MICRO-EPSILON

More Precision

confocalDT HS // High speed, confocal chromatic measurement system
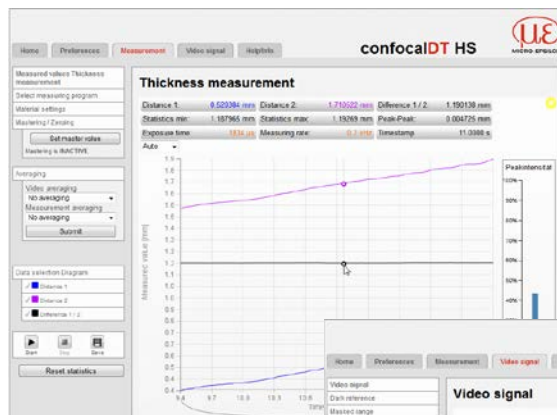
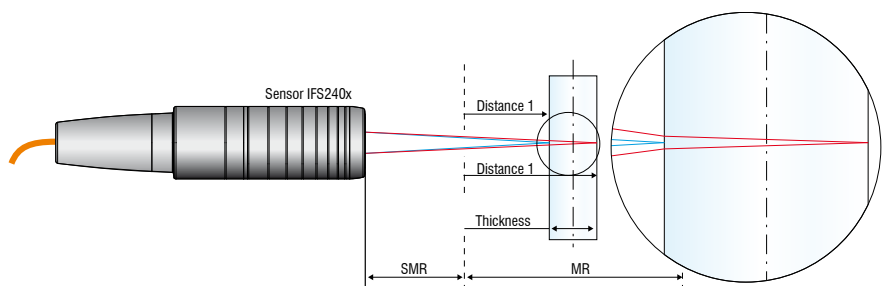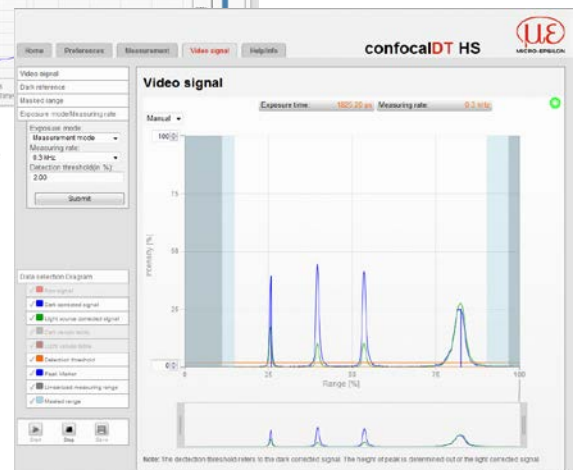|	
25kHz	**Fastest controller worldwide:** Measuring rate up to 70kHz
INTER FACE	**Interfaces: Ethernet / EtherCAT / RS422 / Analogue**
	Fast surface compensation
	Configuration via web interface
	Submicrometer resolution
	Multi layer thickness measurement
	Robust design with passive cooling

The confocalDT 2471 HS controllers are used for fast distance and thickness measurements of highly reflecting surfaces. The controllers are equipped with enhanced optical components enabling measuring rates up to 70kHz without having to use an external light source. The confocalDT HS controllers are considered one of the fastest confocal measurement systems in the world. The active exposure regulation feature in the CCD array enables accurate, fast surface compensation on difficult changing surfaces during dynamic measurement processes.

The controller can be operated with any IFS sensor and is available as a standard version for distance measurements or as a multi-peak version for thickness measurements.

Due to a user-friendly web interface, the entire configuration process is carried out without using any additional software. Data output is via Ethernet, EtherCAT, RS422 or analogue output.
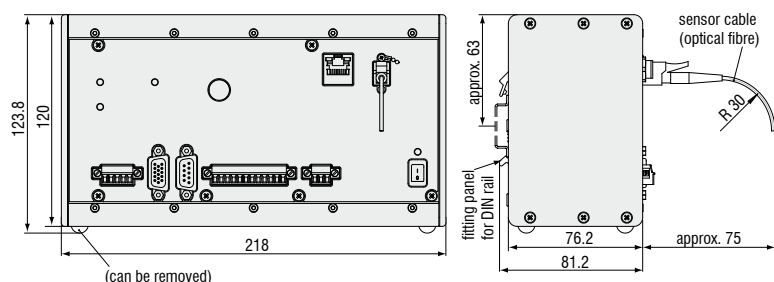

All settings are performed in the web interface. Materials are stored in an expandable materials database.

Controller	IFC2471LED	IFC2471MP LED
Multi peak measurement	2 peaks	up to 6 peaks
Light source	internal white LED	
Measuring rate	continuously adjustable, 100Hz to 70kHz	
Resolution — Ethernet / EtherCAT	1nm	
Resolution — RS422	18bit	
Resolution — analogue	16bit	
Storage	up to 20 calibration tables for different sensors, menu selection	
Controller inputs / outputs	sync-in / trigger-in, sync-out error1-out, error2-out encoder (3x A, B, Index) EtherCAT/Ethernet RS422 analogue: current, voltage (16bit D/A converter)	
EtherCAT	EtherCAT.	
Operating elements, controller display	On/Off switch; Button for dark alignment (as well as for reset to factory setting after 10sec) 4x LED for intensity, range, status, supply voltage	
Supply voltage, power consumption	24VDC ±15%, ~ 10W	
Housing	Aluminium case for DIN rail mounting	
Protection class	IP40	
Operating temperature	5°C ... 50°C	
Storage temperature	-20°C ... 70°C	
Permissible ambient light	30,000lx	
Safety; EMC interference emission Interference resistance	CE EN 61 000-6-3 / DIN EN 61326-1 (class B) EN 61 000-6-2 / DIN EN 61326-1	
Shock	15g, 6ms	
Vibration	2g / 10Hz ... 500Hz	
Optical fibre cable length — Sensor	2 ... 50m	
Optical fibre cable length — Connector	E2000	
Cable length (all cables are shielded) — EtherCAT, Ethernet	CAT5E; length <100m	
Cable length (all cables are shielded) — Supply, RS422, sync./error	<30m	
Cable length (all cables are shielded) — analogue	<30m	
Cable length (all cables are shielded) — Encoder	<3m	

Controller IFC2471 LED

High performance sensors made by Micro-Epsilon

Sensors and systems for displacement and position

Sensors and measurement devices for non-contact temperature measurement

2D/3D profile sensors (laser scanner)

Optical micrometers, fibre optic sensors and fibre optics

Colour recognition sensors, LED analyzers and colour online spectrometer

Measurement and inspection systems

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