

# Modelo LDM300 C

# Sensor

## Medidor laser



Measuring distance and speed, monitoring positions and movements, scanning profiles, measuring filling levels, reflectorless, fast and accurate.

The compact LDM 300 C laser range finder module provides reflectorless, fast and accurate distance measurement to any suitable surface.

The employed technique of the time-of-flight measurement of laser pulses is particularly suitable for measuring long distances under harsh industrial conditions.

Compared with other measuring techniques the extremely short measuring time allows distance measurement to or from moving objects. The LDM 300 C is designed for fixed installation on-site.

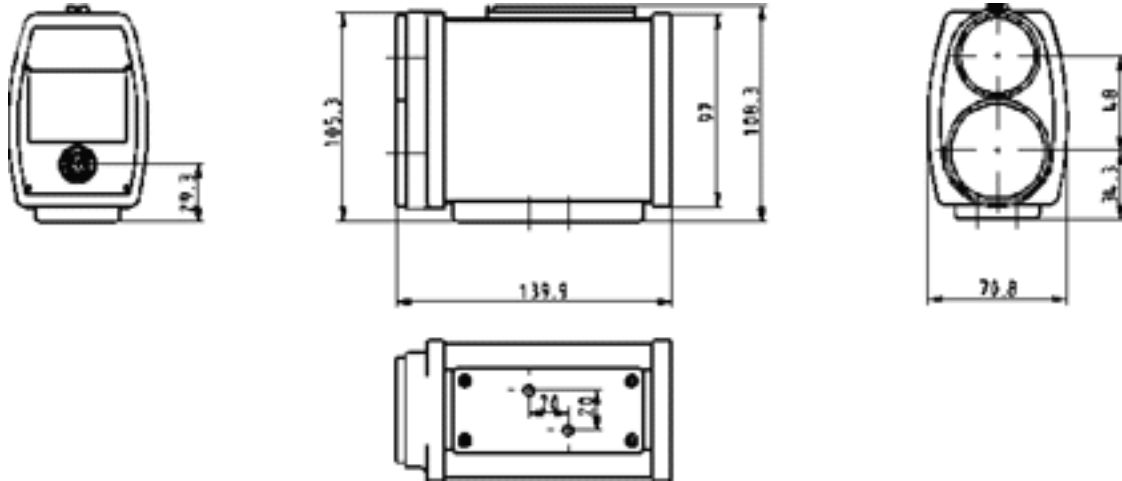
Installation and starting up are easy. A mechanical sighting device is provided to align range finder to the target. A light-point sight can be mounted for alignment with dot accuracy.

Depending on the technical parameters the instruments are supremely versatile.

- \* Measurement in areas with difficult access, e.g. in cavities, inside of pipes, container measurement.
- \* Filling level measurement of bulk materials.
- \* Measurement in steel rolling mills.
- \* Monitoring the movement of objects such as doors or windows for security applications.
- \* Position monitoring of ships at sea or docking manoeuvres etc.
- \* Use as programmable, reflectorless light barrier for safety and monitoring applications, e.g. in mining and road construction.
- \* Determination of the position, body profile or speed of vehicles in traffic flow control.

# Mod LDM 300 C

# Technical data



### Measurement range\*1

on white surface 0.5 m up to approx. 400 m  
on ground, concrete up to approx. 200 m  
on plastic reflector more than 1500 m  
Laser divergence 3 mrad  
Laser class\*2 Class 1 compliant with  
EN 60825-1:1997-03

### Distance measurement

Measuring accuracy\*3, 4  $\pm 5$  cm in temperature range  
-10°C to +40°C

$\pm 10$  cm in temperature range

-20°C to +60°C

Resolution of measurement values\*5 1 mm, randomly scalable

Statistical spread\*6

at a measuring time of

10 ms

100 ms

1 s

$\pm 7$  cm

$\pm 2$  cm

$\pm 1$  cm

### Speed measurement

Measurement range 0 ms-1 up to 70 ms-1

Measuring accuracy\*3 0.3 ms-1

Measuring time 0.5 s

Operating temperature -20°C up to +60°C

Storage temperature -40°C up to +70°C

Power supply\*7 10 V ... 30 V direct-current

Power consumption\*8 < 5 W

Interface RS 232/RS 422 (switchable),

baud rate 9600, format 8n1,

setting of measuring functions,

scaling, measuring time selectable

via command, output of measured

value, strength of measured signal, monitoring

of instrument temperature, error code,

external synchronisation of single

measurements available on request.

Switch output\*7, 9 programmable switching threshold

with hysteresis, "high-side-switch",

load capacity up to 0.5 A

Analog output\*7, 9 programmable distance range

limits, 4 mA to 20 mA,

load resistance Ohm

Dimensions (L x W x H) 139.9 mm x 70.8 mm x 108.3 mm

Weight 850 g

Internal protection IP 65

Included in delivery LDM 300 C, interface cable, manual

Accessories reserve interface cable,

light-point sight

plastic reflector, suitcase

\*1 dependent on target reflectivity, stray light influences and atmospheric conditions

\*2 at a distance of 100 m, the beam diameter is 0.3 m

\*3 reflection factor  $p > 20\%$

\*4 standard deviation

\*5 unit of measure can be switched between m, dm, yard, feet, 100 inches with two digits accuracy after the comma

\*6 for plane white screen installed at right angles with measurement direction at a distance of 100 m

\*7 one connector port for supply voltage, RS 232 or RS 422 interface, switch output, analog output

\*8 not considering switched electrical load

\*9 distance measurement only



Microinformatica y Electrónica Industrial  
Calle Alluitz,6 48.200 DURANGO ( Vizcaya) Spain  
Tel : 94 - 6 20 10 36 Fax : 94 - 6 20 18 32  
E. Mail : mudata @ mudata . es