

# MX TD



## Noncontact Temperature Measurement



### When the job demands precision and accuracy.

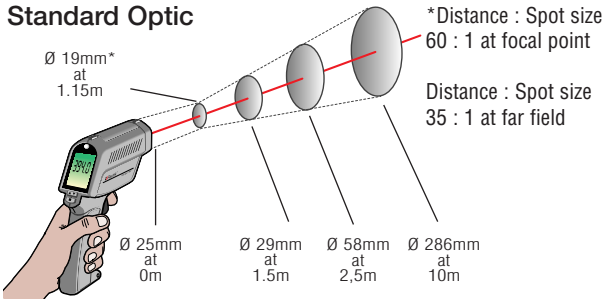
Broad temperature range, superior optics and the True Dimension™ double-bright laser sighting system make the MX series the most advanced portable thermometer in the industry. The MX series featuring the True Dimension coaxial laser sighting is the only thermometer designed with precise infrared beam tracking, resulting in more accurate measurement.



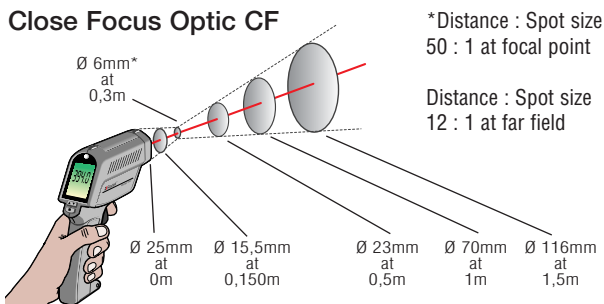
## True Dimension™ Laser Sighting

True Dimension is a coaxial laser sighting system that shows the exact measurement area from all distances. This advanced coaxial system uses an extra bright\* 635nm, 3-point laser sighting (tested to the same safety and power standards as less bright laser sights) to clearly highlight the targeted area.

### Standard Optic



### Close Focus Optic CF



## MX Series Accessories and Options

Both models include a user guide and a hardshell carrying case.

The MX4+ TD additionally includes: ■ DataTemp MX software ■ RS232 computer cable ■ Plug-in Power Supply (110 or 220 volt) ■ Thermocouple K probe

### MX2 Options

- Close Focus
- Sub Zero
- Padded Pouch w/Belt Clip
- Intrinsically safe model

### MX4+ TD Options

- Close Focus
- Sub Zero
- Thermistor (NTC probe)
- Portable thermal printer
- Thermal printer paper (5 rolls)
- mV/degree output cable
- Padded Pouch w/Belt Clip

### Sub Zero Option

The Sub Zero (SZ) model option is designed for measuring lower temperatures. The SZ model uses an IR sensor specially calibrated to measure temperatures from  $-50^{\circ}\text{C}$  through  $500^{\circ}\text{C}$ .

### Close Focus Option



The Close Focus (CF) option lets you accurately measure very small areas at the Focus Point—where the IR beam narrows. Paired with the advanced coaxial laser sighting, extremely small objects of 6 mm diameter can be easily measured. Ideal for electrical maintenance and refrigeration troubleshooting.

## Advanced Display



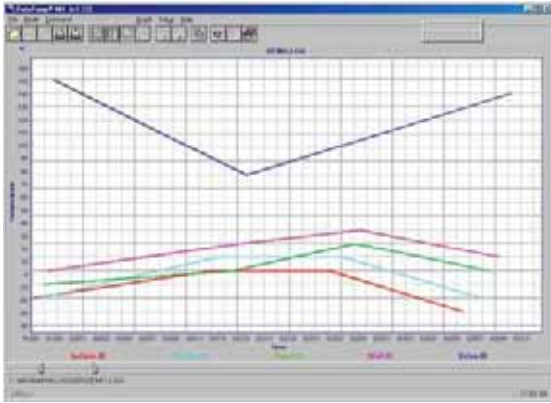
With 30 pre-set common material emissivity values from which to choose, and values adjustable in increments of 0.01, the Raytek MX series helps make temperature measurements more accurate when checking any surface material. You can even add your own material names and value with the MX4+ TD.

The MX4+ TD model stores up to 100 temperature readings for easy retrieval, and when used with the DataTemp MX Software, can store customized location names, alarms, and emissivity for data logging and mistake-free inspections and reliable



\* perceived to be twice as bright as normal lasers with the same power by the human eye.

# DataTemp MX Software for Condition Monitoring and Process Control



Easily see temperature trends and potential equipment problems by graphing data accumulated with the MX's data logging feature.

Visualize, systematically maintain and analyze temperature data using Windows compatible Raytek DataTemp MX software

## Graph

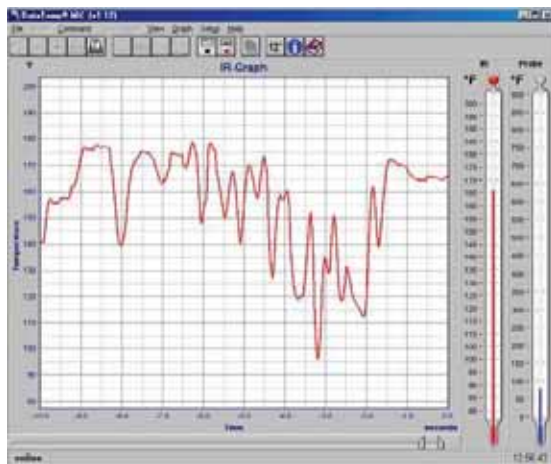
- Visually find and review trends instantly through graphs
- Simultaneously graph results while continuously monitoring temperatures
- Quickly compare temperatures of up to 5 log locations for trends or anomalies
- Display infrared and/or probe temperature trends over time
- View infrared and probe values continuously on thermometer sidebar

No.	Name	Date	Time	IR Temp	IR Min	IR Max	IR Avg	Photos	Additional Items	Software	Locations	Units
1	water inlet	12/20/98	PM 5:4	58.4	58.0	58.8	59.2	0.00	Direct read	32.0	36.0	yes
2	water outlet	12/20/98	PM 5:4	54.4	54.0	54.8	54.8	0.00	Probe	32.0	36.0	yes
3	air inlet	12/20/98	PM 7:2	74.8	75.2	75.0	75.0	0.00	Probe	32.0	36.0	yes
4	air outlet	12/20/98	PM 8:4	80.2	80.4	80.2	80.4	0.00	Calculated	32.0	36.0	yes
5	motor	12/19/98	PM 17:4	142.9	133.9	147.4	139.2	0.00	Direct read	36.0	100.0	yes
6	BREAKER 1	12/16/98	PM 1:0	141.8	133.8	148.2	141.8	0.00	Direct read	32.0	100.0	yes
7	BREAKER 2	12/16/98	PM 7:8	79.8	80.6	80.2	79.2	0.00	CU probe	32.0	100.0	yes
8	BREAKER 3	12/16/98	PM 8:4	76.2	82.4	79.0	74.4	0.00	CU probe	32.0	100.0	yes
9	BREAKER 4	12/16/98	PM 10:0	103.0	103.0	103.6	74.8	0.00	Direct read	32.0	100.0	yes
10	BREAKER 5	12/16/98	PM 10:2	85.8	87.4	86.4	74.8	0.00	Direct read	32.0	100.0	yes
11	BREAKER 6	12/16/98	PM 10:4	84.2	84.4	84.4	75.0	0.00	CU probe	32.0	100.0	yes
12	BREAKER 8	12/16/98	PM 10:8	74.8	80.0	80.4	75.2	0.00	Free	32.0	100.0	yes
13	BREAKER 10	12/17/98	PM 8:0	82.0	82.4	82.2	75.4	0.00	Free	32.0	100.0	yes
14	BREAKER 11	12/17/98	PM 16:0	81.4	107.0	149.2	76.2	0.00	Free	32.0	100.0	yes
15	BREAKER 12	12/18/98	PM 8:0	76.4	100.0	89.8	79.2	0.00	Free	32.0	100.0	yes
16	BREAKER 13	12/18/98	PM 7:8	79.2	79.6	79.4	76.2	0.00	Free	32.0	100.0	yes
17	BREAKER 14	12/17/98	PM 10:2	80.2	104.2	110.4	75.0	0.00	Free	32.0	100.0	yes
18	BREAKER 15	12/17/98	PM 7:0	79.0	79.0	79.0	79.0	0.00	Free	32.0	100.0	yes
19	BREAKER 16	12/17/98	PM 1:0	79.8	174.0	153.8	77.8	0.00	Free	32.0	100.0	yes
20	BREAKER 17	12/21/98	PM 11:0	78.2	119.0	88.8	79.6	0.00	Free	32.0	100.0	yes
21	BREAKER 18	12/21/98	PM 8:8	77.4	141.0	101.0	79.6	0.00	Free	32.0	100.0	yes

The DataTemp MX software makes it easy to error-proof inspection routes by giving names, alarm points and emissivities to locations.

## Data Log

- Create recognizable names for inspection locations
- Track both infrared and probe temperature trends
- Tailor high/low alarms per individual inspection location
- View min, max, and average infrared and probe temperatures
- Create and customize emissivity tables for each inspection location
- Store up to 10,000 data points in a file



The MX4+ TD can be used to monitor, graph, and record real-time temperature changes with the DataTemp software.

## Report View/Print

- Customize report views and printing formats
- Generate time and date-stamp printouts for accurate records
- Export data as text files for integration with Maintenance, Reliability, Operations (MRO) systems and other database programs

Export Format

Time format  
 Floating point format  
 Regular format

Time mode  
 Absolute  
 Relative to header

Date order  
 day/month/year  
 month/day/year  
 year/day/month  
 year/month/day

Decimal digits for seconds: 2

Leading Zero  
 Show date  
 Show time  
 24 Hours

Delimiter  
 Date:  Time:   
 Time (decimal):  
 Date / Time  
 Tab  Space

Sample: 02.12.1998 23.35.36.38

OK Cancel

The DataTemp MX software provides a convenient way to export temperature data files in a format that can be used by programs such as Access®, Excel®, and condition monitoring programs.

# MX Specifications and Features

	MX2	MX4+
Temperature Range	-30° to 900°C (-50° to 500° with SZ option)	
Accuracy (Assumes ambient operating temperature of 23°C)	±0.75% of reading or ±0.75°C whichever is greater	
Repeatability	≤ ±0.5 % of reading or ≤ ±0.5°C, whichever is greater	
Response Time	250 mSec (95% of reading)	
Spectral Response	8 to 14µm, thermopile detector	
Distance to Spot (D:S)	60:1 (50:1 with Close Focus Option)	
Minimum Measurement Diameter	19mm (6mm with Close Focus Option)	
Display Resolution	0.1°C of reading up to 900°C	
Temperature Display	°C or °F selectable	
Ambient Operating Temp.	0 to 50°C	
Storage Temperature	-20 to 50°C	
Tripod Mount	1/4-20 UNC	
Power	2 AA Batteries	2 AA Batteries/AC adapter
Power Supply (110 or 220V), PS232 Computer Cable, 1.5 m, K thermocouple probe	—	✓
Laser Class II	3-point laser sighting (Meets IEC Class 2 & FDA Class II requirements)	
Intrinsically safe model (meets II 2 G EEx ia IIC T4)	✓	—
Maximum and Minimum Temperature	✓	✓
Audible/Visible High Alarm	✓	✓
Differential and Average Temperature	—	✓
Bar Graph Display	✓	✓
Adjustable Emissivity (from 0.1 to 1.0 by 0.01)	✓	✓
100 Points Data Logging	—	✓
Display Hold	✓	✓
LCD Backlit	✓	✓
Data Graphing Software (Windows compatible)	—	✓
Data Output: RS232 or 1mV per degree	—	✓
DKD Traceable Calibration Certification	Option	Option
Hard Carrying Case	✓	✓
Weight	480 g	