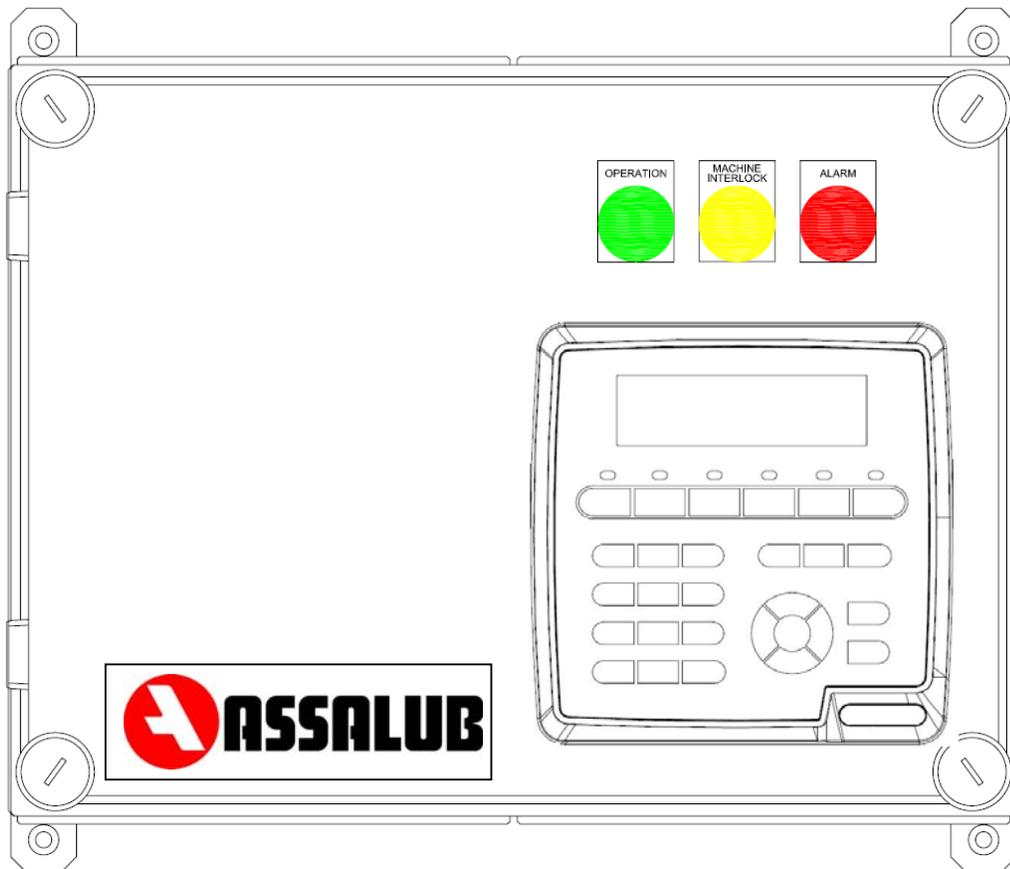


CONTROL UNIT LUBRICATION MONITORING CCMon10 Art.nr. 907434 USER'S MANUAL



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3. HANDLING

MAIN MENU

```
***  MAIN MENU  ***
LUB. INFO
SETTINGS
START          STOP
```

Change to main menu:
Press: Home

```
LUB. INFO
SETTINGS
ALARM
START          STOP
```

Move up and down in the main menu:
Press: up or down arrow

Starting and stopping the control unit:
In the main menu, press F2 to start, F4 to stop.

PASSWORD

To make it impossible for any unauthorised persons to change the settings for times and pressures, these have been password-protected. To gain access to the settings, press F1 on the main menu – then this is displayed:

```
Password:
```

Key in the password (on delivery, this is 1234) and
press: Enter

The following will then be displayed for a short time:

```
Level is 1
```

The settings can now be changed.

To change the password, press F5 (in the main menu)- the following is displayed:

```
Level 1 :1234
```

Key in the new password as required, and
press: Enter

If the keyboard is not used for 1 minute, the following is displayed:

```
You are logged out
```

The settings are then protected once more.

SUB-MENUS

To reach the required sub-menu:

Place the cursor on the row containing the desired sub-menu using: up or down arrow and press: Enter

LUBRICATION INFORMATION

First choose for which lubrication point you want information about.

```
**      LUB. INFO      **
LUB. POINT 1
LUB. POINT 2
LUB. POINT 3
```

Place the cursor on the row containing the desired lubrication point using: up or down arrow and press: Enter

Information about the chosen lubrication point is shown:

```
**  LUB. POINT 1  **
  10 CM3 /   82 MIN
  23 CM3 /  180 MIN
  25 CM3 SET
  875 CM3 THIS WEEK
 1295 CM3 / WEEK
269875 CM3 TOTAL 0
3486952 CM3 TOTAL
ACTIVE
```

In this case lub. point 1 has got 10 cm³ during the 82 minutes that has passed of the current lubrication interval.

During the previous interval (180 min.) 23 cm³ was obtained.

The set value is 25 cm³.

875 cm³ has been obtained up to now this week.

1295 cm³ was obtained previous week.

269875 cm³ has been obtained since the resettable counter was reset.

3486952 cm³ has been obtained since the system was started.

To reset the upper counter, place the cursor on that row with: up or down arrow, press 0 and Enter

ACTIVE tell that the lubrication point is activated.

MACHINE STOP tell that the lubrication point belongs to a machine stopped channel.

SHUT OFF tell that the lubrication point belongs to channel 0, i.e. the lubrication point is not in use.

SETTINGS

Before the settings can be changed you must be logged in, see part Password.

First choose for which lubrication point the settings shall be changed or if the settings for the machine control contact shall be changed under SETUP.

```
**      SETTINGS      **
SETUP
LUB. POINT 1
LUB. POINT 2      +
```

Place the cursor on the selected row with: up or down arrow and press: Enter

If some of the lubrication point was chosen the settings for the lubrication point is shown:

```
SETTINGS LUB.P. 1
25      AMOUNT CM3
180     INTERVAL  MIN
50      ALARM.  MAX
20      ARARM   MIN
1       CHANNEL
```

Place the cursor on the selected row with: up or down arrow, type in the value and press: Enter

```
SETTINGS LUB.P. 1
25      AMOUNT CM3
180     INTERVAL  MIN
50      ALARM.  MAX
20      ARARM   MIN
1       CHANNEL
```

AMOUNT

Set the amount per interval in $i \text{ cm}^3$. Only even multiples of the amount that the flow meter gives per pulse can be set. If e.g. 3.2 is set the value automatically becomes 3,3

INTERVAL

The lubrication interval in minutes.

ALARM LIMIT MAX

Set the amount that shall be exceeded to obtain a high flow alarm.

ALARM LIMIT MIN

Set the amount that the actual amount shall be below to obtain a low flow alarm.

CHANNEL

Set which channel the lubrication point shall belong to. This controls which machine steering input that shall control this lubrication point, there are four machine steering contact = four channels. Set the channel to 0 if the lubrication point isn't in use.

SETTINGS FOR THE MACHINE CONTROL INPUTS

If the SETUP alternative was chosen the following is shown:

```
***      SETUP      ***
Open when running C1
Open when running C2
Clos when running C3
```

This show that the machine control contacts for channel 1 and channel 2 shall be open when the machine is running. The machine control contacts for channel 3 shall be closed when the machine is running.

To change the settings for the channels::

Place the cursor on the row with the selected channel with: up or down arrow and press: Enter

Then place the cursor on the selected choice and press SELECT (F2).

ALARM

Alarm events are listed on this screen, which can also be reached by pressing: Alarm

```
LUB.P 1 LOW FLOW
LUB.P 2 HIGH FLOW

+      TIME      EXIT
```

The upper alarm shows that the amount for lubrication point 1 during the interval was below the min alarm limit. The lower alarm shows that the amount for lubrication point 2 during the interval was above the max alarm limit

The alarms list stores the last 99 alarm events. To remove an alarm from the alarms list, place the cursor on the alarm required using: up or down arrow and press: left arrow

To find out the time when an alarm occurred, place the cursor on the alarm required using: up or down arrow and then press F4 (TIME).

Press F3 (+) to adjust the text size.

MACHINE INTERLOCKING

```
**  LUB. POINT 1  **
  10 CM3 /   82 MIN
  23 CM3 /  180 MIN
  25 CM3 SET
  875 CM3 THIS WEEK
 1295 CM3 / WEEK
 269875 CM3 TOTAL 0
 3486952 CM3 TOTAL
MACHINE STOP
```

When the contact for the machine locking is operated, the time calculation stops, to restart once the contact has been made again. The 'Machine stop' light on the front of the central control unit will be lit during a machine stop.

At the bottom of the menu for lubrication information MACHINE STOP is shown for the lubrication points that belongs to the machine stopped channel.

ALARM ACKNOWLEDGEMENT

When an alarm has occurred, the alarm screen is displayed:

```
* LUB.P 1 LOW FLOW
  LUB.P 2 HIGH FLOW

+      TIME      EXIT
```

The asterisk (*) shows which alarm has not been acknowledged. Acknowledgement is carried out by pressing Ack. The alarm output returns to the normal status.

In cases when two alarms have occurred at the same time, and only one has been acknowledged, a \$ sign will be displayed in the alarms list for the unacknowledged alarm. The \$ sign is also acknowledged by pressing F2 (ACK).

OPERATION INDICATOR

The output for operation indicator is closed when the control unit is in operation.

4. TROUBLESHOOTING

PROBLEM

The display is on but the central control unit cannot be started using F2.

The display is off and the PLC power-lamp is on.

The display is on and the PLC power-lamp is off.

The display is off and the PLC power-lamp is off.

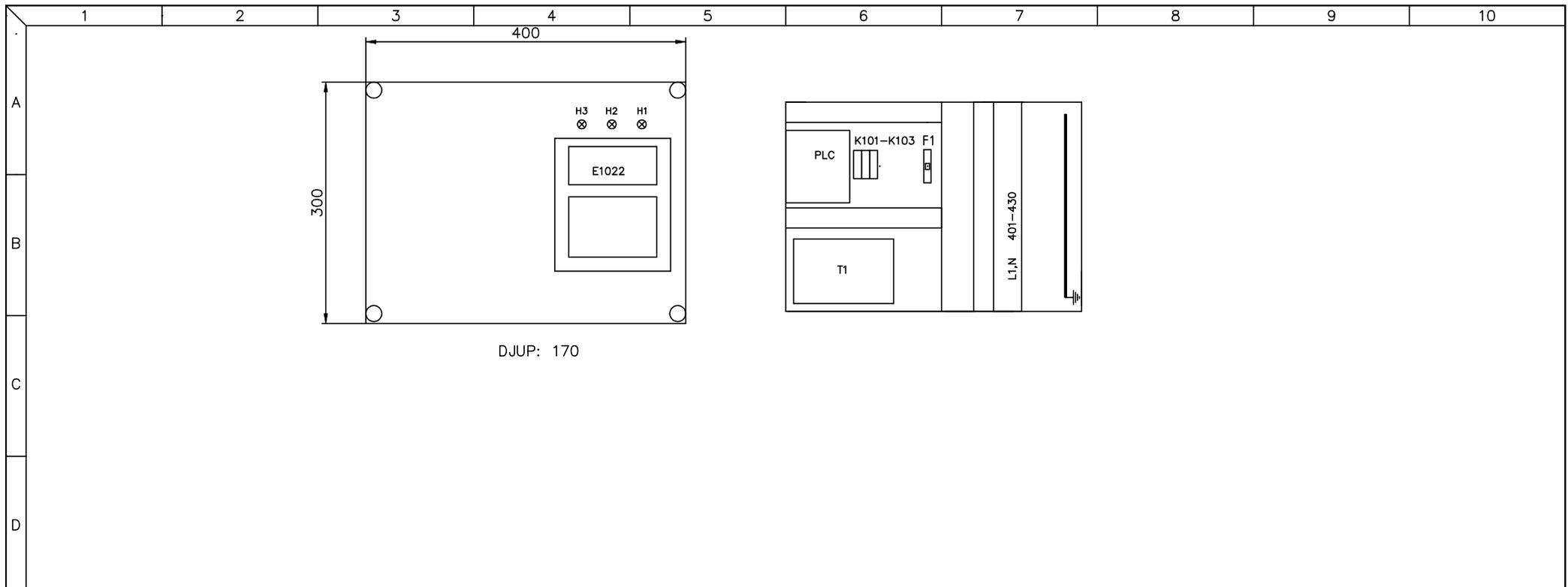
REMEDIAL ACTION

Check that the PLC is in RUN mode.

Check the fuse on the mains power unit. Next, check whether any power is being supplied to the operator panel to find out if the mains power unit or the operator panel are faulty. Check the 230 V supply to the PLC.

Check that power is being supplied to the central control unit and that the fuse on the central control unit has not blown.

When ordering spares, always give the serial number for the central control unit.



DJUP: 170

Nr.	Pos.	Name	Type	Data	Manufact.
1		BOX	CAB PC 3040 18G		FIBOX
1		MOUNTING LUG	FP12017		FIBOX
1		MOUNTING PLATE	EKIV 43		FIBOX
1	E1022	DISPLAY	E1022		BEIJER ELECTRONICS
1	PLC	PLC	FX1N-24MR-ES/UL		BEIJER ELECTRONICS
1		CABLE	CAB 19/3		BEIJER ELECTRONICS
1	T1	TRANSFORMER	DR 120 24	230Vac/24Vdc 120VA	MEANWELL
1	F1	CIRCUIT BREAKER	192 66	1-POL+N 10A	TELEMECANIQUE
3	K101-103	RELY	C10 A20 24D	24VDC 1-POL	RELECO
1	N	TERMINAL BLOCK	M4/6.N		ENTRELEC
10	401-410	TERMINAL BLOCK	D2,5/6.DA		ENTRELEC
21	L1, 411-430	TERMINAL BLOCK	M4/6		ENTRELEC
1	H1	LAMP	XB4-BVB4	24V RÖD	TELEMECANIQUE
1	H2	LAMP	XB4-BVB5	24V GUL	TELEMECANIQUE
1	H3	LAMP	XB4-BVB3	24V GRÖN	TELEMECANIQUE
3		SCREW CAP	20		RUTAB
17		SCREW CAP	16		RUTAB

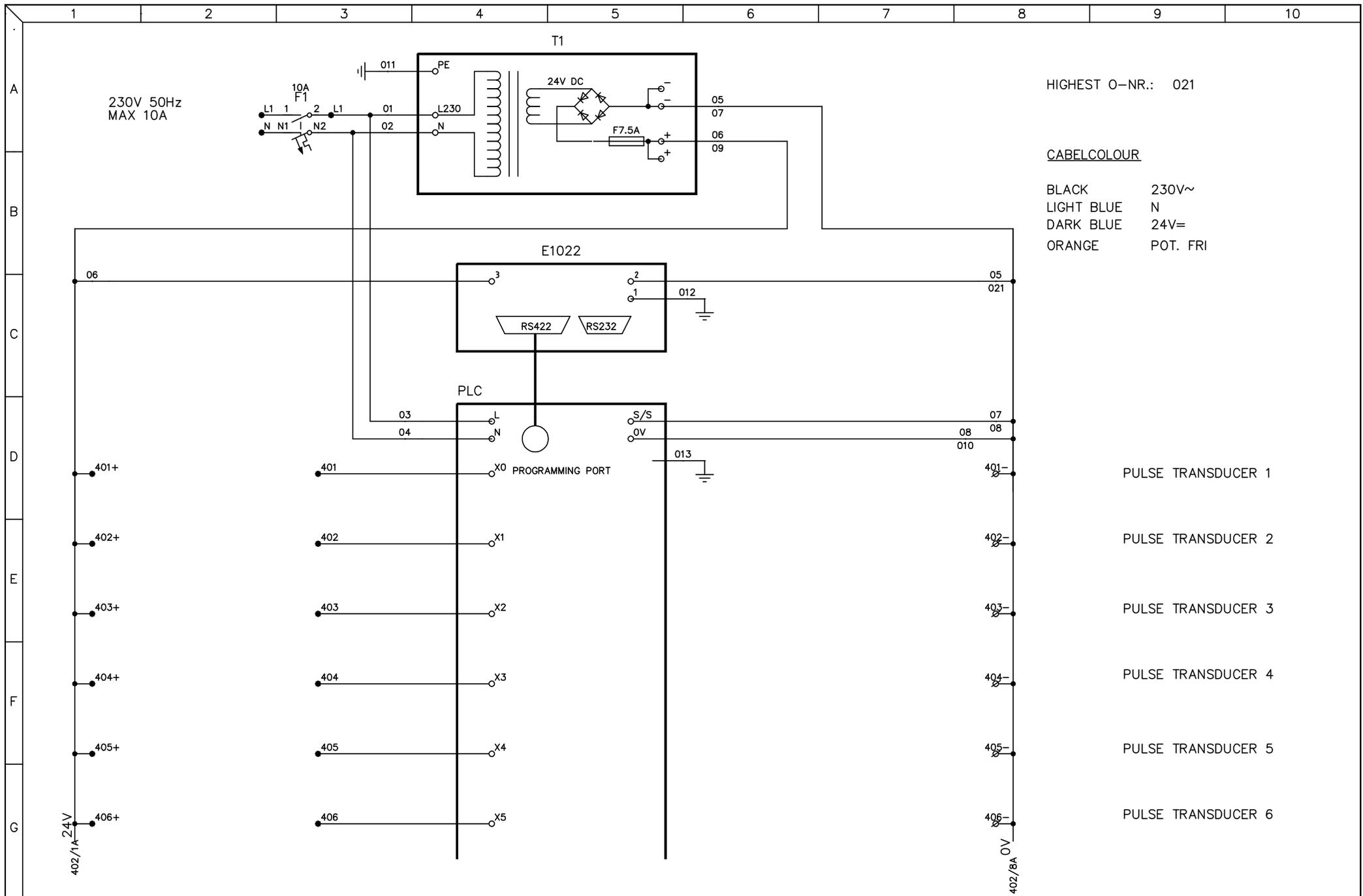
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 Date: 20100830



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ASSALUB AB
 CCMon 10
 No 907434
 CIRCUIT DIAGRAM

Proj.no. 90015	Sheet 201	Cont. 401
Drawing no 90015-02		
Customer referens 32603		-

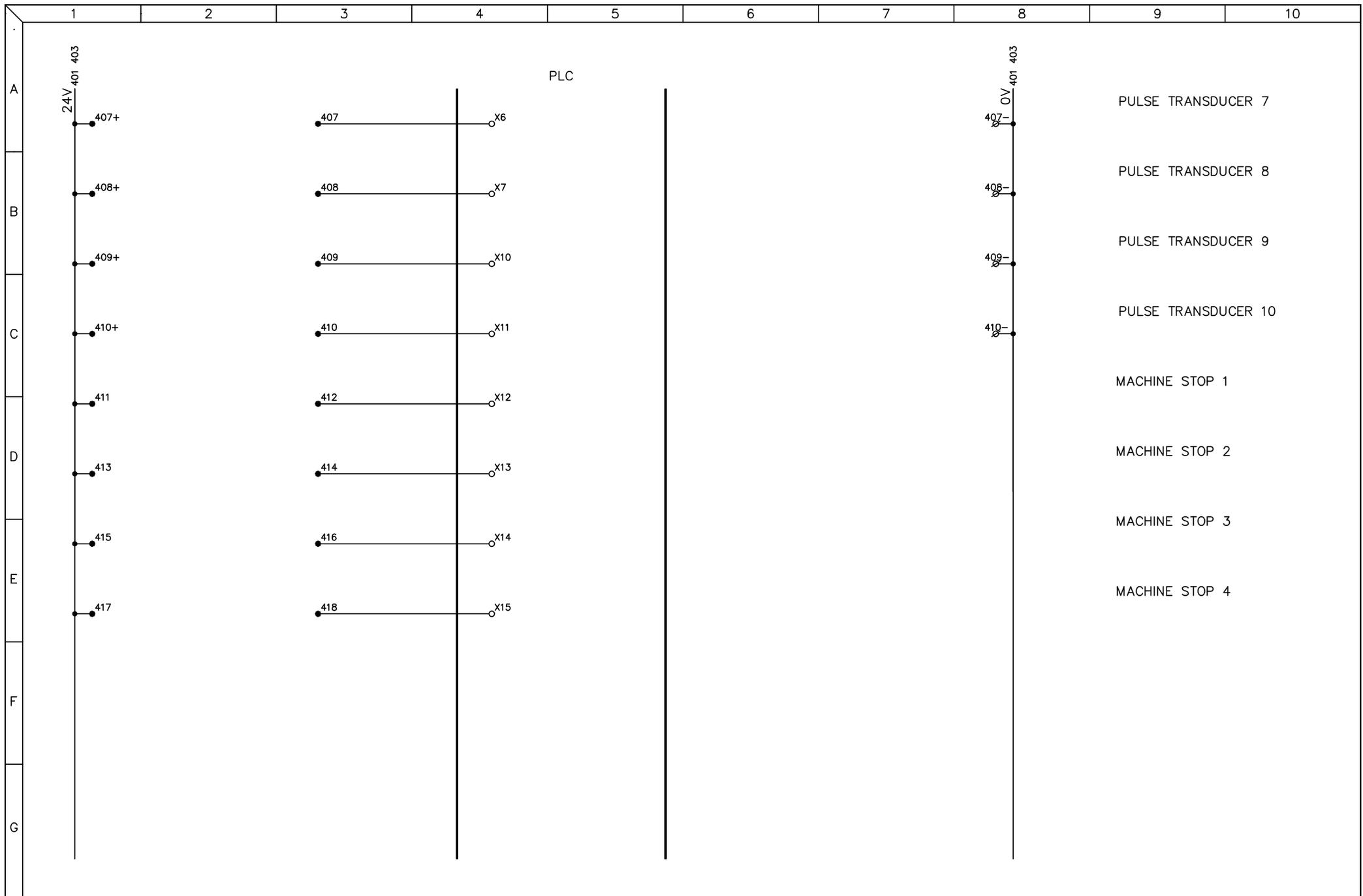


Filename: 90015-02
 Designed by: VS
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 Date: 20100830



ASSALUB AB
 CCMon 10
 No 907434
 CIRCUIT DIAGRAM

Proj.no. 90015	Sheet 401	Cont. 402
Drawing no. 90015-02		
Customer referens 32603		-

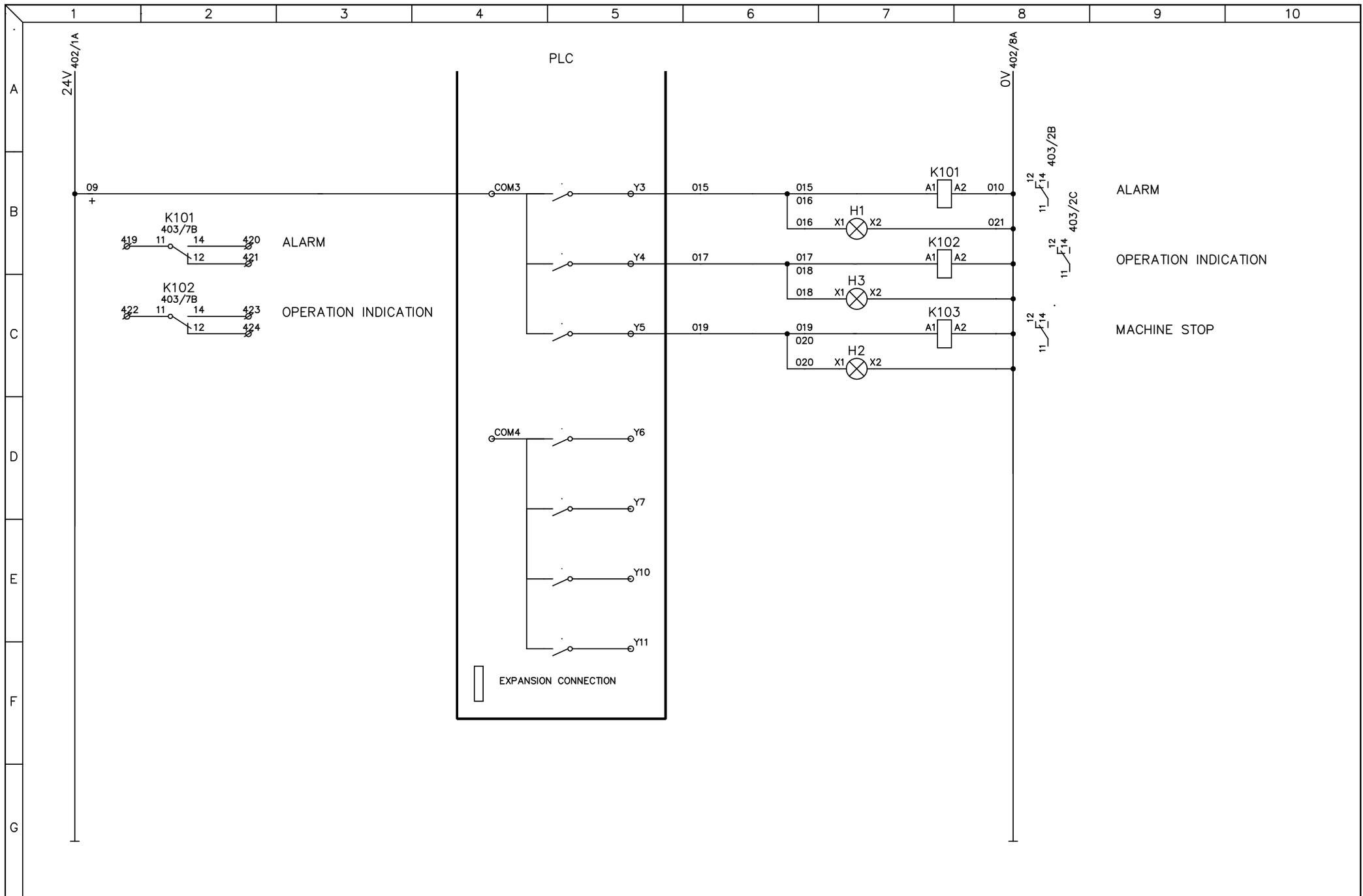


Filename: 90015-02
 Designed by: VS
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 Date: 20100830



ASSALUB AB
 CCMon 10
 No 907434
 CIRCUIT DIAGRAM

Proj.no. 90015	Sheet 402	Cont. 403
Drawing no 90015-02		
Customer referens 32603		-



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ASSALUB AB
CCMon 10
No 907434
CIRCUIT DIAGRAM

Proj.no. 90015	Sheet 403	Cont. 501
Drawing no 90015-02		
Customer referens 32603		-

	1	2	3	4	5	6	7	8	9	10			
A	WIRE			BOX		COND.- WAY	CONNECTING POINT A			COND.- WAY	CONNECTING POINT B		NOTE
	Ledning	Cable No	Part No	Reference	Con. Block		Reference	Component	Socket		Reference	Component	
A	-S 3-COND		1		L1		CENTRAL					POWER SUPPLY 230V 50 Hz MAX 10A	
			2		N		GROUP						
			3		J								
B	-U 3-COND		1		401		PULSE TRANSDUCER 1	SIGN					
			2		+			+24V					
			3		-			-24V					
C	-U 3-COND		1		402		PULSE TRANSDUCER 2	SIGN					
			2		+			+24V					
			3		-			-24V					
D	-U 3-COND		1		403		PULSE TRANSDUCER 3	SIGN					
			2		+			+24V					
			3		-			-24V					
E	-U 3-COND		1		404		PULSE TRANSDUCER 4	SIGN					
			2		+			+24V					
			3		-			-24V					
F	-U 3-COND		1		405		PULSE TRANSDUCER 5	SIGN					
			2		+			+24V					
			3		-			-24V					
G	-U 3-COND		1		406		PULSE TRANSDUCER 6	SIGN					
			2		+			+24V					
			3		-			-24V					
H	-U 3-COND		1		407		PULSE TRANSDUCER 7	SIGN					
			2		+			+24V					
			3		-			-24V					
I	-U 3-COND		1		408		PULSE TRANSDUCER 8	SIGN					
			2		+			+24V					
			3		-			-24V					
J	-U 3-COND		1		409		PULSE TRANSDUCER 9	SIGN					
			2		+			+24V					
			3		-			-24V					
K	-U 3-COND		1		410		PULSE TRANSDUCER 10	SIGN					
			2		+			+24V					
			3		-			-24V					
L	-U 2-COND		1		411		MACHINE STOP 1						
			2		412								

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ASSALUB AB
CCMon 10
No 907434
WIRING DIAGRAM

Proj.no. 90015	Sheet 501	Cont. 502
Drawing no 90015-02		
Customer referens 32603		-

	1	2	3	4	5	6	7	8	9	10					
A	WIRE				BOX		COND.- WAY	CONNECTING POINT A			COND.- WAY	CONNECTING POINT B		NOTE	
	Ledning	Wire No	Part No	Reference	Con. Block	Reference		Component	Socket	Reference		Component	Socket		
A	-U 2-COND		1		413		MACHINE STOP 2								
			2		414										
B	-U 2-COND		1		415		MACHINE STOP 3								
			2		416										
B	-U 2-COND		1		417		MACHINE STOP 4								
			2		418										
C	-U 3-COND		1		419		ALARM		C						
			2		420				No						
			3		421				Nc						
C	-U 3-COND		1		422		OPERATION INDICATION		C						
			2		423				No						
			3		424				Nc						
D					425										
					426										
					427										
					428										
D					429										
					430										
E															
F															
G															

Filename: 90015-02
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ASSALUB AB
 CCMon 10
 No 907434
 WIRING DIAGRAM

Proj.no. 90015	Sheet 502	Cont. -
Drawing no 90015-02		
Customer referens 32603		-