



Figure 1: Belt Displacement Transducer Type AC13

The MESSRING Belt Displacement Transducer converts the movement of a belt to an analog output voltage compatible to NA33/NA34 Data Acquisition analog inputs. For car and sled testing, characterization of belt retractors and the characterization of seats.

Technical Specifications

Physical Dimensions

Overall dimensions L x W x H	approximately 70 x 70 x 17 mm
Weight	284 gr with cable and mounting material
Standard Cable	6 m long, with LEMO® compatible connector

Environmental Characteristics

Temperature range	0...70°C
Acceleration (shockproof)	up to 100 G

Electrical Data

Power supply	5...10 V DC, < 30 mA
Output signal range	±3.2 V max @ 10 V excitation; Differential, ratiometric output

Measurement Performance

Belt align tolerance	+/- 5°
Measuring range	+/- 2,048 mm
Resolution	1 mm
Velocity response	≤ 50 m/s
Output update rate	Fast as belt speed (every mm)
Output scaling	1.6 mV/mm
Integrated ID-Module	Dallas, type DS2401