X	X	
DARK OPERATE, SOLID STATE SWITCH	X			X
INDICATORS				
GREEN ON STEADILY = POWER TO SENSOR IS "ON"	X	X	X	X
GREEN FLASHING = OUTPUT OVERLOAD	X	X	X	X
YELLOW ON STEADILY = LIGHT IS SENSED	X	X	X	X
YELLOW FLASHING = MARGINAL EXCESS GAIN	X	X	X	X
CONSTRUCTION				
BLACK ABS HOUSING, WITH CLEAR MABS LENS	X	X	X	X
CONNECTIONS				
THREE #28 GA STRANDED CONDUCTORS	X	X	X	X
PE INSULATION; PVC OUTER CABLE JACKET	X	X	X	X
OPERATING CONDITIONS				
TEMPERATURE: -4° - 131°F (-20°C - 55° C)	X	X	X	X
RELATIVE HUMIDITY: >80% AT 122°F (50°C)	X	X	X	X



Ordering Information

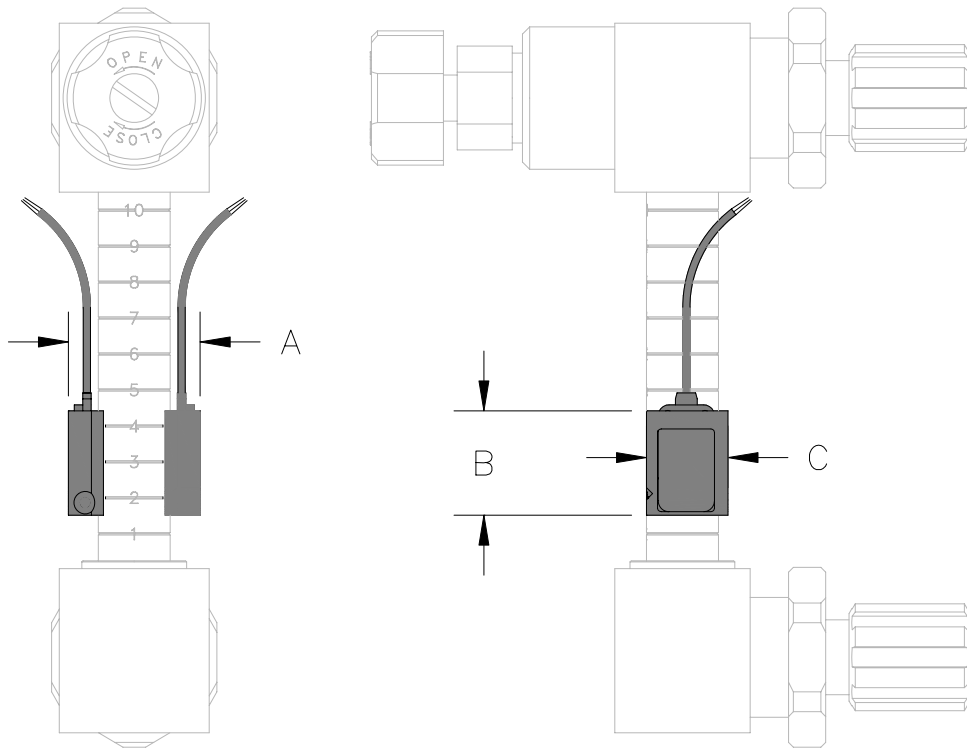
To order, select the appropriate part number from the table below.

FLOWMETER	FLOW RANGE PART NUMBERS*	PART NUMBER
Odyssey®	All	400-021
Pathfinder®	-00010 through -02000 AND -004 through -008	400-022
	-010 through -015	400-023
	-018 through -060	400-024

*Flow range part numbers correspond to the flow range of the flowmeter, identified in the flowmeter part number or on the back of the sight tube. Contact Futurestar for additional information.

Installation Drawings

	400-021		400-022		400-023		400-024	
	inches	mm	inches	mm	inches	mm	inches	mm
A	1.9	48.26	1.10	27.94	1.25	31.75	1.35	34.29
B	0.87	22.10	0.87	22.10	0.87	22.10	0.87	22.10
C	1.39	35.31	0.72	18.29	0.79	20.07	0.81	20.57



*Electronic Sentinel may be mounted with wire up (as shown) or wire down (not shown).