

Pulse RMB

SOONHAN

Pulse Remote Motion Block Specification

SynqNet™
www.synqnet.org

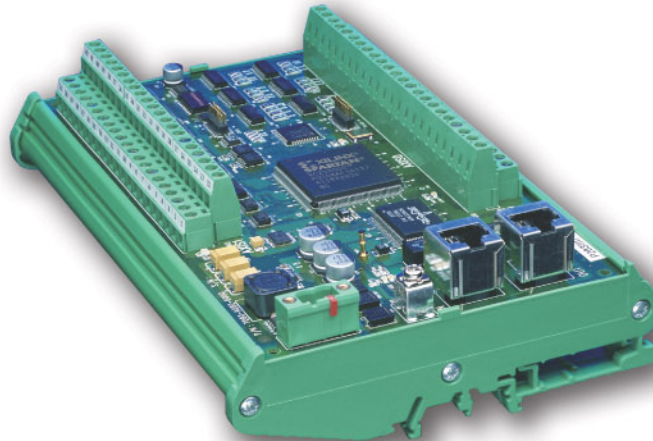
IO2K-SQP2

Overview

SOONHAN's Remote Motion Block (RMB), IO2K-SQP2, is designed to connect stepper motor drive or position mode AC-servo drive into a SynqNet system. Each IO2K-SQP2 can support up to 2 axes of drives including encoder feedback, transceivers, dedicated I/O and a lot of user I/O.

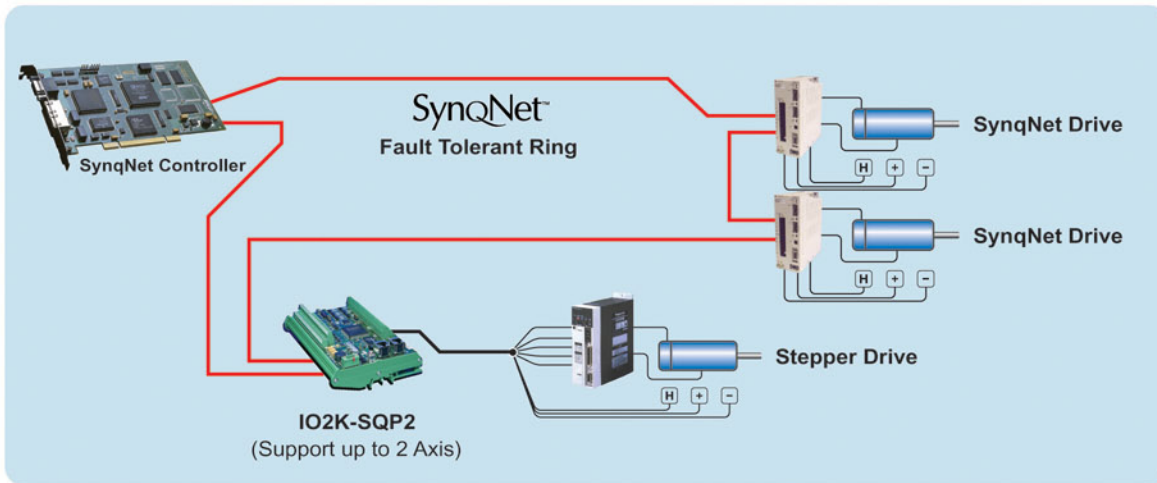
By providing screw terminal connection with motor drive, IO2K-SQP2 can remove accessories for optional local motion block and improve reliability in your system. IO2K-SQP2 has 26 discrete user I/O such as 9 inputs and 4 outputs per axis, making it simple to integrate machine I/O into SynqNet network. Especially user output on IO2K-SQP2 can be compatible for all kinds of I/O devices, due to high drive current designed.

IO2K-SQP2 supports SynqNet network switch ID, making it ease to identify specific node among the plural nodes. IO2K-SQP2 makes you experience new extraordinary SynqNet node.



IO2K-SQP2

Configuration Diagram

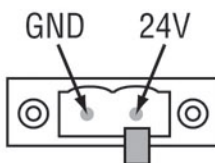


Remote Motion Block Pin-out & Connector Information

AXIS0	
1	Enc0_A+
2	Enc0_B+
3	Enc0_I+
4	Home0_IN
5	Pos_Lim0_IN
6	Neg_Lim0_IN
7	Amp_Flt0_IN
8	Amp_En0_Collector
9	Amp_Rst0_Collector
10	Brk_Appd0_Collector
11	Tx0_0+
12	Tx0_1+
13	GND
14	GP_Opto_IN0_1
15	GP_Opto_IN0_3
16	GP_Opto_IN0_5
17	GP_Opto_IN0_7
18	GP_Opto_IN0_Rtn0
19	24V_IN
20	GP_Opto_OUT0_1
21	GP_Opto_OUT0_3
22	Node_Alarm_Collector
23	Node_Disable_IN
24	Enc0_A-
25	Enc0_B-
26	Enc0_I-
27	5V_OUT
28	GND
29	HomeLim0_Rtn
30	Amp_Flt0_Rtn
31	Amp_En0_Emitter
32	Amp_Rst0_Emitter
33	Brk_Appd0_Emitter
34	Tx0_0-
35	Tx0_1-
36	GP_Opto_IN0_0
37	GP_Opto_IN0_2
38	GP_Opto_IN0_4
39	GP_Opto_IN0_6
40	GP_Opto_IN0_8
41	GP_Opto_IN0_Rtn1
42	GP_Opto_OUT0_0
43	GP_Opto_OUT0_2
44	GP_Opto_OUT0_Rtn
45	Node_Alarm_Emitter
46	Node_Disable_Rtn

AXIS1	
1	Enc1_A+
2	Enc1_B+
3	Enc1_I+
4	Home1_IN
5	Pos_Lim1_IN
6	Neg_Lim1_IN
7	Amp_Flt1_IN
8	Amp_En1_Collector
9	Amp_Rst1_Collector
10	Brk_Appd1_Collector
11	Tx1_0+
12	Tx1_1+
13	GND
14	GP_Opto_IN1_1
15	GP_Opto_IN1_3
16	GP_Opto_IN1_5
17	GP_Opto_IN1_7
18	GP_Opto_IN1_Rtn0
19	24V_IN
20	GP_Opto_OUT1_1
21	GP_Opto_OUT1_3
22	Enc1_A-
23	Enc1_B-
24	Enc1_I-
25	5V_OUT
26	GND
27	HomeLim1_Rtn
28	Amp_Flt1_Rtn
29	Amp_En1_Emitter
30	Amp_Rst1_Emitter
31	Brk_Appd1_Emitter
32	Tx1_0-
33	Tx1_1-
34	GP_Opto_IN1_0
35	GP_Opto_IN1_2
36	GP_Opto_IN1_4
37	GP_Opto_IN1_6
38	GP_Opto_IN1_8
39	GP_Opto_IN1_Rtn1
40	GP_Opto_OUT1_0
41	GP_Opto_OUT1_2
42	GP_Opto_OUT1_Rtn

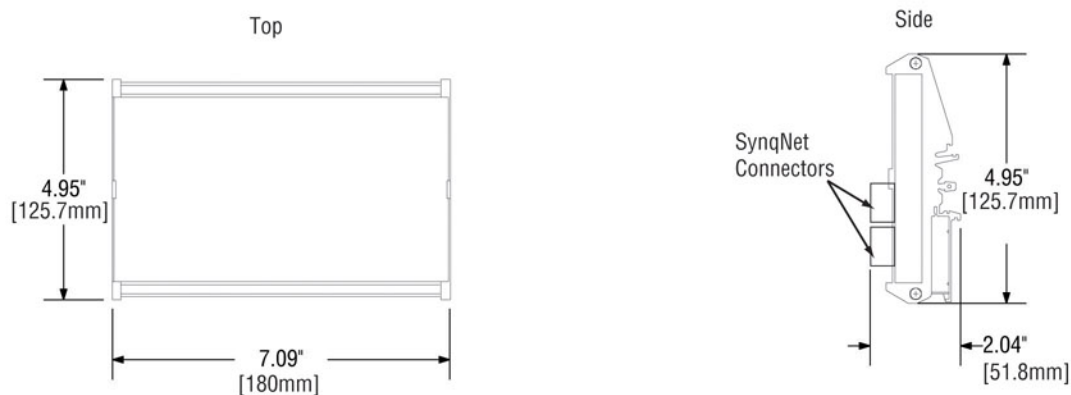
SynqNet Interface Pin-out & Connector Information



SynqNet IN	Pin	Signal
1	1	Transmit +
2	2	Transmit -
3	3	Receive +
4	4	UUP 1+
5	5	UUP 1-
6	6	Receive -
7	7	UUP 2+
8	8	UUP 2-

SynqNet OUT	Pin	Signal
1	1	Receive +
2	2	Receive -
3	3	Transmit +
4	4	UUP 1+
5	5	UUP 1-
6	6	Transmit -
7	7	UUP 2+
8	8	UUP 2-

Remote Motion Block Dimensions



Remote Motion Block Specification

Function	Parameter	Specification
Stepper Output	No. of Axes	2
	Dedicated I/O	
Dedicated I/O	Voltage	24V logic
	Current Output	10mA max
	Current Input	2mA min
	Latency	2 μ s
	Isolation	Opto-isolated
	Output	Amp enable, Brake Append (1 per axis)Node Alarm
	Input	Home, +Limit, -Limit, Amp Fault (1 each per axis) Node Disable
Transceiver I/O (EIA-422)	Latency	~ 60 nsec
	Modes	Step/Dir, CW/CCW, QUAD A/ QUAD B
Discrete User I/O	Voltage	24V
	Current Output	300mA max
	Current Input	2mA min
	Latency	2 μ s
	Isolation	Opto-isolated
	Lines	26 (Input 9, Output 4 per axis)
Encoder Inputs (EIA-422)	Count Rate	20 MHz
	Current Termination	100 Ω
	Latency	19 nsec
Network Interfaces	Network Connectors	Screw Terminal
	Synqnet Connectors	RJ-45
Environment	Operating Temperature	0 ~ 50 $^{\circ}$ C
	Storage Temperature	0 ~ 50 $^{\circ}$ C
	Humidity	20~90% RH, non-condensing
Safety	Encoder Broken Wire Detection	Enabled
	Encoder Illegal State Detection	Enabled
External Power Supply	Voltage	24 VDC
	Current Consumption Typical	500 mA
	Current Consumption Max	1000 mA



Soonhan Engineering Corp.

Office

210Hyundai I Valley, 223-12 Sangdaewon-Dong,
Jungwon-Gu, Sungnam City, Kyungki-Do, Korea
Tel:82-31-737-9188 Fax:82-31-737-9196

Factory

209 Ssang Yong IT Twin Tower 1, 442-17 Sangdaewon-Dong
Jungwon-Gu, Sungnam City, Kyungki-Do, Korea
Tel:82-31-608-9188 Fax:82-31-608-9100

www.soonhan.com