



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

This EtherCAT chassis uses fiber.
Mount the fiber feedthroughs into the front panel.
Using LC-to-SC fiber patch cables:
- Connect the front panel fiber input to the input of the first coupler (left rail).
- Connect the front panel fiber output to the output of the first coupler.
Using copper Ethernet patch cables:
- Connect the EtherCAT extension module from the left rail to the second coupler input (middle rail).
- Connect the EtherCAT extension module from the middle rail to the third coupler input (right rail).
- Connect the output of the second coupler to rear panel port 1.
- Connect the output of the third coupler to rear panel port 2.

PN1 EtherCAT chassis LIGO D0902552-v3	PN4 Fiber LC-LC coupler PN5 Fiber LC-LC coupler Newark 52M9124	PN7 Fiber coupler panel adapter PN8 Fiber coupler panel adapter PN9 Fiber coupler panel adapter PN10 Fiber coupler panel adapter LIGO D1100095-v2	PN13 Fiber patch cable, LC-SC PN14 Fiber patch cable, LC-SC L-Com FODSC50-LC-01 PN15 Ethernet patch cable, 1' Newark 21M5658	PN18 Ethernet patch cable, 3' PN19 Ethernet patch cable, 3' PN20 Ethernet patch cable, 3' PN21 Ethernet patch cable, 3' Newark 21M5874
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Slots

1	2	3	4	5	6	7	8	9	TBLOCK
PN3 Adapter panel LIGO D0902557-v1	PN6 Adapter panel LIGO D0902557-v1	PN11 Adapter panel LIGO D0902587-v1-A PN12 DB25F adapter LIGO D0902568-v1 E1 #6-32 1/4" flat E2 #6-32 1/4" flat McMaster-Carr 91099A205	PN16 Adapter panel LIGO D0902587-v1-B PN17 DB25F adapter LIGO D0902568-v1 E3 #6-32 1/4" flat E4 #6-32 1/4" flat McMaster-Carr 91099A205	PN22 Adapter panel LIGO D1002963-v1 PN23 DB37M adapter LIGO D0902567-v1 E5 #6-32 1/4" flat E6 #6-32 1/4" flat McMaster-Carr 91099A205	PN24 Adapter panel LIGO D0902586-v1-A1 PN25 DB37M adapter LIGO D0902569-v1 E7 #6-32 1/4" flat E8 #6-32 1/4" flat McMaster-Carr 91099A205	PN26 Adapter panel LIGO D0902586-v1-A2 PN27 DB37M adapter LIGO D0902569-v1 E9 #6-32 1/4" flat E10 #6-32 1/4" flat McMaster-Carr 91099A205	PN28 Adapter panel LIGO D0902586-v1-B1 PN29 DB37M adapter LIGO D0902569-v1 E11 #6-32 1/4" flat E12 #6-32 1/4" flat McMaster-Carr 91099A205	PN30 Adapter panel LIGO D0902586-v1-B2 PN31 DB37M adapter LIGO D0902569-v1 E13 #6-32 1/4" flat E14 #6-32 1/4" flat McMaster-Carr 91099A205	PN32 Terminal Block PN33 Terminal Block PN34 Terminal Block PN35 Terminal Block PN36 Terminal Block Digi-Key 277-1483-ND PN37 End Plate Digi-Key 277-1495-ND PN38 Terminal Block PN39 Terminal Block PN40 Terminal Block PN41 Terminal Block PN42 Terminal Block PN43 Jumper, 10pos PN44 Jumper, 10pos Digi-Key 277-1494-ND
Blank		Delay A	Delay B	VCO	CM A/1	CM A/2	CM B/1	CM B/2	

Title ISC CM Controls Chassis		
Size B	Number D1002961	Revision 2
Date: 4/7/2011	Sheet 1 of 4	
File: C:\Users\...\ISCControlsCom1.SchDoc	Drawn By: Daniel Sigg	

B1
5V/0.6A isolated DC-DC converter, Omron S82S-7305

B2
EK1501
Beckhoff EtherCAT coupler w/ ID switch, fiber

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

B4
EL3102
2-channel analog input terminals, differential, 16 bits

B5
EL3102
2-channel analog input terminals, differential, 16 bits

B6
EL4132
2-channel analog output terminals, differential, 16 bits

B7
EL4132
2-channel analog output terminals, differential, 16 bits

B8
EL9400
Power supply terminals for E-bus

B9
EL1124
4-channel digital input terminals, 5V

B10
EL2124
4-channel digital output terminals, 5V

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
EL2124
4-channel digital output terminals, 5V

B16
EL9400
Power supply terminals for E-bus

B17
EL2124
4-channel digital output terminals, 5V

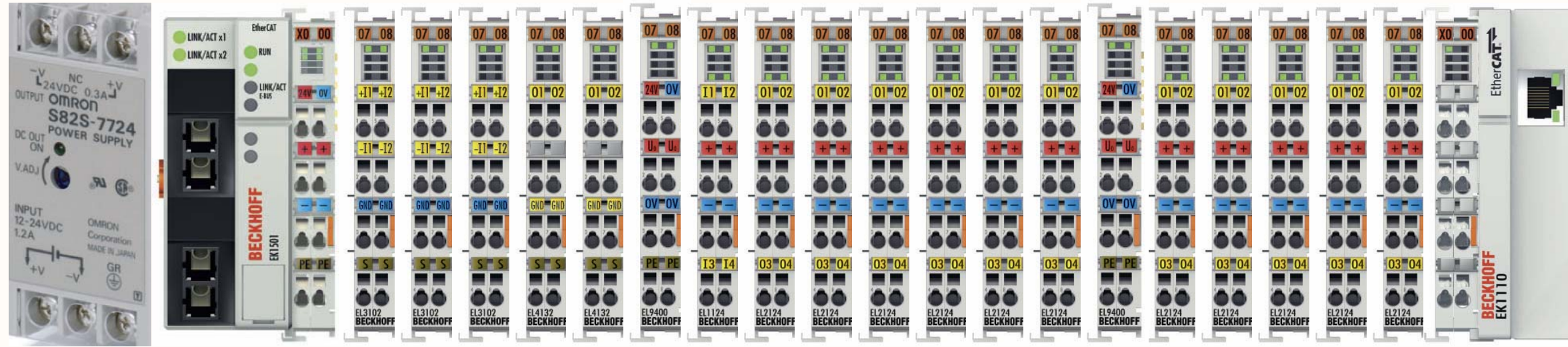
B18
EL2124
4-channel digital output terminals, 5V

B19
EL2124
4-channel digital output terminals, 5V

B20
EL2124
4-channel digital output terminals, 5V

B21
EL2124
4-channel digital output terminals, 5V

B22
EK1110
Beckhoff EtherCAT extension



Ebus 24V
Power contacts 24V

24V
5V 24V
5V

Common mode servo B

Title		
ISC CM Controls Chassis: Left Rail		
Size	Number	Revision
B	D1002961	2
Date:	4/7/2011	Sheet 2 of 4
File:	C:\Users\...\ISCControlsCom2.SchDoc	Drawn By: Daniel Sigg

B23
5V/0.6A isolated DC-DC converter, Omron S82S-7305

B24
EK1100
Beckhoff EtherCAT coupler

B25
EL3102
2-channel analog input terminals, differential, 16 bits

B26
EL3102
2-channel analog input terminals, differential, 16 bits

B27
EL3102
2-channel analog input terminals, differential, 16 bits

B28
EL4132
2-channel analog output terminals, differential, 16 bits

B29
EL4132
2-channel analog output terminals, differential, 16 bits

B30
EL9400
Power supply terminals for E-bus

B31
EL1124
4-channel digital input terminals, 5V

B32
EL2124
4-channel digital output terminals, 5V

B33
EL2124
4-channel digital output terminals, 5V

B34
EL2124
4-channel digital output terminals, 5V

B35
EL2124
4-channel digital output terminals, 5V

B36
EL2124
4-channel digital output terminals, 5V

B37
EL2124
4-channel digital output terminals, 5V

B38
EL9400
Power supply terminals for E-bus

B39
EL2124
4-channel digital output terminals, 5V

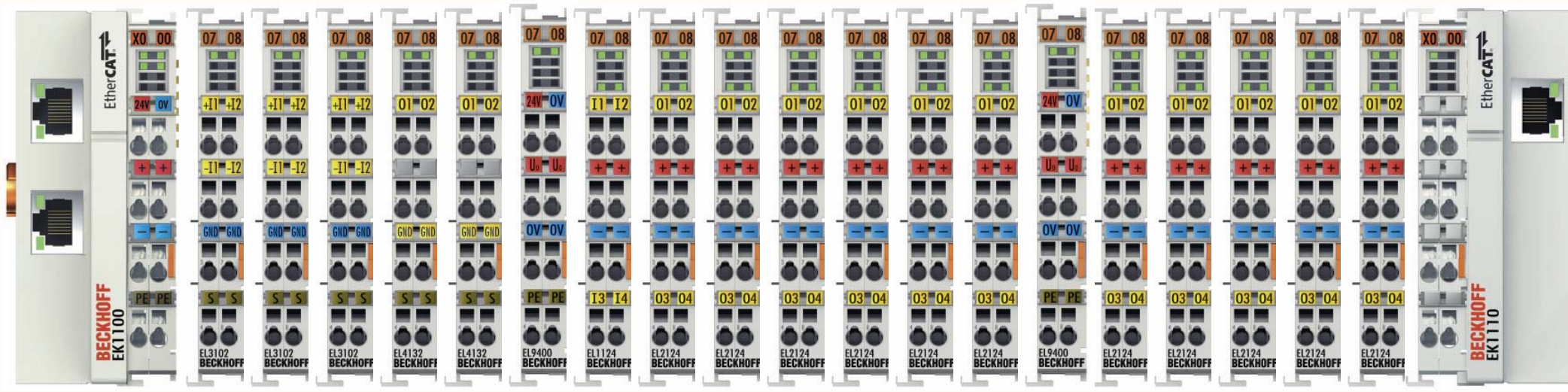
B40
EL2124
4-channel digital output terminals, 5V

B41
EL2124
4-channel digital output terminals, 5V

B42
EL2124
4-channel digital output terminals, 5V

B43
EL2124
4-channel digital output terminals, 5V

B44
EK1110
Beckhoff EtherCAT extension



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

Ebus 24V
Power contacts 24V

24V
5V

24V
5V

Common mode servo A

Title			ISC CM Controls Chassis: Middle Rail		
Size	Number			Revision	
B	D1002961			2	
Date:	4/7/2011	Sheet 3 of 4			
File:	C:\Users\...\ISCControlsCom3.SchDoc	Drawn By: Daniel Sigg			

B45
5V/0.6A isolated DC-DC converter, Omron S82S-7305

B46
EK1100
Beckhoff EtherCAT coupler

B47
EL3102
2-channel analog input terminals, differential, 16 bits

B48
EL3102
2-channel analog input terminals, differential, 16 bits

B49
EL3102
2-channel analog input terminals, differential, 16 bits

B50
EL3102
2-channel analog input terminals, differential, 16 bits

B51
EL4132
2-channel analog output terminals, differential, 16 bits

B52
EL9400
Power supply terminals for E-bus

B53
EL1124
4-channel digital input terminals, 5V

B54
EL2124
4-channel digital output terminals, 5V

B55
EL9190
Feed terminal, arbitrary voltage

B56
EL2124
4-channel digital output terminals, 5V

B57
EL2124
4-channel digital output terminals, 5V

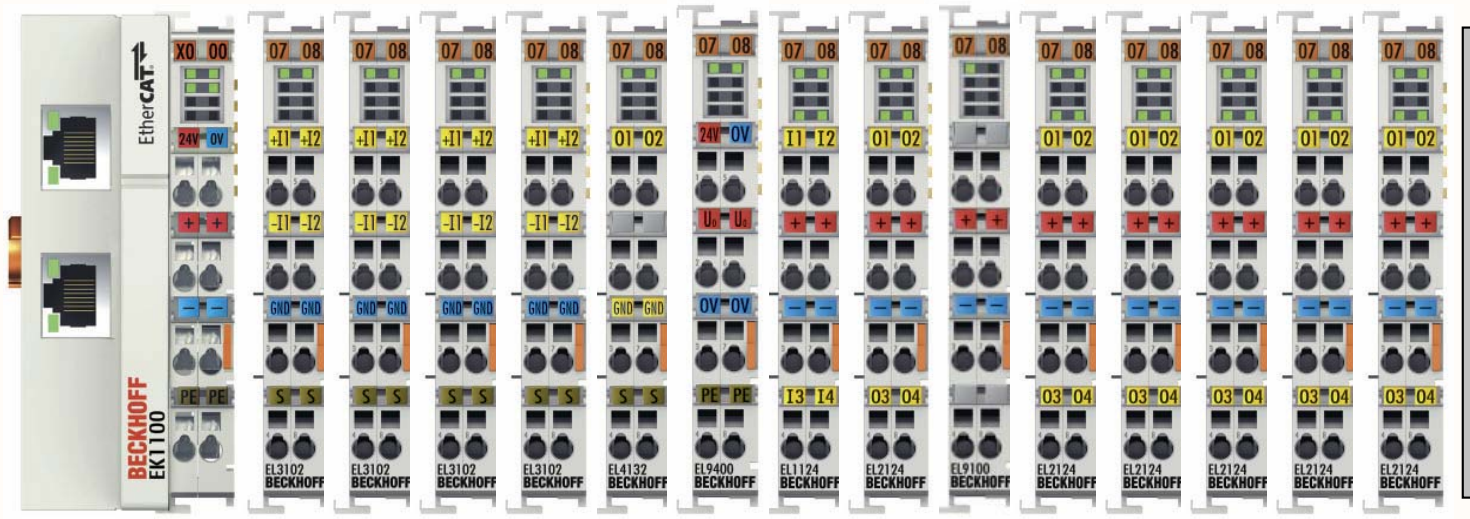
B58
EL2124
4-channel digital output terminals, 5V

B59
EL2124
4-channel digital output terminals, 5V

B60
EL2124
4-channel digital output terminals, 5V

B61
EL9011
End cap

B62
5V/0.6A isolated DC-DC converter, Omron S82S-7305



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

Ebus 24V
Power contacts 24V

24V —
5V 5V

Low Noise VCO

Delay line phase shifter A/B

Title ISC CM Controls Chassis: Right Rail		
Size B	Number D1002961	Revision 2
Date: 4/7/2011	Sheet 4 of 4	
File: C:\Users\...\ISCControlsCom4.SchDoc	Drawn By: Daniel Sigg	