



## DISTANCE MEASURING – contactless and reliable

### DLS-C – for millimeter precise measuring in extreme situations



Measuring range:

**0 ... 150 m**

Accuracy:

**± 1.5 mm**



Feed measuring



Steel industry



Collision prevention



Length measurement

## Precise and rugged

The DLS-C distance measuring device measures absolute distances up to 150 meters without contact and with an accuracy of 1.5 millimeters. It represents a cost-effective solution even at extreme ambient temperatures as low as -40°C, using the optional heater.

The DLS-C is an optical distance measuring device. It measures, maintenance-free, distances on natural and reflecting surfaces. It determines positions of objects, that are difficult to access or may have very high surface temperatures. Just as well, it also measures distances in hostile environments, accurately and with ease.

The DLS-C is designed to be suitable for both, heavy industrial and outdoor applications. It is constructed of a solid metal case and provides class IP65 environmental protection. Furthermore, various features make it flexible for multiple applications in numerous industries such as automotive, paper, metal and textile.



### Specification



#### Measuring range 0.05 up to 150 m

With the DLS-C measuring device, you measure distances from 0.05 up to 150 meters.



#### Accuracy 1.5 mm

The accuracy amounts to 1.5 mm – independent of distance, operating temperature and target.



#### Repeatability 0.4 mm

The repeatability is 0.4 mm at the same measuring distance, same ambient temperature and same target object.



#### Extended operating temperature

An optional internal heater allows operation of the DLS-C device at temperatures as low as -40°C.



#### Solid metal case IP65

The solid metal case effectively protects the device from ingress of dust and water.



#### Supply voltage

The DLS-C measuring device requires a voltage supply of between 9 VDC and 30 VDC.

### Interfaces



#### Serial interfaces

The DLS-C device can be connected via RS-232, RS-422 or optionally via Profibus to your controlling system.



#### Connection of several DLS-C devices

Using the RS-422 or Profibus interface, up to 10 DLS-C devices can be controlled on a single line.



#### Analog output 0/4–20 mA

The analog output provides a simple method of integration into a control system, since it does not require the implementation of a special interface protocol. The analog output can be configured according to the measuring range.



#### 2 Digital outputs

It is possible to configure two digital outputs with different switching positions. An additional digital output transmits a signal in case of error.



#### Flexible connection possibilities

The DLS-C device can be connected via a D-sub-connector or via screw terminals inside the device. A threaded cable gland entry is built into the laser sensor case.



#### Status display

Four light-emitting diodes (LEDs) display the device status.



## Highlights



### Flexible output

The measurement output of the DLS-C can be formatted to best suit an application. Standard outputs include a serial interface RS-232, RS-422 and an analog output. Optionally, a connection to a Profibus-Master is also possible.

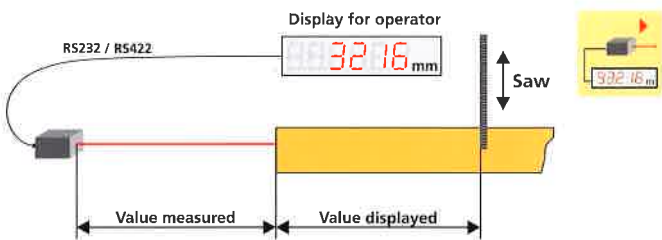
The DLS-C device can be connected via a D-sub-connector or via screw terminals inside the device.

### Automatic mode

If the automatic mode of the DLS-C device is activated, upon power-up, it automatically starts measuring. Applications without complex control systems can, therefore, be easily integrated. The DLS-C device stores the configuration settings.

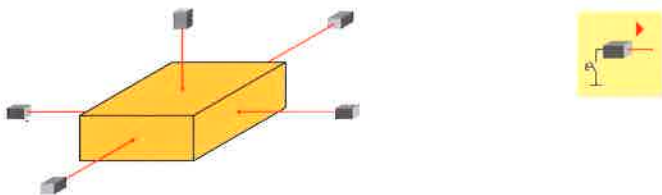
### Direct connection of an external display

Do you need an external display to directly read the measuring results? For displaying the measuring results with millimeter precision the device can be connected to an external display directly, via the serial interface RS-232 or RS-422. Gain, offset and the output format can be configured easily.



### External trigger

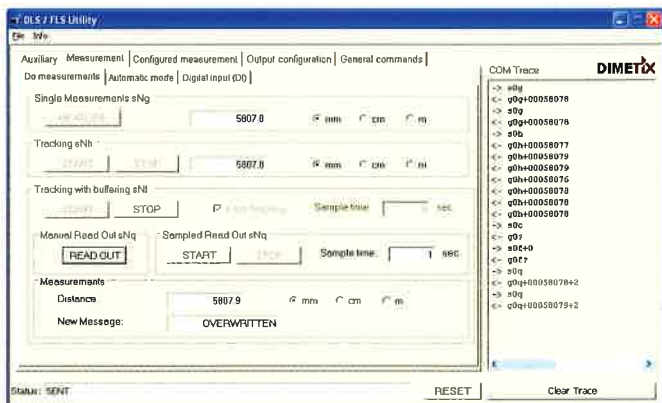
A digital input may be activated and can be used to trigger measurements externally. Several measuring devices can be synchronized in this way.



### Configuration software

For simple configuration of the DLS-C measuring device self-explanatory software is provided. This software may be used to change settings on the measuring device in a fast and easy way. Various features can also be activated.

The software is available free of charge as a download from our web site ([www.dimetix.com](http://www.dimetix.com)). It also includes different languages for international use.



### Accessories

Various accessories are available for the DLS-C distance measuring device. Further information can be found on our web site ([www.dimetix.com](http://www.dimetix.com)).



## DISTANCE MEASURING – contactless and reliable

### DLS-C – for millimeter precise measuring in extreme situations

Product type Item No.	DLS-C 15 500622	DLS-C 30 500621	DLS-CH 15 500624	DLS-CH 30 500623
<b>Design conditions</b>	STANDARD	STANDARD	WITH HEATER (extended temperature range)	WITH HEATER (extended temperature range)
<b>Operating temperature</b>	-10 °C ... +50 °C	-10 °C ... +50 °C	-40 °C ... +50 °C	-40 °C ... +50 °C
<b>Accuracy</b> (includes all possible errors)	± 1.5 mm	± 3 mm	± 1.5 mm	± 3 mm
<b>Repeatability (typ.)</b>	± 0.4 mm	± 0.5 mm	± 0.4 mm	± 0.5 mm
<b>Resolution</b>	0.1 mm			
<b>Measuring range</b>	0.05 ... 150 m			
<b>Supply voltage</b>	9 ... 30 V DC	9 ... 30 V DC	24 ... 30 V DC	24 ... 30 V DC
<b>Housing</b>	Metal case IP65			
<b>Laser</b>	visible, red			
<b>Dimensions</b>	150 x 80 x 55 mm			
<b>Weight</b>	690 g	690 g	720 g	720 g
<b>Interfaces</b> – Standard	<ul style="list-style-type: none"> <li>– 1 serial interface RS-232 / RS-422</li> <li>– 1 analog output 0/4 – 20 mA, programmable</li> <li>– 3 digital output – 2 programmable and 1 for error display</li> <li>– 1 digital input for external trigger</li> </ul>			
– Option	– Profibus			

Further information can be found in our manual.

LASER RADIATION  
DO NOT STARE INTO BEAM  
CLASS 2 LASER PRODUCT



Your local agent:

# DIMETIX

**Dimetix AG**  
Degersheimerstr. 14  
CH-9100 Herisau  
Switzerland  
Tel.: +41 71 353 00 00  
Fax: +41 71 353 00 01  
info@dimetix.com  
[www.dimetix.com](http://www.dimetix.com)