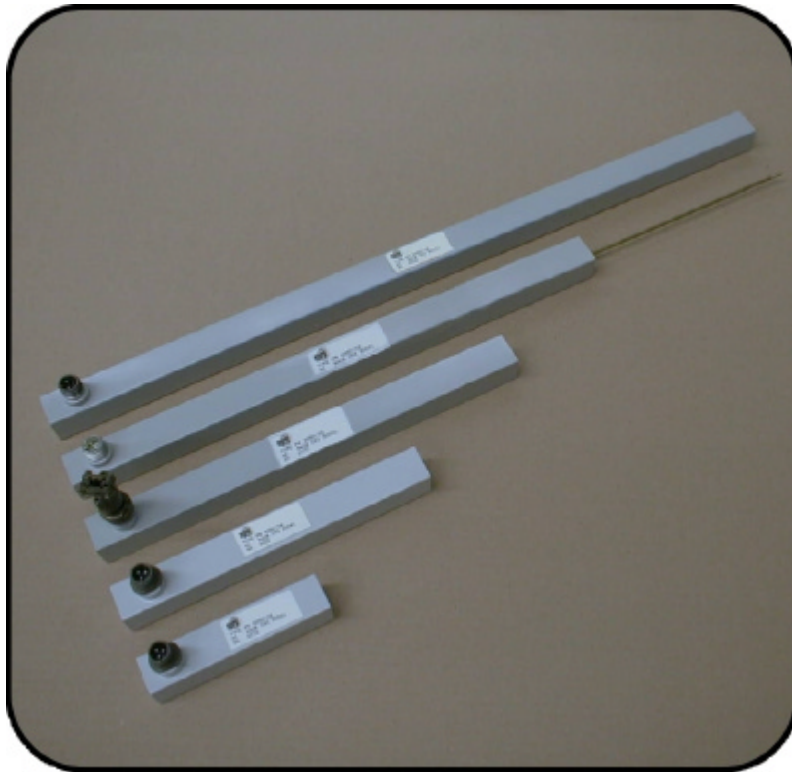


Linear Displacement Transducer PR 9350/.. Series



- High resolution over the entire measuring range
- Small hysteresis
- Little controlling forces upon target
- Rugged construction
- Measuring range: ± 12 to ± 150 mm
- High accuracy
- Hermetically encapsulated

Application:

Inductive transducers serve the measurement of static and dynamic displacements and - in connection with carrier frequency measuring bridges - of physical quantities (tensile and compressive forces, pressure of gases and liquids, thickness of materials, transverse moments) which may in any way be converted to linear movements by using relevant accessories.

The special features of these transducers are a high resolution over the entire measuring range, small hysteresis, compact construction and the little mass of the tracing pin. Thus, the controlling forces on the measuring target may be neglected.

The temperature drift is extremely small

because the compensation coil is wound directly over the measuring coil.

Installation of these transducers are imaginably easy. The transducer permits dynamic measurements up to 1250Hz.

The differential coil of the **PR 9350** series consists of a coil form with two windings and a solenoid plunger with a ferromagnetic core which moves within the coil. If the tracing pin is placed precisely in the middle of the coil, the impedance of both windings are identical. The impedance of the windings will increase on one side and decrease on the other side - if the tracing pin with the ferromagnetic core moves from the middle position to one of the ends of the transducer.

By complementing the windings with resistors to a Wheatstone bridge, and by supplying this bridge with a carrier frequency, the measuring output of the bridge reads a voltage which is proportional to the displacement of the tracing pin.

The tracing pin is freely movable and has a threaded rod (M3) for the mechanical adaptation to the measuring target. On top of the housing there is a 3-pole Cannon socket for the electric connection.

Inductive transducers of type **PR 9350** are preferably used with the **MMS 3410** transmitter or with the **MMS 6410** monitor.



Technical Data:

Sensitivity for nominal measuring range:

270 mV/V (bridge output per 1 V supply voltage)

Supply voltage:

5 V_{rms}

Linearity error:

2 % of the total range (related to the ± range limits of the transducer)

Carrier frequency:

3...5 kHz

Permissible environmental temperature:

-20...0...+120 °C

Temperature influence on sensitivity:

≤0,1 %/K

Nominal inductance:

solenoid plunger
in middle position: 20 + 20 mH
maximum displacement: 7 + 26 mH
50 % displacement: 13 + 26 mH
driven out: 5 + 5 mH

Capacity:

250 pF (each winding)

Standard accessories:

- Connector
 Cannon MS-3106E10SL-3S
- Solenoid plunger with
 M3 threaded rod

PR 9350 Series:

Type-Nr.	nominal measuring range (in mm)	Approx weight (in g)	Dimensions (in mm)						Ordering Code
			A	B	C	D	E	F	
PR 9350/01	-12...0...+12	170	4 holes	76,6	39,2	60,3	85,1	16,0	9408 093 50011
PR 9350/02	-25...0...+25	255	108,0	127,0	65,4	76,2	123,2	19,0	9408 093 50021
PR 9350/04	-50...0...+50	370	197,0	229,0	112,0	150,0	144,1	25,4	9408 093 50041
PR 9350/06	-75...0...+75	510	311,0	330,0	169,5	200,0	238,1	25,4	9408 093 50061
PR 9350/08	-100...0...+100	660	413,0	432,0	218,8	247,7	292,1	25,4	9408 093 50081
PR 9350/12	-150...0...+150	860	616,0	635,0	319,9	342,9	311,2	25,4	9408 093 50121

Dimensions and connection diagram:

