

**A6500-CC System**

**Communication Card**

The ModBus and Rack Interface Module is designed for high reliability for the plant’s

most critical rotating machinery. It reads parameters from all AMSA6500 ATG modules and outputs these parameters through ModBus TCP/IP and/or ModBus RTU (serial).

In addition, OPC UA is available for data transmission to third party systems.

This 1-slot monitor is used together with other AMSA6500 ATG monitors to build

a complete API 670 machinery protection monitor. Applications include steam, gas, compressors, and hydro turbo machinery.

Operators are provided machinery health parameters in the control environment for seamless integration. The module powers local graphical displays at the protection rack for machine and instrumentation readout. Either ModBus TCP/IP or ModBus RTU or OPC UA can be configured, or for redundant path, can be used simultaneously.

|  |  |  |
| --- | --- | --- |
| **Data Output** | | |
| RS 485 | 6 bus lines max.  data rate | according to EIA485  standard 512 kbit |
| Ethernet | Connector | RJ45 |
| Data rate | 10/100 Mbit |
| Max. cable length | 100m |
| Voltage | 2V peak-to-peak |
| Rated current | 100 mA |
| Rated power | 200 mW |
| USB | Connection socket | USB type B |
| Data rate | 12 Mbit/s |
| Isolation | Interface is  connected to earth |
| Modbus | RS 485 | According to  EIA485 standard |
| Data rate | 9600 or 19.2 kBaud |
| Voltage | 200 mV peak-to-peak |
| Rated current | 1.6 mA |
| Rated power | 0.4 mW |

|  |
| --- |
|  |

. 3Usize, 1-slot plug-in module decreases cabinet space requirements in half from traditional 6U size cards.

. API 670 compliant,

hot-swappable module.

. Password protected user configuration.

. Self-checking facilities include

monitoring hardware, power input, and hardware temperature.

. Includes SD-Card to support AMS 6500 ATG Prediction functionality

. SNTP time synchronisation

. 2000 free assignable modbus registers







|  |  |  |
| --- | --- | --- |
| **Environmental, General** | | |
| Protection Class | IP20 IEC 60529 | |
| Conformal Coating | Airborne  contaminants  resistance | ISA-S71.04-1985  airborne  contaminants class G3 |
| Material:  HumiSeal® 1B31 EPA | According to  IPC-CC-830B and IPC-A 610 |
| Operating Temperature | -20° to 70°C (-4° to 158°F)  with forced cooling | |
| -20° to 55°C (-4° to 131°F)  without forced cooling | |
| Storage Temperature | -40° to 85°C (-40° to 185°F) | |
| Relative Humidity | 5 – 95%, non condensing | |
| Vibration | IEC 60068-2-6  0.15mm, 10 – 55Hz  20m/s², 55 – 150Hz | |
| EMC Resistance | IEC 61326-1 | |
| Power Consumption | Max. 4W | |
| Configuration | Password protected | |
| Rack Slot | 3RU/4HP | |
| Board Dimensions | PCB/EURO card format according  to DIN 41494, 100 x 160mm  (3.937 x 6.300in) | |
| Weight | app 170g exclusive packaging | |

|  |  |
| --- | --- |
| **Compliance and Certifications** | |
| CE | EMC – EN61326-1 |
| 2014/30/EU |
| 2014/34/EU |
| 2011/65/EU |
| ATEX | EN 60079-0:2012 |
| EN 60079-15:2010 |
| IEC-Ex  CCOE PESO India | IEC 60079-0:2011; Edition: 6.0 |
| IEC 60079-15:2010; Edition: 4 |

www.emerson.com/ams 2

|  |  |
| --- | --- |
| CSA | CAN/CSA-C22.2 NO. 0-10 |
| CAN/CSA-C22.2 NO. 61010-1-12 |
| CAN/CSA-C22.2 NO. 60079-0:15 |
| CAN/CSA-C22.2 NO. 60079-15:12 |
| IEC 60529:2013 + COR2:2015 |
| UL 61010-1:12 |
| UL 60079-0:13 |
| UL 60079-15:13 |
| EAC | TP TC 012/2011 |
| ГОСТ 31610.0-2014 |
| ГОСТ 31610.15-2014 |
| CCC | GB 3836.1-2010 |
| GB 3836.8-2014 |
| Marine | DNV GL rules for classification –  Ships and offshore units |

**Hazardous Area Approvals**

|  |  |
| --- | --- |
| **Non-sparking nA in combination with nC** | |
| ATEX | II 3G – Ex nA nC IICGc, -20°C ≤ Ts ≤ 70°C (with Ts ≤ 70°Cthe requirements  for temperature class T4 are met) |
| IEC-Ex | II 3G – Ex nA nC IICGc, -20°C ≤ Ts ≤ 70°C (with Ts ≤ 70°Cthe requirements  for temperature class T4 are met) |
| CSA | Class I Division 2, Groups A, B, C, D, T4 Class 1, Zone 2  Ex / AEx nA nC IICT4 Gc  (the ambient temperature within the end use enclosure shall not exceed 55°C) |
| EAC-Ex | Ex nA nC IICGc,U -20°C ≤ Ts ≤ 70°C |
| CCC-Ex | Ex nA nC IIC Gc -20°C ≤ Ts ≤ 70°C |
| CCOE PESO India | Ex nA nC IICT4 Gc, -20°C ≤ Ts ≤ 70°C (with Ts ≤ 70°Cthe requirements  for temperature class T4 are met) |
| KTL Korea | Ex nA nC IIC -20°C ≤ Ts ≤ 70°C |

www.emerson.com/ams 3



**Ordering Information**

|  |  |
| --- | --- |
| **Model Number** | **Product Description** |
| A6500-CC | SYSTEM COMMUNICATION CARD, MODBUS RTU/TCP, OPC UA |
| A6500-CC-P | PACKAGE A6500-CC & A6500-PE |
| A6500-SD | SYSTEM SD CARD FOR UPGRADE  AND REPLACEMENT |

**Contact Us**

**www.emerson.com/contactus**

©2022, Emerson. All rights reserved.

The Emerson logo is a trademark and service mark of Emerson Electric Co. The AMS logo is a mark of one of the Emerson family of companies. All other marks are the property of their respective owners.

The contents of this publication are presented for informational purposes only, and while diligent efforts were made to ensure their accuracy, they are not to be construed as warranties or

guarantees, express or implied, regarding the products or services described herein or their use

or applicability. All sales are governed by our terms and conditions, which are available on request. We reserve the right to modify or improve the designs or specifications of our products at any

time without notice.



