



PN1
EtherCAT chassis
LIGO
D0902552-v3

PN2
Name Plate
LIGO
D1002962-v1

PN4
Ethernet patch cable

PN5
Ethernet patch cable

PN6
Ethernet patch cable

PN7
Ethernet patch cable
Newark
21M5658

Slots

1

PN3
Adapter panel
LIGO
D0902557-v1

2

PN8
Adapter panel
LIGO
D0902587-v1-A

3

PN10
Adapter panel
LIGO
D0902587-v1-B

4

PN12
Adapter panel
LIGO
D1002963-v1

5

PN14
Adapter panel
LIGO
D0902586-v1-A1

6

PN16
Adapter panel
LIGO
D0902586-v1-A2

7

PN18
Adapter panel
LIGO
D0902586-v1-B1

8

PN20
Adapter panel
LIGO
D0902586-v1-B2

PN9
DB25F adapter
LIGO
D0902568-v1

PN11
DB25F adapter
LIGO
D0902568-v1

PN13
DB25M adapter
LIGO
D0902567-v1

PN15
DB37M adapter
LIGO
D0902569-v1

PN17
DB37M adapter
LIGO
D0902569-v1

PN19
DB37M adapter
LIGO
D0902569-v1

PN21
DB37M adapter
LIGO
D0902569-v1

E1 #6-32 1/4" flat

E2 #6-32 1/4" flat

McMaster-Carr
91099A205

E3 #6-32 1/4" flat

E4 #6-32 1/4" flat

McMaster-Carr
91099A205

E5 #6-32 1/4" flat

E6 #6-32 1/4" flat

McMaster-Carr
91099A205

E7 #6-32 1/4" flat

E8 #6-32 1/4" flat

McMaster-Carr
91099A205

E9 #6-32 1/4" flat

E10 #6-32 1/4" flat

McMaster-Carr
91099A205

E11 #6-32 1/4" flat

E12 #6-32 1/4" flat

McMaster-Carr
91099A205

E13 #6-32 1/4" flat

E14 #6-32 1/4" flat

McMaster-Carr
91099A205

TBLOCK

PN22 Terminal Block

PN23 Terminal Block

PN24 Terminal Block

PN25 Terminal Block

PN26 Terminal Block

Digi-Key
277-1483-ND

PN28 Terminal Block

PN29 Terminal Block

PN30 Terminal Block

PN31 Terminal Block

PN32 Terminal Block

PN27 End Plate

Digi-Key
277-1495-ND

PN33 Jumper, 10pos

PN34 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	Number	Revision			
B	D1002961	1			
Date:	1/15/2011	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
EK1101
Beckhoff EtherCAT coupler w/ ID switch

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

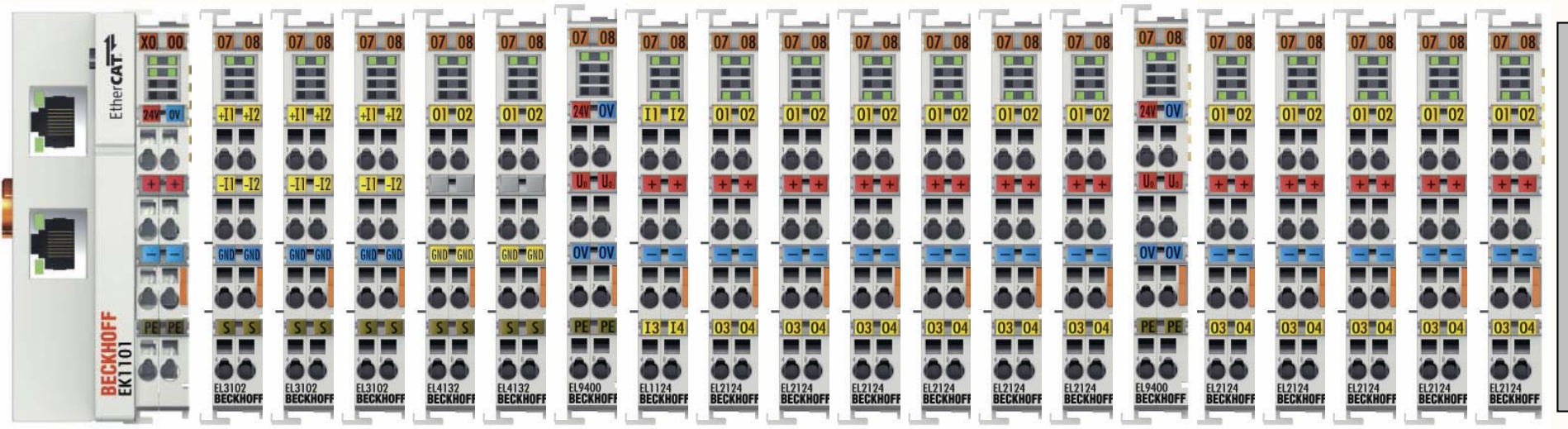
B18
EL2124
4-channel digital output terminals, 5V

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
EL9011
End cap



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

Ebus 24V
Power contacts 24V

24V
5V

24V
5V

Common mode servo B

Title ISC CM Controls Chassis: Left Rail		
Size B	Number D1002961	Revision 1
Date: 1/15/2011	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

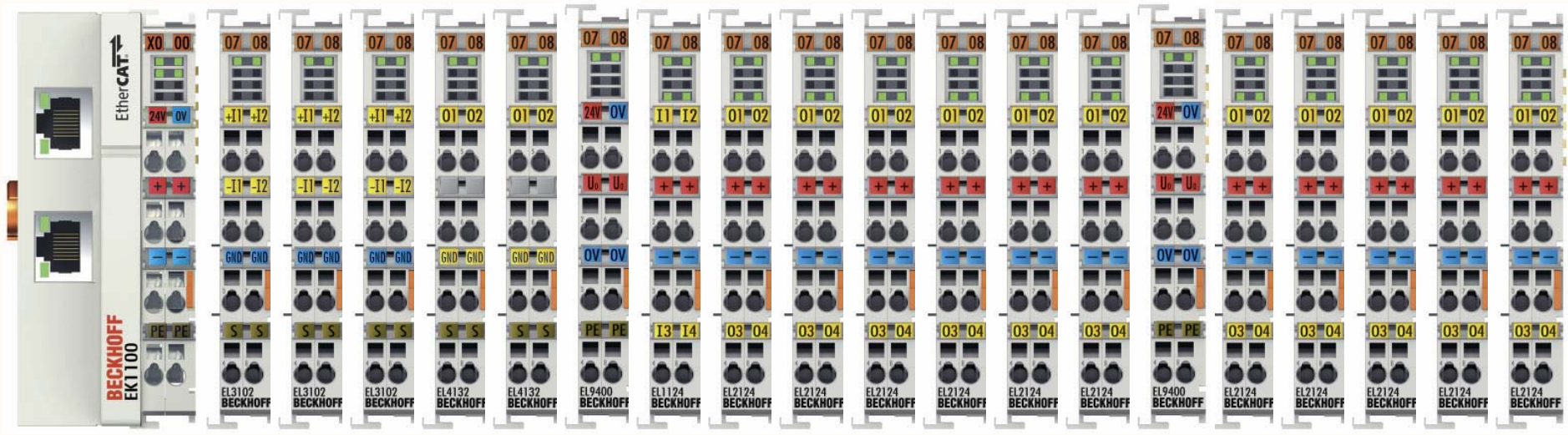
B40
EL2124
4-channel digital output terminals, 5V

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
EL9011
End cap



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

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	1
Date:	1/15/2011	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

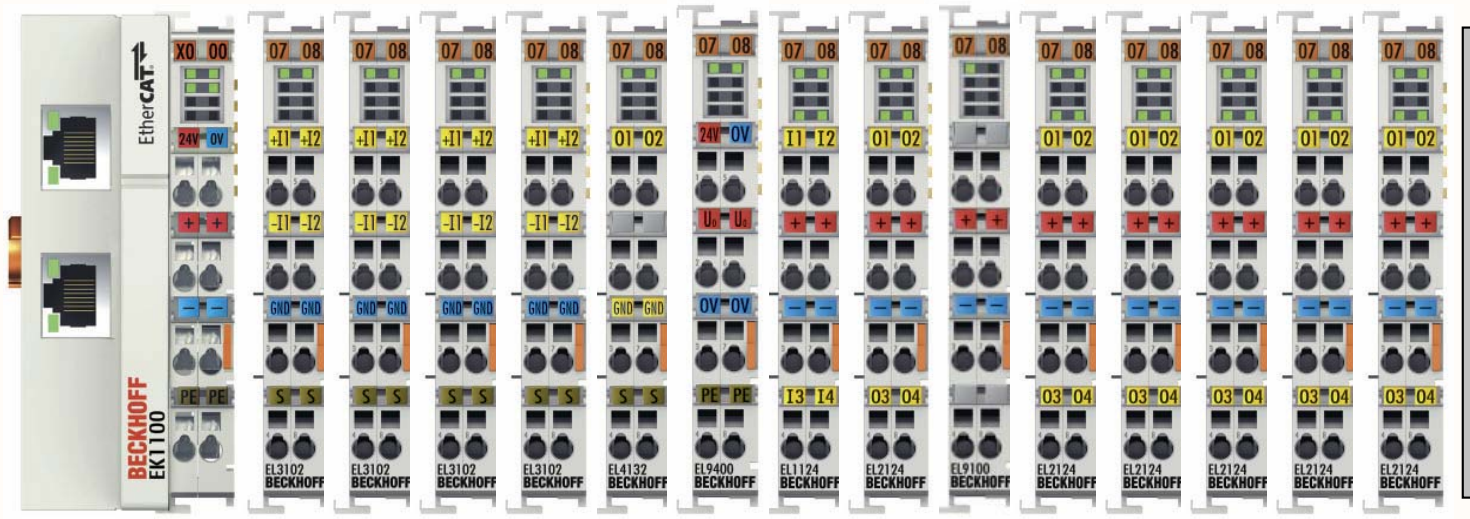
B58
EL2124
4-channel digital output terminals, 5V

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	24V	—
Power contacts	24V	5V	5V

Low Noise VCO

Delay line phase shifter A/B

Title ISC CM Controls Chassis: Right Rail		
Size B	Number D1002961	Revision 1
Date: 1/15/2011	Sheet 4 of 4	
File: C:\Users\...\ISCControlsCom4.SchDoc	Drawn By: Daniel Sigg	