



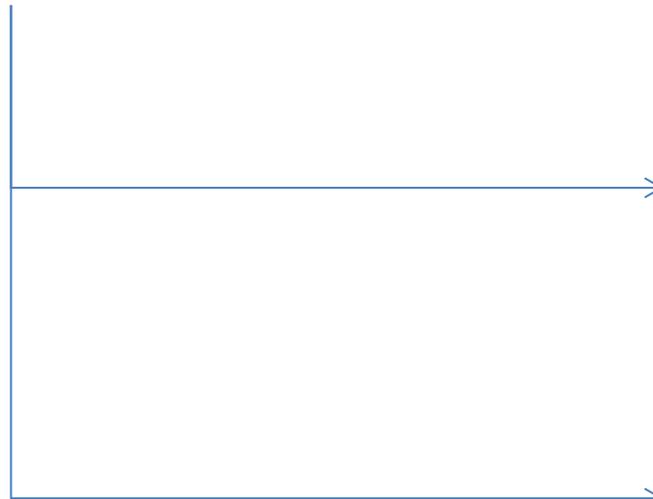
## COMMUNICATION



Modbus is a communication protocol which is wide supported and opensource.

Novadays almost all the controller manufacturers supports Modbus communication protocol

Logik 33S, Logik 26S and Logik 9 support modbus RTU protocol over RS485 serial line

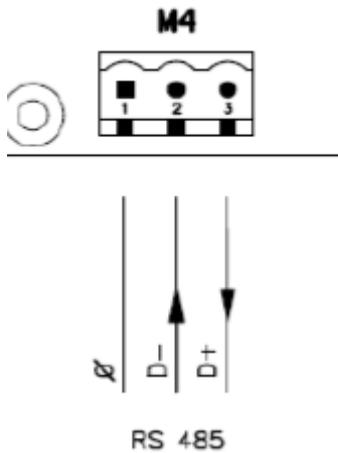


### Modbus RTU

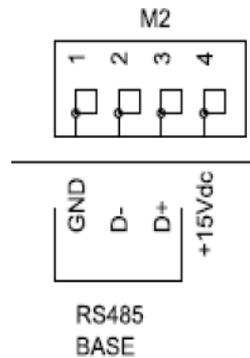
- Communications between controllers under Master / Slave
- Stand alone communications

### Modbus TCP

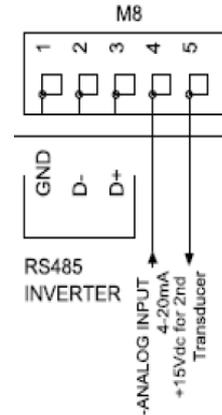
- Can be supported by using ethernet serial gateway



- 1 serial communication (RS485)
- Logik9 can communicate under the functions :
  1. Stand alone
  2. Master / Slave
  3. Multiunit



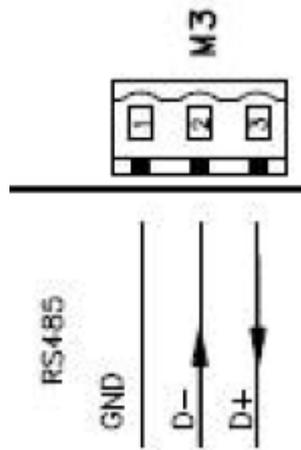
- 1st RS485 port
- Stand alone
- Master / Slave
- Multiunit



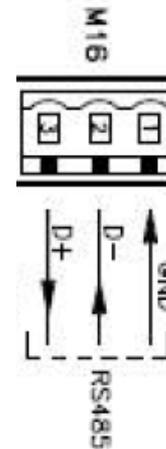
- 2nd RS485 port
- Driver
- Communication
- Stand alone



If 2nd serial port is not used for communication with driver, then this port is also available for the stand alone communication



- 1st RS485 port
- Stand alone
- Master / Slave
- Multiunit

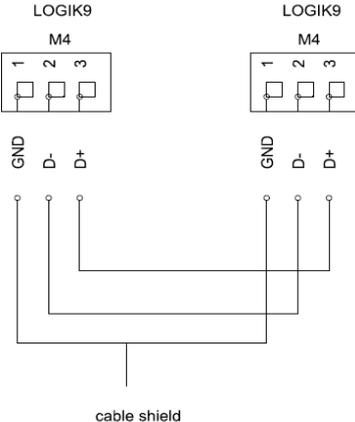
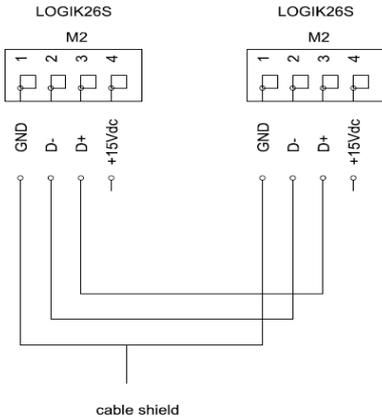
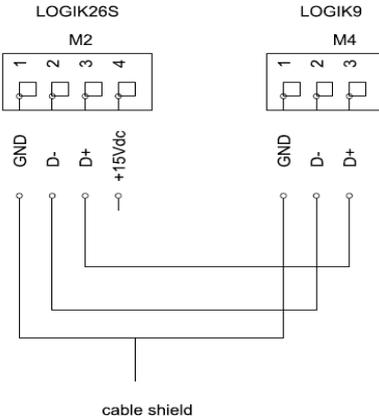
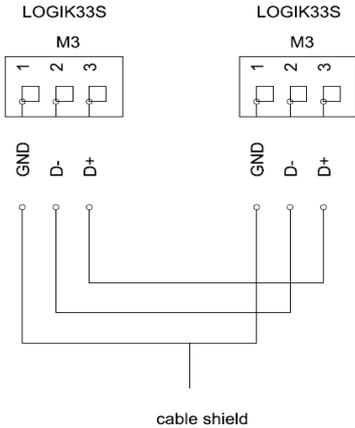
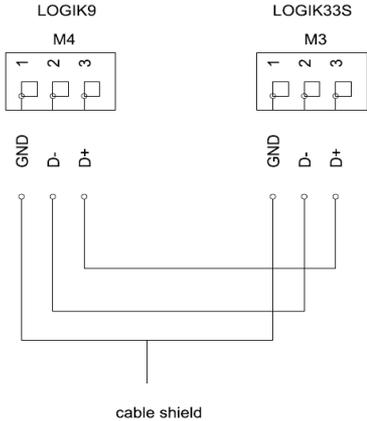
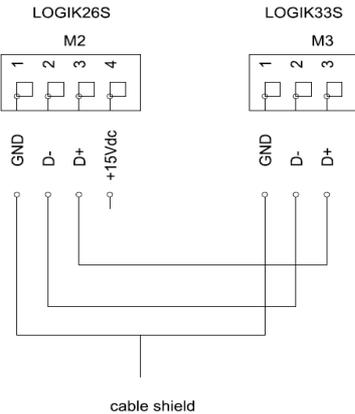


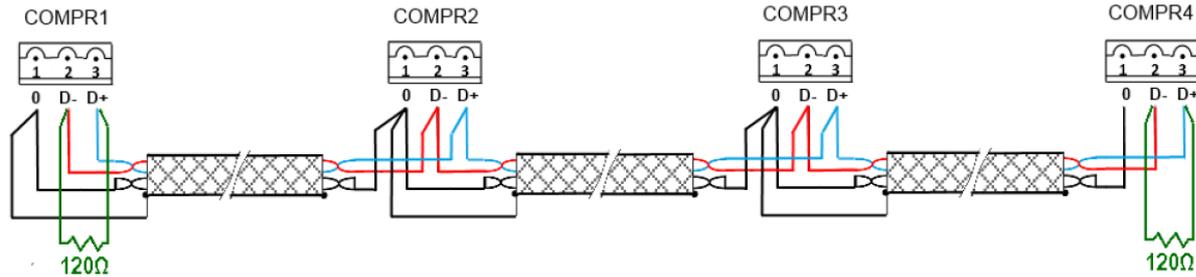
- 2nd RS485 port
- Driver
- Communication
- Stand alone



If 2nd serial port is not used for communication with driver, then this port is also available for the stand alone communication

# MASTER / SLAVE CONNECTIONS





## Serial connection notes

- The cable must have shield and AWG twisted pair cable
- Shields must be connected from one side to the ground
- The cable length must not be longer than 100 meters
- Pole must not be reverted

# MASTER / SLAVE – PARAMETERS LOGIK9



## **P05 : Slave Start Pressure**

[password level – 1]

Value : 2,8-0,2 ÷ P04-0,2

## **T06 : Master / Slave Rotation**

[password level – 1]

Value : 0 ÷ 200 h

## **T07 : Slave Timer**

[password level – 1]

Value : 1 ÷ 99 min.

## **con : Connection**

[password level – 1]

[ 0 ] : Single

[ 1 ] : Master / Slave

[ 2 ] : Multiunit Slave

## **nc : Compressor Number**

[password level – 1]

Value : 0 ÷ 32

# MASTER / SLAVE – PARAMETERS

## LOGIK26S



### **C07 : Multiunit operation**

[password level – 2]

[ 0 ] : Stand alone

[ 1 ] : Master / Slave

[ 2 ] : Master / Slave new

[ 3 ] : Multiunit Slave

### **C07.1 : Timer Master / Slave**

[password level – 2]

Value : 0÷200 hour

### **C07.2 : Timer Slave**

[password level – 2]

Value : 0÷99 min.

### **C07.4 : Inverter Twin**

[password level – 2]

[ 0 ] : YES

[ 1 ] : NO

### **C08 : Compressor Nr**

[password level – 1]

Value : 1÷32

### **WP5 : Slave start pressure**

[password level – 1]

Value : 2,0 ÷ (WP4-0.2)

# MASTER / SLAVE – PARAMETERS LOGIK33S



## **S07 : Multiunit operation**

[password level – 2]

[ 0 ] : Stand alone

[ 1 ] : Master / Slave

[ 2 ] : Master / Slave Logik33S range

[ 3 ] : Multiunit Slave

[ 4 ] : Multiunit Master Smart Mode

[ 5 ] : Multiunit Master Equil Mode

[ 6 ] : Multiunit Master Priority Mode

## **S07-2 : Rotation Time**

[password level – 2,3]

Value : 0÷200 hour

## **S07-3 : Start Timer Slave**

[password level – 2,3]

Value : 0÷99 min.

## **S07-4 : Inverter Twin**

[password level – 2,3]

Value : YES / NO

## **R03 : Compressor Number**

[password level – 2,3]

Value : 1÷32

## **WP5 : Start P. Slave**

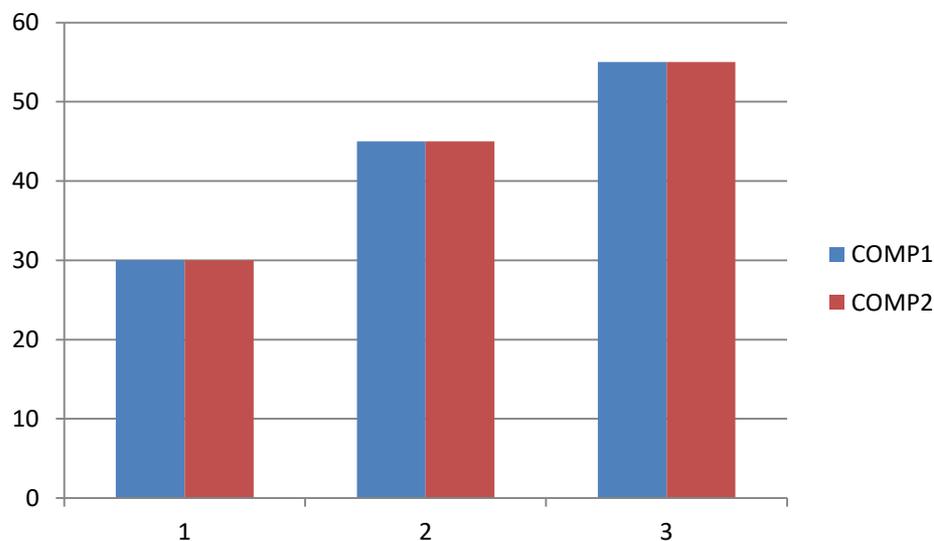
[password level – 2,3]

Value : 2,8 ÷ (WP4-0.2) Bar

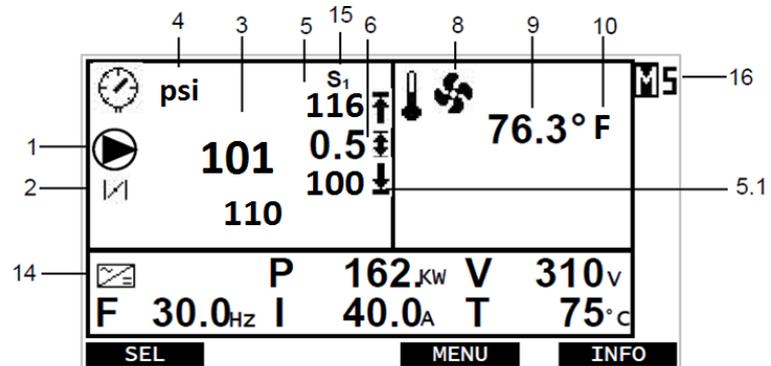
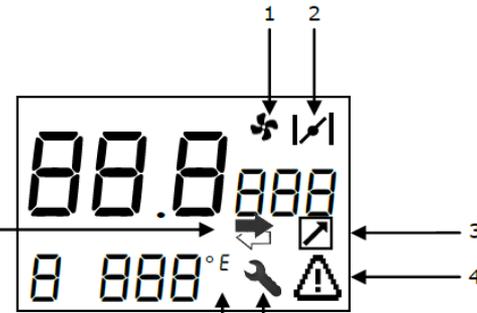
- When common parameters (Master/Slave, Working Pressure) are changed, Master controller automatically updates slave parameters as well.
- Only two compressors can be connected under Master / Slave function.
- While compressors are working under Master / Slave, it is not possible to read informations externally via communication line.

- For Logik26S and Logik33S, inverter twin functionality under master / slave algorithm, makes both VSD compressor modulate together.
- Regarding functionality can be used between two same type controller like

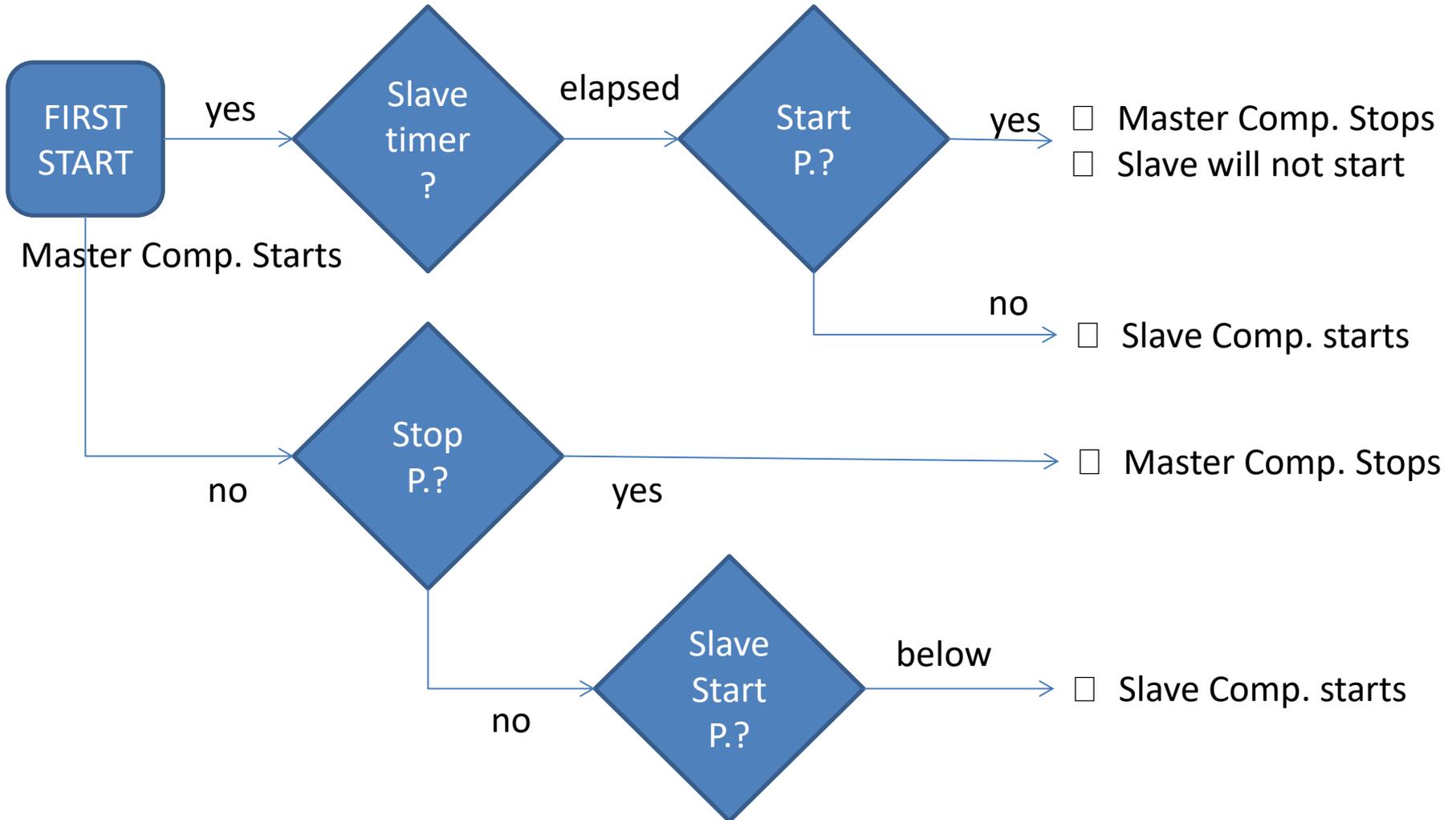
## Logik26S – Logik26S or Logik33S – Logik33S



# MASTER / SLAVE – ICONS



- Master compressor pressure reading is the system pressure reading



□ Master Comp. Starts

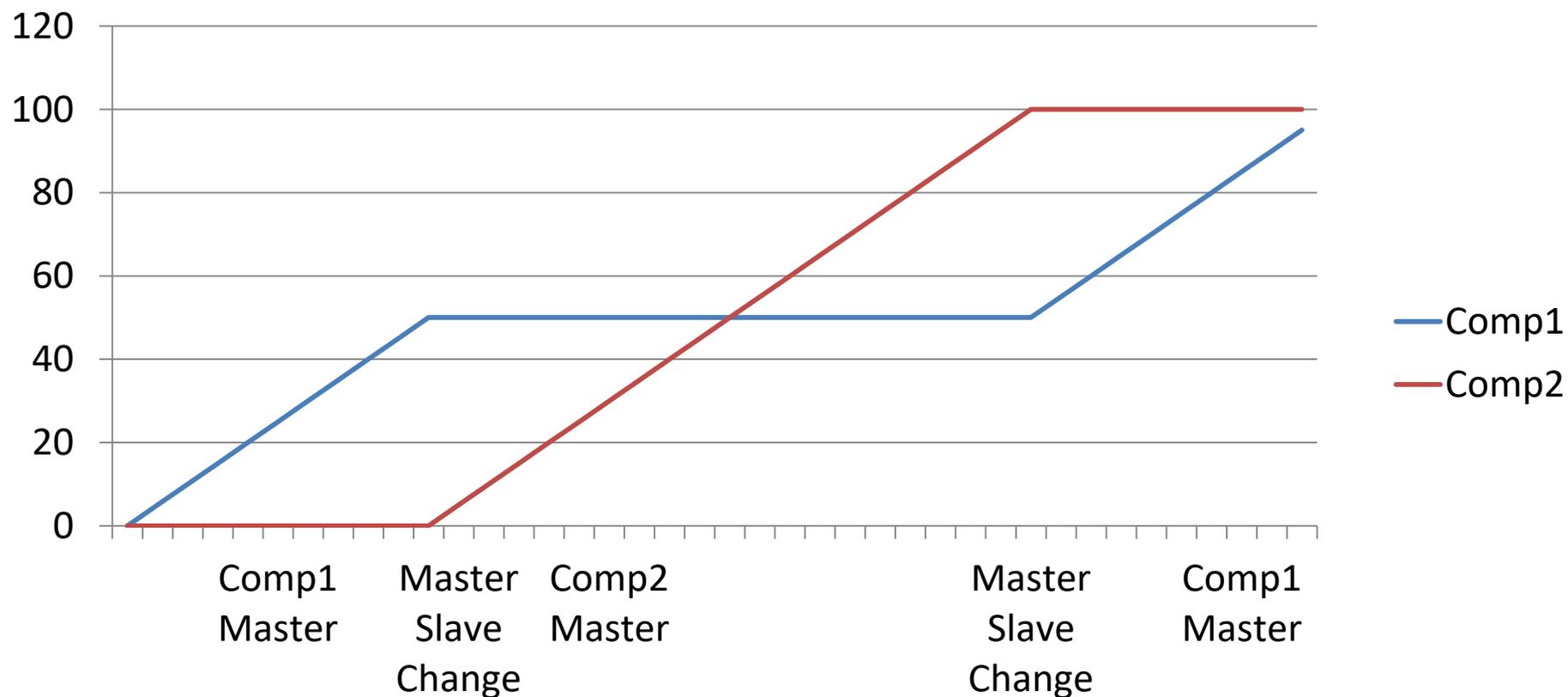
□ Master Comp. Stops  
□ Slave will not start

□ Slave Comp. starts

□ Master Comp. Stops

□ Slave Comp. starts

- Master Slave rotation time indicates working hour difference of two compressor when Master Slave change process is required
- For instance, if we accept the rotation time set as 50 working hours, then ;



## What is the Multiunit System?

The multiunit system allows to control a group of the compressors according to demanded and flexible scenarios.

There are 3 different function can be implemented by using multiunit system

1. Balance Hours Mode :

Balancing working hours of the compressor plant

2. Priority Mode

End user can give working priortiy for each compressor/s in the compressor plant

3. Smart Mode

Multiunit controller calculates the air consumption and controls the plant accordingly

# MULTIUNIT - CONTROLLERS



LOGIK33S

5 compressors



LOGIK200

12 compressors



LOGIK103

4 compressors

Logik33S as Multiunit Master



Logik33S



Logik9

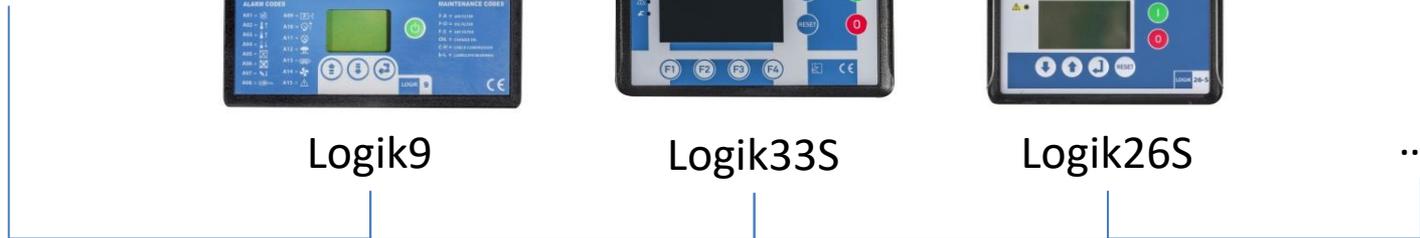


Logik33S



Logik26S

....



RS485 line  
Modbus Rtu Protocol

Up to 5 (1 is master) units can be controlled

Code	Message	Values	Default
M01	Slave number	1 ÷ 4	1
R02	Air flow	100 ÷ 99990 L/min	7200
R03	Compressor #.	1 ÷ 5	1
M02	Air tank capacity	100 ÷ 99990 L	1000
M03	Compressor 1st start	0 ÷ 5	0
M04	Power on	0 ÷ 99 min	5
M05	Emergency unit	0 ÷ 5	0
M05.1	Start pressure	2.8 ÷ (P. Set-0.2)	6,7
M06	Delay start	0 ÷ 30 sec.	0
M07	Delay stop	0 ÷ 30 sec.	0
V01	VSD Modulating	1 ÷ 5	1
V02	VSD Min. %	0 ÷ 80%	0
V03	VSD Max. %	50 ÷ 100%	100
V04	VSD % delay	5 ÷ 300 sec.	60
V05	Capacity avg.	1 ÷ 99 min.	5
M08	Align hours	NO / YES	NO
M09	Balance hours	0 ÷ 200	100
M10	Priority		
M10.1	Compr1	0..5	0
M10.2	Compr2	0..5	0
M10.3	Compr3	0..5	0
M10.4	Compr4	0..5	0
M10.5	Compr5	0..5	0

## **M01 : SLAVE NUMBER**

Excluding itself, how many compressors are connected as multiunit slave ?.

## **R02 : AIR FLOW**

Nominal air flow for multiunit master controlled compressor. This parameter required only for **Smart Mode**

## **R03 : COMPRESSOR NUMBER**

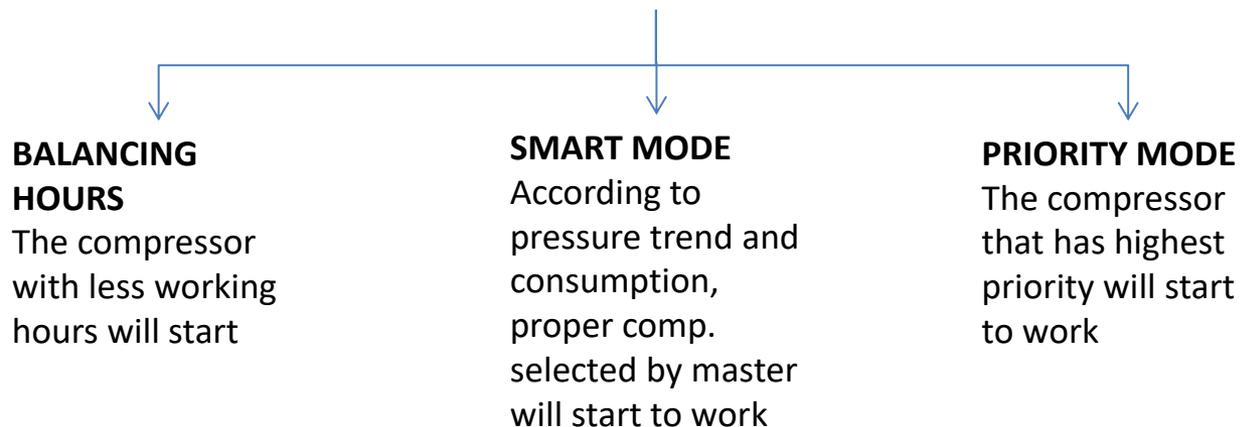
The compressor number for master controlled unit. Generally left as «1»

## **M02 : TANK CAPACITY**

Capacity of the air tank must be enter. This parameter is required for **Smart Mode**.

## **M03 : COMPRESSOR 1ST START**

The comp. number that is wanted to start first must be entered. «0» means multiunit master will select according to multiunit working algorithm.



### **M04 : POWER ON**

When the system is started how long master will wait to start next comp. to support?.

### **M05 : EMERGENCY UNIT**

If any compressor number is selected, that compressor will be excluded from the system and will only work when pressure drops emergency start pressure or there is general stopping alarm for the overall system.

#### **M05.1 : START PRESSURE**

Start pressure for emergency unit if it is set and different than «0»

### **M06 : DELAY START**

Start delay timer when next compressor is needed.

### **M07 : DELAY STOP**

Stop delay timer when one of the compressor need to be stopped.

### **V01 : VSD MODULATING**

If there are more than 1 VSD compressor in the system, the total amount of VSD compressors can modulate at the same time can be decided by this parameter.

### **V02 : VSD MIN. %**

The minimum percentage while VSD compressors are modulating together. When working percentage reached to this value, one of the working VSD comp. will stop according to working algorithm.

### **V03 : VSD MAX. %**

The maximum percentage that one VSD compressor can work at most. When this percentage is reached next VSD comp. will start to work according to working algorithm.

### **PERCENTAGE CALCULATION :**

**COMP1 : Min freq = 30 and Max freq = 133**

**COMP2 : Min freq = 35 and Max freq = 101**

Then

**COMP1 : MIN % = 23 and MAX % = 100**

**COMP2 : MIN % = 35 and MAX % = 100**

**In this case V02 parameter must not be lower than 35, otherwise, Comp2 will never stops when its master comp. in the system.**

# MULTIUNIT – LOGIK33S - PARAMETERS



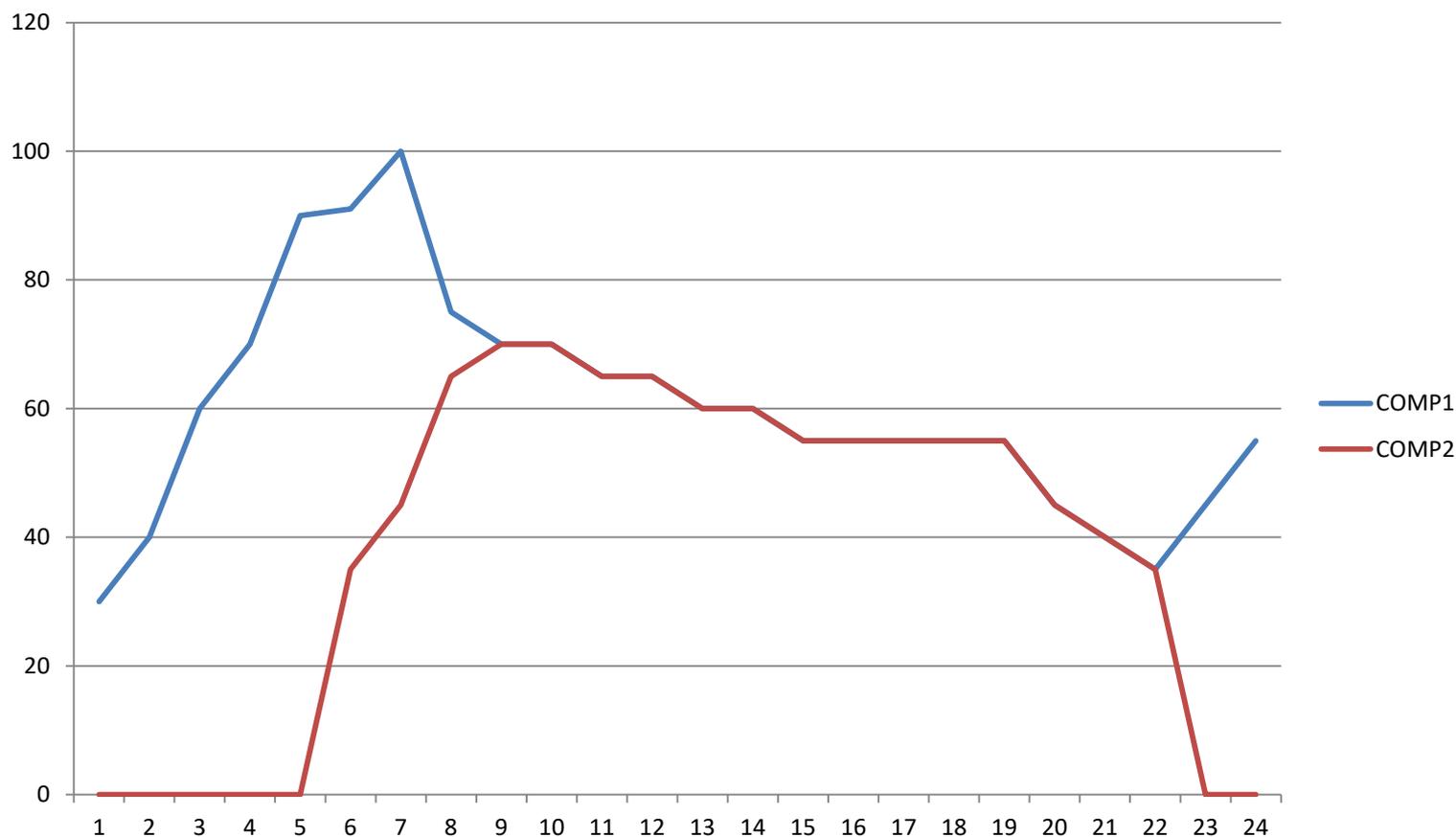
**COMP1 : MIN % = 23 and MAX % = 100**

**COMP2 : MIN % = 35 and MAX % = 100**

**V01 : 2**

**V02 : 35**

**V03 : 90**



## **V04 : STOP MIN % DELAY**

The time delay for the compressors stop when min percentage is reached.

## **V05 : CAPACITY AVERAGE**

The time interval to calculate capacity average in order to make more reliable system.

## **M08 : ALIGN HOURS**

For balancing hours algorithm where compressors have different working hours, this parameter can be set as YES in order to make balancing hour from the beginning.

## **M09 : BALANCE HOURS**

The hour setting that compressor will switch their master conditions in the system. Again this parameter will be visualized when balancing hours algorithm is selected.

## **M10 : PRIORITY**

The priority set section for the compressors connected to the multiunit system. Each compressor can have different priority number whereas they can be set to same priority as well. When same priority is set for more than 1 compressor system selects less aged one to start when it is needed.

This parameter will be visualized when priority is selected as working algorithm.

Logik200 Multiunit Controller



RS232-RS485 Converter

RS485 line  
Modbus Rtu Protocol



Logik9



Logik33S



Logik26S



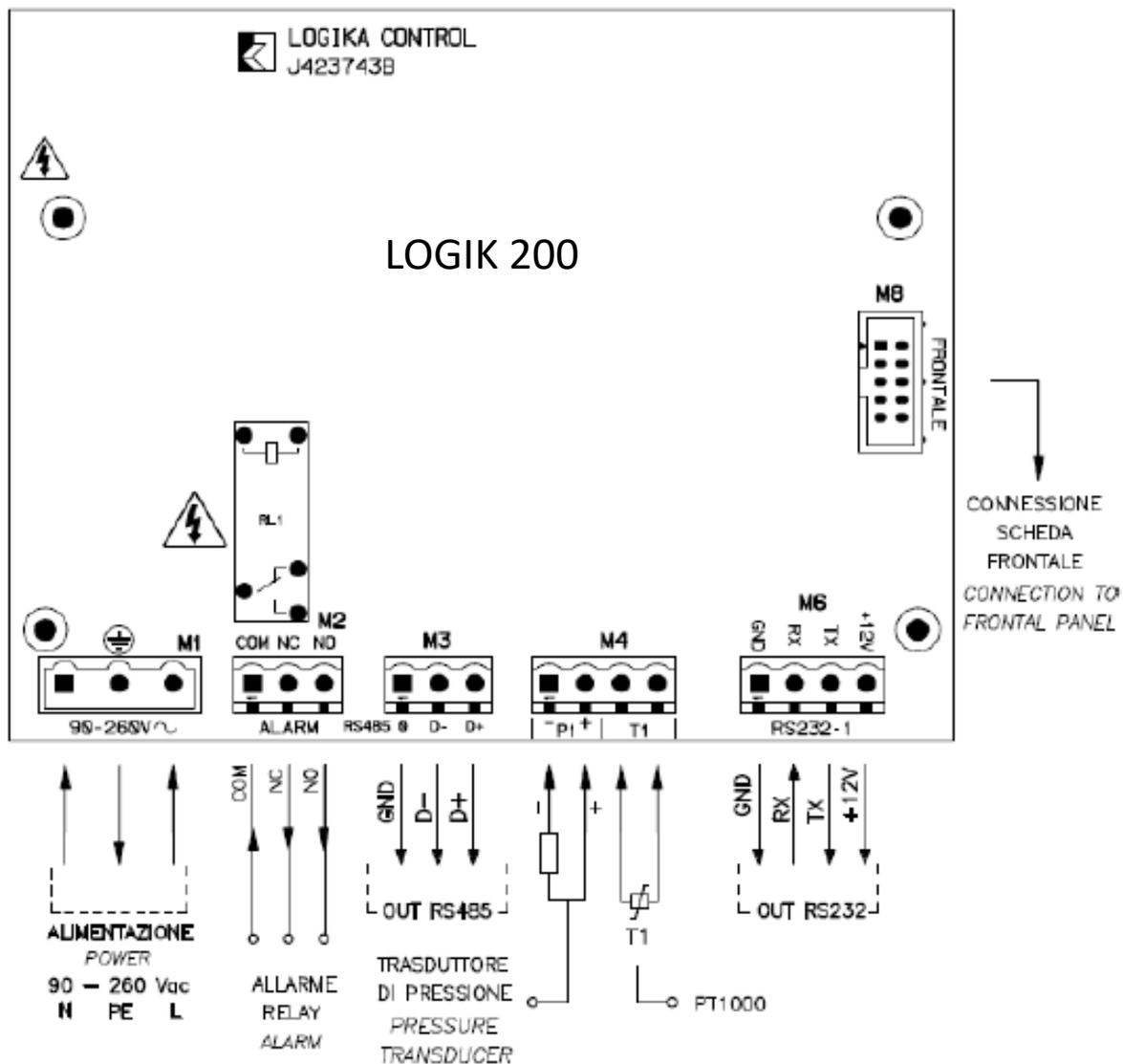
Slave unit

Other Brand Comp.

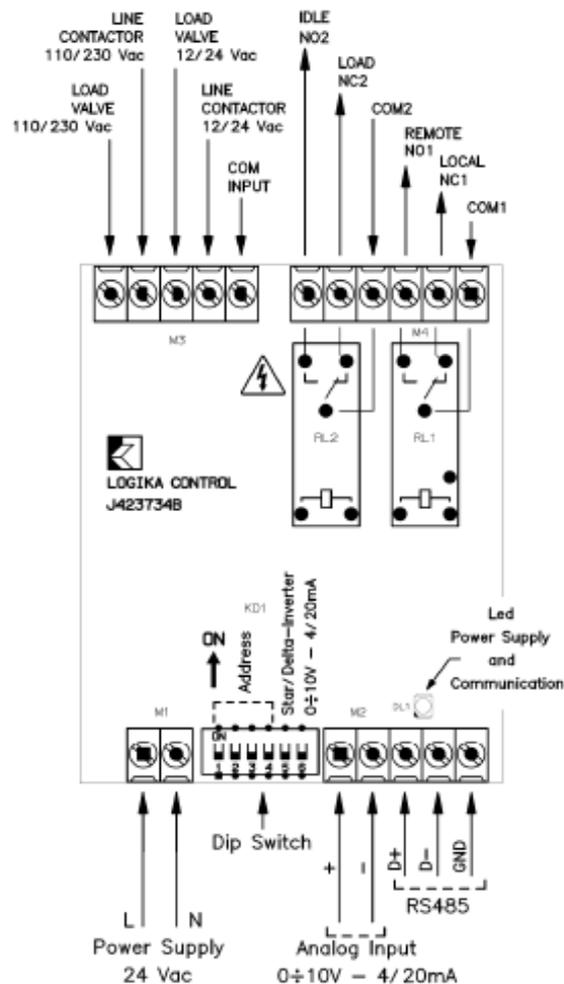


Up to 12 units can be controlled

# MULTIUNIT – LOGIK200 & LOGIK SLAVE CONNECTIONS



# MULTIUNIT – LOGIK200 & LOGIK SLAVE CONNECTIONS



## LOGIK SLAVE

Dip1-4: address Slave module

DIP1	DIP2	DIP3	DIP4	Indirizzo
ON	OFF	OFF	OFF	1
OFF	ON	OFF	OFF	2
ON	ON	OFF	OFF	3
OFF	OFF	ON	OFF	4
ON	OFF	ON	OFF	5
OFF	ON	ON	OFF	6
ON	ON	ON	OFF	7
OFF	OFF	OFF	ON	8
ON	OFF	OFF	ON	9
OFF	ON	OFF	ON	10
ON	ON	OFF	ON	11
OFF	OFF	ON	ON	12

Dip5: compressor type

DIP5	Type
OFF	Star/Delta
ON	Variable speed (inverter)

Dip6: analogue input

DIP6	Type
OFF	Input 0/10V
ON	Input 4/20mA

S00 : COMPRESSORS NUMBER

S01 : OPERATING PRINCIPLE

- SMART
- BALANCE HOURS
- PRIORITY

S02 : TANK CAPACITY

S03 : COMP. START DELAY

S04 : COMP. STOP DELAY

S05 : POWER ON COMP.

S06 : DELAY START 2ND COMP.

S07 : STAND BY COMP.

S08 : BASE COMPRESSOR

S09 : ALIGN HOURS

S10 : MAX. DIFFERENCE

S11 : AUTO RESTART

S12 : SAFETY TIME

S13 : AVERAGE FLOW CALCULATION

S14 : ENERGY CALCULATION

S15 : COMPANY TITLE

S16 : MIN INV. PERCENTAGE

S17 : MAX INV. PERCENTAGE

S18 : MAX WORKING COMP.

S19 : ALL INVERTER MODULATE

S20 : DELAY FOR MIN PERCENTAGE

S21 : DELAY FOR MAX PERCENTAGE

S22 : MAX. MODULATING COMPRESSOR

# MULTIUNIT – LOGIK200 SCREENS

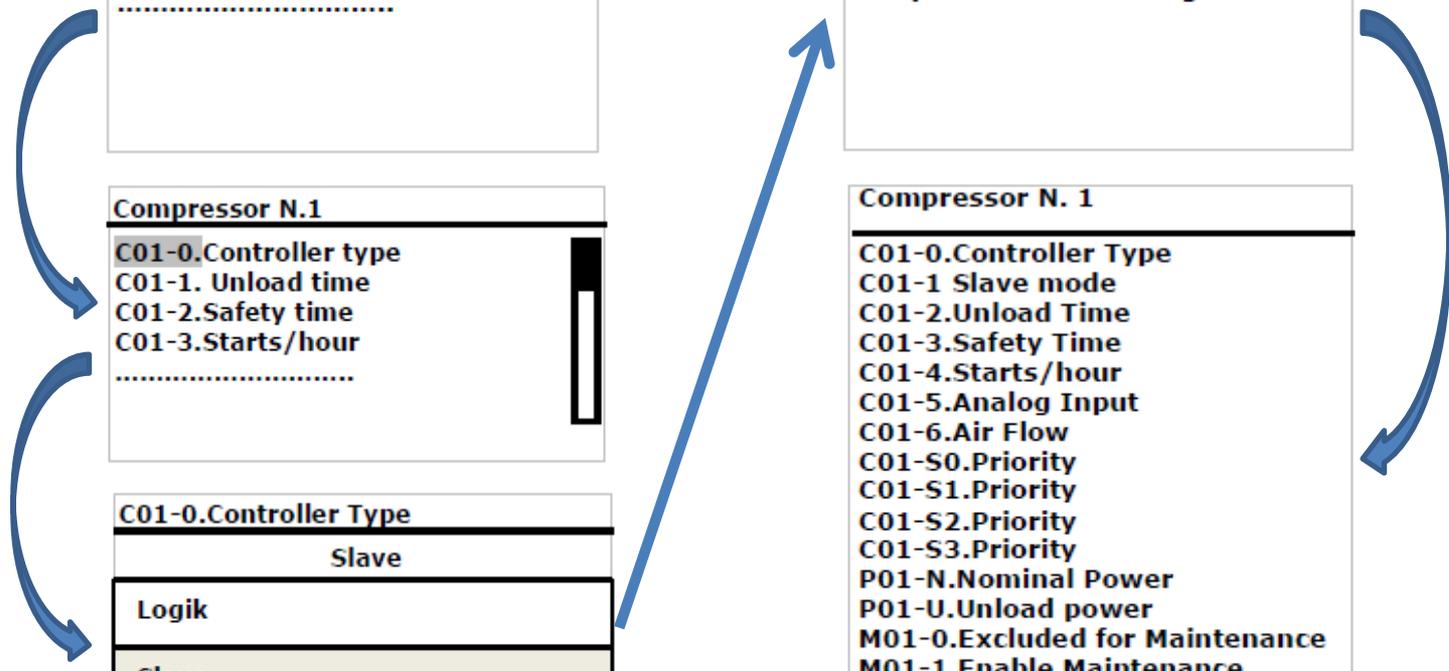
Compressors Data
01.Compressor N. 1
02.Compressor N. 2
.....

Compressor N.1
C01-0.Controller type
C01-1. Unload time
C01-2.Safety time
C01-3.Starts/hour
.....

C01-0.Controller Type
Slave
Logik
Slave

Test	
Compressor N. 1	Slave_V1.05
Compressor N. 2	Logik 33S

Compressor N. 1
C01-0.Controller Type
C01-1 Slave mode
C01-2.Unload Time
C01-3.Safety Time
C01-4.Starts/hour
C01-5.Analog Input
C01-6.Air Flow
C01-S0.Priority
C01-S1.Priority
C01-S2.Priority
C01-S3.Priority
P01-N.Nominal Power
P01-U.Unload power
M01-0.Excluded for Maintenance
M01-1.Enable Maintenance



**Pressures**

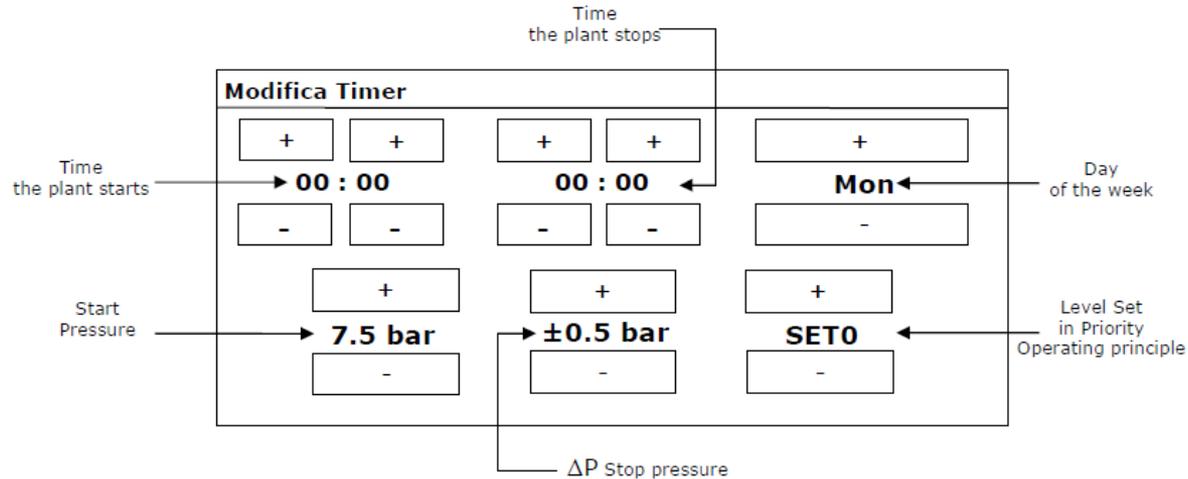
**WP1.Top Range**  
**WP2.High Pressure**  
**WP3. Stop Pressure**  
**WP4. Start Pressure**  
**WP5.Low Pressure**  
**WP6.Offset**

**Temperatures**

**WT1.High Temperature**  
**WT2.Warn. High Temperature**  
**WT3.Low Temperature**  
**WT4.Offset**

# MULTIUNIT – LOGIK200

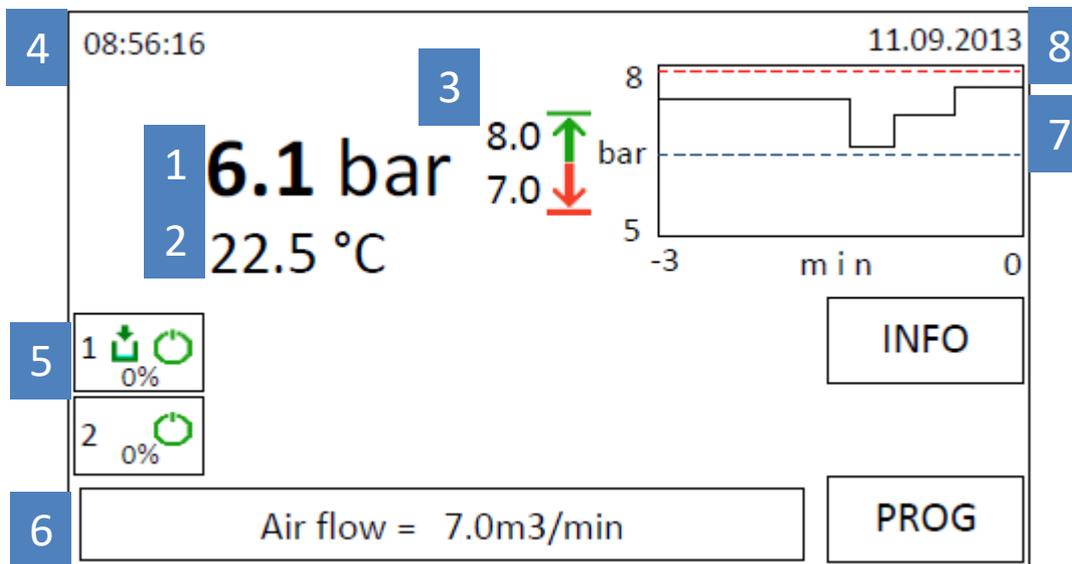
## WEEKLY TIMER



Day interval can be selected as well as single day selection

- Mon / Fri
- Sat / Sun

Timers List			
01.Mon/Fri	08:00-18:30	7.5bar±0.5	SET0
Enter New Timer			



1. Working pressure

2. Working Temp.

3. Start & Stop Press. Levels

4 – 8 Date and Time

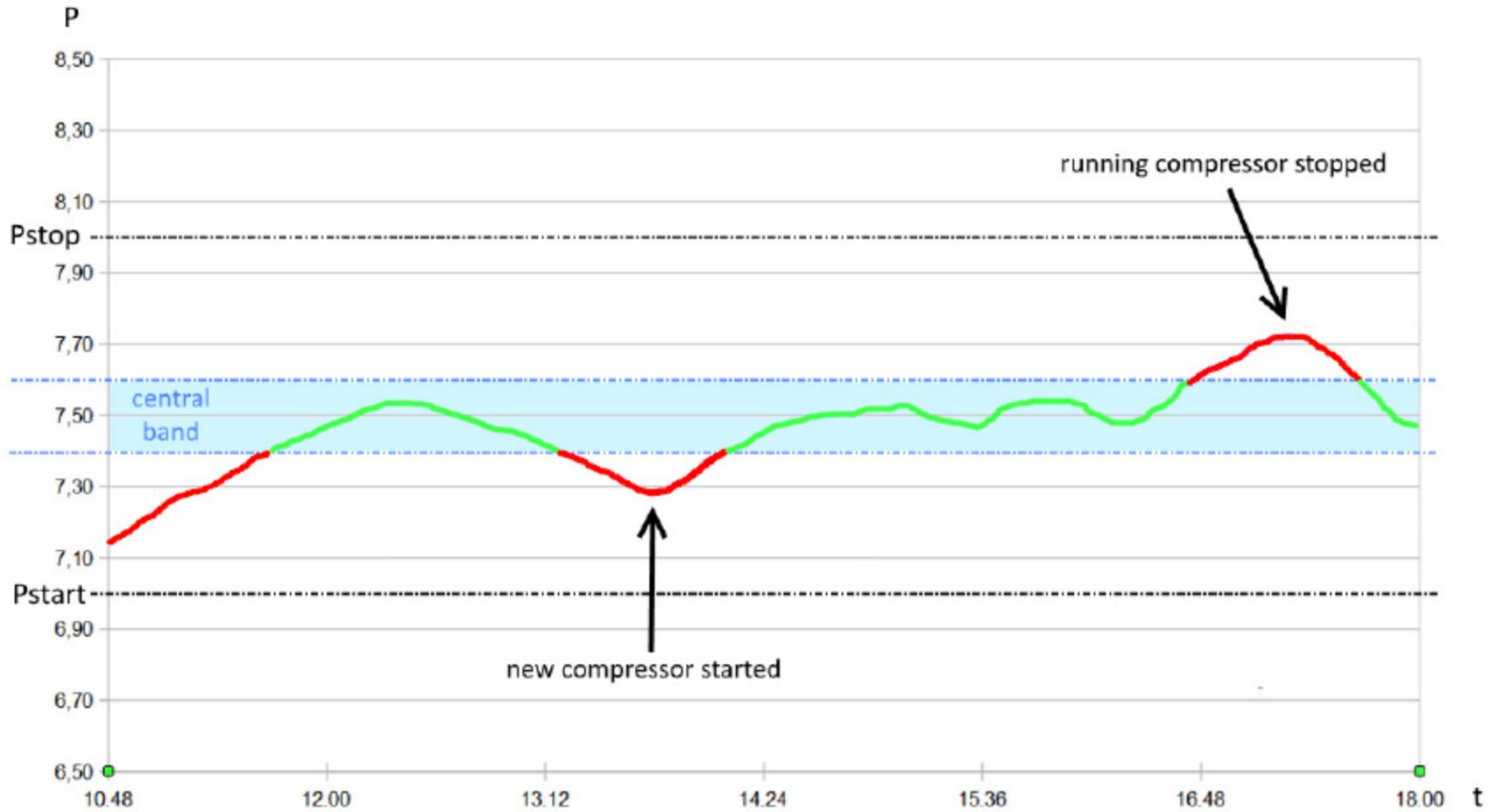
5. Comp. List

6. Average Air Flow

7. Pressure Trend

# MULTIUNIT – LOGIK200

## TREND AND PRESSURE CONTROL



# MULTIUNIT – LOGIK200 ALARMS

<b>Allarmi</b>			
<b>00-</b>	<b>09:42</b>	<b>11.09.13</b>	<b>AL04</b> <b>Black Out</b>
<b>01-</b>	<b>11:12</b>	<b>10.09.13</b>	<b>AL03</b> <b>Transducer Failure</b>
<b>02-</b>	<b>13:34</b>	<b>30.08.13</b>	<b>AL13</b> <b>High Ambient Temp.</b>
<b>03-</b>	<b>18:49</b>	<b>02.08.13</b>	<b>AL10</b> <b>Low Pressure</b>

- Logik200 lists last 20 alarms occurred in the system
- Alarms are related with the communication and Logik200

# MULTIUNIT – LOGIK200

## ALARMS



<b>Code</b>	<b>Message</b>	<b>Notes</b>
AL01	Setting data lost: default values uploaded	
AL02	High pressure	Working pressure > set WP2
AL03	Transducer failure	
AL04	Black out	Power off and manual restart
AL05	I/O board communication	No communication between I/O board-control panel
AL.Cnn.0	Compr.nn no answer	No communication to compressor nn
AL.Cnn.1	Compr.nn generic failure	Line contactor compressor nn not activated
AL.Cnn.2	Compr.nn max. starts hour	Reached max. starts/hour

# MULTIUNIT – LOGIK200

## ALARMS



<b>Code</b>	<b>Message</b>	<b>Notes</b>
AL10	Low pressure	Working pressure < set WP5
AL11	Timekeeper failure	Weekly timer are disabled
AL12	Temperature probe failure	
AL13	High ambient temperature	Ambient temperature > set T1
AL14	High ambient temperature	Ambient temperature > set T2
AL15	Low ambient temperature	Ambient temperature < set T3
AL16	GMT/DST	Automatic change time

# MULTIUNIT – LOGIK200

## WARNINGS



<b>Code</b>	<b>Message</b>	<b>Notes</b>
AL.Cnn.3	Compr.nn	Timer CAF compressor nn over
AL.Cnn.4	Compr.nn	Timer COF compressor nn over
AL.Cnn.5	Compr.nn	Timer CSF compressor nn over
AL.Cnn.6	Compr.nn	Timer C-- compressor nn over
AL.Cnn.7	Compr.nn	Timer C-h compressor nn over
AL.Cnn.8	Compr.nn	Timer BL compressor nn over

# MULTIUNIT – LOGIK200 RESET

**Reset**

---

01.Maintenance  
02.Working hours  
03.Alarms  
04.General

**Reset**

---

Compressor N.1

<input checked="" type="radio"/> CAF 2000h	<input type="radio"/> CSF 8000h
<input type="radio"/> COF 2000h	<input type="radio"/> C-- 8000h
<input type="radio"/> COL 4000h	<input type="radio"/> BL 8000h

**Reset**

---

Change Air Filter  
CAF 2000h

**Confirm**



Relay Connection



Logik9



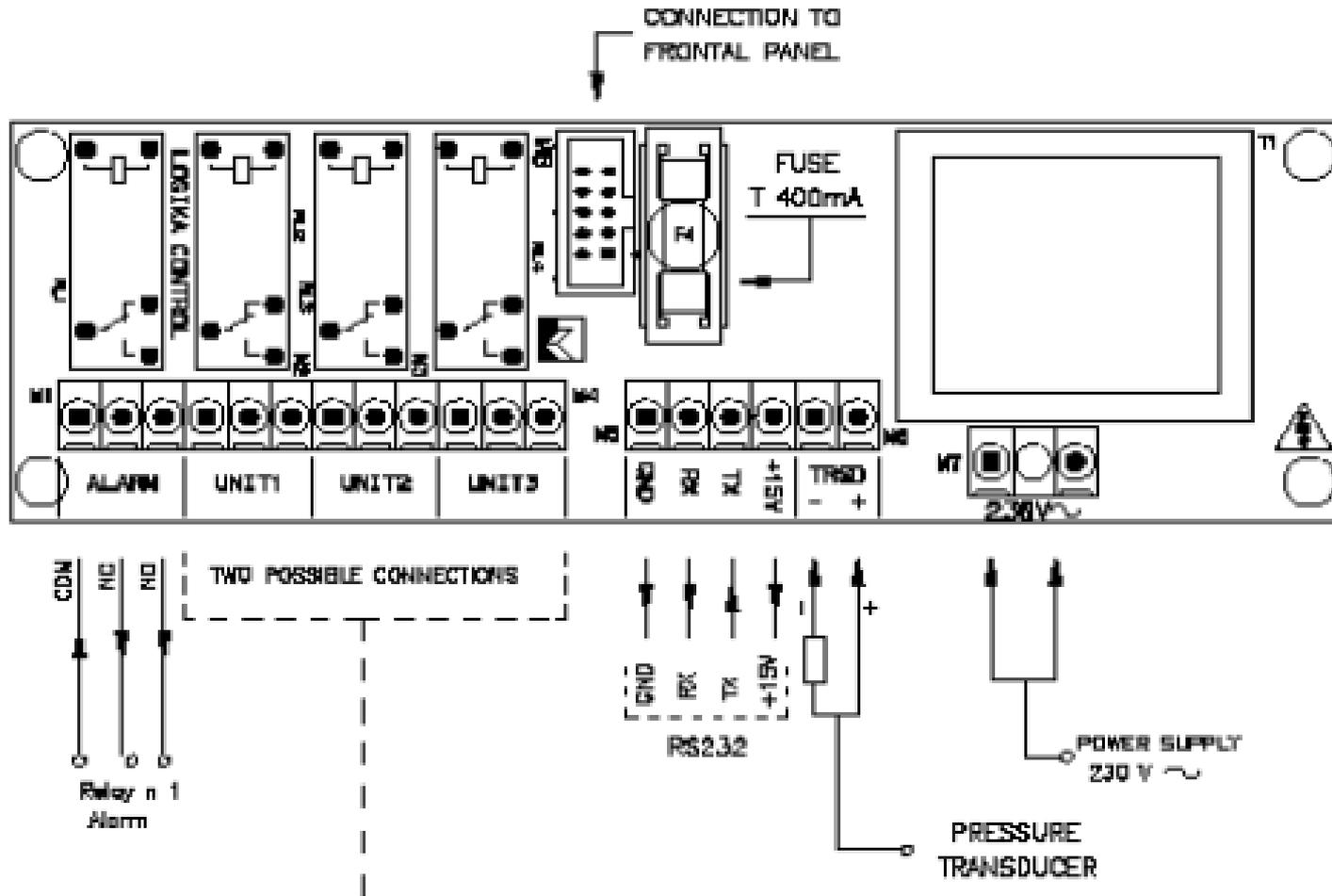
Logik33S



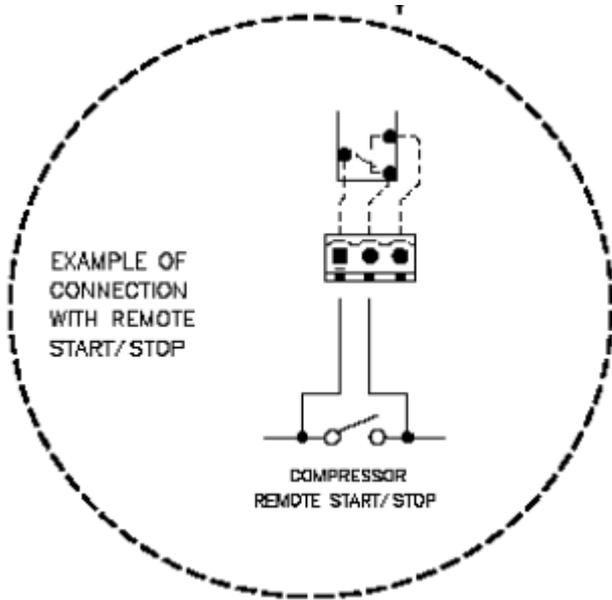
Logik26S

Other Brand Comp.

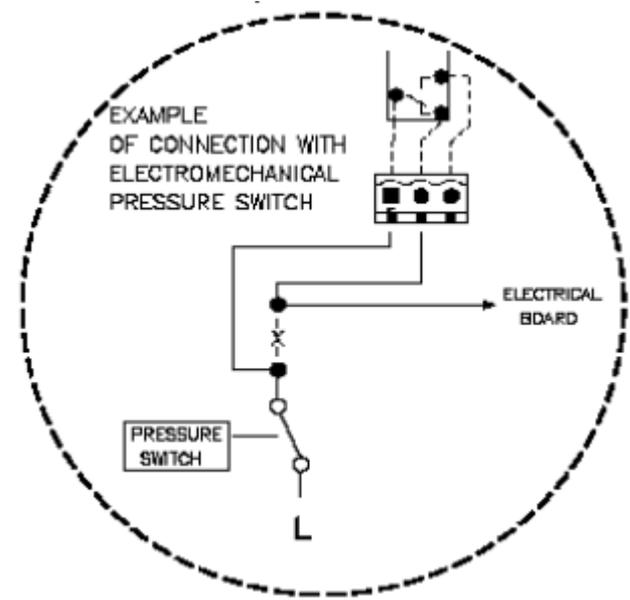
# MULTIUNIT – LOGIK103 CONNECTIONS



# MULTIUNIT – LOGIK103 CONNECTIONS

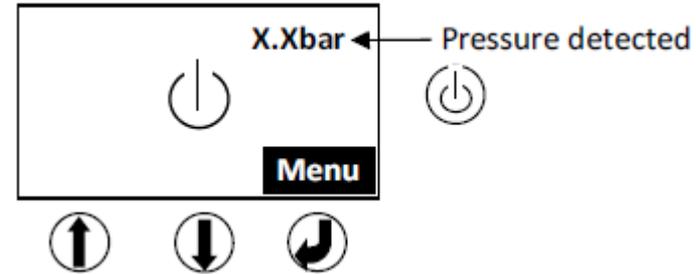


Connection with Remote Start /Stop



Connection with Pressure Switch

# MULTIUNIT – LOGIK103 VISUALIZATION



Timer controlled start / stop



Alarm



Comp1 stop



Maintenance warning



Comp1 start



Comp1 unload



Out of service



Second Pressure level is enabled

# MULTIUNIT – LOGIK103 PROGRAMMING

- 1 – Info
- 2 – Password-Change password
- 3 – Visualization setup
- 4 – Plant setup
- 5 – Pressures
- 6 – Weekly Timer
- 7 – Maintenance
- 8 – Alarms
- 9 – GSM Unit
- 10 – Reset

## INFO

WORKING HOURS	
C.1	1.900 h
C.2	4.400 h

Code	Meaning
M1- C.1-2-3-4	Change air filter
M2- C.1-2-3-4	Change oil filter
M3- C.1-2-3-4	Change separator filter
M4- C.1-2-3-4	Change oil
M5- C.1-2-3-4	Check compressor

## VISUALIZATION

### 3 - Visualization setup

-  English
-  BAR
-  -  +
-  10:23 Gio 26/02/2011
- DLS/Summer = Yes**

PLANT SETUP

4 – Plant setup
1–Mode
2–Comp. nr.
3 –Comp. parameters
4–Tank
5–Delay stop
6–Delay start

4-3-Comp. parameters
Comp. nr.1
Comp. nr.2
Comp. nr.3
Comp. nr.4

- Air flow
- Priority
- Priority set
- Loading time
- Unload time
- Safety time
- Max. Load time
- Reset time
- Starts Hour
- Working Hours

□ PLANT SETUP

4 – Plant setup
1–Mode
2–Comp. nr.
3 –Comp. parameters
4–Tank
5–Delay stop
6–Delay start

- 4 - Tank
- 5 - Delay Stop
- 6 - Delay Start
- 7 - Power on
- 8 - Restart
- 9 – Balance Hours
- 10 – Reserv Comp.
- 11 – Relay Operation

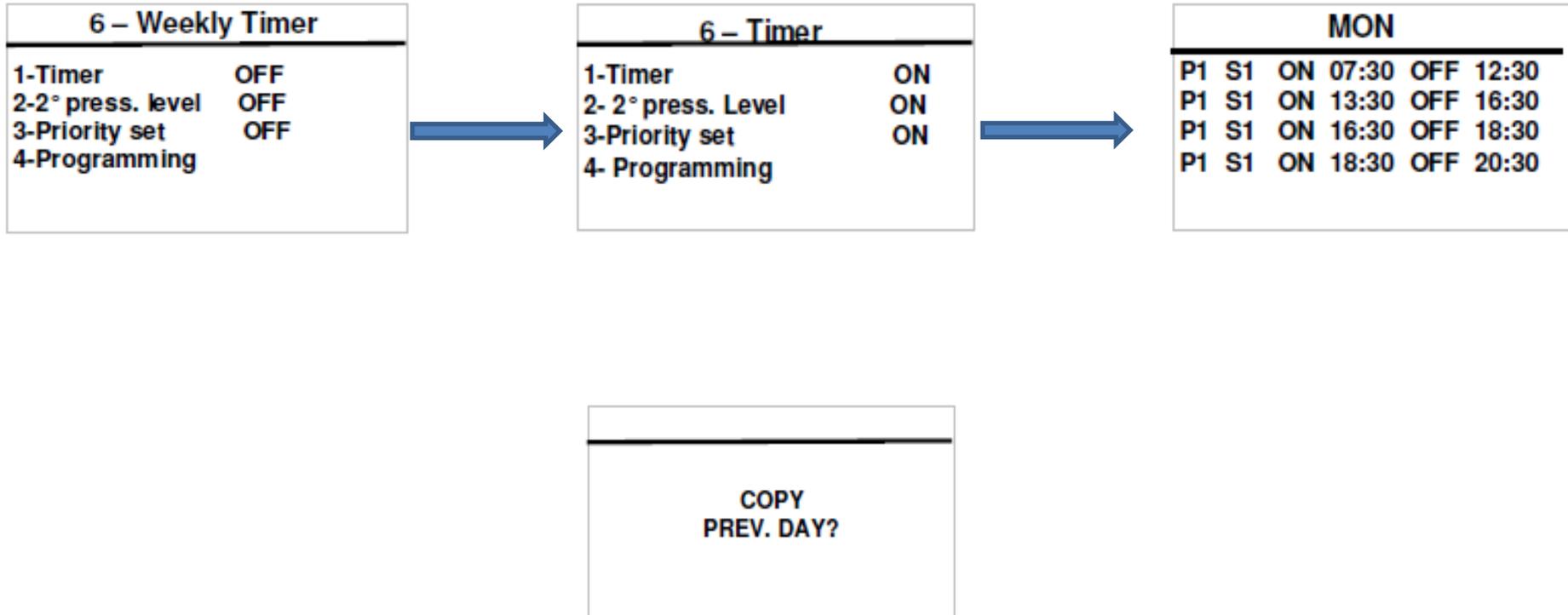
□ PRESSURES

Description	Setting range	Default	Password
P1-Top range transducer	15 ÷ 50	15,0 bar	X
P2-High pressure alarm	$(P3+0,5) \div (P1-0,5)$	10,0 bar	X
P3-Stop pressure	$(P4+0,2) \div (P2-0,2)$	8,0 bar	
P4-Start pressure	3 ÷ $(P3-0,2)$	7,0 bar	
P5-Offset transducer	-2,0 ÷ +2,0	0 bar	X
P6-Low pressure alarm	$(P4-0,5) \div 3$	6,0 bar	X
P7-P. Stop 2nd level	$(P8+0,2) \div (P3+0,5)$	7,5 bar	
P8-P. Start 2nd level	3 ÷ $(P7-0,2)$	6,5 bar	

# MULTIUNIT – LOGIK103 PROGRAMMING



## □ WEEKLY TIMER



By using copy feature, its easy to configure each repeating schedule day

□ MAINTENANCE

**7 – Maintenance**  
1 – Activate timer  
4 – Exclude comp.

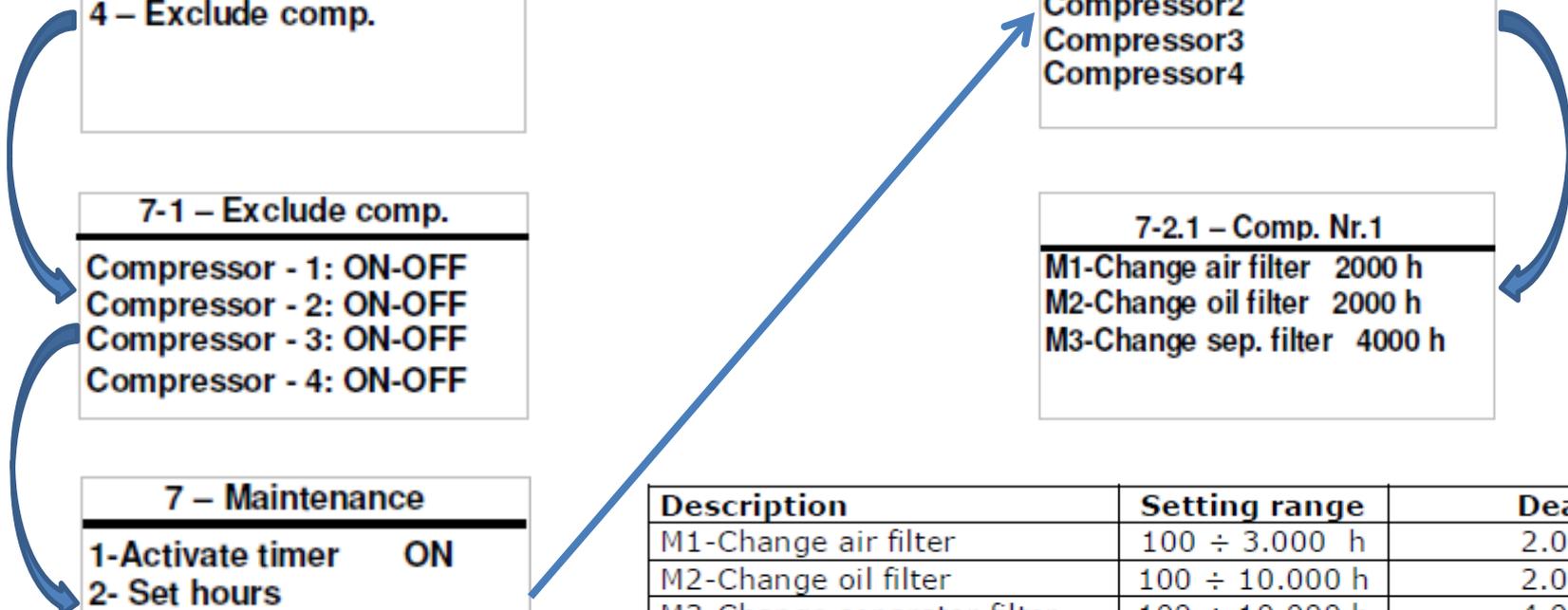
**7-1 – Exclude comp.**  
Compressor - 1: ON-OFF  
Compressor - 2: ON-OFF  
Compressor - 3: ON-OFF  
Compressor - 4: ON-OFF

**7 – Maintenance**  
1-Activate timer ON  
2- Set hours  
3-Counters  
4-Excude compr.

**7-2 – Set hours**  
Compressor1  
Compressor2  
Compressor3  
Compressor4

**7-2.1 – Comp. Nr.1**  
M1-Change air filter 2000 h  
M2-Change oil filter 2000 h  
M3-Change sep. filter 4000 h

Description	Setting range	Deafult
M1-Change air filter	100 ÷ 3.000 h	2.000 h
M2-Change oil filter	100 ÷ 10.000 h	2.000 h
M3-Change separator filter	100 ÷ 10.000 h	4.000 h
M4-Change oil	100 ÷ 10.000 h	8.000 h
M5-Check compressor	100 ÷ 10.000 h	8.000 h



□ SYSTEM SHUT DOWN ALARMS

<b>Code</b>	<b>Cause</b>	<b>Meaning</b>
AL.B.0		Setting data lost
AL.B.1	P. > set P2	High pressure
AL.B.2	P.1	Pressure transducer failure
AL.B.3*	Power Fault	Black-out

# MULTIUNIT – LOGIK103

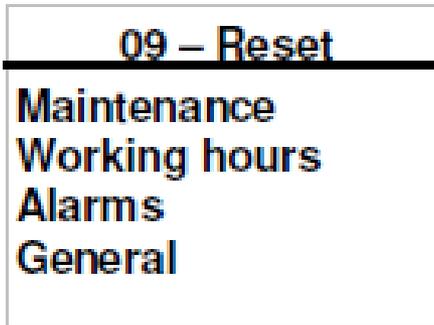
## ALARMS



### □ COMP. SHUT DOWN ALARMS

<b>Code</b>	<b>Cause</b>	<b>Meaning</b>
AL.W.1	P < set P6	Low pressure
AL.W.2	Time-keeper failure	Start and stop not managed by clock
AL.W.3-x	Starts/hour > set 4.3.7	
AL.W.4-X	Max. load 4.3.9	Max. load time is over

□ RESET



Select comp. number



Select the value need to  
be reset



Value will blink



Confirm and Resetting  
will appear on the  
screen

## Ethernet Serial Gateway:

- Cloud based mode : the compressor plant monitoring by using internet connection
- Modbus RTU -> Modbus TCP converter

## Serial Ethernet Interface



RS485 line  
Modbus Rtu Protocol

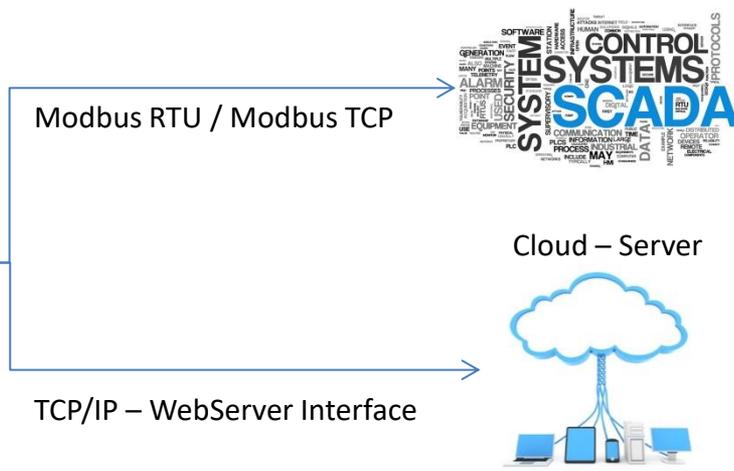


Logik9

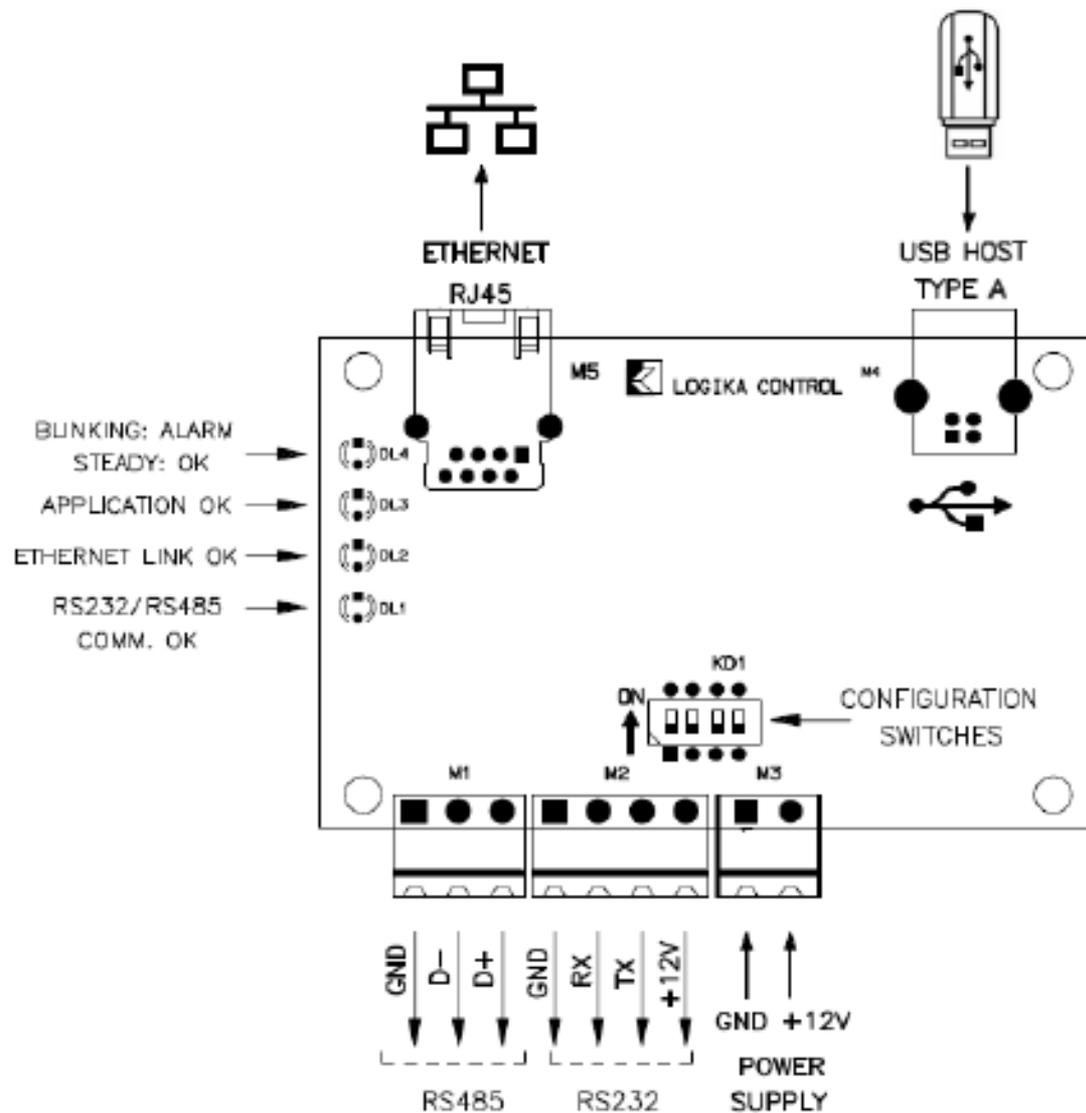
Logik33S

Logik26S

12 units can be connected



# ETHERNET SERIAL GATEWAY CONNECTIONS



# ETHERNET SERIAL GATEWAY CONFIGURATION

config.logika.cloud



## Trasponder configuration

CREATE

VIEW



Gateway type  Cloud  MODBus

DHCP  OFF  ON

IP address

0.0.0.0

Subnet

255.255.255.0

Gateway

0.0.0.0

DNS 1

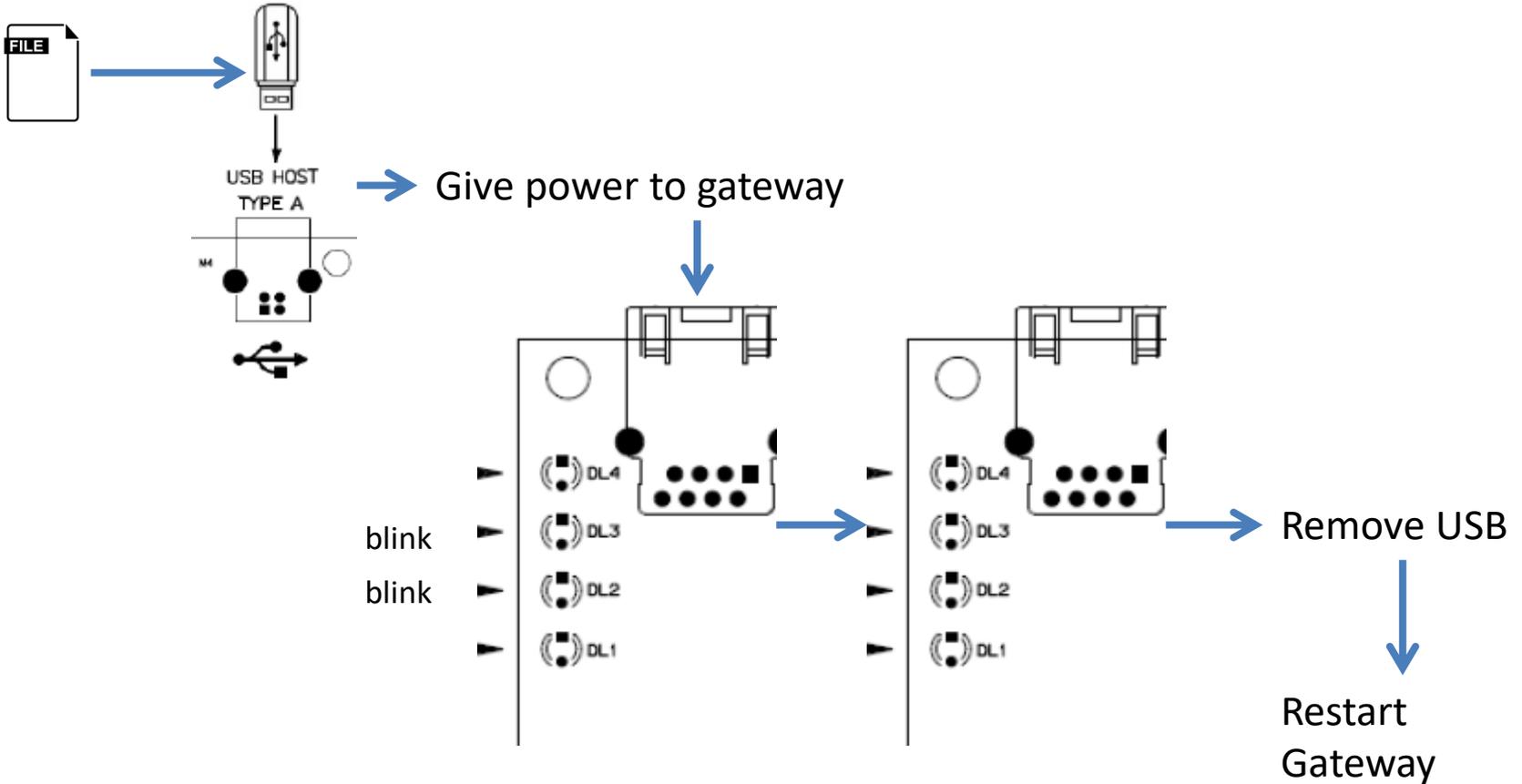
8.8.8.8

DNS 2

8.8.4.4

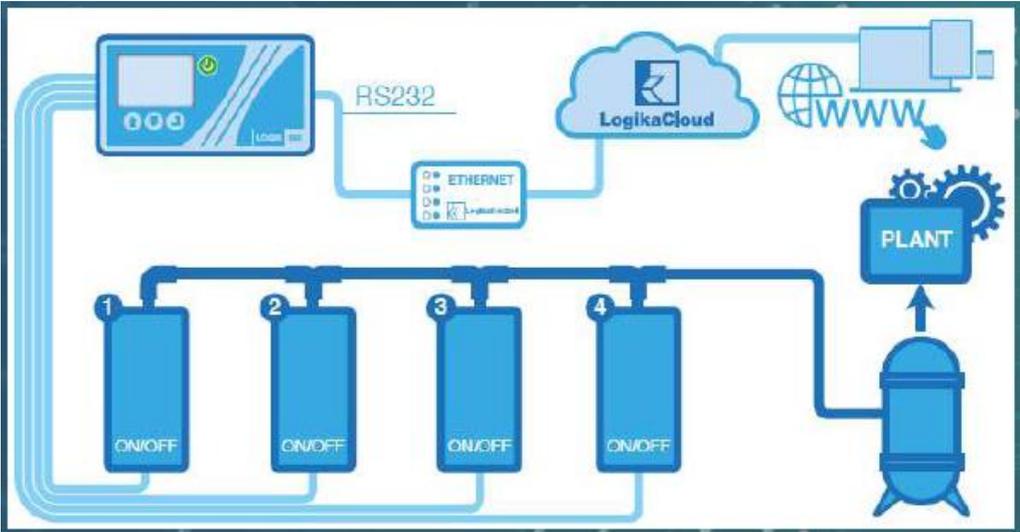
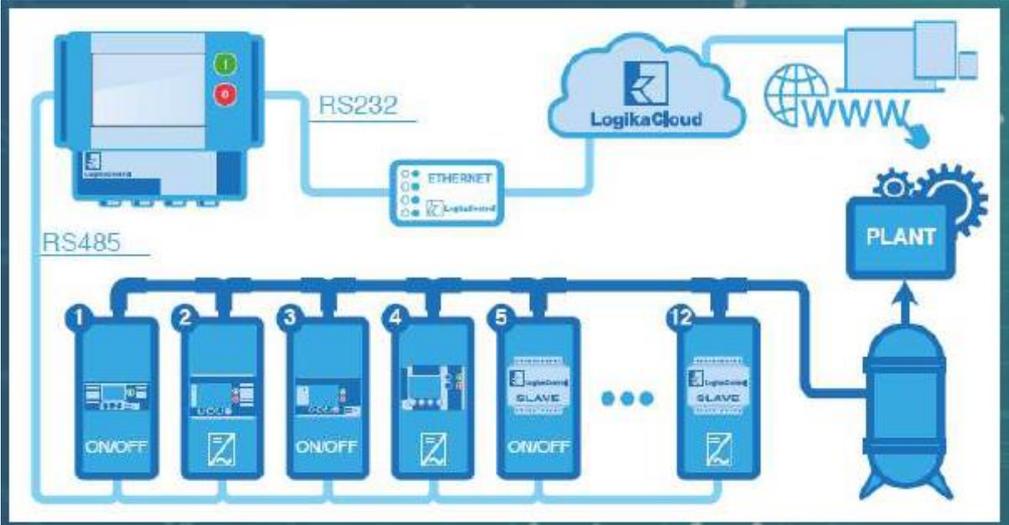
Generate new configuration set

# ETHERNET SERIAL GATEWAY CONFIGURATION



If firmware update fails ,then DL4 led will start to blink continuously

# ETHERNET SERIAL GATEWAY WORKING PRINCIPLE



# ETHERNET SERIAL GATEWAY CLOUD LOGIN

LogikaCloud

username

password

**LOGIN**

[Not registered? Create an account.](#)

[Did you forget your password? Reset it.](#)

Create new account

LogikaCloud

name

surname

company

address

city

state or province

country

email address

password

retype password

Non sono un robot

hCAPTCHA  
Privacy - Terms

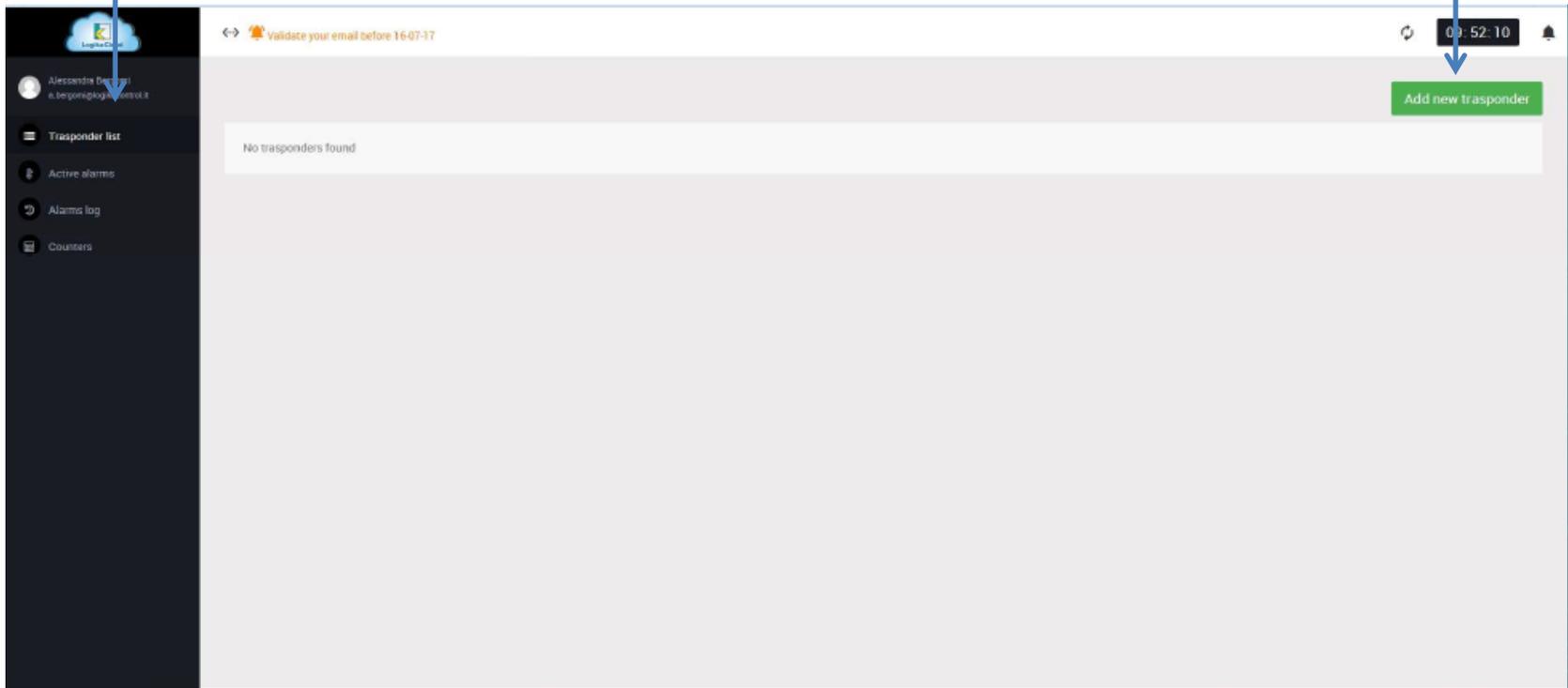
**REGISTER**

# ETHERNET SERIAL GATEWAY TRANSPONDER ADDING



Transponder list

Add new  
transponder



# ETHERNET SERIAL GATEWAY TRANSPONDER ADDING



The screenshot shows a web form titled "Add new transponder". It features a single text input field with a small "on" icon on the left and the placeholder text "transponder CODE". Below the input field are two buttons: a blue "Add" button and a grey "Close" button.

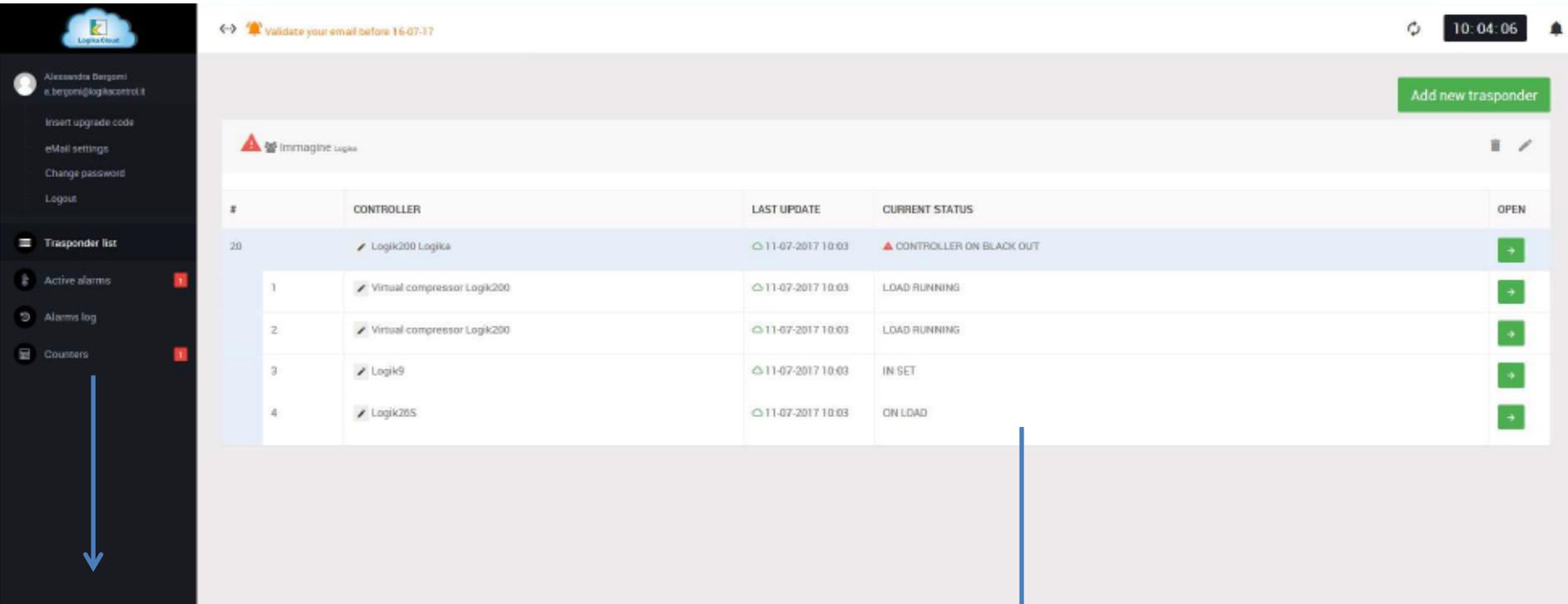
Enter 10 digits Transponder ID which is located behind of the device



The screenshot shows a web form titled "Edit transponder info". It has a blue "Owner" button at the top left. Below it are two text input fields. The first is labeled "Transponder name:" and the second is labeled "Transponder note:". Each input field has a small "A" icon on the left. At the bottom right, there are two buttons: a blue "Save" button and a grey "Close" button.

Give name and description for regarding transponder

# ETHERNET SERIAL GATEWAY COMPRESSOR LIST



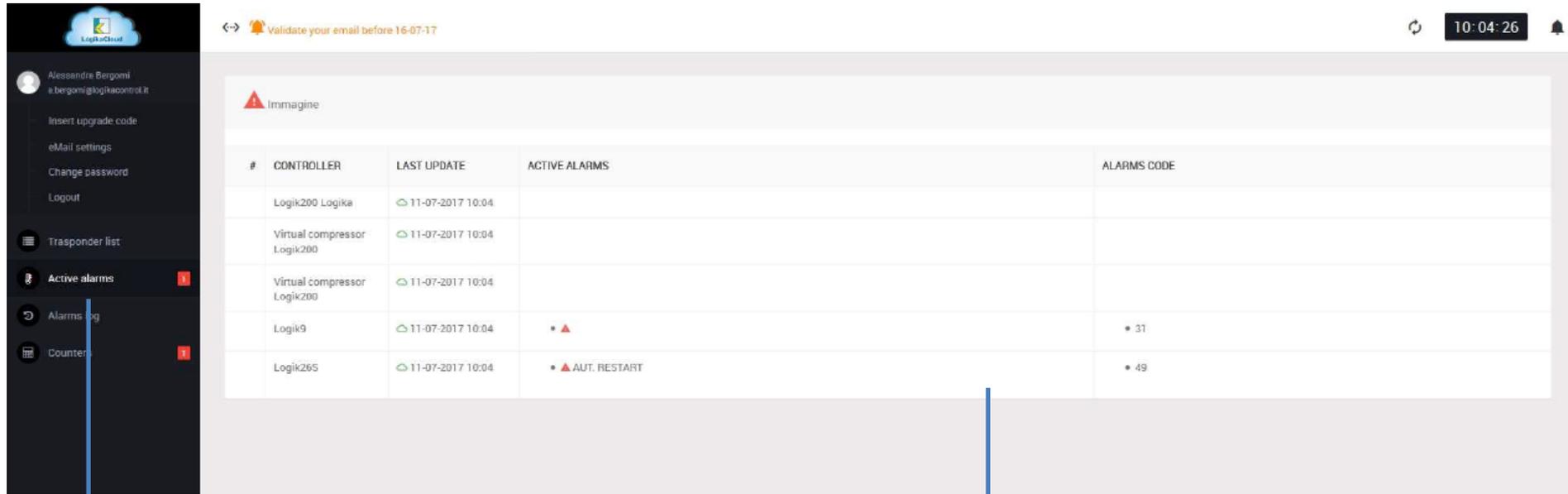
The screenshot shows the Logika Cloud web interface. On the left is a dark sidebar menu with options: 'Logika Cloud', user profile 'Alessandra Bergomi', 'Insert upgrade code', 'eMail settings', 'Change password', 'Logout', 'Transponder list', 'Active alarms' (with a red notification badge), 'Alarms log', and 'Counters' (with a red notification badge). A blue arrow points from the 'Counters' menu item to the text 'Alarms and Counters info' below. The main content area has a top bar with a notification 'Validate your email before 16-07-17', a refresh icon, the time '10:04:06', and a bell icon. A green button 'Add new trasponder' is in the top right. Below is a table with a warning icon and the text 'Immagine Logika'. The table has columns: '#', 'CONTROLLER', 'LAST UPDATE', 'CURRENT STATUS', and 'OPEN'. The table contains five rows of data.

#	CONTROLLER	LAST UPDATE	CURRENT STATUS	OPEN
20	Logik200 Logika	11-07-2017 10:03	CONTROLLER ON BLACK OUT	+
1	Virtual compressor Logik200	11-07-2017 10:03	LOAD RUNNING	+
2	Virtual compressor Logik200	11-07-2017 10:03	LOAD RUNNING	+
3	Logik9	11-07-2017 10:03	IN SET	+
4	Logik26S	11-07-2017 10:03	ON LOAD	+

Alarms and Counters info

List of the controller  
connected to the  
transponder

# ETHERNET SERIAL GATEWAY ALARM LIST



Validate your email before 16-07-17

10:04:26

Imagine

#	CONTROLLER	LAST UPDATE	ACTIVE ALARMS	ALARMS CODE
	Logik200 Logika	11-07-2017 10:04		
	Virtual compressor Logik200	11-07-2017 10:04		
	Virtual compressor Logik200	11-07-2017 10:04		
	Logik9	11-07-2017 10:04	▲	• 31
	Logik265	11-07-2017 10:04	▲ AUT. RESTART	• 49

Alarms

Total alarm list of connected controllers for regarding transponder

# ETHERNET SERIAL GATEWAY COUNTERS



Counters

Maintenance and Running  
hour visualizations of  
connected controllers

# ETHERNET SERIAL GATEWAY COMPRESSOR DATA

LogikCloud

Alessandra Bergomi  
a.bergomi@logikcontrol.it

Insert upgrade code

eMail settings

Change password

Logout

Trasponder list

Active alarms

Alarms log

Counters

Validate your email before 16-07-17

10:06:26

Back to list Back to room controller

Logik265

Serial:  
FW: 1.33  
11-07-2017 10:06

bar

7.2 10.0↑  
8.5↓

°C

50.2

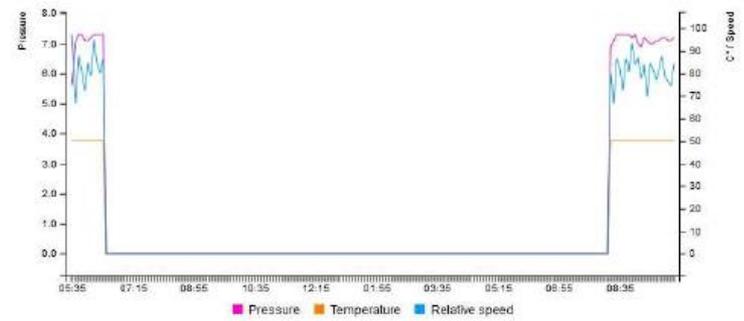
ON LOAD

Relay	1	2	3	4
Inputs	1	2	3	4

### Alarms log

DATE TIME	CODE	ALARM
10/07/17 22:30	18	NO VOLTAGE
11/07/17 12:01	54	CHECK COMP.
03/07/17 23:25	18	NO VOLTAGE
10/07/17 21:15	54	CHECK COMP.
03/07/17 18:29	18	NO VOLTAGE
30/06/17 22:07	18	NO VOLTAGE
03/07/17 13:55	54	CHECK COMP.
27/06/17 21:28	18	NO VOLTAGE
30/06/17 20:52	54	CHECK COMP.
26/06/17 21:53	18	NO VOLTAGE
27/06/17 12:09	54	CHECK COMP.

### Data graph for 24 hours



# ETHERNET SERIAL GATEWAY PARAMETER MANAGEMENT



Validate your email before 16-07-17

10:07:24

- Alessandra Bergomi  
a.bergomi@logikcontrol.it
- Insert upgrade code
- eMail settings
- Change password
- Logout
- Trasponder list
- Active alarms 1
- Alarms log
- Counters 1

## Maintenance timer

Total time: 540h 56m Load time: 544h 28m

COUNTER	SETPOINT	RESIDUAL	
Change air filter	2000h	2540h 56m	127.0%
Change oil filter	2000h	2540h 56m	127.0%
Change sep. filter	4000h	4540h 56m	113.5%
Change oil	8000h	8540h 56m	106.8%
Check compressor	500h	1040h 56m	208.2%
Bearing lubricate	29999h	29999h 0m	100.0%

## Maintenance records

DATE TIME	COUNTER	VALURE
-----------	---------	--------

## Parameter

WP3: STOP P.  bar

WP4: START P.  bar

Undo Save

V01: LANGUAGE

V02: DLS TIME

# ETHERNET SERIAL GATEWAY PARAMETER MANAGEMENT



Validate your email before 16-07-17

10:07:24

- Alessandra Bergomi  
a.bergomi@logikacontrol.it
- Insert upgrade code
- eMail settings
- Change password
- Logout
- Trasponder list
- Active alarms 1
- Alarms log
- Counters 1

## Maintenance timer

Total time: 540h 56m Load time: 544h 28m

COUNTER	SETPOINT	RESIDUAL	
Change air filter	2000h	2540h 56m	127.0%
Change oil filter	2000h	2540h 56m	127.0%
Change sep. filter	4000h	4540h 56m	113.5%
Change oil			
Check compressor			
Bearing lubricate			

## Maintenance records

DATE TIME	COUNTER	VALURE
-----------	---------	--------

### Insert password

Level

0

No password required

Close

Insert

## Parameter

WP3: STOP P.  bar

WP4: START P.  bar

Undo Save

V01: LANGUAGE

V02: DLS TIME

# ETHERNET SERIAL GATEWAY PARAMETER MANAGEMENT



Parameter

## PRESSURE

WP1: TOP RANGE

- 15 bar +

WP2: HIGH PRESSURE

- 11.0 bar +

WP3: STOP P.

- 10.0 bar +

WP4: START P.

- 8.7 bar +

Undo

Save

WP6: OFFSET

- 0.0 bar +

## COMPRESSOR SETUP

C01: RESTART

AUTO

C02: STARTS/HOUR

- 30 +

C03: TIMER WT4

YES

C04: CONTROL PH.

NO

C05: SAFETY

NO

C06: LOW VOLTAGE

NO

C07: MULTIUNIT

- 7 +

C08: COMPRESSOR #

- 4 +

C10: AIR FLOW

- 1000 L/min +

C11: INPUT PTC

NO

C12: INPUT IN7

- 0 +

C13: OUTPUT RL2

- 0 +

C14: OUTPUT RL5

- 0 +

C15: OUTPUT RL6

- 0 +

C16: OUTPUT RL7

- 0 +

C17: SHUTOFF C-H

NO

C18: OUTPUT 4/20MA

C19: AUX 4/20MA INPUT

C20: TEMPERATURE PROBE

C21: DRIVE FAULT INPUT

# STAND ALONE COMMUNICATION



- Baud Rate : 9600 bits/s
- Parity : None
- Stop Bits : One
- Modbus Address = Comp. number



Logik9



Logik33S



Logik26S



RS485 line  
Modbus Rtu Protocol

# STAND ALONE COMMUNICATION



Logik9



Logik33S



Logik26S



RS485 line  
Modbus Rtu Protocol

0408	unsigned	W	2	Controller fieldbus commands	Bit mapped allocation: 0x0001 START COMPRESSOR 0x0002 STOP COMPRESSOR 0x0004 ALARM RESET 0x0008 - 0x0010 - 0x0020 ACK & RESET ALL ALARMS 0x0040 - 0x0080 WATCHDOG (IF SET, MUST BE SET AGAIN EVERY 5 SECONDS OTHERWISE COMPRESSOR STOPS WITH A FIELDBUS FAULT THAT MUST BE RESET EITHER BY FIELDBUS OR MANUALLY) 0x0100 RESET AIR FILTER MAINT. COUNTER 0x0200 RESET OIL FILTER MAINT. COUNTER 0x0400 RESET SEPARATOR FILTER MAINT. COUNTER 0x0800 RESET OIL MAINT. COUNTER 0x1000 RESET COMPRESSOR MAINT. COUNTER 0x2000 RESET BEARING LUBRICATE COUNTER
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# STAND ALONE COMMUNICATION LOGIK CLIENT



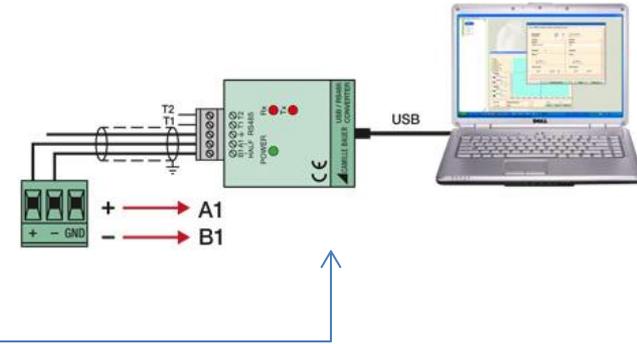
Logik9



Logik33S



Logik26S



RS485 line  
Modbus Rtu Protocol

State	Object	Value	Unit	Desc
Counters	State	ON LOAD		Main Controller State
	Alarm			Current Controller Alarm
Digital Input	Press	6,8	bar	Working Pressure Transducer
	S4	0,0	bar	Security Pressure Transducer
Output	Temp	62,2	°C	Screw Temperature Probe
	S3	152,5	°C	Security Temperature Probe
Pressure Parameters	Power	9,1	V	Controller Power Supply (+15V)
	Time	19/05/2005 12:24:23		Controller Time
Temperature Parameters	SWRel	1.08		Firmware Release
Timer Parameters				
Configuration Parameters				
Message and String Parameters				
Alarms				
Maintenance				
Daily Timers				
Passwords				

- Parameter management
- Compressor observation
- Alarm handling





**Thank You ...**