

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

This EtherCAT chassis uses copper only.
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 first rear panel port (PTP).

IN

- PN1
EtherCAT chassis
LIGO
D0902552-v3
- PN2
Name Plate
LIGO
D1100666-v1

OUT

- PN4
Modular coupler
L-Com
ECF504-SC5E
- PN5
Ethernet patch cable, 1'
Newark
21M5658

Ports

1 2

- | | |
|-------------------------------------------------------|----------------------------------------------|
| PN10
Modular coupler | PN14
Modular coupler |
| PN11
Adapter panel | PN15
Adapter panel
LIGO
D1100108-v1 |
| PN12
Ethernet patch cable, 3'
Newark
21M5874 | |
| PTP Interface | Empty |

TBLOCK

- | | | | | |
|----------------------------------------------------------------|----------------------------------------------------------------|----------------------------------------------------|----------------------------------------------|--------------------------------------------------|
| PN22
D-Sub cable, DB9, male | PN27
D-Sub cable, DB9, female | PN32
IDC socket, 10pin | PN39
Terminal Block | PN45
Terminal Block |
| PN23
D-Sub cable, DB9, male
Digi-Key
H7PXH-0906G-ND | PN28
D-Sub cable, DB9, female | PN33
IDC socket, 10pin | PN40
Terminal Block | PN46
Terminal Block |
| PN29
D-Sub cable, DB9, female | PN29
D-Sub cable, DB9, female | PN34
IDC socket, 10pin | PN41
Terminal Block | PN47
Terminal Block |
| PN30
D-Sub cable, DB9, female
Digi-Key
H7SXH-0906G-ND | PN30
D-Sub cable, DB9, female
Digi-Key
H7SXH-0906G-ND | PN35
IDC socket, 10pin | PN42
Terminal Block | PN48
Terminal Block |
| PN24
D-sub screw/retainer
L-Com
SDF1 | | PN36
IDC socket, 10pin | PN43
Terminal Block | PN49
Terminal Block |
| | | PN37
IDC socket, 10pin
Digi-Key
MKC10A-ND | Digi-Key
277-1483-ND | PN50
Jumper, 10pos |
| | | | PN44
End Plate
Digi-Key
277-1495-ND | PN51
Jumper, 10pos
Digi-Key
277-1494-ND |

CAT5 Corner

- PN3
Adapter panel
LIGO
D0902557-v1

CAT5 Corner

- PN6
Adapter panel
LIGO
D0902557-v1

CAT5/Blank PTP

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

- PN16
Adapter panel
LIGO
D0902557-v1

- PN17
Adapter panel
LIGO
D1100793-v2
- PN18
M12 socket
- PN19
M12 socket
- PN20
M12 socket
- PN21
M12 socket
- Newark
08R3678

- PN25
Adapter panel
LIGO
D1100661-v1
- PN26
Serial adapter
LIGO
D1100638-v1
- E1 #6-32 1/4" flat
- E2 #6-32 1/4" flat
- McMaster-Carr
91099A205

- PN31
Adapter panel
LIGO
D0902557-v1

- PN38
Adapter panel
LIGO
D0902557-v1

Blank

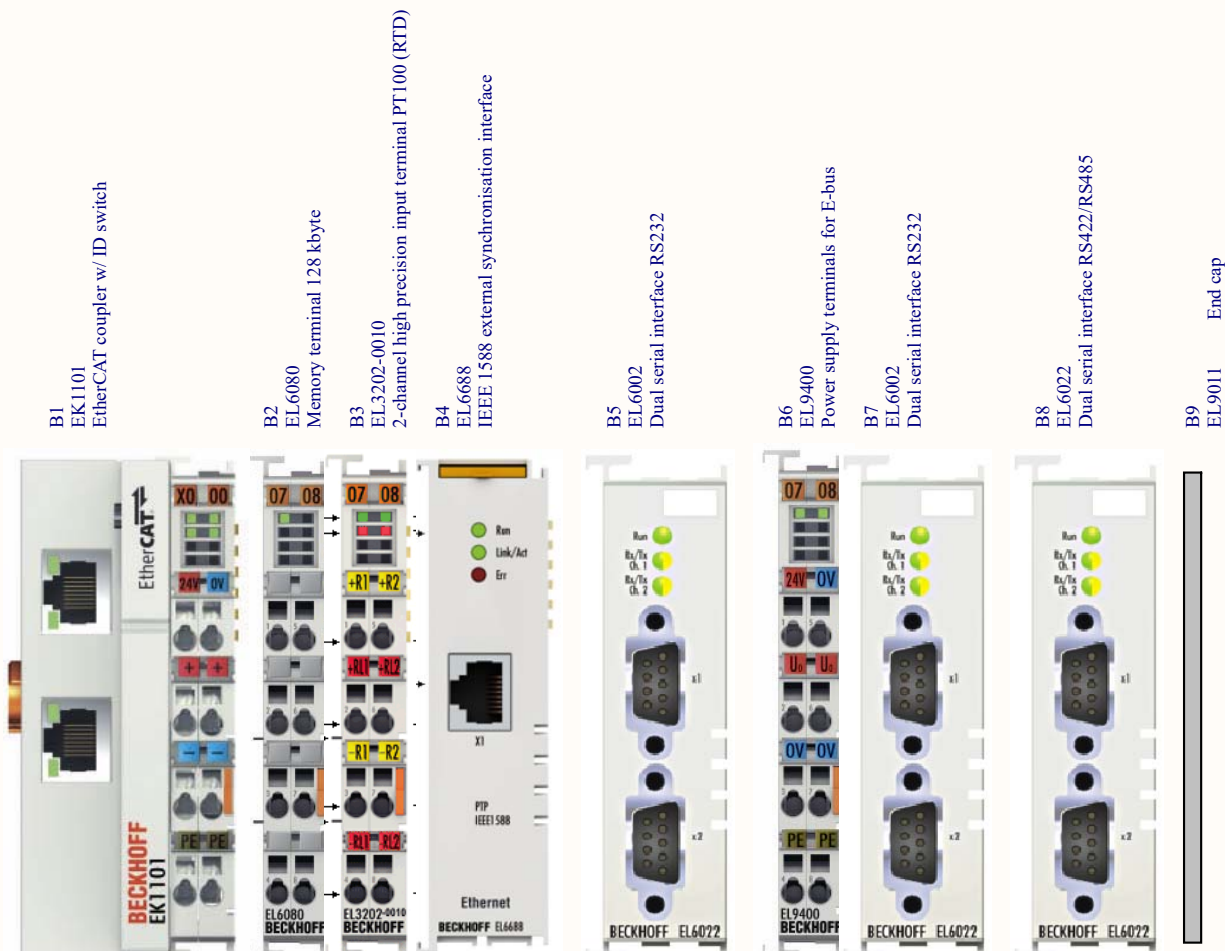
Temperature Sensors

Serial Concentrator

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

External Sensor
for example
Newark 35M2405
& 15M4877

Title EtherCAT MSR		
Size B	Number D1100618	Revision 2
Date: 6/25/2018	Sheet 1 of 4	
File: D:\Users\...\EtherCAT4kmCorner1.SchDocDrawn By:Daniel Sigg		



0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23

Ebus 24V
 Power contacts 24V

MSR
 EtherCAT
 Temp.
 PTP/Timing
 RS232/RS422 x6

Power budget:	Power budget:
EL6080: 0.130 A	EL6002: 0.170 A
EL3202: 0.190 A	EL6022: 0.350 A
EL6688: 0.310 A	-----
EL6002: 0.170 A	0.520 A

0.800 A	

Title EtherCAT MSR: Left Rail		
Size B	Number D1100618	Revision 2
Date: 6/25/2018	Sheet 2 of 4	
File: D:\Users\...\EtherCAT4kmCorner2.SchDocDrawn 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		EtherCAT MSR: Middle Rail	
Size	Number	Revision	
B	D1100618	2	
Date:	6/25/2018	Sheet 3 of 4	
File:	D:\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		EtherCAT MSR: Right Rail	
Size	Number	Revision	
B	D1100618	2	
Date:	6/25/2018	Sheet 4 of 4	
File:	D:\Users\...\EtherCAT4kmCorner4.SchDoc Drawn By: Daniel Sigg		

1

2

3

4

5

6