

Displacement Sensor CS40-1mm

Item number: 14568



The crack sensor CS40 is used to monitor cracks on structures. Another area of application is the dendrometer, for measuring the perimeter of tree trunks. The path sensor is suitable for single-axis distance measurement for the measuring range of 5mm.

The crack sensor is constructed in strain gauges technology.

The CS40 crack sensor is installed with adhesive M-Bond 30, M-Bond 31, or with a steel cable to measure the circumference of tree trunks. For the fastening of a steel cable, millings are available, which are closed similar to a fork head, with cylinder pins.

The strain gauges are covered with silicone. The path sensor has a protection class of IP65. Due to the open construction, additional measures to protect against water and moisture are recommended for long-term outdoor applications, e.g. covers or additional coatings with silicone.

The GSV-2MSD or GSV-6LTE measuring amplifiers are suitable for data collection and acquisition.

Technical Data

Basic Data		Unit
Typ	Wegsensor	
Nennweg	5	
Gebrauchsweg	150	
Abmessung	70 x 40 x 15	

Electrical Data		Unit
Input resistance	350	Ohm
Tolerance input resistance	10	Ohm
Output resistance	350	Ohm
Tolerance output resistance	10	Ohm
Insulation resistance	200	MOhm
Rated range of excitation voltage from	2.5	V
Rated range of excitation voltage to	5	V
Operating range of excitation voltage from	1	V
Operating range of excitation voltage to	10	V
Zero signal from	-0.5	mV/V
Zero signal to	0.5	mV/V
Characteristic value range from	0.8	mV/V
Characteristic value range to	1.2	mV/V

Accuracy Data		Unit
Relative linearity error	1	%FS
Relative zero signal hysteresis	1	%FS
Temperature effect on zero signal	0.1	%FS/K
Temperature effect on characteristic value	0.05	%RD/K
Relative creep	0.05	%FS
Environmental Data		Unit
Rated temperature range from	-10	°C
Rated temperature range to	65	°C
Operating temperature range from	-25	°C
Operating temperature range to	85	°C
Storage temperature range from	0	°C
Storage temperature range to	50	°C
Environmental protection	IP64	