

Lambda Wheels Cooling System

Sending-receiving through 80bytes Buffer with 2 bytes per channel

| Number of Channel # | Description | Comments |
|---------------------|---------------------------------------|--|
| 0 | Temperature Sensor on Lambda Wheels | -35°C <= Value <= 25 °C (!Alarm!) Read-only |
| 1 | Temperature Sensor on Lambda Wheels | -35°C <= Value <= 25 °C (!Alarm!) Read-only |
| 2 | Not Used | |
| 3 | Not Used | |
| 4 | Not Used | |
| 5 | Not Used | |
| 6 | Not Used | |
| 7 | Not Used | |
| 8 | Not Used | |
| 9 | Not Used | |
| 10 | Not Used | |
| 11 | Not Used | |
| 12 | Not Used | |
| 13 | Not Used | |
| 14 | Not Used | |
| 15 | Not Used | |
| 16 | Water Temperature Sensor #1 | 28°C <= Value (!Alarm!) Read-only |
| 17 | Water Temperature Sensor #2 | 28°C <= Value (!Alarm!) Read-only |
| 18 | Water Temperature Sensor #3 | 28°C <= Value (!Alarm!) Read-only |
| 19 | Water Temperature Sensor #4 | 28°C <= Value (!Alarm!) Read-only |
| 20 | Not Used | |
| 21 | Not Used | |
| 22 | Not Used | |
| 23 | Not Used | |
| 24 | Not Used | |
| 25 | Not Used | |
| 26 | Not Used | |
| 27 | Not Used | |
| 28 | Not Used | |
| 29 | Not Used | |
| 30 | Drive Rotation Speed | Read-only |
| 31 | Hot Reset Counter | Read-only |
| 32 | Reference Platinum Sensor Temperature | -35°C <= Value <= 25 °C (!Alarm!) Read-only |
| 33 | Alcohol Level-meter | 30 <= Value (!Alarm!) Read-only |
| 34 | Stabilization Temperature | -35°C <= Value <= 25 °C Read-Write |
| 35 | DAC1 Value | 5 <= Value <= 4000 Read-only |
| 36 | DAC2 Value | 5 <= Value <= 4000 Read-only |
| 37 | Not Used | |
| 38 | Not Used | |
| 39 | Not Used | |

1. Time -> Temperature Conversion function: (for **0..29** Channels)

$$\text{Temp} = -19.27 * \ln(\text{Time}) + 156.1$$

2. Time -> Temperature Conversion function:

(**Platinum Sensor and Stabilization Temperature** for **32,34** Channels)

$$\text{Temp} = 0.02546 * \text{Time} - 259.25$$

3. Temperature -> Time Conversion function: (**Stabilization Temperature** for **34** Channel)

$$\text{Time} = \text{Round}((\text{Temp} + 259.25) / 0.02546)$$

4. Channels 30,31,33,35,36 – no conversion.