

IT9101

Inclinometer • Voltage Divider

Measuring Range Options from 0-105° to 0-240°
 Aluminum or Stainless Steel Enclosure Options
 Perfect for Water Management/ Tainter Gate Position
 IP68 • NEMA 6 Protection



GENERAL

Available Full Stroke Ranges	0-105 to 0-240 degrees
Enclosure Material Options	powder-painted aluminum or stainless steel
Sensor	plastic-hybrid precision potentiometer
Electrical Connector	MS3102E-14S-6P
Mating Plug (included)	MS3106E-14S-6S
Weight, Aluminum (Stainless Steel) Enclosure	5 lbs. (10 lbs.) max.

ELECTRICAL

Output Signal	voltage divider (potentiometer)
Input Resistance	1000 Ω (±10%)
Recommended Maximum Input Voltage	30 V (AC/DC)
Full Scale Output Signal Change (Vdc)	92% ± 6% of input voltage

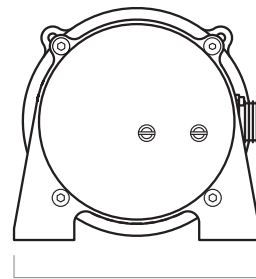
PERFORMANCE

Accuracy*	± 1% full stroke
Accuracy Option	± 0.5% full stroke—please contact factory
Resolution	essentially infinite

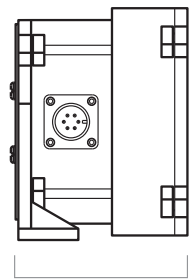
*—when plane of pendulum motion parallel to plane of rotation within ± 3°

ENVIRONMENTAL

Enclosure	NEMA 4/4X/6, IP 67/68
Operating Temperature	-30° to 200°F (-34° to 90°C)
Vibration	up to 10 g to 2000 Hz maximum



5.4" [137 mm]

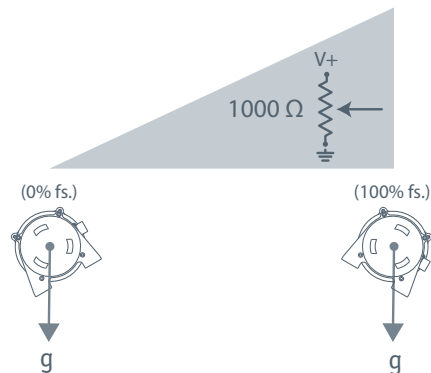


3.7" [95 mm]

The model IT9101 is a rugged and simple device which provides a voltage divider feedback signal for incline position up to 240 degrees. The heart of the IT9101 is a magnetically-damped pendulum coupled to a conductive plastic precision potentiometer.

A highly linear relationship between inclination and the output signal is maintained over the full range of the IT9101.

Output Signal:



Ordering Information (cont.):

Full Counter-Clockwise Rotation:

CCW order code:	000	015	030	045	060	075	090	105	120
	0°	15°	30°	45°	60°	75°	90°	105°	120°



counter-clockwise rotation

Important--
the sum of the Clockwise and Counter-Clockwise Rotations must be in the range of 105° to 240°

Enclosure Material:

A order code:	1	2
	powder-painted aluminum	303 stainless steel

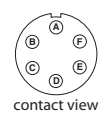
Electrical Connection:

G order code:	1	2	4
	6-pin plastic connector w/mating plug IP 67, NEMA 4X**,6	10-ft. [3 M] waterproof cable IP 67, NEMA 4X**, 6	25-ft. [7.5 M] instrumentation cable IP 67, NEMA 6

G order code:	5	6	7
	100-ft. [30 M] waterproof cable IP 67, NEMA 4X**,6	10-ft. [3 M] pressure tested* waterproof cable IP 68, NEMA 4X**, 6P	100-ft. [30 M] pressure tested* waterproof cable IP 68, NEMA 4X**, 6P

6-pin Mating Plug

pin	signal
A	+ in
B	common
C	+ out
D	-



Waterproof Cable

color code	signal
WHITE	+ in
BLACK	common
GREEN	+ out

Instrumentation Cable

color code	signal
RED	+ in
BLACK	common
GREEN	+ out
WHITE	-

*-Test pressure: 100 feet [30 meters] H₂O (40 PSID) Test Medium: Air; Duration: 2 hours. **-applies to stainless steel enclosure only.

Dampening Option:

D order code:	0	1
	with magnetic dampening	without magnetic dampening

version: 4.0 last updated: August 13, 2014