ELECTRIC GRIPPER

SUPPLEMENTARY MODBUS PROTOCOL

Supplementary MODBUS Protocol for the RS485 Interface of Electric Gripper 4B4C Series

Reverse cyclic redundancy check (CRC): CRC16-REV = 0xA001

Detailed parameters of registers:

Address	Name	Range	Description		
1	CMD_SAVE	0/1	1: Parameter saving 0: Null	Read and write	With immediate effect
2	CMD_SETD EFAULT	0/1	1: Parameter reset to the default parameter 0:	Read and write	With immediate effect
3	CMD_ID	0-254	Device address (ID) of the gripper	Read and write	With immediate effect
4	CMD_BAU D	0,1, 2	Baud rate setting 0: 115200 1: 57600 2: 19200	Read and write	After it is saved, the setting will become effective after re-power on.
5	CMD_CAT CH_MOD	0/1	0: One grasping action (the gripper will stop moving after it reaches the target opening or grasps an object.) 1: Continuous grasping actions (after the gripper grasps an object and stops moving, if the force applied to the gripper decreases, grasping will continue to maintain the grip force.)	Read and write	With immediate effect
6	CMD_STOP	0/1	1: Emergency stop 0:	Read and write	With immediate effect
7	CMD_FAUL TACK	0/1	1: Fault clearance 0:	Read and write	With immediate effect

10	CMD_OPEN LEN_SET	0-1000	Gripper opening setting: 1000 (maximum opening), 0 (minimum opening); after this register is set, the gripper will take an immediate action.	Read and write	With immediate effect
11	CMD_SPEE D_SET	10-1000	Gripper speed setting: 1000 (maximum running speed); after this register is set, the gripper will take no action.	Read and write	With immediate effect
12	CMD_FORC E_SET	100-1000	Grip force setting of the gripper: 1000 (maximum grip force); after this register is set, the gripper will take no action.	Read and write	With immediate effect
16	CMD_MAX _OPENLEN	0-1000	Maximum opening	Read and write	With immediate effect
17	CMD_MIN_ OPENLEN	0-1000	Minimum opening	Read and write	With immediate effect
61	CMD_OPEN LEN_ACT	0-1000	Actual opening of the gripper	Read only	
62	CMD_CUR RENT	0-2000	Actual current of the gripper	Read only	
63	CMD_TEM P	0-100	Gripper driver temperature	Read only	
64	CMD_ERR ORCODE		Error codes of the gripper bit0: Locked-rotor error bit1: Over temperature error bit2: Over-current error bit3: Running fault bit4: Internal communication failure	Read only	
65	CMD_STAT US		Gripper status code 1: The gripper has unclenched to its maximum opening and has stopped. 2: The gripper has clenched to its minimum opening and	Read only	

			has stopped.		
			3: The gripper stops.		
			4: The gripper is grasping.		
			5: The gripper is unclenching.		
			6: The gripper has grasped an object during grasping and has stopped.		