

# APPENDIX A - TECHNICAL DATA

T/DP1

DP2

DP3

DP4

DP5

DP6

## GCS-2 AND GCS-6 SPECIFICATIONS

### Physical

#### GCS-2

**Length:** 7.1"  
**Width:** 5.8"  
**Depth:** 1.5"  
**Weight:** 17 oz.

#### GCS-6

**Length:** 9.6"  
**Width:** 6.4"  
**Depth:** 2.0"  
**Weight:** 26 oz.

### Environmental Storage

**Temperature:** -50°C to 85°C  
**Humidity:** 0% to 95% non-condensing

### Operating

**Temperature:** -40°C to 72°C  
**Humidity:** 0% to 95% non-condensing

### Mounting

Backboard, shelf or desktop

### Construction

#### Housing

Fully enclosed, anodized aluminum  
Externally accessible keypad, LEDs and connectors

#### Electrical

All components mounted on conformal coated, internal PCBs

### Power

#### Voltage

**Range:** 10 to 36Vdc

#### Consumption

**Maximum:** 1.5W maximum (with Ethernet Port option)

### Isolation

#### Power

**Minimum:** 3800 Vdc from B and N terminals to chassis and any terminal

#### Chassis

**Minimum:** 3800 Vdc from chassis to power and any terminal

### Operating Modes

#### GPS with ASCII Messaging

Internal real-time clock is synced to GPS source

Time and date information is output to Device Ports

#### SNTP Time Server

Internal real-time clock is synced to GPS source

Time/date information is output to Device Ports and LAN-based devices using SNTP-Unicast and/or SNTP-Multicast (requires Ethernet option)

#### SNTP Time Client

Internal real-time clock is synced to Time Server using SNTP-Unicast and/or SNTP-Multicast (requires Ethernet option)

Time/date information is output to Device Ports

#### Device Port Access

Allows user access to device's serial port via GCS Terminal Port or Ethernet Port (requires Ethernet option)

GCS becomes data transparent

### Capacities

#### Target Devices

**Via RS-232:** 2 with GCS-2, 6 with GCS-6

**Via SNTP:** unlimited (requires Ethernet option)

#### Alarm Output

**Quantity:** 1

### Capacities (continued)

#### Liquid Crystal Display

**Characters:** 40 total on 2 lines

**Viewing Area:** 3.2" by .7"

#### Front Panel Keypad

**Quantity:** 5 Softkeys

### Internal Clock

#### Accuracy

**Typical:** ±8 seconds per month (3ppm), free running when not GPS or SNTP synchronized

#### Sync Control

Via GPS Receiver or SNTP using Multicast (requires Ethernet option)

#### Operation

Full calendar, auto-adjusted for leap year  
Enable or disable of automatic Daylight Saving Time adjustment (conforms with requirements of Energy Policy Act of 2005 made effective 2007)

Non-volatile for minimum of 30 days with loss of power

### Target Device Control

#### Compatible Devices

All MICRO-AIDE CWR, Model 24D, 48D, 240D and 240MS Event Recorders

All MICRO-AIDE Data Loggers and Portable Speed Monitor

Electrocode 4, Electrocode 5, HCA-1, HXP-3, Microlok II, VHLC

#### Time/Date Setting

Once every hour, 12 hours or 24 hours, user assigned

#### Access Via GCS

Normally limited to time/date setting only  
Device Port Access Mode allows data transparent access to device's serial port

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**GPS Antenna**

**Size:** Dia 1.8" H .6" (not including mounting screw)

**Weight:** 2 oz. (less cable)

**Operating Temp:** -40 °C to 85 °C

**Mounting:** bulkhead mountable to surface less than 3/8" thick

**Location:** unobstructed skyward orientation, for use outdoors

**Ports****Device Ports**

**Quantity:** 2 with GCS-2, 6 with GCS-6

**Baud Rates:** 300 to 115,200

**Configuration:** DCE or DTE

**Bit Format:** 8-N-1

**Terminal Port**

**Quantity:** 1, if Device Port 1 is enabled as Terminal Port

**Baud Rates:** 300 to 115,200

**Configuration:** always DCE

**Bit Format:** 8-N-1

**Alarm Port**

**Type:** opto-output, normally open, + and - terminals

**Ratings:** limit 15 mAdc, passive load only

**GPS Receiver**

Used to provide precise, real-time clock control

Provides latitude and longitude coordinates

Connects to GPS antenna

**Ports (continued)****Ethernet (optional)**

**Type:** 10/100 Base-T

**Speed:** 100 Mbps

**Protocol:** Telnet, SNMP

**LED Indicators:** green (link established), yellow (data activity)

Provides remote or local access using Telnet connections

User-assignable IP Address, user port, subnet mask

**Connectors****Power**

Detachable, tension clamp, 4-position, 12 to 22AWG

Dual B and N terminals

**Alarm Output**

Detachable, tension clamp, 2-position, 12 to 22AWG

**Device and Terminal Ports**

DE-9 male

**GPS Receiver**

MCX female

**Ethernet Port (optional)**

RJ-48 female

**Indicators****LCD Panel**

Includes LED back lighting for enhanced visibility

Displays GPS signal lock and numerous command menus for configuring GCS

**GPS/Alarm**

Combination green/red LED

Flashes green when microprocessor is receiving GPS data

Illuminates red when Alarm Output is active

**Device Ports**

Green LED, one per port, flashes with port activity

**Event Log****Usage**

Logs status entry for every Device Port sync attempt

**Volatility**

Non-volatile, retained if power is lost

**Size**

500 entries, new data overwrites oldest data

**Access**

Via Terminal Port only and front panel

*MICRO-AIDE reserves the right to make changes, at its sole discretion, to any specification listed herein.*

## PERIPHERAL CABLES

Every GCS-2 and GCS-6 is shipped with two or six of the following cable, respectively.

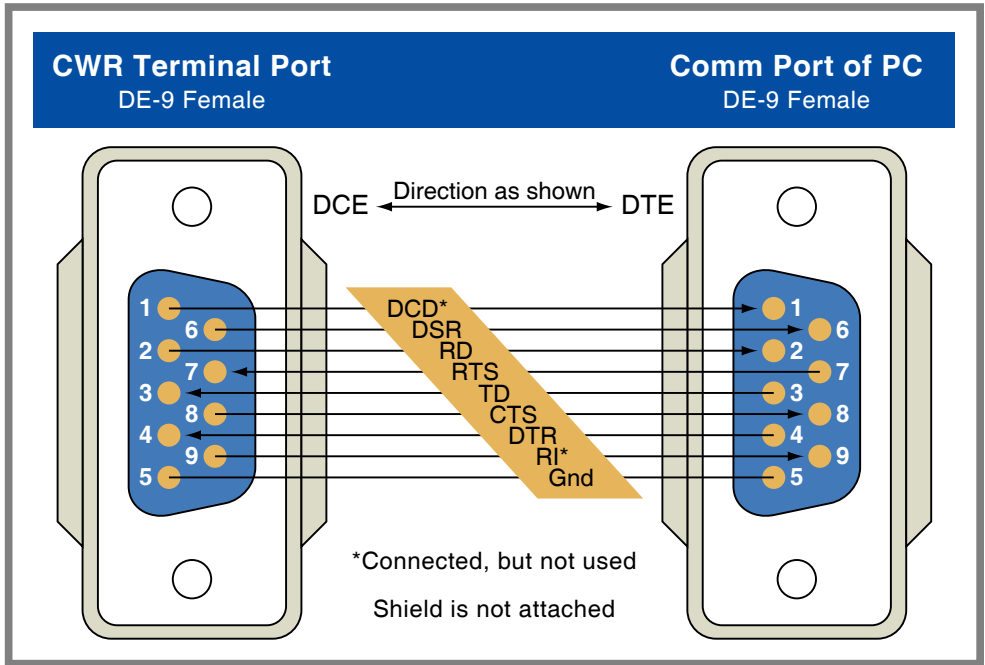


Figure 14: Terminal and Device Port Cable

The cable illustrated in [Figure 15 on page 78](#) is required when a Microlok II is connected to a Device Port. This cable is available from MICRO-AIDE upon request.

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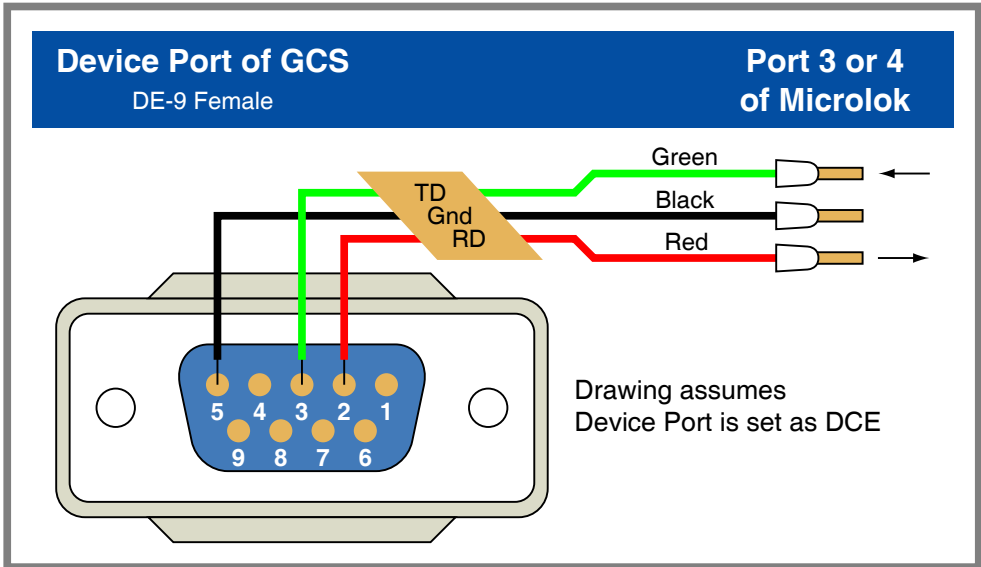


Figure 15: Device Port Cable for Microlok II

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