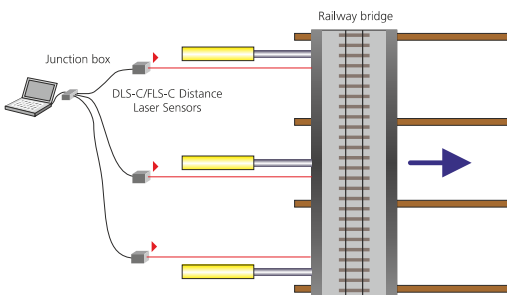


Moving of large structures

Industries: Geodesy / construction
Application type: Positioning / monitoring

Description

To move large structures like buildings or bridges, the use of hydraulic cylinders are, in most cases, a cost-effective solution. Moving these kind of structures calls for utmost precision. PolyDist, manufactured by Dimetix AG, is custom-made to control such processes.



When bridges have to be moved it is mandatory that both bridge ends, bridge head and bridge foot are moved simultaneously at the same distance. To move a bridge with a known, narrow tolerance band, the process calls for continuous control in order to place it with precision and without damage in the foreseen, new position.

Fig 1: Moving of a bridge

measurements, out of harm's way. In doing so the process can be secured that each hydraulic cylinder pushes synchronously at the same given distance. The PolyDist system is a cost-effective solution, which displays the moving process on a PC. The standard kit foresees a control process with up to four Dimetix sensors.

PolyDist enables the Engineer in charge to control the moving process at several positions with continuous, contactless

Customer advantage

- Easy installation thanks to visible laser beam
- Easy configuration thanks to our free software
- Operation in the largest temperature range (-40°C to +60°C) possible
- Measuring ranges up to 100 m on natural surfaces
- Measuring ranges up to 500 m on reflective foil
- Accuracy ± 1mm
- Control process with four Dimetix sensors
- Maintenance-free operation

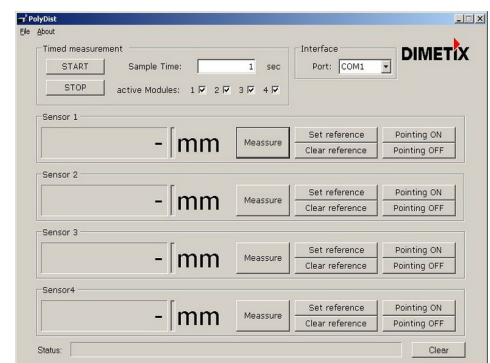


Fig 2: User interface of PolyDist



DIMETIX APPLICATION EXAMPLE

AE-0207

Dimetix Sensors – the solution for applications with high precision requirements

Thanks to the clearly arranged product portfolio the evaluation of a suitable Dimetix distance laser sensor is simple and uncomplicated.

Dimetix sensors offer numerous features, which are integrated in each and every device as standard, including, among others, various interfaces like SSI, RS-422/485, RS-232 and 2 digital outputs.

Optionally, the Industrial Ethernet interfaces PROFINET, EtherNET/IP and EtherCAT are also available. Furthermore, all devices are IP65-protected and impress with a weight of less than 500 grams!

Particularly noteworthy, however, is the accurate measurement of 1 millimeter over distances of up to 500 meters, even under the most extreme conditions. This is possible with the sensors of the types DPE, DEN and DEH.

No less interesting are sensors of types DAE, DAN and DBN. Preferably, they can be used for projects which do not require a range over 500 meters or are cost-sensitive.

	DPE-10-500	DPE-30-500	DEN-10-500	DEH-30-500
PARTNUMBER	500630	500636	500637	500638
SPECIFICATION				
Typical accuracy $\cong \pm 2\sigma$	± 1 mm	± 3 mm	± 1 mm	± 3 mm
Mensurierung range on natural surfaces	0.05...~100 m	0.05...~100 m	0.05...~100 m	0.05...~100 m
Measuring range on reflective foil	~0.5...500 m	~0.5...500 m	~0.5...500 m	~0.5...500 m
Max. measuring rate	250 Hz	250 Hz	100 Hz	100 Hz
Operating temperature	-40...+60°C	-40...+60°C	-10...+50°C	-10... +60°C

	DAE-10-050	DAN-10-150	DAN-30-150	DBN-50-050
PARTNUMBER	500633	500632	500634	500635
SPECIFICATION				
Typical accuracy $\cong \pm 2\sigma$	± 1 mm	± 1 mm	± 3 mm	± 5 mm
Mensurierung range on natural surfaces	0.05...~50 m	0.05...~100 m	0.05...~100 m	0.05...~50m
Measuring range on reflective foil	~40...50 m	~40...150 m	~40...150 m	
Max. measuring rate	100 Hz	100 Hz	100 Hz	10 Hz
Operating temperature	-40...+60°C	-10...+50°C	-10...+50°C	-10...+50°C

