

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

This EtherCAT chassis uses copper and fiber.  
Mount the modular adapters to the front panel and the rear panel.

Using CAT5 patch cables:

- Connect the front panel input to the input of the first coupler (left rail).
  - Connect the front panel output to the output of the first coupler.
  - Connect the EL6688 to slot 9 (PTP).
  - Connect the EL6692 input/output to the rear panel port 1/2, respectively (H1 only).
- Using single LC-to-SC fiber patch cables
- Connect the EK1521s to the corresponding adapter in slot 9 (single mode fiber for EK1521-0010).

### Ports

#### IN

#### OUT

#### 1

#### 2

PN1  
EtherCAT chassis  
LIGO  
D0902552-v3

PN2  
Name Plate  
LIGO  
D1100666-v1

PN4  
Modular coupler  
L-Com  
ECF504-SC5E

PN5  
Ethernet patch cable, 1'  
Newark  
21M5658

PN7  
Modular coupler

PN8  
Ethernet patch cable, 1'

PN10  
Modular coupler

PN11  
Adapter panel

PN12  
Ethernet patch cable, 3'

PN14  
Modular coupler

PN15  
Adapter panel  
LIGO  
D1100108-v1

PN16  
Ethernet patch cable, 3'  
Newark  
21M5874

Coupler for H1  
Panels for L1/H2

### TBLOCK

PN18  
Fiber patch cable, LC-SC

PN19  
Fiber patch cable, LC-SC  
L-Com  
SFODSC-LC-01

PN20  
Fiber patch cable, LC-SC  
L-Com  
FODSC50-LC-01

PN21  
Ethernet patch cable, 3'

PN27  
D-Sub cable, DB9, male

PN28  
D-Sub cable, DB9, male  
Digi-Key  
H7PXH-0906G-ND

PN29  
D-sub screw/retainer  
L-Com  
SDF1

PN32  
D-Sub cable, DB9, female

PN33  
D-Sub cable, DB9, female

PN34  
D-Sub cable, DB9, female

PN35  
D-Sub cable, DB9, female  
Digi-Key  
H7SXH-0906G-ND

PN38 IDC socket, 10pin

PN39 IDC socket, 10pin

PN40 IDC socket, 10pin

PN41 IDC socket, 10pin

PN42 IDC socket, 10pin

PN43 IDC socket, 10pin  
Digi-Key  
MKC10A-ND

PN48 Terminal Block

PN49 Terminal Block

PN50 Terminal Block

PN51 Terminal Block

PN52 Terminal Block  
Digi-Key  
277-1483-ND

PN53 End Plate  
Digi-Key  
277-1495-ND

PN54 Terminal Block

PN55 Terminal Block

PN56 Terminal Block

PN57 Terminal Block

PN58 Terminal Block

PN59 Jumper, 10pos

PN60 Jumper, 10pos  
Digi-Key  
277-1494-ND

#### CAT5 Corner

#### CAT5 Corner

#### CAT5/Blank H2 IN

#### H2 OUT

### Slots

#### 1

#### 2

#### 3

#### 4

#### 5

#### 6

#### 7

#### 8

#### 9

PN3  
Adapter panel  
LIGO  
D0902557-v1

PN6  
Adapter panel  
LIGO  
D0902557-v1

PN9  
Adapter panel  
LIGO  
D0902557-v1

PN13  
Adapter panel  
LIGO  
D0902557-v1

PN17  
Adapter panel  
LIGO  
D0902557-v1

PN22  
Adapter panel  
LIGO  
D1100793-v2

PN23 M12 socket

PN24 M12 socket

PN25 M12 socket

PN26 M12 socket  
Newark  
08R3678

PN30  
Adapter panel  
LIGO  
D1100661-v1

PN31  
Serial adapter  
LIGO  
D1100638-v1

E1 #6-32 1/4" flat

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

PN36  
Adapter panel  
LIGO  
D1100662-v1

PN37  
DB37M adapter  
LIGO  
D0902569-v1

E3 #6-32 1/4" flat

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

PN44  
Adapter panel  
LIGO  
D1100630-v1

PN45  
Modular coupler

PN46  
Fiber LC-LC coupler  
L-Com  
FOA-801

PN47  
Fiber LC-LC coupler  
L-Com  
FOA-570

E5 #2 3/8" pan

E6 #2 3/8" pan

E7 #2 3/8" pan

E8 #2 3/8" pan

McMaster-Carr  
90272A079

E9 #2 washer

E10 #2 washer

E11 #2 nut

E12 #2 nut

E13 #2 nut

E14 #2 nut  
McMaster-Carr  
90480A003

E15 #2 washer

E16 #2 washer

E17 #2 washer

E18 #2 washer

E19 #2 washer

E20 #2 washer

McMaster-Carr  
90126A501

E21 #2 lock washer

E22 #2 lock washer

E23 #2 lock washer

E24 #2 lock washer  
McMaster-Carr  
98449A500

#### Blank

#### Temperature Sensors

#### Serial Concentrator

#### Safety Contacts

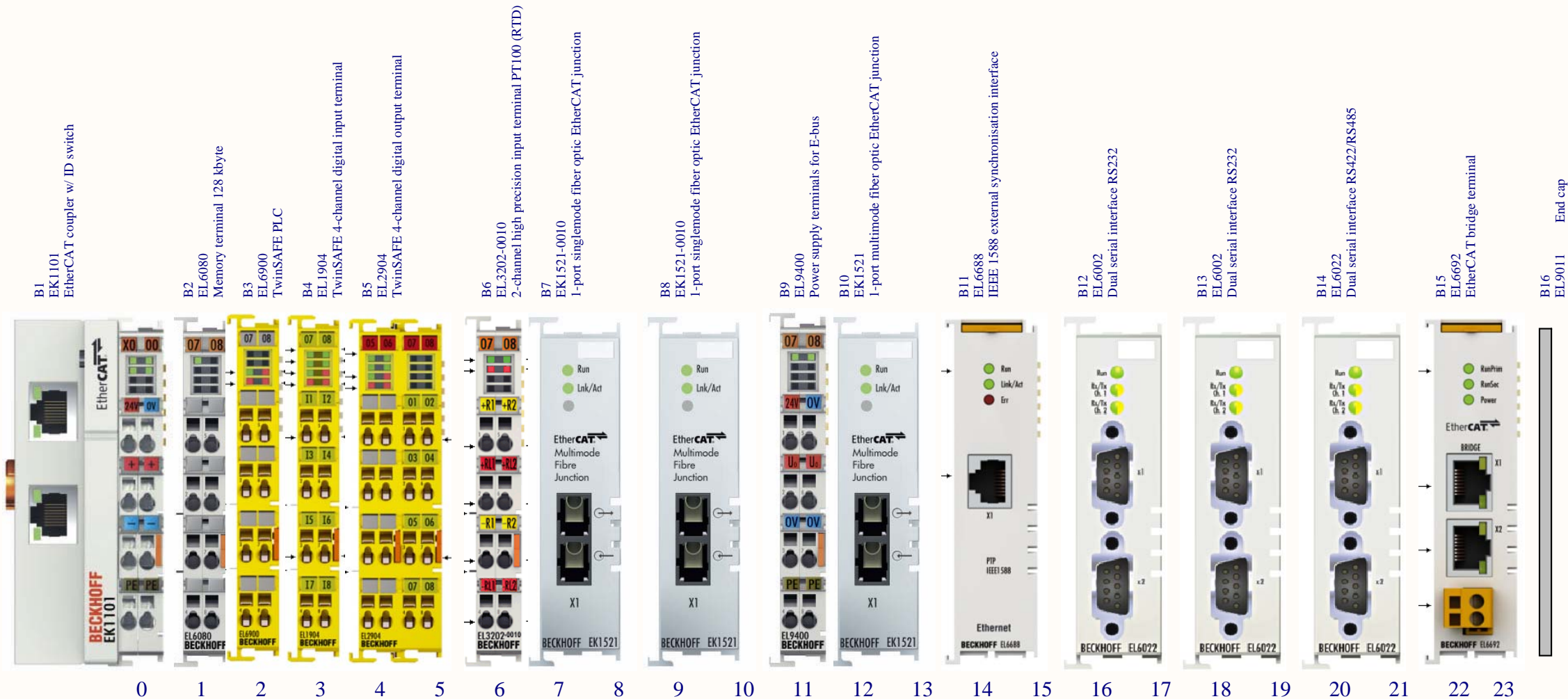
#### Fiber/PTP

M12	Color	PT100
1	brown	RL+
2	white	R+
3	blue	RL-
4	black	R-

External Senso:  
for example  
Newark 35M2405  
& 15M4877

Fiber/PTP:  
MM Fiber corne:  
SM Fiber EX  
SM Fiber EY  
CAT5 PTP

Title <b>EtherCAT 4km Remote Access Corner</b>		
Size B	Number <b>D1100618</b>	Revision <b>1</b>
Date: 5/21/2011	Sheet 1 of 4	
File: C:\Users\...\EtherCAT4kmCorner1.SchDoc	Drawn By: Daniel Sigg	



Ebus 24V  
 Power contacts 24V

24V  
 24V

MSR  
 EtherCAT

Safety

EX  
 Temp.

EY

Corner PTP  
 Timing

RS232/RS422 x6

H2  
 EtherCAT  
 (H1 only)

Power budget:

EL6080:	0.130 A
EL6900:	0.188 A
EL1904:	0.200 A
EL2904:	0.221 A
EL3202:	0.190 A
EL1521:	0.400 A
EL1521:	0.400 A
-----	
	1.729 A

Power budget:

EL1521:	0.400 A
EL6688:	0.310 A
EL6002:	0.170 A
EL6002:	0.170 A
EL6022:	0.350 A
EL6692:	0.120 A
-----	
	1.520 A

Title <b>Remote Access Corner: Left Rail</b>		
Size B	Number <b>D1100618</b>	Revision <b>1</b>
Date:	5/21/2011	Sheet 2 of 4
File:	C:\Users\...\EtherCAT4kmCorner2.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 21 22

Ebus 24V

Power contacts 24V

### Expansion Room

Title		<b>Remote Access Corner: Middle Rail</b>	
Size	Number	Revision	
B	<b>D1100618</b>	<b>1</b>	
Date:	5/21/2011	Sheet 3 of 4	
File:	C:\Users\...\EtherCAT4kmCorner3.SchDoc Drawn By: Daniel Sigg		

1

2

3

4

5

6

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 21 22

Ebus 24V

Power contacts 24V

### Expansion Room

Title		<b>Remote Access Corner: Right Rail</b>	
Size	Number	Revision	
B	<b>D1100618</b>	<b>1</b>	
Date:	5/21/2011	Sheet 4 of 4	
File:	C:\Users\...\EtherCAT4kmCorner4.SchDoc Drawn By: Daniel Sigg		

1

2

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4

5

6