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

This EtherCAT chassis uses fiber and copper.
Mount a fiber feedthrough adapter to the front panel input.
Mount the moudular coupler into the front panel output.
Using LC-to-SC single-mode fiber patch cables:
- Connect the fiber converter CU1521-0010 input to the front panel input.
Using CAT5 patch cables:
- Connect the CU1521-0010 output to the input of the left rail EK1101 coupler.
- Connect the EK1101 coupler output to front panel output.

Ports

IN	OUT	1	2
PN1 EtherCAT chassis LIGO D0902552-v3	PN5 Fiber coupler panel adapter	PN10 Modular coupler L-Com ECF504-SC5E	PN14 Adapter panel LIGO D1100108-v1	PN16 Adapter panel LIGO D1100108-v1
PN2 Front Panel LIGO D2200007-v1	PN6 Fiber coupler panel adapter LIGO D1100095-v2	PN11 Ethernet patch cable, 3' Newark 21M5874		
PN3 Rear Panel LIGO D2200008-v1	PN7 Fiber LC-LC coupler Newark 52M9124	PN12 Ethernet patch cable, 3' Newark 21M5874		
	PN8 Fiber patch cable, LC-SC L-Com SFODSC-LC-01			
	SM Fiber	CAT5		

TBLOCK

PN27
Power Distribution Block
Digi-Key
277-2007-ND

Slots

1	2	3	4	5	6	7	8	9	10
PN4 Adapter panel LIGO D0902557-v1	PN9 Adapter panel LIGO D0902557-v1	PN13 Adapter panel LIGO D0902557-v1	PN15 Adapter panel LIGO D0902557-v1	PN17 Adapter panel LIGO D0902557-v1	PN18 Adapter panel LIGO D1100793-v2 PN19 M12 socket PN20 M12 socket PN21 M12 socket PN22 M12 socket Newark 08R3678	PN23 DB37M adapter LIGO D2200009-v1 E1 #6-32 1/4" flat E2 #6-32 1/4" flat McMaster-Carr 91099A205	PN24 DB37M adapter LIGO D2200009-v1 E3 #6-32 1/4" flat E4 #6-32 1/4" flat McMaster-Carr 91099A205	PN25 DB37M adapter LIGO D0902569-v1 E5 #6-32 1/4" flat E6 #6-32 1/4" flat McMaster-Carr 91099A205	PN26 Picomotor adapter LIGO D1100419-v3 E7 Jack screw E8 Jack screw E9 Jack screw E10 Jack screw L-Com SDG450XS
Blank	Blank	Blank	Blank	Blank	Temperature Sensors	Whitening QPD A	Whitening QPD B	DC Photodiodes Concentr. 10	Picomotor SQZT8

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

External Sensor
for example
Newark 35M2405
& 15M4877

Title: EtherCAT Filter Cavity End		
Size: B	Number: D2200006	Revision: 2
Date: 1/21/2022		Sheet 1 of 4
File: C:\Users\..\EtherCATFcEnd1.SchDoc		Drawn By: Daniel Sigg

B1
CU1521-0010
EtherCAT media converter fibre optic

B2
EK1101
EtherCAT coupler w/ ID switch

B3
EL3102
2-channel analog input terminals, differential, 16 bits

B4
EL1014
4-channel digital input terminals, 24V

B5
EL1872
16-channel digital input terminals, 24V

B6
EL2872
16-channel digital output terminals, 24V

B7
EL9190
Feed terminal, arbitrary voltage

B8
EL2124
4-channel digital output terminals, 5V

B9
EL3104
4-channel analog input terminals, differential, 16 bits

B10
EL9410
Power supply terminals for E-bus, diagnostics

B11
EL2124
4-channel digital output terminals, 5V

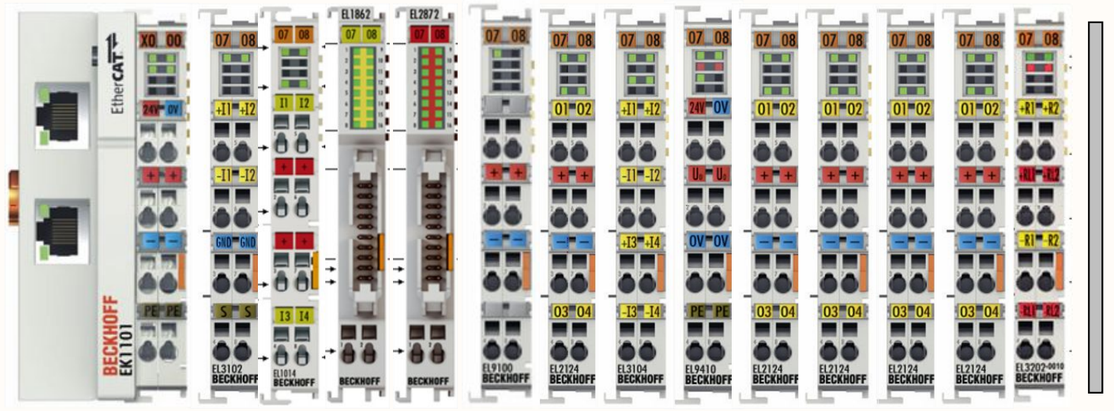
B12
EL2124
4-channel digital output terminals, 5V

B13
EL2124
4-channel digital output terminals, 5V

B14
EL2124
4-channel digital output terminals, 5V

B15
EL3202-0010
2-channel high precision input terminal PT100 (RTD)

B16
EL9011
End cap



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

B17
5V/0.6A isolated DC-DC converter, Mean Well DDR-15G-5

B18
5V/0.6A isolated DC-DC converter, Mean Well DDR-15G-5

Ebus	24V	—	24V
Power contacts	24V	5V (DC_1)	5V (DC_2)

24V

DC_1
DC_2

Picomotors
DC PDs
QPD whitening
concentrator 10
Temp.

PN28
IDC Cable, 20-pin

PN29
IDC socket, 20pin

PN30
IDC socket, 20pin

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

The rotary switch needs to be set
to 0.
```

```
Power budget:
EL3104: 0.130 A (1x)
EL3102: 0.180 A (1x)
EL1014: 0.090 A (1x)
EL1872: 0.130 A (1x)
EL2872: 0.130 A (1x)
EL2124: 0.130 A (1x)
-----------------
        0.790 A
```

```
Power budget:
EL3202: 0.190 A (1x)
EL2124: 0.130 A (4x)
-----------------
        0.710 A
```

Title	**Filter Cavity End: Left Rail**		
Size B	Number D2200006		Revision 2
Date:	1/21/2022		Sheet 2of 4
File:	C:\Users\..\EtherCATFcEnd2.SchDoc		Drawn By:Daniel Sigg

0 1 2 3 4 5 6 7 8 9 10

Ebus	24V
Power contacts	24V

Expansion Room

Title	**Filter Cavity End: Middle Rail**		
Size B	Number D2200006		Revision 2
Date: 1/21/2022		Sheet 3of 4	
File: C:\Users\..\EtherCATFcEnd3.SchDoc		Drawn By:Daniel Sigg	

0 1 2 3 4 5 6 7 8 9 10

Ebus	24V
Power contacts	24V

Expansion Room

Title	**Filter Cavity End: Right Rail**		
Size B	Number D2200006		Revision 2
Date: 1/21/2022		Sheet 4of 4	
File: C:\Users\..\EtherCATFcEnd4.SchDoc		Drawn By:Daniel Sigg	