ALAT UJI
Products, Solution, Services

optoCONTROL 2520

- Position target anywhere in measurement field
- Output multiple measurement values simultaneously
- Triggering and synchronisation of multiple channels
- Many filtering modes and statistical calculations
- View video signal via web browser
- Display of light and dark edges
- Measures up to 8 segments simultaneously

Compact multifunction micrometer with large working range

The optoCONTROL 2520 is a high performance, self contained laser micrometer with integrated controller and many programmable functions. It has a maximum measurement width of 46mm and the transmitter to receiver gap can be up to 2m (further can be achieved with reduction in measurement performance). Unlike current high accuracy micrometers, the optoCONTROL 2520 can have the target positioned at any point in the gap rather than just a small ‚working position'. This gives the user much more flexibility in use. Small objects with 0.5mm diameter can be reliably detected.

RS422, Ethernet / EtherCAT interfaces are available directly from the sensor. For analogue outputs, a small DIN rail module is supplied. An intuitive web browser interface is used for viewing and recording measurement values, configuration of sensor parameters and visualisation of the sensor video signal.

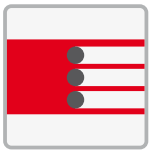
Measuring modes

The centre line as well as the position of the single edges can be output for every segment, gap or diameter.

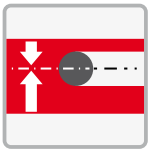
Edge light/dark
Edge dark/light

Diameter

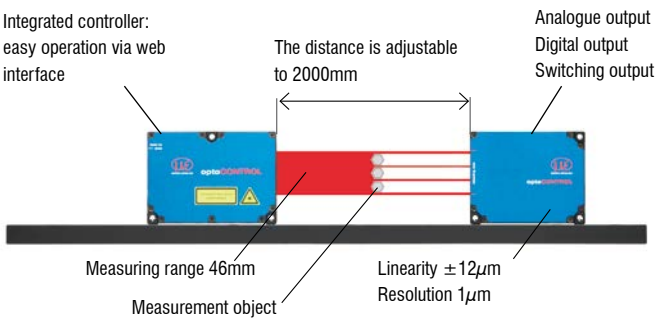
Gap



Segment

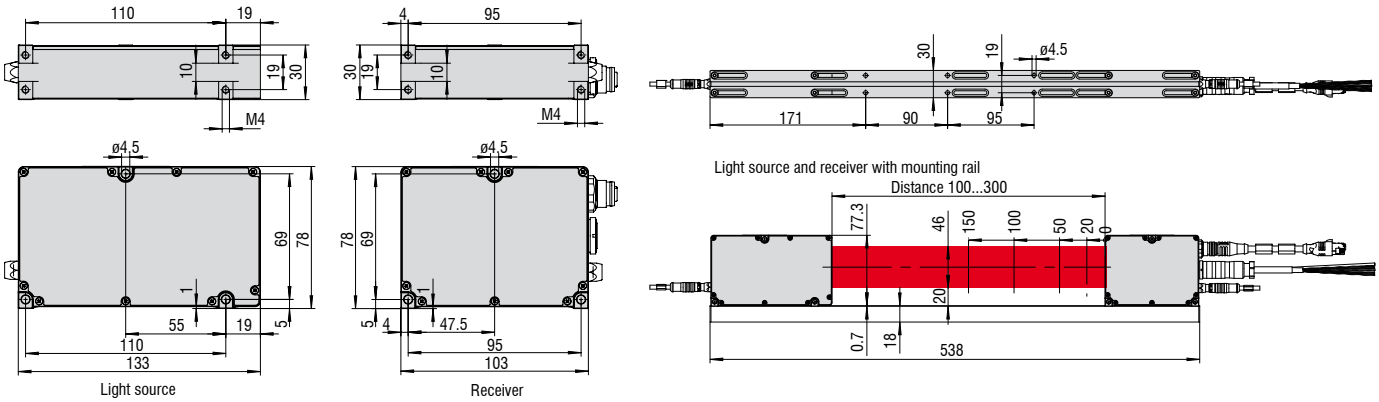


Centre



Modell		ODC 2520
Measuring range		46mm
Smallest diameter or gap		typ. ≥0.5mm
Distance light source - receiver (free space)		with mounting rail 100 … 300mm; without mounting rail up to approx. 2m
Distance (target to receiver)		20mm, max. 1500 ... 2000mm
Linearity (3σ) [1]		< ± 12µm
Digital resolution		1µm
Repeatibility [1] [2]		≤5µm
Measuring rate		2.5kHz
Light source		semiconductor laser 670nm (red), laser class 1M (P_{max} 2mW)
Analogue output		0 … 10V not electrically isolated, 14Bit D/A
Digital output		RS 422; max. 4 MBaud, full-duplex, not electrically isolated
		Ethernet, electrically isolated
		EtherCAT
Switching outputs		2 outputs, selectable for error or limit values, not electrically isolated 24V logic (HTL), High level depends to operating voltage
In-/Outputs		Zeroing / mastering, reset to factory setting; not electrically isolated, 24 V logic (HTL), High level depends to operating voltage
		TrigIn / SyncIn / symmetrical SyncOut, RS422 level, load resistance (120 Ohm) and direction switchable via software, not electrically isolated
Shock		15g / 6ms
Vibration		2g / 20 ... 500Hz
Operation temperature		0 ... 50°C
Storage temperature		-20 ... 70°C
Power supply		+24VDC (11…30VDC), < 1A
Connector	receiver	3-pin connector M8 for supply of the light source, 14-pin connector M16 for power supply and signals 4-pin connector M12x1 for Ethernet / EtherCAT
Display LEDs	receiver	Power on, Status, Speed, Link / activity
Protection class	receiver / light source	IP 64
Measuring programs		Edge light/dark; edge dark/light (outer-) diameter/ width incl. centre gap / (inner diameter) incl. centre Any segment edges incl. centre
Functions		averaging, filter; Threshold adjustment for transparent targets; edge detection and measurement direction reversible; current measuring value, Maximum, Minimum, Peak to Peak; edge / level / software triggering synchronization, counting function
Operation, measured value display		Web interface for parametrisation and display (incl. measurement server for transmitting multiple measuring values to the PC)

All specifications are measured at a constant temperature of 20 °C, sensor in continuous operation.
[1] Distance light source - receiver 300mm, distance target - receiver 20mm and 50mm, mode: edge light/dark
[2] Measured at static noise for 3 min.



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