ARIO 500

Industrial Automation - Products & Configurations

CODE	FIELDBUS COUPLER
AIOA2002	EtherCAT Slave coupler for ARIo 500
AIOA2004	Modbus TCP Slave coupler for ARIO 500

	AIOA2002	AIOA2004
Prototocol	EtherCAT	Modbus TCP/IP
Interface	Ethernet 100 Mbit	Ethernet 10/100 Mbit
Connector	2 x RJ45	1 x RJ45
Features	Supporta the CANopen application profile CoE Online configuration via master system *Distributed Clock and Station Alias are not supported in this version*	I/O access up to 8 stations Online parameterization via integrated Web server Auto negotiation (polarity and speed) Auto crossover (cross cable or parallel)
Modules (max)	64	64
Power supply Tensione	20,4÷28,8 V DC / 24 V DC rated	20,4÷28,8 V DC / 24 V DC rated
Corrente I/O area	max 10A	max 10A
Corrente electronic area	max 3A	max 3A
Special functions	Status display Interrupt Diagnostic functions	Status display Interrupt Diagnostic functions
Operating temperature	0°C ÷ 60°C	0°C ÷ 60°C

CODE	DIGITAL INPUT
AIOB1005	Digital Input Basic ▪ 4xDI 24VDC 3ms
AIOB1001	Digital Input Basic ▪ 8xDI 24VDC 3ms
AIOB1004	Digital Input Basic ▪ 8xDI 24VDC 0,5ms
AIOB1003	Digital Input Diagnosis ▪ 8xDI 24VDC 100µs
AIOB1002	Digital Input Fast ▪ 4xDI 24VDC 2µs-3ms

	AIOB1005	AIOB1001	AIOB1004	AIOB1003	AIOB1002
Input curve specification	IEC 61131-2, Type1	IEC 61131-2, Type1	IEC 61131-2, Type1	IEC 61131-2, Type3	IEC 61131-2, Type1
I/O numbers	4 inputs ▪ 1 common	8 inputs ▪ 1 common	8 inputs ▪ 1 common	8 inputs ▪ 1 common	4 inputs ▪ 1 common
Insulation	500 V DC	500 V DC	500 V DC	500 V DC	500 V DC
Time delay	3ms	3ms	0,5ms	100µs ÷ 20ms progr.	2µs ÷ 3ms progr.
Voltage Power supply	20,4÷28,8 V DC	20,4÷28,8 V DC	20,4÷28,8 V DC	20,4÷28,8 V DC	20,4÷28,8 V DC
Level "0"	0÷5 V DC	0÷5 V DC	0÷5 V DC	0÷5 V DC	0÷5 V DC
Level "1"	15÷28,8 V DC	15÷28,8 V DC	15÷28,8 V DC	10,8÷28,8 V DC	15÷28,8 V DC
Current electronic area	65 mA	64 mA	60 mA	60 mA	95 mA
Current I/O area Level "1"	3 mA	3 mA	3 mA	3 mA	3 mA
Special functions	Status display	Status display	Status display	Status display Diagnostic functions	Status display Interrupt Diagnostic functions
Operating temperature	0°C ÷ 60°C	0°C ÷ 60°C	0°C ÷ 60°C	0°C ÷ 60°C	0°C ÷ 60°C

CODE	DIGITAL OUTPUT
AIOB2004	Digital Output Basic ▪ 4xDO 24VDC 0,5A
AIOB2001	Digital Output Basic ▪ 8xDO 24VDC 0,5A
AIOB2002	Digital Output Power ▪ 4xDO 24VDC 2A
AIOB2003	Digital Output Diagnosis ▪ 8xDO 24VDC 0,5A

	AIOB2004	AIOB2001	AIOB2002	AIOB2003
I/O numbers	4 outputs ▪ 1 common	8 outputs ▪ 1 common	4 outputs ▪ 1 common	8 outputs ▪ 1 common
Insulation	500 V DC	500 V DC	500 V DC	500 V DC
Time delay	30µs rise ▪ 175µs fall	30µs rise ▪ 175µs fall	100µs rise ▪ 250µs fall	350µs rise/fall max
Voltage Power supply	20,4÷28,8 V DC	20,4÷28,8 V DC	20,4÷28,8 V DC	20,4÷28,8 V DC
Current electronic area	75 mA	80 mA	75 mA	70 mA
Current I/O area Level "1"	0,5 A	0,5 A	2 A	0,5 A
Max freq. Resistive Load	1 kHz	1 kHz	1 kHz	1 kHz
Special functions	Status display Shortcircuit protection (1 A)	Status display Shortcircuit protection (1 A)	Status display Shortcircuit protection (2,7 A)	Status display Diagnostic functions Shortcircuit protection (1 A)
Operating temperature	0°C ÷ 60°C	0°C ÷ 60°C	0°C ÷ 60°C	0°C ÷ 60°C

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CODE	ANALOG INPUT
AIOC1001	Analog Input ▪ 4xAI 16bit ▪ ±10V / 0..10V
AIOC1002	Analog Input ▪ 4xAI 16bit ▪ 0/4..20mA

	AIOC1001	AIOC1002
I/O numbers	4 inputs	4 inputs
Insulation	500 V DC	500 V DC
Resolution	16bit	16bit
Conversion time	480µs	240µs
Load Voltage	24 V DC	24 V DC
Resistive	> 200 kΩ	< 60 Ω
Sensor	±10 V DC / 0÷10 V DC	0÷20 mA / 4÷20 mA
Current electronic area	60 mA	60 mA
Current I/O area	100 mA	80 mA
Special functions	Status display 50/60 Hz suppression filter Interrupt Diagnostic function	Status display 50/60 Hz suppression filter Interrupt Diagnostic function
Operating temperature	0°C ÷ 60°C	0°C ÷ 60°C

CODE	ANALOG OUTPUT
AIOC2001	Analog Output ▪ 4xAO 16bit ▪ ±10V / 0..10V
AIOC2002	Analog Output ▪ 4xAO 16bit ▪ 0/4..20mA

	AIOC2001	AIOC2002
I/O numbers	4 outputs	4 outputs
Insulation	500 V DC	500 V DC
Resolution	16bit	16bit
Conversion time	200µs	400µs
Load Voltage	24 V DC	24 V DC
Resistive	> 5 kΩ	< 350 Ω
Sensor	±10 V DC / 0÷10 V DC	0÷20 mA / 4÷20 mA
Current electronic area	60 mA	65 mA
Current I/O area	Load dependent	80 mA
Special functions	Status display Diagnostic function	Status display Diagnostic function
Operating temperature	0°C ÷ 60°C	0°C ÷ 60°C

CODE	ANALOG MEASURE
AIOD1001	Analog Input ▪ 2xAI 16bit Thermocouple
AIOD1003	Analog Input ▪ 4xAI 16bit Thermoresistance RTD Pt100/1000, Ni100/1000 ▪ lista parametri completa

	AIOD1001	AIOD1003
I/O numbers	2 inputs ▪ differential	4 inputs ▪ 2, 3 or 4 wires resistance measure
Insulation Tra ingressi	140 V DC / 60 V AC	6 V DC
Resolution	16bit	16bit
Conversion time	4,2÷324,1 ms (50 Hz) / 3,8÷270,5 ms (60 Hz) all channels	4,2÷324,1 ms (50 Hz) / 3,8÷270,5 ms (60 Hz) all channels
Load Range	±80 mV	RTD 0÷3kΩ
Sensor	J, K, N, R, S, T, B, C, E, L	Pt100, PT1000, Ni100, Ni1000
Current electronic area	85 mA	85 mA
Current I/O area	60 mA	120 mA
Special functions	Status display Interrupt Diagnostica functions Cold junction compensation	Status display Interrupt Diagnostica functions
Lista parametri	14 parameters	22 parameters
Operating temperature	0°C ÷ 60°C	0°C ÷ 60°C

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CODE	ENCODERS
AIOF1001	Incremental encoder RS422 ▪ 1xCounter (AB) 32bit
AIOF1002	Incremental encoder HTL ▪ 2xCounter (AB) 32bit
AIOG1001	Absolute encoder SSI ▪ 1xSSI 8..32bit

		AIOF1001	AIOF1002	AIOG1001
Input curve specification		-	IEC 61131-2, Type1	-
I/O numbers		1 counter 32bit (AB) invertible ▪ 5 V DC differential	2 counter 32bit (AB) invertibile ▪ 24 V DC	1 counter 8..32bit (SSI) ▪ 5V DC differential
Insulation		500 V DC	500 V DC	500 V DC
Counter	Frequency	max 2 MHz	max 100 kHz	125 kHz ÷ 2 MHz
	Type	AB, 1/2/4-fold evaluation / pulse&direction	AB, 1/2/4-fold evaluation / pulse&direction	Gray / Dual hardware codification
	Commands	Comparison/set value, input filter, reset	Comparison/set value, input filter	Clock out master mode / clock in listening mode
Time delay		0,8µs	0,8µs	-
Voltages	Power supply	20,4÷28,8 V DC	20,4÷28,8 V DC	20,4÷28,8 V DC
	"0"	RS422 differential signal	0÷5 V DC	RS422 differential signal
	"1"	RS422 differential signal	15÷28,8 V DC	RS422 differential signal
Current electronic area		70 mA	75 mA	70 mA
Current I/O area		20 mA	12 mA	Load dependent
Special functions		Status display Interrupt Diagnostica functions Time stamp (ex. speed calculation)	Status display Interrupt Diagnostica functions Time stamp (ex. speed calculation)	Status display Interrupt Diagnostica functions Time stamp (ex. speed calculation)
Operating temperature		0°C ÷ 60°C	0°C ÷ 60°C	0°C ÷ 60°C

CODE	POWER MODULES
AIOM1001	Power supply 24V DC max. 10A I/O area
AIOM1002	Power supply 24V DC max. 4A I/O area / 24/5V DC max. 2A electronic area

		AIOM1001	AIOM1002
Power supply section		I/O area	I/O area ▪ electronic area
Input	Voltage	20,4÷28,8 V DC	20,4÷28,8 V DC
Output	I/O area	24V DC / 10A	24V DC / 4A
	Electronic area	-	5V DC / 2A
Special functions		Status display Overvoltage protection (max 36 V) Polarity reversal protection	Status display Overvoltage protection (max 36 V) Polarity reversal protection
Operating temperature		0°C ÷ 60°C	0°C ÷ 60°C

CODE	POWER CLAMPS
AIOM1003	Passive clamp ▪ 8 terminals x 24V DC
AIOM1004	Passive clamp ▪ 8 terminals x 0V
AIOM1005	Passive clamp ▪ 4 terminals x 24V DC + 4 terminals x 0V

CODE	ACCESSORIES and SPARE PARTS
AIOP1001	Shield bus carrier (10 pcs)
AIOM1006	Power supply module 24V DC max. 10A I/O area
-	ARIO500 bus cover for contacts protection *Available as spare part by contacting the Technical Support - min quantity order: 3pcs*