



FARTHER THAN YOU CAN SEE...

**OPTICAL DISTANCE
MEASUREMENT
WITH VDM100**



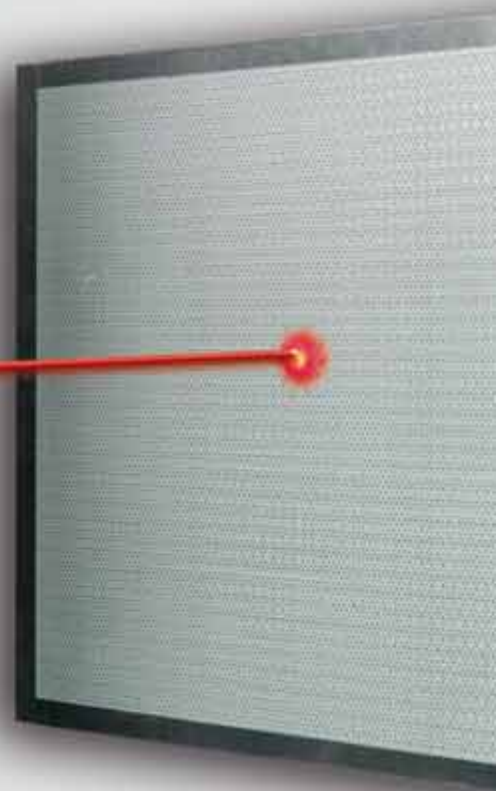
Farther than you can see ... Indeed! The new VDM100 works perfectly in distances up to 300 m. With modulated IR beams in the range of nanoseconds, it achieves sampling rates of 1,000 readings per second.

Non-contact and eye-safe, this modern, robust sensor is ideal for positioning tasks requiring speed and precision.

**“The best solutions
from a far-sighted
specialist.”**

With an indexing speed of up to 15 m/s, the principle of Pulse Ranging Technology (PRT) shows its strength.

The perfect addition to the VDM100 is the optical data coupler LS611 that is already established on the market – a strong team meeting your requirements for a fully scalable solution for automation tasks.



HIGHLIGHTS

- Non-contact precision measurement from 0.3 m to 300 m
- Active dynamics control
- High sampling rate ensures continuous measurement
- Ultra-fast data acquisition
- Flexible use with various interfaces: SSI, PROFIBUS, INTERBUS





HIGHLIGHTS

- Measuring method: Safe, precise Pulse Ranging Technology (PRT)
- High ambient light limit
- High reliability in difficult environments
- Guaranteed accuracy over a wide temperature range up to $-30\text{ }^{\circ}\text{C}$





**“With an emphasis on the extreme –
extremely resistant,
extremely responsive,
extremely precise.”**

VDM100 – MODERN DESIGN



Perfect duo: Distance measurement device VDM100 and optical data coupler LS611



HIGHLIGHTS

- Modern, lightweight, and robust construction
- Clearly visible illuminated display
- Simple 4 pushbutton programming

**“Innovative
yet uncomplicated –
the world’s nicest
long distance relationship”**





HIGHLIGHTS

- Eye-safe measuring method
- Class 1 infrared laser for measurement




A woman with long, wavy brown hair is shown in profile, looking towards the left. A red laser line is visible on a white wall in front of her, positioned at eye level. She is wearing a dark, sleeveless top with a herringbone pattern.

**“Eye-safe
keeps the target in focus!”**

HIGHLIGHTS

- Quick and economical installation options
- Add-on visible laser for easy alignment
- M12 plug-in connector

A woman with brown hair, wearing a black top, is smiling and holding a black VDM100 device in her right hand. The device is a rectangular, black unit with a small display screen and several buttons on top. It has a white side panel and a black base with a connector. The background is a plain, light-colored wall.

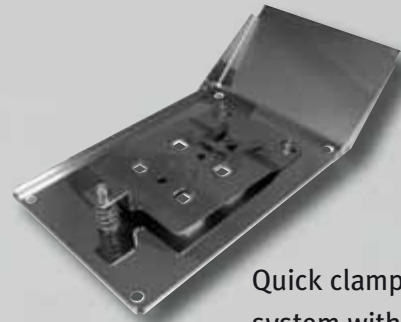
**“Rather elementary –
handy and easy to install.”**

MOUNTING AIDS

- Simple installation due to innovative quick-action clamp
- Precise alignment of the measuring laser with horizontal and vertical adjustment screw



Quick clamp mounting system OMH-LS610-01



Quick clamp mounting system with deflecting mirror (Deflection of 90°)
OMH-VDM100-01

ADDITIONAL ACCESSORIES

- Direct installation kit OMH-LS610-02
- Grounding kit
- M12 protective cap kit



REFLECTORS

Reflector for ranges up to 300 m:

- Dimensions 500 x 500 mm Reflector VDMo1

Enlargement reflector for applications with vibrations:

- Dimensions 500 x 250 mm Reflector VDMo2 (use only together with Reflector VDMo1)

Standard reflectors:

- Dimensions 500 x 500 mm Reflector 500 x 500 mm
- Dimensions 1000 x 1000 mm Reflector 1000 x 1000 mm

CONNECTION ACCESSORIES

Operating voltage:

- V1-G M12, 4 pin, straight
- V1-W M12, 4 pin, right-angled
- V15-G-PG9 coupling

SSI interface:

- V15-B-G jack M12, 5 pin, B coded

PROFIBUS interface:

- V15-B-G jack M12, 5 pin, B coded
- V15-SB-G connector M12, 5 pin, B coded

PROFIBUS termination:

- ICZ-TR-V15B



VDM100 – TECHNICAL DATA

Measuring method	PRT (Pulse Ranging Technology)
Measuring range	0.3 m ... 50 m / 150 m / 300 m
Light source	Laser diode
Light spot representation	< 35 cm at 150 m / < 70 cm at 300 m
Repeat accuracy	< 0.5 mm
Absolute accuracy	± 2.5 mm (> 3 m) / ± 3.5 mm (0.3 m ... 3 m)
Resolution	0,1 mm, adjustable
Laser class	I (in the measurement operating mode)
Read out rate	4000 s ⁻¹ by clock pulse frequency 1 MHz
Max. Motion velocity	15 m/s
Alignment aid	integrated laserpointer, flashes after the beam has been broken
Reference target	reflector 500 mm x 500 mm
Light type	infrared light 905 nm
Beam divergence	≤ 2 mrad
Angle of divergence	receiver 20 mrad
Operating voltage	18 V DC ... 30 V DC , electrically isolated
Protection class	III (operating voltage 50 V)
Ripple	10 %
No-load supply current	0,3 A
Interface types	SSI, PROFIBUS, Interbus
Ambient temperature	-10 °C ... 50 °C / -30 °C ... 50 °C
Storage temperature	-20 °C ... 70 °C
Protection degree	IP65 according to EN 40050



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