AC500
Technical data

Modbus TCP modules

Type			CI521-MODTCP	CI522-MODTCP
Communication interface				
Ethernet Interface				
Main protocol			Modbus TCP	
ID Device configuration			By rotary switch on the front side, from 00h to FFh	
Ethernet connection on terminal units			2 x RJ45 with switch functionality for simple daisy chain on TU507-ETH or TU508-ETH	
Number of channels per module				
Digital		inputs	8	8
		outputs	8	8
Analog		inputs	4	–
		outputs	2	–
Digital configurable channels DC (configurable as inputs or outputs)			–	8
Additional configuration of channels as				
Fast counter (onboard I/O)			Configuration of max. 2 DI channels per module	
Occupies max. 1 DO or DC when used as counter			●	
Connection				
Local I/O extension			●	
Max. number of extension modules			max. 10 x S500 extension modules (standard or eCo modules allowed). Fast counter from digital IO modules can be also used.	
Via terminal unit TU5xx			●	●
Digital inputs				
Input	signal voltage		24 V DC	
	characteristic acc. to EN 61132-2		Type 1	
0 signal			-3...+5 V DC	
Undefined signal state			5...15 V DC	
1 signal			15...30 V DC	
Residual ripple, range for		0 signal	-3...+5 V DC	
		1 signal	15...30 V DC	
Input time delay (0 -> 1 or 1 -> 0)			8 ms typically, configurable from 0.1 up to 32 ms	
Digital outputs				
Transistor outputs 24 V DC, 0.5 A			●	
Readback of output			–	● (on DC outputs)
Outputs, supplied via process voltage UP			●	
Switching of 24 V load			●	
Output voltage at signal state 1			Process voltage UP - 0.8 V	
Output current				
Nominal current per channel			500 mA at UP = 24 V DC	
Maximum (total current of all channels)			8 A	
Residual current at signal state 0			< 0.5 mA	
Demagnetization when switching off inductive loads			By internal varistors	
Analog inputs AI			Max. number per module and with regard to the configuration: AIs / Measuring points	
Signal configuration per AI			4	–
0...10 V / -10... +10 V			4 / 4	–
0...20 mA / 4...20 mA			4 / 4	–
RTD using 2/3 wire needs 1/2 channel(s)			4 / 2	–
0...10 V using differential inputs, needs 2 channels			4 / 2	–
-10...+10 V using differential inputs, needs 2 channels			4 / 2	–
Digital signals (digital input)			4 / 4	–

(1) Not simultaneously.

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Data when using the AI as digital input				
Input		time delay	8 ms typically, configurable from 0.1 up to 32 ms	–
		signal voltage	24 V DC	–
Outputs, single configurable as				
Possible configuration per AO			●	–
-10...+10 V			●	–
0...20 mA / 4...20 mA			●	–
Output	resistance (load) when used as current output		0...500 Ω	–
	loading capability when used as voltage output		±10 mA max.	–
Potential isolation				
Per module			●	●
Between Ethernet interface against the rest of the module			●	●
Voltage supply for the module			By external 24 V DC voltage via terminal UP	
Process voltage UP				
Nominal voltage			24 V DC	
Current consumption on UP				
	min. (module alone)		0.260 A	
	max. (min. + loads)		0.260 A + load	
Reverse polarity protection			●	
Fuse for process voltage UP			10 A miniature fuse	
Approvals			See detailed page 238 or www.abb.com/plc	

(1) Not simultaneously.