

# PRODUCT DATASHEET

## MWS Microwave Work Station



The MWS Microwave Work Station is designed to perform temperature measurements in a microwave oven equipped with a turntable. The use of fiber optic sensing technology allows complete immunity to microwave energy as well as accurate and reliable measurements inside the microwave oven cavity.

The Microwave Work Station comes with the FISOC Commander Workstation software for complete sensors and results management.

The Microwave Work Station fits most food developer and tester needs.

Thanks to its unique patented technology, the Microwave Work Station is capable of measuring the absolute cavity length of FISO's Fabry-Perot fiber optic sensors with astonishing accuracy, providing highly accurate and reliable measurements.

The Microwave Work Station is compatible with all of FISO's fiber optic sensors, including strain, pressure, temperature, displacement, refractive index, force and load. FISO's fiber optic sensors offer complete immunity to RF and microwave radiation with high temperature operating capability as well as intrinsic safety. The sensors are also designed to withstand harsh and corrosive environments.

The Microwave Work Station allows automated data collection and seamless data exchange with standard spreadsheet programs such as Microsoft Excel™ or Lotus 1-2-3™. Data includes temperature and pressure readings collected during the test session. Pictures of the sample under test and the positioning of the sensors can also be saved in the test file. This valuable information can be easily classified and retrieved anytime allowing comprehensive data analysis and comparisons.

The Microwave Work Station includes a microwave oven equipped with a turntable, a fiber optic rotating unit for temperature measurements, the FISOC Commander Workstation Edition software, all required wiring, and a comprehensive instruction manual.

### Key Features

- 8 fiber optic channels
- Sequential measurement
- Turntable microwave oven
- Collect and save data in spreadsheet-compatible format
- Rugged, easy to use fiber optic sensors
- Complete immunity to microwave energy

### Applications

- Food product development
- Food packaging development
- Microwave food product testing
- Microwave food processing
- Cookware design
- Microwave oven design and testing
- New materials research
- Microwave and RF related applications



## Specifications

<b>Number of channels</b>	8
<b>Sampling rate</b>	20 Hz
<b>Switching time</b>	150 ms between each channel
<b>Averaging</b>	1 to 500 samples
<b>Dynamic range</b>	
Temperature	-40°C to 300°C (-40°F to 572°F)
<b>Communication</b>	RS-232
<b>Upgradeability</b>	Flash ROM firmware
<b>Weight</b>	
Rotating unit	2.8 kg (6.2 lb)
Microwave oven	13.5 kg (30 lb)*
<b>Dimensions</b>	
Rotating unit (Ø × H)	220 × 180 mm (8.7 × 7.1 in)
Microwave oven (H × W × D)	304 × 555 × 480 mm (12 × 21.9 × 19.4 in)*
<b>Microwave oven capacity</b>	0.05 m <sup>3</sup> (1.6 cu.ft.)*
<b>Microwave oven cavity dimensions (H × W × D)</b>	228 × 418 × 470 mm (9 × 16.5 × 18.5 in)*
<b>Microwave oven maximum output power</b>	1200 Watts*
<b>Power requirements</b>	
Rotating unit	12 Volts DC
Microwave oven	120 VAC 60 Hz; 12 A; 1460 Watts*
<b>Operating temperature</b>	15°C to 35°C (59°F to 95°F)

\*As per microwave oven manufacturer specifications.

## MWS Screenshot

