

## PY Extreme Environment Non-Contact Displacement Transducer

- High radiation resistance
- High temperature survival
- Submersible
- Stainless steel
- Infinite resolution
- Non-contact



The PY non-contact displacement transducer measures the distance between its front face and a target made from a ferritic material. A ferritic material is one which is attracted by a magnet.

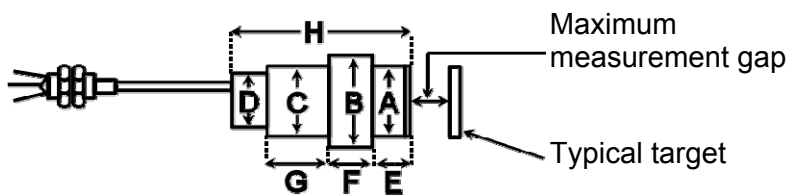
This sensor is appropriate for high temperature, high pressure and high nuclear radiation position measurement applications. Many applications in turbines, in nuclear power stations and in research labs are appropriate for this sensor.

There are two types of PY transducer, a single coil version (which must be used in pairs) and a double coil version which can be used alone.

As the output of the PY is not linear, linearisation may be necessary depending on the application. Our 615 amplifier is designed for this.

### Single coil version.

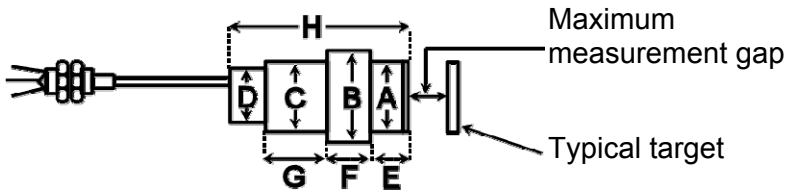
The single coil displacement transducer version must be used in pairs for example one on each side of a rotation shaft.



Type	Maximum measurement gap	Operating temperature range	Maximum radiation dose	A	B	C	D	E	F	G	H
PY102	1.5mm	-220°C to 220°C	1M Gy	12.0mm	14.0mm	12.0mm	12.0mm	8.5mm	2.5mm	12.5mm	28.5mm
PY106	1.5mm	-220°C to 600°C	1G Gy	12.0mm	14.0mm	12.0mm	12.0mm	8.5mm	2.5mm	12.5mm	28.5mm
PY152	3mm	-220°C to 220°C	1M Gy	15.0mm	18.0mm	15.0mm	13.0mm	9.0mm	5.0mm	15.0mm	38.0mm
PY156	3mm	-220°C to 600°C	1G Gy	15.0mm	18.0mm	15.0mm	13.0mm	9.0mm	5.0mm	15.0mm	38.0mm
PY252	6mm	-220°C to 220°C	1M Gy	25.0mm	28.0mm	25.0mm	20.0mm	9.0mm	5.0mm	15.0mm	37.0mm
PY656	6mm	-220°C to 600°C	1G Gy	25.0mm	28.0mm	25.0mm	20.0mm	9.0mm	5.0mm	15.0mm	37.0mm

## Double coil version.

The double coil transducer version can be used to measure the gap between a single PY and a suitable target.



Type	Maximum measurement gap	Operating temperature range	Maximum radiation dose	A	B	C	D	E	F	G	H
PY102C	1.5mm	-220°C to 220°C	1M Gy	12.0mm	14.0mm	12.0mm	12.0mm	9.5mm	5.0mm	18.0mm	37.5mm
PY106C	1.5mm	-220°C to 600°C	1G Gy	12.0mm	14.0mm	12.0mm	12.0mm	9.5mm	5.0mm	18.0mm	37.5mm
PY152C	3mm	-220°C to 220°C	1M Gy	15.0mm	18.0mm	15.0mm	13.0mm	15.0mm	10.0mm	15.0mm	49.0mm
PY156C	3mm	-220°C to 600°C	1G Gy	15.0mm	18.0mm	15.0mm	13.0mm	15.0mm	10.0mm	15.0mm	49.0mm
PY252C	6mm	-220°C to 220°C	1M Gy	25.0mm	28.0mm	25.0mm	20.0mm	15.0mm	10.0mm	15.0mm	48.0mm
PY256C	6mm	-220°C to 600°C	1G Gy	25.0mm	28.0mm	25.0mm	20.0mm	15.0mm	10.0mm	15.0mm	48.0mm

Specification	
Temperature coefficient (combined zero and span)	±0.05% F.S. /°C (typical)
Electrical termination	2m (integral cable) Longer available to order.
Maximum static pressure	200bar (100°C maximum)

Due to our policy of on-going development, specifications may change without notice. Any modification may affect some or all of the specifications for our equipment.

All dimensions and specifications are nominal.

UK Head Office  
 RDP Electronics Ltd  
 Grove Street, Heath Town  
 Wolverhampton, West Midlands, WV10 0PY  
 United Kingdom  
 Tel: +44 1902 457512  
 Fax: +44 1902 452000  
 Email: sales@rdpe.com  
 URL: www.rdpe.com  
 Registered in England No. 1688591