CONTROL CENTRE
FOR
DUAL LINE GREASE LUBRICATION SYSTEM

CC1 MKII
Art. No. 907479

USER INSTRUCTIONS

CONTENTS

1. BESKRIVNING

The central control unit CC1 controls and monitors 2 line grease lubrication systems.

FUNCTIONS

- Settable pump and pause periods.
- Pressure settings, in cases where pressure transducers are used.
- All settings are password-protected.
- Optional extra lubrication.
- Optional manual operation.
- Control via the lubricated machine.
- Output for operation indicator.
- Output for alarms - issuing alarms when the set pressure has not been reached during the pump period, when there is a low level in the drum of lubricant, short circuit in the pressure transducer, at pressure acknowledgement from the wrong line or at too high rest pressure.

DEFINITIONS

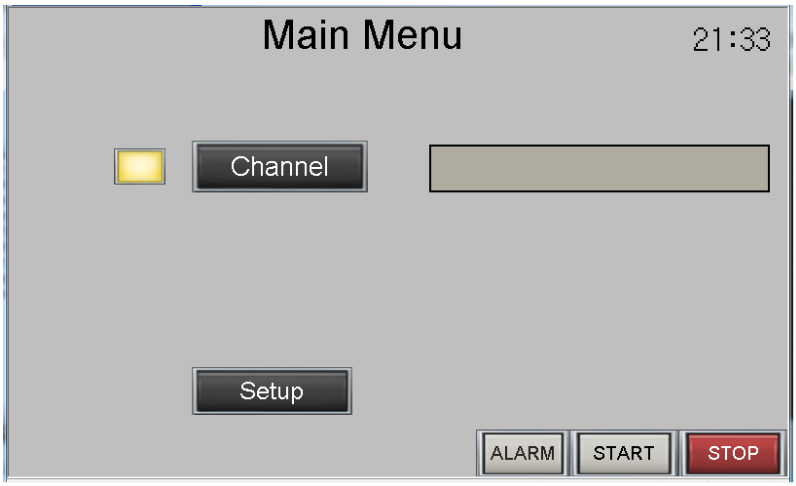
Line1, Line2	The two lines that are alternately pressurised in a 2 line lubrication system.
Pause period	Time from pump stop to pump start.
Pressure operating period	The time from pump start until its set pressure is achieved and the pump is stopped.
Extra pressure operating period	Settable extra time from pressure acknowledgement to depressurisation.
Pump period	Maximum pressure operating period before an alarm is issued.
Lubrication cycle	The time between lubrications of every individual lubrication point, i.e. two pressure operating periods and two pause periods.

2. DATA

Enclosure classification	IP 65	
Dimension	400x400x200 (BxHxD)	
Weight	12,5 kg.	
Power supply	100-240 VAC 1,8-0,9 A 50-60 Hz	
Outputs:	Max load	80 VA resistiv load 100 W inductive load
	Alarm output	Voltage-free change over contact
	Running output	Voltage-free change over contact
	Voltage	Built-in power source 24 V 3A
Setting range	Pump time	1 - 9999 sec.
	Pause time	1 - 9999 min.
	Pressure	1 - 250 Bar

3. HANDLING

MAIN MENU



To get to the main menu, press 

this button as avaliable in all menus.

Start the control unit by pressing 

The button becomes green (

) when the control unit is running.

The yellow lamp becomes green at ongoing lubrication.

PASSWORD

To make it impossible for any unauthorised persons to change the settings and configuration, these have been password-protected.

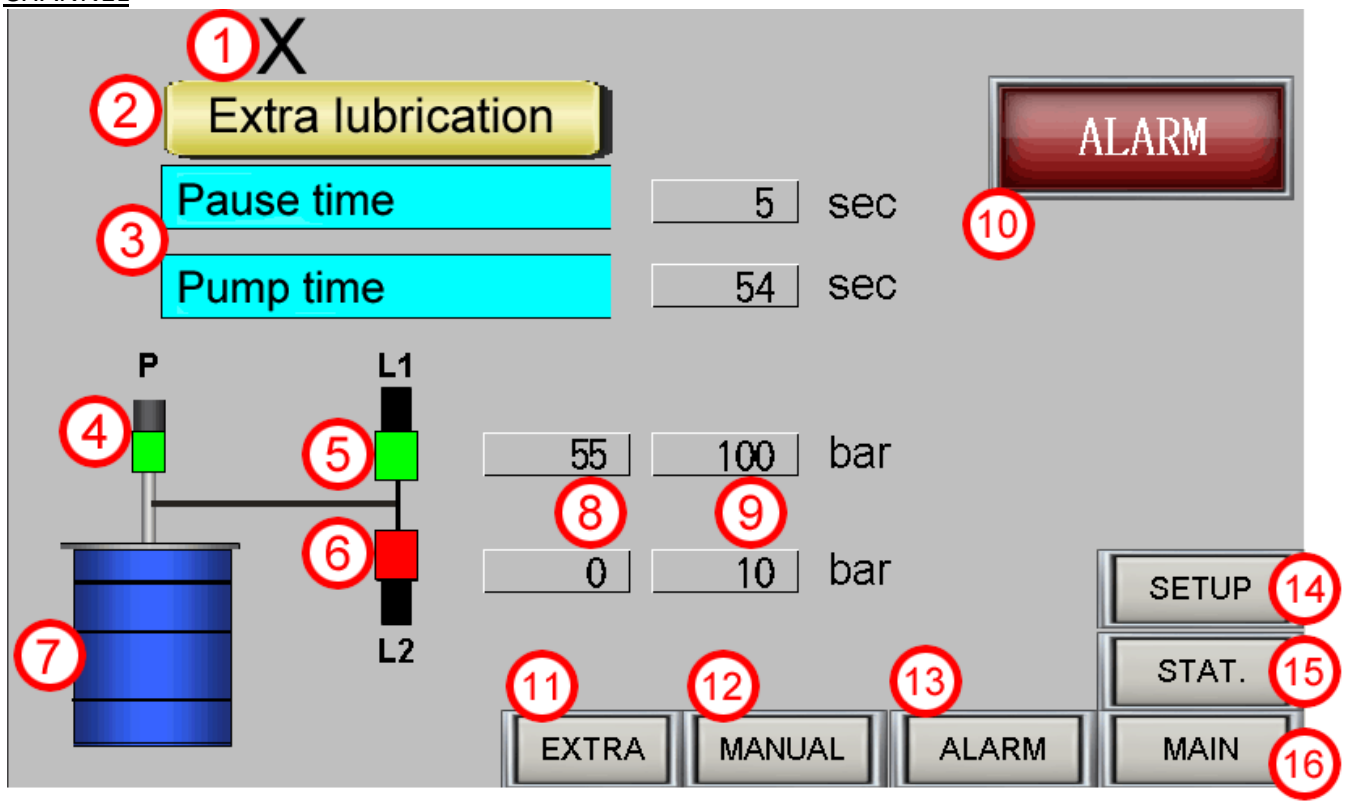
If the page is password protected you find an open 🔓 or closed 🔒 padlock in the lower left corner of the screen. If the padlock is closed 🔒 it is not possible to change any settings. Press the padlock 🔒 and type in the operator name and password. The padlock is then open 🔓 and it is possible to change the settings.
Press the padlock if you want to close it to protect the settings again.

At delivery the operator name is 1 and the password is 1234

SUB MENUS

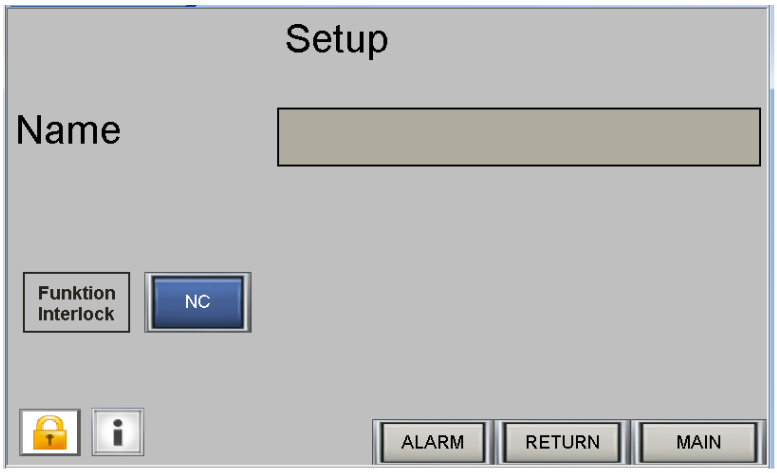
To reach the required sub menu press Channel or Setup

CHANNEL



1. The name of the machine
2. Information text.
   Show if the lubrication is machine stopped, if an extra lubrication is running, or if the control unit is in manual mode. Not running is shown if the control unit is stopped.
3. Lubrication status.
   Show pump time and pause time.
4. Pump indication
   Show green when the pump is running, if not, red.
5. Line indication
   Show green when line 1 is open, if not, red.
6. Line indication
   Show green when line 2 is open, if not, red.
7. Grease indication
   Show blue when there are grease left, red at low level.
8. Pressure
   Shows the pressure in line 1 and line 2
9. Set pressure
   Shows the acknowledgement pressure and maximum rest pressure.
10. Alarm indication
    Shows that there are an active alarm.
11. Button for extra lubrication.
12. Button for manual lubrication.
13. Button for alarm list.
14. Button for settings.
15. Button for statistics.
16. Button for main menu.

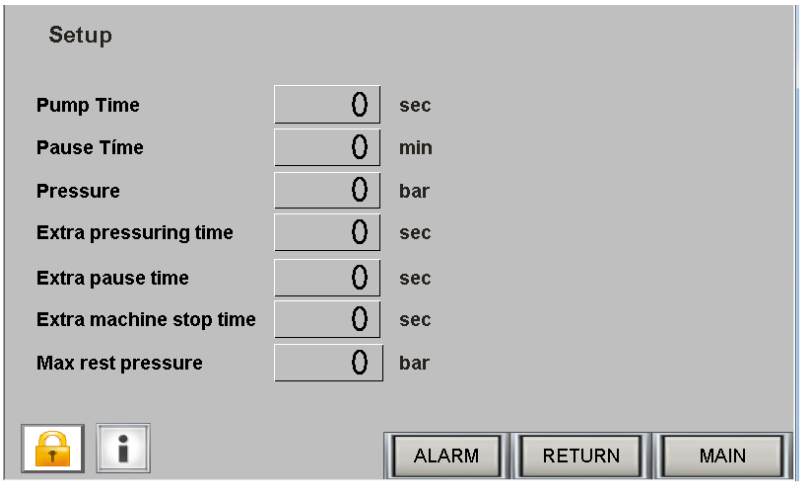
SETUP



Set the lubricated machine's name

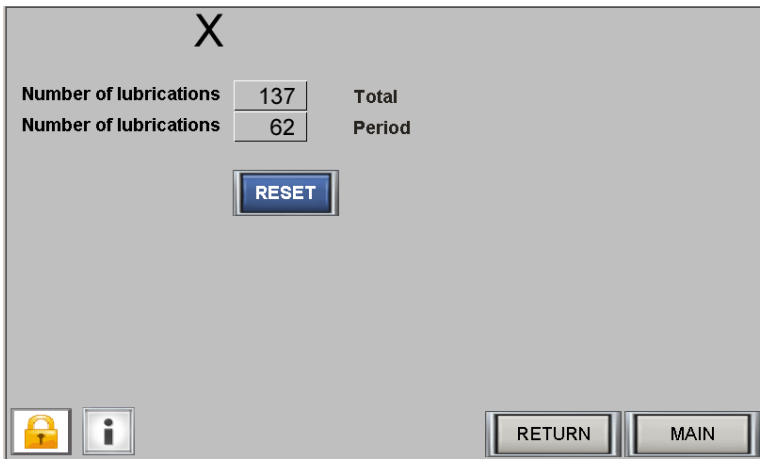
The function for machine stop can be changed between NO and NC contact.

SETTINGS



Set the **pump time**, **pause time** and **pressure**.
Extra pressuring time is the extra pressure operating period, must not be 0
Extra pause time is the time between pressurisations of both lines in the event of extra lubrication.
Extra machine stop time is the time the lubrication remains after machine stop.
Max rest pressure is the maximum pressure in line 2 when the lubrication of line 1 start (or the maximum pressure in line 1 when the lubrication of line 2 start.)

STATISTICS

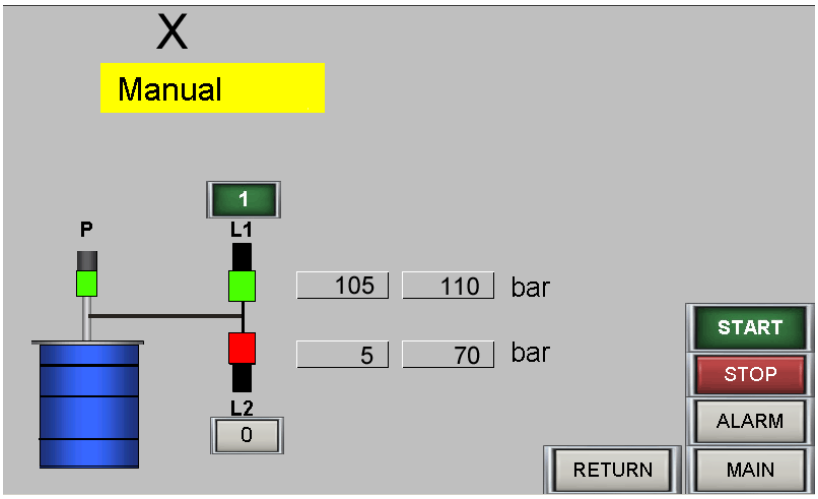


The number of lubrications are displayed on this screen.

The top row displays the total number of lubrications since the central control unit has been in operation.
The lower row shows the number of lubrications since the last zeroing. To reset the number of lubrications, press: RESET.

MANUELL OPERATION

Both of the lines can be pressurised manually on this screen to facilitate troubleshooting etc.



Start the manual operation by pressing START that becomes green (START).

Press the button 0 to pressurize the line., the button changes to 1.

Press the button again to release the pressure.

The pump starts once a line has been pressurised. The pump stops when the set pressure has been reached and the pressure is maintained. If the pressure should drop the pump is started again.

Conclude manual operations by pressing STOP .

ALARM

Alarm events are listed on this screen.

Low grease level. Show that the level is low in the drum of lubricant.
Pump time line 1. Show that there has been no pressure acknowledgement during the pump period
Pressure sensor line 1. Show abnormal pressure from line 1, indicating broken pressure sensor or short circuited cables.
Wrong line. Show pressure acknowledgement from wrong line, indicating that the pressure transducers wrongly connected.
High rest pressure line 1. Show too high remaining pressure in line 1 when the lubrication of line 2 started.

Acknowledgement is carried out by pressing 

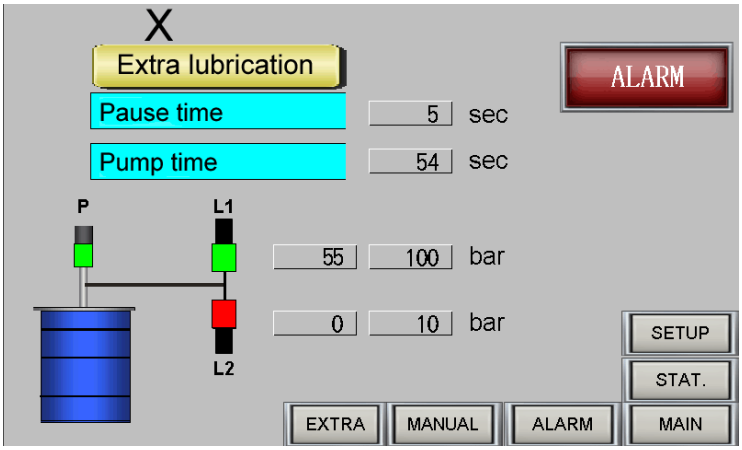
.

ALARM HISTORY

By pressing 

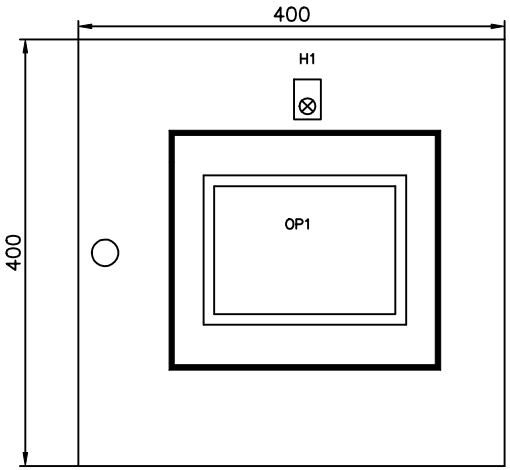
a screen with the alarms is shown with information when they occurred.

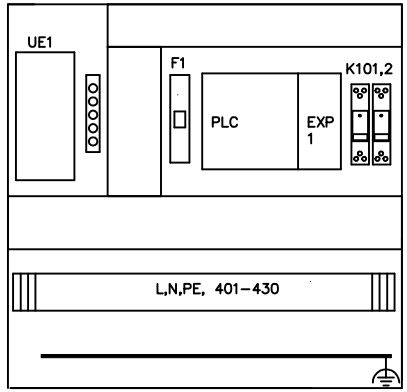
EXTRA LUBRICATION



The extra lubrication is started by pressing 

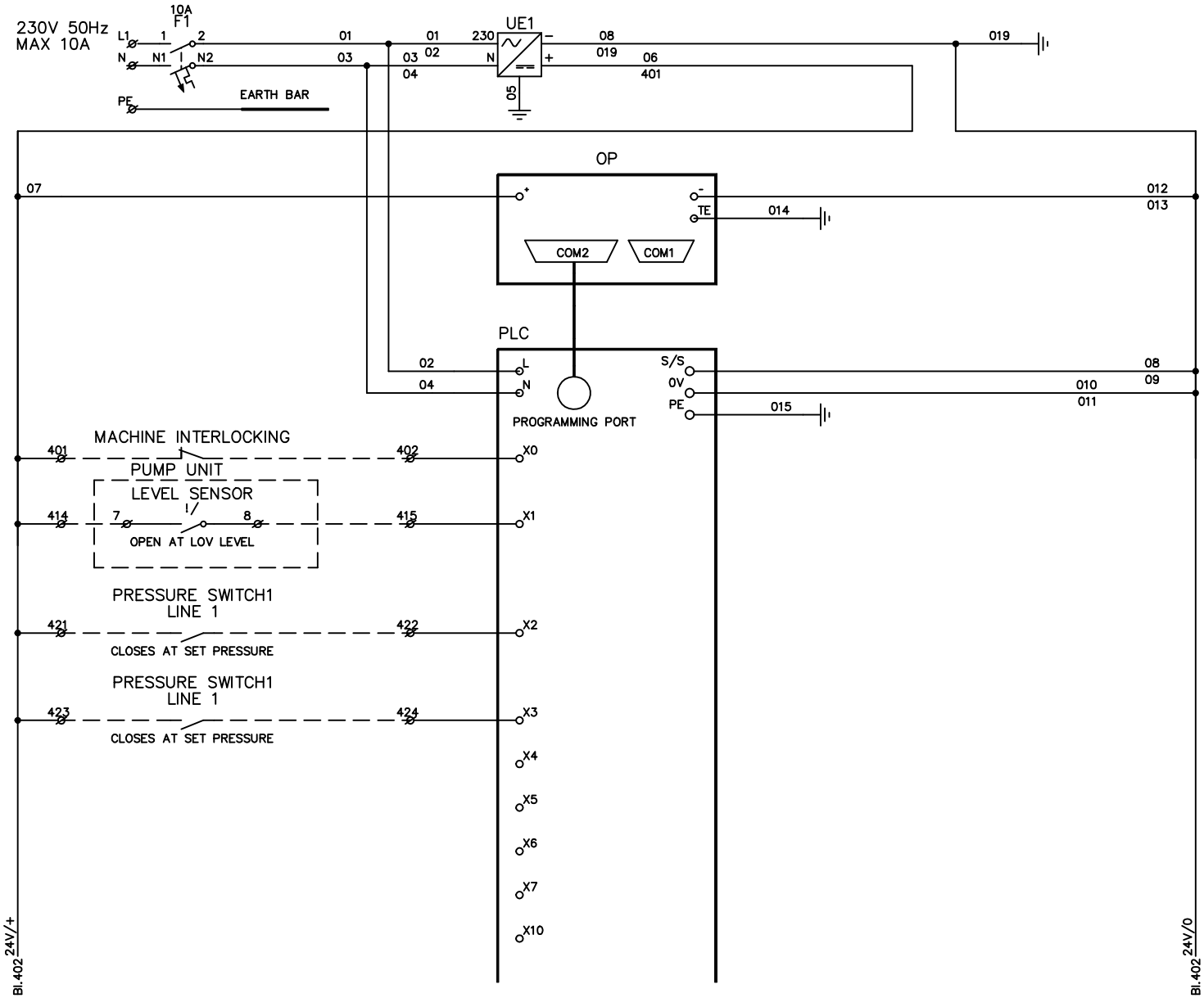
D= 200





No	Pos.	Name	Type	Data	Manufact.	Remarks	R
1		CABINET	NSYS3D4420P		SCHNEIDER ELECTRIC		
1		MOUNTING LUG	NSYAEFPFSC		SCHNEIDER ELECTRIC		
1	H1	ALARM LAMP	XB4–BVB4	24V RED	SCHNEIDER ELECTRIC		
1	F1	MINI CIRCUIT BRAKER	A9N21555	DPN C6A	SCHNEIDER ELECTRIC		
1		GROUND BAR	Cu 3x10mm		AHLSELL		
10		GROUND CONNECTOR	ZB4		AHLSELL		
1	UE1	POWER SUPPLY	DR24120	230/24Vdc 3A	MEAN WELL		
1	OP1	DISPLAY	GS2107–WTBD		MITSUBISHI		
1	PLC	CONTROLLER	FX3G–14MR–ES/UL		MITSUBISHI		
1	EXP1	ANALOG INPUT MODULE	FX2N–2AD		MITSUBISHI		
1		CABLE	GT01–C10R4–8P		MITSUBISHI		
2	K101, K102	RELAY	C10 A10 BX024 + S10	24Vdc 1–VXL	RELECO		
1		FRAME	L24 2	E2539789	FIBOX		
1		GROUND TERMINAL BLOCK	20 990 60		MALMBERGS		
2	1, 2	TERMINAL BLOCK	M4/6		ENTRELEC		
30	401–430	TERMINAL BLOCK	MA2,5/5		ENTRELEC		
1	PE	GROUND TERMINAL	SL2,5/35		CONTACLIP		
1		FLANGE	FL2133		ELKAPSLING		

File 15771–02	ASSALUB	Centralized Lubrication System	Proj.no 15771	Sheet no. 201
Designed by JÅ		CC1–MKII	Drawing no. 15771–02	Cont. 301
Drawn by.		No: 907479	Ref. no. SCxxxx	Rev. –
Date 150702		Lay–out/ Parts List		

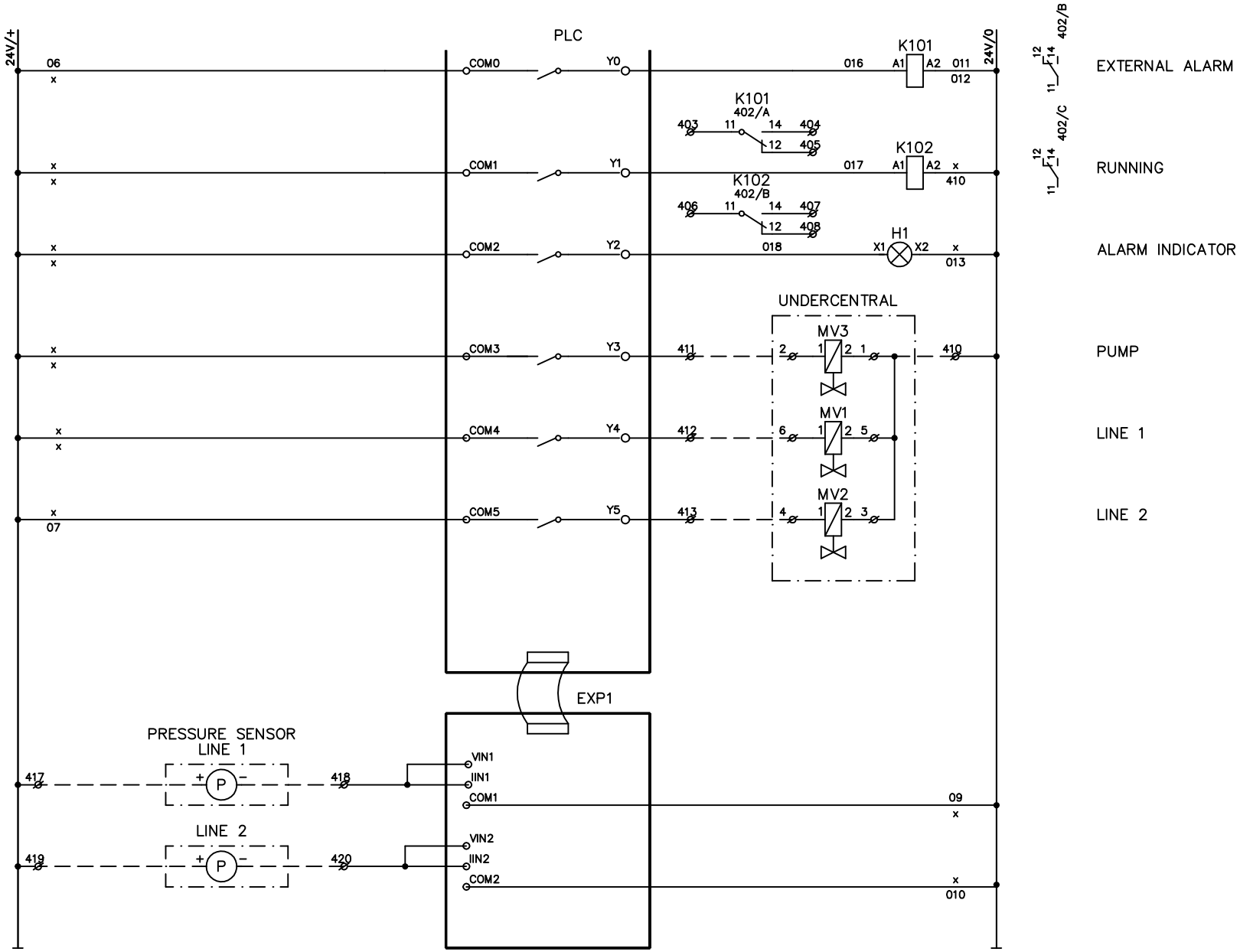


HIGHEST NO: 019

CABLE COLOURS

BLACK	230VAC
LIGHT BLUE	N
DARK BLUE	24V= +
GRAY	24V= 0V
ORANGE	POT. FRI

File 15771−02	ASSALUB	Centralized Lubrication System CC1−MKII No: 907479 Circuit Diagram	Proj.no 15771	Sheet no. 401
Designed by JÅ			Drawing no. 15771−02	Cont. 402
Drawn by.			Ref. no. SCxxxx	Rev. −
Date 150702				



File 15771–02	ASSALUB	Centralized Lubrication System	Proj.no 15771	Sheet no. 402
Designed by JÅ		CC1–MKII	Drawing no. 15771–02	Cont. 501
Drawn by.		No: 907479	Ref. no. SCxxxx	Rev. –
Date 150702		Circuit Diagram		

	Cable				Cabinet		Cable-path	Connecting Point A			Cable-path	Connecting Point B		Remark.	R
	Wire	Cable No.	Part nr	Ref.	Term. no	Ref.		Apparatus	Con. Point.	Ref.		Apparatus	Con. Point.		
A	-S 3-COND.		1		L1			CENTRAL						POWER SUPPLY 230V	
			2		N			GROUP						50Hz MAX 10A	
			3		PE										
B															
	-U 2-COND.		1		401			MACHINE STOP							
			2		402										
C	-U 2-COND.		1		403			ALARM						COM	
			2		404									OPEN AT ALARM	
					405									CLOSED AT ALARM	
D	-U 2-COND.		1		406			OPERATION						COM	
			2		407									CLOSED AT RUNNING	
					408									OPEN AT RUNNING	
E	-U 8-COND.		1		409			CENTRALIZED						SPARE	
			2		410			LUBRICATION	1,3,5					COMMON. 0V	
			3		411				2					SV PUMP	
			4		412				6					SV LINE 1	
			5		413				4					SV LINE 2	
			6		414				7					LEVEL SWITCH	
F			7		415				8					"-	
			8		416									SPARE	
	-U 2-COND.		1		417			PRESSURE SENSOR		BROWN				+24V	
			2		418			LINE 1		BLUE				4-20mA	
G															
	-U 2-COND.		1		419			PRESSURE SENSOR		BROWN				+24V	
			2		420			LINE 2		BLUE				4-20mA	
	-U 2-COND.		1		421			PRESSURE SWITCH						CLOSED AT RIGHT	
H			2		422			LINE 1						PRESSURE.	
	-U 2-COND.		1		423			PRESSURE SWITCH						CLOSED AT RIGHT	
			2		424			LINE 2						PRESSURE.	
I					425										
					426										
					427										
					428										
J					429										
					430										

File 15771-02
Designed by JÅ
Drawn by.
Date 150702

ASSALUB

Centralized Lubrication System
CC1-MKII
No: 907479
Connecting Diagram

Proj.no 15771
Sheet no. 501
Drawing no. 15771-02
Cont. -
Ref. no. SCxxxx
Rev. -