CARBON & SULPHUR ANALYZER

TYPE: ACS820

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CZECH REPUBLIC

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FLSmidth	CARBON & SULPHUR ANALYZER	COVER SHEET	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 1
	ACS820		DEVICE:	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION:	INITIALS: ToJa	COMMISSION: 16632

No.	Device.	Name
1		COVER SHEET
2		CONTENTS
3		CONTENTS
4	=ACS	TECHNICAL DATES
5	=ACS	DESCRIPTION OF DOCUMENTATION
6	=ACS	EXTERNAL WIRING OVERWIEV
7	=ACS	EXTERNAL WIRING OVERWIEV
8	=ACS	ELECTRICAL POWER SUPPLY
9	=ACS	CONTROL POWER SUPPLY
10	=ACS	CONTROL POWER SUPPLY
11	=ACS	CONTROL POWER SUPPLY
12	=ACS	CONTROL POWER SUPPLY
13	=ACS	CONTROL POWER SUPPLY
14	=ACS	ACS LIGHTING
15	=ACS	BECKHOFF PLC SUPPLY
16	=ACS	BECKHOFF PLC SUPPLY
17	=ACS	BECKHOFF PLC SUPPLY
18	=ACS	INPUTS AND OUTPUTS CONFIGURATION
19	=ACS	SUPPLY OF ELECTRONIC COMPONENTS
20	=ACS	ETHERCAT VALVE BLOCK SUPPLY
21	=ACS	ETHERCAT VALVE BLOCK CONFIGURATION
22	=ACS	BALLANCE SUPPLY
23	=ACS	EMERGENCY CIRCUIT
24	=ACS	EMERGENCY CIRCUIT
25	=ACS	EMERGENCY CIRCUIT
26	=ACS	EMERGENCY CIRCUIT
27	=ACS	EMERGENCY CIRCUIT
28	=ACS	EMERGENCY CIRCUIT
29	=ACS	EMERGENCY CIRCUIT
30	=ACS	PRESSURE AIR SENSOR

No.	Device.	Name
31	=ACS	HANDLING ARM
32	=ACS	HANDLING ARM LIFT
33	=ACS	PINCERS MOVING
34	=ACS	CRUCIBLE PINCERS
35	=ACS	CRUCIBLE PINCERS
36	=ACS	CRUCIBLE PINCERS
37	=ACS	CRUCIBLE OUTLET
38	=ACS	CARROUSEL LIFT
39	=ACS	CARROUSEL TURNING
40	=ACS	CARROUSEL TURNING
41	=ACS	CARROUSEL TURNING
42	=ACS	CARROUSEL LOCK
43	=ACS	CRUCIBLE SEPARATOR
44	=ACS	CRUCIBLE LIFT
45	=ACS	STANDARD SAMPLE 1 SAMPLER
46	=ACS	STANDARD SAMPLE 2 SAMPLER
47	=ACS	MEASURING SAMPLE SAMPLER
48	=ACS	SAMPLE SLIDER
49	=ACS	DEDUSTING VALVE
50	=ACS	STANDARD SAMPLE 1 BEATER
51	=ACS	MEASURING SAMPLE BEATER
52	=ACS	STANDARD SAMPLE 2 BEATER
53	=ACS	HOPPER TURN OVER
54	=ACS	BALLANCE DOSER BEATER
55	=ACS	INLET BEATER
56	=ACS	CRUCIBLE SIGNALS
57	=ACS	HOPPER SIGNALS
58	=ACS	STEPPING MOTOR
59	=ACS	STEPPING MOTOR
60	=ACS	STANDARD SAMPLE 1 MIXER

ELECTRICAL POWER

POWER SYSTEM:	1-PHASE L/N/PE
VOLTAGE NOMINAL:	230 Vac
MAX. VOLTAGE VARIATION:	-10% / +10%
FREQUENCY NOMINAL:	50/60 Hz
MAX. FREQUENCY VARIATION:	-2% / +2%
CURRENT NOMINAL:	17,4 A (*) 25 A (**)
POWER CONSUMPTION NOMINAL:	4 kW (*) 5,8 kW (**)
SHORT CIRCUIT CAPACITY:	10 kA
RECOMMENDED CIRCUIT BREAKER:	25 A (*) 30 A (**)
CONTROL VOLTAGE 1:	24 Vdc
CONTROL VOLTAGE 2:	48 Vdc

(*) ELTRA FURNACE (**) LECO FURNACE

COLORS OF WIRES

BLACK:	POWER SUPPLY VOLTAGE
BLUE:	NEUTRAL WIRE
YELLOW/GREEN:	PROTECTION WIRE
DARK BLUE:	DC VOLTAGE
RED:	AC VOLTAGE
ORANGE:	EXTERNAL VOLTAGE

= X X X X

ACS820	=ACS
RECEIVING STATION	=RS
SAMPLING POINT 1	=SA1
SAMPLING POINT 2	=SA2

DEVICE

+ X X X X

CONTROL BOX	+CB
ACS820 MECHANICAL UNIT	+ACS
DEDUSTING UNIT	+LPAK
ELTRA FURNACE	+EL
ELTRA PC	+PC
LECO FURNACE	+LE
EXTERNAL LOCATION - CLIENT	+EXT

LOCATION

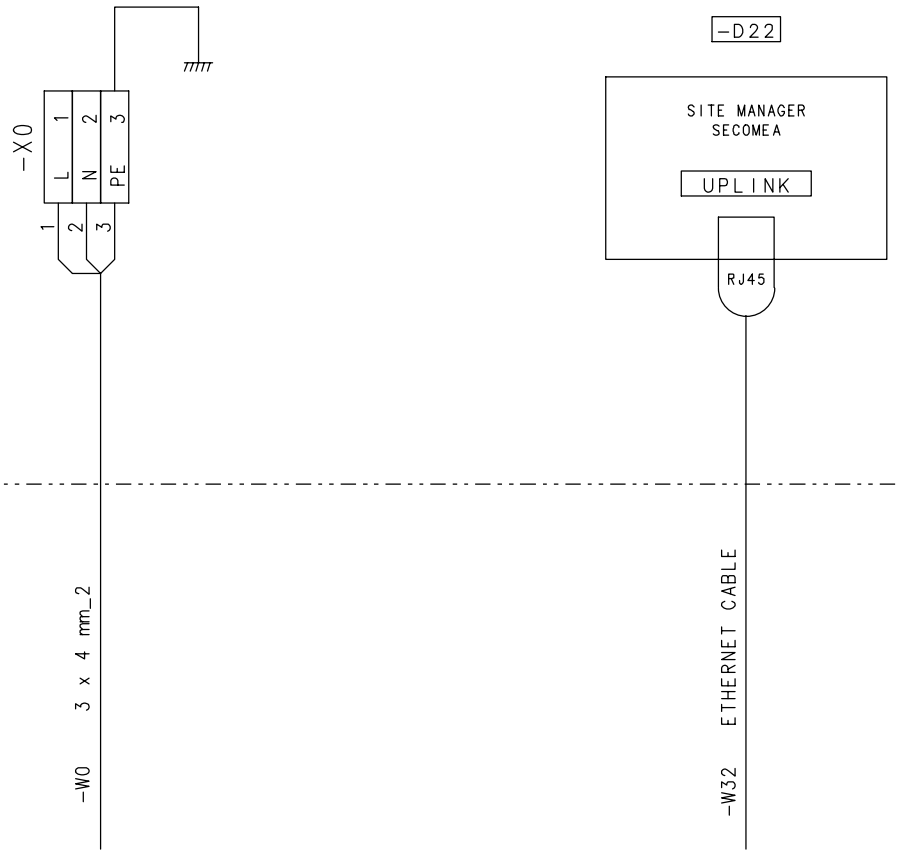
− X X X X

COMPONENT

: X X X X

TERMINAL

FLSmidth	CARBON & SULPHUR ANALYZER	DESCRIPTION OF DOCUMENTATION	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 5
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION:	INITIALS: ToJa	COMMISSION: 16632



ELECTRICAL POWER

POWER SYSTEM:	1-PHASE L/N/PE
VOLTAGE NOMINAL:	230 Vac
FREQUENCY NOMINAL:	50/60 Hz
CURRENT NOMINAL:	17,4 A (*) 25 A (**)
POWER CONSUMPTION NOMINAL:	4 kW (*) 5,8 kW (**)
SHORT CIRCUIT CAPACITY:	10 kA
RECOMMENDED CIRCUIT BREAKER:	25 A (*) 30 A (**)
CONTROL VOLTAGE 1:	24 Vdc
CONTROL VOLTAGE 2:	48 Vdc
see page No.	8.2

ETHERNET COMMUNICATION

see page No. 83.7

(*) ELTRA FURNACE (**) LECO FURNACE

FLSmidth	CARBON & SULPHUR ANALYZER	EXTERNAL WIRING OVERWIEV	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 6
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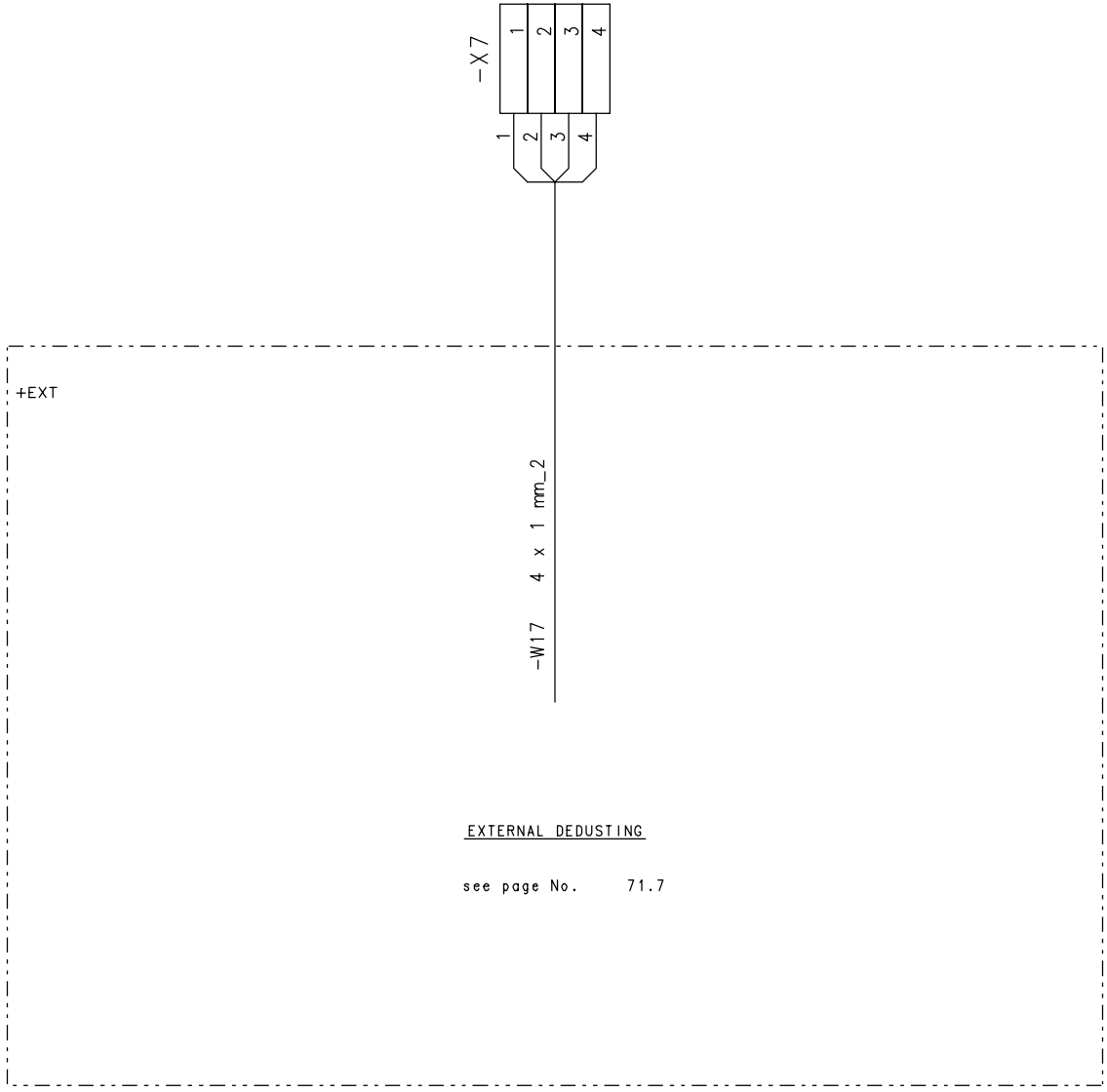
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632



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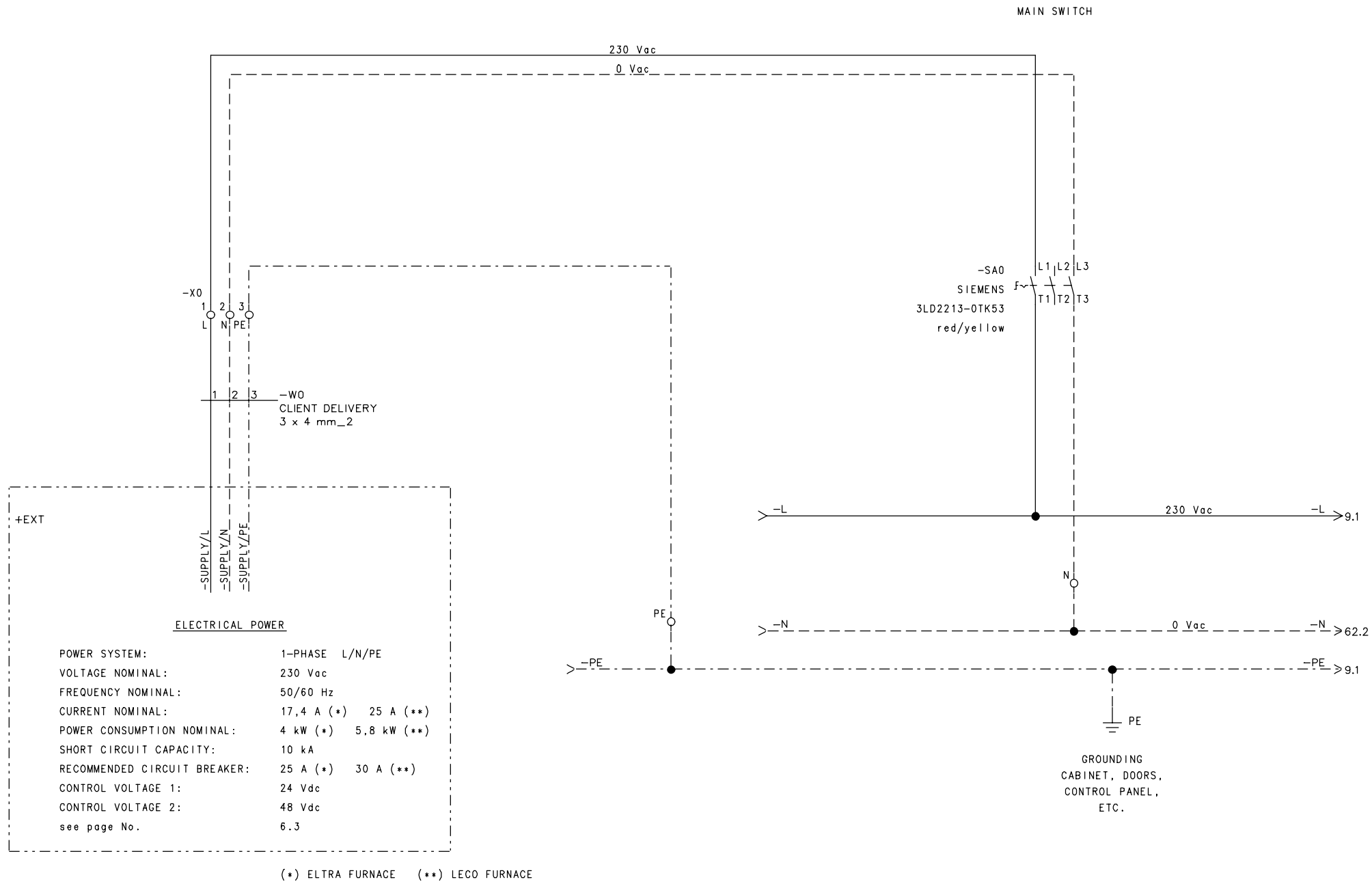


ELECTRICAL POWER

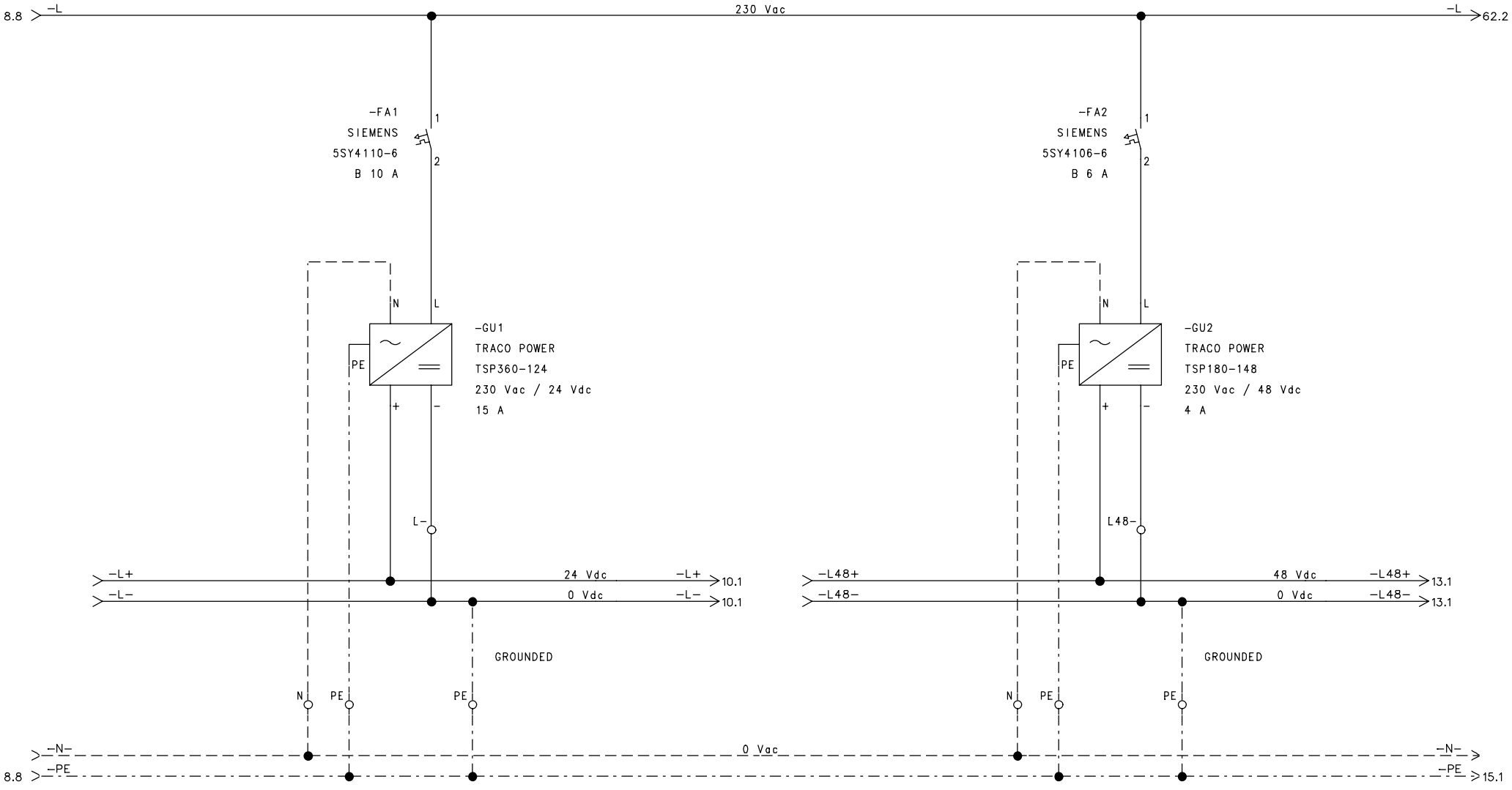
POWER SYSTEM:	1-PHASE L/N/PE
VOLTAGE NOMINAL:	230 Vac
FREQUENCY NOMINAL:	50/60 Hz
CURRENT NOMINAL:	17,4 A (*) 25 A (**)
POWER CONSUMPTION NOMINAL:	4 kW (*) 5,8 kW (**)
SHORT CIRCUIT CAPACITY:	10 kA
RECOMMENDED CIRCUIT BREAKER:	25 A (*) 30 A (**)
CONTROL VOLTAGE 1:	24 Vdc
CONTROL VOLTAGE 2:	48 Vdc
see page No.	6.3

(*) ELTRA FURNACE (**) LECO FURNACE

FLSmidth	CARBON & SULPHUR ANALYZER	ELECTRICAL POWER SUPPLY	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 8
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632

CONTROL SUPPLY 24 Vdc
PLC, DIGITAL INPUTS, DIGITAL OUTPUTS, SENSORS, CONTROL,
OPERATING TERMINAL, EMERGENCY STOP, DC MOTORS

CONTROL SUPPLY 48 Vdc
STEPPING MOTOR



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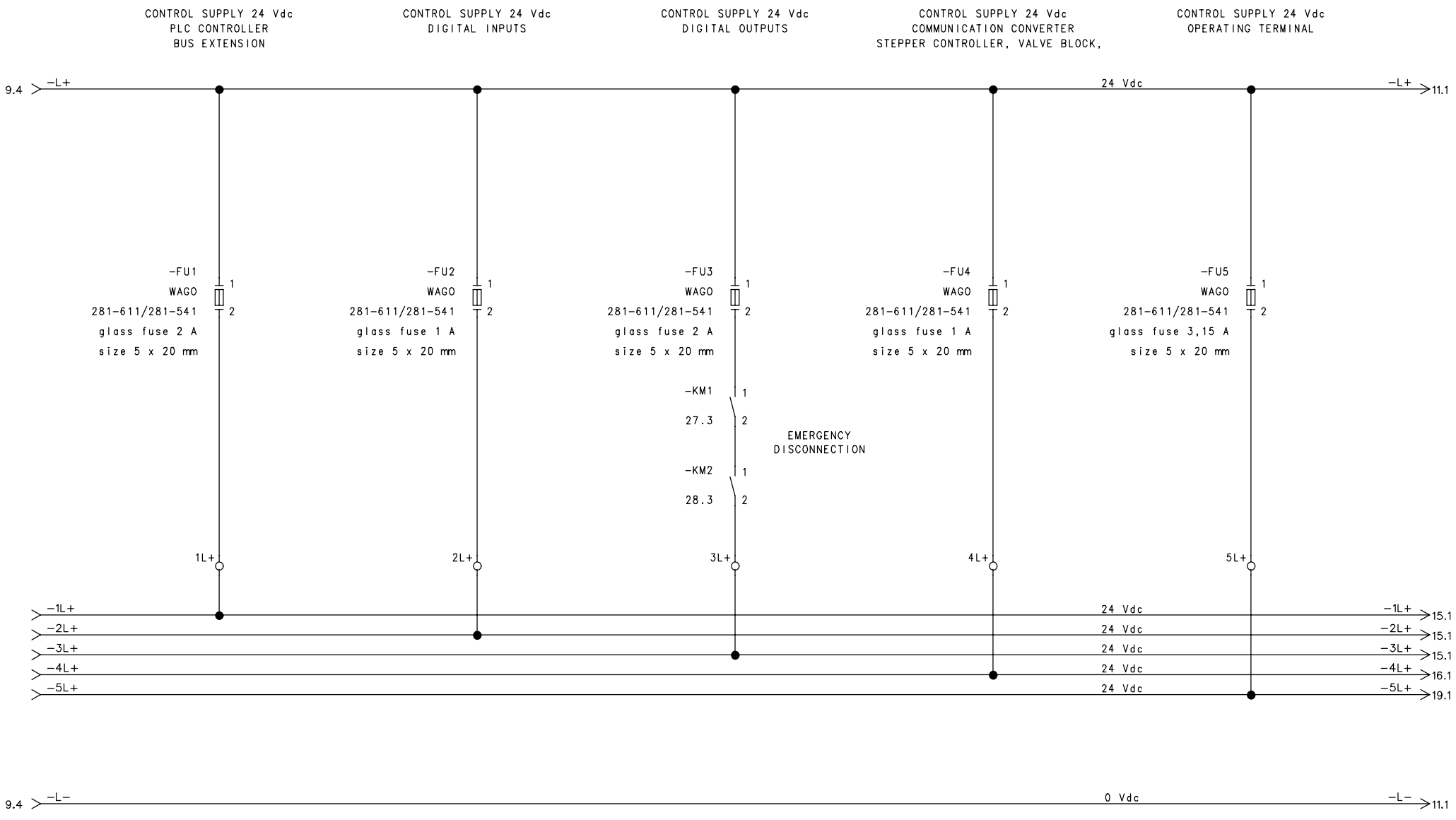

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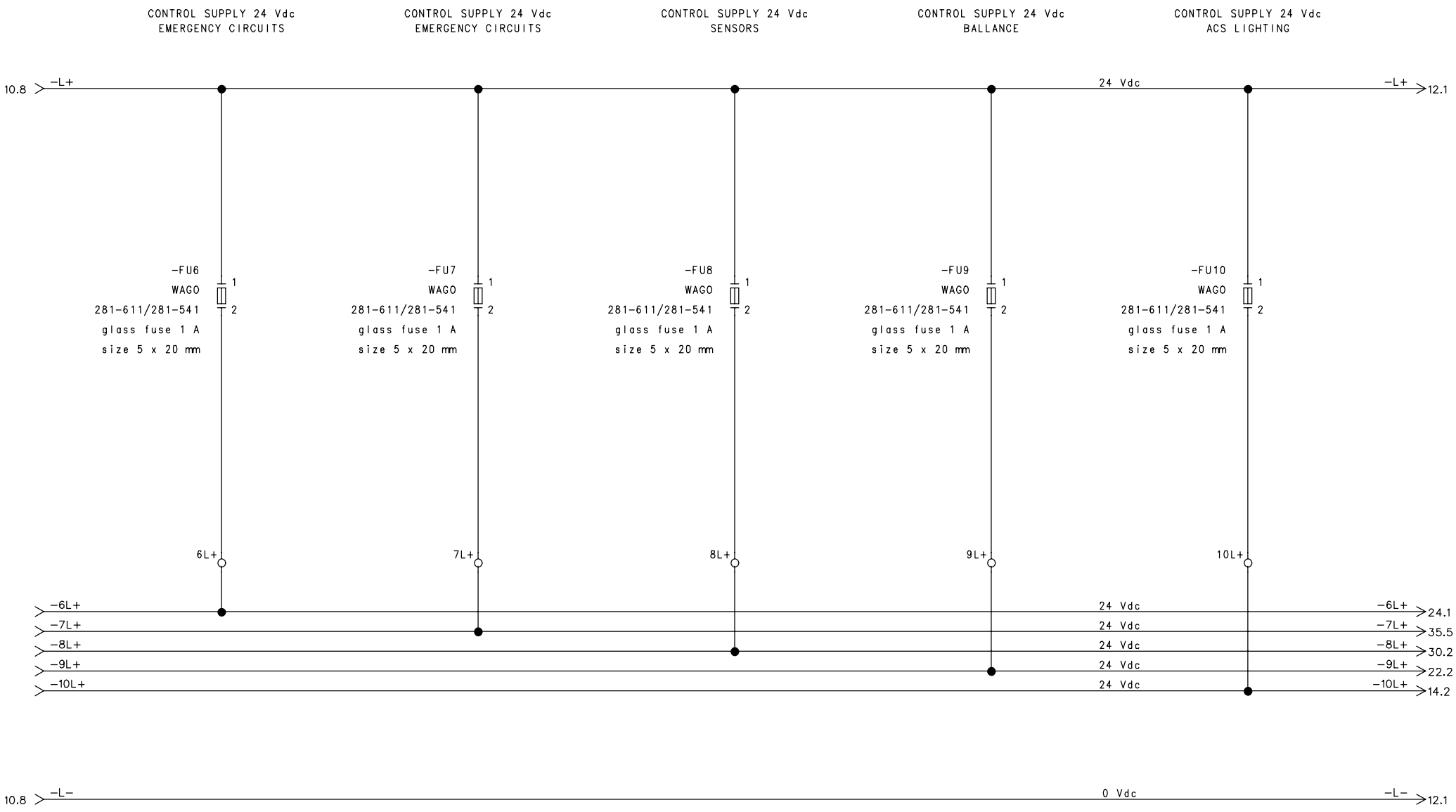

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	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632

CONTROL SUPPLY 24 Vdc
MIXER 1

CONTROL SUPPLY 24 Vdc
MIXER 2

CONTROL SUPPLY 24 Vdc
VALVE BLOCK

11.8 −L+ — 24 Vdc — −L+

−KM1 3
27.3 4
EMERGENCY
DISCONNECTION
−KM3 1
28.4 2

	−FU11	−FU12	−FU13
	WAGO	WAGO	WAGO
	281-611/281-541	281-611/281-541	281-611/281-541
	glass fuse 1,6 A	glass fuse 1,6 A	glass fuse 1 A
	size 5 x 20 mm	size 5 x 20 mm	size 5 x 20 mm
1	11L+	12L+	13L+
2			

−11L+ — 24 Vdc — −11L+ > 60.3
−12L+ — 24 Vdc — −12L+ > 61.3
−13L+ — 24 Vdc — −13L+ > 20.2

11.8 −L− — 0 Vdc — −L− > 14.2

FLSmidth	CARBON & SULPHUR ANALYZER	CONTROL POWER SUPPLY	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 12
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
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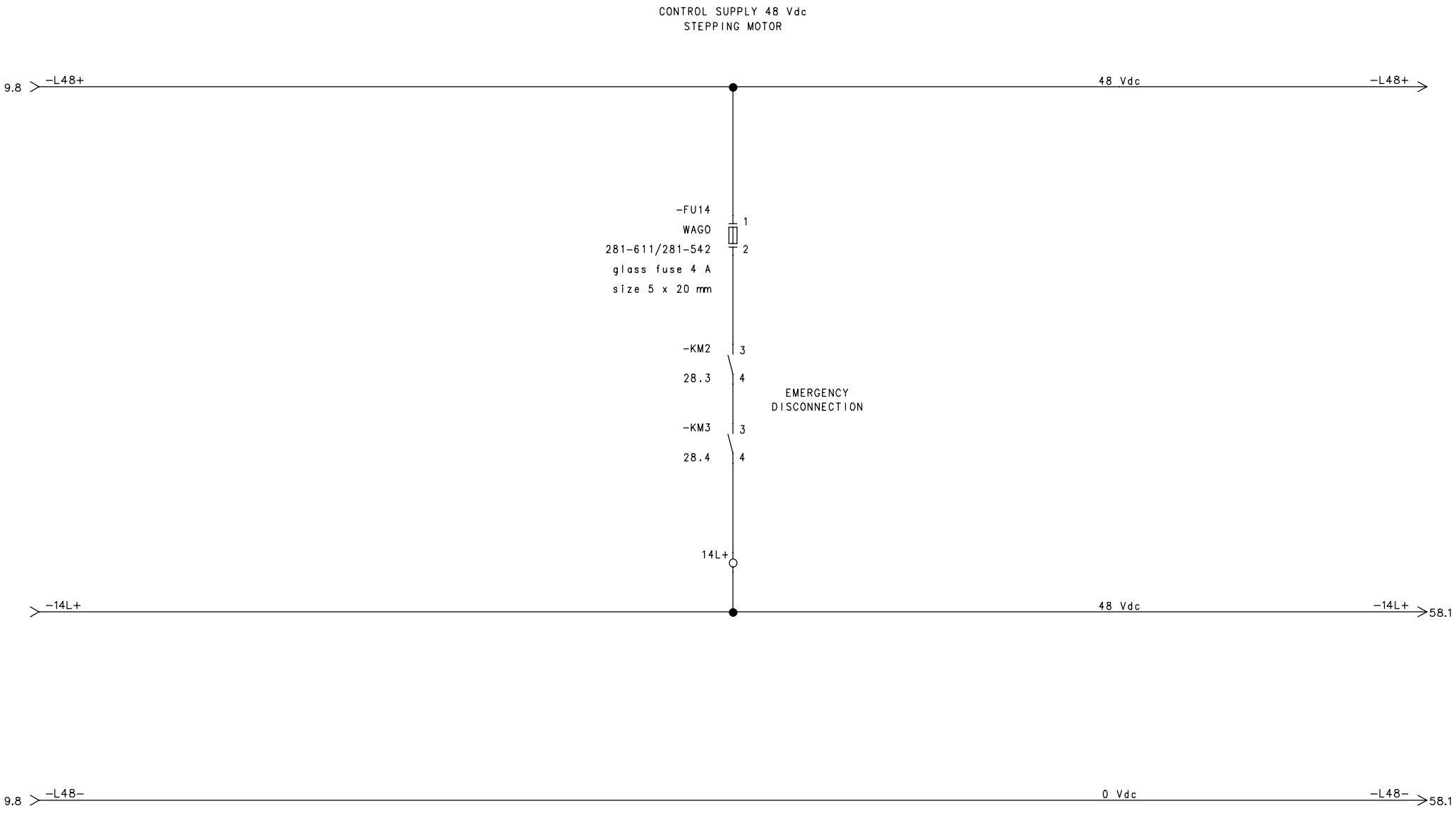
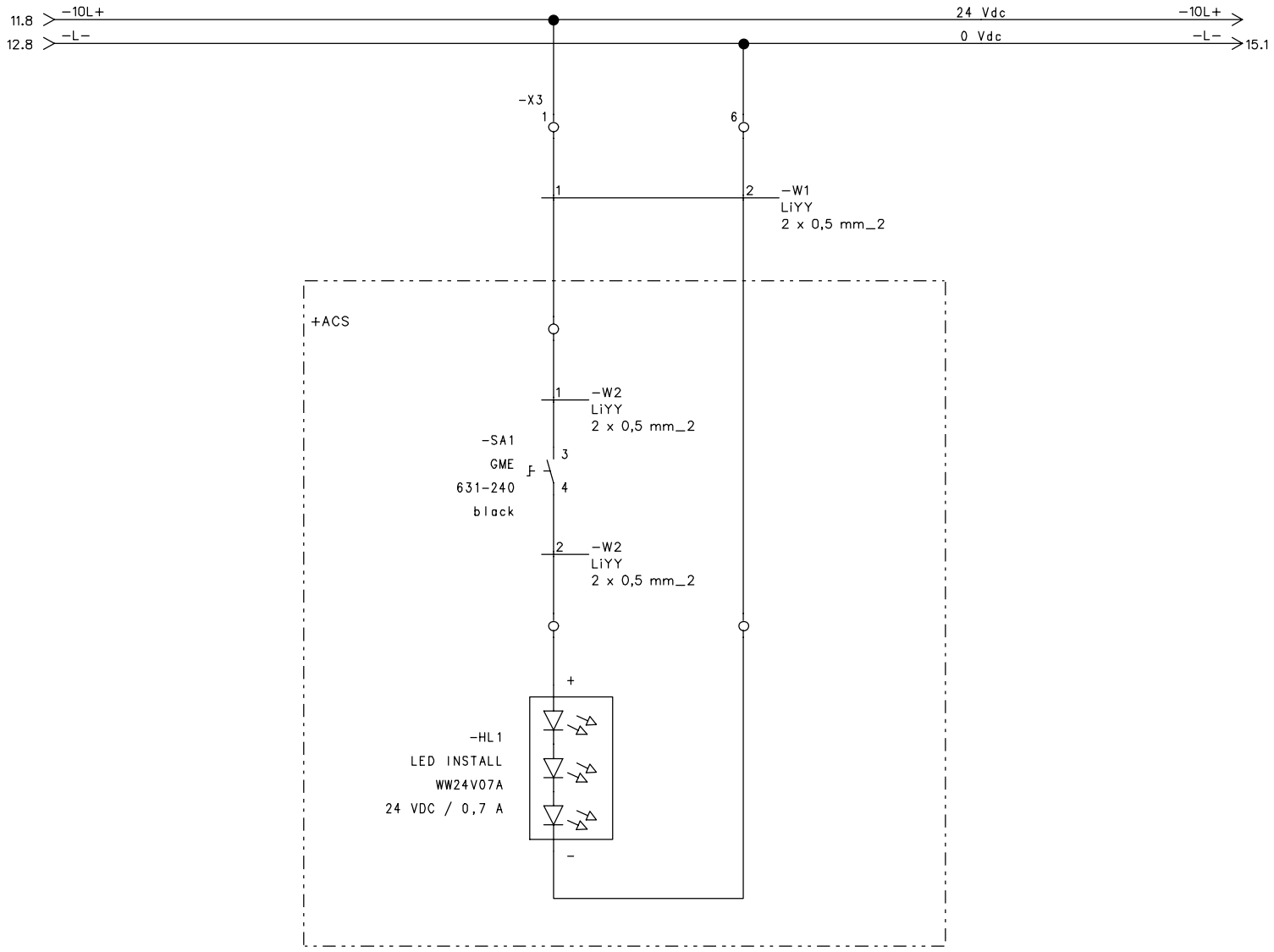


FLSmidth	CARBON & SULPHUR ANALYZER	CONTROL POWER SUPPLY	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 13
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632

ACS MECHANICAL UNIT LIGHTING



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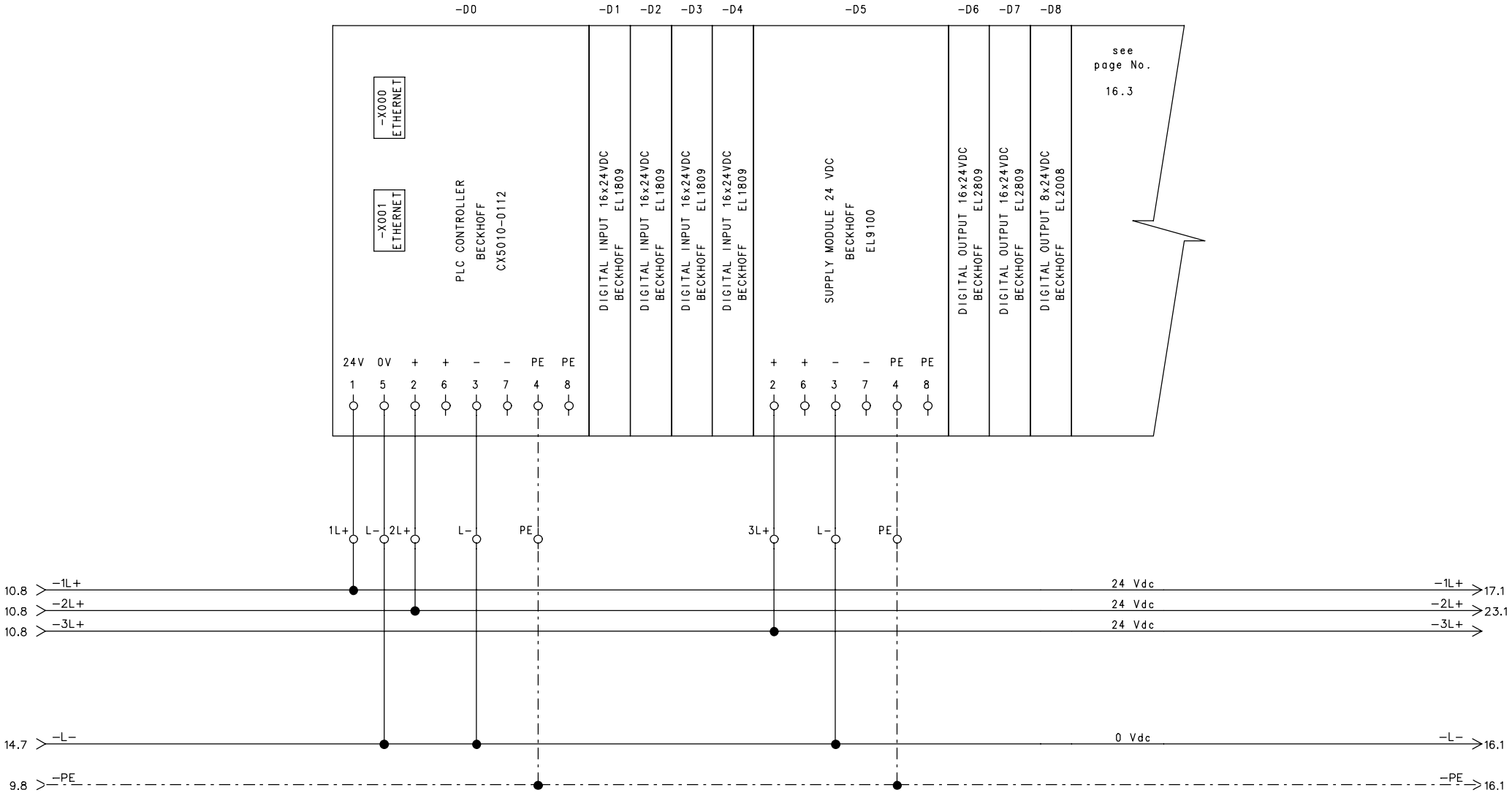
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632



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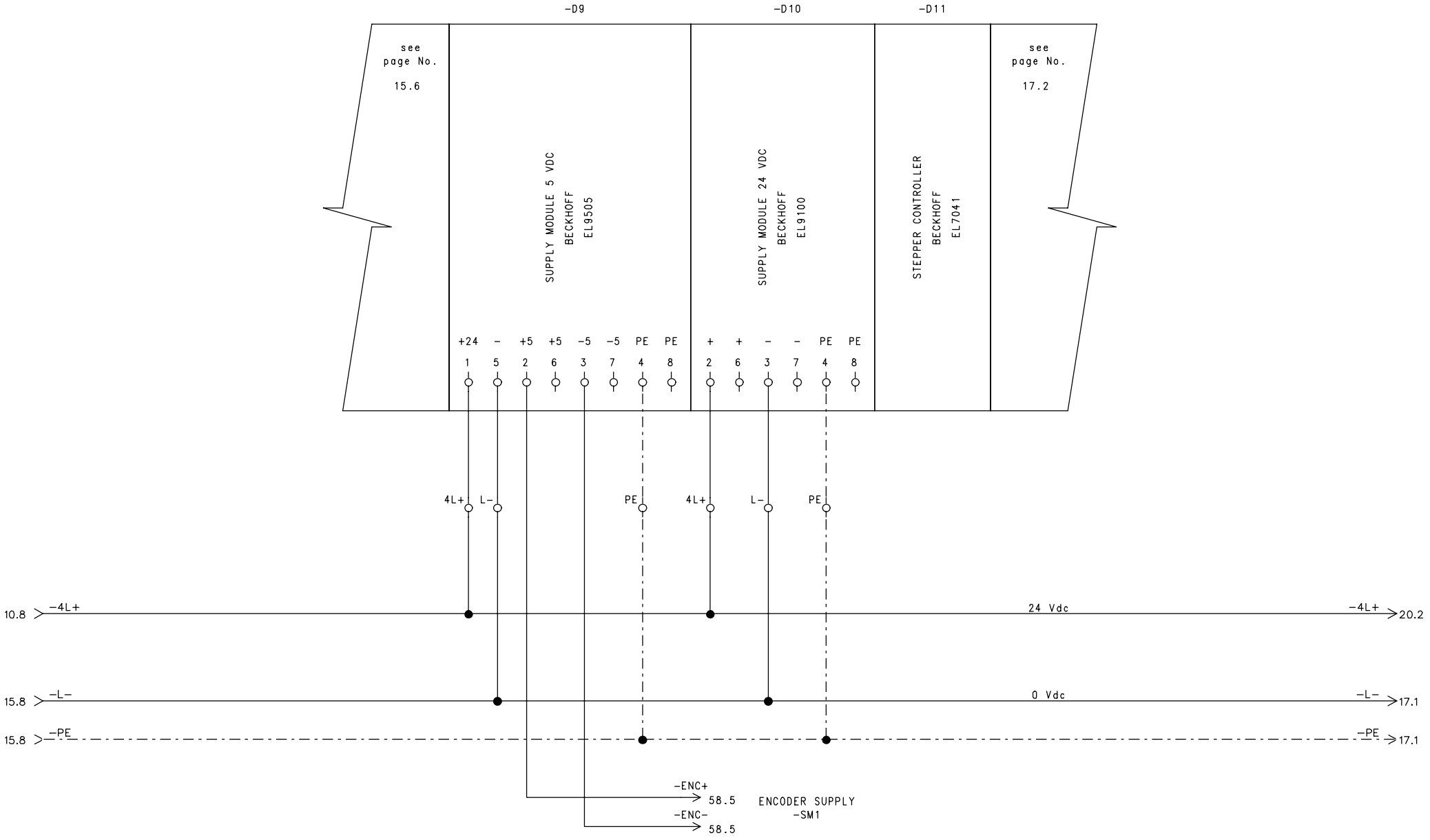

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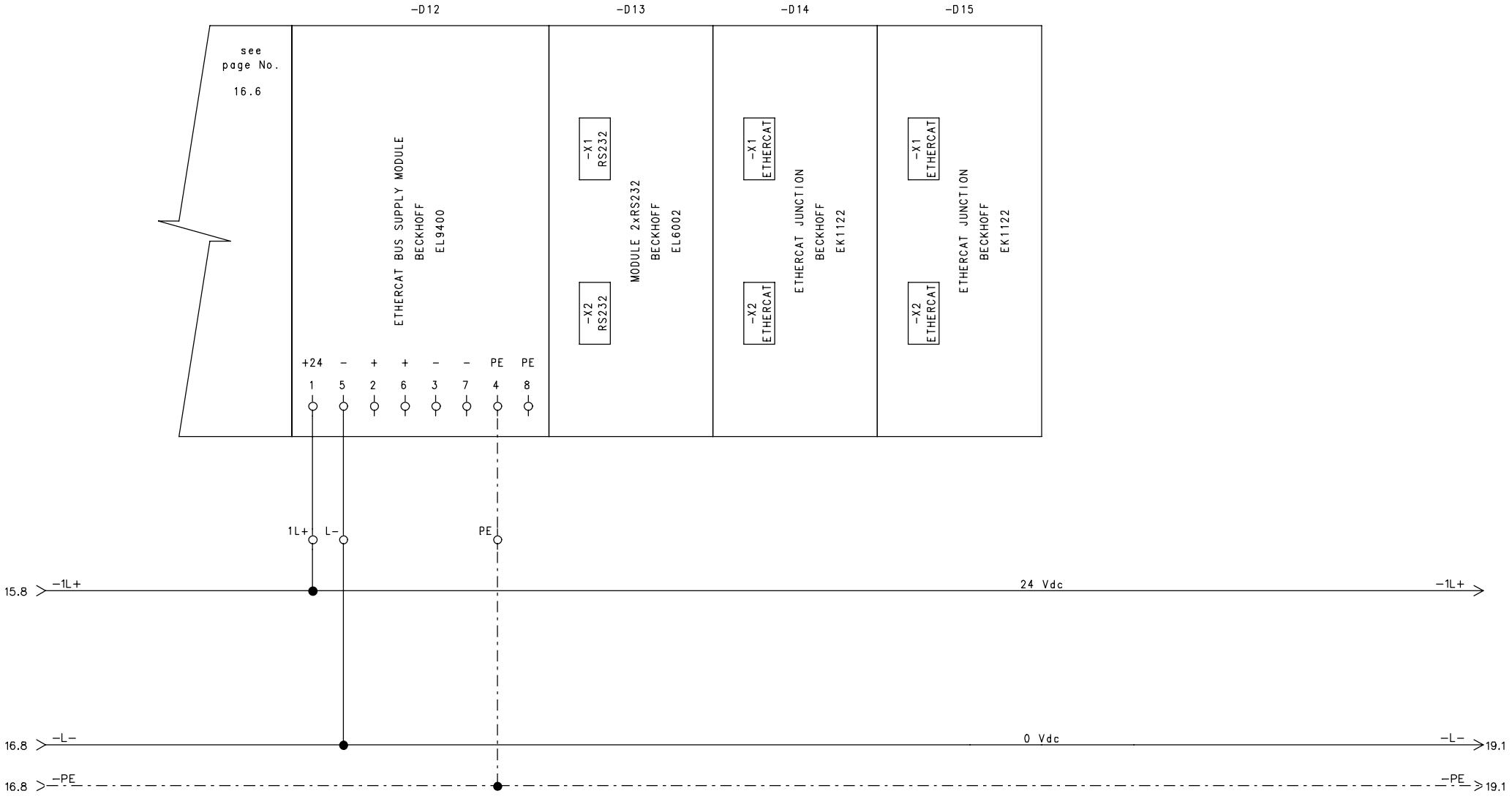

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	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632

-D1																
DIGITAL INPUT 16x24VDC BECKHOFF EL1809																
I 0 30.5	1	I 1 74.6	2	I 2 56.2	3	I 3 56.4	4	I 4 56.5	5	I 5 56.7	6	I 6 57.2	7	I 7 57.4	8	16
I 8 57.5	9	I 9 57.7	10	I 10 31.5	11	I 11 31.7	12	I 12 32.5	13	I 13 32.7	14	I 14 33.5	15	I 15 33.7		

-D2																
DIGITAL INPUT 16x24VDC BECKHOFF EL1809																
I 0 34.5	1	I 1 34.7	2	I 2 38.5	3	I 3 38.7	4	I 4 39.5	5	I 5 39.7	6	I 6 42.5	7	I 7 42.7	8	16
I 8 43.5	9	I 9 43.7	10	I 10 44.5	11	I 11 44.7	12	I 12 45.5	13	I 13 45.7	14	I 14 46.5	15	I 15 46.7		

-D3																
DIGITAL INPUT 16x24VDC BECKHOFF EL1809																
I 0 47.5	1	I 1 47.7	2	I 2 48.5	3	I 3 48.7	4	I 4 53.5	5	I 5 53.7	6	I 6 37.2	7	I 7 60.7	8	16
I 8 60.8	9	I 9 61.7	10	I 10 61.8	11	I 11 64.7	12	I 12 67.7	13	I 13 70.7	14	I 14 71.4	15	I 15 72.4		

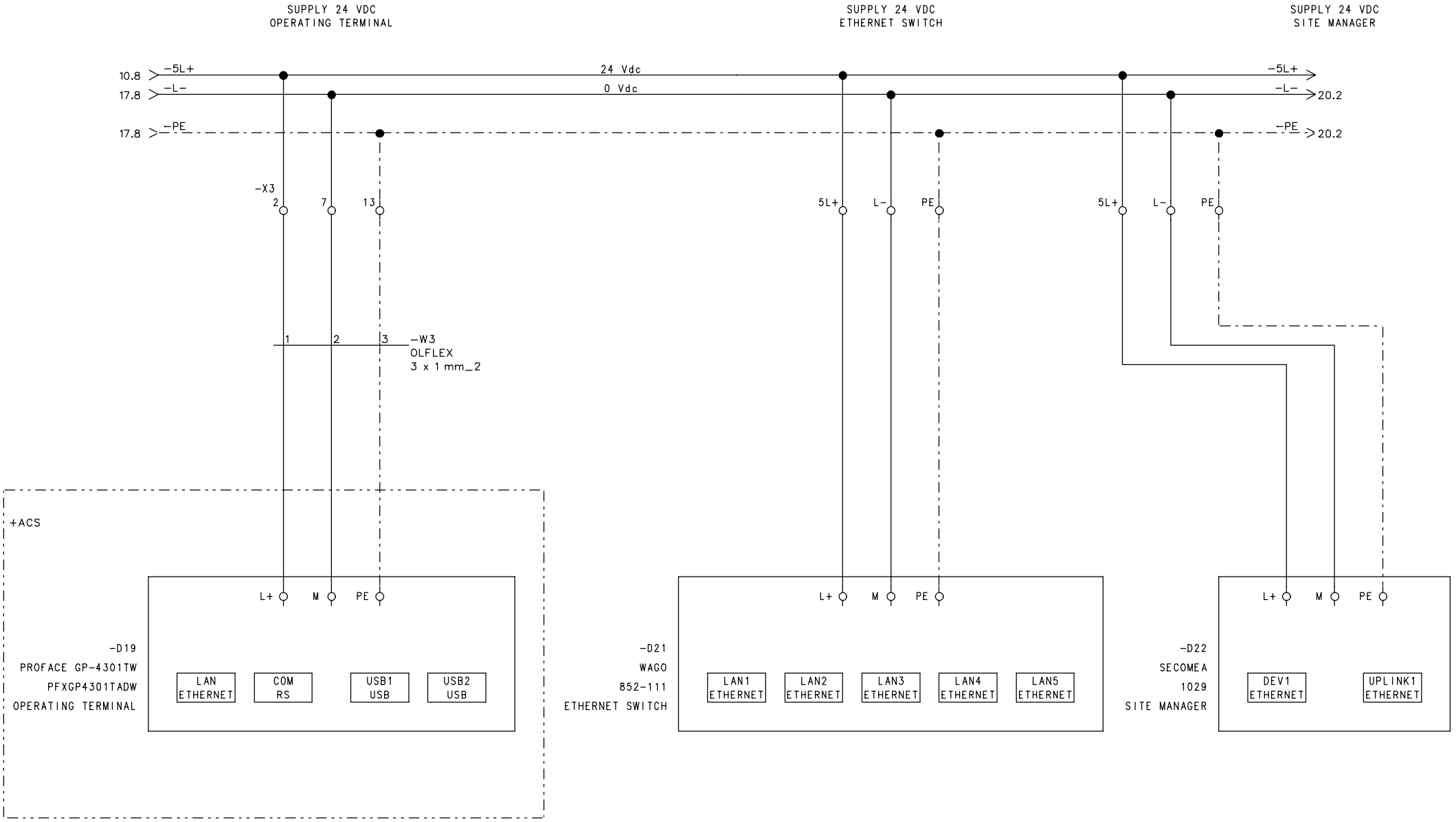
-D4																
DIGITAL INPUT 16x24VDC BECKHOFF EL1809																
I 0 27.7	1	I 1 23.3	2	I 2 26.7	3	I 3 36.7	4	I 4 41.7	5	I 5 25.3	6	I 6 25.4	7	I 7 75.3	8	16
I 8 75.4	9	I 9 75.5	10	I 10 75.6	11	I 11 76.3	12	I 12 76.5	13	I 13 76.5	14	I 14 76.6	15	I 15 76.7		

-D6																
DIGITAL OUTPUT 16x24VDC BECKHOFF EL2809																
Q 0 34.2	1	Q 1 34.3	2	Q 2 39.2	3	Q 3 39.3	4	Q 4 60.2	5	Q 5 61.2	6	Q 6 71.2	7	Q 7 74.3	8	16
Q 8 73.2	9	Q 9 25.2	10	Q 10 29.3	11	Q 11 72.1	12	Q 12 72.2	13	Q 13 72.3	14	Q 14 77.4	15	Q 15 77.5		

-D7																
DIGITAL OUTPUT 16x24VDC BECKHOFF EL2809																
Q 0 63.2	1	Q 1 63.2	2	Q 2 63.3	3	Q 3 63.4	4	Q 4 63.5	5	Q 5 63.6	6	Q 6 63.7	7	Q 7 63.7	8	16
Q 8 66.2	9	Q 9 66.2	10	Q 10 66.3	11	Q 11 66.4	12	Q 12 66.5	13	Q 13 66.6	14	Q 14 66.7	15	Q 15 66.7		

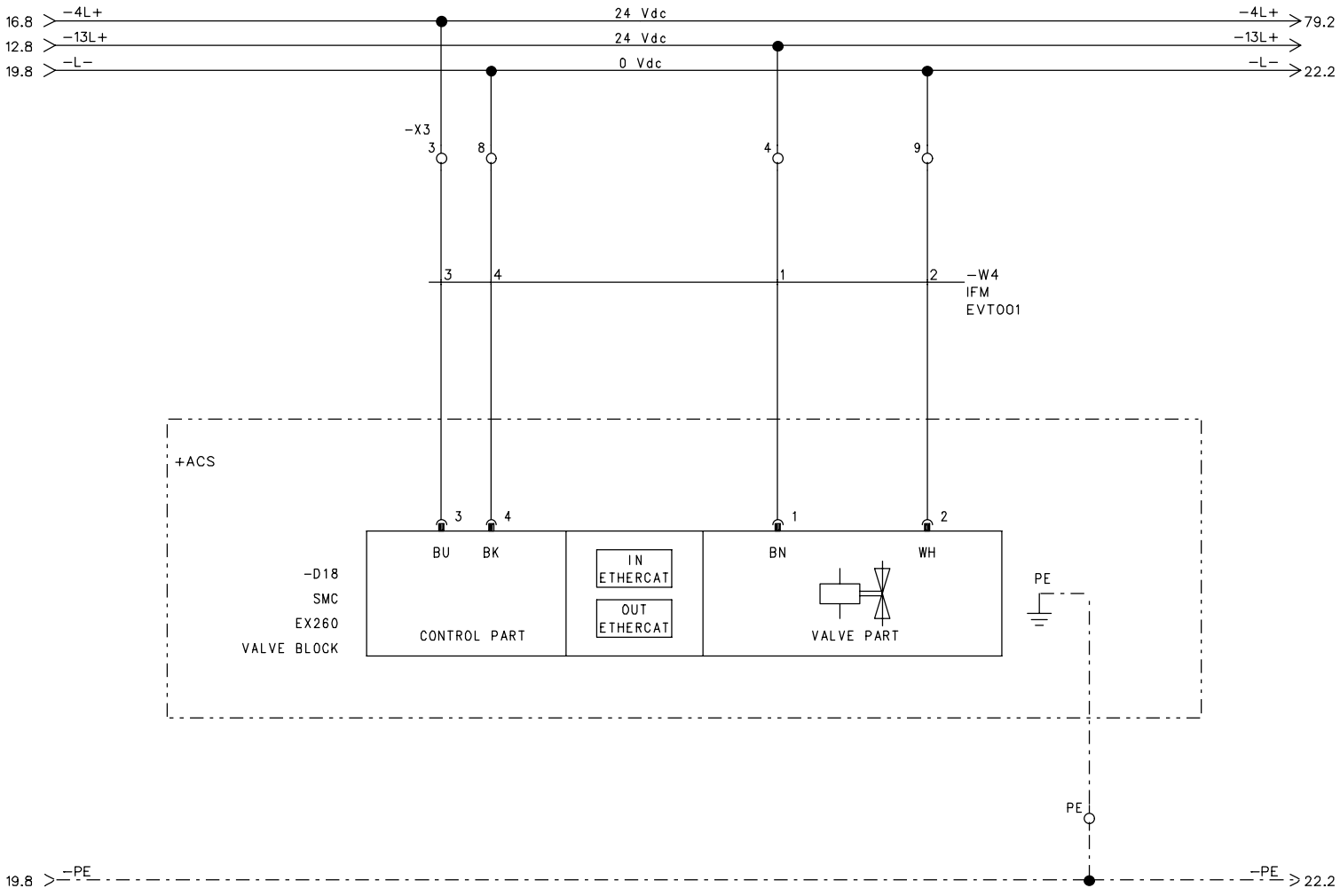
-D8								
DIGITAL OUTPUT 8x24VDC BECKHOFF EL2008								
Q 0 69.2	1	Q 1 69.2	5	Q 2 69.3	2	Q 3 69.4	6	Q 4 69.5	3	Q 5 69.6	7	Q 6 69.7	4	Q 7 69.7	8	8

FLSmidth	CARBON & SULPHUR ANALYZER	INPUTS AND OUTPUTS CONFIGURATION	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 18
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632



FLSmidth	CARBON & SULPHUR ANALYZER	SUPPLY OF ELECTRONIC COMPONENTS	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 19
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632

SUPPLY 24 VDC
ETHERCAT VALVE BLOCK



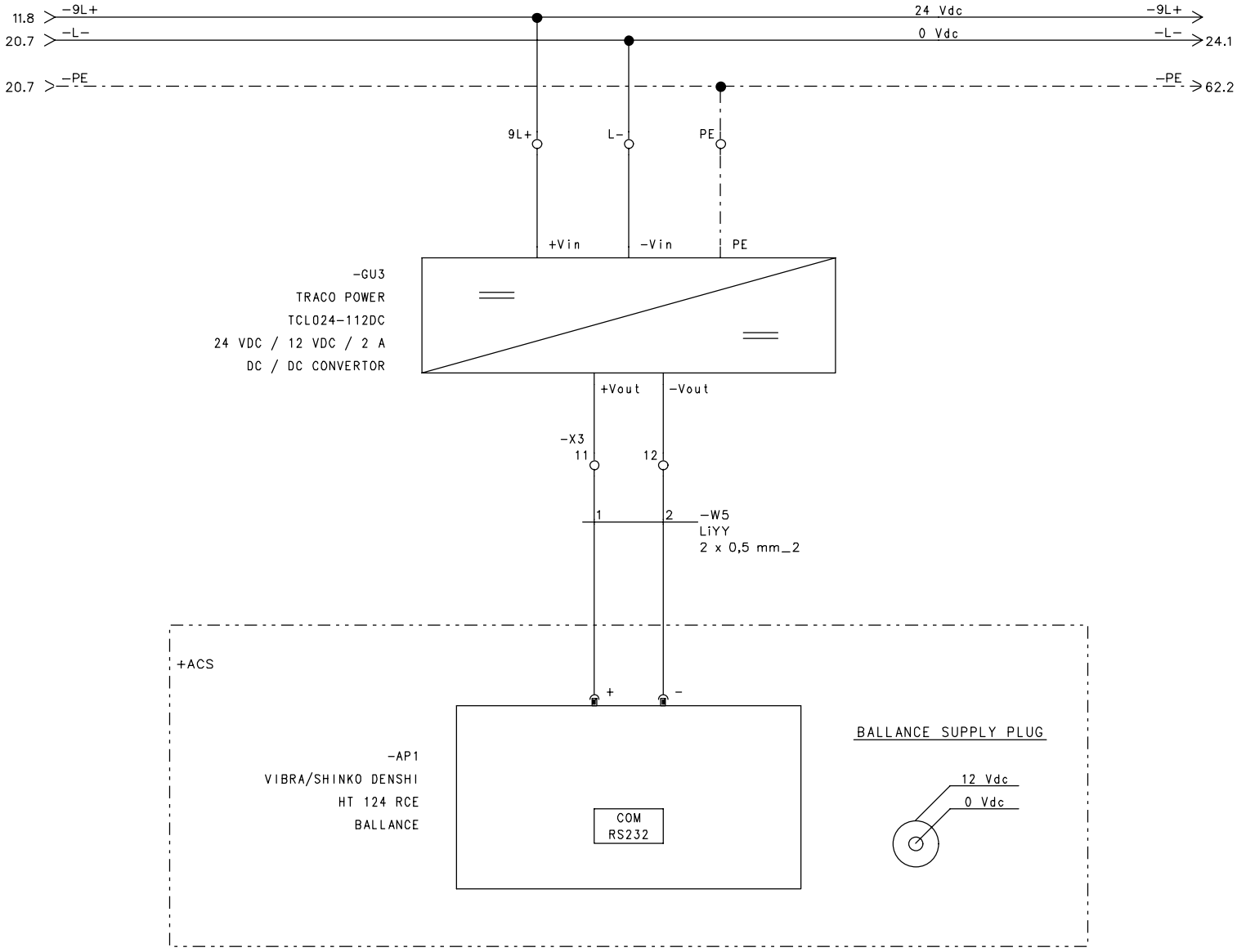
FLSmidth	CARBON & SULPHUR ANALYZER	ETHERCAT VALVE BLOCK SUPPLY	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 20
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632

+ACS

VALVE BLOCK SMC EX260	-D18																	
	YV1A 31.2 green																	
	YV1B 31.3 red	YV2 32.2 red	YV3 33.2 red	YV4 38.2 red	YV5 42.2 red	YV6 43.2 red	YV7 44.2 red	YV8 45.2 red	YV9 46.2 red	YV10 47.2 red	YV11 48.2 red	YV12 49.5 red	YV13 50.5 red	YV14 51.5 red	YV15 52.5 red	YV16 53.2 red	YV17 54.5 red	YV18 55.5 red

FLSmidth	CARBON & SULPHUR ANALYZER	ETHERCAT VALVE BLOCK CONFIGURATION	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 21
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632

SUPPLY 12 VDC
BALLANCE



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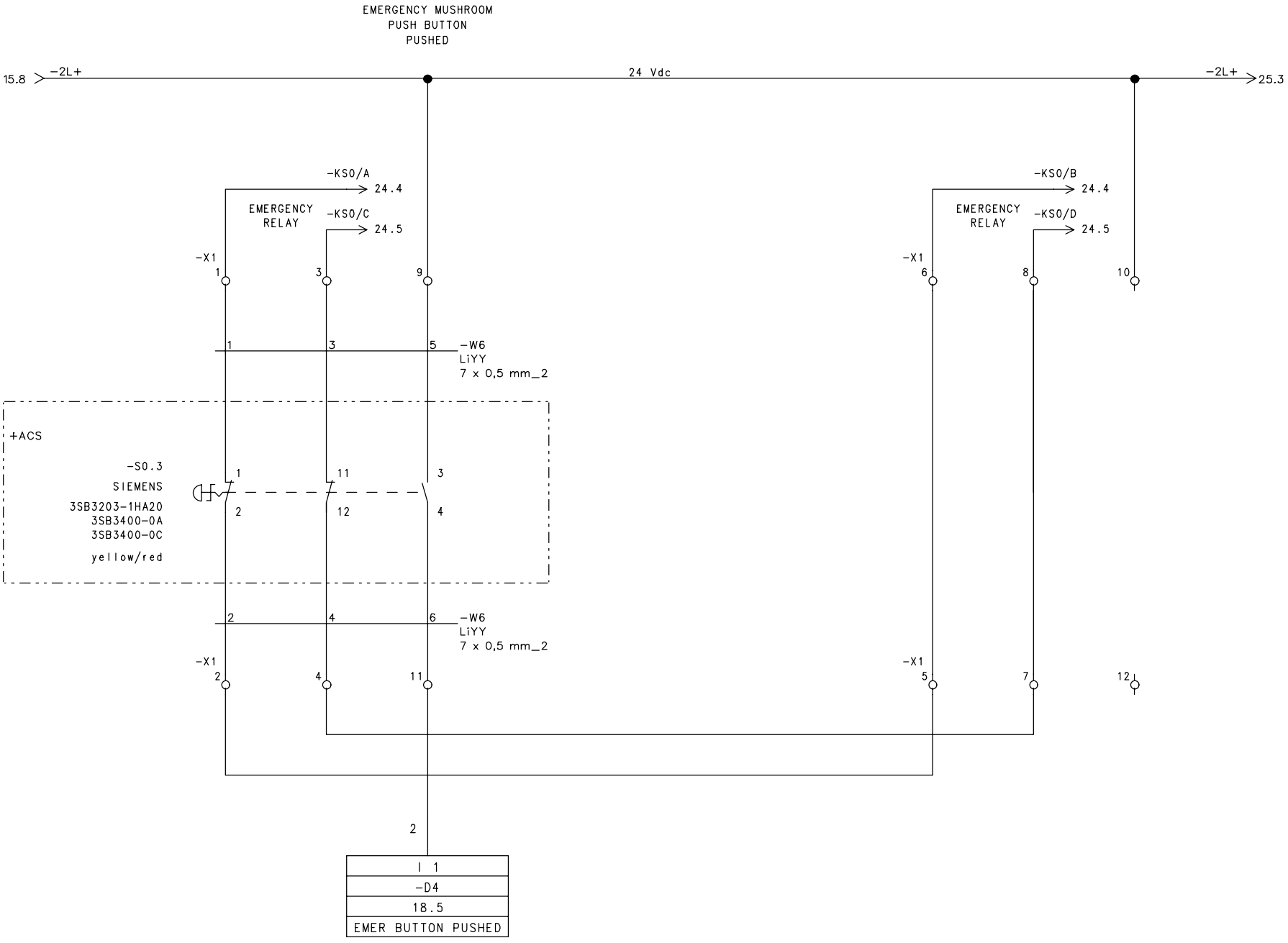

FLSmidth	CARBON & SULPHUR ANALYZER	EMERGENCY CIRCUIT	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 23
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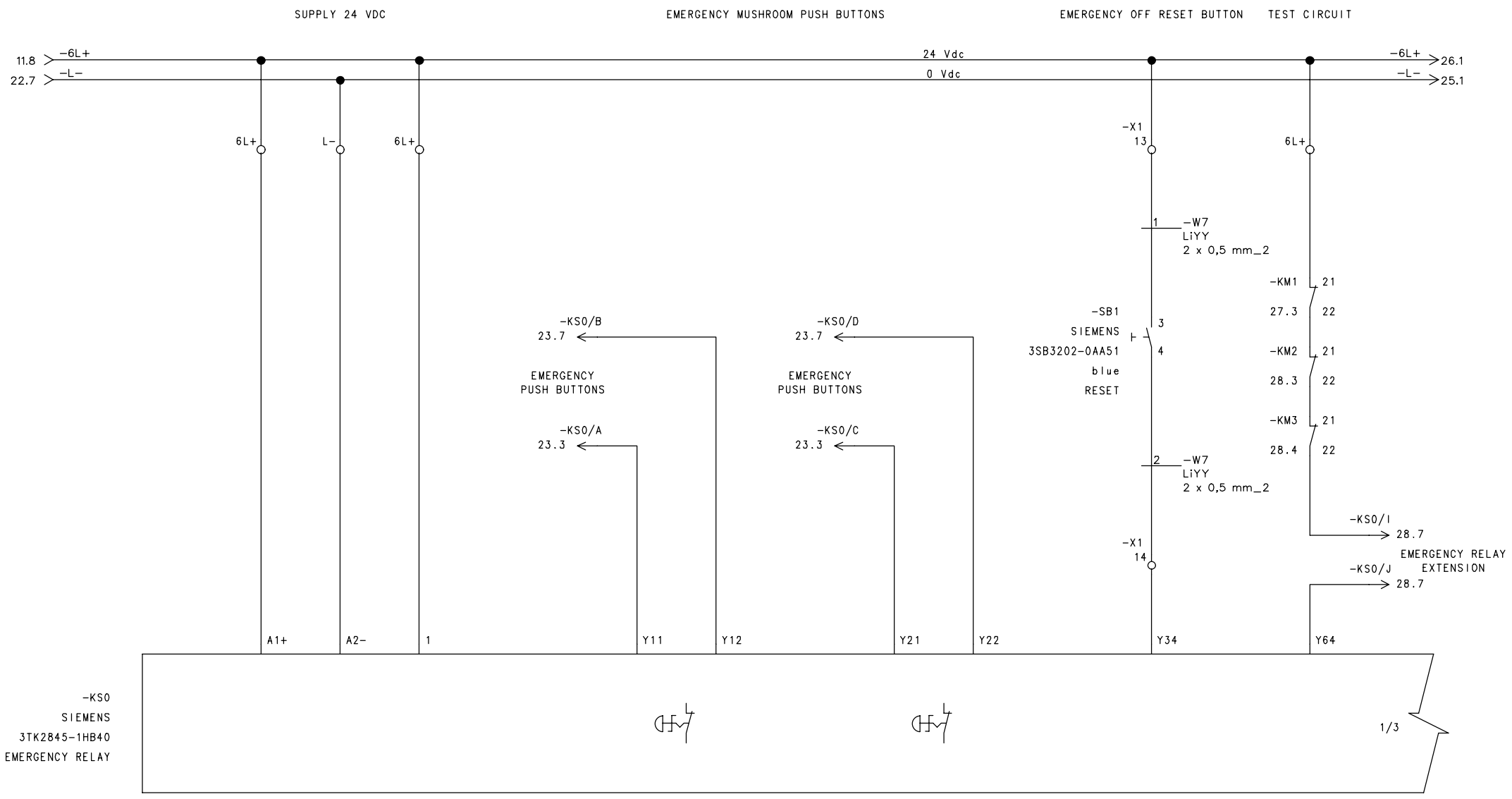
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632



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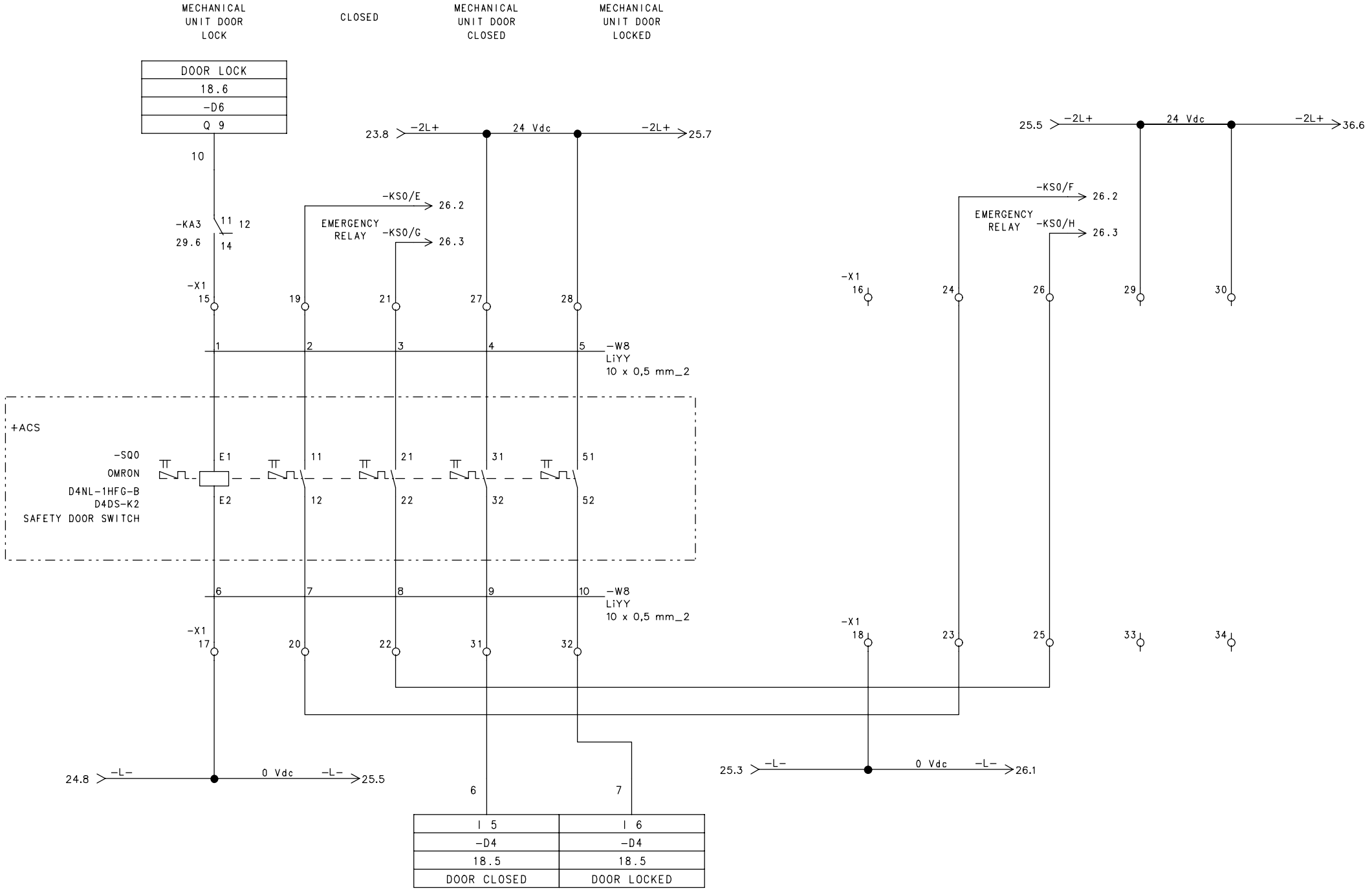

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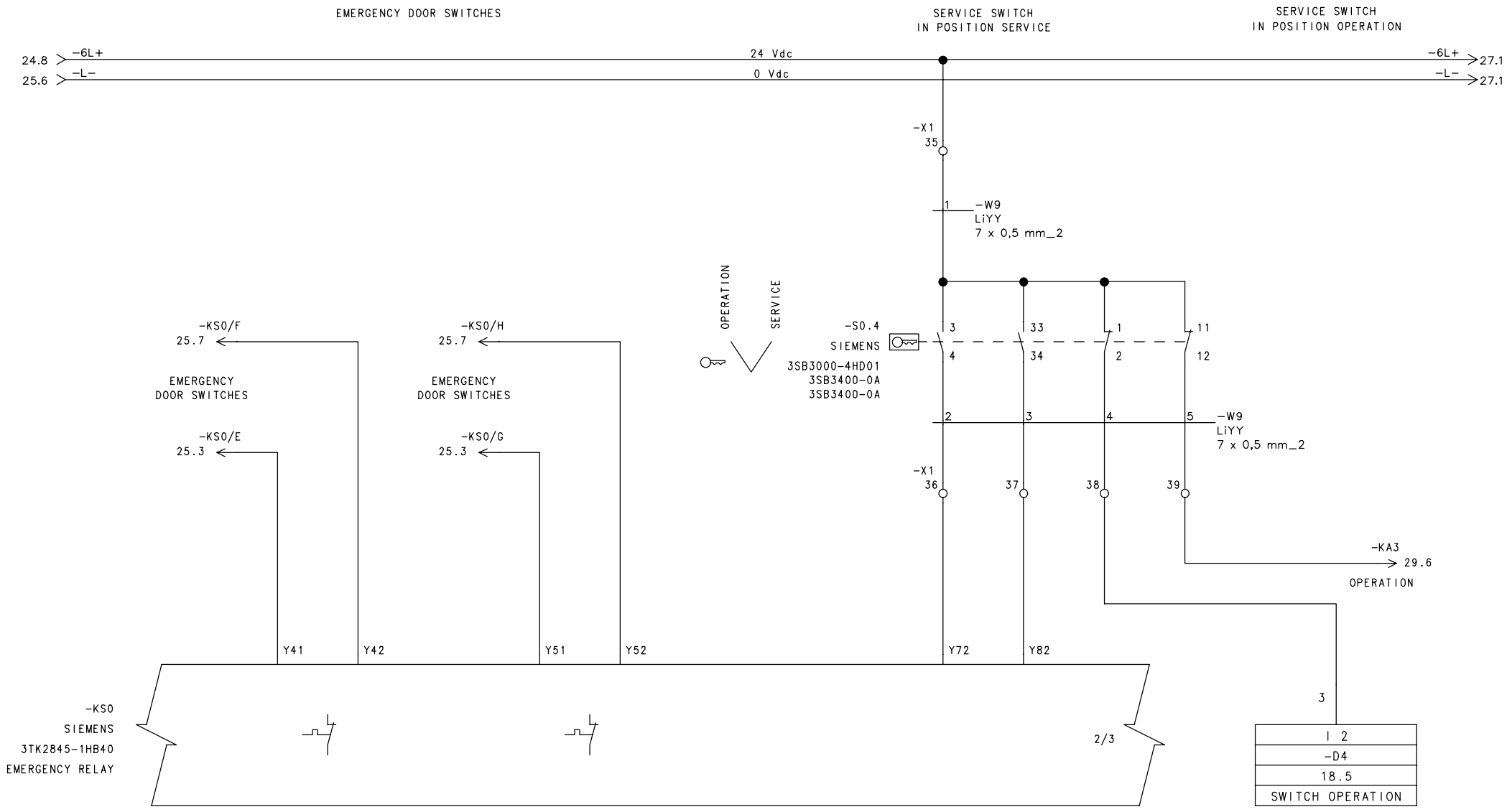
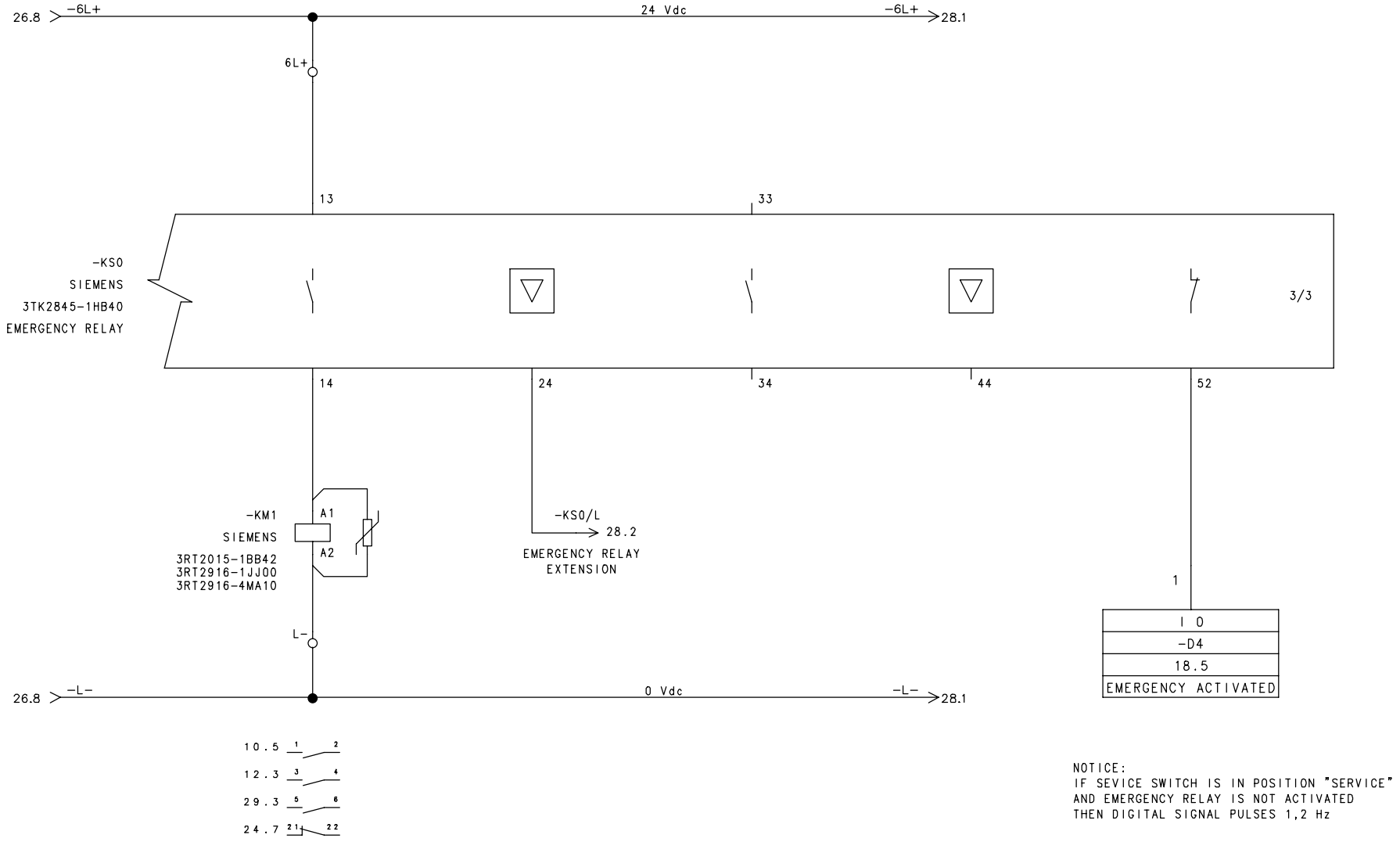


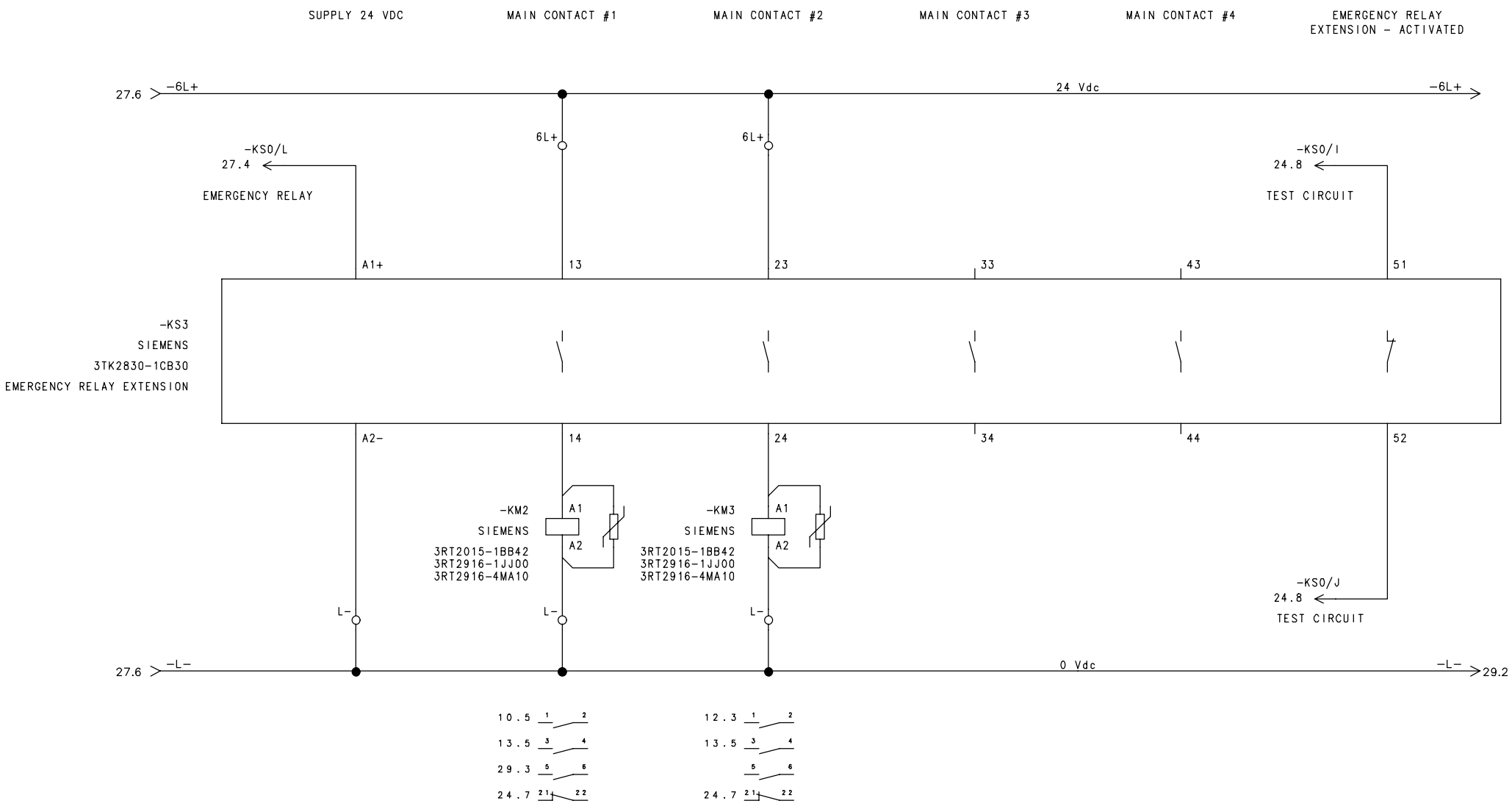
FLSmidth	CARBON & SULPHUR ANALYZER	EMERGENCY CIRCUIT	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 26
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632

MAIN CONTACT #1A | MAIN CONTACT #1B | MAIN CONTACT #2A | MAIN CONTACT #2B | MUSHROOM EMERGENCY RELAY ACTIVATED



NOTICE:
IF SEVICE SWITCH IS IN POSITION "SERVICE"
AND EMERGENCY RELAY IS NOT ACTIVATED
THEN DIGITAL SIGNAL PULSES 1,2 Hz

FLSmidth	CARBON & SULPHUR ANALYZER	EMERGENCY CIRCUIT	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 27
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632



FLSmidth	CARBON & SULPHUR ANALYZER	EMERGENCY CIRCUIT	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 28
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632

EMERGENCY
PRESSURE AIR VALVE
ON

EMER VALVE ON
18.6
-D6
Q 10

11

-KM1 5
27.3 6

EMERGENCY
DISCONNECTION

-KM2 5
28.3 6

-X1
40

1 -W10
LiYY
2 x 0,5 mm_2

+ACS

-YV0
SMC
EAV2000-F02-5YO-Q
24 Vdc

rd
bk

2 -W10
LiYY
2 x 0,5 mm_2

-X1
41

28.8 -L- 0 Vdc -L- 29.5

SERVICE SWITCH
IN POSITION OPERATION

-KA3
26.8
OPERATION

-KA3
SIEMENS
LZSPT5B5L24

A1
A2

L-

29.4 -L- 0 Vdc -L- 30.2

25.2

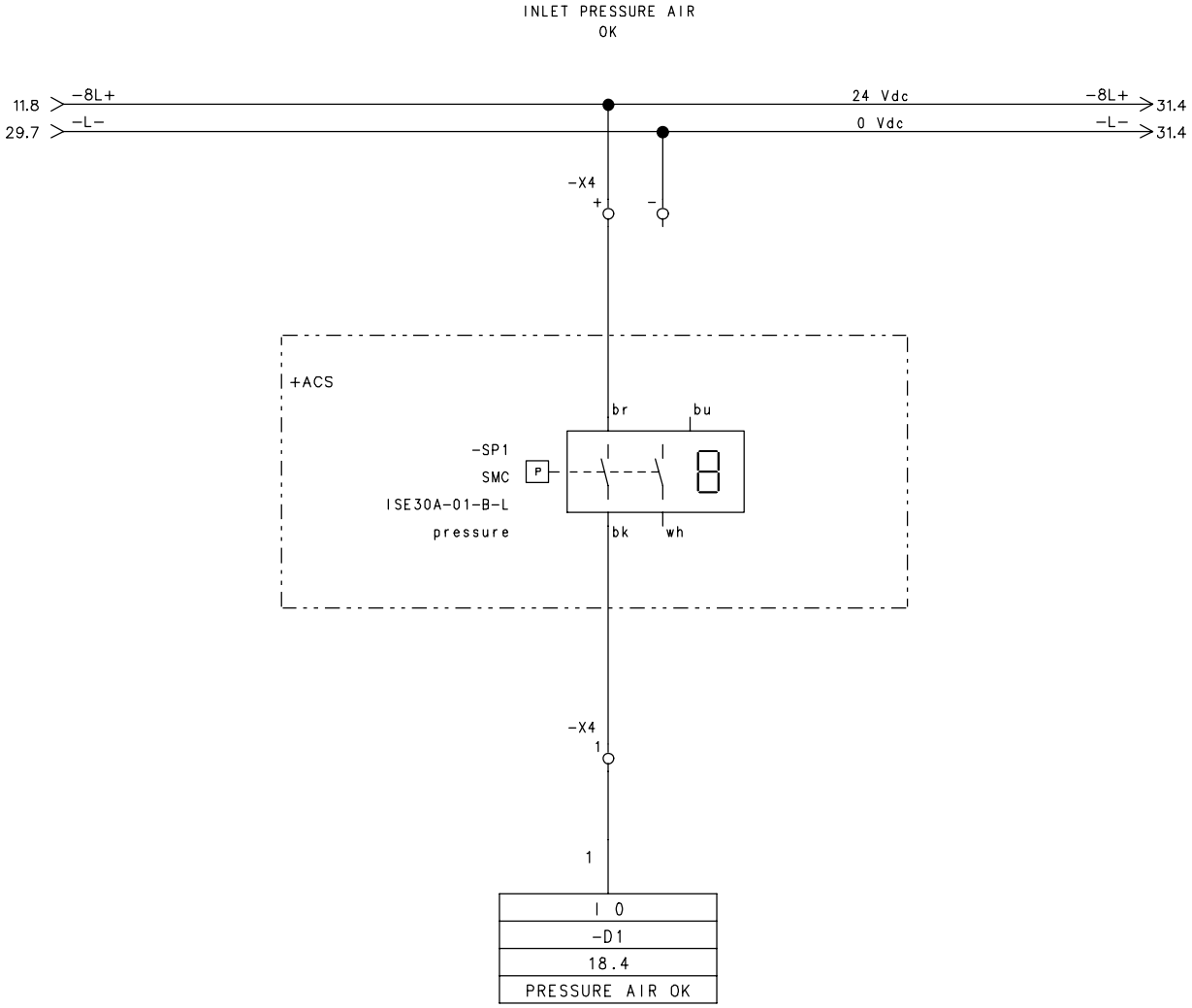
14
12
11

24
22
21

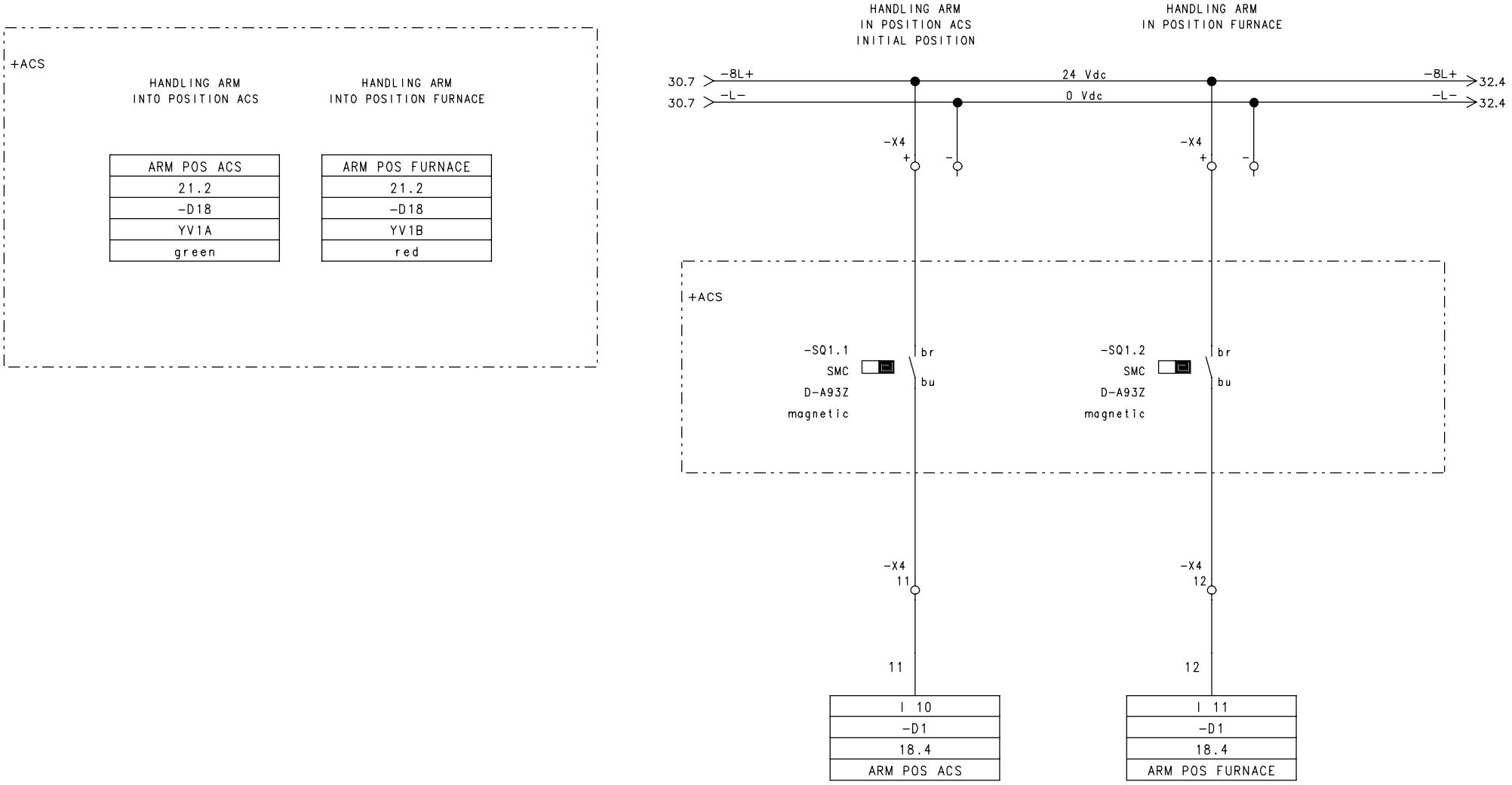
34
32
31

44
42
41

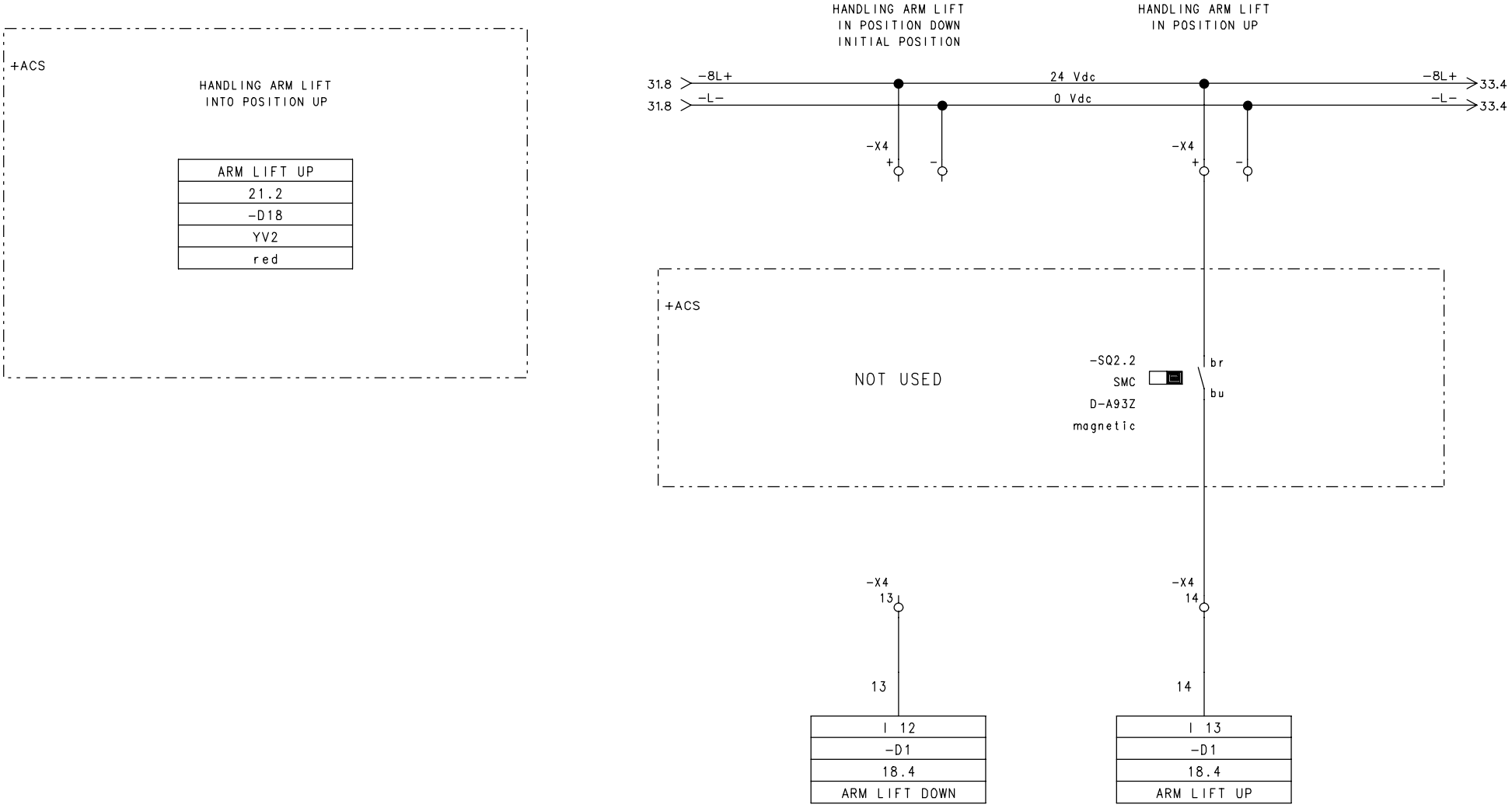
FLSmidth	CARBON & SULPHUR ANALYZER	EMERGENCY CIRCUIT	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 29
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632



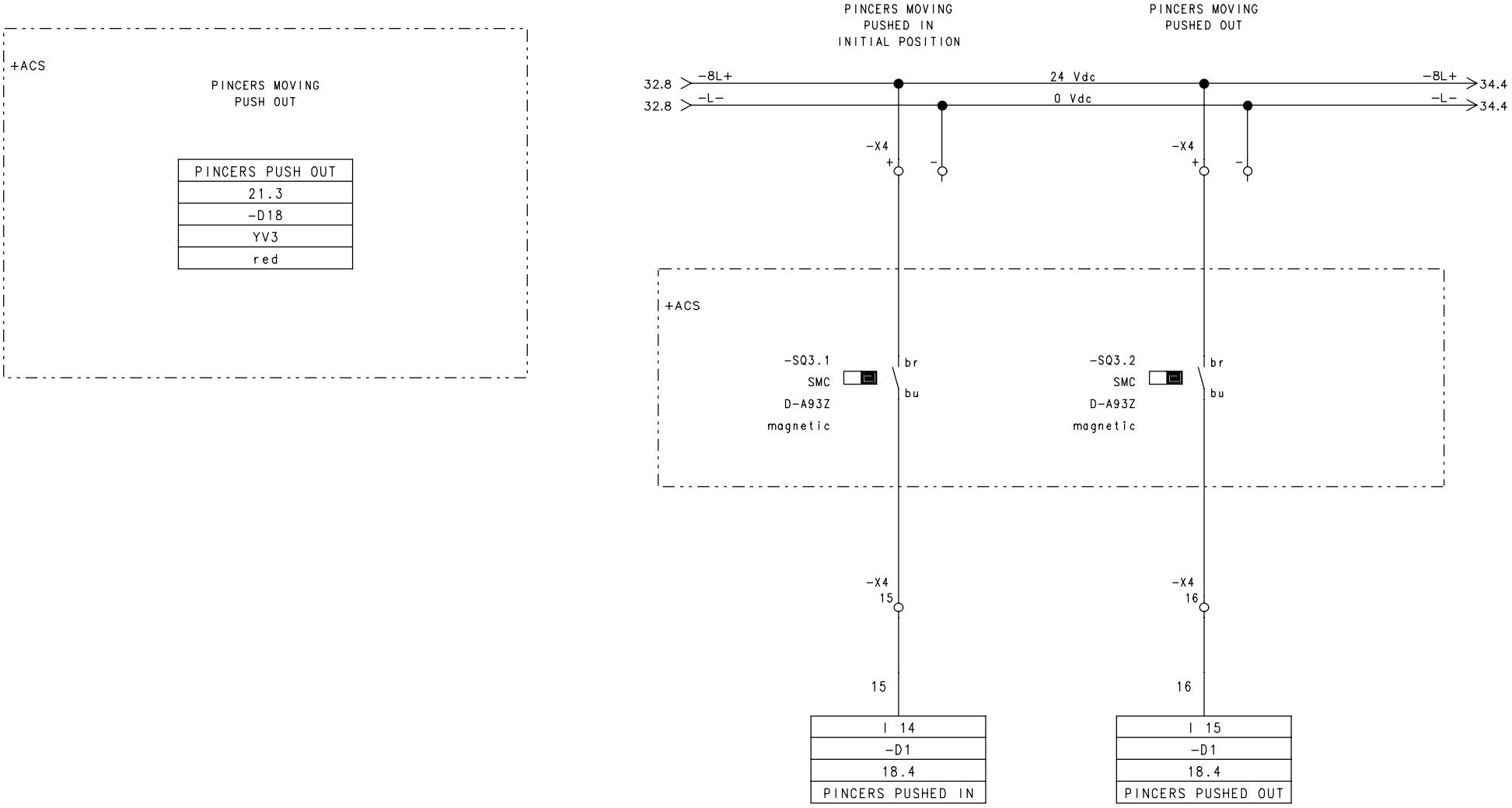
FLSmidth	CARBON & SULPHUR ANALYZER	PRESSURE AIR SENSOR	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 30
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632



FLSmidth	CARBON & SULPHUR ANALYZER	HANDLING ARM	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 31
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632



FLSmidth	CARBON & SULPHUR ANALYZER	HANDLING ARM LIFT	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 32
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632



FLSmidth	CARBON & SULPHUR ANALYZER	PINCERS MOVING	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 33
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632

CRUCIBLE PINCERS
GRIP

CRUCIBLE PINCERS
OPEN

PINCERS GRIP
18.6
-D6
Q 0

PINCERS OPEN
18.6
-D6
Q 1

1 → -YV19/A → 36.4

2 → -YV19/C → 36.5

SAFETY
DISCONNECTION

SAFETY
DISCONNECTION

-YV19/B → 36.4

-YV19/D → 36.5

-X4
41

-X4
42

+ACS

-YV19.1
SMC
SY3340-5MOU-Q
24 Vdc

rd
bk

-YV19.2
SMC
SY3340-5MOU-Q
24 Vdc

rd
bk

-X4
-

-X4
-

34.8 -L- 0 Vdc -L- 35.5

CRUCIBLE PINCERS
GRIPPED
INITIAL POSITION

CRUCIBLE PINCERS
OPENED

33.8 -8L+ 24 Vdc -8L+ 37.6

33.8 -L- 0 Vdc -L- 34.1

-X4
+
-

-X4
+
-

+ACS

-SQ19.1
SMC
D-Y59BZ
magnetic

br
bu

NOT USED

-X4
17

-X4
18

1

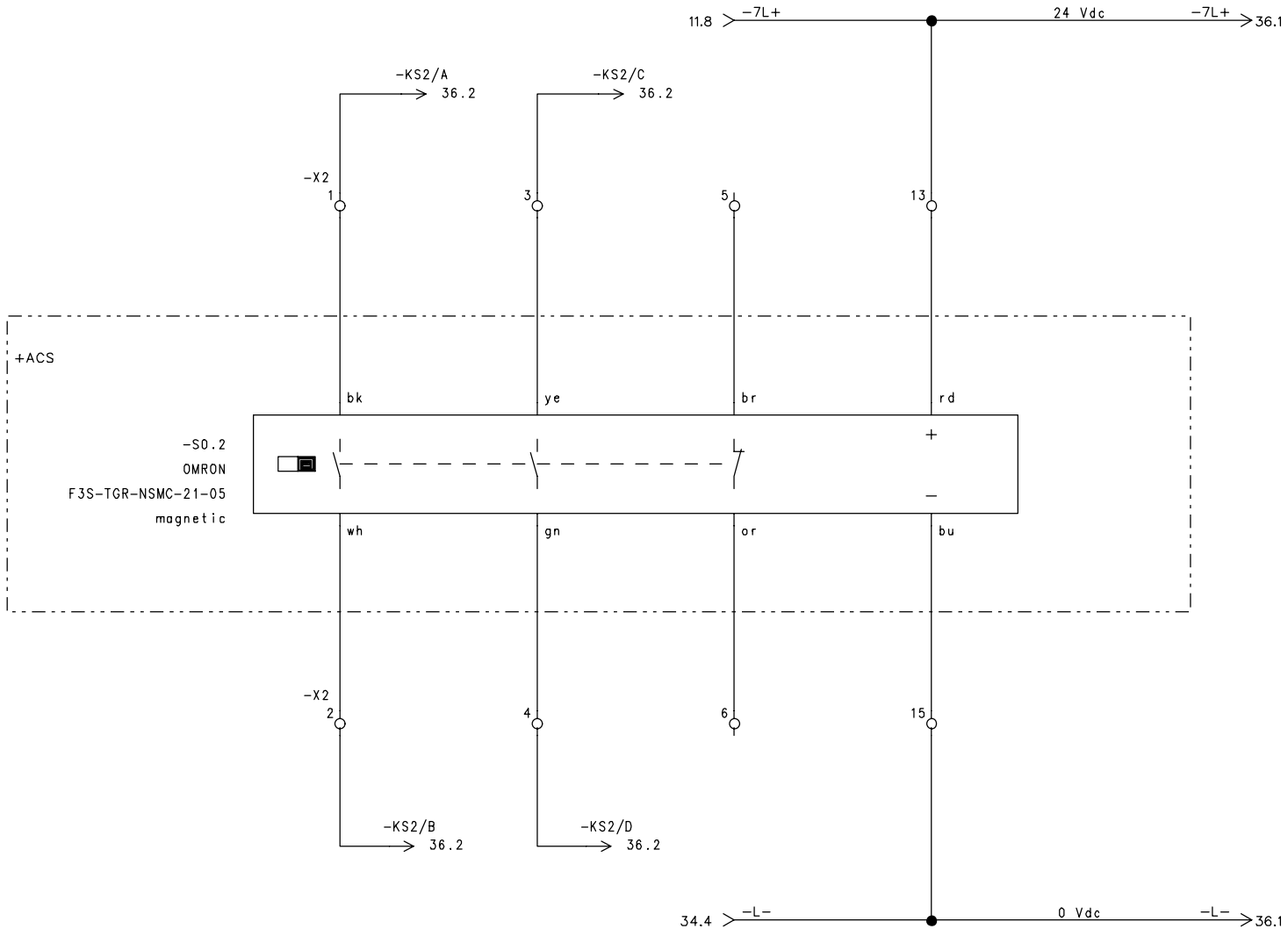
2

I 0
-D2
18.4
PINCERS GRIPPED

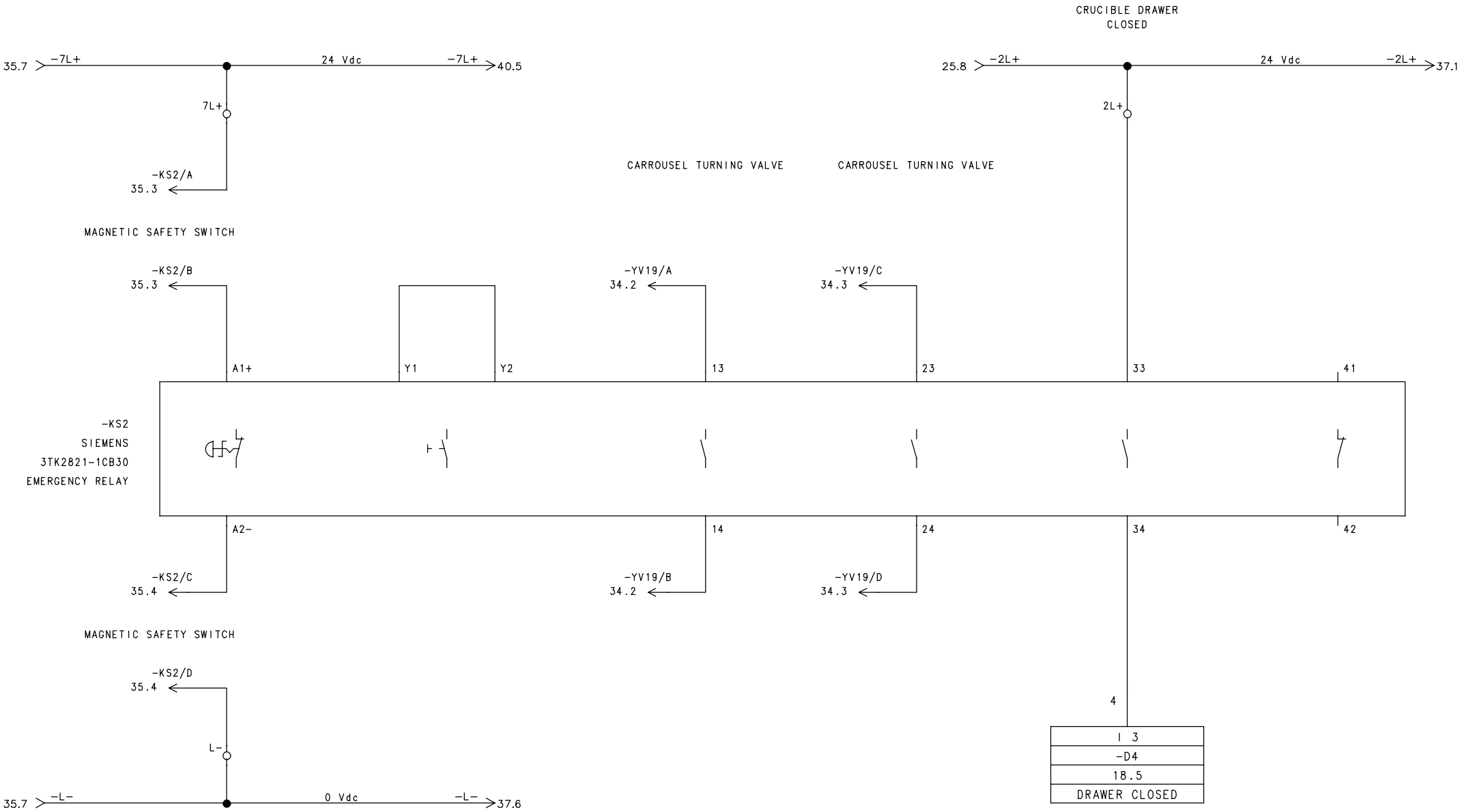
I 1
-D2
18.4
PINCERS OPENED

FLSmidth	CARBON & SULPHUR ANALYZER	CRUCIBLE PINCERS	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 34
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: Toja	COMMISSION: 16632

MAGNETIC SAFETY SWITCH
CRUCIBLE DRAWER - CLOSED



FLSmidth	CARBON & SULPHUR ANALYZER	CRUCIBLE PINCERS	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 35
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632



FLSmidth	CARBON & SULPHUR ANALYZER	CRUCIBLE PINCERS	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 36
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632

CRUCIBLE OUTLET
TRANSIT (PULSE)

36.8 -2L+ 24 Vdc -2L+ 41.6

2L+

-KT1 15 16
37.4 18

7

I 6
-D3
18.5
CRUCIBLE OUTLET

2L+

-KT1 A1 B1
SIEMENS A2
3RP2535-1AW30
function delay off
setting 2 sec

L-

37.8 -L- 0 Vdc -L- 38.4

37.2 18 15 16

CRUCIBLE OUTLET
SENSOR

34.8 -8L+ 24 Vdc -8L+ 38.4
36.3 -L- 0 Vdc -L- 37.3

-X4
+ -

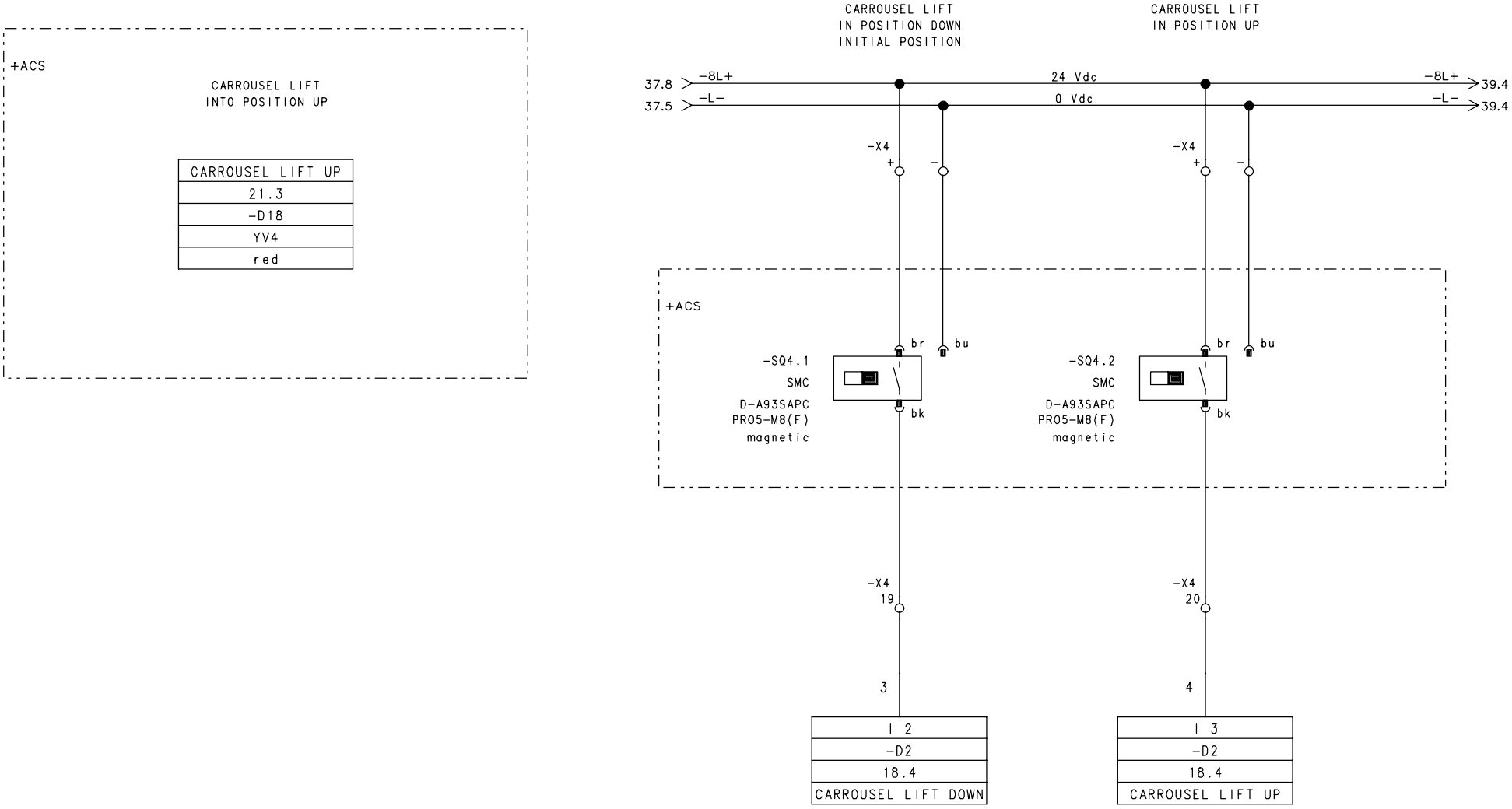
+ACS

-BL7 br bu
BALLUFF + -
BGL50A-001-S49
EVC142 bk

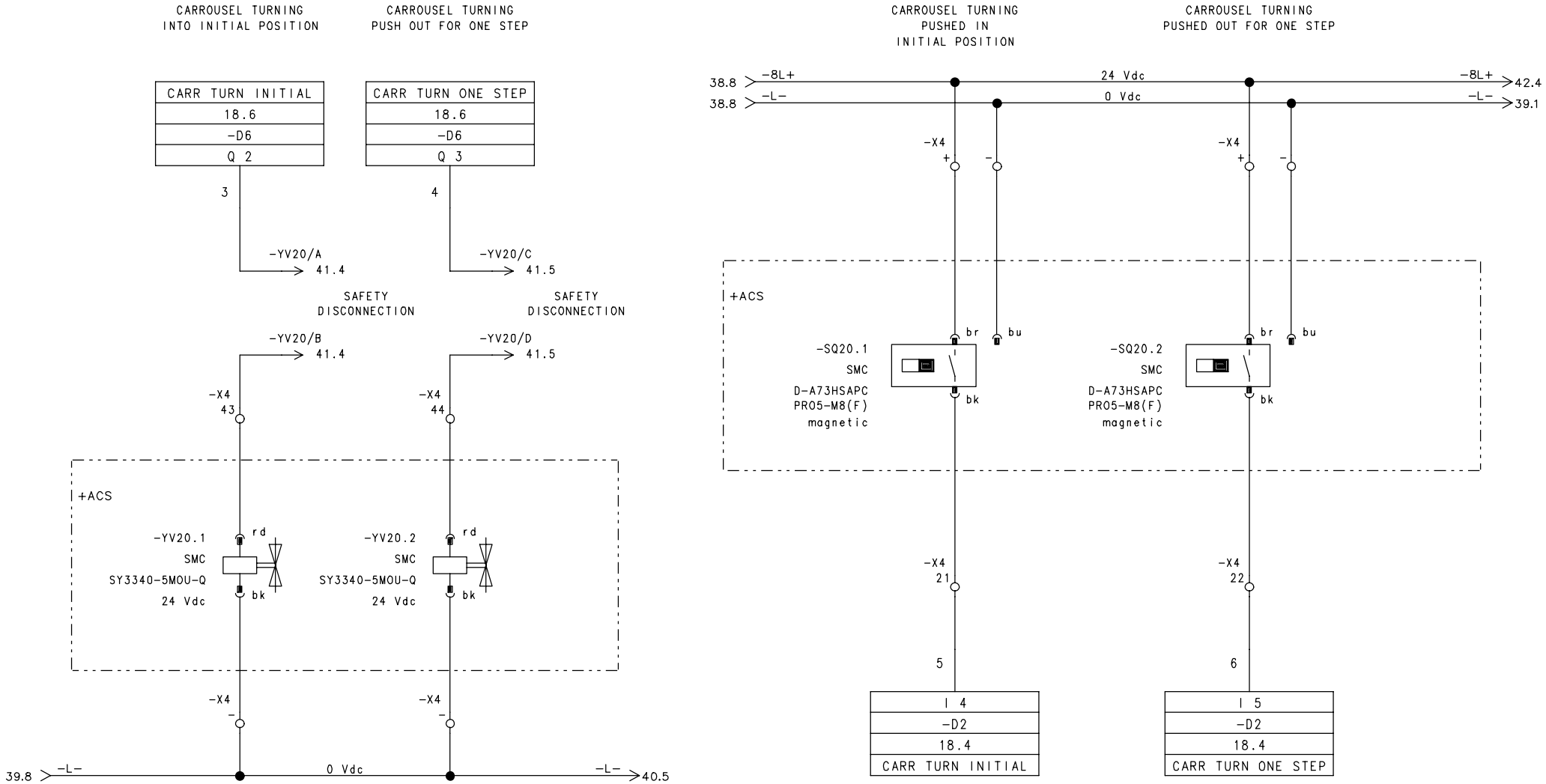
optical
set NO

-X4
40

FLSmidth	CARBON & SULPHUR ANALYZER	CRUCIBLE OUTLET	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 37
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632

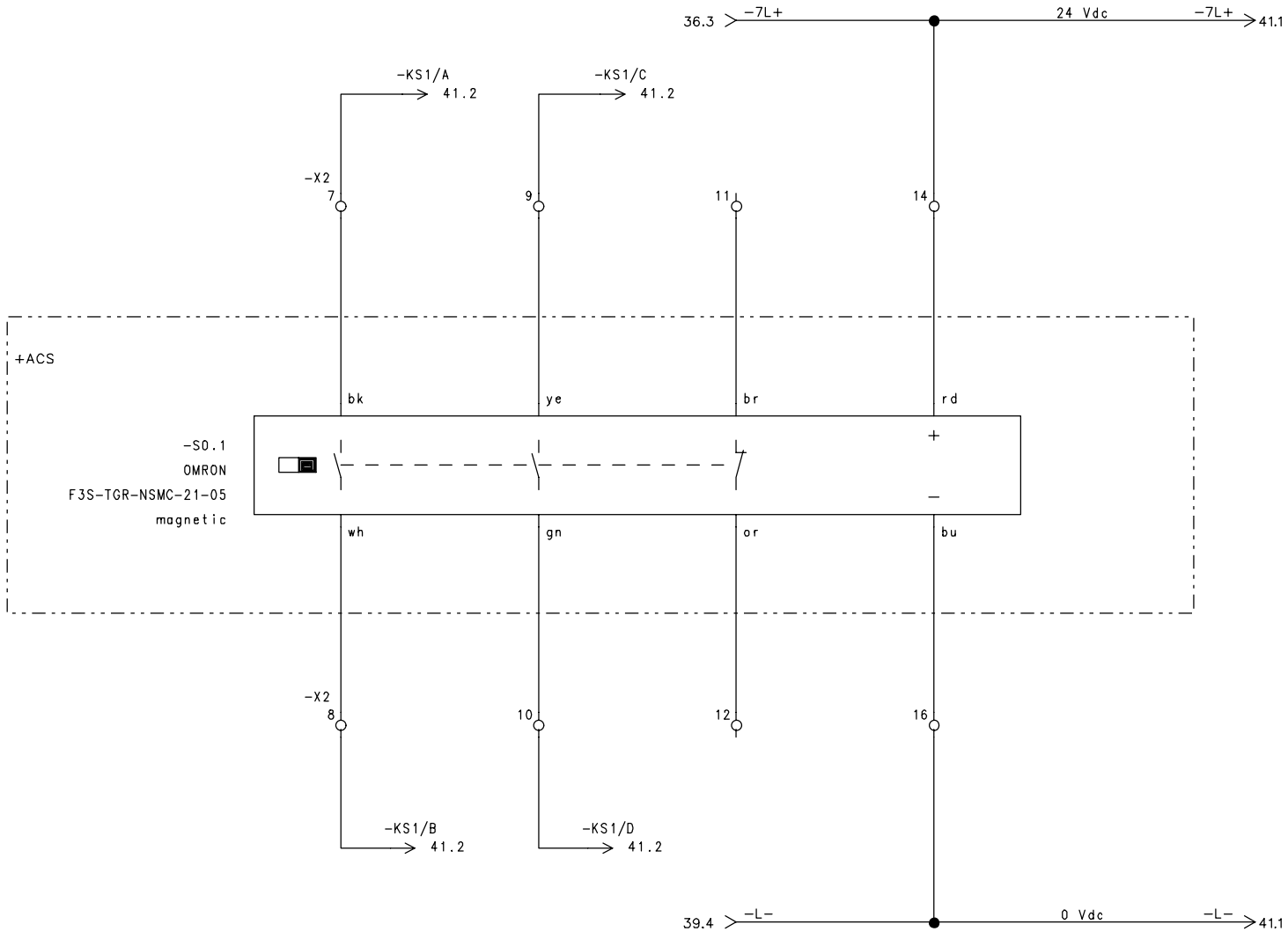


FLSmidth	CARBON & SULPHUR ANALYZER	CARROUSEL LIFT	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 38
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632

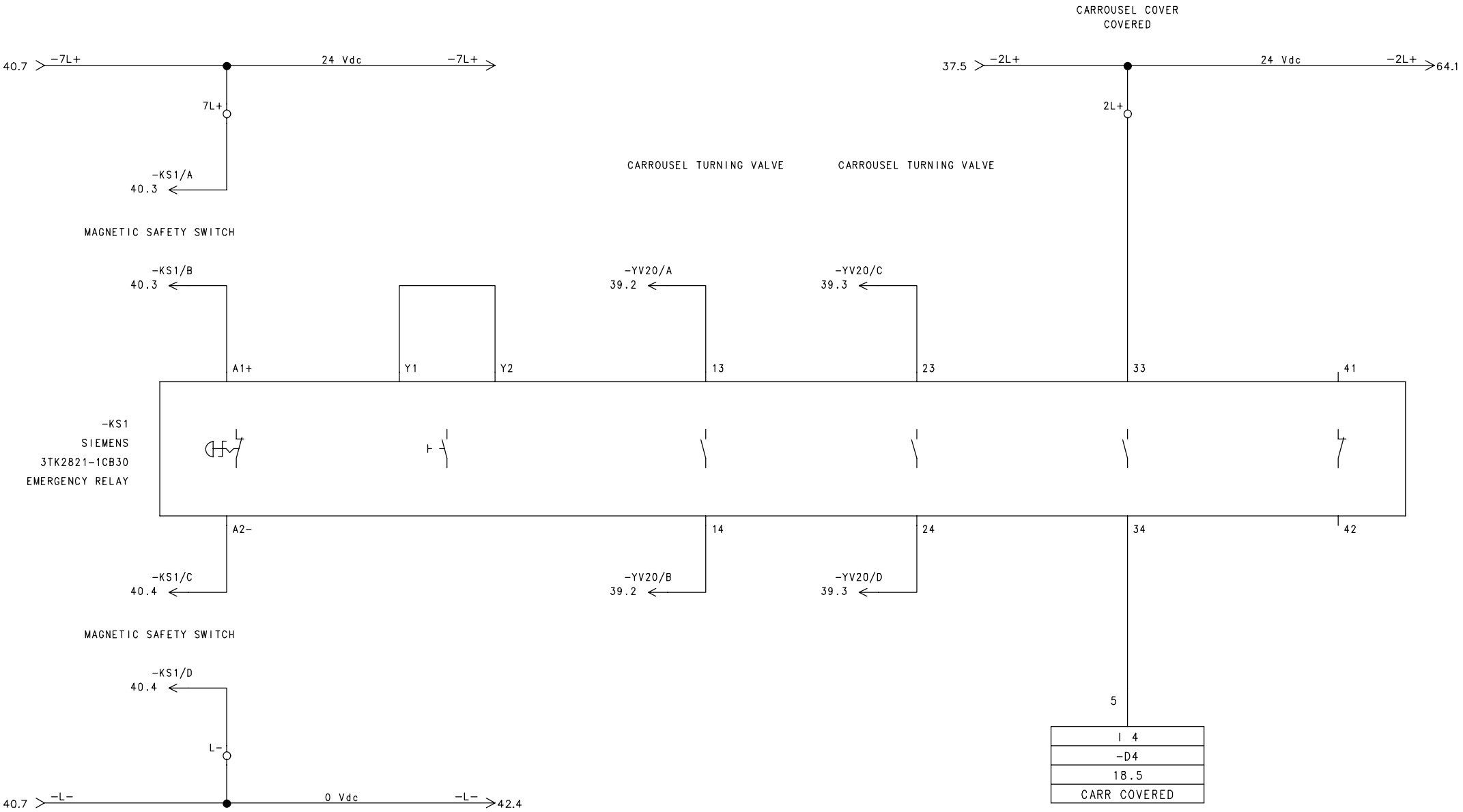


FLSmidth	CARBON & SULPHUR ANALYZER	CARROUSEL TURNING	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 39
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632

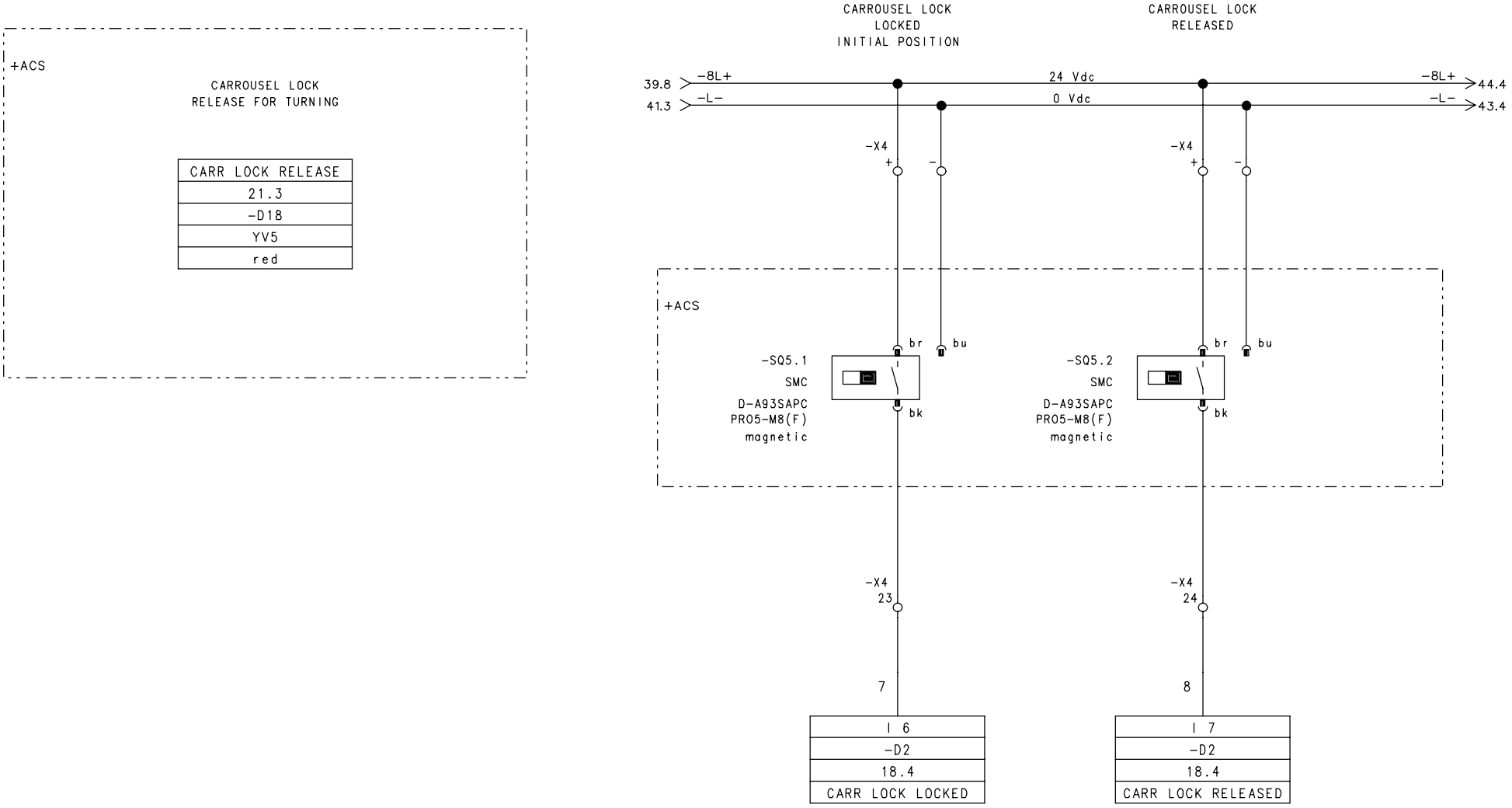
MAGNETIC SAFETY SWITCH
CARROUSEL COVER - COVERED



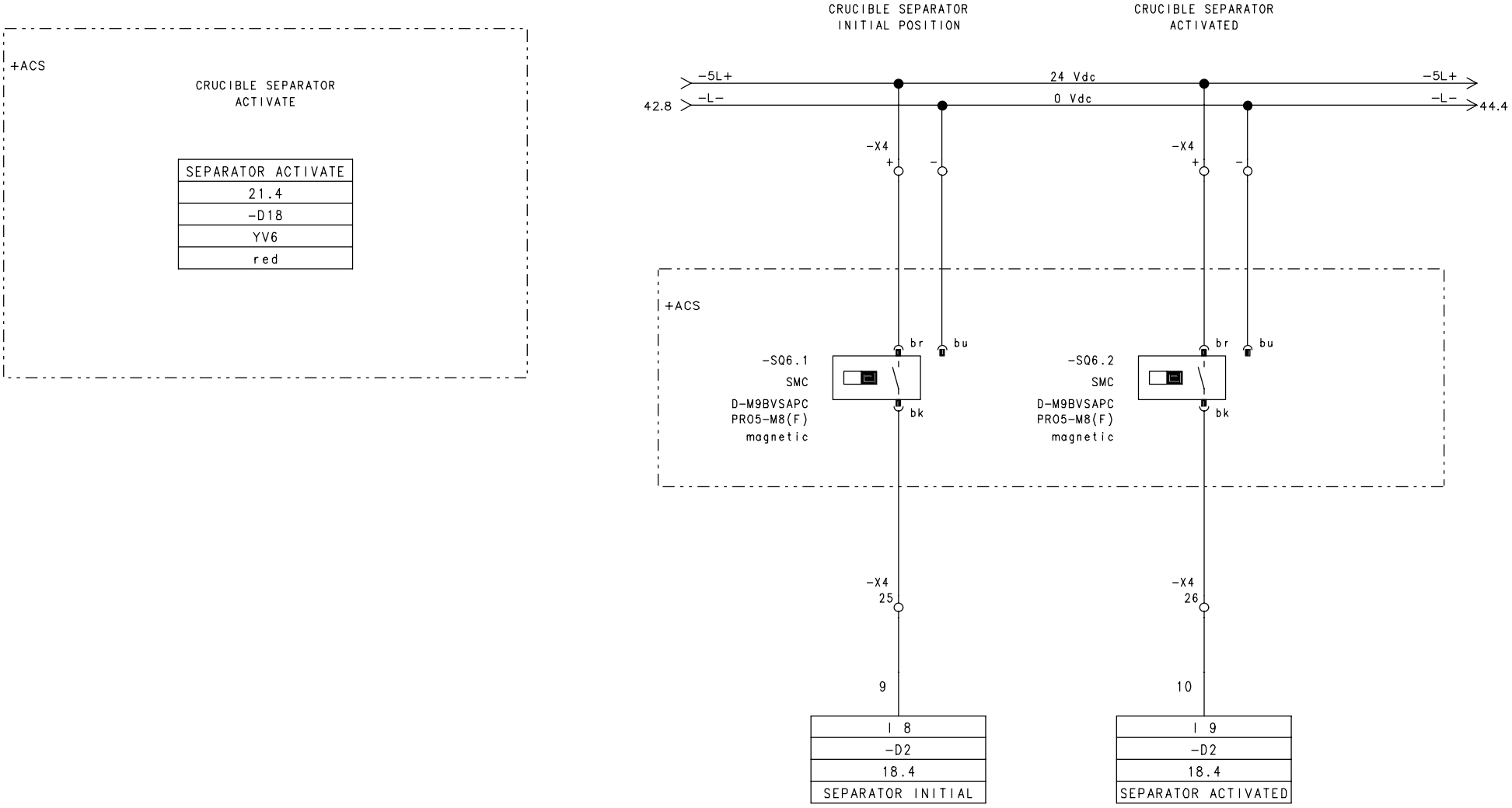
FLSmidth	CARBON & SULPHUR ANALYZER	CARROUSEL TURNING	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 40
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632



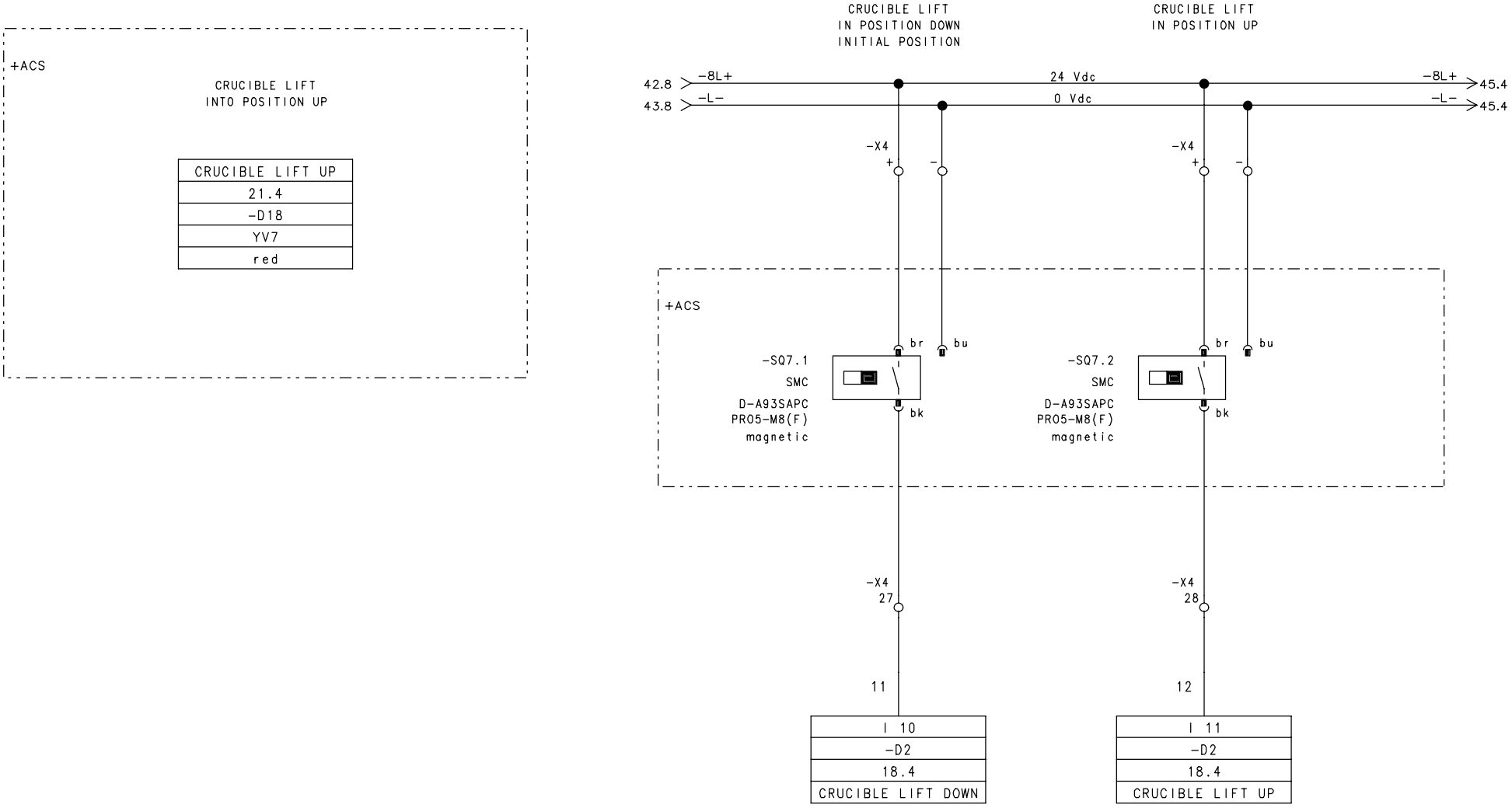
FLSmidth	CARBON & SULPHUR ANALYZER	CARROUSEL TURNING	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 41
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632



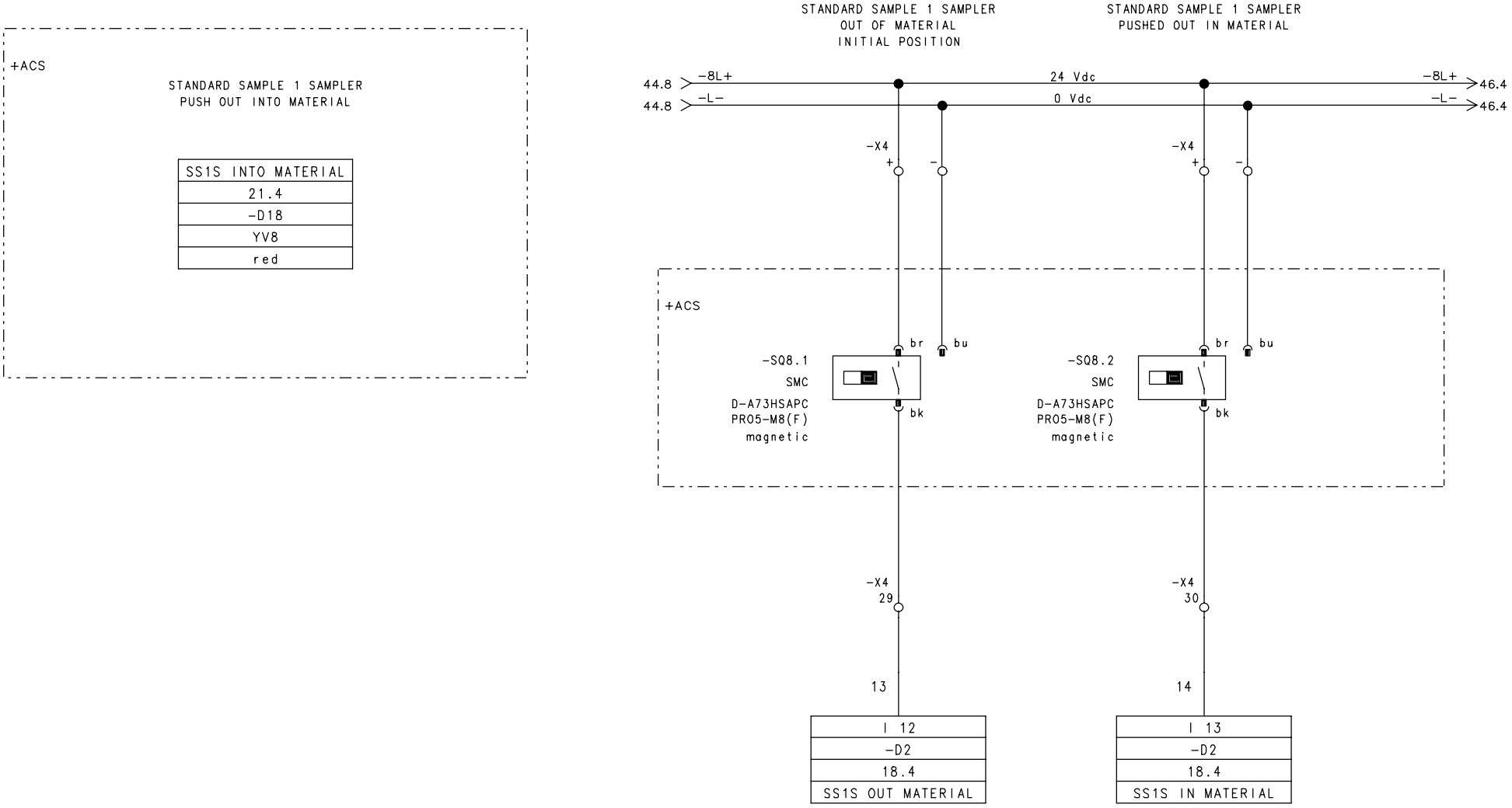
FLSmidth	CARBON & SULPHUR ANALYZER	CARROUSEL LOCK	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 42
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632



FLSmidth	CARBON & SULPHUR ANALYZER	CRUCIBLE SEPARATOR	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 43
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632



FLSmidth	CARBON & SULPHUR ANALYZER	CRUCIBLE LIFT	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 44
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632



FLSmidth	CARBON & SULPHUR ANALYZER	STANDARD SAMPLE 1 SAMPLER	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 45
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632

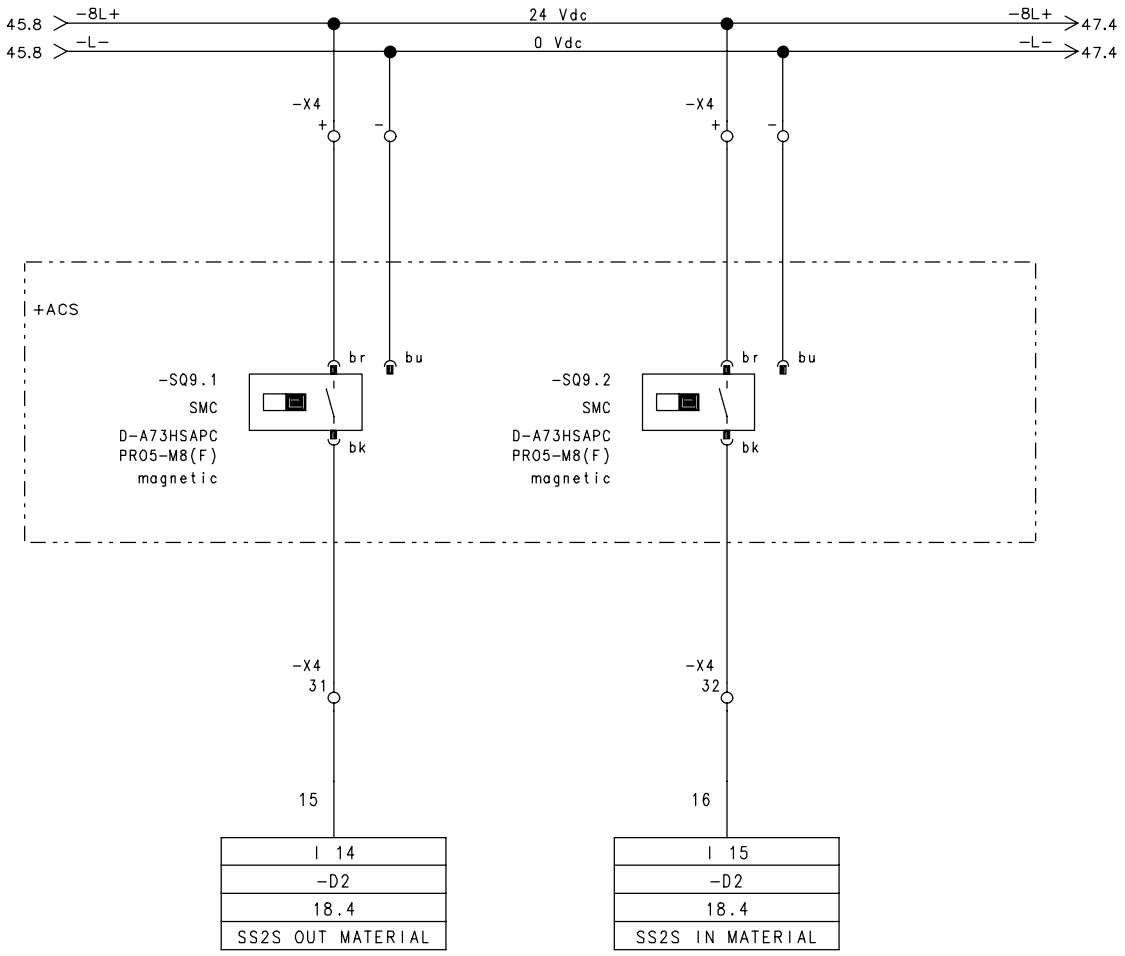
+ACS

STANDARD SAMPLE 2 SAMPLER
PUSH OUT INTO MATERIAL

SS2S INTO MATERIAL
21.5
-D18
YV9
red

STANDARD SAMPLE 2 SAMPLER
OUT OF MATERIAL
INITIAL POSITION

STANDARD SAMPLE 2 SAMPLER
PUSHED OUT IN MATERIAL

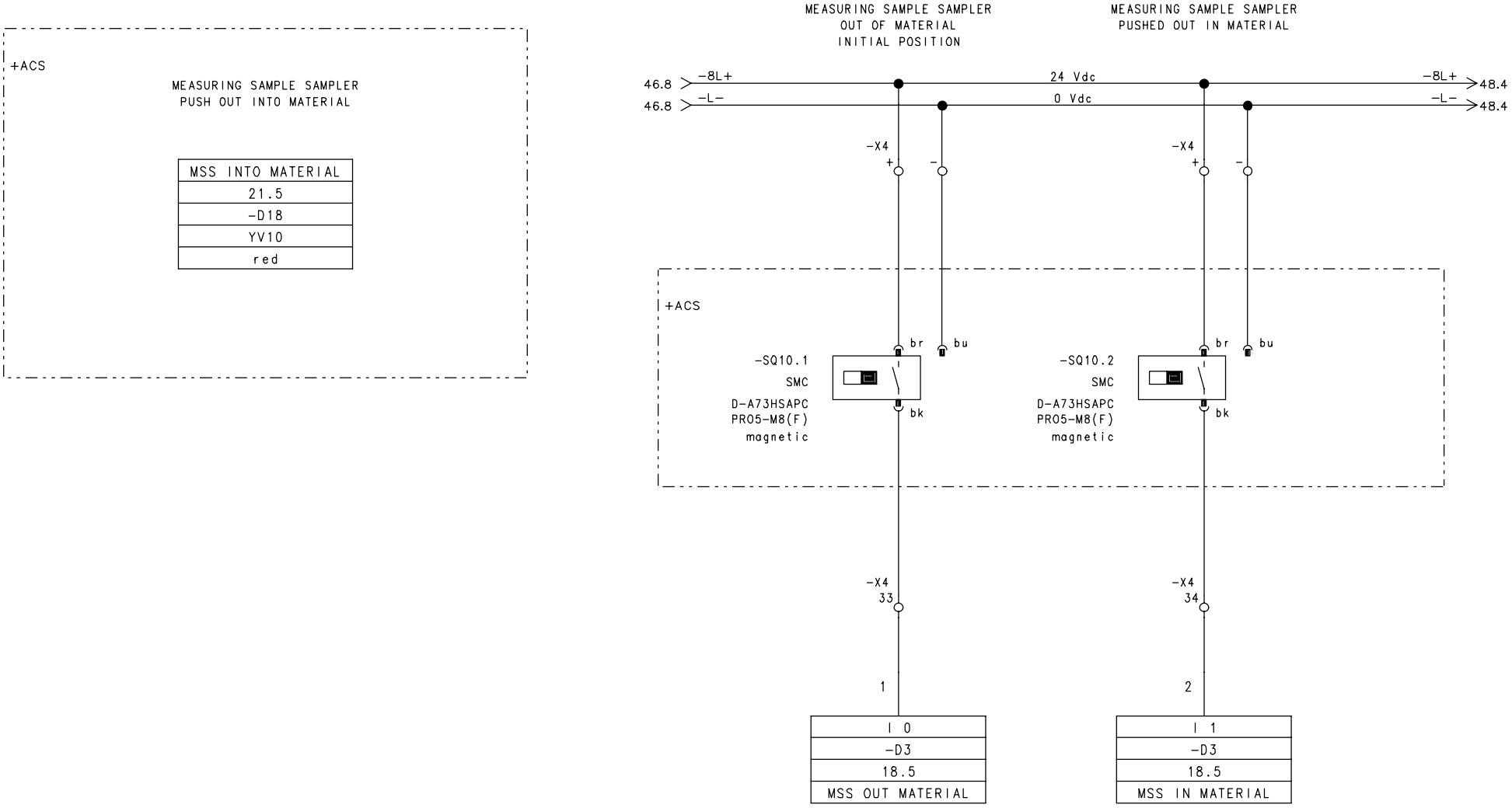


I 14
-D2
18.4
SS2S OUT MATERIAL

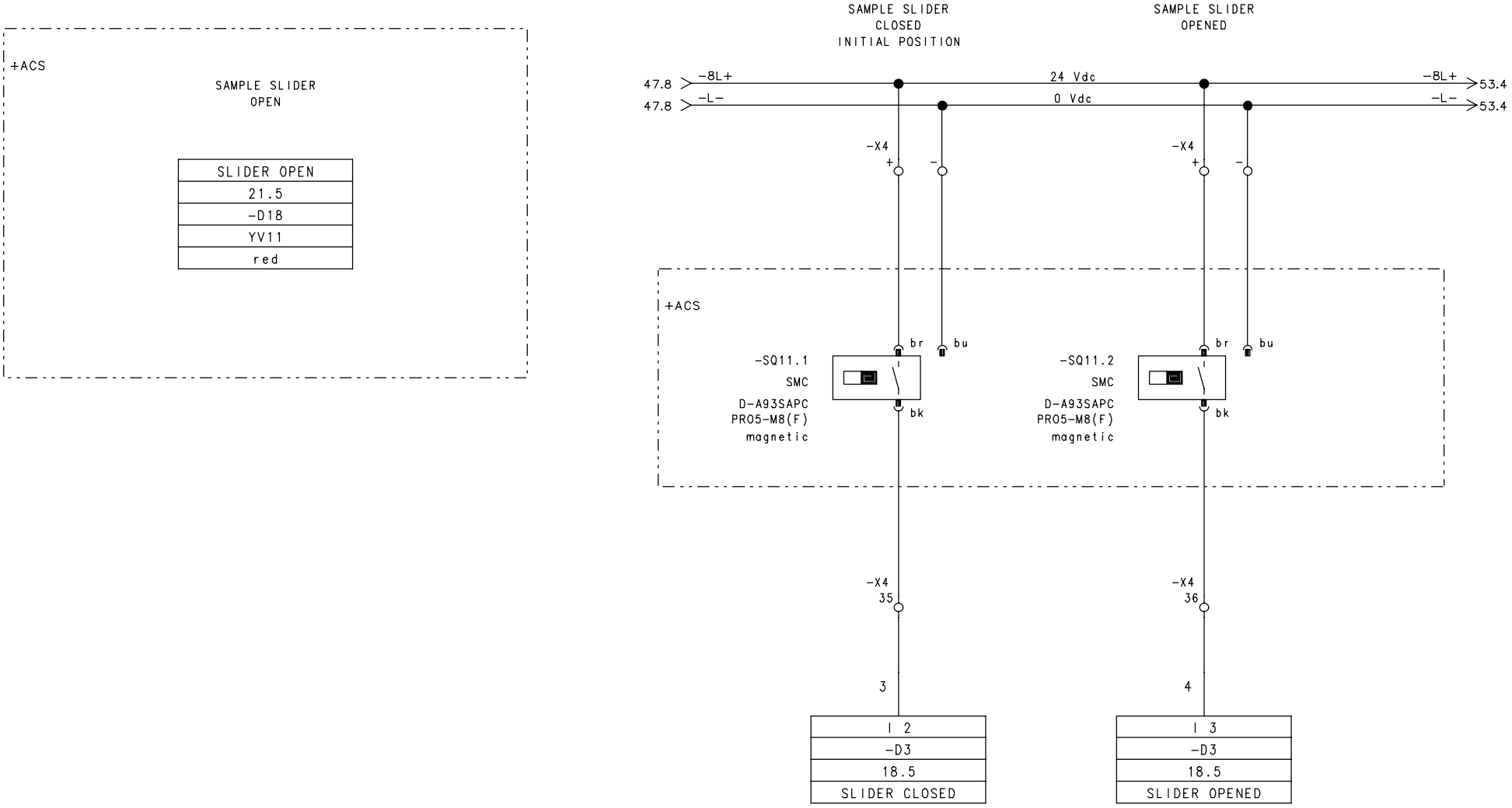
I 15
-D2
18.4
SS2S IN MATERIAL

FLSmidth

CARBON & SULPHUR ANALYZER	STANDARD SAMPLE 2 SAMPLER	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 46
ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
		LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632



FLSmidth	CARBON & SULPHUR ANALYZER	MEASURING SAMPLE SAMPLER	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 47
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632



FLSmidth	CARBON & SULPHUR ANALYZER	SAMPLE SLIDER	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 48
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632

+ACS

DEDUSTING VALVE
OPEN

DEDUSTING OPEN
21.5
-D18
YV12
red

+ACS

STANDARD SAMPLE 1 BEATER
ON

SS1 BEATER ON
21.6
-D18
YV13
red

FLSmidth	CARBON & SULPHUR ANALYZER	STANDARD SAMPLE 1 BEATER	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 50
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632

+ACS

MEASURING SAMPLE BEATER
ON

MS BEATER ON
21.6
-D18
YV14
red

FLSmidth	CARBON & SULPHUR ANALYZER	MEASURING SAMPLE BEATER	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 51
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632

+ACS

STANDARD SAMPLE 2 BEATER
ON

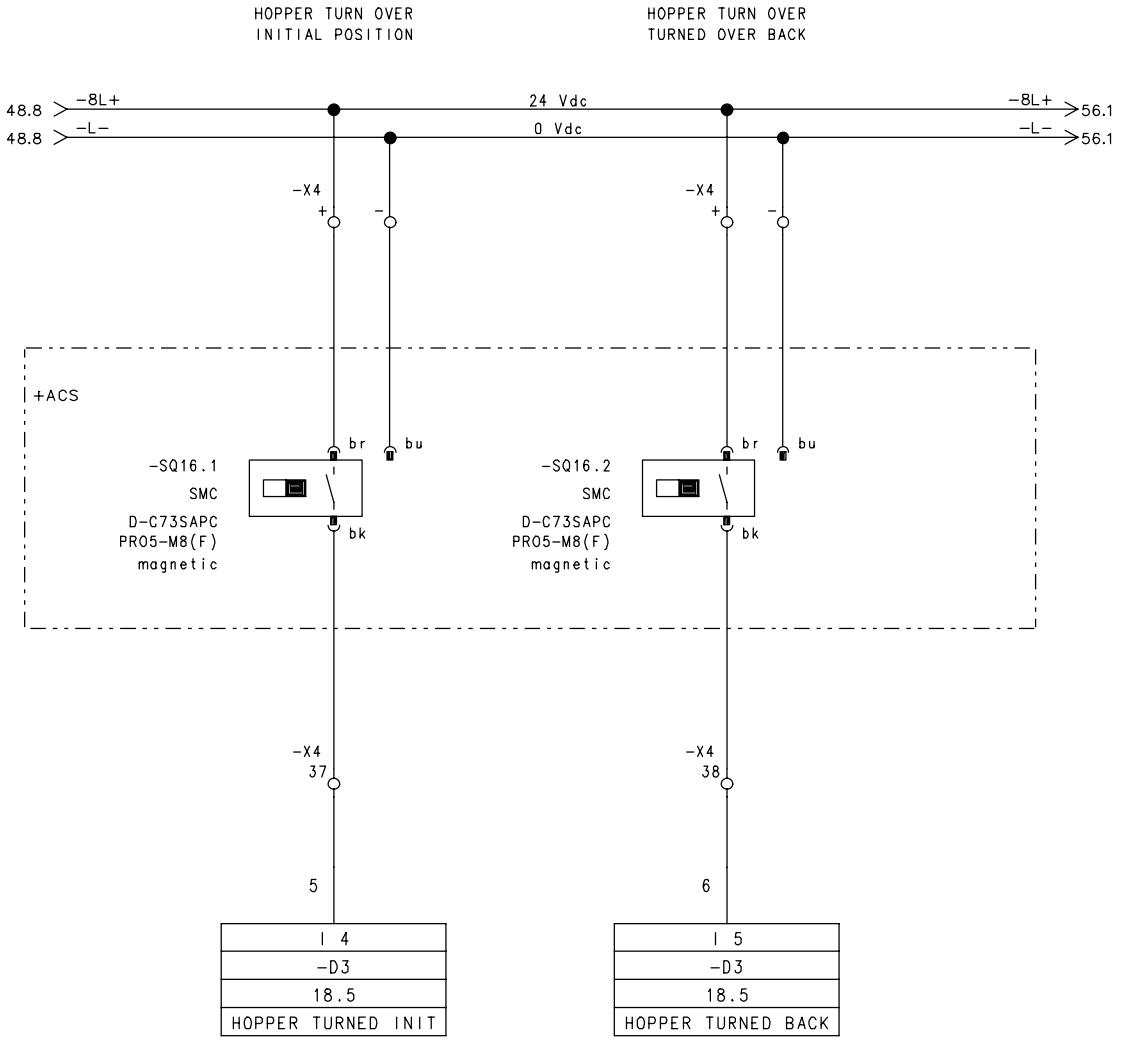
SS2 BEATER ON
21.6
-D18
YV15
red

FLSmidth	CARBON & SULPHUR ANALYZER	STANDARD SAMPLE 2 BEATER	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 52
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632

+ACS

HOPPER TURN OVER

HOPPER TURN BACK
21.7
-D18
YV16
red



FLSmidth	CARBON & SULPHUR ANALYZER	HOPPER TURN OVER	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 53
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632

+ACS

BALLANCE DOSER BEATER
ON

DOSER BEATER ON
21.7
-D18
YV17
red

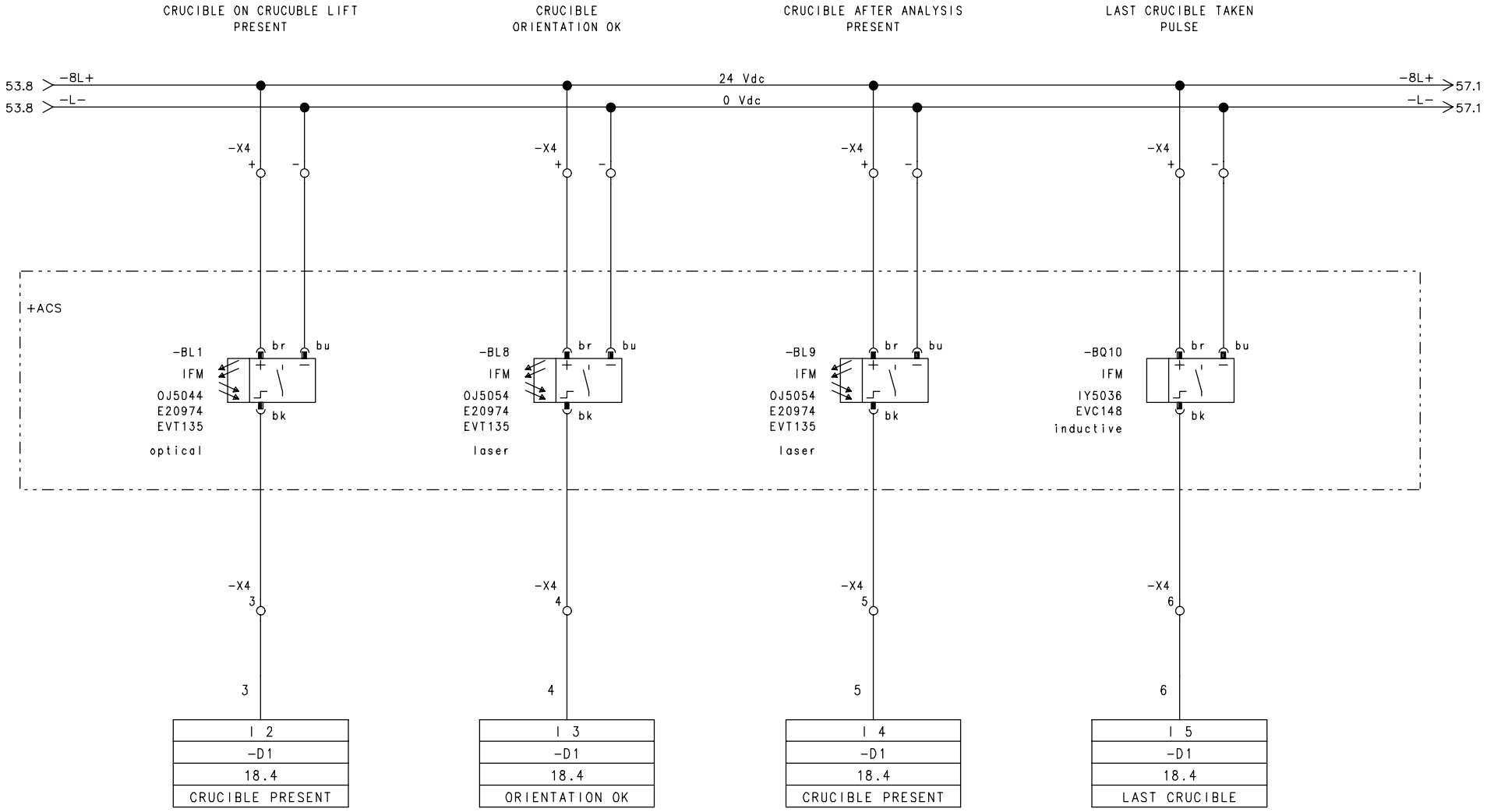
FLSmidth	CARBON & SULPHUR ANALYZER	BALLANCE DOSER BEATER	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 54
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632

+ACS

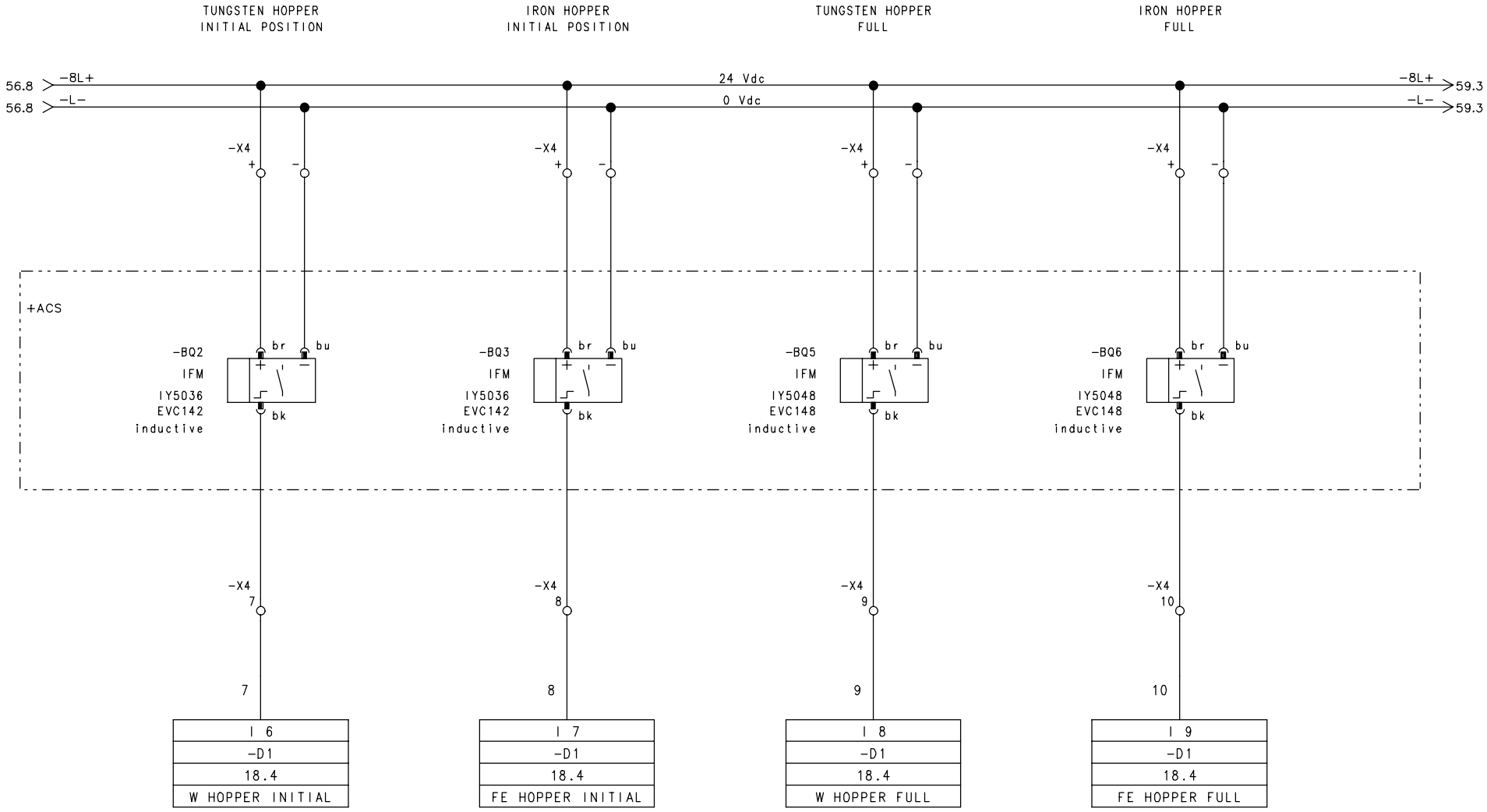
INLET BEATER
ON

INLET BEATER ON
21.7
-D18
YV18
red

FLSmidth	CARBON & SULPHUR ANALYZER	INLET BEATER	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 55
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632

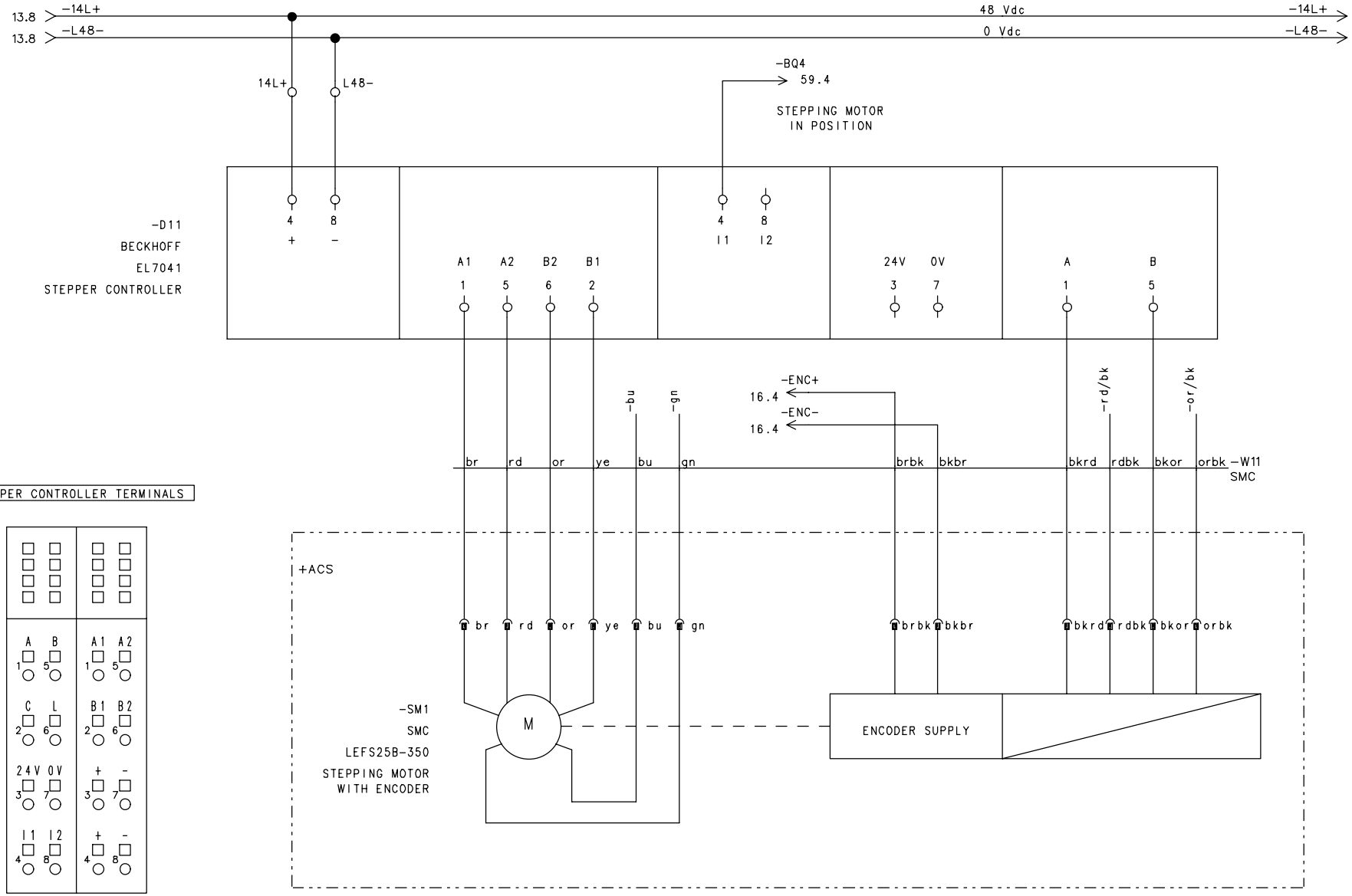


FLSmidth	CARBON & SULPHUR ANALYZER	CRUCIBLE SIGNALS	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 56
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632

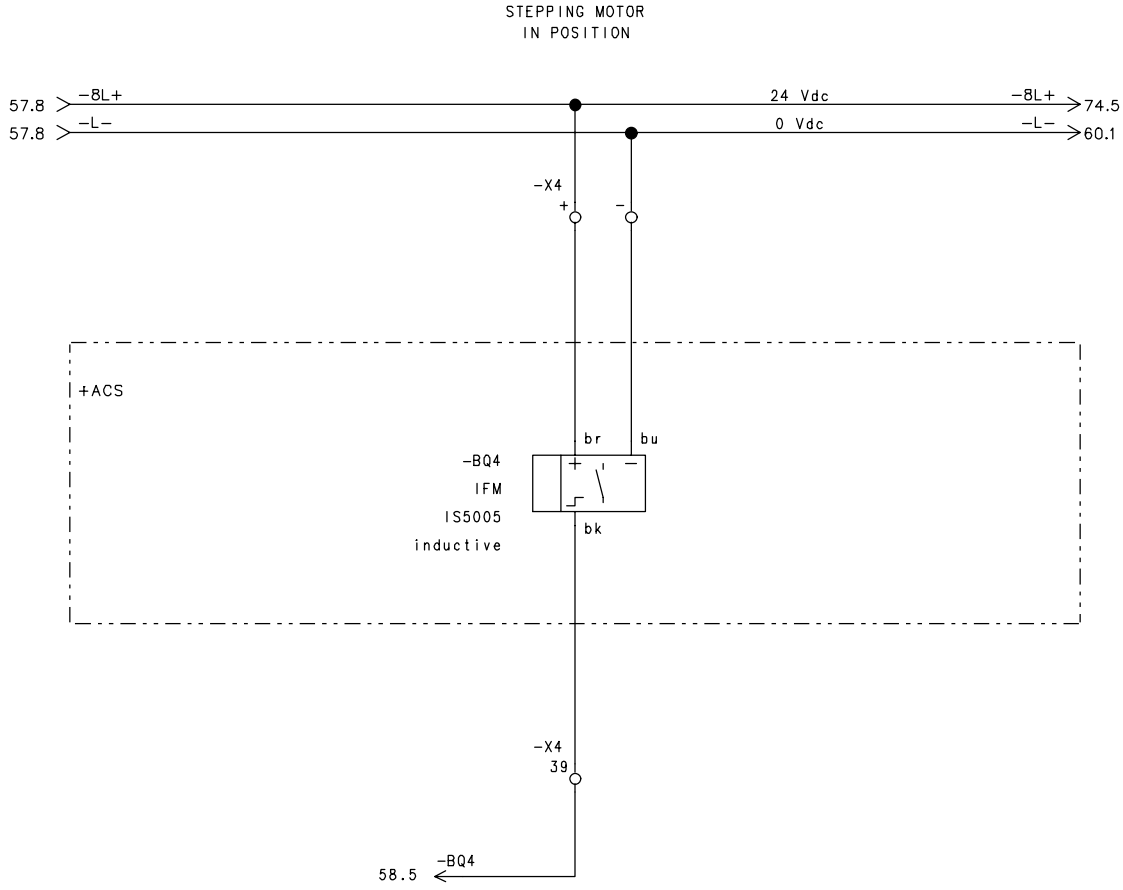


FLSmidth	CARBON & SULPHUR ANALYZER	HOPPER SIGNALS	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 57
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632

POWER SUPPLY 48 Vdc | TWO-PHASE STEPPING MOTOR | DIGITAL INPUTS | SUPPLY 24 Vdc | ENCODER



FLSmidth	CARBON & SULPHUR ANALYZER	STEPPING MOTOR	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 58
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632



FLSmidth	CARBON & SULPHUR ANALYZER	STEPPING MOTOR	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 59
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632

STANDARD SAMPLE 1 MIXER
ON

STANDART SAMPLE 1 MIXER MOTOR
ON

STANDARD SAMPLE 1 MIXER
READY

STANDARD SAMPLE 1 MIXER
RUNNING

MIXER 1 ON
18.6
-D6
Q 4

5

-KA1
SIEMENS
LZSPT5B5L24
A1
A2

L-

59.6 -L- 0 Vdc -L- 60.3

60.5 14 11 12
60.6 24 21 22
34 31 32
60.8 44 41 42

12.8 -11L+ 24 Vdc
60.3 -L- 0 Vdc

-11L+ -L- 61.3

11L+ L-

-KA1 60.2 11 12 14
-KA1 60.2 21 22 24

-X5
1 2

2 1 -W12
LiYY
2 x 0,5 mm_2

+ACS
-XM1
LUMBERG
RSC4/7
PRKFM5/0,5M
RSKFM16
1 br
2 wh

-M1
ZEITLAUF
42.2.4225 P11/BCI4225
24 Vdc / 0.83 A / IP40
3300/min / 0.038 Nm
i = 204:1
M
=
rd
bk

11L+ 8

I 7
-D3
18.5
MIXER 1 READY

11L+ -KA1 60.2 41 42 44

9

I 8
-D3
18.5
MIXER 1 RUNNING

FLSmidth	CARBON & SULPHUR ANALYZER	STANDARD SAMPLE 1 MIXER	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 60
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632

STANDARD SAMPLE 2 MIXER
ON

STANDART SAMPLE 2 MIXER MOTOR
ON

STANDARD SAMPLE 2 MIXER
READY

STANDARD SAMPLE 2 MIXER
RUNNING

MIXER 2 ON
18.6
-D6
Q 5

6

-KA2 A1
SIEMENS
LZSPT5B5L24
A2

L-

61.8 -L- 0 Vdc -L- 64.1

61.5 14 11 12
61.6 24 21 22
34 31 32
61.8 44 41 42

12.8 -12L+ 24 Vdc
60.8 -L- 0 Vdc

-12L+ -L- 61.1

12L+ L-

-KA2 11 12 61.2 14
-KA2 21 22 61.2 24

-X5
3 4

2 1 -W13
LiYY
2 x 0,5 mm_2

+ACS

-XM2
LUMBERG
RSC4/7
PRKFM5/0,5M
RSKFM16
1 br
2 wh

-M2
ZEITLAUF
42.2.4225 P11/BCI4225
24 Vdc / 0.83 A / IP40
3300/min / 0.038 Nm
i = 204:1
rd
M
=
bk

12L+ 10

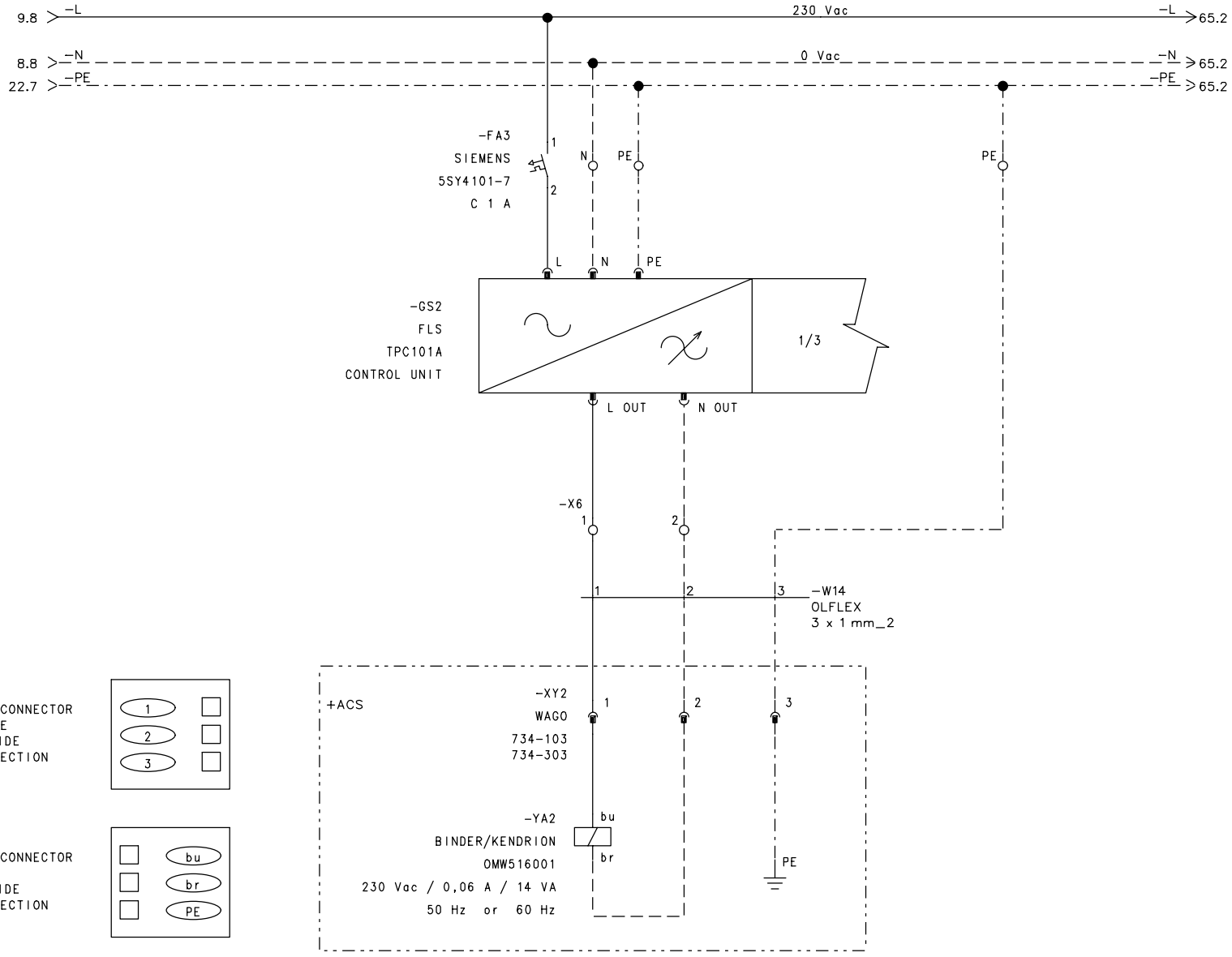
I 9
-D3
18.5
MIXER 2 READY

12L+ 11

I 10
-D3
18.5
MIXER 2 RUNNING

FLSmidth	CARBON & SULPHUR ANALYZER	STANDARD SAMPLE 2 MIXER	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 61
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632

IRON DOSER SUPPLY



FLSmidth	CARBON & SULPHUR ANALYZER	TUNGSTEN DOSER	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 62
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632

TUNGSTEN DOSER START

TUNGSTEN DOSER SETTING OF POWER D0

TUNGSTEN DOSER SETTING OF POWER D1

TUNGSTEN DOSER SETTING OF POWER D2

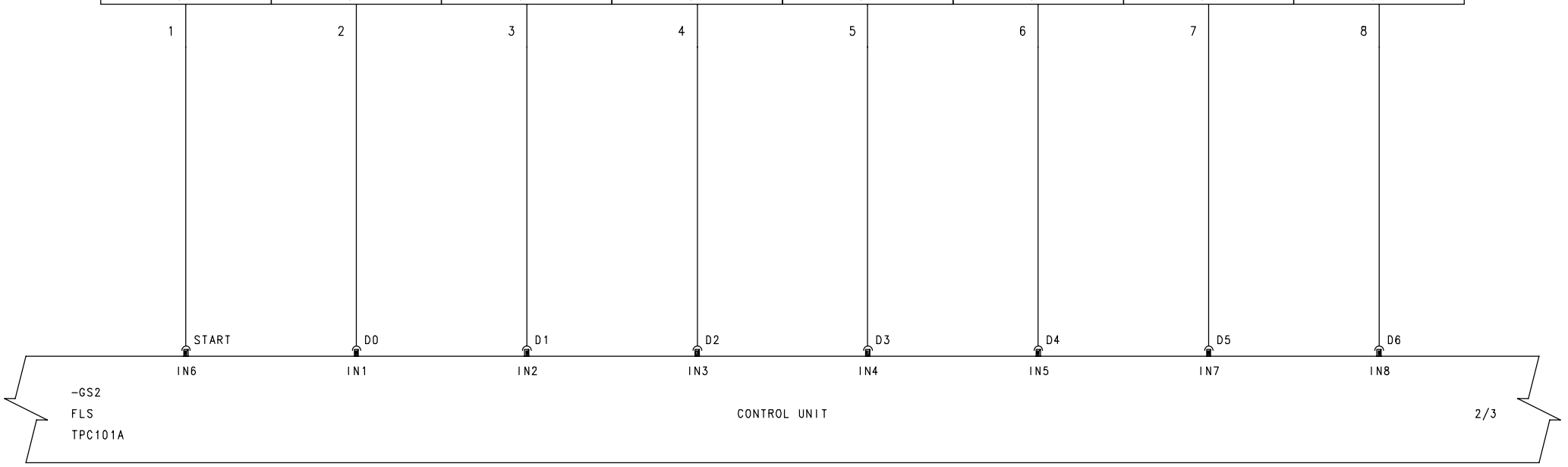
TUNGSTEN DOSER SETTING OF POWER D3

TUNGSTEN DOSER SETTING OF POWER D4

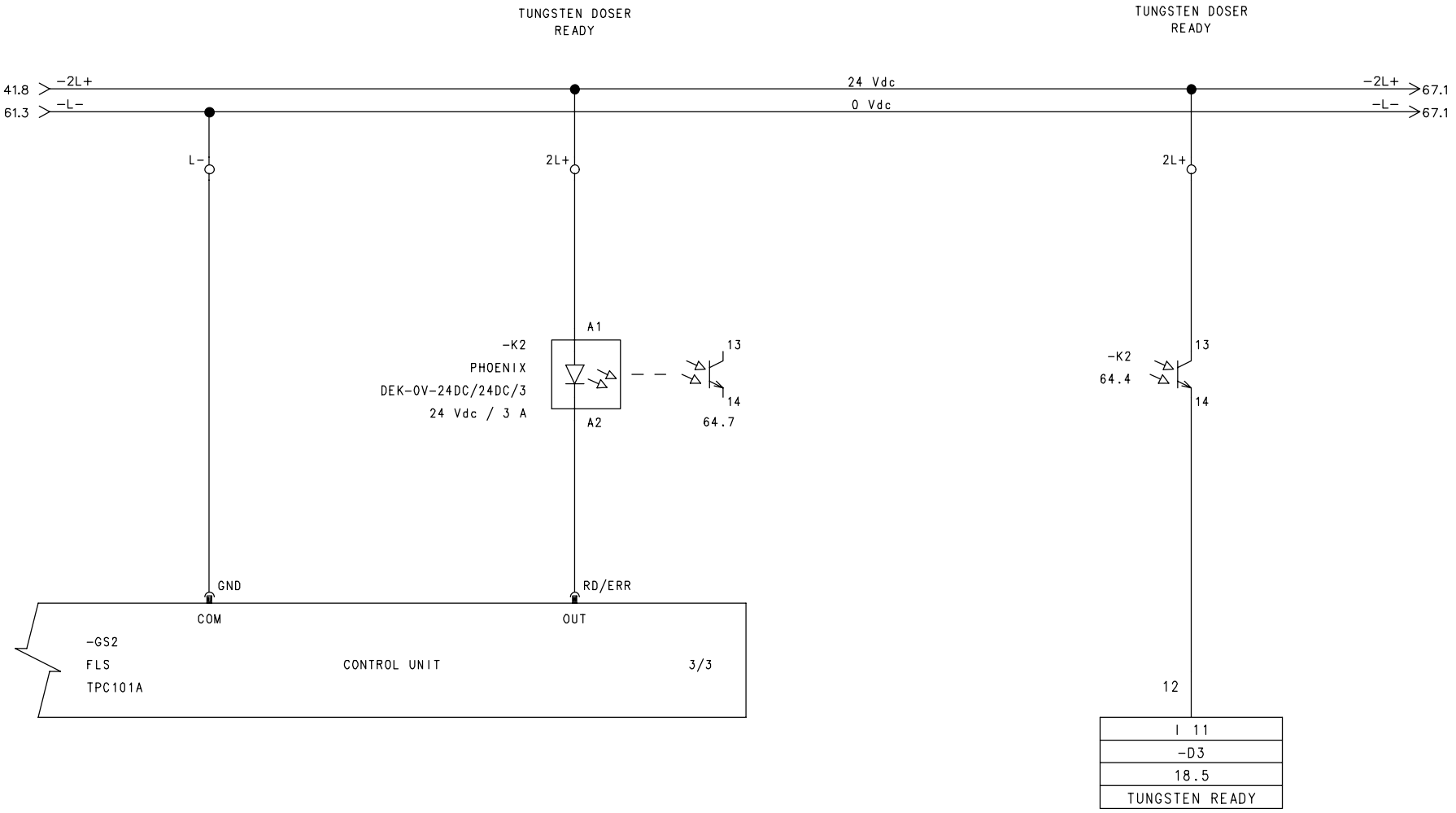
TUNGSTEN DOSER SETTING OF POWER D5

TUNGSTEN DOSER SETTING OF POWER D6

TUNGSTEN START	TUNGSTEN D0	TUNGSTEN D1	TUNGSTEN D2	TUNGSTEN D3	TUNGSTEN D4	TUNGSTEN D5	TUNGSTEN D6
18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
-D7	-D7	-D7	-D7	-D7	-D7	-D7	-D7
Q 0	Q 1	Q 2	Q 3	Q 4	Q 5	Q 6	Q 7

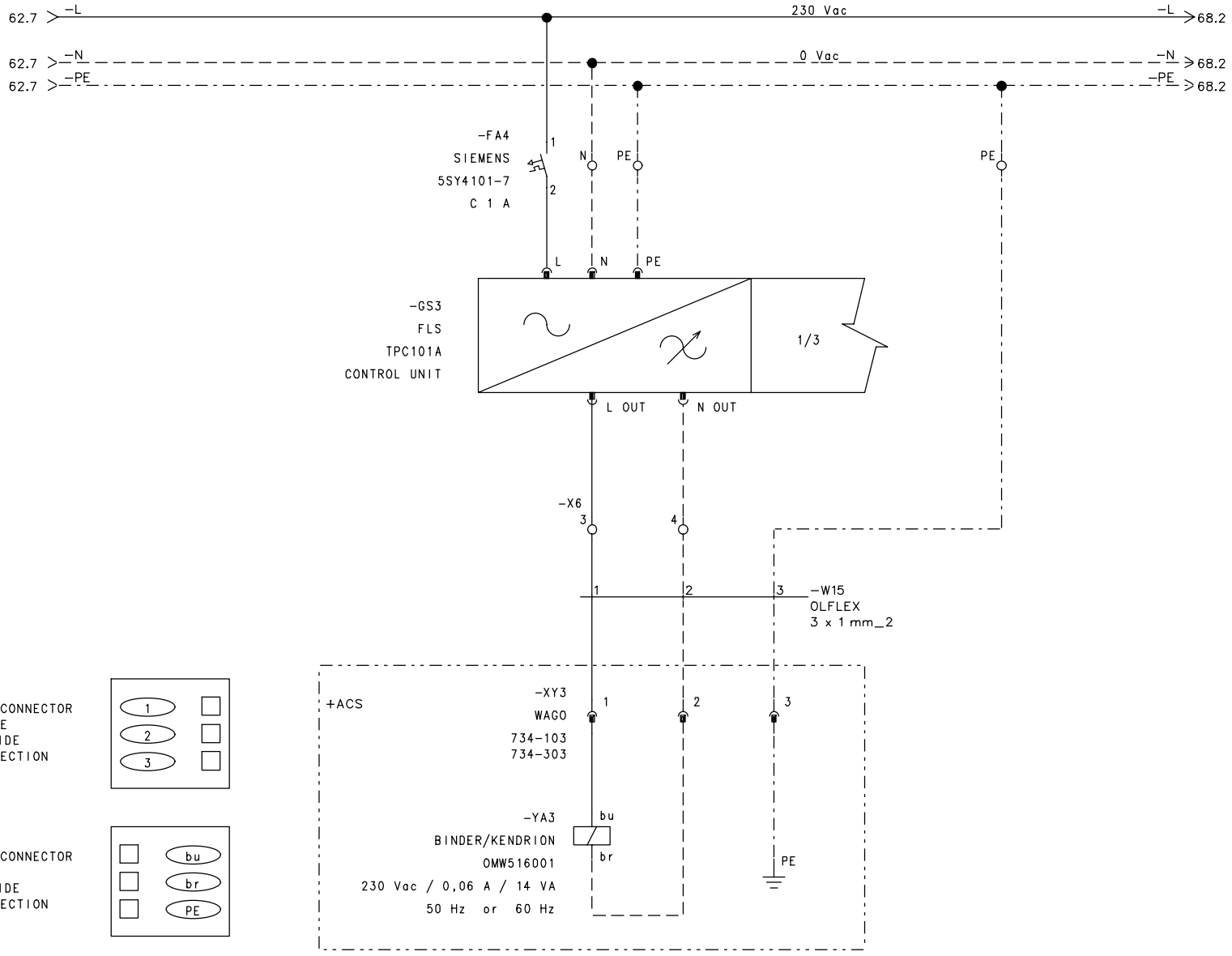


FLSmidth	CARBON & SULPHUR ANALYZER	TUNGSTEN DOSER	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 63
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632



FLSmidth	CARBON & SULPHUR ANALYZER	TUNGSTEN DOSER	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 64
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632

IRON DOSER SUPPLY



FLSmidth	CARBON & SULPHUR ANALYZER	IRON DOSER	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 65
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632

IRON DOSER START

IRON DOSER SETTING OF POWER D0

IRON DOSER SETTING OF POWER D1

IRON DOSER SETTING OF POWER D2

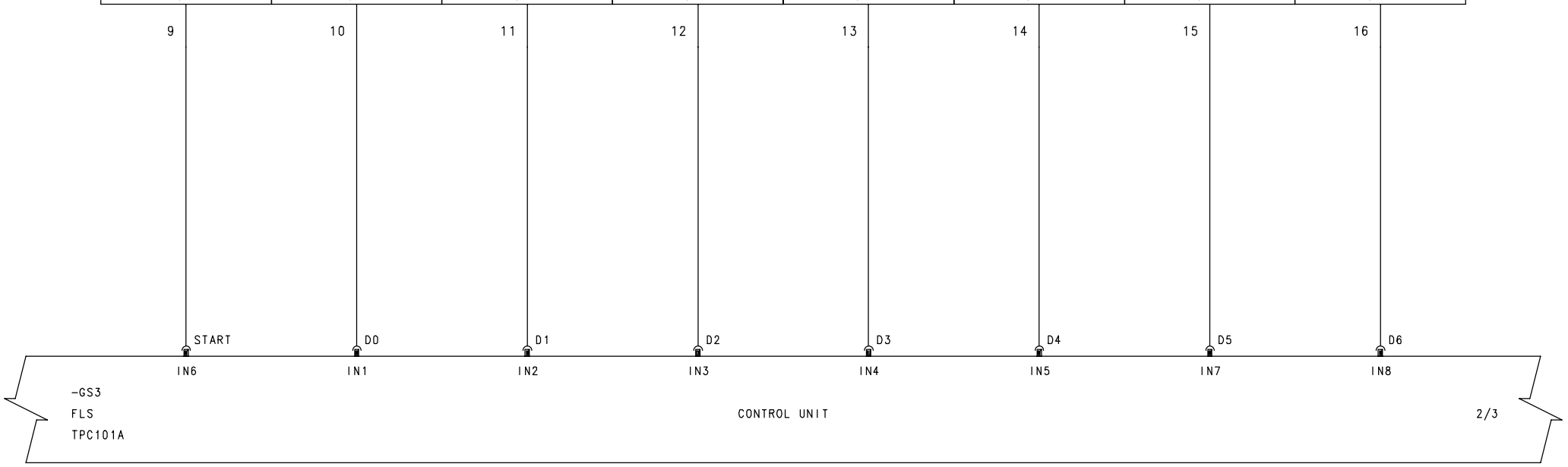
IRON DOSER SETTING OF POWER D3

IRON DOSER SETTING OF POWER D4

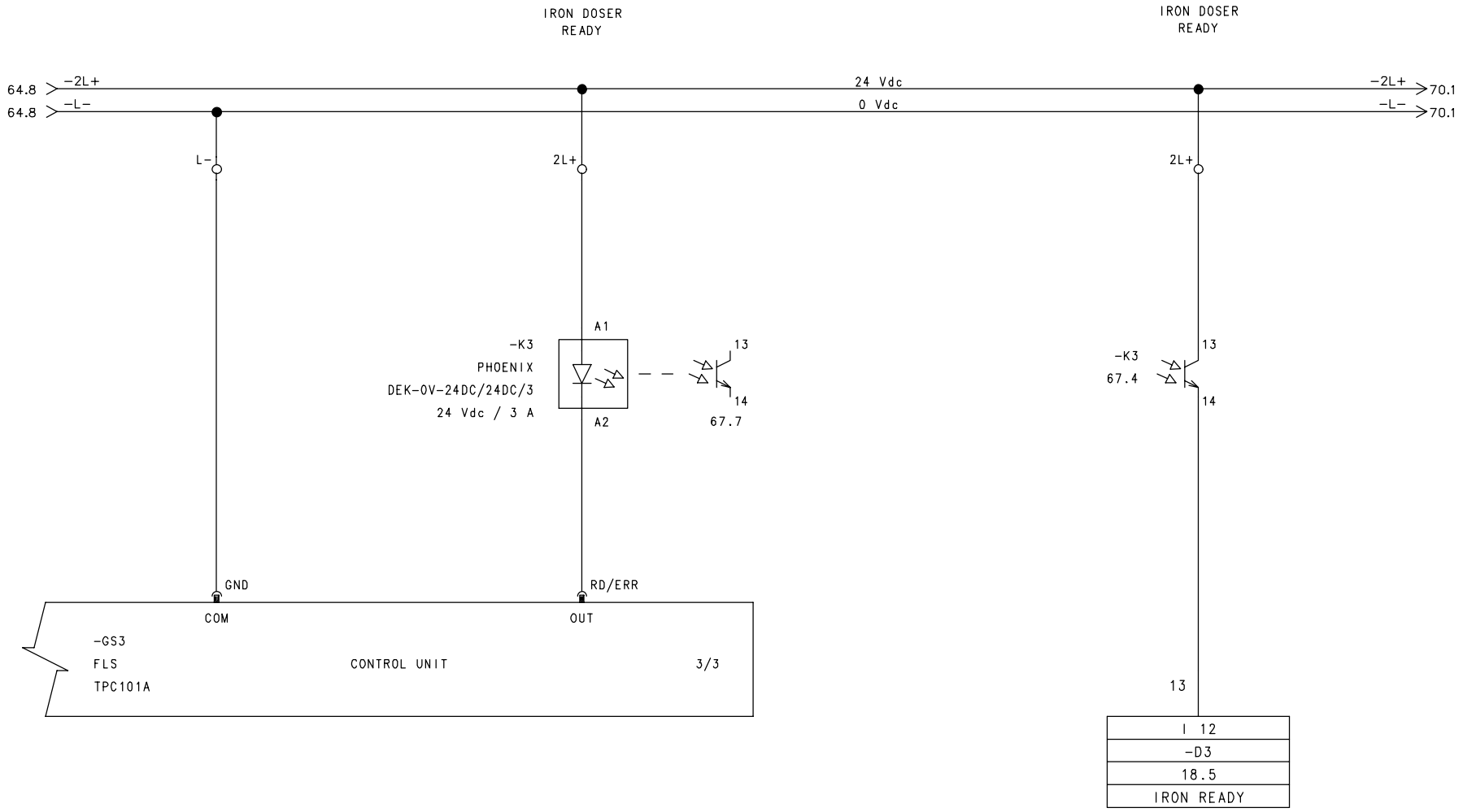
IRON DOSER SETTING OF POWER D5

IRON DOSER SETTING OF POWER D6

IRON START	IRON D0	IRON D1	IRON D2	IRON D3	IRON D4	IRON D5	IRON D6
18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
-D7	-D7	-D7	-D7	-D7	-D7	-D7	-D7
Q 8	Q 9	Q 10	Q 11	Q 12	Q 13	Q 14	Q 15

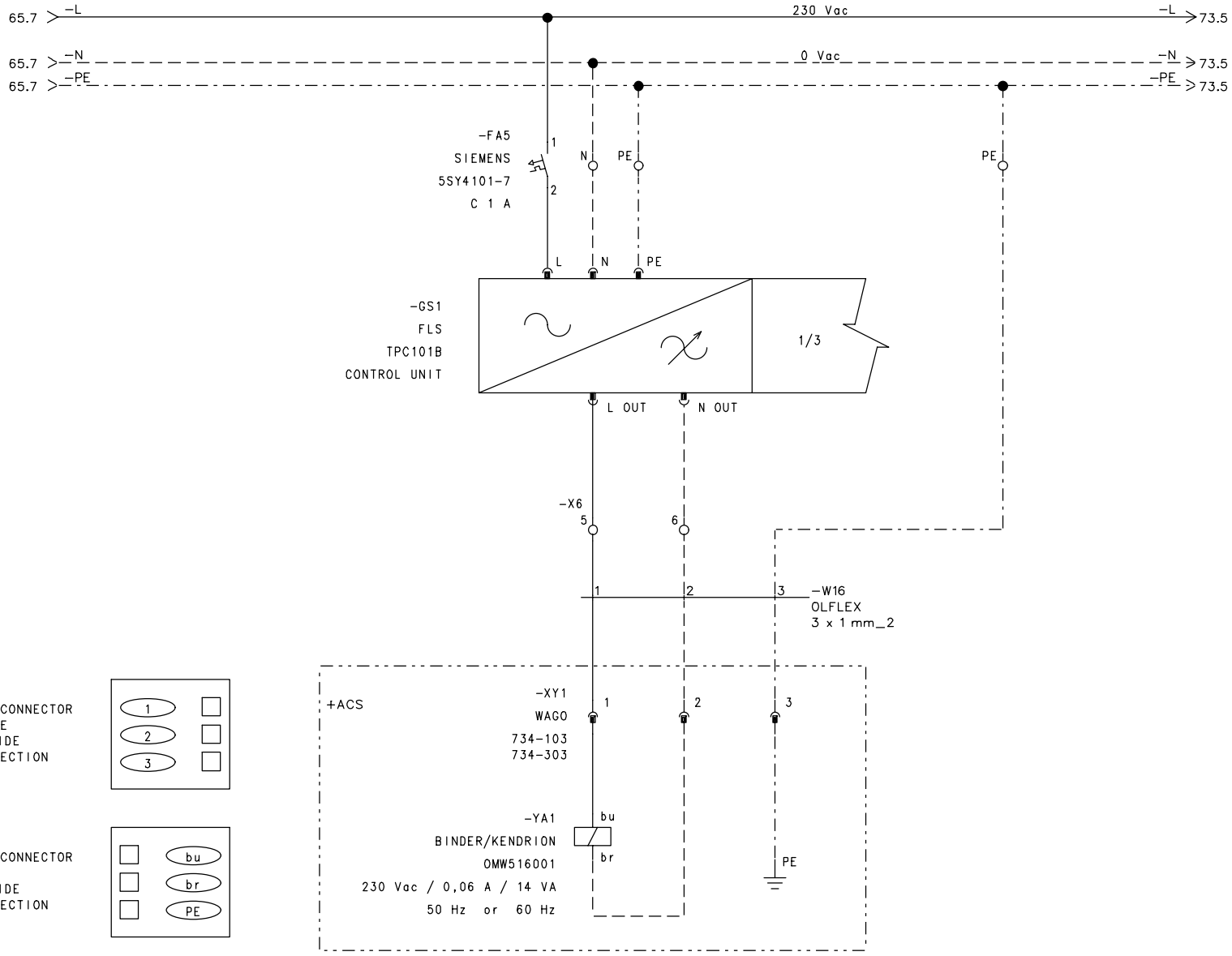


FLSmidth	CARBON & SULPHUR ANALYZER	IRON DOSER	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 66
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632



FLSmidth	CARBON & SULPHUR ANALYZER	IRON DOSER	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 67
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632

BALLANCE DOSER SUPPLY



FLSmidth	CARBON & SULPHUR ANALYZER	BALLANCE DOSER	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 68
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632

BALLANCE DOSER START

BALLANCE DOSER SETTING OF POWER D0

BALLANCE DOSER SETTING OF POWER D1

BALLANCE DOSER SETTING OF POWER D2

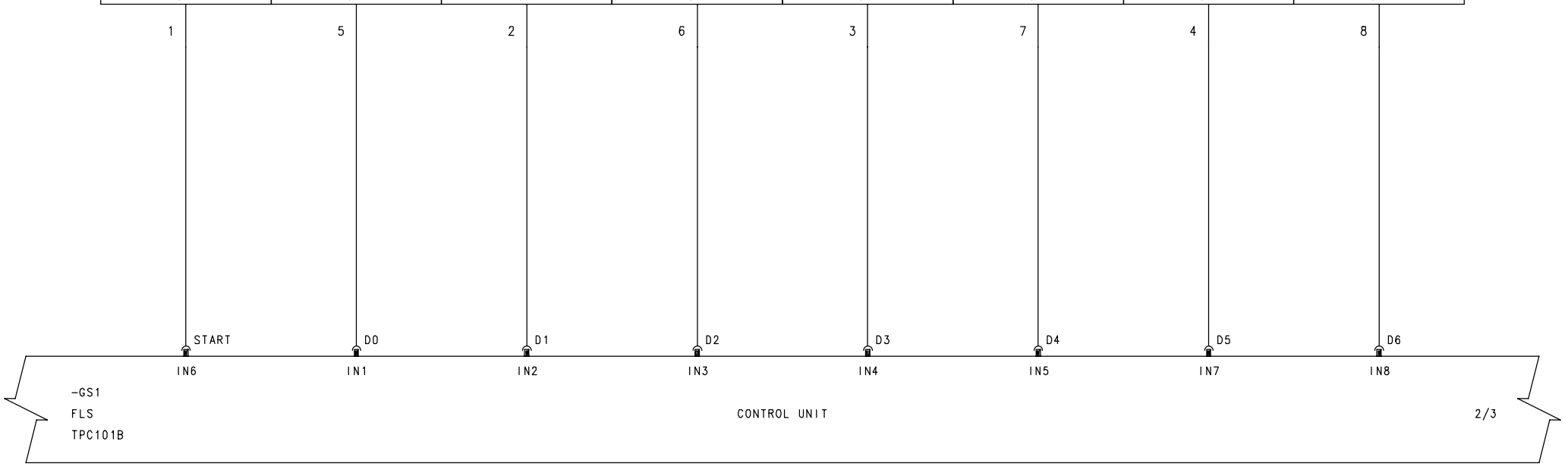
BALLANCE DOSER SETTING OF POWER D3

BALLANCE DOSER SETTING OF POWER D4

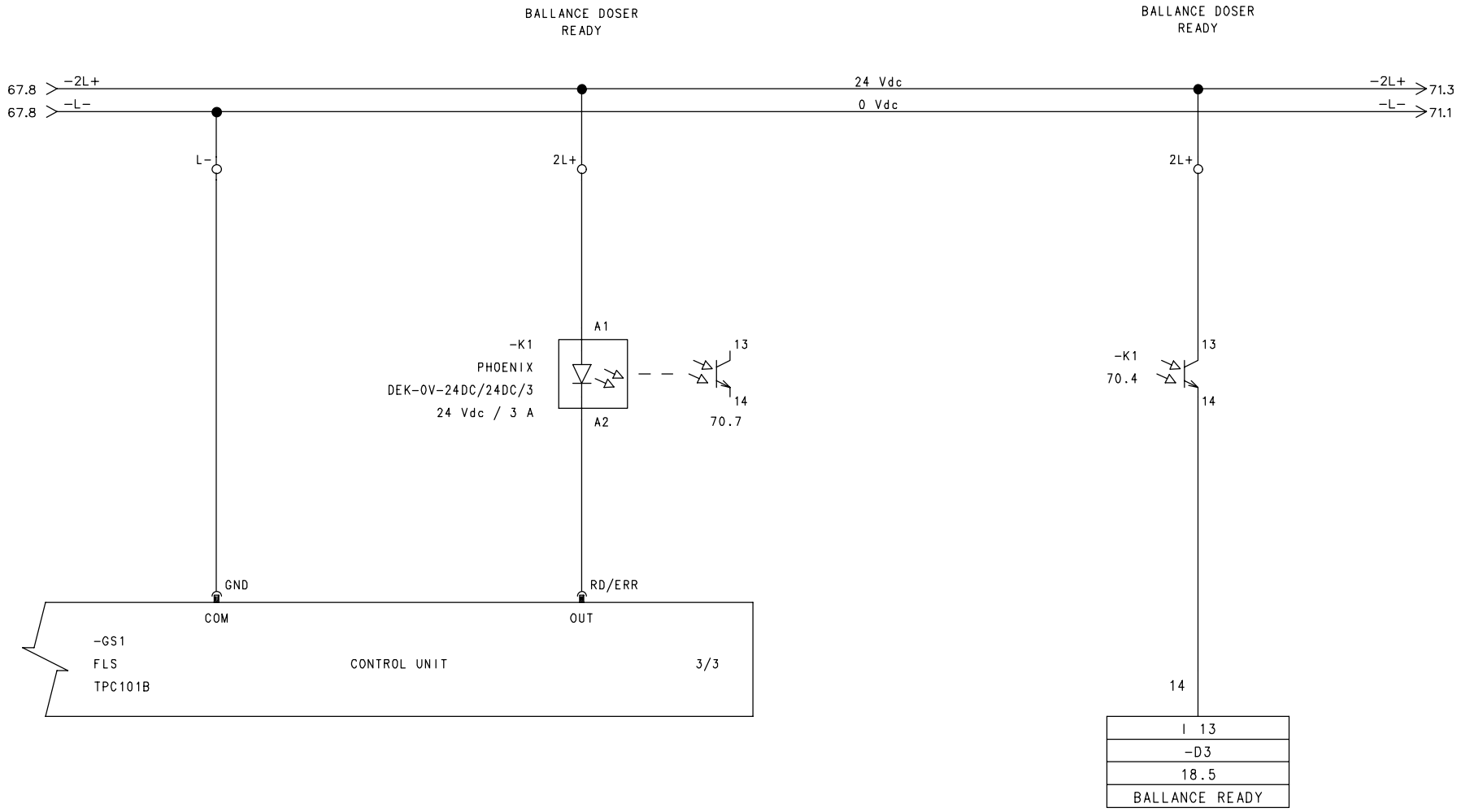
BALLANCE DOSER SETTING OF POWER D5

BALLANCE DOSER SETTING OF POWER D6

BALLANCE START	BALLANCE D0	BALLANCE D1	BALLANCE D2	BALLANCE D3	BALLANCE D4	BALLANCE D5	BALLANCE D6
18.6	18.7	18.6	18.7	18.6	18.7	18.6	18.7
-D8	-D8	-D8	-D8	-D8	-D8	-D8	-D8
Q 0	Q 1	Q 2	Q 3	Q 4	Q 5	Q 6	Q 7



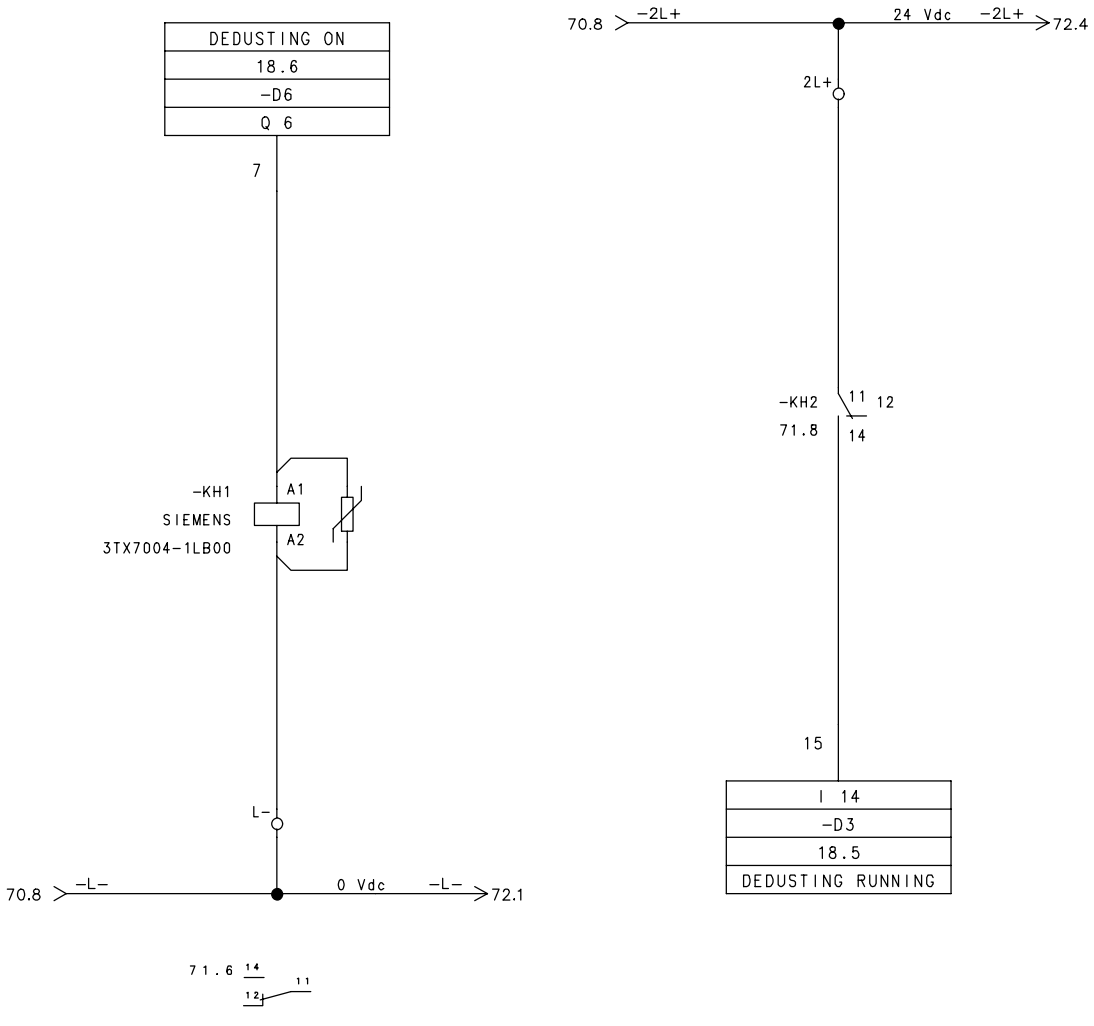
FLSmidth	CARBON & SULPHUR ANALYZER	BALLANCE DOSER	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 69
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632



FLSmidth	CARBON & SULPHUR ANALYZER	BALLANCE DOSER	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 70
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632

REQUEST FOR EXTERNAL DEDUSTING
ON

EXTERNAL DEDUSTING
RUNNING



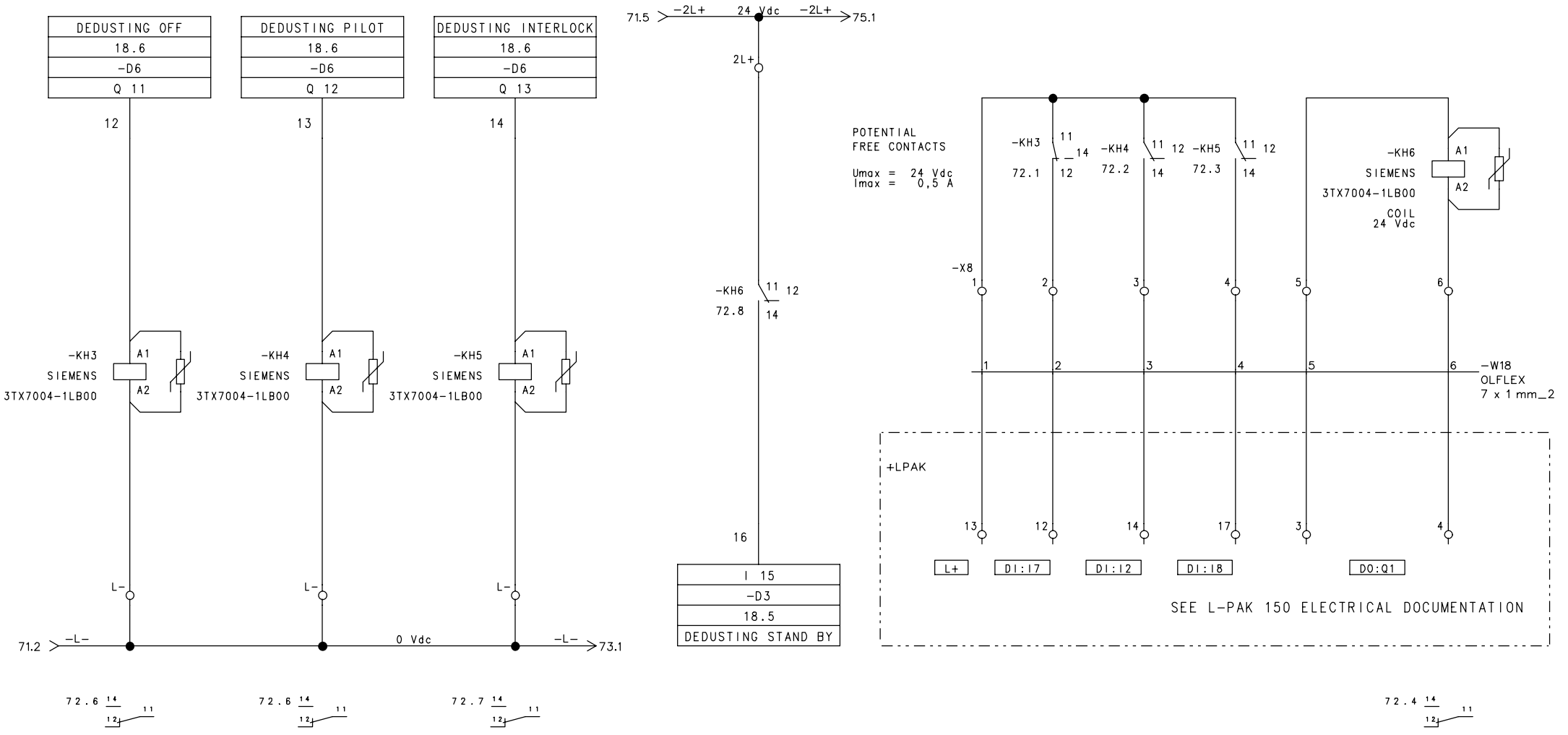
FLSmidth	CARBON & SULPHUR ANALYZER	EXTERNAL DEDUSTING	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 71
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632

L-PAK DEDUSTING
EXTERNAL OFF / STAND BY

L-PAK DEDUSTING
PILOT SIGNAL

L-PAK DEDUSTING
PS INTERLOCK FC

L-PAK DEDUSTING
STAND BY / ERROR



FLSmidth	CARBON & SULPHUR ANALYZER	L-PAK EXTERNAL DEDUSTING	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 72
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632

FURNACE
ON FOR OPERATION (SUPPLYING)

FURNACE ON
18.6
-D6
Q 8

9

-KM6
SIEMENS
3RT2026-1BB40
3RT2926-1JJ00

A1
A2

L-

72.3 -L- 0 Vdc -L- 74.5

73.6 1 2
73.6 3 4
73.6 5 6

FURNACE
ON FOR OPERATION (SUPPLYING)

68.7 -L 230 Vac -L
68.7 -N 0 Vac -N
68.7 -PE -PE 79.2

-FA6
SIEMENS
5SY4116-7
C 16 A

1 2 N PE

FOR LECO FURNACE
SIEMENS
5SY4125-7
C 25 A

-KM6
73.2

1 3 5
2 4 6

-X9
1 2 3

1 2 3 -W19
OLFLEX
3 x 2,5 mm_2

+EL

-X21
LAPP
10420000
10421000
10426400
10429100

1 2 PE

FOR LECO FURNACE
LAPP
10170000
10171000
10080000
10086000

L N PE

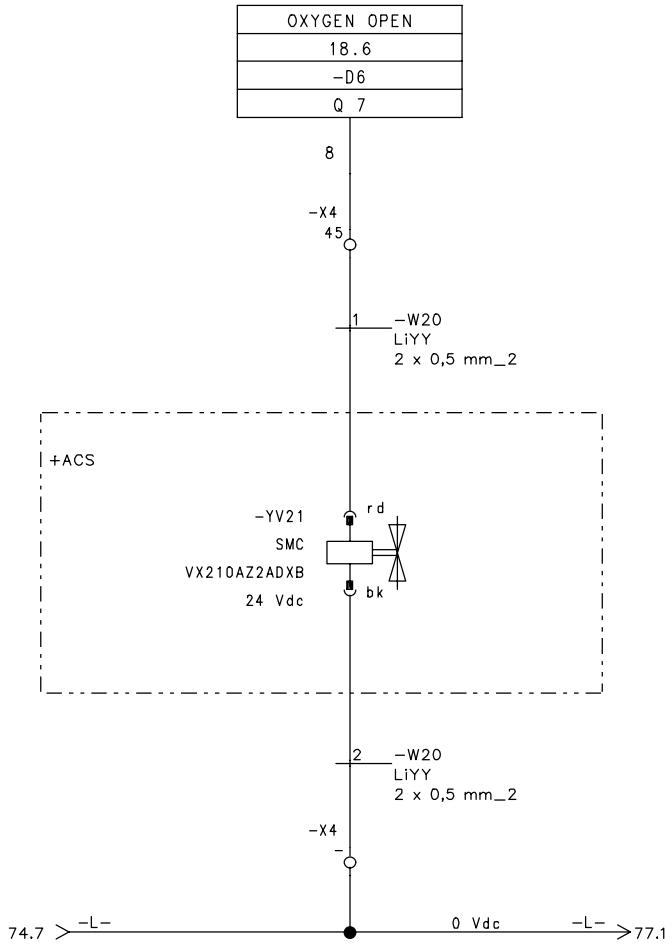
-AP2
ELTRA
FURNACE
MAX. 15 A
MAX. 3450 W

-COM1 RS232
-COM2 RS232
-COM1 RS232

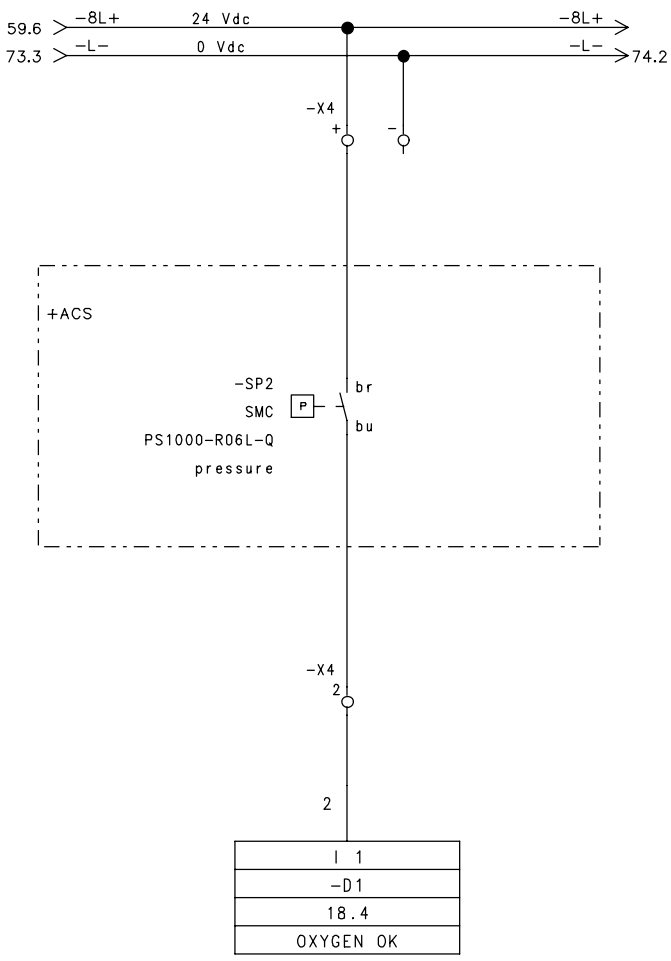
LECO
FURNACE
MAX. 25 A
MAX. 5700 W

FLSmidth	CARBON & SULPHUR ANALYZER	FURNACE SUPPLY	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 73
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632

OXYGEN VALVE
OPEN



INLET OXYGEN PRESSURE
OK



FLSmidth	CARBON & SULPHUR ANALYZER	OXYGEN VALVE AND OXYGEN SENSOR	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 74
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632

RESERVE RESERVE RESERVE RESERVE

72.5 −2L+ 24 Vdc −2L+ 76.1

2L+

8	9	10	11
I 7	I 8	I 9	I 10
−D4	−D4	−D4	−D4
18.5	18.5	18.5	18.5
RESERVE	RESERVE	RESERVE	RESERVE

FLSmidth

CARBON & SULPHUR ANALYZER	RESERVE DIGITAL INPUTS	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 75
ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
		LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632

RESERVE RESERVE RESERVE RESERVE RESERVE

12	13	14	15	16
I 11	I 12	I 13	I 14	I 15
-D4	-D4	-D4	-D4	-D4
18.5	18.5	18.5	18.5	18.5
RESERVE	RESERVE	RESERVE	RESERVE	RESERVE

FLSmidth	CARBON & SULPHUR ANALYZER	RESERVE DIGITAL INPUTS	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 76
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632

RESERVE

RESERVE

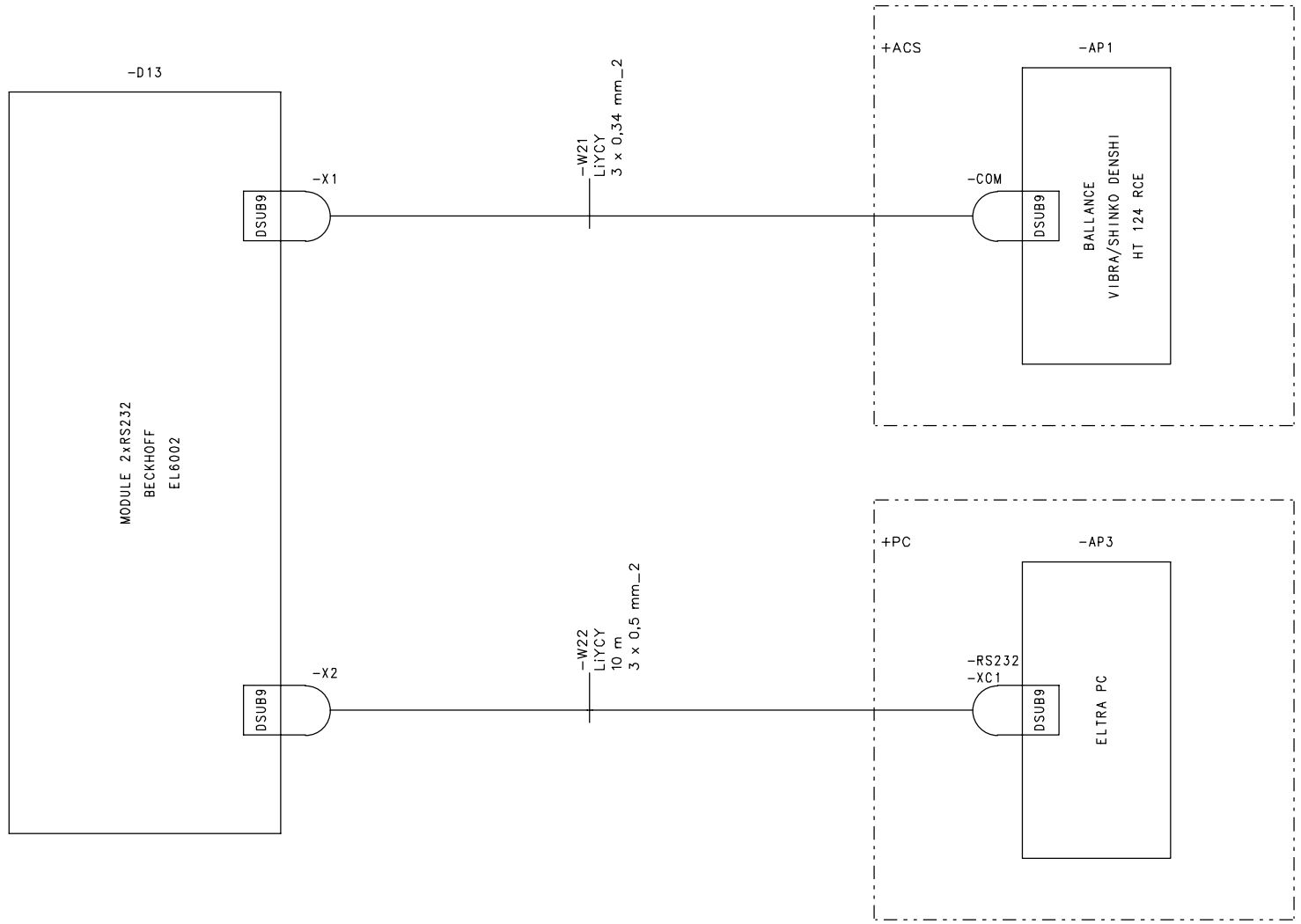
RESERVE
18.6
-D6
Q 14

15

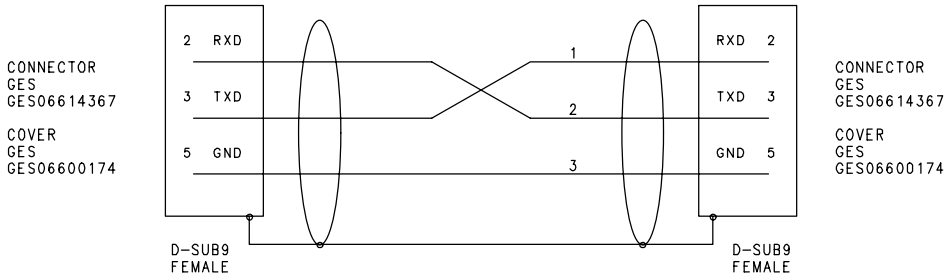
RESERVE
18.6
-D6
Q 15

16

FLSmidth	CARBON & SULPHUR ANALYZER	RESERVE DIGITAL OUTPUTS	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 77
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632



RS232 CABLE WIRING -W21, -W22



FLSmidth	CARBON & SULPHUR ANALYZER	RS232 COMMUNICATION	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 78
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632

SUPPLY 24 VDC

20.7 −4L+ → 24 Vdc → −4L+
77.8 −L− → 0 Vdc → −L−
73.8 −PE → −PE

−X3
5 10 14

1 2 3 −W23
OLFLEX
3 x 1 mm_2

+ACS

24VDC 0VDC PE

+EL

−AP2

ELTRA FURNACE

DSUB9 −COM1 −W24.2 LiYCY 7 x 0,34 mm_2 −RS232 DSUB9 −RS232 DSUB9 −W24.1 LiYCY 7 x 0,34 mm_2 −RS232 DSUB9

−D20 RS232/RS422 CONVERTER MOXA TCC-100I

TERM −RS422 −W25 LiYCY 10M 4 x 0,34 mm_2

+PC −AP3

−RS422 −XC2 DSUB9 ELTRA PC

SETTING

SW1 ON
SW2 ON
SW3 OFF

RS232 CABLE WIRING −W24.1, −W24.2

CONNECTOR
GES
GES06614367

COVER
GES
GES06600174

2 3 4 5 6 7 8 — 1 2 3 4 5 6 7 — 2 3 4 5 6 7 8

D−SUB9
FEMALE

D−SUB9
MALE

CONNECTOR
GES
GES06600004

COVER
GES
GES06600174

RS422 CABLE WIRING −W25

RX− RX+ TX+ TX− SGND — 1 2 3 4 — TX− 1 TX+ 2 RX+ 3 RX− 4

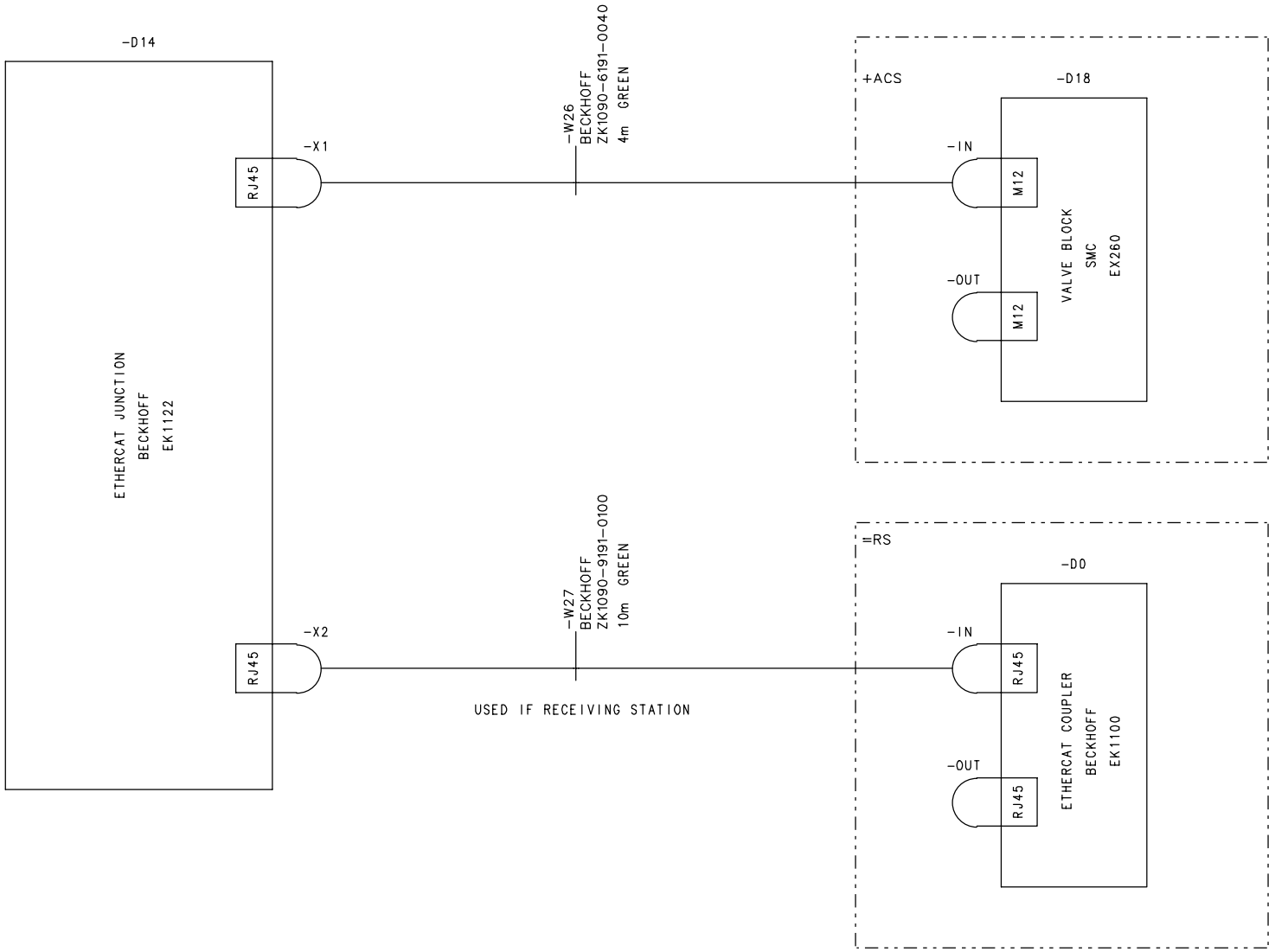
TERMINALS

D−SUB9
FEMALE

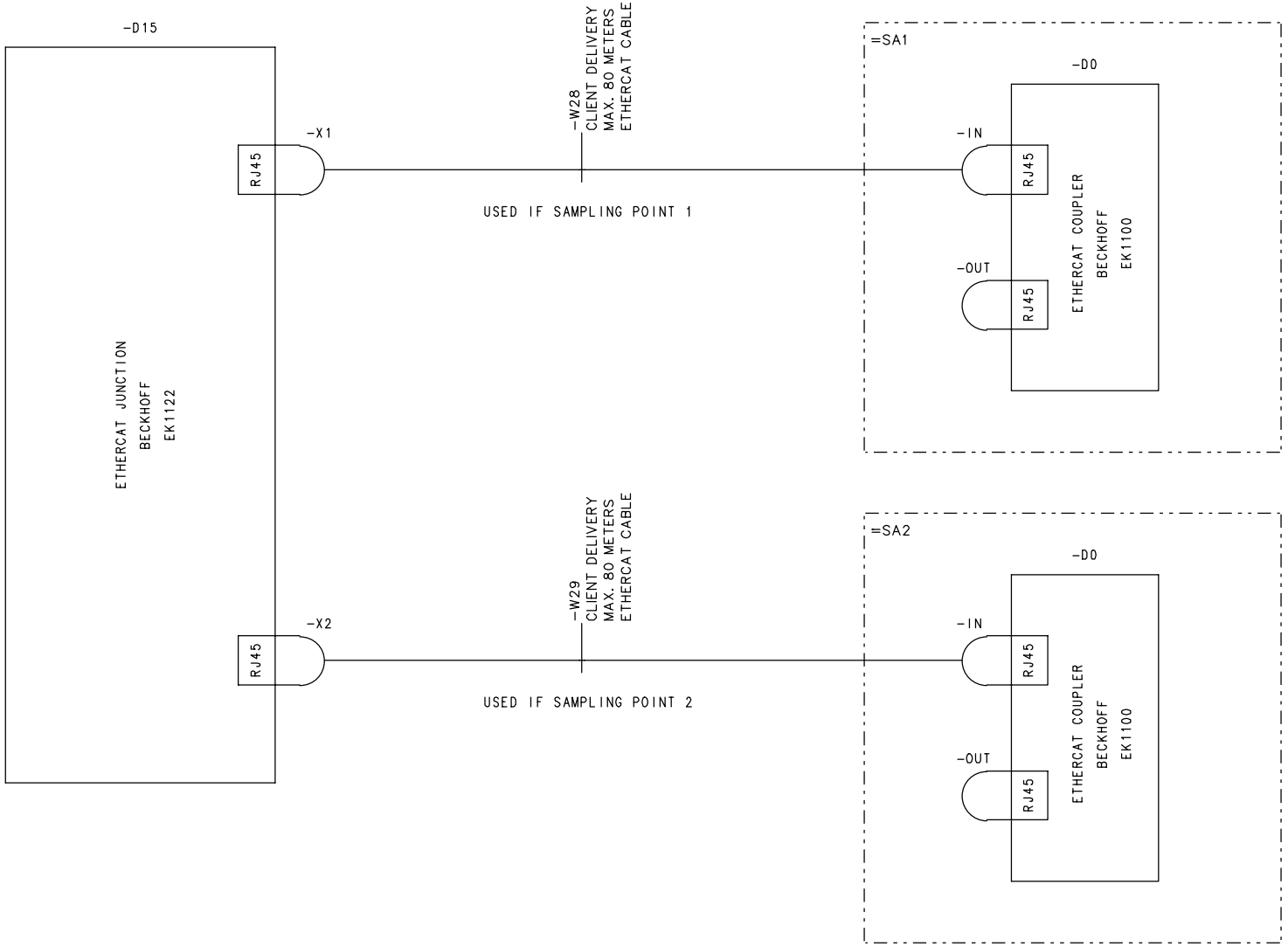
CONNECTOR
GES
GES06614367

COVER
GES
GES06600174

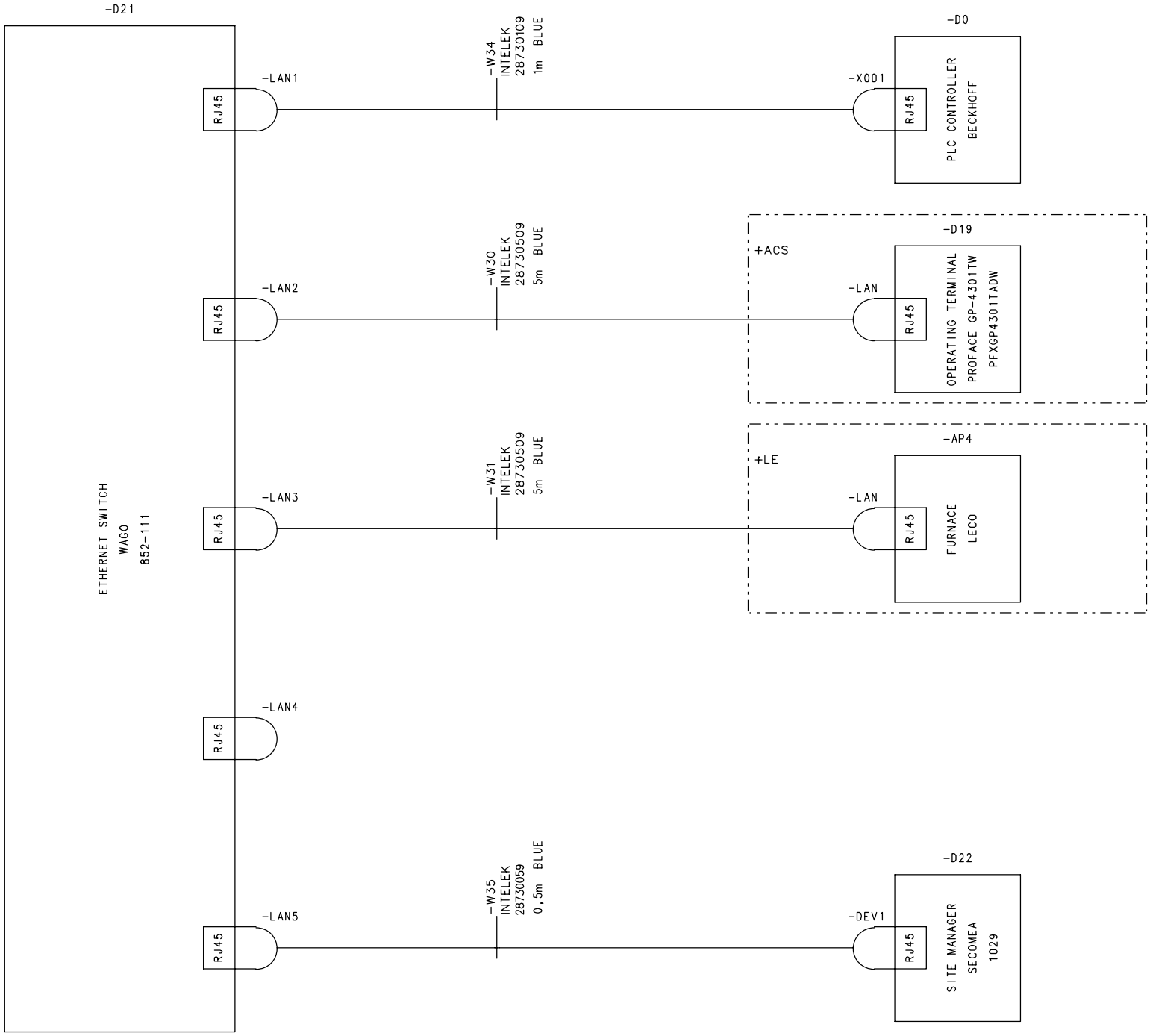
FLSmidth	CARBON & SULPHUR ANALYZER	RS232 / RS422 COMMUNICATION	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 79
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632



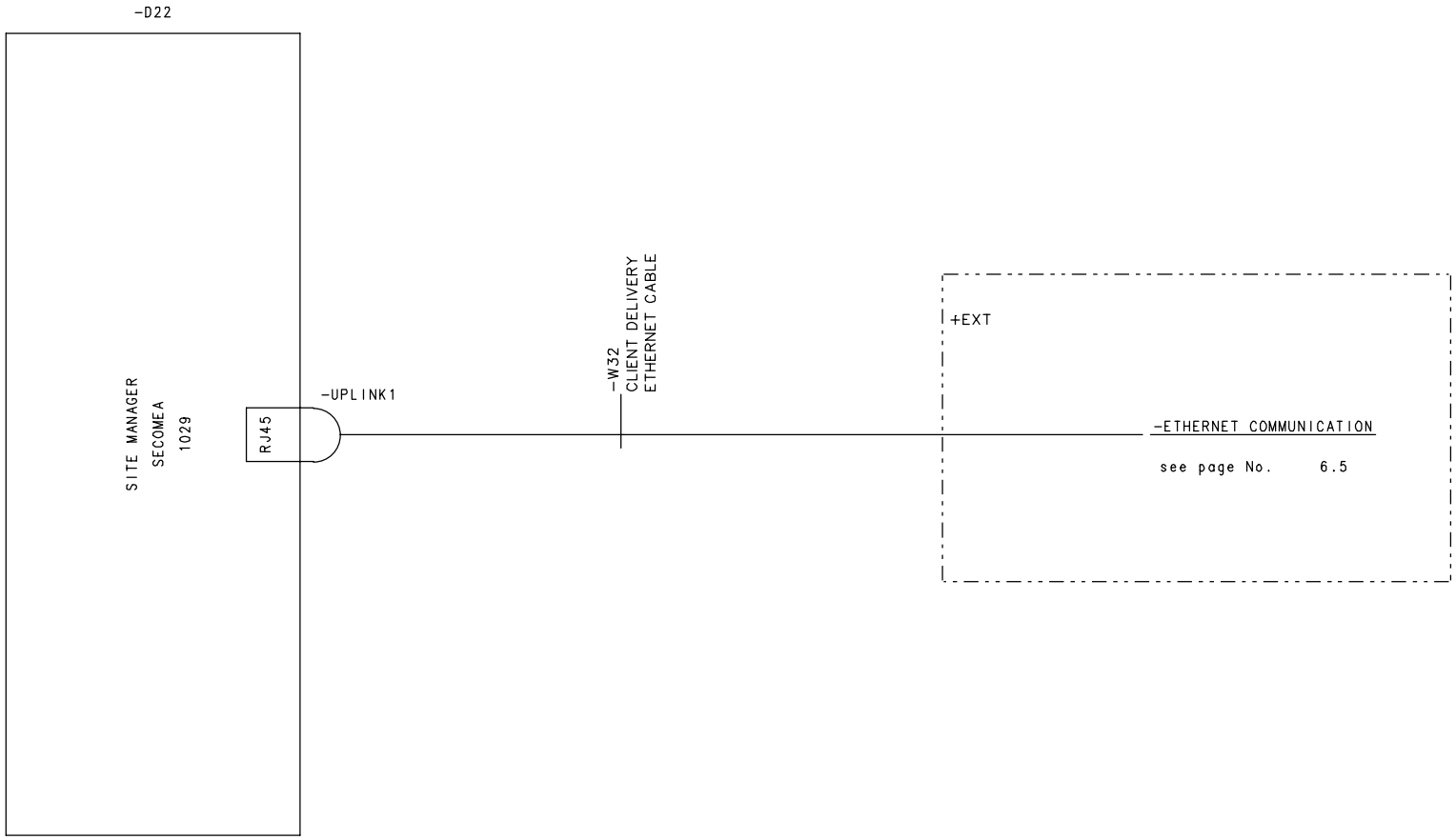
FLSmidth	CARBON & SULPHUR ANALYZER	ETHERCAT COMMUNICATION	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 80
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632



FLSmidth	CARBON & SULPHUR ANALYZER	ETHERCAT COMMUNICATION	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 81
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632



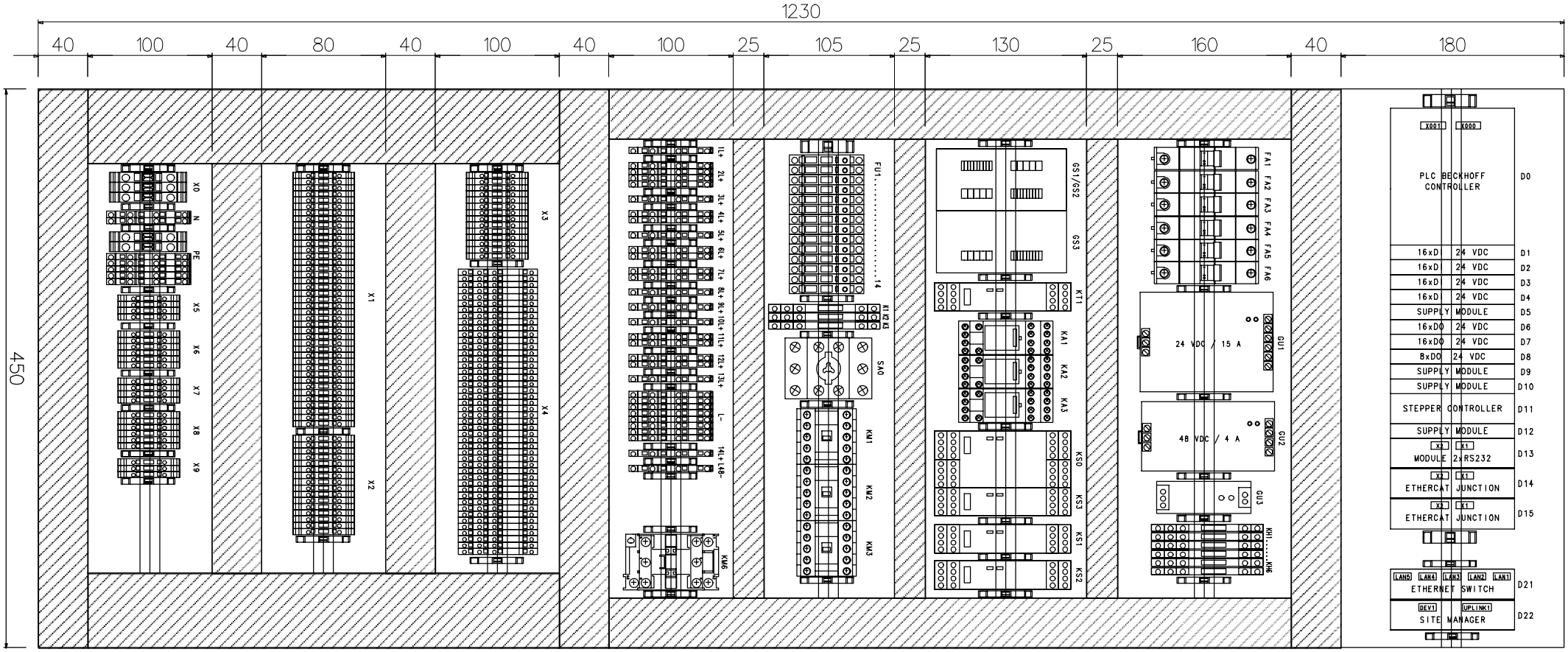
FLSmidth	CARBON & SULPHUR ANALYZER	ETHERNET COMMUNICATION	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 82
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: Toja	COMMISSION: 16632



FLSmidth	CARBON & SULPHUR ANALYZER	ETHERNET COMMUNICATION	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 83
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632

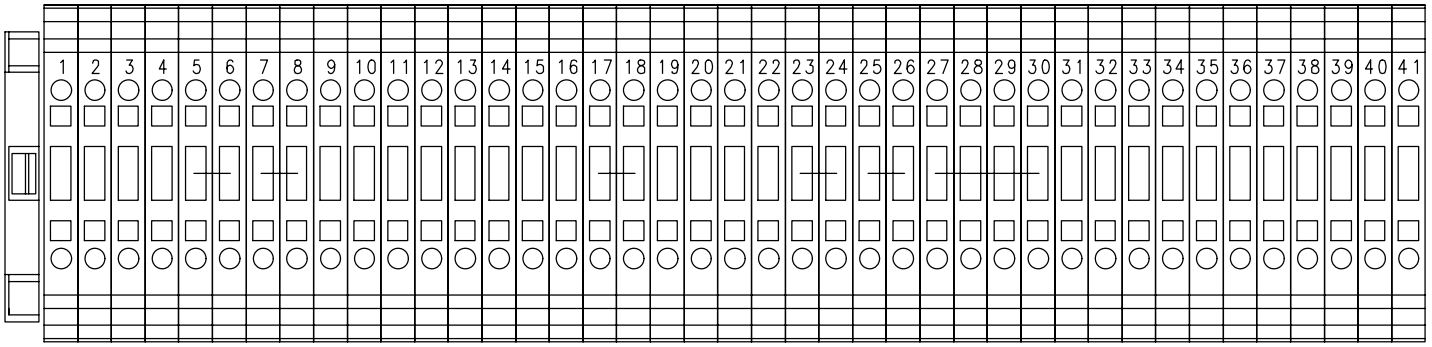
FLSmidth	CARBON & SULPHUR ANALYZER	COMMUNICATION – RESERVE	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 84
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632

FLSmidth	CARBON & SULPHUR ANALYZER	USB COMMUNICATION	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 85
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632

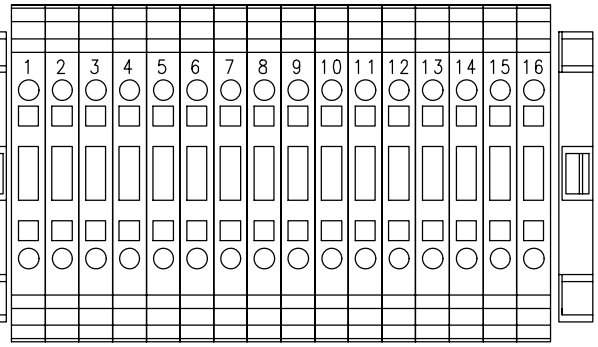


FLSmidth	CARBON & SULPHUR ANALYZER	CONTROL BOX CONSTRUCTION	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 86
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: Toja	COMMISSION: 16632

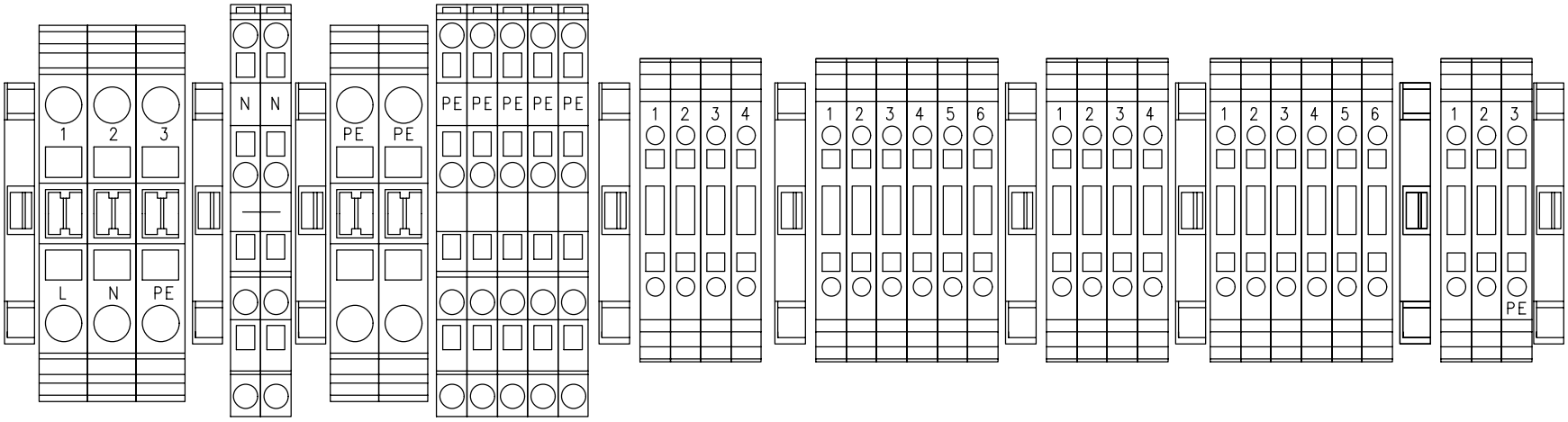
X1



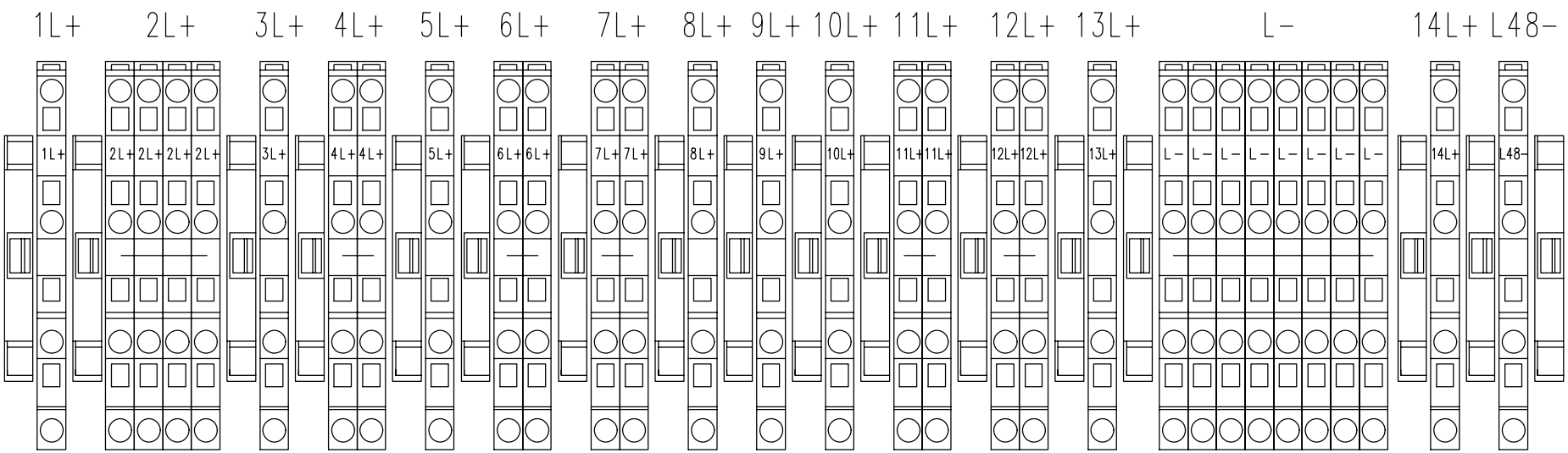
X2



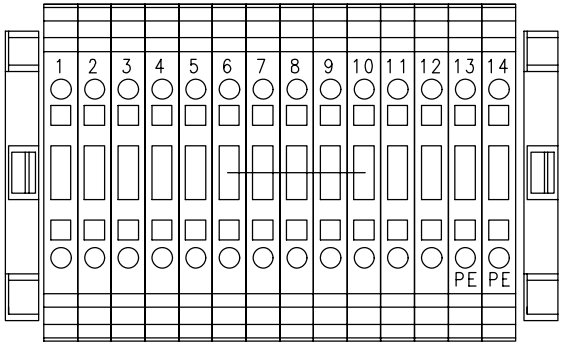
X0 N PE X5 X6 X7 X8 X9



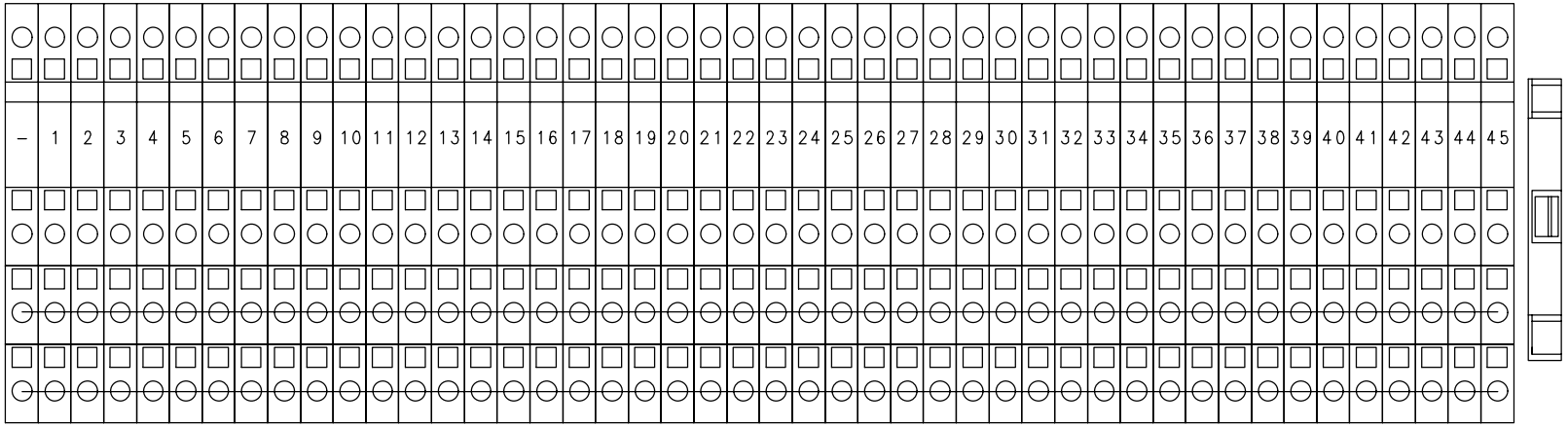
FLSmidth	CARBON & SULPHUR ANALYZER	CONTROL BOX CONSTRUCTION	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 87
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: ToJa	COMMISSION: 16632



X3



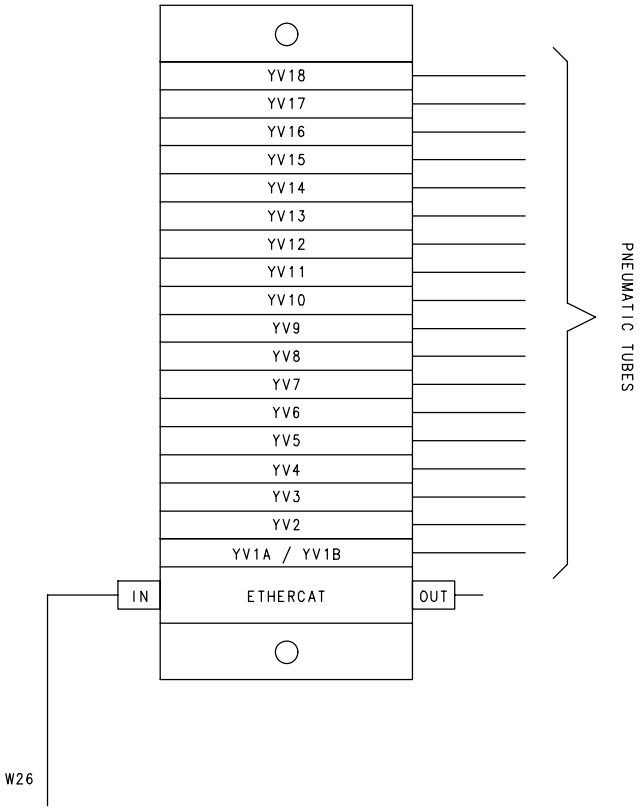
X4



FLSmidth	CARBON & SULPHUR ANALYZER	CONTROL BOX CONSTRUCTION	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 88
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +CB	INITIALS: Toja	COMMISSION: 16632

VALVE BLOCK

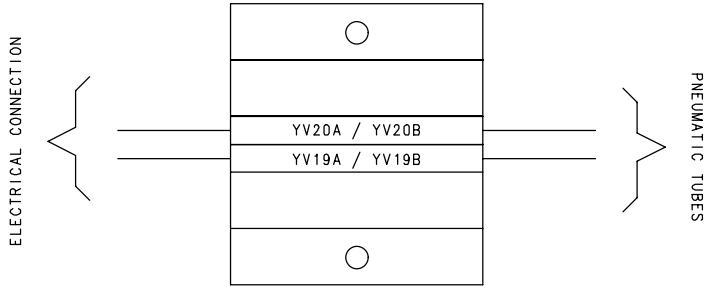
D18



FUNCTION OF VALVES

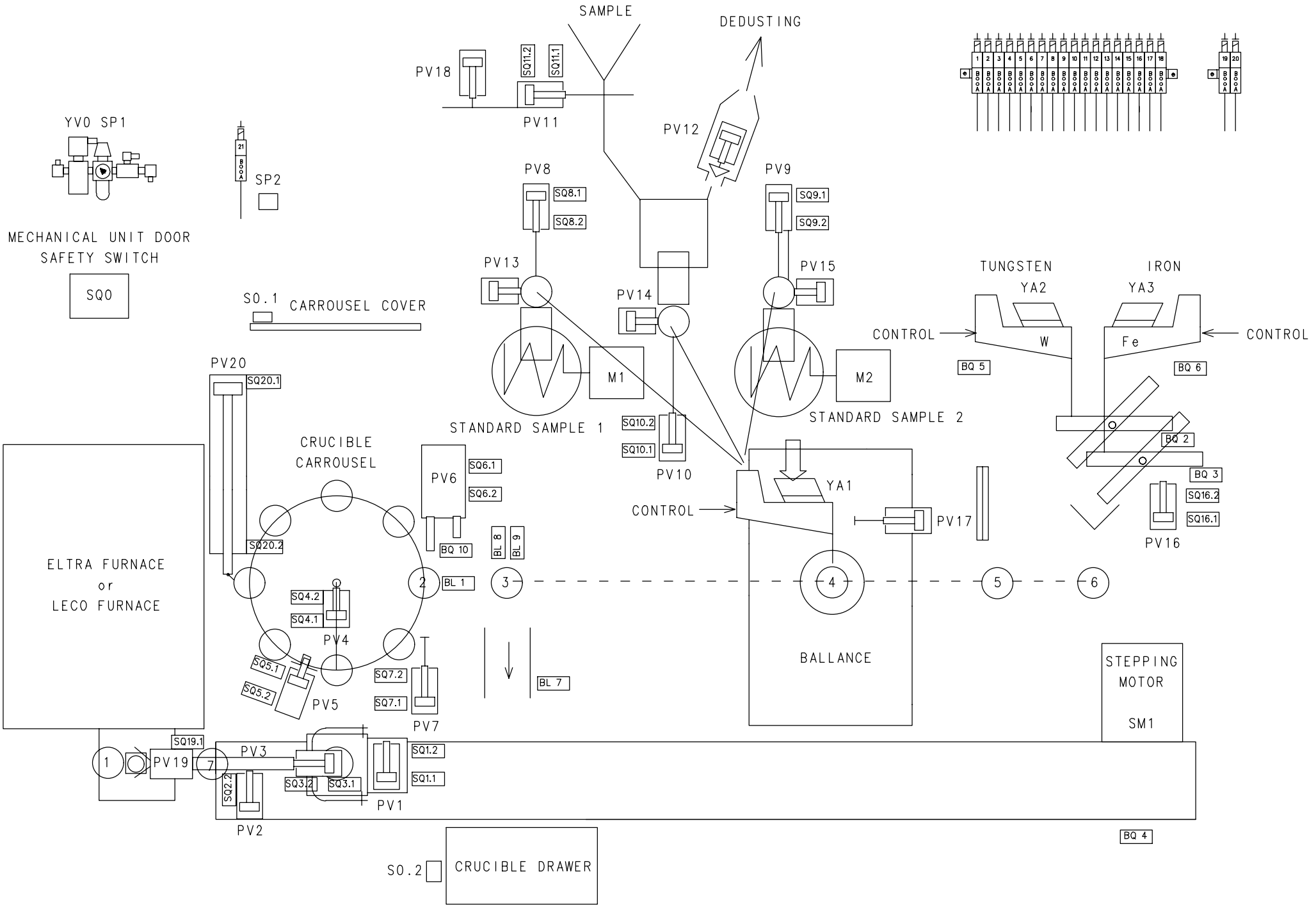
VALVE	COLOUR	DESCRIPTION	PAGE
YV1A	green	HANDLING ARM	31
YV1B	red	HANDLING ARM	31
YV2	red	HANDLING ARM LIFT	32
YV3	red	PINCERS MOVING	33
YV4	red	CARROUSEL LIFT	38
YV5	red	CARROUSEL LOCK	42
YV6	red	CARROUSEL SEPARATOR	43
YV7	red	CRUCIBLE LIFT	44
YV8	red	STANDARD SAMPLE 1 SAMPLER	45
YV9	red	STANDARD SAMPLE 2 SAMPLER	46
YV10	red	MEASURING SAMPLE SAMPLER	47
YV11	red	SAMPLE SLIDER	48
YV12	red	DEDUSTING VALVE	49
YV13	red	STANDARD SAMPLE 1 BEATER	50
YV14	red	MEASURING SAMPLE BEATER	51
YV15	red	STANDARD SAMPLE 2 BEATER	52
YV16	red	HOPPER TURN OVER	53
YV17	red	BALLANCE DOSER BEATER	54
YV18	red	INLET BEATER	55

VALVE BLOCK



FUNCTION OF VALVES

VALVE	COLOUR	DESCRIPTION	PAGE
YV19A	green	CRUCIBLE PINCERS	34
YV19B	red	CRUCIBLE PINCERS	34
YV20A	green	CARROUSEL TURNING	39
YV20B	red	CARROUSEL TURNING	39



FLSmidth	CARBON & SULPHUR ANALYZER	ACS CONSTRUCTION	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 91
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION: +ACS	INITIALS: ToJa	COMMISSION: 16632

ADJUSTMENT OF THE PRESSURE SENSOR SMC ISE AND ZSE

FIRST SETTING LEVEL

1. PRESS THE [S] BUTTON ONCE IN MEASURMENT MODE. THE MEASURMENT MODE IS THE CONDITION WHERE THE PRESSURE IS DETECTED AND INDICATED, AND THE SWITCH FUNCTION IS WORKING.

2. [P_1] AND SET VALUE ARE DISPLAYED IN TURN.

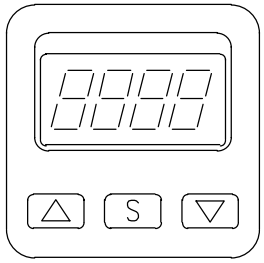
3. PRESS THE [△] OR [▽] BUTTON TO CHANGE THE SET VALUE. THE [△] BUTTON IS FOR INCREASE AND THE [▽] BUTTON IS FOR DECREASE.

4. PRESS THE [S] BUTTON TO FINISH THE SETTING. IF TWO OUTPUTS SPECIFICATION IS SELECTED, [P_2] IS DISPLAYED. CONTINUE SETTING WORK.

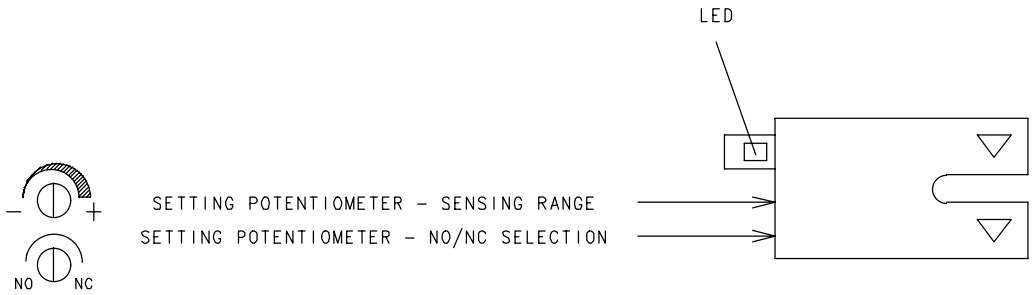
ZERO CLEAR OF INDICATION

INDICATION IS RESET TO ZERO WHEN [△] AND [▽] BUTTONS ARE PRESSED SIMULTANEOUSLY FOR 1 SECOND.
FOR FIRST OPERATION, PERFORM ZERO CLEAR WITHOUT PRESSURE SUPPLY.

FOR MORE INFORMATION SEE WWW.SMC-PNEUMATIK.DE



ADJUSTMENT OF THE OPTICAL SENSOR BALLUFF BGL

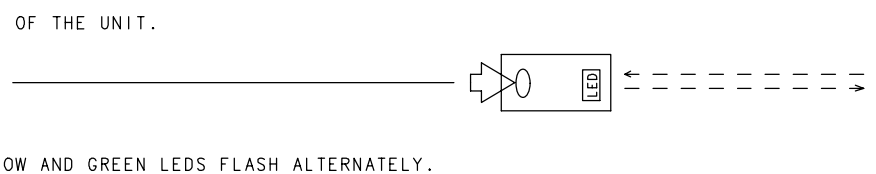


FOR MORE INFORMATION SEE WWW.BALLUFF.DE

ADJUSTMENT OF THE SENSITIVITY OF THE OPTICAL & LASER SENSOR IFM OJ

1. ACTIVATE THE PROGRAMMING MODE OF THE UNIT.

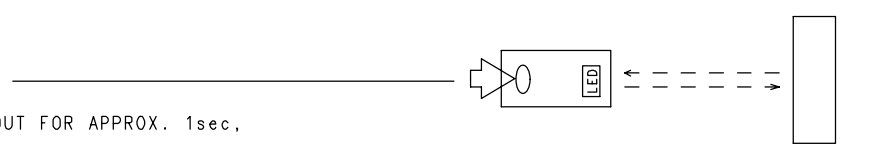
PRESS FOR ABOUT 2sec
UNTIL THE RED LED FLASHES.



THE RED LED GOES OUT, THE YELLOW AND GREEN LEDS FLASH ALTERNATELY.
THE UNIT IS IN THE PROGRAMMING MODE.

2. SETTING WITH OBJECT.

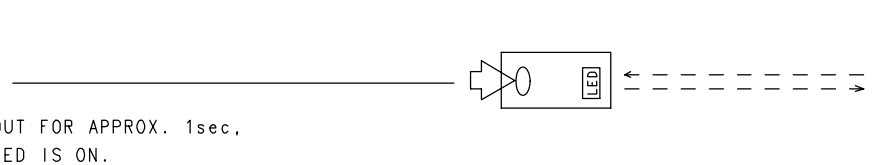
PRESS ONCE.



THE YELLOW ANG GREEN LEDS GO OUT FOR APPROX. 1sec,
THEN FLASH AGAIN ALTERNATELY.

3. SETTING WITHOUT OBJECT.

PRESS ONCE.



THE YELLOW AND GREEN LEDS GO OUT FOR APPROX. 1sec,
AFTER APPROX. 3sec THE GREEN LED IS ON.
THE UNIT IS IN THE OPERATING MODE.

YOU CAN ALSO PROCEED IN REVERSE ORDER – FIRST SETTING WITHOUT THE OBJECT,
THEN WITH THE OBJECT.

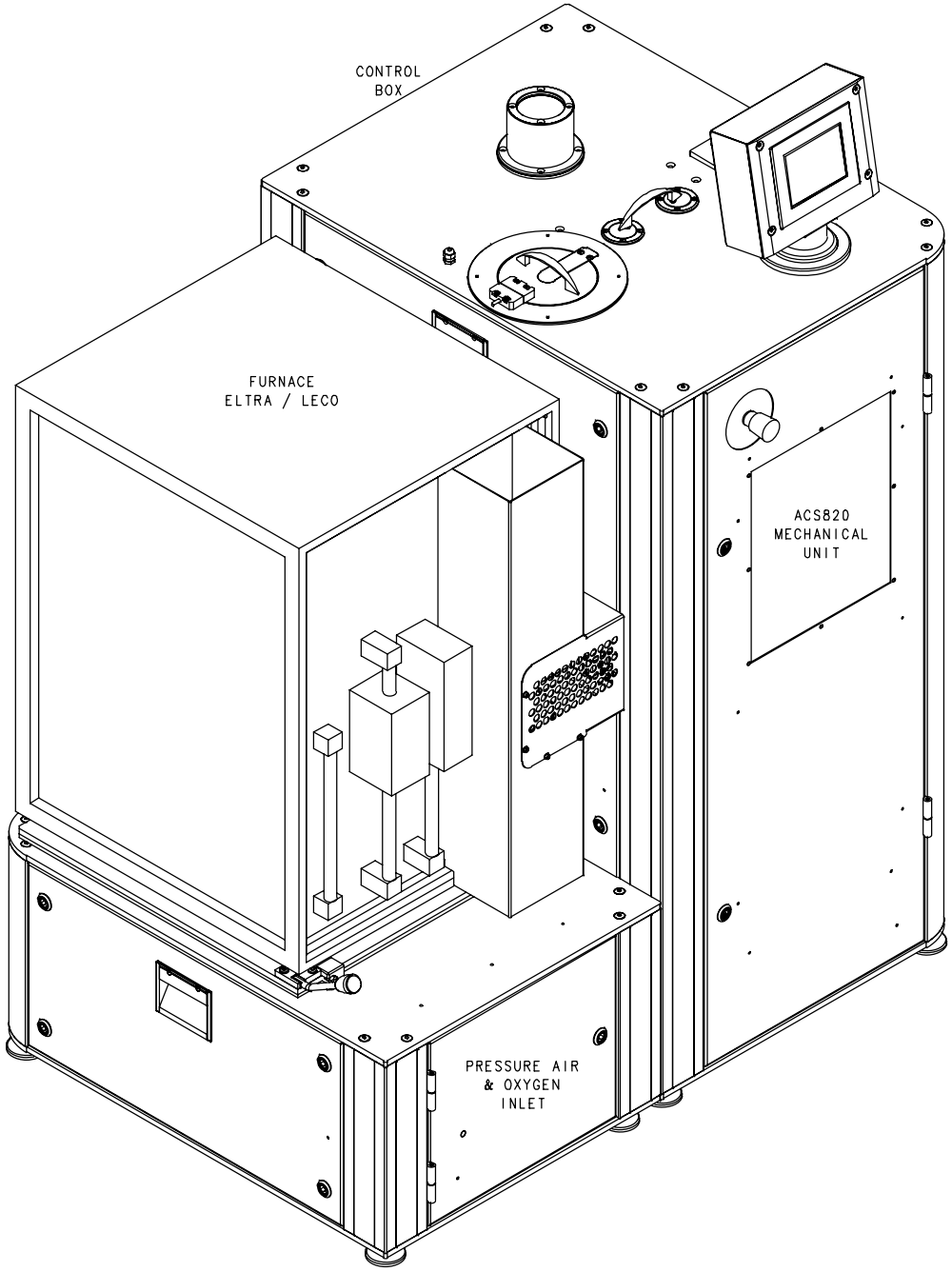
IF THE SETTING OF THE SENSITIVITY IS NOT POSSIBLE (E.G. OBJECT SIGNAL AND BACKGROUND SIGNAL ARE ABOUT THE SAME), THE RED LED FLASHES AFTER STEP 3 FOR APPROX. 2sec. THE UNIT THEN PASSES INTO THE OPERATING MODE WITH THE SENSITIVITY BEING UNCHANGED.
IF THE SETTING BUTTON IS NOT ACTIVATED FOR 15 MINUTES DURING THE PROGRAMMING PROCESS, THE UNIT PASSES AUTOMATICALLY INTO THE OPERATING MODE WITH SENSITIVITY BEING UNCHANGED.

FOR MORE INFORMATION SEE WWW.IFM.DE

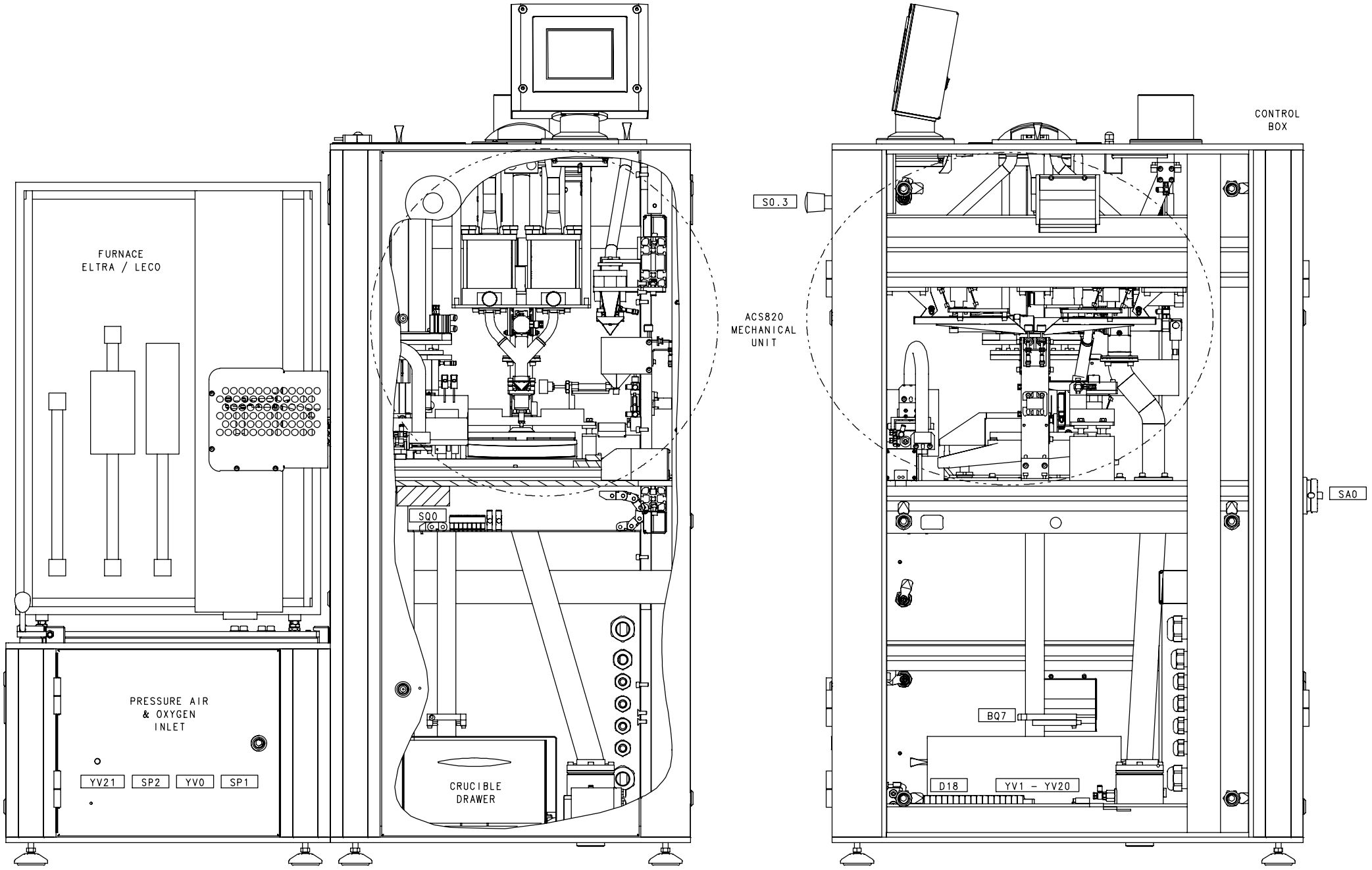
LiYY / LiYCY CABLE WIRE COLOURS

NO.	COLOUR	NO.	COLOUR	NO.	COLOUR	NO.	COLOUR	NO.	COLOUR
1	WHITE	6	PINK	11	GREY/PINK	16	YELLOW/BROWN	21	WHITE/BLUE
2	BROWN	7	BLUE	12	RED/BLUE	17	WHITE/GREY	22	BROWN/BLUE
3	GREEN	8	RED	13	WHITE/GREEN	18	GREY/BROWN	23	WHITE/RED
4	YELLOW	9	BLACK	14	BROWN/GREEN	19	WHITE/PINK	24	BROWN/RED
5	GREY	10	VIOLET	15	WHITE/YELLOW	20	PINK/BROWN	25	WHITE/BLACK

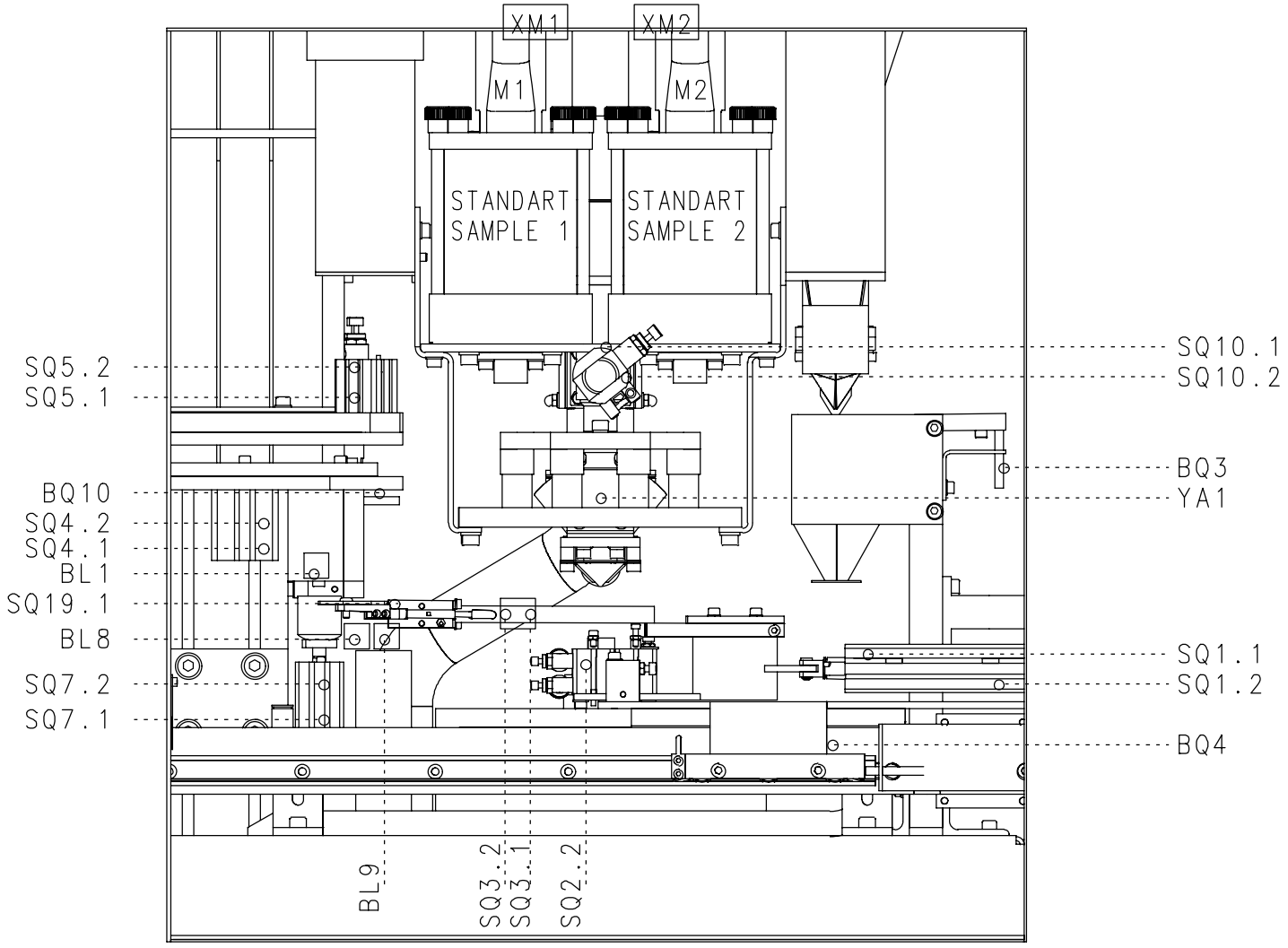
NO.	COLOUR	NO.	COLOUR	NO.	COLOUR	NO.	COLOUR	NO	COLOUR
26	BROWN/BLACK	31	GREEN/BLUE	36	YELLOW/BLACK	41	GREY/BLACK	46	YE/GREEN/BK
27	GREY/GREEN	32	YELLOW/BLUE	37	GREY/BLUE	42	PINK/BLACK	47	GREY/PINK/BK
28	YELLOW/GREY	33	GREEN/RED	38	PINK/BLUE	43	BLUE/BLACK	48	RED/BU/BK
29	PINK/GREEN	34	YELLOW/RED	39	GREY/RED	44	RED/BLACK	49	WH/GREEN/BK
30	YELLOW/PINK	35	GREEN/BLACK	40	PINK/RED	45	WH/BR/BK	50	BR/GREEN/BK



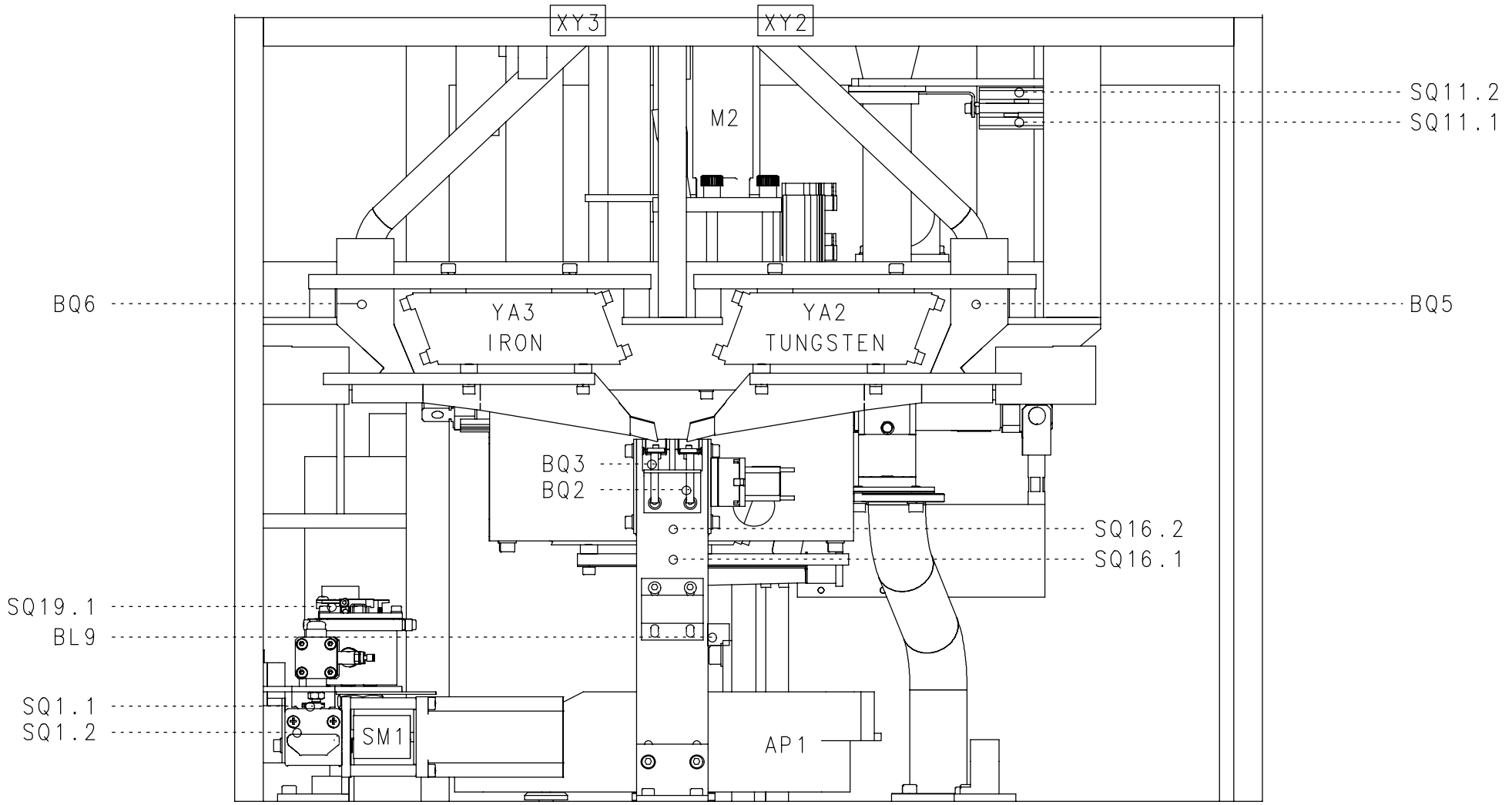
FLSmidth	CARBON & SULPHUR ANALYZER	ACS CONSTRUCTION	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 96
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION:	INITIALS: ToJa	COMMISSION: 16632



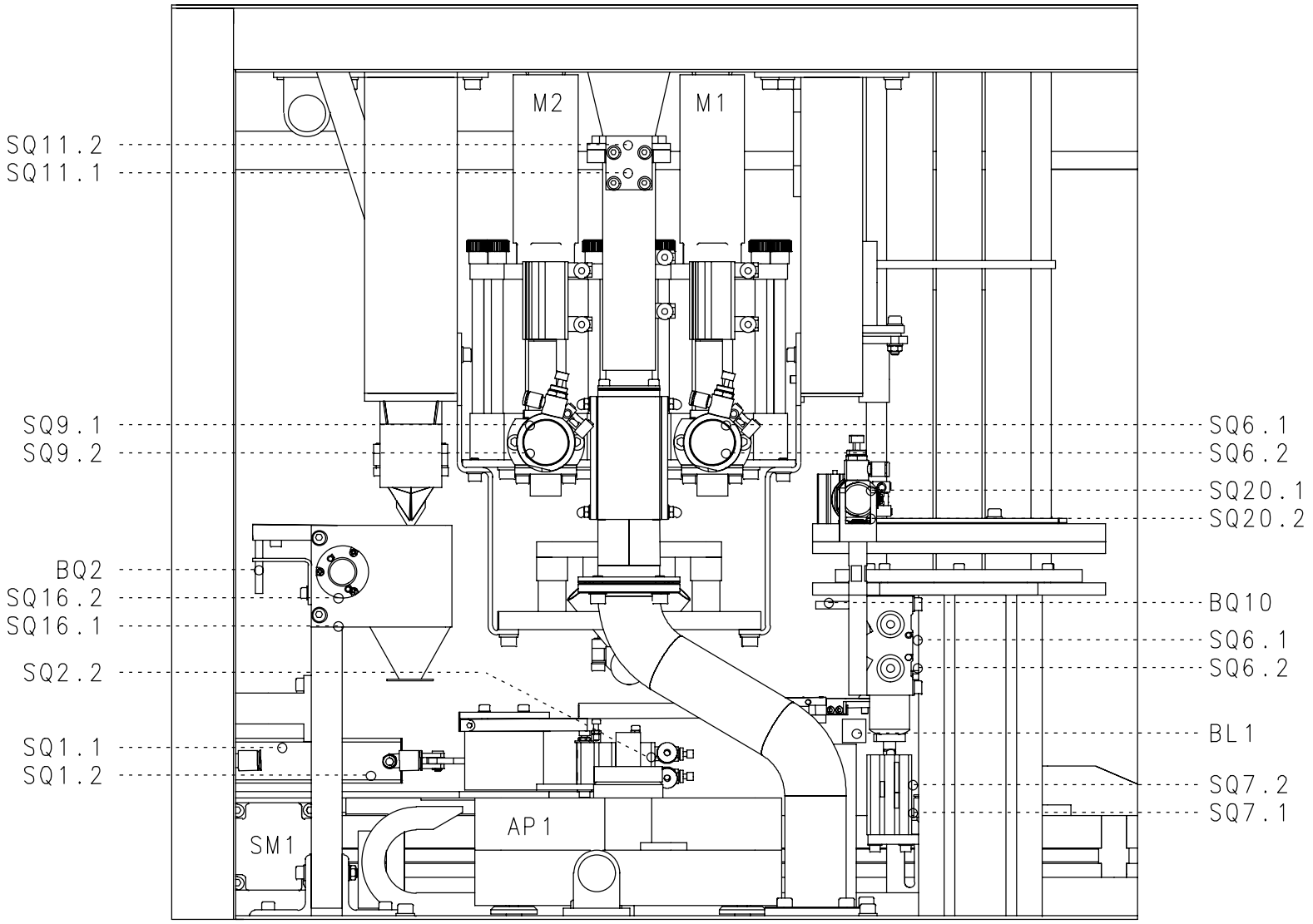
FLSmidth	CARBON & SULPHUR ANALYZER	ACS CONSTRUCTION	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 97
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION:	INITIALS: ToJa	COMMISSION: 16632



FLSmidth	CARBON & SULPHUR ANALYZER	ACS CONSTRUCTION	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 98
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION:	INITIALS: ToJa	COMMISSION: 16632



FLSmidth	CARBON & SULPHUR ANALYZER	ACS CONSTRUCTION	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 99
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION:	INITIALS: ToJa	COMMISSION: 16632



FLSmidth	CARBON & SULPHUR ANALYZER	ACS CONSTRUCTION	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 100
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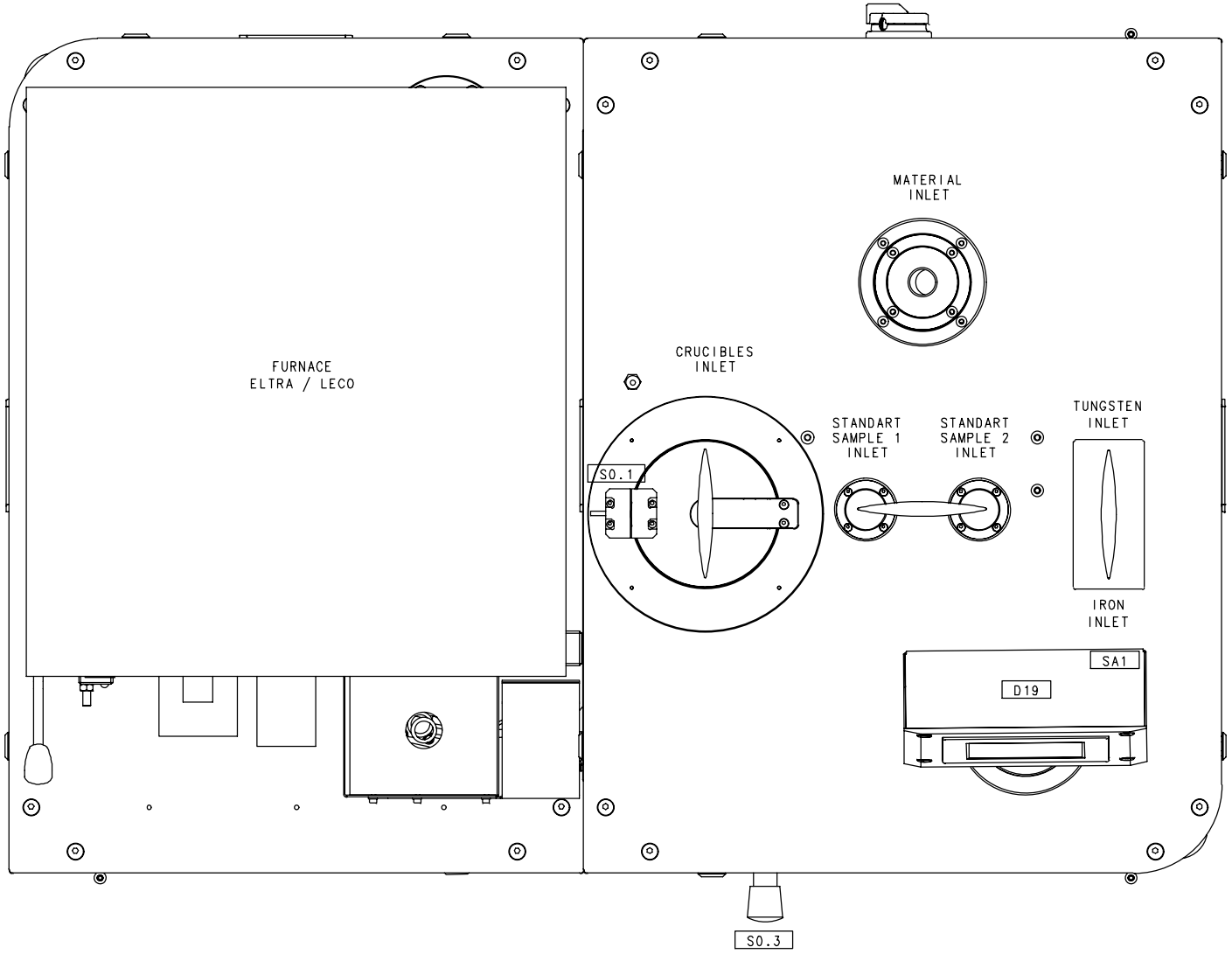
			LOCATION:	INITIALS: ToJa	COMMISSION: 16632



FLSmidth	CARBON & SULPHUR ANALYZER	ACS CONSTRUCTION	PROJECT: ACS820-805002	DATE: 12.11.2016	PAGE No.: 101
	ACS820		DEVICE: =ACS	REVISION: 15.5.2017	DOCUMENT: *FLSB-805002*
			LOCATION:	INITIALS: ToJa	COMMISSION: 16632

PLC-Component	Address	Pin	Description	Connection	Page No.
=ACS +ACS -D18	YV1A	green	ARM POS ACS		31 2
=ACS +ACS -D18	YV1B	red	ARM POS FURNACE		31 3
=ACS +ACS -D18	YV2	red	ARM LIFT UP		32 2
=ACS +ACS -D18	YV3	red	PINCERS PUSH OUT		33 2
=ACS +ACS -D18	YV4	red	CARROUSEL LIFT UP		38 2
=ACS +ACS -D18	YV5	red	CARR LOCK RELEASE		42 2
=ACS +ACS -D18	YV6	red	SEPARATOR ACTIVATE		43 2
=ACS +ACS -D18	YV7	red	CRUCIBLE LIFT UP		44 2
=ACS +ACS -D18	YV8	red	SS1S INTO MATERIAL		45 2
=ACS +ACS -D18	YV9	red	SS2S INTO MATERIAL		46 2
=ACS +ACS -D18	YV10	red	MSS INTO MATERIAL		47 2
=ACS +ACS -D18	YV11	red	SLIDER OPEN		48 2
=ACS +ACS -D18	YV12	red	DEDUSTING OPEN		49 5
=ACS +ACS -D18	YV13	red	SS1 BEATER ON		50 5
=ACS +ACS -D18	YV14	red	MS BEATER ON		51 5
=ACS +ACS -D18	YV15	red	SS2 BEATER ON		52 5
=ACS +ACS -D18	YV16	red	HOPPER TURN BACK		53 2
=ACS +ACS -D18	YV17	red	DOSER BEATER ON		54 5
=ACS +ACS -D18	YV18	red	INLET BEATER ON		55 5
=ACS +CB -D1	I 0	1	PRESSURE AIR OK	=ACS+CB-X4:1	30 5
=ACS +CB -D1	I 1	2	OXYGEN OK	=ACS+CB-X4:2	74 6
=ACS +CB -D1	I 2	3	CRUCIBLE PRESENT	=ACS+CB-X4:3	56 2
=ACS +CB -D1	I 3	4	ORIENTATION OK	=ACS+CB-X4:4	56 4
=ACS +CB -D1	I 4	5	CRUCIBLE PRESENT	=ACS+CB-X4:5	56 5
=ACS +CB -D1	I 5	6	LAST CRUCIBLE	=ACS+CB-X4:6	56 7
=ACS +CB -D1	I 6	7	W HOPPER INITIAL	=ACS+CB-X4:7	57 2
=ACS +CB -D1	I 7	8	FE HOPPER INITIAL	=ACS+CB-X4:8	57 4
=ACS +CB -D1	I 8	9	W HOPPER FULL	=ACS+CB-X4:9	57 5
=ACS +CB -D1	I 9	10	FE HOPPER FULL	=ACS+CB-X4:10	57 7
=ACS +CB -D1	I 10	11	ARM POS ACS	=ACS+CB-X4:11	31 5
=ACS +CB -D1	I 11	12	ARM POS FURNACE	=ACS+CB-X4:12	31 7
=ACS +CB -D1	I 12	13	ARM LIFT DOWN	=ACS+CB-X4:13	32 5

PLC-Component	Address	Pin	Description	Connection	Page No.
=ACS +CB -D1	I 13	14	ARM LIFT UP	=ACS+CB-X4:14	32 7
=ACS +CB -D1	I 14	15	PINCERS PUSHED IN	=ACS+CB-X4:15	33 5
=ACS +CB -D1	I 15	16	PINCERS PUSHED OUT	=ACS+CB-X4:16	33 7
=ACS +CB -D2	I 0	1	PINCERS GRIPPED	=ACS+CB-X4:17	34 5
=ACS +CB -D2	I 1	2	PINCERS OPENED	=ACS+CB-X4:18	34 7
=ACS +CB -D2	I 2	3	CARROUSEL LIFT DOWN	=ACS+CB-X4:19	38 5
=ACS +CB -D2	I 3	4	CARROUSEL LIFT UP	=ACS+CB-X4:20	38 7
=ACS +CB -D2	I 4	5	CARR TURN INITIAL	=ACS+CB-X4:21	39 5
=ACS +CB -D2	I 5	6	CARR TURN ONE STEP	=ACS+CB-X4:22	39 7
=ACS +CB -D2	I 6	7	CARR LOCK LOCKED	=ACS+CB-X4:23	42 5
=ACS +CB -D2	I 7	8	CARR LOCK RELEASED	=ACS+CB-X4:24	42 7
=ACS +CB -D2	I 8	9	SEPARATOR INITIAL	=ACS+CB-X4:25	43 5
=ACS +CB -D2	I 9	10	SEPARATOR ACTIVATED	=ACS+CB-X4:26	43 7
=ACS +CB -D2	I 10	11	CRUCIBLE LIFT DOWN	=ACS+CB-X4:27	44 5
=ACS +CB -D2	I 11	12	CRUCIBLE LIFT UP	=ACS+CB-X4:28	44 7
=ACS +CB -D2	I 12	13	SS1S OUT MATERIAL	=ACS+CB-X4:29	45 5
=ACS +CB -D2	I 13	14	SS1S IN MATERIAL	=ACS+CB-X4:30	45 7
=ACS +CB -D2	I 14	15	SS2S OUT MATERIAL	=ACS+CB-X4:31	46 5
=ACS +CB -D2	I 15	16	SS2S IN MATERIAL	=ACS+CB-X4:32	46 7
=ACS +CB -D3	I 0	1	MSS OUT MATERIAL	=ACS+CB-X4:33	47 5
=ACS +CB -D3	I 1	2	MSS IN MATERIAL	=ACS+CB-X4:34	47 7
=ACS +CB -D3	I 2	3	SLIDER CLOSED	=ACS+CB-X4:35	48 5
=ACS +CB -D3	I 3	4	SLIDER OPENED	=ACS+CB-X4:36	48 7
=ACS +CB -D3	I 4	5	HOPPER TURNED INIT	=ACS+CB-X4:37	53 5
=ACS +CB -D3	I 5	6	HOPPER TURNED BACK	=ACS+CB-X4:38	53 7
=ACS +CB -D3	I 6	7	CRUCIBLE OUTLET	=ACS+CB-KT1:18	37 2
=ACS +CB -D3	I 7	8	MIXER 1 READY	=ACS+CB-.:11L+	60 7
=ACS +CB -D3	I 8	9	MIXER 1 RUNNING	=ACS+CB-KA1:44	60 8
=ACS +CB -D3	I 9	10	MIXER 2 READY	=ACS+CB-.:12L+	61 7
=ACS +CB -D3	I 10	11	MIXER 2 RUNNING	=ACS+CB-KA2:44	61 8
=ACS +CB -D3	I 11	12	TUNGSTEN READY	=ACS+CB-K2:14	64 7
=ACS +CB -D3	I 12	13	IRON READY	=ACS+CB-K3:14	67 7

PLC-Component	Address	Pin	Description	Connection	Page No.
=ACS +CB -D3	I 13	14	BALLANCE READY	=ACS+CB-K1:14	70 7
=ACS +CB -D3	I 14	15	DEDUSTING RUNNING	=ACS+CB-KH2:14	71 4
=ACS +CB -D3	I 15	16	DEDUSTING STAND BY	=ACS+CB-KH6:14	72 4
=ACS +CB -D4	I 0	1	EMERGENCY ACTIVATED	=ACS+CB-KS0:52	27 7
=ACS +CB -D4	I 1	2	EMER BUTTON PUSHED	=ACS+CB-X1:11	23 3
=ACS +CB -D4	I 2	3	SWITCH OPERATION	=ACS+CB-X1:38	26 7
=ACS +CB -D4	I 3	4	DRAWER CLOSED	=ACS+CB-KS2:34	36 7
=ACS +CB -D4	I 4	5	CARR COVERED	=ACS+CB-KS1:34	41 7
=ACS +CB -D4	I 5	6	DOOR CLOSED	=ACS+CB-X1:31	25 3
=ACS +CB -D4	I 6	7	DOOR LOCKED	=ACS+CB-X1:32	25 4
=ACS +CB -D4	I 7	8	RESERVE		75 3
=ACS +CB -D4	I 8	9	RESERVE		75 4
=ACS +CB -D4	I 9	10	RESERVE		75 5
=ACS +CB -D4	I 10	11	RESERVE		75 6
=ACS +CB -D4	I 11	12	RESERVE		76 3
=ACS +CB -D4	I 12	13	RESERVE		76 5
=ACS +CB -D4	I 13	14	RESERVE		76 5
=ACS +CB -D4	I 14	15	RESERVE		76 6
=ACS +CB -D4	I 15	16	RESERVE		76 7
=ACS +CB -D6	Q 0	1	PINCERS GRIP	=ACS+CB-KS2:13	34 2
=ACS +CB -D6	Q 1	2	PINCERS OPEN	=ACS+CB-KS2:23	34 3
=ACS +CB -D6	Q 2	3	CARR TURN INITIAL	=ACS+CB-KS1:13	39 2
=ACS +CB -D6	Q 3	4	CARR TURN ONE STEP	=ACS+CB-KS1:23	39 3
=ACS +CB -D6	Q 4	5	MIXER 1 ON	=ACS+CB-KA1:A1	60 2
=ACS +CB -D6	Q 5	6	MIXER 2 ON	=ACS+CB-KA2:A1	61 2
=ACS +CB -D6	Q 6	7	DEDUSTING ON	=ACS+CB-KH1:A1	71 2
=ACS +CB -D6	Q 7	8	OXYGEN OPEN	=ACS+CB-X4:45	74 3
=ACS +CB -D6	Q 8	9	FURNACE ON	=ACS+CB-KM6:A1	73 2
=ACS +CB -D6	Q 9	10	DOOR LOCK	=ACS+CB-KA3:11	25 2
=ACS +CB -D6	Q 10	11	EMER VALVE ON	=ACS+CB-KM1:5	29 3
=ACS +CB -D6	Q 11	12	DEDUSTING OFF	=ACS+CB-KH3:A1	72 1
=ACS +CB -D6	Q 12	13	DEDUSTING PILOT	=ACS+CB-KH4:A1	72 2

PLC-Component	Address	Pin	Description	Connection	Page No.
=ACS +CB -D6	Q 13	14	DEDUSTING INTERLOCK	=ACS+CB-KH5:A1	72 3
=ACS +CB -D6	Q 14	15	RESERVE		77 4
=ACS +CB -D6	Q 15	16	RESERVE		77 5
=ACS +CB -D7	Q 0	1	TUNGSTEN START	=ACS+CB-GS2:START	63 2
=ACS +CB -D7	Q 1	2	TUNGSTEN D0	=ACS+CB-GS2:D0	63 2
=ACS +CB -D7	Q 2	3	TUNGSTEN D1	=ACS+CB-GS2:D1	63 3
=ACS +CB -D7	Q 3	4	TUNGSTEN D2	=ACS+CB-GS2:D2	63 4
=ACS +CB -D7	Q 4	5	TUNGSTEN D3	=ACS+CB-GS2:D3	63 5
=ACS +CB -D7	Q 5	6	TUNGSTEN D4	=ACS+CB-GS2:D4	63 6
=ACS +CB -D7	Q 6	7	TUNGSTEN D5	=ACS+CB-GS2:D5	63 7
=ACS +CB -D7	Q 7	8	TUNGSTEN D6	=ACS+CB-GS2:D6	63 7
=ACS +CB -D7	Q 8	9	IRON START	=ACS+CB-GS3:START	66 2
=ACS +CB -D7	Q 9	10	IRON D0	=ACS+CB-GS3:D0	66 2
=ACS +CB -D7	Q 10	11	IRON D1	=ACS+CB-GS3:D1	66 3
=ACS +CB -D7	Q 11	12	IRON D2	=ACS+CB-GS3:D2	66 4
=ACS +CB -D7	Q 12	13	IRON D3	=ACS+CB-GS3:D3	66 5
=ACS +CB -D7	Q 13	14	IRON D4	=ACS+CB-GS3:D4	66 6
=ACS +CB -D7	Q 14	15	IRON D5	=ACS+CB-GS3:D5	66 7
=ACS +CB -D7	Q 15	16	IRON D6	=ACS+CB-GS3:D6	66 7
=ACS +CB -D8	Q 0	1	BALLANCE START	=ACS+CB-GS1:START	69 2
=ACS +CB -D8	Q 1	5	BALLANCE D0	=ACS+CB-GS1:D0	69 2
=ACS +CB -D8	Q 2	2	BALLANCE D1	=ACS+CB-GS1:D1	69 3
=ACS +CB -D8	Q 3	6	BALLANCE D2	=ACS+CB-GS1:D2	69 4
=ACS +CB -D8	Q 4	3	BALLANCE D3	=ACS+CB-GS1:D3	69 5
=ACS +CB -D8	Q 5	7	BALLANCE D4	=ACS+CB-GS1:D4	69 6
=ACS +CB -D8	Q 6	4	BALLANCE D5	=ACS+CB-GS1:D5	69 7
=ACS +CB -D8	Q 7	8	BALLANCE D6	=ACS+CB-GS1:D6	69 7

Cable	Type		From	To
-W2	LiYY	2 x 0,5 mm_2	=ACS+ACS-.	=ACS+ACS-SA1
-W0	CLIENT DELIVERY	3 x 4 mm_2	=ACS+CB-X0	=ACS+EXT-SUPPLY/L
-W1	LiYY	2 x 0,5 mm_2	=ACS+CB-X3	=ACS+ACS-.
-W3	OLFLEX	3 x 1 mm_2	=ACS+CB-X3	=ACS+ACS-D19
-W4	IFM	EVT001	=ACS+CB-X3	=ACS+ACS-D18
-W5	LiYY	2 x 0,5 mm_2	=ACS+CB-X3	=ACS+ACS-AP1
-W6	LiYY	7 x 0,5 mm_2	=ACS+CB-X1	=ACS+ACS-S0.3
-W7	LiYY	2 x 0,5 mm_2	=ACS+CB-X1	=ACS+CB-SB1
-W8	LiYY	10 x 0,5 mm_2	=ACS+CB-X1	=ACS+ACS-SQ0
-W9	LiYY	7 x 0,5 mm_2	=ACS+CB-X1	=ACS+CB-S0.4
-W10	LiYY	2 x 0,5 mm_2	=ACS+CB-X1	=ACS+ACS-YV0
-W11	SMC		=ACS+CB-D11	=ACS+ACS-SM1
-W12	LiYY	2 x 0,5 mm_2	=ACS+CB-X5	=ACS+ACS-XM1
-W13	LiYY	2 x 0,5 mm_2	=ACS+CB-X5	=ACS+ACS-XM2
-W14	OLFLEX	3 x 1 mm_2	=ACS+CB-X6	=ACS+ACS-XY2
-W15	OLFLEX	3 x 1 mm_2	=ACS+CB-X6	=ACS+ACS-XY3
-W16	OLFLEX	3 x 1 mm_2	=ACS+CB-X6	=ACS+ACS-XY1
-W17	CLIENT DELIVERY	4 x 1 mm_2	=ACS+CB-X7	=ACS+EXT-DEDUSTING REQUEST
-W18	OLFLEX	7 x 1 mm_2	=ACS+CB-X8	=ACS+LPAK-.LPAK
-W19	OLFLEX	3 x 2,5 mm_2	=ACS+CB-X9	=ACS+EL-X21
-W20	LiYY	2 x 0,5 mm_2	=ACS+CB-X4	=ACS+ACS-YV21
-W21	LiYCY	3 x 0,34 mm_2	=ACS+CB-D13	=ACS+ACS-AP1
-W22	LiYCY	3 x 0,5 mm_2	=ACS+CB-D13	=ACS+PC-AP3
-W23	OLFLEX	3 x 1 mm_2	=ACS+CB-X3	=ACS+ACS-D20
-W24.1	LiYCY	7 x 0,34 mm_2	=ACS+EL-.	=ACS+ACS-D20

Cable	Type		From	To
-W25	LiYCY	4 x 0,34 mm_2	=ACS+ACS-D20	=ACS+PC-AP3
-W26	BECKHOFF	ZK1090-6191-0040	=ACS+CB-D14	=ACS+ACS-D18
-W27	BECKHOFF	ZK1090-9191-0100	=ACS+CB-D14	=RS+CB-D0
-W28	CLIENT DELIVERY	ETHERCAT CABLE	=ACS+CB-D15	=SA1+CB-D0
-W29	CLIENT DELIVERY	ETHERCAT CABLE	=ACS+CB-D15	=SA2+CB-D0
-W30	INTELEK	28730509	=ACS+CB-D21	=ACS+ACS-D19
-W31	INTELEK	28730509	=ACS+CB-D21	=ACS+LE-AP4
-W32	CLIENT DELIVERY	ETHERNET CABLE	=ACS+CB-D22	=ACS+EXT-ETHERNET COMMUNICATION
-W34	INTELEK	28730109	=ACS+CB-D21	=ACS+CB-D0
-W35	INTELEK	28730059	=ACS+CB-D21	=ACS+CB-D22
-W24.2	LiYCY	7 x 0,34 mm_2	=ACS+EL-AP2	=ACS+EL-.

Cable	Wire No.	From	To	Page No.
-W2	1	=ACS+ACS-.	=ACS+ACS-SA1:3	14 4
-W2	2	=ACS+ACS-SA1:4	=ACS+ACS-.	14 4
-W0	1	=ACS+CB-X0:1	=ACS+EXT-SUPPLY/L	8 2
-W0	2	=ACS+CB-X0:2	=ACS+EXT-SUPPLY/N	8 2
-W0	3	=ACS+CB-X0:3	=ACS+EXT-SUPPLY/PE	8 2
-W1	1	=ACS+CB-X3:1	=ACS+ACS-.	14 4
-W1	2	=ACS+CB-X3:6	=ACS+ACS-.	14 5
-W3	1	=ACS+CB-X3:2	=ACS+ACS-D19:L+	19 2
-W3	2	=ACS+CB-X3:7	=ACS+ACS-D19:M	19 2
-W3	3	=ACS+CB-X3:13	=ACS+ACS-D19:PE	19 3
-W4	1	=ACS+CB-X3:4	=ACS+ACS-D18:1	20 5
-W4	2	=ACS+CB-X3:9	=ACS+ACS-D18:2	20 6
-W4	3	=ACS+CB-X3:3	=ACS+ACS-D18:3	20 4
-W4	4	=ACS+CB-X3:8	=ACS+ACS-D18:4	20 4
-W5	1	=ACS+CB-X3:11	=ACS+ACS-AP1:+	22 4
-W5	2	=ACS+CB-X3:12	=ACS+ACS-AP1:-	22 5
-W6	1	=ACS+CB-X1:1	=ACS+ACS-S0.3:1	23 2
-W6	2	=ACS+ACS-S0.3:2	=ACS+CB-X1:2	23 2
-W6	3	=ACS+CB-X1:3	=ACS+ACS-S0.3:11	23 3
-W6	4	=ACS+ACS-S0.3:12	=ACS+CB-X1:4	23 3
-W6	5	=ACS+CB-X1:9	=ACS+ACS-S0.3:3	23 3
-W6	6	=ACS+ACS-S0.3:4	=ACS+CB-X1:11	23 3
-W7	1	=ACS+CB-X1:13	=ACS+CB-SB1:3	24 7
-W7	2	=ACS+CB-SB1:4	=ACS+CB-X1:14	24 7
-W8	1	=ACS+CB-X1:15	=ACS+ACS-SQ0:E1	25 2

Cable	Wire No.	From	To	Page No.
-W8	2	=ACS+CB-X1:19	=ACS+ACS-SQ0:11	25 2
-W8	3	=ACS+CB-X1:21	=ACS+ACS-SQ0:21	25 3
-W8	4	=ACS+CB-X1:27	=ACS+ACS-SQ0:31	25 3
-W8	5	=ACS+CB-X1:28	=ACS+ACS-SQ0:51	25 4
-W8	6	=ACS+ACS-SQ0:E2	=ACS+CB-X1:17	25 2
-W8	7	=ACS+ACS-SQ0:12	=ACS+CB-X1:20	25 2
-W8	8	=ACS+ACS-SQ0:22	=ACS+CB-X1:22	25 3
-W8	9	=ACS+ACS-SQ0:32	=ACS+CB-X1:31	25 3
-W8	10	=ACS+ACS-SQ0:52	=ACS+CB-X1:32	25 4
-W9	1	=ACS+CB-X1:35	=ACS+CB-S0.4:3	26 5
-W9	2	=ACS+CB-S0.4:4	=ACS+CB-X1:36	26 5
-W9	3	=ACS+CB-S0.4:34	=ACS+CB-X1:37	26 6
-W9	4	=ACS+CB-S0.4:2	=ACS+CB-X1:38	26 6
-W9	5	=ACS+CB-S0.4:12	=ACS+CB-X1:39	26 7
-W10	1	=ACS+CB-X1:40	=ACS+ACS-YV0:rd	29 3
-W10	2	=ACS+ACS-YV0:bk	=ACS+CB-X1:41	29 3
-W11	bkbr	=ACS+CB-D9:3	=ACS+ACS-SM1:bkbr	58 6
-W11	bkor	=ACS+CB-D11:5	=ACS+ACS-SM1:bkor	58 7
-W11	bkrd	=ACS+CB-D11:1	=ACS+ACS-SM1:bkrd	58 6
-W11	br	=ACS+CB-D11:1	=ACS+ACS-SM1:br	58 3
-W11	brbk	=ACS+CB-D9:2	=ACS+ACS-SM1:brbk	58 5
-W11	bu	=ACS+CB-bu	=ACS+ACS-SM1:bu	58 4
-W11	gn	=ACS+CB-gn	=ACS+ACS-SM1:gn	58 4
-W11	or	=ACS+CB-D11:6	=ACS+ACS-SM1:or	58 4
-W11	orbk	=ACS+CB-or/bk	=ACS+ACS-SM1:orbk	58 7

Cable	Wire No.	From	To	Page No.
-W11	rd	=ACS+CB-D11:5	=ACS+ACS-SM1:rd	58 4
-W11	rdbk	=ACS+CB-rd/bk	=ACS+ACS-SM1:rdbk	58 7
-W11	ye	=ACS+CB-D11:2	=ACS+ACS-SM1:ye	58 4
-W12	1	=ACS+CB-X5:2	=ACS+ACS-XM1:2:	60 6
-W12	2	=ACS+CB-X5:1	=ACS+ACS-XM1:1:	60 5
-W13	1	=ACS+CB-X5:4	=ACS+ACS-XM2:2:	61 6
-W13	2	=ACS+CB-X5:3	=ACS+ACS-XM2:1:	61 5
-W14	1	=ACS+CB-X6:1	=ACS+ACS-XY2:1:	62 4
-W14	2	=ACS+CB-X6:2	=ACS+ACS-XY2:2:	62 5
-W14	3	=ACS+CB-.:PE	=ACS+ACS-XY2:3:	62 5
-W15	1	=ACS+CB-X6:3	=ACS+ACS-XY3:1:	65 4
-W15	2	=ACS+CB-X6:4	=ACS+ACS-XY3:2:	65 5
-W15	3	=ACS+CB-.:PE	=ACS+ACS-XY3:3:	65 5
-W16	1	=ACS+CB-X6:5	=ACS+ACS-XY1:1:	68 4
-W16	2	=ACS+CB-X6:6	=ACS+ACS-XY1:2:	68 5
-W16	3	=ACS+CB-.:PE	=ACS+ACS-XY1:3:	68 5
-W17	1	=ACS+CB-X7:1	=ACS+EXT-DEDUSTING REQUEST	71 6
-W17	2	=ACS+CB-X7:2	=ACS+EXT-DEDUSTING REQUEST	71 6
-W17	3	=ACS+CB-X7:3	=ACS+EXT-DEDUSTING RUNNING	71 7
-W17	4	=ACS+CB-X7:4	=ACS+EXT-DEDUSTING RUNNING	71 8
-W18	1	=ACS+CB-X8:1	=ACS+LPAK-.LPAK:13	72 6
-W18	2	=ACS+CB-X8:2	=ACS+LPAK-LPAK:12	72 6
-W18	3	=ACS+CB-X8:3	=ACS+LPAK-LPAK:14	72 6
-W18	4	=ACS+CB-X8:4	=ACS+LPAK-LPAK:17	72 7
-W18	5	=ACS+CB-X8:5	=ACS+LPAK-LPAK:3	72 7

Cable	Wire No.	From	To	Page No.
-W18	6	=ACS+CB-X8:6	=ACS+LPAK-LPAK:4	72 8
-W19	1	=ACS+CB-X9:1	=ACS+EL-X21:1:	73 6
-W19	2	=ACS+CB-X9:2	=ACS+EL-X21:2:	73 6
-W19	3	=ACS+CB-X9:3	=ACS+EL-X21:PE:	73 6
-W20	1	=ACS+CB-X4:45	=ACS+ACS-YV21:rd	74 3
-W20	2	=ACS+ACS-YV21:bk	=ACS+CB-X4:-	74 3
-W21		=ACS+CB-D13:-X1	=ACS+ACS-AP1:-COM	78 4
-W22		=ACS+CB-D13:-X2	=ACS+PC-AP3:-RS232	78 4
-W23	1	=ACS+CB-X3:5	-XC1 =ACS+ACS-D20:24VDC	79 4
-W23	2	=ACS+CB-X3:10	=ACS+ACS-D20:0VDC	79 5
-W23	3	=ACS+CB-X3:14	=ACS+ACS-D20:PE	79 5
-W24.1		=ACS+EL-.:-RS232	=ACS+ACS-D20:-RS232	79 3
-W25		=ACS+ACS-D20:-RS422	=ACS+PC-AP3:-RS422	79 6
-W26		=ACS+CB-D14:-X1	-XC2 =ACS+ACS-D18:-IN	80 4
-W27	1	=ACS+CB-D14:-X2	=RS+CB-D0:-IN	80 4
-W28	1	=ACS+CB-D15:-X1	=SA1+CB-D0:-IN	81 4
-W29	1	=ACS+CB-D15:-X2	=SA2+CB-D0:-IN	81 4
-W30	1	=ACS+CB-D21:-LAN2	=ACS+ACS-D19:-LAN	82 4
-W31	1	=ACS+CB-D21:-LAN3	=ACS+LE-AP4:-LAN	82 4
-W32		=ACS+CB-D22:-UPLINK1	=ACS+EXT-ETHERNET COMMUNICATION	83 4
-W34	1	=ACS+CB-D21:-LAN1	=ACS+CB-D0:-X001	82 4
-W35	1	=ACS+CB-D21:-LAN5	=ACS+CB-D22:-DEV1	82 4
-W24.2	1	=ACS+EL-AP2:-COM1	=ACS+EL-.:-RS232	79 2

Component	Producer	Type 1	Type 2	Type 3	Type 4	Page No.
=ACS +CB -SA0	SIEMENS	3LD2213-0TK53				8 7
=ACS +CB -GU1	TRACO POWER	TSP360-124				9 3
=ACS +CB -FA1	SIEMENS	5SY4110-6				9 3
=ACS +CB -GU2	TRACO POWER	TSP180-148				9 6
=ACS +CB -FA2	SIEMENS	5SY4106-6				9 6
=ACS +CB -FU1	WAGO	281-611/281-541				10 2
=ACS +CB -FU2	WAGO	281-611/281-541				10 3
=ACS +CB -FU3	WAGO	281-611/281-541				10 5
=ACS +CB -FU4	WAGO	281-611/281-541				10 6
=ACS +CB -FU5	WAGO	281-611/281-541				10 7
=ACS +CB -FU6	WAGO	281-611/281-541				11 2
=ACS +CB -FU7	WAGO	281-611/281-541				11 3
=ACS +CB -FU8	WAGO	281-611/281-541				11 5
=ACS +CB -FU9	WAGO	281-611/281-541				11 6
=ACS +CB -FU10	WAGO	281-611/281-541				11 7
=ACS +CB -FU11	WAGO	281-611/281-541				12 3
=ACS +CB -FU12	WAGO	281-611/281-541				12 5
=ACS +CB -FU13	WAGO	281-611/281-541				12 6
=ACS +CB -FU14	WAGO	281-611/281-542				13 5
=ACS +ACS -HL1	LED INSTALL	WW24V07A				14 4
=ACS +ACS -SA1	GME	631-240				14 4
=ACS +CB -D0	BECKHOFF	CX5010-0112				15 2
=ACS +CB -D3	BECKHOFF	EL1809				15 4
=ACS +CB -D1	BECKHOFF	EL1809				15 4
=ACS +CB -D2	BECKHOFF	EL1809				15 4
=ACS +CB -D4	BECKHOFF	EL1809				15 4
=ACS +CB -D5	BECKHOFF	EL9100				15 5
=ACS +CB -D6	BECKHOFF	EL2809				15 5
=ACS +CB -D7	BECKHOFF	EL2809				15 6
=ACS +CB -D8	BECKHOFF	EL2008				15 6

Component	Producer	Type 1	Type 2	Type 3	Type 4	Page No.
=ACS +CB -D9	BECKHOFF	EL9505				16 3
=ACS +CB -D10	BECKHOFF	EL9100				16 4
=ACS +CB -D11	BECKHOFF	EL7041				16 5
=ACS +CB -D12	BECKHOFF	EL9400				17 3
=ACS +CB -D13	BECKHOFF	EL6002				17 3
=ACS +CB -D14	BECKHOFF	EK1122				17 4
=ACS +CB -D15	BECKHOFF	EK1122				17 5
=ACS +CB -D2	BECKHOFF	EL1809				18 3
=ACS +CB -D1	BECKHOFF	EL1809				18 3
=ACS +CB -D4	BECKHOFF	EL1809				18 4
=ACS +CB -D3	BECKHOFF	EL1809				18 4
=ACS +CB -D6	BECKHOFF	EL2809				18 5
=ACS +CB -D7	BECKHOFF	EL2809				18 5
=ACS +CB -D8	BECKHOFF	EL2008				18 6
=ACS +ACS -D19	PROFACE GP-4301TW	PFXGP4301TADW				19 2
=ACS +CB -D21	WAGO	852-111				19 5
=ACS +CB -D22	SECOMEA	1029				19 8
=ACS +ACS -D18	SMC	EX260				20 4
=ACS +ACS -D18	SMC	EX260				21 1
=ACS +ACS -AP1	VIBRA/SHINKO DENSHI	HT 124 RCE				22 4
=ACS +CB -GU3	TRACO POWER	TCL024-112DC				22 4
=ACS +ACS -S0.3	SIEMENS	3SB3203-1HA20	3SB3400-0A	3SB3400-0C		23 2
=ACS +CB -KS0	SIEMENS	3TK2845-1HB40				24 2
=ACS +CB -SB1	SIEMENS	3SB3202-0AA51				24 7
=ACS +ACS -SQ0	OMRON	D4NL-1HFG-B	D4DS-K2			25 2
=ACS +CB -KS0	SIEMENS	3TK2845-1HB40				26 3
=ACS +CB -S0.4	SIEMENS	3SB3000-4HD01	3SB3400-0A	3SB3400-0A		26 5
=ACS +CB -KM1	SIEMENS	3RT2015-1BB42	3RT2916-1JJ00	3RT2916-4MA10		27 3
=ACS +CB -KS0	SIEMENS	3TK2845-1HB40				27 5
=ACS +CB -KM2	SIEMENS	3RT2015-1BB42	3RT2916-1JJ00	3RT2916-4MA10		28 3

Component	Producer	Type 1	Type 2	Type 3	Type 4	Page No.
=ACS +CB -KM3	SIEMENS	3RT2015-1BB42	3RT2916-1JJ00	3RT2916-4MA10		28 4
=ACS +CB -KS3	SIEMENS	3TK2830-1CB30				28 4
=ACS +ACS -YV0	SMC	EAV2000-F02-5YO-Q				29 3
=ACS +CB -KA3	SIEMENS	LZSPT5B5L24				29 6
=ACS +ACS -SP1	SMC	ISE30A-01-B-L				30 5
=ACS +ACS -SQ1.1	SMC	D-A93Z				31 5
=ACS +ACS -SQ1.2	SMC	D-A93Z				31 7
=ACS +ACS -SQ2.2	SMC	D-A93Z				32 7
=ACS +ACS -SQ3.1	SMC	D-A93Z				33 5
=ACS +ACS -SQ3.2	SMC	D-A93Z				33 7
=ACS +ACS -YV19.1	SMC	SY3340-5MOU-Q				34 2
=ACS +ACS -YV19.2	SMC	SY3340-5MOU-Q				34 3
=ACS +ACS -SQ19.1	SMC	D-Y59BZ				34 5
=ACS +ACS -S0.2	OMRON	F3S-TGR-NSMC-21-05				35 3
=ACS +CB -KS2	SIEMENS	3TK2821-1CB30				36 2
=ACS +CB -KT1	SIEMENS	3RP2535-1AW30				37 4
=ACS +ACS -BL7	BALLUFF	BGL50A-001-S49	EVC142			37 7
=ACS +ACS -SQ4.1	SMC	D-A93SAPC	PRO5-M8(F)			38 5
=ACS +ACS -SQ4.2	SMC	D-A93SAPC	PRO5-M8(F)			38 7
=ACS +ACS -YV20.1	SMC	SY3340-5MOU-Q				39 2
=ACS +ACS -YV20.2	SMC	SY3340-5MOU-Q				39 3
=ACS +ACS -SQ20.1	SMC	D-A73HSAPC	PRO5-M8(F)			39 5
=ACS +ACS -SQ20.2	SMC	D-A73HSAPC	PRO5-M8(F)			39 7
=ACS +ACS -S0.1	OMRON	F3S-TGR-NSMC-21-05				40 3
=ACS +CB -KS1	SIEMENS	3TK2821-1CB30				41 2
=ACS +ACS -SQ5.1	SMC	D-A93SAPC	PRO5-M8(F)			42 5
=ACS +ACS -SQ5.2	SMC	D-A93SAPC	PRO5-M8(F)			42 7
=ACS +ACS -SQ6.1	SMC	D-M9BVSAPC	PRO5-M8(F)			43 5
=ACS +ACS -SQ6.2	SMC	D-M9BVSAPC	PRO5-M8(F)			43 7
=ACS +ACS -SQ7.1	SMC	D-A93SAPC	PRO5-M8(F)			44 5

Component	Producer	Type 1	Type 2	Type 3	Type 4	Page No.
=ACS +ACS -SQ7.2	SMC	D-A93SAPC	PRO5-M8(F)			44 7
=ACS +ACS -SQ8.1	SMC	D-A73HSAPC	PRO5-M8(F)			45 5
=ACS +ACS -SQ8.2	SMC	D-A73HSAPC	PRO5-M8(F)			45 7
=ACS +ACS -SQ9.1	SMC	D-A73HSAPC	PRO5-M8(F)			46 5
=ACS +ACS -SQ9.2	SMC	D-A73HSAPC	PRO5-M8(F)			46 7
=ACS +ACS -SQ10.1	SMC	D-A73HSAPC	PRO5-M8(F)			47 5
=ACS +ACS -SQ10.2	SMC	D-A73HSAPC	PRO5-M8(F)			47 7
=ACS +ACS -SQ11.1	SMC	D-A93SAPC	PRO5-M8(F)			48 5
=ACS +ACS -SQ11.2	SMC	D-A93SAPC	PRO5-M8(F)			48 7
=ACS +ACS -SQ16.1	SMC	D-C73SAPC	PRO5-M8(F)			53 5
=ACS +ACS -SQ16.2	SMC	D-C73SAPC	PRO5-M8(F)			53 7
=ACS +ACS -BL1	IFM	OJ5044	E20974	EVT135		56 2
=ACS +ACS -BL8	IFM	OJ5054	E20974	EVT135		56 4
=ACS +ACS -BL9	IFM	OJ5054	E20974	EVT135		56 5
=ACS +ACS -BQ10	IFM	IY5036	EVC148			56 7
=ACS +ACS -BQ2	IFM	IY5036	EVC142			57 2
=ACS +ACS -BQ3	IFM	IY5036	EVC142			57 4
=ACS +ACS -BQ5	IFM	IY5048	EVC148			57 5
=ACS +ACS -BQ6	IFM	IY5048	EVC148			57 7
=ACS +ACS -SM1	SMC	LEFS25B-350				58 3
=ACS +CB -D11	BECKHOFF	EL7041				58 3
=ACS +ACS -BQ4	IFM	IS5005				59 5
=ACS +CB -KA1	SIEMENS	LZSPT5B5L24				60 2
=ACS +ACS -M1	ZEITLAUF	42.2.4225 P11/BCI4225				60 5
=ACS +CB -KA2	SIEMENS	LZSPT5B5L24				61 2
=ACS +ACS -M2	ZEITLAUF	42.2.4225 P11/BCI4225				61 5
=ACS +CB -FA3	SIEMENS	5SY4101-7				62 4
=ACS +CB -GS2	FLS	TPC101A				62 4
=ACS +ACS -YA2	BINDER/KENDRION	OMW516001				62 4
=ACS +CB -GS2	FLS	TPC101A				63 2

Component	Producer	Type 1	Type 2	Type 3	Type 4	Page No.
=ACS +CB -GS2	FLS	TPC101A				64 2
=ACS +CB -K2	PHOENIX	DEK-0V-24DC/24DC/3				64 4
=ACS +CB -FA4	SIEMENS	5SY4101-7				65 4
=ACS +CB -GS3	FLS	TPC101A				65 4
=ACS +ACS -YA3	BINDER/KENDRION	OMW516001				65 4
=ACS +CB -GS3	FLS	TPC101A				66 2
=ACS +CB -GS3	FLS	TPC101A				67 2
=ACS +CB -K3	PHOENIX	DEK-0V-24DC/24DC/3				67 4
=ACS +CB -FA5	SIEMENS	5SY4101-7				68 4
=ACS +CB -GS1	FLS	TPC101B				68 4
=ACS +ACS -YA1	BINDER/KENDRION	OMW516001				68 4
=ACS +CB -GS1	FLS	TPC101B				69 2
=ACS +CB -GS1	FLS	TPC101B				70 2
=ACS +CB -K1	PHOENIX	DEK-0V-24DC/24DC/3				70 4
=ACS +CB -KH1	SIEMENS	3TX7004-1LB00				71 2
=ACS +CB -KH2	SIEMENS	3TX7004-1LB00				71 8
=ACS +CB -KH3	SIEMENS	3TX7004-1LB00				72 1
=ACS +CB -KH4	SIEMENS	3TX7004-1LB00				72 2
=ACS +CB -KH5	SIEMENS	3TX7004-1LB00				72 3
=ACS +CB -KH6	SIEMENS	3TX7004-1LB00				72 8
=ACS +CB -KM6	SIEMENS	3RT2026-1BB40	3RT2926-1JJ00			73 2
=ACS +EL -AP2	ELTRA	FURNACE				73 6
=ACS +CB -FA6	SIEMENS	5SY4116-7				73 6
=ACS +ACS -YV21	SMC	VX210AZ2ADXB				74 3
=ACS +ACS -SP2	SMC	PS1000-R06L-Q				74 6
=ACS +CB -D13	BECKHOFF	EL6002				78 3
=ACS +ACS -AP1	VIBRA/SHINKO DENSHI	HT 124 RCE				78 6
=ACS +PC -AP3	ELTRA					78 6
=ACS +EL -AP2	ELTRA	FURNACE				79 2
=ACS +ACS -D20	MOXA	TCC-100I				79 5

Component	Producer	Type 1	Type 2	Type 3	Type 4	Page No.
=ACS +PC -AP3	ELTRA					79 7
=ACS +CB -D14	BECKHOFF	EK1122				80 3
=RS +CB -D0	BECKHOFF	EK1100				80 6
=ACS +ACS -D18	SMC	EX260				80 6
=ACS +CB -D15	BECKHOFF	EK1122				81 3
=SA1 +CB -D0	BECKHOFF	EK1100				81 6
=SA2 +CB -D0	BECKHOFF	EK1100				81 6
=ACS +CB -D21	WAGO	852-111				82 3
=ACS +CB -D0	BECKHOFF	CX5010-0112				82 6
=ACS +ACS -D19	PROFACE GP-4301TW	PFXGP4301TADW				82 6
=ACS +LE -AP4	LECO					82 6
=ACS +CB -D22	SECOMEA	1029				82 6
=ACS +CB -D22	SECOMEA	1029				83 3
=ACS +ACS -USB	RITTAL	SZ2482.210				85 3
=ACS +ACS -D19	PROFACE GP-4301TW	PFXGP4301TADW				85 5

FLSmidth

CARBON & SULPHUR ANALYZER
ACS820

LIST OF COMPONENTS

PROJECT: ACS820-805002
DEVICE:
LOCATION:

DATE: 12.11.2016
REVISION: 15.5.2017
INITIALS: ToJa

PAGE No.: 117
DOCUMENT: *FLSB-805002*
COMMISSION: 16632