THINK-PLC, LLC
301 Welcome Center Blvd, Lexington, NC 27295
(888) 407-5448 www.Think-PLC.com

https://think-plc.com/

MODEL NUMBER	SRMR-KIT-01-CN60-E01
PRODUCT DESCRIPTION	Run-My-Robot, Spindle Control Enclosure

DRAWING NUMBER	D10017
REVISION NUMBER	3
VARIANT NUMBER	N/A
DATE	05/30/25

DRAWN BY	bmcnulty
APPROVED BY	bcole
APPROVAL DATE	05/06/25
NUMBER OF PAGES	28

PROJECT STATUS: Release to manufacturing

REVISION HISTORY:

1	4/30/2025	Release to manufacturing
2	5/5/2025	ECO10000
3	5/29/2025	ECO10003

Table of contents

Think-F06_003

THINKPLC Think-PLC
301 Welcome Center Blvd., Lexington, NC 27295 USA
(888) 407-5448 www.think-plc.com

MODEL NUMBER SRMR-KIT-01-CN60-E01

Run-My-Robot, Spindle Control Enclosure

DRAWING No. D10017
REVISION No. 3
VARIANT No. N/A

DRAWN BY bmcnulty 02/16/25
LAST EDITOR bmcnulty 05/30/25

PAGE DESCRIPTION
Table of contents : =PACK&TOC/1 - =SHOP/212

FULL PAGE STRUCTURE
=PACK&TOC/2a

UNLESS CONFLICTING WITH UL 508A, NFPA 79 2024 TO BE USED AS A GUIDELINE FOR DESIGN AND CONSTRUCTION. GROUNDING: PE - EARTH OR "DIRTY GROUND" FE - FUNCTIONAL GROUND IE - INSTRUMENT GROUND CONDUCTOR TEMPERATURE RATING: ALL CONDUCTORS ARE TO BE RATED 90°C MINIMUM. REDUCING WIRE GAUGE WHEN SUBSTITUTING HIGHER TEMPERATURE RATED CONDUCTORS SHALL NOT BE ALLOWED. CONDUCTOR COLOR CODING: BLACK - ALL UNGROUNDED POWER OR CONTROL CIRCUIT CONDUCTORS OPERATING AT THE SUPPLY VOLTAGE WHITE - GROUNDED AC CURRENT-CARRYING POWER OR CONTROL CIRCUIT CONDUCTOR REGARDLESS OF VOLTAGE RED - UNGROUNDED AC CONTROL CIRCUITS OPERATING AT A VOLTAGE LESS THAN THE SUPPLY VOLTAGE BLUE - UNGROUNDED DC CONTROL CIRCUITS WHITE WITH BLUE STRIPE - GROUNDED DC CURRENT-CARRYING CONTROL CIRCUIT CONDUCTOR YELLOW OR ORANGE - UNGROUNDED CONTROL CIRCUITS OR OTHER WIRING, SUCH AS FOR CABINET LIGHTING, THAT REMAIN ENERGIZED WHEN THE MAIN DISCONNECT IS IN THE OFF POSITION WHITE WITH YELLOW STRIPE OR WHITE WITH ORANGE STRIPE - GROUNDED AC CONTROL CIRCUIT CURRENT-CARRYING CONDUCTOR THAT REMAINS ENERGIZED WHEN MAIN DISCONNECT SWITCH IS IN THE OFF POSITION GREEN WITH YELLOW STRIPE OR YELLOW WITH GREEN STRIPE - EARTHING CONDUCTOR NOTES: ALL COMPONENTS SHALL BE INSTALLED SUCH THAT REPLACEMENT DOES NOT REQUIRE THE REMOVAL OF THE BACKPANEL FROM THE ENCLOSURE. MTW CONDUCTOR INSULATION PREFERENCE IN PANEL CONSTRUCTION. CONDUCTOR AMPACITY TO BE DETERMINED BY RELEVANT NFPA70 AND NFPA79 AMPACITY TABLES. POWER CONDUCTORS TO BE 14AWG MINIMUM UNLESS OTHERWISE NOTED. CONTROL CONDUCTORS TO BE 18 AWG MINIMUM UNLESS OTHERWISE NOTED. POWER PANEL CONDUCTORS TO BE 600V INSULATION MINIMUM. CONTROL PANEL CONDUCTORS TO BE 300V INSULATION MINIMUM. CABLE OUTER SHEATH TO BE TRIMMED BACK MINIMUM 2 INCH. TRIMMED EDGE TO BE COVERED WITH HEAT SHRINK MINIMUM 1 INCH LENGTH WHERE CONDUCTORS AND OUTER SHEATH ARE EQUALLY COVERED. INDIVIDUAL CONDUCTORS TO BE LABELED BOTH ENDS WITH WIRE NUMBER INDICATED ON ELECTRICAL SCHEMATICS. EXCEPTION IS FOR CONDUCTOR LENGTHS 6 INCHES OR LESS WHICH MAY HAVE A SINGLE LABEL IN THE MIDDLE OF THE LENGTH OR AS APPROPRIATE. INDIVIDUAL CABLES TO BE LABELED BOTH ENDS WITH CABLE NUMBER INDICATED ON ELECTRICAL SCHEMATICS. INSTRUMENT CABLE SHIELDS TO BE GROUNDED ONE END ONLY LOCATION AS SHOWN IN THE ELECTRICAL SCHEMATICS. POWER CABLE SHIELDS TO BE GROUNDED BOTH ENDS. REVISION GUIDELINES: RED PEN: ADD THE TEXT AND LINES AS SHOWN GREEN PEN: DELETE TEXT/LINE WORK OR OBJECT BLUE OR BLACK PEN: NOTES, SKETCHES AND DIRECTIONS TO THE CAD DEPARTMENT, (NOT TO BE SHOWN) BUT INSTEAD TO BE ADDRESSED ON THE OUTPUT YELLOW OR BLUE HIGHLIGHTER: CHECKED OUT OK ORANGE OR PINK HIGHLIGHTER: QUESTION THIS AREA (NEEDS CLARITY)

Industrial Control Panel Nameplate: : Part no. L-111-102Q-NAMEPLATE
3" x 7"x 0.20"
Cut from JDS L-111-102Q White/Black Duets Flexible Contours Plastic.
Place one on the outside of the enclosure, on the door, per layout

76 mm[2.99"]

THINKPLC

301 Welcome Center Blvd
Lexington, NC 27295
Phone: 888-407-5448

INDUSTRIAL CONTROL PANEL
FOR INDUSTRIAL MACHINERY

https://think-plc.com/

PROJECT NUMBER:	N/A	MAX SHORT CIRCUIT CURRENT RATING:	5 kA
MODEL NUMBER:	SRMR-KIT-01-CN60-E01		
DRAWING NUMBER:	D10017	MAIN SUPPLY BREAKER OR FUSE RATING (A):	by others, 6 A
FULL LOAD CURRENT (A):	6 A		
LARGEST MOTOR LOAD (A):	N/A	ENCLOSURE TYPE:	Type 3R
LARGEST HEATER LOAD (A):	N/A	CONDUCTOR TYPE:	UL
VOLTAGE:	24 VDC	LINE SIDE FIELD CONNECTIONS (75 Deg):	M12 connection
PHASES:	N/A		
FREQUENCY:	N/A		

178 mm[7.01"]

Voltage marker label: MySafetyLabel Parts no. LB-0703-C, 1.125" x 4.5"
Place on the outside of the enclosure

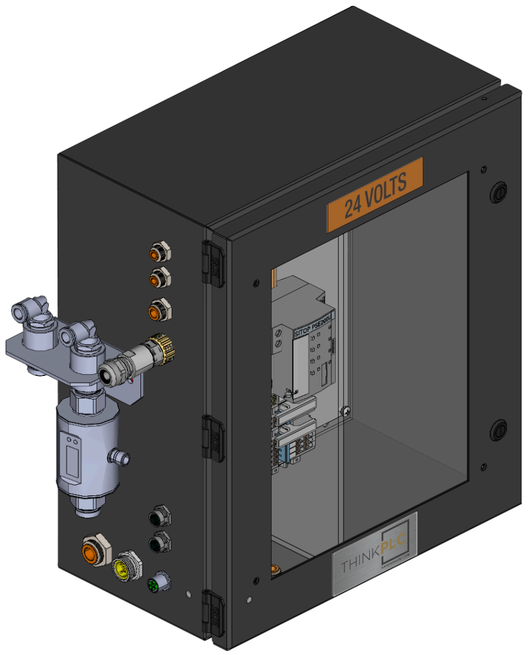
24 VOLTS

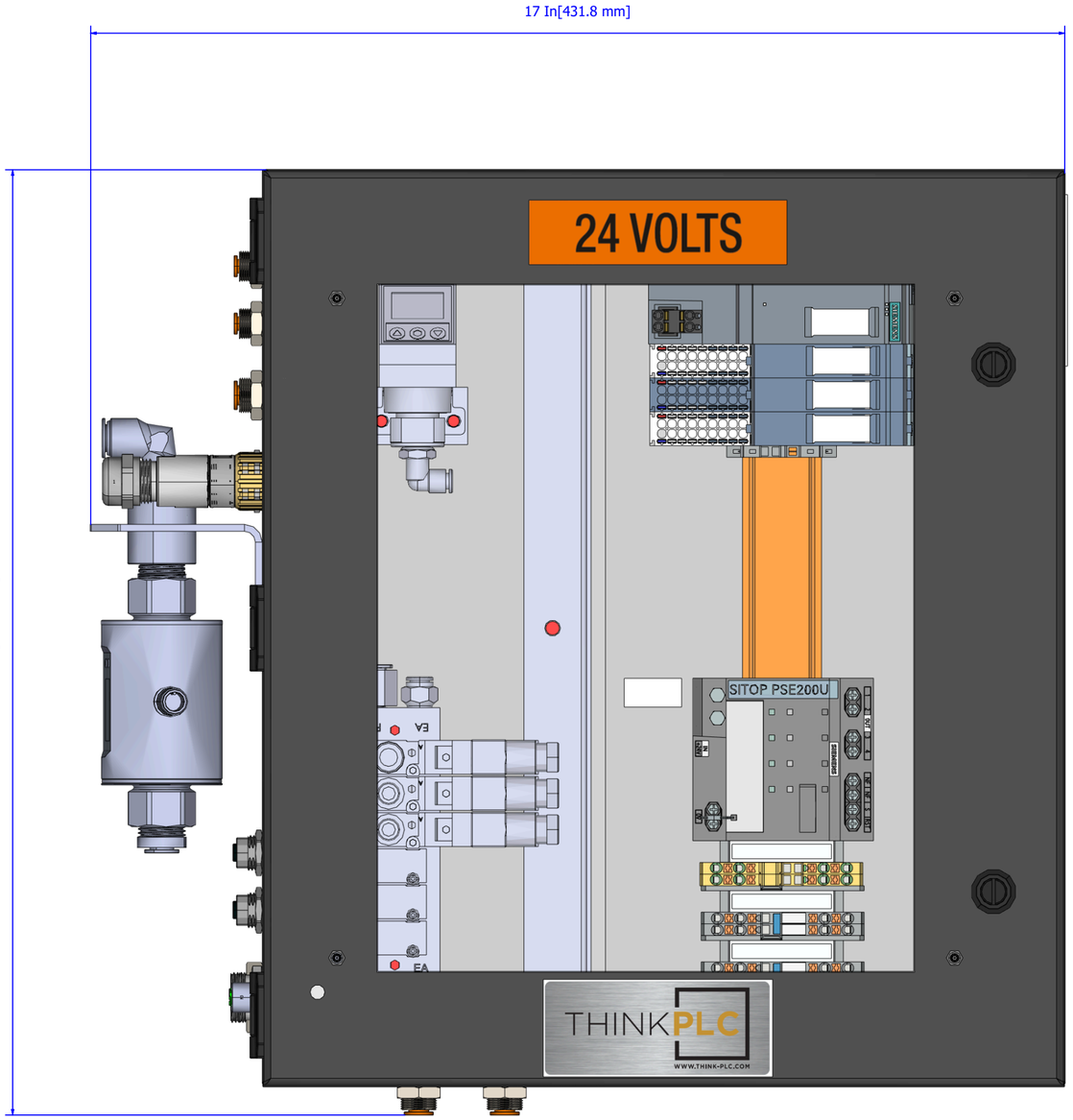
Think-PLC Logo tag: 1.7" x 4"

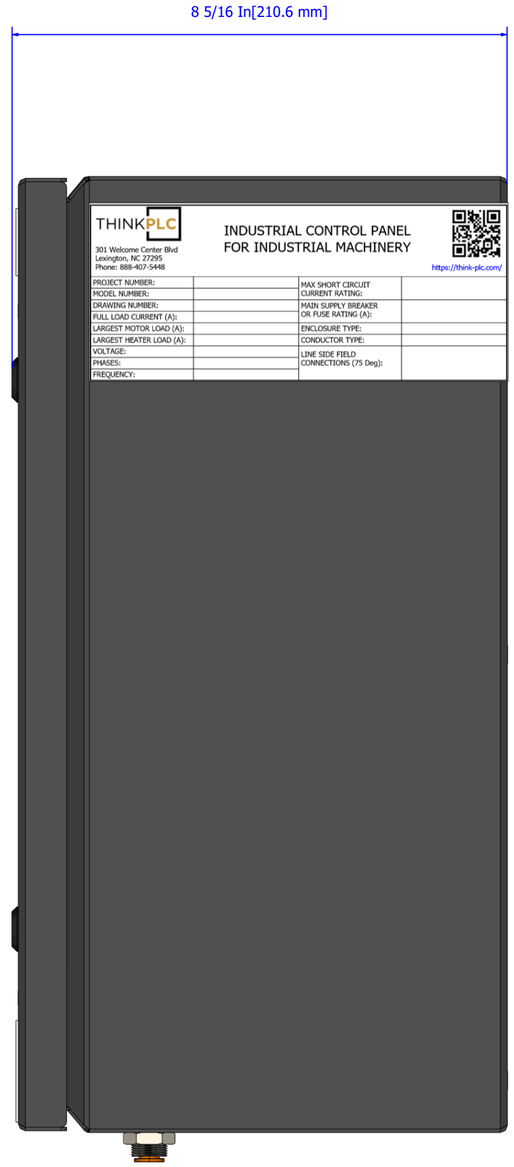
THINKPLC
WWW.THINK-PLC.COM

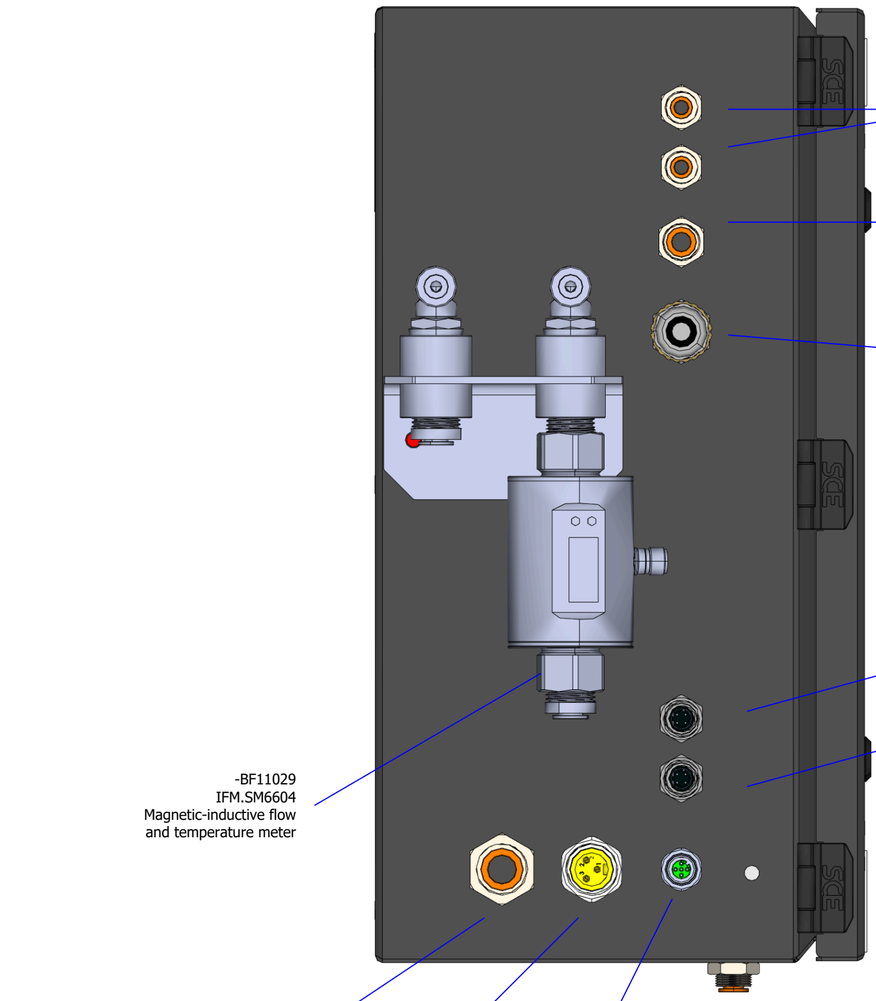
Numbered UL listed label:
place near the Industrial Control Panel nameplate
on the outside of the enclosure

UL LISTED NO. XX 000000
Enclosed Industrial Control Panel



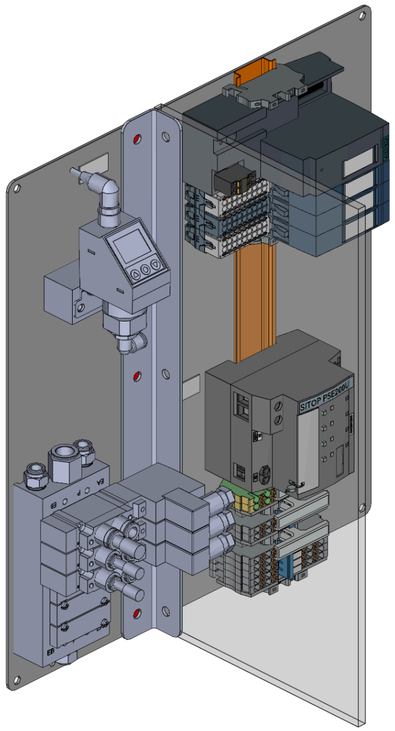


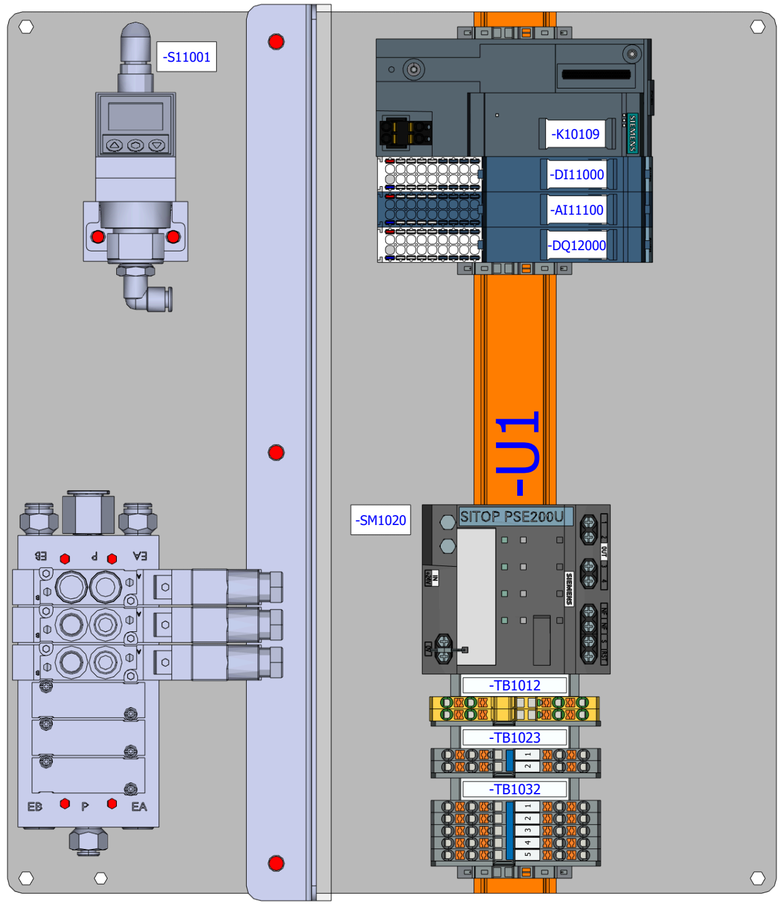




Think-PLC
301 Welcome Center Blvd., Lexington, NC 27295 USA
(888) 407-5448 www.think-plc.com

MODEL NUMBER SRMR-KIT-01-CN60-E01	DRAWING No. D10017	DRAWN BY bmcnulty 02/16/25	PAGE DESCRIPTION Model view-External view
Run-My-Robot, Spindle Control Enclosure	REVISION No. 3	LAST EDITOR bmcnulty 05/30/25	FULL PAGE STRUCTURE =PACK+CN60/4 Spindle Enclosure
	VARIANT No. N/A		PAGE NO. 4





THINKPLC
Think-PLC
301 Welcome Center Blvd., Lexington, NC 27295 USA
(888) 407-5448 www.think-plc.com

MODEL NUMBER SRMR-KIT-01-CN60-E01

Run-My-Robot, Spindle Control Enclosure

DRAWING No. D10017	DRAWN BY bmcnulty	02/16/25
REVISION No. 3	LAST EDITOR bmcnulty	05/30/25
VARIANT No. N/A		

PAGE DESCRIPTION
Model view-Internal view

FULL PAGE STRUCTURE
=PACK+CN60/5
Spindle Enclosure

+SRMR Run-my-Robot main enclosure

FEED FROM
ROBOT ENCLOSURE
-PL2053

24 VDC
0 VDC
PE

24 VDC
6A FLC

Use 75° C copper conductors only:

Field conductor size specifications on this document are based only on Think-PLC equipment FLC and does not account for unknown field conditions such as conductor length, environmental conditions, facility electrical capacity, or any site requirements. The final determination of conductor size is to be decided by a qualified installer in accordance with local, state, and federal regulations.

-CON1009
Receptacle, 3 Pole, Male Straight
MEN.MIN-3MR-3

2 BK 16
3 WH 16
1 GNYE 16

Warning:
Line side feeder stays energized

Feeder circuit protection is external

TB1012
PT 2,5-QUATTRO-PE
26~12 AWG, push-in
PXC.3209594

PE → CBL2109.1/GNYE / (2134)
PE → CBL12003/GNYE / (12006)
PE → CBL12015/GNYE / (12018)
PE → CBL12027/GNYE / (12030)

-SM1020
In: 24 VDC/12 A
Out: 24 VDC/3 A
Input: 18~6 AWG
Ouput: 18~12 AWG
SIE_N.6EP1961-2BA31

INPUT
24V1 → 3 RESET
24V1 → 3A RESET
3A RESET
3A RESET

OUTPUT
1 10210 18 BU → 10210 / (10101)
2 10230 18 BU → 10230 / (11001)
3 10250 18 BU → 10250 / (11001)
4 10270 18 BU → 10270 / (12001)
13 10230 18 BU → 10230 / (11001)
14 10360 18 BU → 10360 / (11017)

0 1
COM TD2 TD1
SIEMENS
RST
NF
0V2 → 0VDC 18 WHBU
0V1

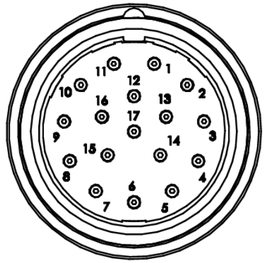
TB1023
PT 2,5-QUATTRO
26~12 AWG, push-in
PXC.3209578
PXC.3036877

1 → CON11110/BN / (11114)
1 → CBL11003/BN / (11010)
2 → CBL2109.1/BR / (2110)
2 → CBL2109.1/GY / (2122)
2 → CBL2109.1/BK / (2130)

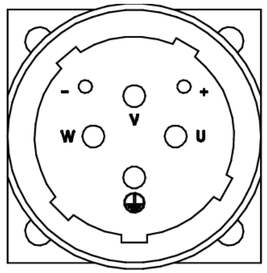
TB1032
PT 2,5-QUATTRO
26~12 AWG, push-in
PXC.3209578
PXC.3036903

1 → CBL11003/BU / (11010)
1 → CON11110/BU / (11114)
2 → CBL2109.1/BRWH / (2112)
2 → CBL2109.1/YE / (2120)
3 → 0VDC 18 WHBU → 0VDC.1 / (10101)
3 → 0VDC 18 WHBU → 0VDC.2 / (11001)
4 → 0VDC 18 WHBU → 0VDC.3 / (12000)
4 → 0VDC 18 WHBU → 0VDC.4 / (11105)
5 → 0VDC 18 WHBU → 0VDC.5 / (11113)

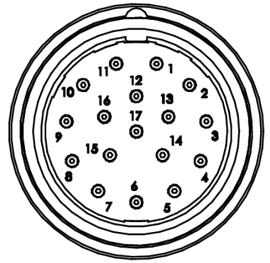
M23: Encoder connection

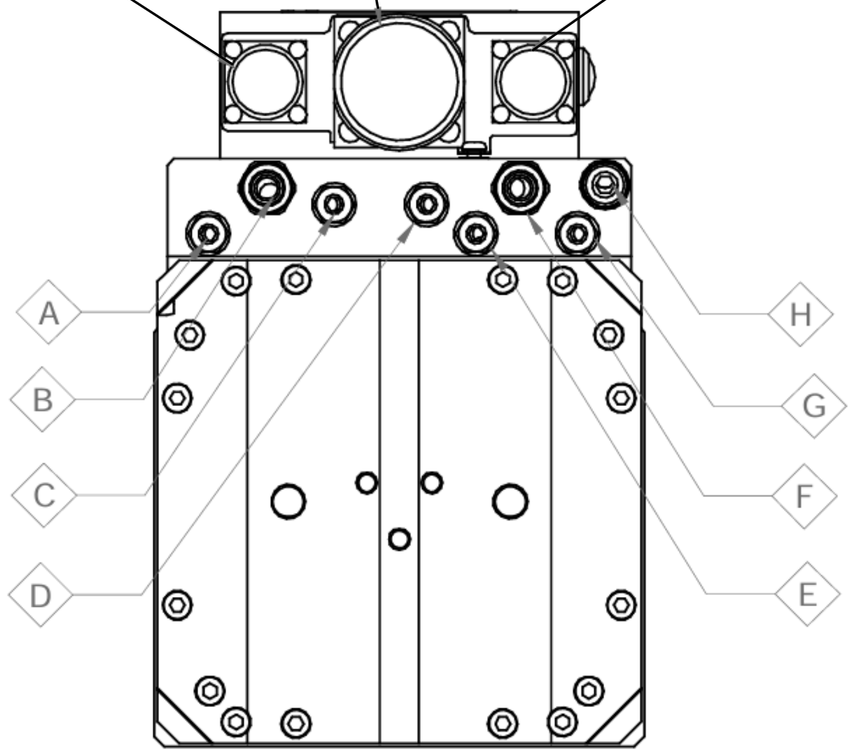


M40: Power Connection



M23: Signal I/O connection





M40 Power Connections		PDS cable	
Pin	Description	Color	Size
U	MOTOR PHASE A	Black	12 AWG
V	MOTOR PHASE B	Blue	12 AWG
W	MOTOR PHASE C	Grey	12 AWG
PE	GROUND	Black w/ shield	12 AWG
-	Not Connected	---	---
+	Not Connected	---	---

M23 Encoder Connections		Encoder cable
Pin	Description	Color
1	Ua + ENCODER	White
2	Ua - ENCODER	Brown
3	Un + ENCODER	Grey
4	Not Connected	---
5	Not Connected	---
6	Not Connected	---
7	+0 Vcc ALIM. ENCODER	Blue
8	Not Connected	---
9	Not Connected	---
10	+5 Vcc ALIM. ENCODER	Red
11	Ub + ENCODER	Pink
12	Ub - ENCODER	Black
13	Un - ENCODER	Yellow
14	Not Connected	---
15	CONNECTED TO 7	Violet
16	5V SENSE ENCODER	Green
17	Not Connected	---

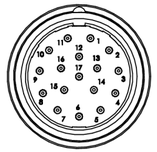
Ref	Description	Tube size	Pressure/flow
A	AIR/HYDRAULIC INLET 3	6 mm	6 - 6.5 bar
B	IN/OUT LIQUID COOLING ELECTROSPINDLE	10 mm	4.5 l/min
C	AIR/HYDRAULIC INLET 1	6 mm	6 - 6.5 bar
D	AIR/HYDRAULIC INLET 2	6 mm	6 - 6.5 bar
E	AIR/HYDRAULIC INLET 4	6 mm	6 - 6.5 bar
F	IN/OUT LIQUID COOLING ELECTROSPINDLE	10 mm	4.5 l/min
G	TAPER CLEANING / PRESSURIZATION	6 mm	4 - 4.5 bar
H	RELEASE TOOL	8 mm	9.5 - 10.5 bar

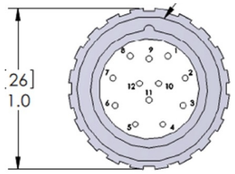
M23 Signal I/O Connections		PDS cable	
Pin	Description	Color	Size
1	Not Connected	---	---
2	Not Connected	---	---
3	+24 Vcc S3 ALIM supply -supply S3 (+IM SVS)	Blue	26AWG
4	0 Vcc S3 ALIM supply -supply S3 (+IM SVS) + Shield IM SVS	Black w/ shield	26AWG
5	Output S1 - Tool Locked	Brown	26AWG
6	Output S2 - Tool Released	Orange	26AWG
7	Output S2 - Shaft Rotation	Red	26AWG
8	0V - ALIM S1+S2+S5 Supply S1+S2+S5	Green	26AWG
9	+24Vcc - ALIM S1+S2+S5 Supply S1+S2+S5	White	26AWG
10	Output S5 Piston Back	Grey	26AWG
11	Output Thermal Alarm	Yellow	26AWG
12	Not Connected	---	---
13	+24V Temperature Probe T.C. PB, Thermal Alarm, +T.C.	White/Black	26AWG
14	Output T.C. Pushbutton	Orange/White	26AWG
15	IM SVS RS485 RX D-	Gray/Pink	26AWG
16	IM SVS RS485 TX D+	Red/Blue	26AWG
17	IM SVS ALARM	Yellow	26AWG

M23: Signal I/O connection

M23: Field Wirable

M23: Bulkhead connector





+SPINDLE — M23: Signal I/O connection

-U2104
Spindle, Hiteco HX- 13/7 24 63F NL 3C ES
M23 SIGNAL I/O CONNECTOR

Not Connected	1								
Not Connected	2								
+24 Vcc S3 ALIM supply -supply S3 (+IM SVS)	3	BU 26	1	BN 18	CBL2109.1/BR / (1026)	24VDC
0 Vcc S3 ALIM supply -supply S3 (+IM SVS) + Shield IM SVS	4	BK 26	2	BNWH 18	CBL2109.1/BRWH / (1033)	0VDC
Output S1 - Tool Locked	5	BN 26	3	BU 18	CBL2109.1/BU / (11019)	I201.0
Output S2 - Tool Released	6	OG 26	4	WH 18	CBL2109.1/WH / (11021)	I201.1
Output S2 - Shaft Rotation	7	RD 26	5	GN 18		
0V - ALIM S1+S2+S5 Supply S1+S2+S5	8	GN 26	6	YE 18	CBL2109.1/YE / (1034)	0VDC
+24Vcc - ALIM S1+S2+S5 Supply S1+S2+S5	9	WH 26	7	GY 18	CBL2109.1/GY / (1027)	24VDC
Output S5 Piston Back	10	GY 26	8	PK 18	CBL2109.1/PK / (11023)	I201.2
Output Thermal Alarm	11	YE 26	9	RD 18	CBL2109.1/RD / (11025)	I201.3
Not Connected	12					
+24 T.C. PB	13	WHBK 26	10	BK 18	CBL2109.1/BK / (1028)	24VDC
T.C. alarm	14	OGWH 26	11	VT 18	CBL2109.1/VT / (11027)	I201.4
IM SVS RS485 RX D-	15	GYPK 26	12	GNYE 18	CBL2109.1/GNYE / (1013)	PE
IM SVS RS485 TX D+	16	RDBU 26				
IM SVS Alarm	17	YE 26				

-CBL2109
(2113)
Signal I/O connector cable
PDS.CBLHX-2

CON2109
M23, Field Wireable
12 Pole, Male Straight
MEN.MCV-12MP-FW-CC
MEN.MCV-PIN-C

-CBL2109.1
M23 Receptacle, 12 Pole
MEN.MCV-12FR-1M-M20

SH 26

Think-PLC
301 Welcome Center Blvd., Lexington, NC 27295 USA
(888) 407-5448 www.think-plc.com

MODEL NUMBER SRMR-KIT-01-CN60-E01
Run-My-Robot, Spindle Control Enclosure

DRAWING No. D10017	DRAWN BY bmcnulty	02/16/25
REVISION No. 3	LAST EDITOR bmcnulty	05/30/25
VARIANT No. N/A		

PAGE DESCRIPTION
Spindle connections: Signal I/O connection

FULL PAGE STRUCTURE
=PACK+CN60/21
Spindle Enclosure

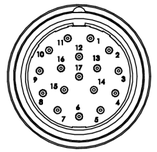
PAGE NO. 21

PREVIOUS PAGE 20
NEXT PAGE 30

M23: Encoder connection

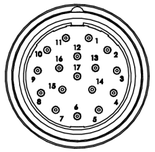
+SPINDLE

M23: Encoder connection



-U3001
Spindle, Hiteco HX- 13/7 24 63F NL 3C ES
M23 ENCODER CONNECTOR

M23: Encoder connection



Ua + ENCODER	1	WH
Ua - ENCODER	2	BN
Un + ENCODER	3	GY
N.C.	4	
N.C.	5	
N.C.	6	
+0 Vcc ALIM. ENCODER	7	BU
N.C.	8	
N.C.	9	
+5 Vcc ALIM. ENCODER	10	RD
Ub + ENCODER	11	PK
Ub - ENCODER	12	BK
Un - ENCODER	13	YE
N.C.	14	
CONNECTED TO 7	15	VT
5V SENSE ENCODER	16	GN
N.C.	17	

-CBL3011
SIE.6FX5002-2DC20-1AF0

-T3011
SINAMICS SENSOR MODULE EXTERNAL SME120
SME120
SIE.6SL3055-0AA00-5JA3

SIEMENS

ENCODER
X100

DRIVE-CLiQ X500
DRIVE-CLIQ

Connect to main RMR enclosure Cliq bulkhead connection

(1022) 10210

(1035) 0VDC.1

+SRMR Run-my-Robot main enclosure

Profinet from
-PL2058

-CBL10115
PXC.1403926

-CON10115
M12, D code
MURR.7000-44671-0000000

-CBL10119
PXC.1403926

-CON10119
M12, D code
MURR.7000-44671-0000000

-K10109
SIE.6ES7155-6AR00-0AN0
RACK 1
SLOT 0

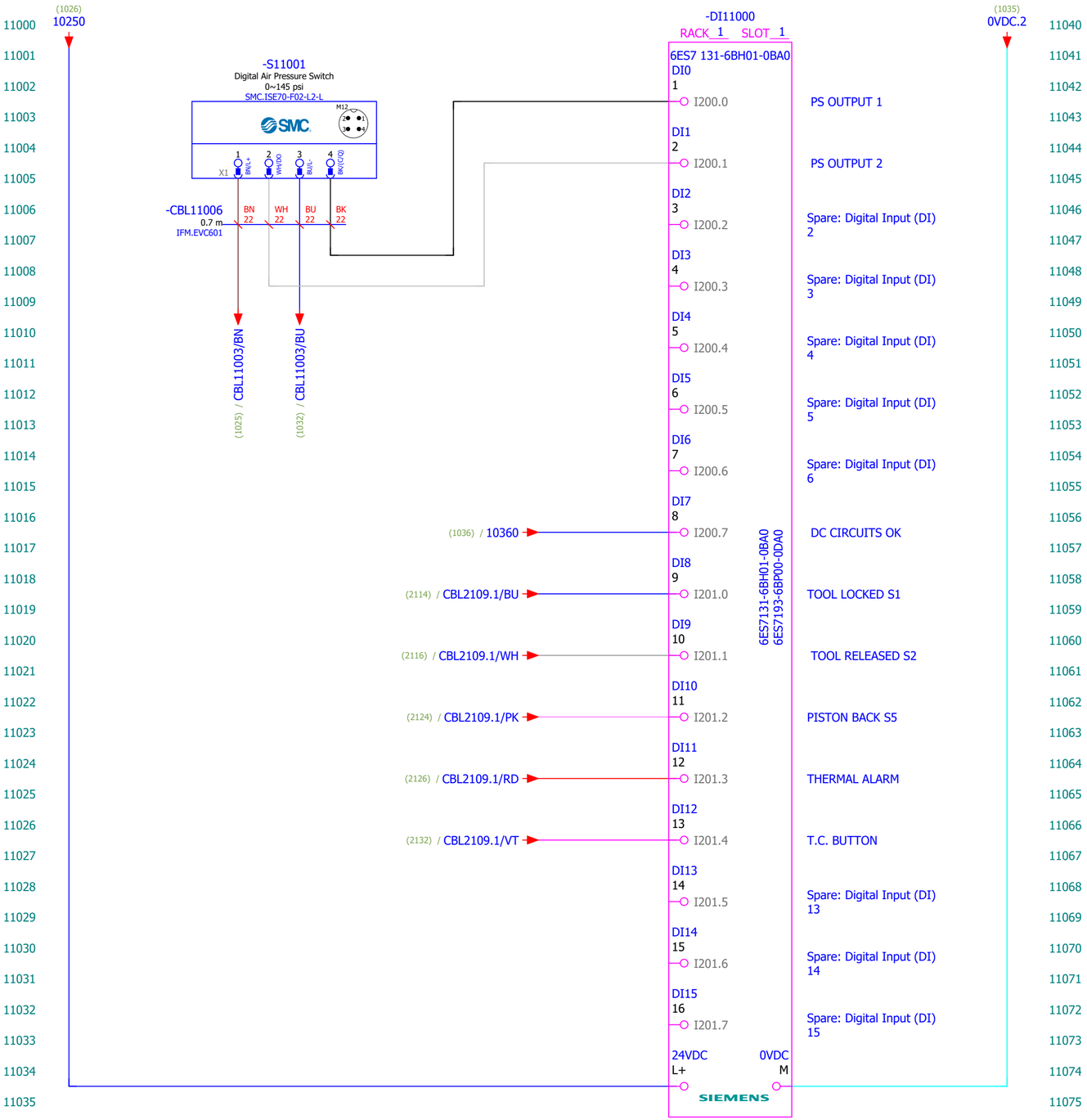
SIEMENS
IM 155-6PN BA
SIMATIC ET 200SP
6ES7155-6AR00-0AN0
X1 PROFINET (LAN)
P1R
P2R
PWR
X80 24VDC
1L+ 1M 2L+ 2M
MAC ADDRESS
-X80

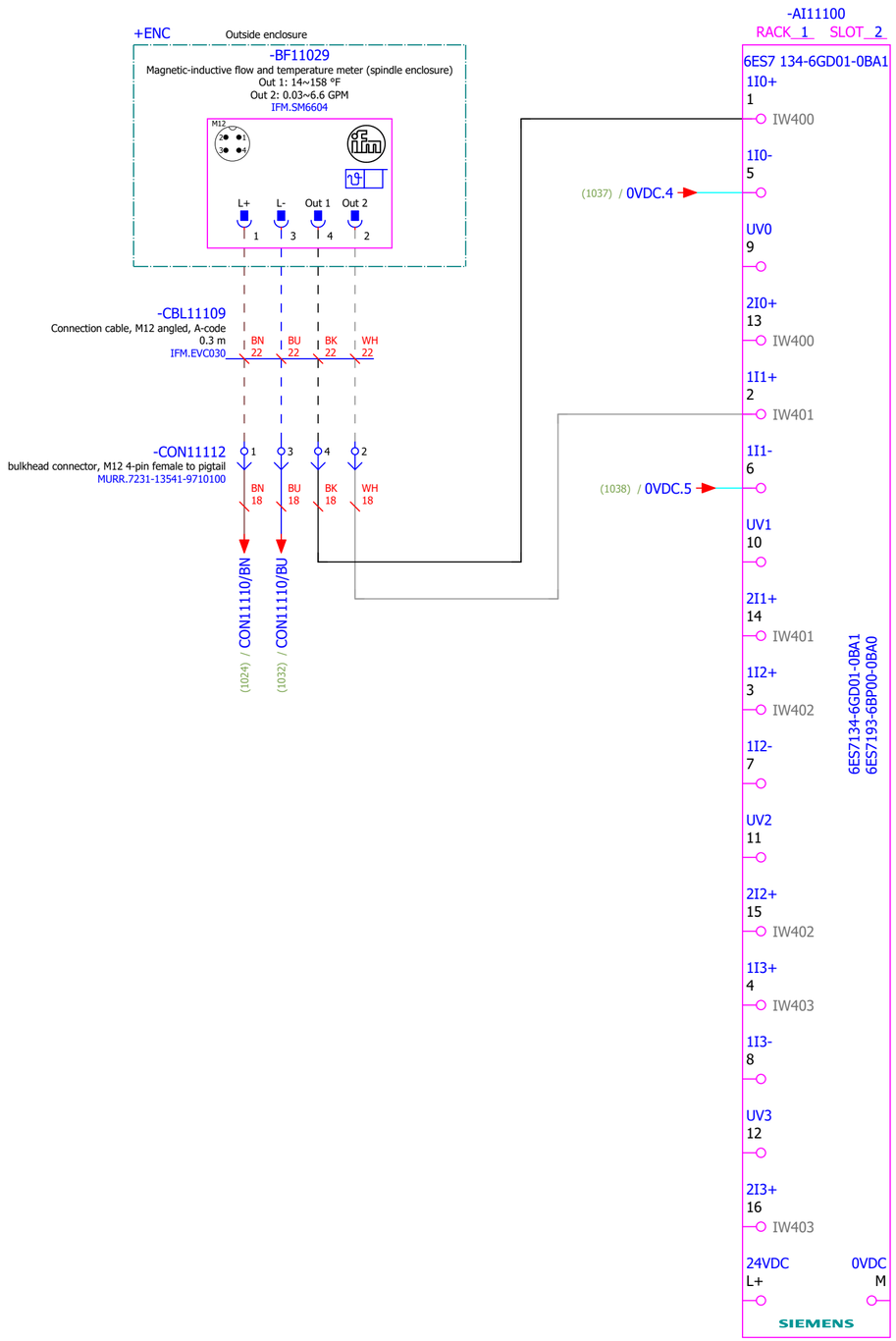
-DI11000
(11001)
DI 16x24VDC ST
DIAG
6ES7131-6BH01-0BA0
CC00

-AI11100
(11101)
AI 4xI 2-/4-wire ST
DIAG
6ES7134-6GD01-0BA1
CC03

-DQ12000
(12001)
DQ 4x24VDC/2A ST
DIAG
6ES7132-6BD20-0BA0
CC02

L+ M P1 P2 AUX





TEMPERATURE (AI0), Current input negative

Spare: Analog Input (AI0) Current input negative

FLOW (AI1) Current input positive

Spare: Analog Input (AI1) Current input negative

Spare: Analog Input (AI2) Current input positive

Spare: Analog Input (AI2) Current input negative

Spare: Analog Input (AI3) Current input positive

Spare: Analog Input (AI3) Current input negative

(1028)
10270

-DQ12000
RACK 1 SLOT 3
6ES7 132-6BD20-0BA0

6ES7132-6BD20-0BA0
6ES7193-6BP00-0DA0

(1036)
0VDC.3

TAPER CLEANING
DQ0 1
Q200.0
M 9

-CBL12003
MURR.SC11-LS24-5R
1 18
2 18
GNYE 18
(1014) / CBL12003/GNYE

-SOL12003
x1 x2
PE

PART CLEAN - BLOW
DQ2 3
Q200.2
M 11

DQ0 5

M 13

DQ2 7

-CBL12015
MURR.SC11-LS24-5R
1 18
2 18
GNYE 18
(1015) / CBL12015/GNYE

-SOL12015
x1 x2
PE

M 15

TOOL RELEASE (TOOL CHANGE)
DQ1 2
Q200.1
M 10

Spare: Digital Output (DQ3) Ch. 3
DQ3 4
Q200.3
M 12

-CBL12027
MURR.SC11-LS24-5R
1 18
2 18
GNYE 18
(1016) / CBL12027/GNYE

-SOL12027
x1 x2
PE

DQ1 6

M 14

DQ3 8

M 16

24VDC L+
0VDC M

SIEMENS

Bill of Material

Part Number	Quantity	Description	Manufacturer	DT (Device Tags)
1605-871	1	THINK-PLC Dometag	Dometag	-0000.3
EVC601	1	Connecting cable with socket	ifm electronic	-CBL11006
EVC030	1	Connection cable, M12 angled, A-code	ifm electronic	-CBL11109
SM6604	1	Magnetic-inductive flow and temperature meter (spindle enclosure)	ifm electronic	+ENC-BF11029
MCV-12FR-1M-M20	1	M23 Receptacle, 12 Pole	MENCOM	-CBL2109.1
MIN-3MR-3	1	Receptacle, 3 Pole, Male Straight	MENCOM	-CON1009
MCV-12MP-FW-CC	1	M23, Field Wireable, 12 Pole, Male Straight	MENCOM	-CON2109
MCV-PIN-C	12	MCV, Male Contact Pin	MENCOM	-CON2109
LB-0703-B	1	Label, 24 Volt, 1.125in. x 4.5in.	My Safety Label	-0000
SC11-LS24-5R	3	solenoid valve cable, 111mm reverse DIN style molded connector to flying lead	Murrelektronik	-CBL12003;-CBL12015;-CBL12027
7000-44671-0000000	2	bulkhead connector, M12 D-coded female 4-pin to RJ45 female 8-pin	Murrelektronik	-CON10115;-CON10119
7231-13541-9710100	1	bulkhead connector, M12 4-pin female to pigtail	Murrelektronik	-CON11112
C100X050APT	6	Label, panel component, 0.5" x 1", White	Panduit	-AI11100;-DI11000;-DQ12000;-K10109;-S11001;-SM1020
CBLHX-2	1	Signal I/O connector cable	Presision Drive Systems	-CBL2109
3022276	3	End bracket for terminal block	Phoenix Contact	-.1;-.2;-.9
3022218	3	End bracket for terminal block	Phoenix Contact	-.3;-.5;-.6
3030514	3	End and partition plate for terminal block	Phoenix Contact	-.4;-.7;-.8
1004348	3	Carrier for marking accessories	Phoenix Contact	-0000.5...-0000.7
0819275	3	Marker for marker carrier	Phoenix Contact	-TB1012;-TB1023;-TB1032
0801733	1	Think Stocked DIN rail	Phoenix Contact	-U1
1403926	2	Network cable	Phoenix Contact	-CBL10115;-CBL10119
3209594	2	Ground terminal block, PT 2,5-PE	Phoenix Contact	-TB1012
0828734	9	Labeling for terminal block	Phoenix Contact	-TB1012;-TB1023;-TB1032
3209578	7	Feed-through terminal block, PT 2,5	Phoenix Contact	-TB1023;-TB1032
3036877	1	Cross-connector for terminal block, Blue, 5.2 mm, 2-pin	Phoenix Contact	-TB1023
3036903	1	Cross-connector for terminal block, Blue, 5.2 mm, 5-pin	Phoenix Contact	-TB1032
16148ELJW-132228	1	ELJ Enclosure W/Viewing Window, powder coated RAL9011 sand texture BLACK inside and out	Saginaw	-2
16P14	1	Subpanel	Saginaw	-3
6ES7134-6GD01-0BA1	1	SIMATIC ET 200SP AI 4xI 2-/4-wire ST	Siemens	-AI11100
6ES7193-6BP00-0BA0	1	SIMATIC ET 200SP BU type A0 BU15-P16+A0+2B	Siemens	-AI11100
6ES7131-6BH01-0BA0	1	SIMATIC ET 200SP DI 16x 24V DC ST, PU 1	Siemens	-DI11000
6ES7193-6BP00-0DA0	2	SIMATIC ET 200SP BU type A0 BU15-P16+A0+2D	Siemens	-DI11000;-DQ12000
6ES7132-6BD20-0BA0	1	SIMATIC ET 200SP DQ 4x24 V DC/2 A ST	Siemens	-DQ12000
6ES7155-6AR00-0AN0	1	ET 200SP, IM155-6PN BASIC	Siemens	-K10109
6FX5002-2DC20-1AF0	1	MOTION-CONNECT DRIVE-CLiQ	Siemens	+SPINDLE-CBL3011
6SL3055-0AA00-5JA3	1	SINAMICS SENSOR MODULE EXTERNAL SME120	Siemens	+SPINDLE-T3011
6EP1961-2BA31	1	Selectivity module	Siemens (NFPA Data)	-SM1020

Bill of Material

Part Number	Quantity	Description	Manufacturer	DT (Device Tags)
KQ2E06-00AJ	2	Bulkhead Union - Applicable Tube O.D.: ø 6	SMC	-?1
KQ2E08-00A	3	Bulkhead Union - Applicable Tube O.D.: ø 8	SMC	-?1
KQ2E12-00A	1	Bulkhead Union - KQ2E*-00	SMC	-?1
ISE70-F02-L2-L	1	ISE70/71, 3-Screen Display Digital Pressure Switch for Air	SMC	-S11001
L-111-102Q-NAMEPLATE	1	Label, UL required nameplate	THINK-PLC	-0000.1
UL-LABEL	1	Label, UL listed enclosed industrial control panel	THINK-PLC	-0000.4

THINKPLC Think-PLC
301 Welcome Center Blvd., Lexington, NC 27295 USA
(888) 407-5448 www.think-plc.com

MODEL NUMBER SRMR-KIT-01-CN60-E01
Run-My-Robot, Spindle Control Enclosure

DRAWING No. D10017
REVISION No. 3
VARIANT No. N/A

DRAWN BY bmcnulty 02/16/25
LAST EDITOR bmcnulty 05/30/25

PAGE DESCRIPTION
Summarized parts list : SMC.KQ2E06-00AJ - THNK.UL-LABEL

FULL PAGE STRUCTURE
=PACK+CN60&BOM/A2
Spindle Enclosure

Connection list-Wiring

Index number	Wire Number	from			to	
		Mounting location	Device tag		Mounting location	Device tag
1	0VDC	+CN60	-SM1020:0V2	18 AWG WHBU	+CN60	-TB1032:1:a
2	0VDC	+CN60	-TB1032:3:c	18 AWG WHBU	+CN60	-K10109:-X80:2
3	0VDC	+CN60	-TB1032:3:d	18 AWG WHBU	+CN60	-DI11000:M
4	0VDC	+CN60	-TB1032:4:c	18 AWG WHBU	+CN60	-DQ12000:M
5	0VDC	+CN60	-TB1032:4:d	18 AWG WHBU	+CN60	-AI11100:5
6	0VDC	+CN60	-TB1032:5:c	18 AWG WHBU	+CN60	-AI11100:6
7	10210	+CN60	-SM1020:1	18 AWG BU	+CN60	-K10109:-X80:1
8	10230	+CN60	-SM1020:2	18 AWG BU	+CN60	-TB1023:1:a
9	10230	+CN60	-TB1023:2:a	18 AWG BU	+CN60	-SM1020:13
10	10250	+CN60	-SM1020:3	18 AWG BU	+CN60	-DI11000:L+
11	10270	+CN60	-SM1020:4	18 AWG BU	+CN60	-DQ12000:L+
12	10360	+CN60	-SM1020:14	18 AWG BU	+CN60	-DI11000:8

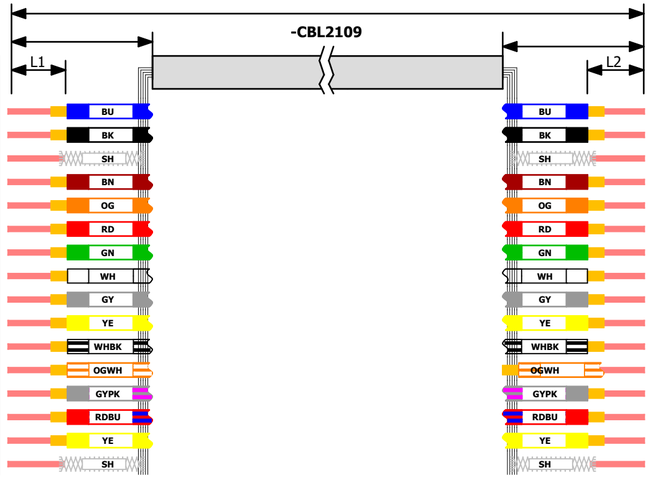
Index number	Wire Number	from			to	
		Mounting location	Device tag		Mounting location	Device tag

Think-PLC
301 Welcome Center Blvd., Lexington, NC 27295 USA
(888) 407-5448 www.think-plc.com

MODEL NUMBER SRMR-KIT-01-CN60-E01	DRAWING No. D10017	DRAWN BY bmcnulty 02/16/25	PAGE DESCRIPTION: Connection list : 0VDC - 10360
Run-My-Robot, Spindle Control Enclosure	REVISION No. 3	LAST EDITOR bmcnulty 05/30/25	FULL PAGE STRUCTURE: =PACK+CN60&CNNCT/B1 Spindle Enclosure
	VARIANT No. N/A		PAGE NO. B1
			PREVIOUS PAGE &BOM/A2
			NEXT PAGE &CBL/C1

Cable name +CN60-CBL2109
Cable type
Free conductors

Location designation	Source	Function text source	Stopper	L1 [mm]	Part number
Spindle Enclosure	-CON2109:1	M23, Field Wireable 12 Pole, Male			
Spindle Enclosure	-CON2109:2	0 Vcc S3 ALIM supply -supply S3 (+IM			
Spindle Enclosure	-CON2109:3	Output S1 - Tool Locked			
Spindle Enclosure	-CON2109:4	Output S2 - Tool Released			
Spindle Enclosure	-CON2109:5	Output S2 - Shaft Rotation			
Spindle Enclosure	-CON2109:6	0V - ALIM S1+S2+S5 Supply			
Spindle Enclosure	-CON2109:7	+24Vcc - ALIM S1+S2+S5 Supply			
Spindle Enclosure	-CON2109:8	Output S5 Piston Back			
Spindle Enclosure	-CON2109:9	Output Thermal Alarm			
Spindle Enclosure	-CON2109:10	+24 T.C. PB			
Spindle Enclosure	-CON2109:11	T.C. alarm			
Spindle Enclosure		IM SVS RS485 RX D-			
Spindle Enclosure		IM SVS RS485 TX D+			
Spindle Enclosure		IM SVS Alarm			
Spindle Enclosure	-CON2109:12	IM SVS RS485 RX D-			



Cable parts PDS.CBLHX-2
Order number CBLHX-2

Part number	L2 [mm]	Stopper	Function text target	Target	Location designation
			+24 Vcc S3 ALIM supply -supply S3	+SPINDLE-U2104:3	
			0 Vcc S3 ALIM supply -supply S3 (+IM	+SPINDLE-U2104:4	
			Output S1 - Tool Locked	+SPINDLE-U2104:5	
			Output S2 - Tool Released	+SPINDLE-U2104:6	
			Output S2 - Shaft Rotation	+SPINDLE-U2104:7	
			0V - ALIM S1+S2+S5 Supply	+SPINDLE-U2104:8	
			+24Vcc - ALIM S1+S2+S5 Supply	+SPINDLE-U2104:9	
			Output S5 Piston Back	+SPINDLE-U2104:10	
			Output Thermal Alarm	+SPINDLE-U2104:11	
			+24 T.C. PB	+SPINDLE-U2104:13	
			T.C. alarm	+SPINDLE-U2104:14	
			IM SVS RS485 RX D-	+SPINDLE-U2104:15	
			IM SVS RS485 TX D+	+SPINDLE-U2104:16	
			IM SVS Alarm	+SPINDLE-U2104:17	
			+24 Vcc S3 ALIM supply -supply S3	-CBL2109	*Spindle Enclosure*

Think-PLC_CableDiagram_NFPA_mm-Rev4

Cable name +CN60-CBL2109.1
Cable type
Free conductors

Location designation	Source	Function text source	Stopper	L1 [mm]	Part number
Spindle Enclosure	-CON2109:1	M23, Field Wireable 12 Pole, Male			
Spindle Enclosure	-CON2109:2	0 Vcc S3 ALIM supply -supply S3 (+IM			
Spindle Enclosure	-CON2109:3	Output S1 - Tool Locked			
Spindle Enclosure	-CON2109:4	Output S2 - Tool Released			
Spindle Enclosure	-CON2109:5	Output S2 - Shaft Rotation			
Spindle Enclosure	-CON2109:6	0V - ALIM S1+S2+S5 Supply			
Spindle Enclosure	-CON2109:7	+24Vcc - ALIM S1+S2+S5 Supply			
Spindle Enclosure	-CON2109:8	Output S5 Piston Back			
Spindle Enclosure	-CON2109:9	Output Thermal Alarm			
Spindle Enclosure	-CON2109:10	+24 T.C. PB			
Spindle Enclosure	-CON2109:11	T.C. alarm			
Spindle Enclosure	-CON2109:12	IM SVS RS485 RX D-			

Cable parts MEN.MCV-12FR-1M-M20
Order number MCV-12FR-1M-M20

Part number	L2 [mm]	Stopper	Function text target	Target	Location designation
				-TB1023:2:b	*Spindle Enclosure*
				-TB1032:2:c	*Spindle Enclosure*
			TOOL LOCKED S1	-DI11000:9	*Spindle Enclosure*
			TOOL RELEASED S2	-DI11000:10	*Spindle Enclosure*
			Output S2 - Shaft Rotation		*Spindle Enclosure*
				-TB1032:2:d	*Spindle Enclosure*
				-TB1023:2:c	*Spindle Enclosure*
			PISTON BACK S5	-DI11000:11	*Spindle Enclosure*
			THERMAL ALARM	-DI11000:12	*Spindle Enclosure*
				-TB1023:2:d	*Spindle Enclosure*
			T.C. BUTTON	-DI11000:13	*Spindle Enclosure*
				-TB1012:PE:c	*Spindle Enclosure*

THINKPLC Think-PLC
301 Welcome Center Blvd., Lexington, NC 27295 USA
(888) 407-5448 www.think-plc.com

MODEL NUMBER SRMR-KIT-01-CN60-E01
Run-My-Robot, Spindle Control Enclosure

DRAWING No. D10017
REVISION No. 3
VARIANT No. N/A

DRAWN BY bmcnulty 02/16/25
LAST EDITOR bmcnulty 05/30/25

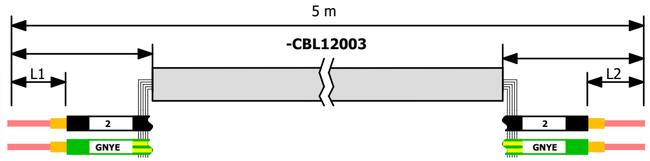
PAGE DESCRIPTION
Cable diagram:CBL2109
:CBL2109.1

FULL PAGE STRUCTURE
=PACK+CN60&CBL/C1
Spindle Enclosure

PAGE NO. C1
PREVIOUS PAGE &CNNCT/B1
NEXT PAGE C2

Cable name +CN60-CBL12003
Cable type 3x
Free conductors

Location designation	Source	Function text source	Stopper	L1 [mm]	Part number
Spindle Enclosure	-DQ12000:9				
Spindle Enclosure	-TB1012:PE:d				



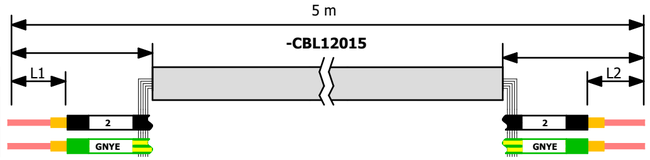
Cable parts MURR.SC11-LS24-5R
Order number SC11-LS24-5R

Part number	L2 [mm]	Stopper	Function text target	Target	Location designation
			TAPER CLEANING	-SOL12003:x2	*Spindle Enclosure*
			=	-SOL12003:PE	*Spindle Enclosure*

Think-PLC_CableDiagram_NFPA_mm-Rev4

Cable name +CN60-CBL12015
Cable type 3x
Free conductors

Location designation	Source	Function text source	Stopper	L1 [mm]	Part number
Spindle Enclosure	-DQ12000:15				
Spindle Enclosure	-TB1012:PE:c				



Cable parts MURR.SC11-LS24-5R
Order number SC11-LS24-5R

Part number	L2 [mm]	Stopper	Function text target	Target	Location designation
				-SOL12015:x2	*Spindle Enclosure*
				-SOL12015:PE	*Spindle Enclosure*

THINKPLC Think-PLC
301 Welcome Center Blvd., Lexington, NC 27295 USA
(888) 407-5448 www.think-plc.com

MODEL NUMBER SRMR-KIT-01-CN60-E01
Run-My-Robot, Spindle Control Enclosure

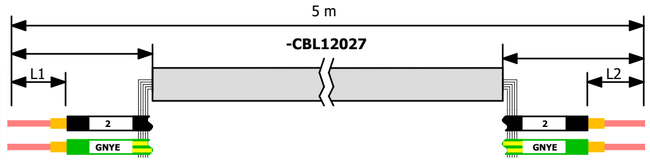
DRAWING No. D10017
REVISION No. 3
VARIANT No. N/A

DRAWN BY bmcnulty 02/16/25
LAST EDITOR bmcnulty 05/30/25

PAGE DESCRIPTION
Cable diagram:CBL12003
:CBL12015

FULL PAGE STRUCTURE
=PACK+CN60&CBL/C2
Spindle Enclosure

Cable name +CN60-CBL12027
Cable type 3x
Free conductors



Cable parts MURR.SC11-LS24-5R
Order number SC11-LS24-5R

Location designation	Source	Function text source	Stopper	L1 [mm]	Part number
Spindle Enclosure	-DQ12000:14				
Spindle Enclosure	-TB1012:PE:d				

Part number	L2 [mm]	Stopper	Function text target	Target	Location designation
				-SOL12027:x2	*Spindle Enclosure*
				-SOL12027:PE	*Spindle Enclosure*

Think-PLC_CableDiagram_NFPA_mm-Rev4

THINKPLC Think-PLC
301 Welcome Center Blvd., Lexington, NC 27295 USA
(888) 407-5448 www.think-plc.com

MODEL NUMBER SRMR-KIT-01-CN60-E01
Run-My-Robot, Spindle Control Enclosure

DRAWING No. D10017
REVISION No. 3
VARIANT No. N/A

DRAWN BY bmcnulty 02/16/25
LAST EDITOR bmcnulty 05/30/25

PAGE DESCRIPTION
Cable diagram:CBL12027

FULL PAGE STRUCTURE
=PACK+CN60&CBL/C3
Spindle Enclosure

PAGE NO. C3
PREVIOUS PAGE C2
NEXT PAGE &PLC/D1

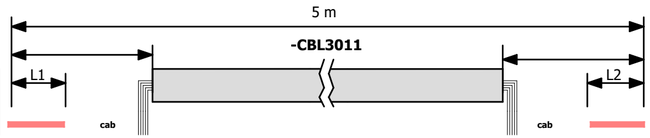
PLC address overview

Think-F48_001

No.	PLC address	Function text
1	I200.0	PS OUTPUT 1
2	I200.1	PS OUTPUT 2
3	I200.2	Spare: Digital Input (DI) 2
4	I200.3	Spare: Digital Input (DI) 3
5	I200.4	Spare: Digital Input (DI) 4
6	I200.5	Spare: Digital Input (DI) 5
7	I200.6	Spare: Digital Input (DI) 6
8	I200.7	DC CIRCUITS OK
9	I201.0	TOOL LOCKED S1
10	I201.1	TOOL RELEASED S2
11	I201.2	PISTON BACK S5
12	I201.3	THERMAL ALARM
13	I201.4	T.C. BUTTON
14	I201.5	Spare: Digital Input (DI) 13
15	I201.6	Spare: Digital Input (DI) 14
16	I201.7	Spare: Digital Input (DI) 15
17	IW400	TEMPERATURE (AI0), Current input negative
18	IW400	Spare: Analog Input (AI0) Current input negative
19	IW401	Spare: Analog Input (AI1) Current input negative
20	IW401	FLOW (AI1) Current input positive
21	IW402	Spare: Analog Input (AI2) Current input positive
22	IW402	Spare: Analog Input (AI2) Current input negative
23	IW403	Spare: Analog Input (AI3) Current input negative
24	IW403	Spare: Analog Input (AI3) Current input positive
25	Q200.0	TAPER CLEANING
26	Q200.1	TOOL RELEASE (TOOL CHANGE)
27	Q200.2	PART CLEAN - BLOW
28	Q200.3	Spare: Digital Output (DQ3) Ch. 3

Cable name +SPINDLE-CBL3011
Cable type NBC-R4AC/0,5-94Z/R4AC 1x24/7 AWG
Free conductors

Location designation	Source	Function text source	Stopper	L1 [mm]	Part number



Cable parts SIE.6FX5002-2DC20-1AF0
Order number 6FX5002-2DC20-1AF0

Part number	L2 [mm]	Stopper	Function text target	Target	Location designation

Think-PLC_CableDiagram_NFPA_mm-Rev4

THINKPLC Think-PLC
301 Welcome Center Blvd., Lexington, NC 27295 USA
(888) 407-5448 www.think-plc.com

MODEL NUMBER SRMR-KIT-01-CN60-E01
Run-My-Robot, Spindle Control Enclosure

DRAWING No. D10017
REVISION No. 3
VARIANT No. N/A

DRAWN BY bmcnulty 02/16/25
LAST EDITOR bmcnulty 05/30/25

PAGE DESCRIPTION
Cable diagram:CBL3011

FULL PAGE STRUCTURE
=PACK+SPINDLE&CBL/C1

PAGE NO. C1

PREVIOUS PAGE +CN60&PLC/D1
NEXT PAGE =SHOP+&/1