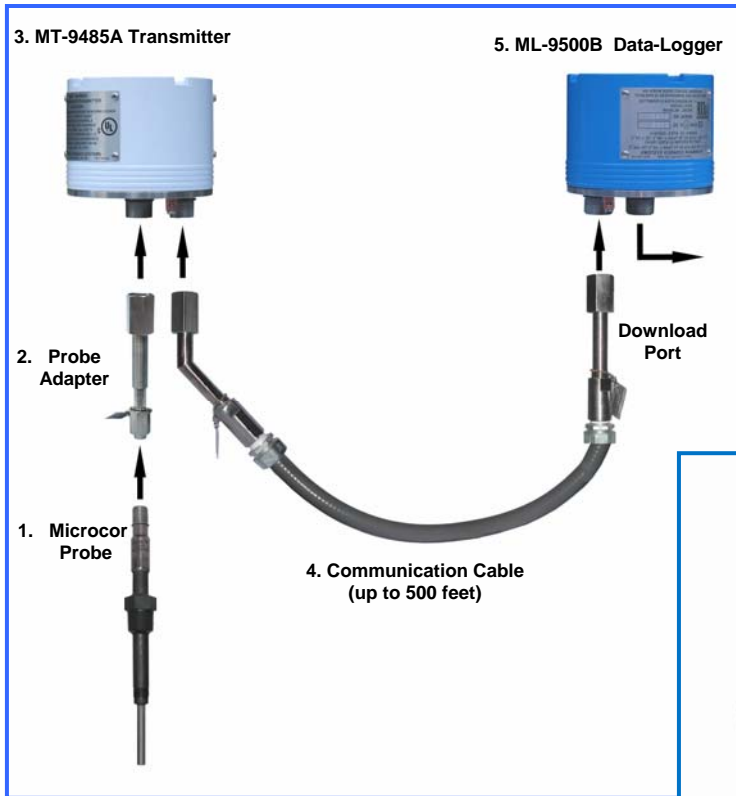


# Microcor<sup>®</sup> Data-Logging System



## Features:

- **Stand Alone Data Collection**
- **Internal Battery Powered**
- **Hazardous Area Certified**
- **Downloads with Checkmate™ DL**



Microcor<sup>®</sup> technology greatly increases sensitivity and speed of response over conventional electrical resistance (ER) systems. It combines the rapid response of linear polarization resistance (LPR) with the universal applicability of ER metal loss, measuring reliably conductive or non-conductive environments.

The battery powered Microcor ML-9500B Data-Logger adds autonomous power and data collection for applications where direct on-line operation is not possible. This system is ideal for remote locations, for low corrosion rate systems, and for rapid deployment to analyze unexpected corrosion problems.

The Data-Logging System comprises the following:

**1. Microcor Probe** - A wide range of fixed, retractable and retrievable probes are available, with standard types to suit most applications. For special applications, custom design is available. See separate Microcor Probes Data Sheet

**2. Probe Connecting Adapter** – The probe connecting adapter allows the Microcor transmitter to be close-coupled to the probe and provides a mounting for the transmitter. There are two types.

|                                 |            |
|---------------------------------|------------|
| Model 2000 & 3000 Series Probes | P/N 745092 |
| Models 4000 Series Probes       | P/N 745093 |

The probe adapter is the preferred and simplest method of mounting the Microcor Transmitter (see probe data sheet for mounting clearance). However if high vibration or excessive temperature is present, an alternative short connection cable can be used. A separate mounting bracket is then required to mount the transmitter.



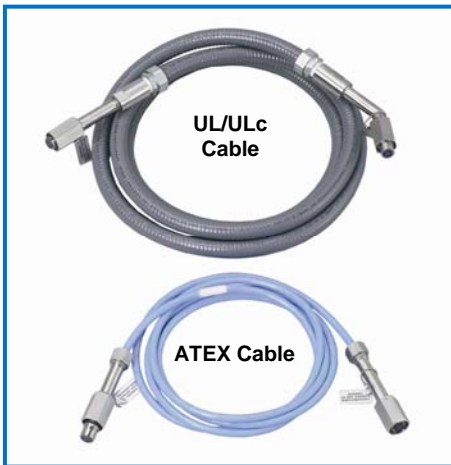
Probe to Tx Cable 6ft (2m) max  
ATEX certified (L=length in ft) P/N 748224-L

Probe to Tx Cable 6ft (2m) max  
UL/ULc certified (L=length in ft) P/N 748223-L

Transmitter (or Data-Logger)  
Mounting Bracket P/N 748213

**3. Microcor Transmitter** Model MT-9485A

**4. Transmitter to Data-Logger Cable** – This cable enables the data-logger to be mounted up to 500 ft from the Microcor transmitter at a convenient location for data collection and battery change-out.



TX to Data-Logger Cable  
ATEX Certified (L=Length in ft) P/N 748202-L

TX to Data-Logger Cable  
UL/ULc Certified (L=Length in ft) P/N 748203-L

**5. Microcor Data-Logger** – The Microcor Data-Logger uses the same enclosure as the Microcor Transmitter and is supplied complete with a mounting kit.



Microcor Data-Logger Model ML-9500B

**Data Transfer to the PC**

For non-hazardous areas, a portable PC can configure and retrieve data from the data-logger with the following cable.

Data-Logger to PC serial cable P/N 748243

For electrically hazardous areas, an intrinsically safe Checkmate DL hand-held terminal is required for configuration and data transfer. The Checkmate DL collects data from all of the data-loggers in the field, and is then carried to the safe area for data transfer to the PC running Microcor Tools Software.



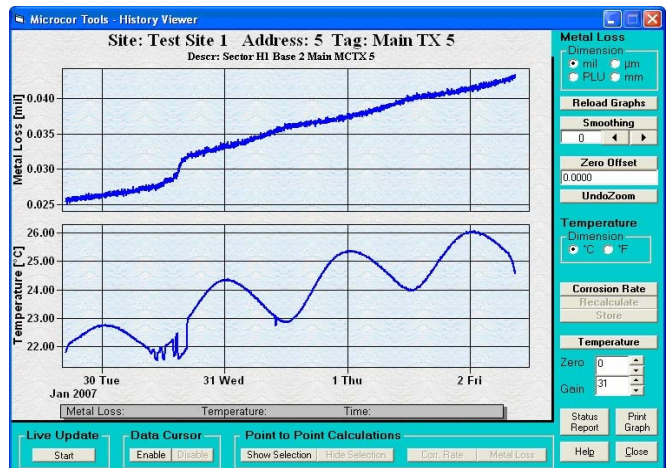
Checkmate DL Checkmate-DL-1

Note: The Checkmate DL Instrument can be programmed or re-programmed from the menu selection on the instrument for Microcor Systems or Corrdata Systems.

**Analysis with Microcor Tools Software**

Microcor Tools PC software allows for easy data storage and graphical analysis of the results, showing metal loss and corrosion rate.

Microcor Tools Software MS 9000A



## System Specifications:

- **Probe Compatibility:** All Microcor Probes
- **Resolution:** 18 bit (1 part in 262,144)
- **Operating Temperature Range:**
  - Transmitter and Data-Logger** -40°C to +70°C  
(-40°F to +158°F)
  - Checkmate DL** -18°C to +50°C  
(0°F to +122°F)
- **Enclosures:** NEMA 7 and IP 66/ NEMA 4X
- **Data Storage** 8,000 Readings
- **Battery Life** 6 Months at 1 Reading/hr  
12 Months at 1 Reading/3 hrs
- **Power Supply** 3.6V 16Ah Lithium Battery
- **Dimensions** 4.5" (115mm) Diameter by 4.25"  
(108mm) High including connectors
- **Transmitter Weight** 3.5 lbs (1.6 Kg)
- **Data-Logger Weight** 3.5 lbs (1.6 Kg)
- **Transmitter to Data-Logger Cable** 500 ft max
- **Data-Logger Mounting Bracket** Included
- For more detailed specification on Microcor Transmitter see the Microcor Online Data Sheet.

## Hazardous Area Certifications:

### ▪ Data Logger Field Mounted Equipment

#### Europe (CENELEC)

CE 0539 II 2G, DEMKO 03 ATEX 0215219,  
STD EEx d [ia] IIC T6  
Tamb= -40°C to +70°C

#### USA/Canada



Class 1, Zone 1, AEx d IIC T6, Class 1, Div 2,  
Groups A, B, C, D when installed in accordance with  
installation drawing 702106  
Tamb= -40°C to +70°C

### ▪ Checkmate DL

#### Model CHECKMATE-DL-1: Class 1, Zone 1

##### North America:

UL AEx ib IIC T4 Tamb = -20°C to +50°C  
ULc Ex ib IIC T4 Tamb = -20°C to +50°C

##### Europe:

CE compliant (EMC, ATEX)  
ATEX EEx ib IIC T4 Tamb = -20°C to +50°C

##### Australia

Conformity Assessment document is available for  
Australia

## Datalogger System Hazardous Area Certifications

Note that the Datalogging system is a different certification from the Microcor Transmitter on its own. The Transmitter rating is explosion proof. (See Data Sheet on Microcor MT-9485A Transmitter). The Microcor Datalogger rating is explosion proof plus intrinsic safety, since it connects both to the explosion proof transmitter and to the Intrinsically Safe hand-held Checkmate DL data transfer. The Data Logger certification thereby becomes the system certification.

## Ordering Information:

| Microcor® Data-Logging System            |   |              |
|--|---|--------------|
| 1. Microcor Probe                        | See Bulletin #150-G   |              |
| 2. Probe Connecting Adapter              | Model 2000 & 3000 Series Probes   | P/N 745092   |
|  | Model 4000 Series Probes<br>(For permanent connection at 2500 psi max.)   | P/N 745093   |
|  | Model 4000 Series Probes<br>(For permanent connection at 10,000 psi max.) | P/N 745114   |
| 2a. Alternate Probe to Transmitter Cable | ATEX Certified 6ft (2m) max<br>(L=Length in ft.)                          | P/N 748224-L |
|  | UL/ULc Certified 6ft (2m) max<br>(L=Length in ft.)                        | P/N 748223-L |
| 3. Microcor Transmitter                  | Model MT-9485A  | MT-9485A     |
| 4. Transmitter to Data-Logger Cable      | ATEX Certified (L=Length in ft.)  | P/N 748202-L |
|  | UL/ULc Certified (L=Length in ft.)  | P/N 748203-L |
| 5. Microcor Data-Logger                  | Model ML-9500B  | ML-9500B     |

| Data Transfer to PC                                      |                    |
|--|--------------------|
| Data-Logger to PC Serial Cable                           | P/N 748243         |
| Microcor Tools Software                                  | MS 9000A           |
| Checkmate DL (Includes Microcor Tools Software MS 9000A) | P/N Checkmate-DL-1 |

| Accessories  |             |
|--|-------------|
| Data-Logger Battery  | P/N 702167  |
| Installation Kit   | P/N 702109  |
| Test Probe (included in Installation Kit)  | P/N TS-0500 |
| Mounting Bracket for Transmitter (or Data-Logger)  | P/N 748213  |
| Model 4000 Series Probes - Protection for Connector During Installation – Overshot Adaptor | P/N 126292  |



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ISO 9001:2008  
 Certificate No. FM 10694