

# Technische Daten

## Technical Data

<b>Application</b>	<b>Lengths- and velocity- measurement, especially suitable for measurement of low velocities</b>
<b>Evaluation</b>	<b>Processing unit for length-calculation</b>
<b>Accuracy <sup>1)</sup></b>	<b>0.1 %</b>
<b>Repeatability <sup>1)</sup></b>	<b>better than 0.05 %</b> in the range of 170 ± 5 mm
<b>Working distance</b>	<b>170 ± 7.5 mm</b> widen 170 ± 10 mm, accuracy 0.2 %
<b>Velocity range <sup>2)</sup></b> (on customers demand)	<b>0.008 up to 0.83 m/s (0.5 up to 50 m/min)</b> widen 0.016 up to 1.7 m/s (1 up to 100 m/min)
Length range	internal range for length measurement until 200 km
<b>Detector / measurement principle</b>	<b>CCD-line / spatial filter principle</b>
Lighting <sup>2)</sup>	white light, halogen lamp 10 W
Programming interface <sup>3)</sup>	RS 232 (opto isolated)
<b>Opto isolated outputs <sup>3)</sup></b>	<b>OUT1, OUT2, OUT3</b>
function	OUT1, OUT2: <b>pulse output, 2 phases pulse encoder emulation</b> OUT3: <b>signal status</b>
frequency of pulse output	1 Hz - 7 kHz (max. +0,2 % measuring error at 7 kHz) (optional high resolution pulse output available)
type / max. output current	npn open collector / 40 mA
<b>Opto isolated inputs <sup>3)</sup></b>	<b>IN1, IN2</b>
function	<b>external direction signal and trigger signal</b> (for signals ±20 mA, 0/20 mA or 0/24 V, R <sub>i</sub> approx. 1 kOhm)
LOW-level	-40 up to +0,3 mA
HIGH-level	+2 up to +40 mA
<b>Power supply</b>	<b>230 V / 50 Hz</b> optional 115 V / 60 Hz or 24 V / DC
Power consumption	< 50 W
Temperature range	0 up to 50 °C (0 up to 120 °F)
<b>Protection type</b>	<b>IP 65</b>
Weight <sup>2)</sup>	approx. 5,8 kg
Electrically Magnetically Agreeableness	Industrial standard corresponding to CE <sup>4)</sup>
<b>Case sizes without connectors <sup>2)</sup></b>	<b>360 mm x 180 mm x 90 mm</b>
<b>Options</b>	
Analog output IF1 4 up to 20 mA or 0 up to 20 mA (16 Bit, opto isolated); various digitally interfaces IF1 (RS485/RS422, RS232, opto isolated); high resolution pulse output IF2 0.4 Hz up to 25 kHz and IF2F up to 500 kHz (2 x 2 pulse, resolution 20 ns); interface carts for Ethernet or Profibus DP; laser light barrier, automatic direction detection (not for F/S-series), Real Time Clock, counter and displays; mounting equipment, linear units, protection case, window jet	
1) DIN 1319 / ISO 3534, from the measured length value, Conditions: metallic surface, length 10 m	3) all connections are short-circuit proof, max. voltage 50 V/DC, 36V/AC
2) Conventional type, other types possible	4) proof test by accredited institute

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# VLM 200 L

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