RS485 communication standard

All signals on the physical link between devices should comply with EIA/TIA-485-A standard.

Recommended network cable : Shielded, two twisted-pair type 22 - 24 AWG
Communication mode : half-duplex
Time between two messages, minimum 100 ms

Each character is coded as follow :

Character coding		
Baud Rate	4800	+/-100
Start bit	Logical Level 0	
Data bits	8	Less significant bit transmitted first
Parity	Odd	
Stop bit	Logical Level 1	

RS485 control wiring

Pin 1 (red) = (+)
Pin 2 (green) = Ground
Pin 3 (black) = (-)

Functions

The following tables show functions available from the network and the corresponding messages:

Settings

Settings functions are used to change the configuration of the product.

Command Type	Function	Message	In / Out
Setting	Set motor limits	SET_MOTOR_LIMITS (11h)	>> In
	Set motor rotation direction	SET_MOTOR_DIRECTION (12h)	>> In
	Set motor speed for rolling applications	SET_MOTOR_ROLLING_SPEED (13h)	>> In
	Set Intermediate Positions (up to 16)	SET_MOTOR_IP (15h)	>> In
	Enable/Disable dry contact inputs	SET_DCT_LOCK (17h)	>> In
	Recall factory settings	SET_FACTORY_DEFAULT (1Fh)	>> In

Controls

Control functions are used to change the status of the product.

Command Type	Function	Message	In / Out
Control	Move in momentary mode	CTRL_MOVE (01h)	>> In
	Stop movement	CTRL_STOP (02h)	>> In
	Move to absolute position (UP/DOWN/IP)	CTRL_MOVETO (03h)	>> In
	Move to relative position (Jog/Next IP)	CTRL_MOVEOF (04h)	>> In
	Feedback	CTRL_WINK (05h)	>> In

Status

Status functions are used to get information from the product.

Command Type	Function	Message	In / Out
Status Request	Read motor position	GET_MOTOR_POSITION (0Ch)	>> In
	Read motor status	GET_MOTOR_STATUS (0Eh)	>> In
	Read motor limits	GET_MOTOR_LIMITS (21h)	>> In
	Read motor rotation direction	GET_MOTOR_DIRECTION(22h)	>> In
	Read motor speed for rolling applications	GET_MOTOR_ROLLING_SPEED (23h)	>> In
	Read Intermediate Positions	GET_MOTOR_IP (25h)	>> In
	Read DCT status (Enabled / Disabled)	GET_DCT_LOCK (27h)	>> In
	Read factory default status	GET_FACTORY_DEFAULT(2Fh)	>> In
Command Type	**Function**	**Message**	**In / Out**
Status Report	Send motor position	POST_MOTOR_POSITION (0Dh)	Out >>
	Send motor status	POST_MOTOR_STATUS (0Fh)	Out >>
	Send motor limits	POST_MOTOR_LIMITS (31h)	Out >>
	Send motor rotation direction	POST_MOTOR_DIRECTION(32h)	Out >>
	Send motor speed for rolling applications	POST_MOTOR_ROLLING_SPEED (33h)	Out >>
	Send Intermediate Positions	POST_MOTOR_IP(35h)	Out >>
	Send DCT status (Enabled / Disabled)	POST_DCT_LOCK(37h)	Out >>
	Send factory default status	POST_FACTORY_DEFAULT (3Fh)	Out >>