



mm

P137

APPLICATION

- Non-contacting inductive technology to eliminate wear
- Up to 600mm stroke
- Travel set to customer's requirement
- Compact 19 mm diameter body,
- High accuracy and stability
- Sealing to IP67



As a leading designer and manufacturer of linear, rotary, tilt and intrinsically safe position sensors, Althen has the expertise to supply a sensor to suit a wide variety of applications. Our P137 is an affordable, durable, high-accuracy position sensor designed for industrial and scientific feedback applications.

It is particularly suitable for OEMs seeking good sensor performance for arduous applications such as industrial machinery where cost is important. performance, repeatability and stability are outstanding over a wide temperature range. The unit is very compact and space-efficient with a small 19mm diameter body. The sensor is very robust, the body and push rod being made of stainless steel. The sensor is easy to install with mounting options including M5 male stud and M5 rod eye bearing. The push rod can be supplied free or captive, with male M5 thread, M5 rod eye or magnetic tip. 1/4" rod eye option available.

Like all Althen sensors, the P137 provides a linear output proportional to travel. Each unit is supplied with the output calibrated to the travel required by the customer, this can be any stroke length up to 600mm. The P137 offers a range of mechanical and electrical options, environmental sealing is IP67.

SPECIFICATIONS

Dimensions¹ Body diameter Body Length Axial version Radial version	19 mm calibrated travel + 144.2 mm calibrated travel + 153mm
Independent Linearity	$\leq \pm 0.25\%$ FSO @ 20°C $\leq \pm 0.1\%$ FSO @ 20°C* available upon request.
Temperature Coefficients	$< \pm 0.01\%/^{\circ}\text{C}$ Gain & $< \pm 0.01\%$ FS/ $^{\circ}\text{C}$ Offset
Frequency Response	> 10 kHz (-3dB)
Resolution	Infinite
Noise	$< 0.02\%$ FSO
Environmental Temperature Limits Operating Storage	-40°C to +125°C standard -20°C to +85°C buffered -40°C to +125°C
Sealing	IP67
EMC Performance	EN 61000-6-2, EN 61000-6-3
Vibration	IEC 68-2-6: 10 g
Shock	IEC 68-2-29: 40 g
MTBF	350,000 hrs 40°C Gf

SPECIFICATIONS (CONTINUED)

Drawing List ² P137-11	Sensor Outline
¹ For full mechanical details see drawings P137-11 ² 3D models, step or .igs format, available on request	

TABLE OF OPTIONS

CALIBRATED TRAVEL	actory set to any length from 0-350mm to 0-600mm (e.g. 476mm).	
ELECTRICAL INTERFACE OPTIONS		
OUTPUT SIGNAL	SUPPLY INPUT	OUTPUT LOAD
Standard: 0.5-4.5V dc ratiometric	+5V dc nom. ± 0.5V.	5kΩ min.
Buffered: 0.5-4.5V dc	+24V dc nom. + 9-28V.	5kΩ min.
0.5-9.5V dc	+24V dc nom. + 13-28V.	5kΩ min.
4-20mA	+24 V dc nom. + 13-28V.	300Ω max.
Supply Current	10mA typical, 20mA max. plus O/P current	
CONNECTOR/CABLE OPTIONS		
Connector - Hirschmann ELWIK 4102 Axial or Radial, IP67 Cable with Pg 9 gland Axial, IP67 Cable length >50 cm – please specify length in cm		

MOUNTING OPTIONS
M5 rod eye bearing or M5x0.8 male thread (radial versions), Body Tube Clamp/s (axial or radial versions). 1/4” rod eye option available.
PUSH ROD OPTIONS
Retained† or Free with M5x0.8 male thread, M5 rod eye bearing or Magnetic tip. † standard, retained with male thread.

