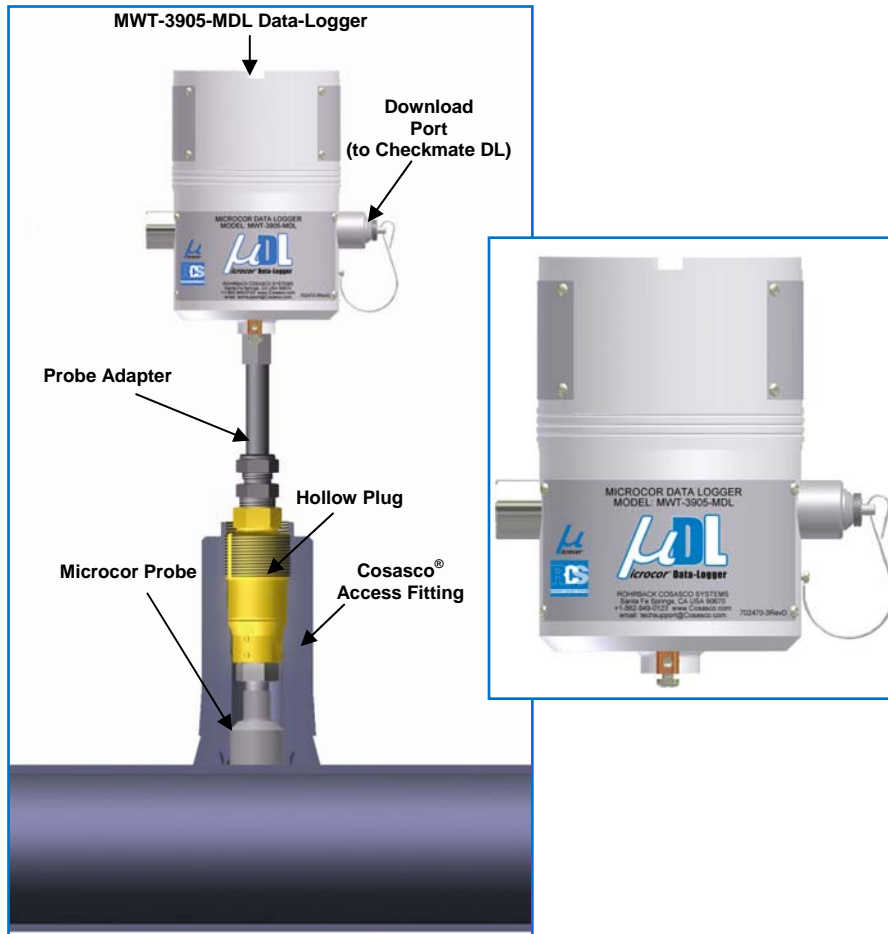


# Microcor<sup>®</sup> MWT-3905-MDL Data-Logger



## Features:

- **Stand-Alone Data-Logger**
- **Improved Battery Life**
- **Autonomous Data Collection**
- **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 in conductive or non-conductive environments.

The battery powered Microcor MWT-3905-MDL Data-Logger adds autonomous power and data collection for applications where direct on-line operation is not possible. The Data-Logger 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 Data-Logger to be close-coupled to the probe and provides a mounting for the Data-Logger. 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 Data-Logger (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 Data-Logger.

Alternate Probe to Data-Logger Cable for Fixed & Retractable M2000, M3000, & M4000 Series Probes with mounting bracket.

P/N 748497-10 10ft (3m)  
 P/N 748497-15 15ft (4.6m)



**Data-Logger Mounted in Remote Location**

**3. Microcor Data-Logger** – The Microcor Data-Logger enclosure houses both the transmitter and data-logging electronics.

Microcor Data-Logger (Aluminum Housing) MWT-3905-MDL-0  
 Microcor Data-Logger (Stainless Steel Housing) MWT-3905-MDL-1

**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 748110-9A

For electrically hazardous areas, an intrinsically safe Checkmate DL handheld 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 a PC running Microcor Tools Software.



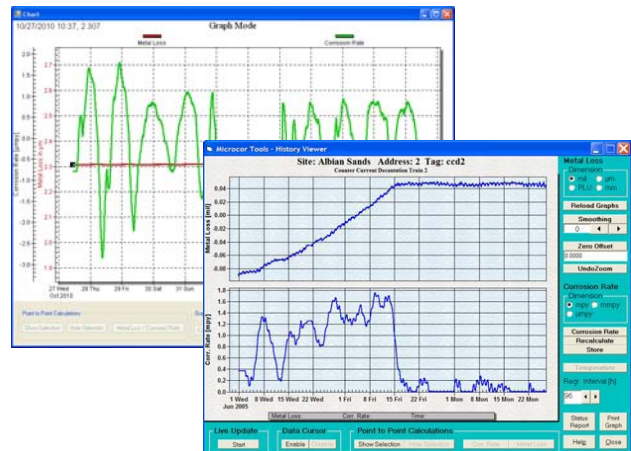
Checkmate DL Checkmate-DL-1

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

**Microcor Tools and Corrdata II Software**

Microcor Tools PC software allows for easy data storage and graphical analysis of the results, showing metal loss and corrosion rate. Corrdata II software is a total corrosion management software and is preferable when multiple sites and corrosion monitoring methods are used. Corrdata II integrates data from RCS's complete range of Corrosion Monitoring Instruments, including CORRDATA RDC's, MICROCOR® Data-Loggers and Transmitters, CORROSOMETER® and CORRATER® handheld instruments, and Ultracorr hand-held instrument.

Microcor Tools Software MS 9000A  
 Corrdata II Software CORRDATAII



## System Specifications:

- **Probe Compatibility:** All Microcor Probes
- **Resolution:** 18 bit (1 part in 262,144)
- **Operating Temperature Range:**
  - Data-Logger** -40°C to +70°C (-40°F to +158°F)
  - Checkmate DL** -18°C to +50°C (0°F to +122°F)
- **Enclosure:** IP 66
- **Data Storage** 8,000 Readings
- **Battery Life** 5 years at 20 Min Measurement Interval
- **Power Supply** 7.2 V Lithium Power Module
- **Dimensions:** 4.5" dia. by 6.9" high incl. connectors
- **Weight** 6.45 lbs (2.9 Kg)

### Hazardous Area Certifications:

#### ▪ Data Logger

##### ATEX Certification

Ex d [ib] Class I, Zone 1, IIC, T4, Ta = -40C to +70C

##### North American Certifications

FM AEx d [ib] Class I, Zone 1, IIC, T4, Ta = -40C to +70C

FMc Ex d [ib] Class I, Zone 1, IIC, T4, Ta = -40C to +70C

##### IEC Ex Certification

IEC Ex d [ib], Class I, Zone 1, IIC, T4, Ta = -40C to +70C

All certifications based on IP66 Enclosure and for use only with Power Module P/N 748400

#### ▪ Checkmate DL

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

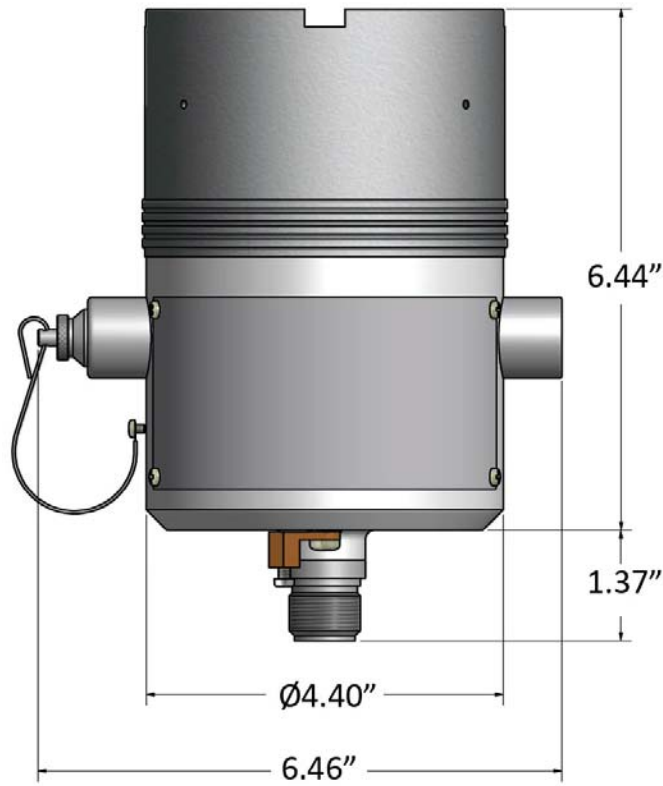
#### North America:

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

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

#### Europe:

ATEX EEx ib IIC T4 Tamb = -20°C to +50°C



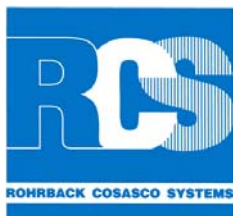
Data-Logger dimensions in inches, front view

## Ordering Information

Microcor® Data-Logging System		
Microcor Probe	See Bulletin #150	
Probe Connecting Adapter	Model 2000 & 3000 Series Probes	P/N 745092
	Model 4000 Series Probes	P/N 745093
Data-Logger to probe-cable with Data-Logger-mounting bracket (Note: probe adapter required in conjunction with cable)	Model M2000, M3000, M4000 Series Probes, 10ft (3m)	P/N 748497-10
	Model M2000, M3000, M4000 Series Probes, 15ft (4.6m)	P/N 748497-15
Microcor Data-Logger	Model MWT-3905-MDL w/Aluminum Housing	MWT-3905-MDL-0
	Model MWT-3905-MDL w/ Stainless Steel Housing	MWT-3905-MDL-1

Data Transfer to PC	
RDC/Wireless to PC Cable	P/N 748110-9A
Microcor Tools Software	MS 9000A
Corrdata II Software	Corrdatall
Checkmate DL (Includes Microcor Tools Software MS 9000A)	P/N Checkmate-DL-1

Accessories	
7.2 V Lithium Power Module	P/N 748400
Installation Kit	P/N 702198
Test Probe (included in Installation Kit)	P/N TS-0500
Mounting Bracket for Data-Logger	P/N 702465
Model 4000 Series Probes - Protection for Connector During Installation – Overshot Adaptor	P/N 126292



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