

Online Sensor Umbilicals & Extensions

T-Ray® 5000

All of the T-Ray 5000® sensor heads or measurement tools are attached to the Terahertz Control Unit (TCU) by an umbilical that includes both electrical and optical connections. The specific form of the umbilical depends on the specific application.

Umbilicals for the TCU can be up to a total length of 45 m running length from the control unit to the sensor head.

Although the umbilicals are constructed with high flex applications in mind, over time, failures can occur. A junction box at the end of the scanning frame or robot arm, and an extension umbilical from there to the control unit, can allow for replacement of the portion in the scanning frame without the need to pull the umbilical that runs to the control unit.

APPLICATIONS

- Industrial process control: commercial roofing; foam density; coating thickness; plastic extrusion; asphalt shingles
- Nondestructive materials inspection: aircraft; packaged goods; radome inspection; spacecraft; pipeline repairs
- Converting applications: paper coating; multilayer films; tire



KEY FEATURES

- Flexible robust umbilical
- High flex rated electrical connection
- Nylon and Kevlar protected optical fibers
- Single umbilical for ease of use
- Variety of umbilical lengths available
- Polarization maintaining fiber

BENEFITS

- Segmented umbilical to speed replacement
- Protected fibers extend life
- Easily integrated into scanning frames
- Location specific connectors prevent errors
- Fiber coupled sensor allows scanning
- Stable measurements for process control



5 m Umbilical Extension
(UMS5205)



5 m Umbilical
(UMS5105)



30 m Umbilical Extension
(UMS5230)

Parameter	Specification	Units
Polarization Extinction Ratio	< 20:1	
Available Lengths	5, 10, 30	m

Industry Leading Regulatory Compliance

The T-Ray 5000 intelligent TCU has been certified by Underwriters Laboratories has received the CE mark, is fully compliant with FDA CDRH laser safety regulations, and has been tested to meet FCC part 18 regulations.



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