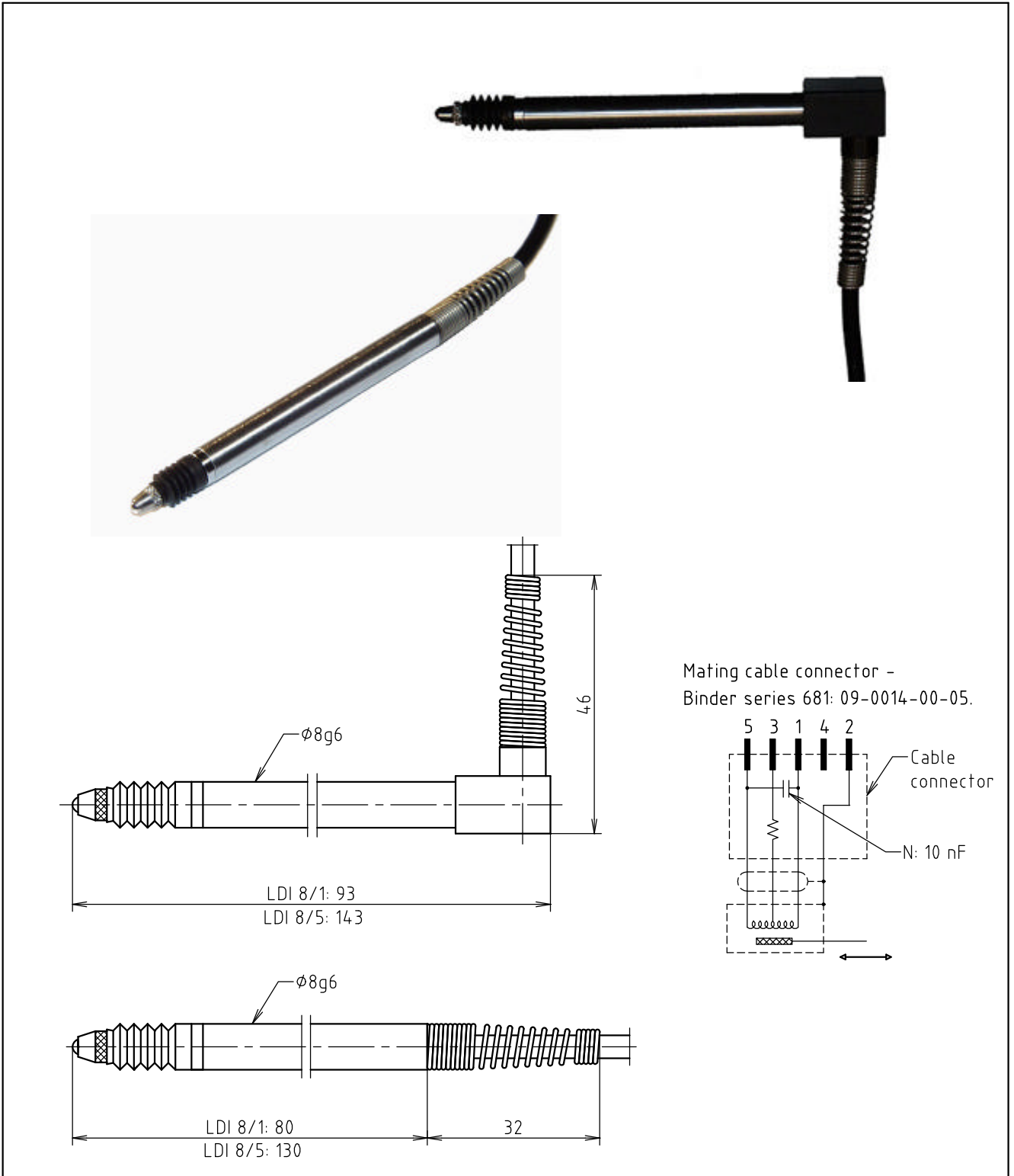


HIGH PRECISION LINEAR DISPLACEMENT TRANSDUCER TYPE LDI 8/1 AND LDI 8/5



DESCRIPTION

The LDI 8/1 and LDI8/5 have been designed for dimensional gauging. The measuring principle is based on differential variable reluctance. The precision linear bearing is fully encapsulated in a 8 mm tube and the core is anti-rotational. The 8 mm tube is ground outside and chromium-plated. The transducers are insensitive to side pressure and magnetic fields. The measuring tip with the 3 mm diameter steel ball is replaceable (M2.5). A resistor network in the connector compensates the sensitivity to a fix value with a 2 k Ω load resistance.

SPECIFICATIONS

	LDI 8/1	LDI 8/5
Linear range	± 1 mm	± 5 mm
Non-linearity	< 0.5 % ; typical 0.2 %	< 1 % ; typical 0.6 %
Contact force	63 p	100 p
Sensitivity (load 2 kW)	73.25 mV/V/mm	73.25 mV/V/5 mm
Supply voltage	1 V _{RMS}	1 V _{RMS}
Carrier frequency	10 kHz	10 kHz
Impedance	L = 14 mH, R = 88 Ω	L = 20 mH, R = 66 Ω
Cable	2 metres black PUR (LP : 2.5 m extracted)	2 metres black PUR (LP : 2.5 m extracted)
Connector	5 pole male Binder (09-0013-00-05)	5 pole male Binder (09-0013-00-05)

ORDERING INFORMATION

LDI 8/x x x

N	: 10 nF over supply (terminal 1 to 5) to increase impedance
Nothing	: Axial cable connection
R	: Radial cable connection
LP	: Axial spiral cable connection
R LP	: Radial spiral cable connection
1	: ± 1 mm range
5	: ± 5 mm range