

Trim Coils

Commands Reference Manual

The screenshot displays the Trim Coils control interface. At the top, it shows the Rack ID as 1234 and the current time as 2022-05-14 12:55:45. There are OFF and ON buttons. A red alert bar indicates a fault: "14.05.2022 12:48:42 Probe 4 power supply 1 bad". Below this, three main sections are visible: Rack, Water, and W. flow, each with a value and L/H control buttons. The Rack section shows 24.6 °C. The Water section shows 15.8 °C. The W. flow section shows 2.2 l/m. Each of these three sections has a corresponding Interlock button. The main body of the interface is divided into three columns for Power supply 1, Power supply 2, and Power supply 3. Each column contains six sensor readings (SENSOR 1 to SENSOR 6) with values of 4.44 °C and L/H control buttons. At the bottom, there are buttons for Power supply 1 Setup, Power supply 2 Setup, Power supply 3 Setup, Rack Setup, and Login.

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Contents

| | |
|--------------------------------------|----------|
| Commands List | 3 |
| Legend | 3 |
| Power Supply Commands | 4 |
| PS<x>:STATUS Command | 5 |
| Rack Commands | 6 |
| RACK:STATUS Command | 6 |
| Water Flux Commands | 7 |
| Water Temperature Commands | 8 |
| General Commands | 9 |

Commands List

Legend

- PS = Power Supply
- <x> = PS 1 to 3
- <y> = PT100 1 to 6
- ? = query
- *value* = float
- *bool* = ON/OFF
- [...] = list of accepted parameters
- (Input) = 1 bit, read only
- (Input Register) = 16 bit, read only
- (Holding Register) = 16 bits, read/write
- (Coil) = 1 bit, read/write

Power Supply Commands

| Command: | Type: | Description: |
|---------------------------------------|--------------------|---|
| PS<x><y>:TEMP:? | (Input Register) | Get temperature |
| PS<x><y>:TEMPMIN:[?,value] | (Holding Register) | Get/Set low temperature threshold |
| PS<x><y>:TEMPMAX:[?,value] | (Holding Register) | Get/Set high temperature threshold |
| PS<x><y>:TEMPMINENABLE:[?,bool](Coil) | | Enable/Disable low temperature threshold |
| PS<x><y>:TEMPMAXENABLE:[?,bool](Coil) | | Enable/Disable high temperature threshold |
| PS<x><y>:TEMPMINERROR:? | (Input) | Get alert low temperature threshold |
| PS<x><y>:TEMPMAXERROR:? | (Input) | Get alert high temperature threshold |
| PS<x><y>:PROBEERROR:? | (Input) | Get probe alert malfunction |
| PS<x>:STATUS:? | (Input Register) | Get PS status register |
| PS<x>:STATE:? | (Input) | Get PS state |
| PS<x>:INTERLOCK:? | (Input) | Get interlock status (magnet) |
| PS<x>:PROBEMODULEERROR:? | (Input) | Get probe module communication error |

PS<x>:STATUS Command

| Bit: | Description: |
|-------------|-------------------------|
| 0 | PS<x>, probe 1 disabled |
| 1 | PS<x>, probe 2 disabled |
| 2 | PS<x>, probe 3 disabled |
| 3 | PS<x>, probe 4 disabled |
| 4 | PS<x>, probe 5 disabled |
| 5 | PS<x>, probe 6 disabled |
| 6 | PS<x> Interlock |
| 7-15 | Reserved |

Rack Commands

| Command: | Type: | Description: |
|-----------------------------|--------------------|--|
| RACK:TEMP:? | (Input Register) | Get rack temperature |
| RACK:TEMPMIN:[?,value] | (Holding Register) | Get/Set rack low temperature threshold |
| RACK:TEMPMAX:[?,value] | (Holding Register) | Get/Set rack high temperature threshold |
| RACK:TEMPMINENABLE:[?,bool] | (Coil) | Enable/Disable rack low temperature threshold |
| RACK:TEMPMAXENABLE:[?,bool] | (Coil) | Enable/Disable rack high temperature threshold |
| RACK:TEMPMINERROR:? | (Input) | Get alert low temperature threshold |
| RACK:TEMPMAXERROR:? | (Input) | Get alert high temperature threshold |
| RACK:TEMPERROR:? | (Input) | Get alert malfunction of the probe |
| RACK:STATUS:? | (Input Register) | Get rack status register |

RACK:STATUS Command

| Bit: | Description: |
|------|--|
| 0 | low threshold water flux enabled |
| 1 | high threshold water flux enabled |
| 2 | low threshold water temperature enabled |
| 3 | high threshold water temperature enabled |
| 4 | low threshold rack temperature enabled |
| 5 | high threshold rack temperature enabled |
| 6-15 | Reserved |

Water Flux Commands

| Command: | Type: | Description: |
|-------------------------------------|--------------------|--|
| H2O:FLUX:? | (Input Register) | Get water flow |
| H2O:FLUXMIN:[?, <i>value</i>] | (Holding Register) | Get/Set water low flow threshold |
| H2O:FLUXMAX:[?, <i>value</i>] | (Holding Register) | Get/Set water high flow threshold |
| H2O:FLUXMINENABLE:[?, <i>bool</i>] | (Coil) | Enable/Disable water low flow threshold |
| H2O:FLUXMAXENABLE:[?, <i>bool</i>] | (Coil) | Enable/Disable water high flow threshold |
| H2O:FLUXMINERROR:? | (Input) | Get alert low flow threshold |
| H2O:FLUXMAXERROR:? | (Input) | Get alert high flow threshold |
| H2O:FLUXERROR:? | (Input) | Get alert malfunction of the probe |

Water Temperature Commands

| Command: | Type: | Description: |
|-------------------------------------|--------------------|---|
| H2O:TEMP? | (Input Register) | Get water temperature |
| H2O:TEMPMIN:[?, <i>value</i>] | (Holding Register) | Get/Set water low temperature threshold |
| H2O:TEMPMAX:[?, <i>value</i>] | (Holding Register) | Get/Set water high temperature threshold |
| H2O:TEMPMINENABLE:[?, <i>bool</i>] | (Coil) | Enable/Disable water low temperature threshold |
| H2O:TEMPMAXENABLE:[?, <i>bool</i>] | (Coil) | Enable/Disable water high temperature threshold |
| H2O:TEMPMINERROR:? | (Input) | Get alert low temperature threshold |
| H2O:TEMPMAXERROR:? | (Input) | Get alert high temperature threshold |
| H2O:TEMPERROR:? | (Input) | Get alert malfunction of the probe |

General Commands

| Command: | Type: | Description: |
|-----------------------------|--------------|----------------------------------|
| INT:STOP:? | (Input) | Get emergency alarm or door open |
| CTT:STATE:[?, <i>bool</i>] | (Coil) | Get/Set status Contattore |
