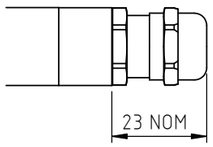
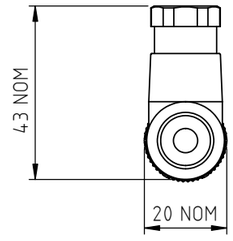
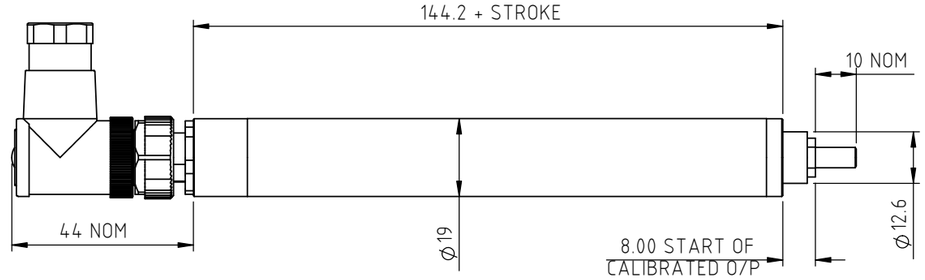
AXIAL
IP67 CABLE GLAND
(CODE 'Lxx'/'LQxx')



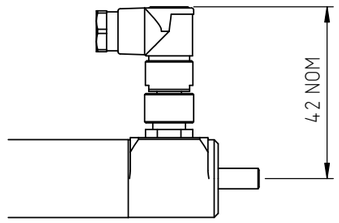


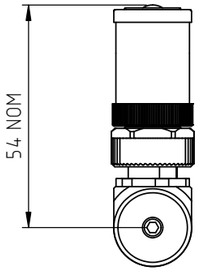
AXIAL
IP67 M12 CONNECTOR
IEC61076-2-101
(CODE 'J')

AXIAL VERSION
144.2 + STROKE

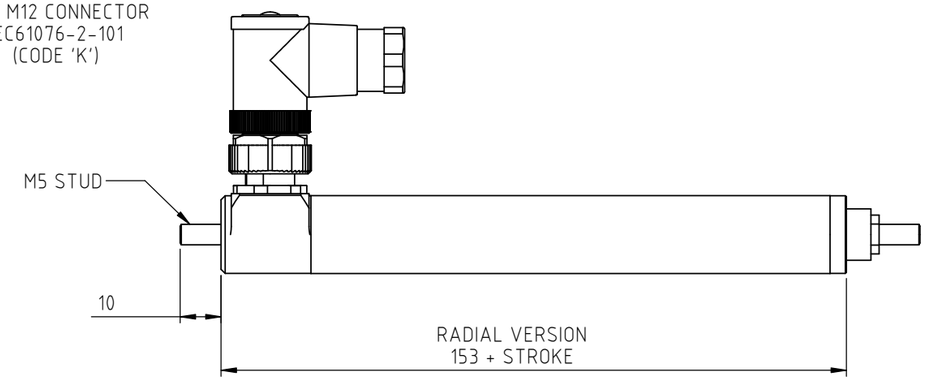


RADIAL
IP67 M8 CONNECTOR
IEC61076-2-104
(CODE 'KA')





RADIAL
IP67 M12 CONNECTOR
IEC61076-2-101
(CODE 'K')



ELECTRICAL OPTIONS/ SPECIFICATIONS

OUTPUT	SUPPLY (NOM)
'A' 0.5 - 4.5V RATIOMETRIC	5V
'C' 0.5 - 9.5V	24V
'G' 0.5 - 4.5V	24V
'H' 4 TO 20MA	24V

SUPPLY CURRENT 12MA TYP. 20MA MAX. PLUS O/P CURRENT

CONNECTIONS:	CABLE	CONNECTOR
+VE	RED	:1
0V	BLACK	:3
OUTPUT	WHITE	:2
BODY	SCREEN	:4

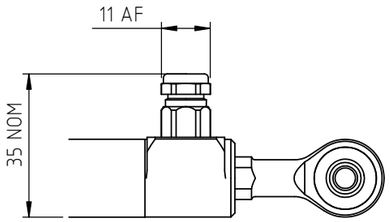
CABLE; 0.2MM², O/A SCREEN, PUR JACKET. O/D; 3-CORE: Ø4MM,
SUPPLIED WITH 50cm OR REQUIRED LENGTH IN cm. E.G. 'L50'
CONNECTORS; MAXIMUM CONDUCTOR CROSS SECTION 0.25MM²

RANGE OF DISPLACEMENT FROM 0-351mm TO 0-600mm E.G.360.
BODY MATERIAL:- STAINLESS STEEL.

FURTHER OPTIONS:
SINGLE PAIR OF BODY CLAMPS (CODE 'P')
TWO PAIRS OF BODY CLAMPS (CODE 'P2')
MAGNETIC TIP (CODE 'WA')

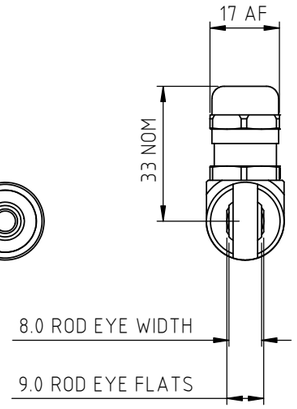
NOTE:
ROD-EYE ORIENTATION RELATIVE TO GLAND/CONNECTOR NOT GUARENTEED.
THE PUSH ROD RETRACTS A FURTHER 6mm NOM. & EXTENDS A FURTHER 3mm NOM AT EITHER END OF CALIBRATED TRAVEL.

11 AF



RADIAL
IP67 (M8) CABLE GLAND
(CODE 'IBxx'/'IBQxx')

17 AF

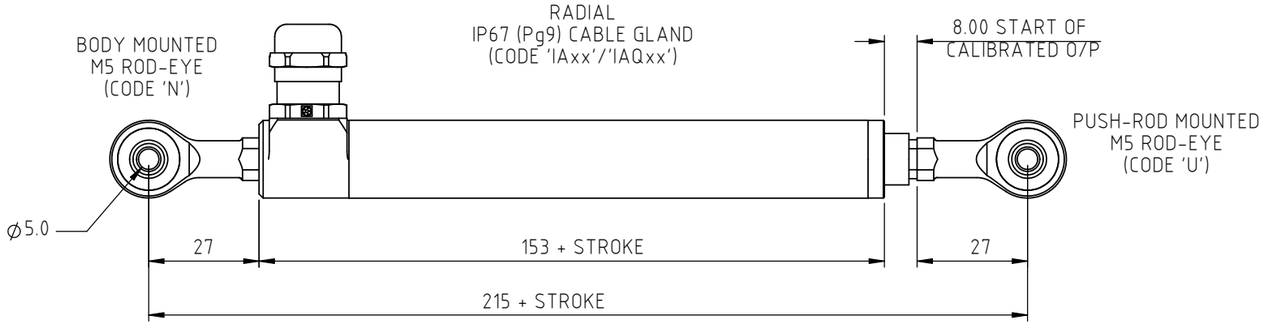


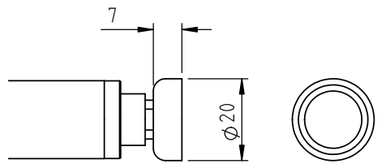
BODY MOUNTED
M5 ROD-EYE
(CODE 'N')

RADIAL
IP67 (Pg9) CABLE GLAND
(CODE 'IAxx'/'IAQxx')

8.00 START OF
CALIBRATED O/P

PUSH-ROD MOUNTED
M5 ROD-EYE
(CODE 'U')





MAGNETIC TIP
(CODE 'WA')

DRAWINGS NOT TO BE CHANGED WITHOUT REFERENCE TO THE CHANGE PROCEDURE.
CHANGES TO PARTS USED IN INTRINSICALLY SAFE PRODUCT MUST BE APPROVED BY THE AUTHORISED PERSON.
THIS IS AN UNCONTROLLED PRINT AND WILL NOT BE UPDATED.

REV	CHANGE HISTORY	DR'WN	DATE	CHK'D
A	FIRST RELEASE	ASC	14/07/2022	ASC

Positek

APPROVED BY	REV		
RDM	A		X ±0.4 X.X ±0.2 X.XX ±0.1 DIMS mm

DESCRIPTION
P137 SLIMLINE LINEAR POSITION SENSOR

SCALE	DRAWING NUMBER
2:3 A3	P137-11 SHEET 1 OF 1

P137 SLIM-LINE LINEAR POSITION SENSOR

Position feedback for industrial and scientific applications

- **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, Positek® 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 Positek® 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.

SPECIFICATION

Dimensions

Body diameter	19 mm
Body Length	
(Axial version)	calibrated travel + 144.2 mm
(Radial version)	calibrated travel + 153mm

For full mechanical details see drawing P137-11

Independent Linearity	≤ ± 0.25% FSO @ 20°C ≤ ± 0.1% FSO @ 20°C* available upon request.
Temperature Coefficients	< ± 0.01%/°C Gain & < ± 0.01%FS/°C Offset
Frequency Response	> 10 kHz (-3dB)
Resolution	Infinite
Noise	< 0.02% FSO
Environmental Temperature Limits	
Operating	-40°C to +125°C standard -20°C to +85°C buffered
Storage	-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
Drawing List	
P137-11	Sensor Outline

TABLE OF OPTIONS

CALIBRATED TRAVEL: Factory 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	+24V dc nom. + 13-28V.	300R Max.
Supply Current	10mA typical, 20mA max. plus O/P current	

CONNECTOR/CABLE OPTIONS

Connector - Hirschmann ELWIKA 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.

Do you need a position sensor made to order to suit a particular installation requirement or specification? We'll be happy to modify any of our designs to suit your needs - please contact us with your requirements.

For further information please contact:
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