



Mount the terminal block on spare DIN rail space.
Use the terminal block to distribute the 24V supply.

This EtherCAT chassis uses fiber for input and copper for output.
Mount the fiber feedthroughs into the IN front panel.
Using LC-to-SC fiber patch cables:

- Connect the front panel fiber input to the input of the media converter.

Mount the modular adapters to the OUT front panel.

Using CAT5 patch cables:

- Connect the output of the media converter to the input of the first coupler (left rail).
- Connect the output of the first coupler to the input of the third one.
- Connect the front panel output to the output of the last coupler (right rail).

Twist power supply cable pair for motor supply, and wind around toroid 10 times.

Ports

IN

OUT

1A

2A

PN1
EtherCAT chassis
LIGO
D0902552-v3

PN2
Name Plate
LIGO
D1101121-v2

PN5
Fiber coupler panel adapter
LIGO

PN6
Fiber coupler panel adapter
LIGO
D1100095-v2

PN7
Fiber LC-LC coupler
Newark
52M9124

PN11
Ethernet patch cable, 1'
LIGO

PN12
Ethernet patch cable, 1'
LIGO

PN13
Ethernet patch cable, 1'
Newark
21M5658

PN15
Adapter panel
LIGO
D1100108-v1

PN17
Adapter panel
LIGO
D1100108-v1

Fiber/LC
Corner

CAT5
Corner

Blank

Blank

PN8
Fiber patch cable, LC-SC
L-Com
FODSC50-LC-01

TBLOCK

PN24 Terminal Block	PN32 Terminal Block	PN42 Terminal Block	PN48 Terminal Block
PN25 Terminal Block	PN33 Terminal Block	PN43 Terminal Block	PN49 Terminal Block
PN26 Terminal Block	PN34 Terminal Block	PN44 Terminal Block	PN50 Terminal Block
PN27 Terminal Block	PN35 Terminal Block	PN45 Terminal Block	PN51 Terminal Block
PN28 Terminal Block	PN36 Terminal Block	PN46 Terminal Block	PN52 Terminal Block
Digi-Key 277-1483-ND		Digi-Key 277-1483-ND	
	PN37 Jumper, 10pos		PN53 Jumper, 10pos
PN29 End Plate	PN38 Jumper, 10pos	PN47 End Plate	PN54 Jumper, 10pos
Digi-Key 277-1495-ND	Digi-Key 277-1494-ND	Digi-Key 277-1495-ND	Digi-Key 277-1494-ND

Slots

1

2

3

4

5

6

7

8

9

PN3
Adapter panel
LIGO
D1101120-v1

PN4
DB25F adapter
LIGO
D0902568-v1

E1 #6-32 1/4" flat
E2 #6-32 1/4" flat
McMaster-Carr
91099A205

PN9
Adapter panel
LIGO
D1101122-v1

PN10
DB25F adapter
LIGO
D0902568-v1

E3 #6-32 1/4" flat
E4 #6-32 1/4" flat
McMaster-Carr
91099A205

PN14
Adapter panel
LIGO
D0902557-v1

PN16
Adapter panel
LIGO
D0902557-v1

PN18
Adapter panel
LIGO
D1300132-v1/D

PN19
Rotation stage adapter
LIGO
D1300131-v1/E

E5 #6-32 1/4" flat
E6 #6-32 1/4" flat
McMaster-Carr
91099A205

PN20
Adapter panel
LIGO
D1300132-v1/B

PN21
Rotation stage adapter
LIGO
D1300131-v1/E

E7 #6-32 1/4" flat
E8 #6-32 1/4" flat
McMaster-Carr
91099A205

PN22
Adapter panel
LIGO
D1300132-v1/C

PN23
Rotation stage adapter
LIGO
D1300131-v1/E

E9 #6-32 1/4" flat
E10 #6-32 1/4" flat
McMaster-Carr
91099A205

PN30
Adapter panel
LIGO
D1300132-v1/A

PN31
Rotation stage adapter
LIGO
D1300131-v1/E

E11 #6-32 1/4" flat
E12 #6-32 1/4" flat
McMaster-Carr
91099A205

PN39
Adapter panel
LIGO
D1300143-v1

PN40
DB15/male

PN41
DB15/male
Digi-Key
A32503-ND

E13 Jack screw
E14 Jack screw
E15 Jack screw
E16 Jack screw
L-Com
SDG450XS

LASER
ANTE

DIODE/
CHILLER

Blank

Blank

Spare
Rotation Stage

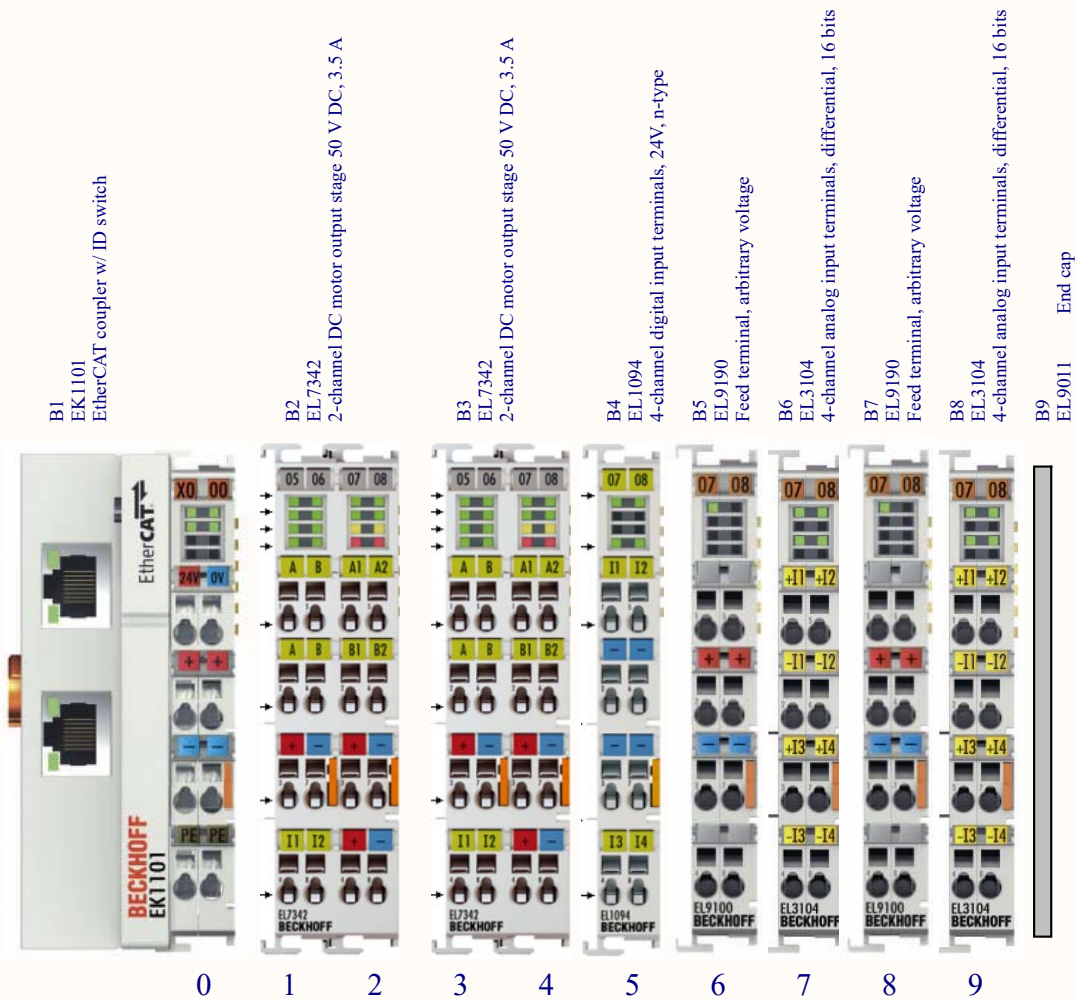
TCS X
Rotation Stage

TCS Y
Rotation Stage

IO
Rotation Stage

IO PZT

Title PSL/IO/TCS Controls Chassis		
Size B	Number D1101114	Revision 4
Date: 6/25/2018	Sheet 1 of 4	
File: D:\Users\...\PSLControls1.SchDoc	Drawn By: Daniel Sigg	



Ebus	24V	—	—
Power contacts	24V	—	—

24V

Rotation Stage

IO PZT

Media Converter

Power budget:
 EL3104: 0.180 A (2x)
 EL1094: 0.090 A (1x)
 EL7342: 0.140 A (2x)

 0.730 A

Media converter needs to be mounted sideways to prevent fiber from bending too fast.

 The rotary switch needs to be set to 0.

Title		
P/I/T Controls Chassis: Left Rail		
Size	Number	Revision
B	D1101114	4
Date:	6/25/2018	Sheet 2 of 4
File:	D:\Users\...\PSLControls2.SchDoc	Drawn By: Daniel Sigg

1

2

3

4

5

6

A

A

B

B

C

C

D

D

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
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Ebus	24V						24V								24V						
Power contacts	24V						5V								5V						

Spare

Title			P/I/T Controls Chassis: Middle Rail		
Size	Number	Revision			
B	D1101114	4			
Date:	6/25/2018	Sheet 3 of 4			
File:	D:\Users\...\PSLControls3.SchDoc	Drawn By:		Daniel Sigg	

1

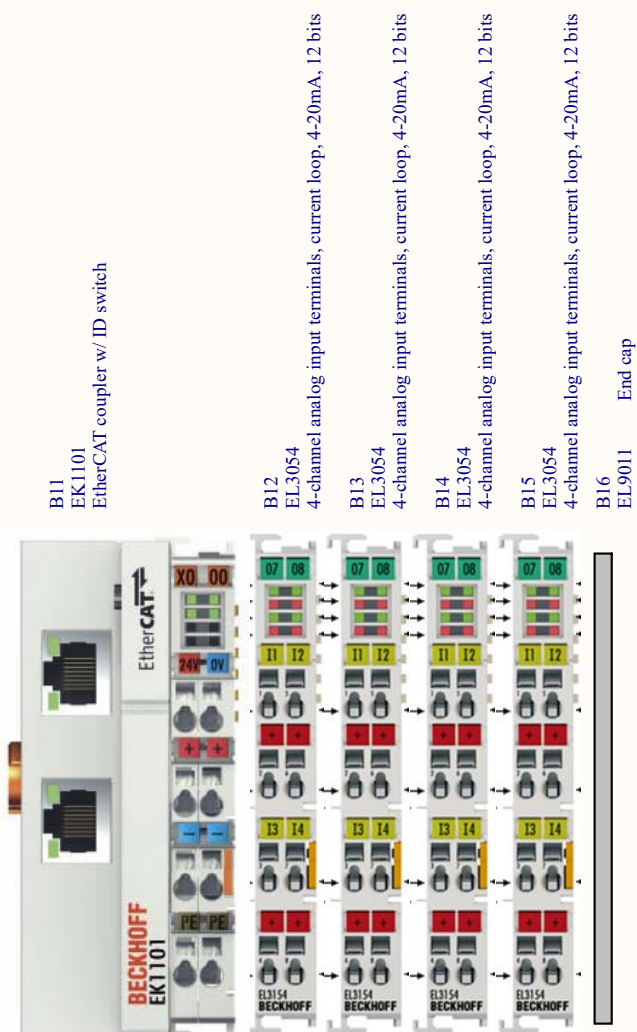
2

3

4

5

6



B11
EK1101
EtherCAT coupler w/ ID switch

B12
EL3054
4-channel analog input terminals, current loop, 4-20mA, 12 bits

B13
EL3054
4-channel analog input terminals, current loop, 4-20mA, 12 bits

B14
EL3054
4-channel analog input terminals, current loop, 4-20mA, 12 bits

B15
EL3054
4-channel analog input terminals, current loop, 4-20mA, 12 bits

B16
EL9011
End cap

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14

Ebus 24V
Power contacts 24V

Environmental

Power budget:
EL3054: 0.130 A (4x)

0.520 A

Title		
P/I/T Controls Chassis: Right Rail		
Size	Number	Revision
B	D1101114	4
Date:	6/25/2018	Sheet 4 of 4
File:	D:\Users\...\PSLControls4.SchDoc	Drawn By: Daniel Sigg