



# More Precision









**confocalDT 242x** // The new, confocal industry standard



The new, confocal industry standard

confocalDT 242x



-  **Measuring rate up to 6.5kHz**
-  **INTER FACE**  
**Interfaces: Ethernet / EtherCAT / RS422 / Analogue**
-  **Fast surface compensation**
-  **Configuration via web interface**
-  **Submicrometer resolution**
-  **Multi layer thickness measurement**
-  **Synchronous two-sided thickness measurement**
-  **Robust design with passive cooling**

The confocalDT 2421 and 2422 controllers set a new standard in the industry when it comes to high precision, confocal measurement technology.

Available as either a single- or a dual-channel version, these measurement systems enable a low cost solution especially for high volume applications. The active exposure regulation feature in the CCD array enables accurate, fast surface compensation on difficult changing surfaces.

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 multi-layer thickness measurements. Using a special calculation function, the confocalDT 2422 dual-channel version evaluates both channels. Measurement acquisition is synchronous and can be carried out while exploiting the full measuring rate for both channels.


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.



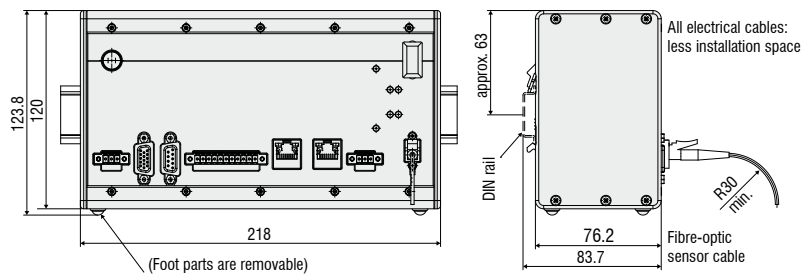
All settings are performed in the web interface. Materials are stored in an expandable materials database.



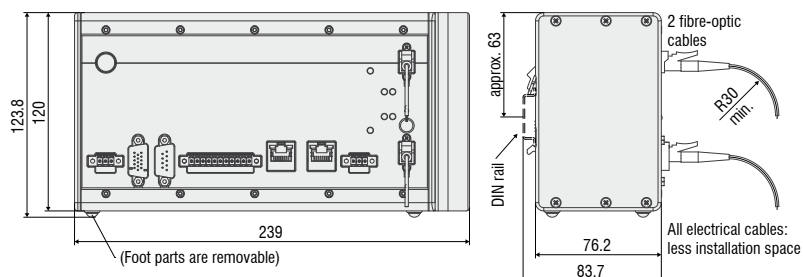
Two sensors can be directly connected to the confocal controller.

Controller		IFC2421	IFC2421MP	IFC2422	IFC2422MP
Multi peak measurement		2 peaks	6 peaks	2 peaks	6 peaks
Measurement channels		1	1	2	2
Light source		internal white LED			
Measuring rate		continuously adjustable, 100Hz to 6.5kHz			
Resolution	Ethernet/EtherCAT	1nm			
	RS422	18 bit			
	Analogue	16 bit			
Storage		up to 20 calibration tables for different sensors per channel, menu selection			
Controller inputs/outputs		Sync-In/Trig-In, Sync-Out Error1-Out, Error2-Out Encoder (2x A, $\bar{A}$ , B, $\bar{B}$ , Index) EtherCAT/Ethernet RS422 Analogue: current, voltage (16 bit D/A converter)			
EtherCAT					
Operating elements, controller display		Multifunction button (as well as dark alignment and reset to factory setting after 10sec) 5x LED for intensity, range, status, supply voltage			
Supply voltage, power consumption		24 VDC $\pm$ 15 %, approx. 10 W			
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			
	Connector	E2000			
	EtherCAT, Ethernet	CAT5E; length <100m			
Max. cable lengths (all cables are shielded)	Supply, RS422, sync./error	<30m			
	Analogue	<30m			
	Encoder	<3m			

Controller IFC2421



Controller IFC2422



## 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 inline spectrometer



Measurement and inspection systems