

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 AMS A6500 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 AMS A6500 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

- 3U size, 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)	
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/s ² , 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	IEC 60079-0:2011; Edition: 6.0
CCOE PESO India	IEC 60079-15:2010; Edition: 4

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 IIC Gc, $-20^{\circ}\text{C} \leq T_s \leq 70^{\circ}\text{C}$ (with $T_s \leq 70^{\circ}\text{C}$ the requirements for temperature class T4 are met)
IEC-Ex	II 3G – Ex nA nC IIC Gc, $-20^{\circ}\text{C} \leq T_s \leq 70^{\circ}\text{C}$ (with $T_s \leq 70^{\circ}\text{C}$ the 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 IIC T4 Gc (the ambient temperature within the end use enclosure shall not exceed 55°C)
EAC-Ex	Ex nA nC IIC Gc,U $-20^{\circ}\text{C} \leq T_s \leq 70^{\circ}\text{C}$
CCC-Ex	Ex nA nC IIC Gc $-20^{\circ}\text{C} \leq T_s \leq 70^{\circ}\text{C}$
CCOE PESO India	Ex nA nC IIC T4 Gc, $-20^{\circ}\text{C} \leq T_s \leq 70^{\circ}\text{C}$ (with $T_s \leq 70^{\circ}\text{C}$ the requirements for temperature class T4 are met)
KTL Korea	Ex nA nC IIC $-20^{\circ}\text{C} \leq T_s \leq 70^{\circ}\text{C}$

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

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