

MTS DDA Master

Information Sheet for Crimson v2.0

Compatible Devices

- MTS Tank Monitoring System

Verified Device

- MTS Level-Plus Tank Monitoring System

Device Options

Enter a value 192 – 253 for the gauge address.

Accessible Data

Prefix	Description
PROD	Product (# of decimal places)
INTF	Interface (# of decimal places)
TAVG	Average Temperature (# of decimal places)
TID0	Individual RTD Temp (1 degree)
TID1	Individual RTD Temp (0.2 resolution)
TID2	Individual RTD Temp (0.02 resolution)
FTMP	Fast Temperatures (Fast Average = FTMP0)
QFR	# of Floats and RTD's
GRCV	Gradient Control Variable
FZP	Float Zero Positions
RTDP	RTD Positions
TERR	Error Value for Read of RTDn
CERR	Bits 23-16 = Command #, 11-0 = Error #
WNAK	NAK on Write Command #

General caution:

For commands with resolution selections, please note that increasing the resolution will result in noticeably slower update times. Where possible, the lowest value of resolution will be more efficient at accessing data. To maintain system response time to other input, the driver is designed to check for slow responses for only 250 msec. at a time before returning control to the system.

Command programming and usage

PROD, INTF, TAVG:

Select, via the dialog box, the desired number of decimal positions.

TID0, TID1, TID2:

Select the command for the resolution desired of individual temperatures. Select via the dialog box, the individual RTD number for the item.

FTMP:

FTMPO is the fast average temperature.

FTMP1 – FTMP5 are the temperatures of RTD1 – RTD5, at 1 degree resolution.

QFR:

Select 1 to access the value of the number of floats only.

Select 2 to access the number of RTD's only.

Select 3 to both items as a 16 bit word. The upper 8 bits contain the number of floats, and the lower 8 bits contain the number of RTD's. To write, the programmer must QFR3 and write both values at one time. Example, 2 floats, 4 RTD's would be programmed as TagQFR = 0x204.

GRCV:

This selection reads/writes the Gradient Control Variable. Its format is fixed as n.ddddd.

FZP:

There are two "Float Zero Positions". Either can be read and written independently of the other. The decimal portion is always 3 places.

RTDP:

There are up to five RTD positions. Each can be read and written independently of the other. The decimal portion is always 1 place.

Special Commands:

TERR:

TERRn will be loaded with the error number if an individual temperature request for RTDn returns an error.

The driver will also set the TIDx value.

If the error is Out of Range Low (203), or RTD Shorted (208), TIDx = -9999.

Any other error number will set the value of TIDx to 9999.

If there is no error, TERRn will be set to 0.

The programmer must arrange to signal an RTD error if any of the TERR values in use becomes non-zero. Any TERRn can be set to 0 by a write operation to it.

CERR:

CERR will be loaded when a request, other than TID0, TID1, or TID2, returns an error number. The upper 16 bits will contain the failing command number, the lower 16 bits will contain the error code.

CERR is set to 0 by any write operation to it.

WNAK:

WNAK will be set, exactly as in CERR above, when a NAK is received as a result of a write operation. The programmer should arrange to examine this value after the write, and take appropriate action if the value is not 0.

WNAK is set to 0 by any write operation to it.

Cable Information

G3 RS485	MTS Tank Monitoring System
7	Rx/Tx+
8	Rx/Tx-