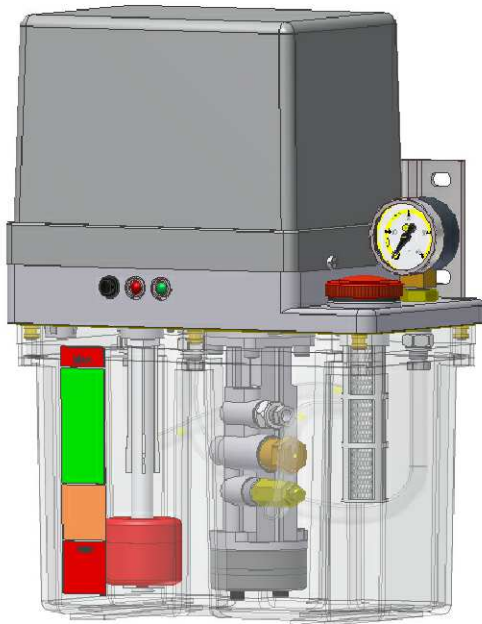


## GE01 - GE02 - GE03

### OIL Lubrication unit Single line system

132.000.000



#### Application

As an intermittent operation unit to feed volumetric dosing meters in single-line systems

#### Operation

It can be operated as follows:

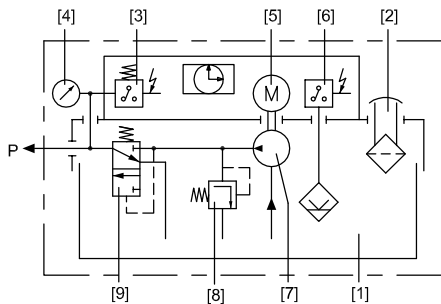
- Without control device. Programmed from the machine's automation (plc, automaton, etc...)
- With control device (only with 3 litres tank)

In units with pressure switch, the pump's operation time is the pressure switch signal + 10 seconds.

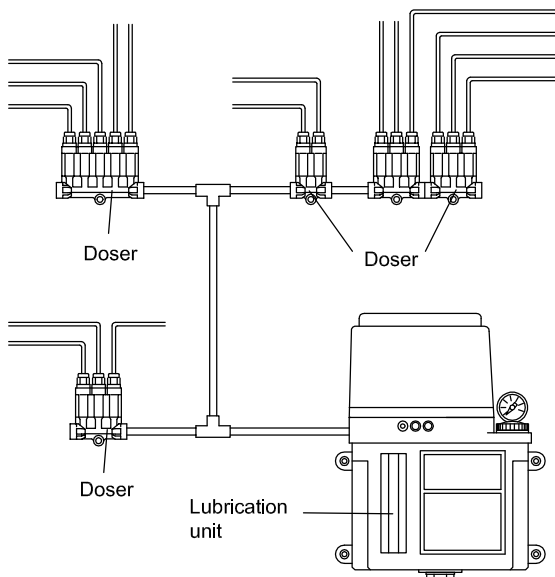
Depending on the control system, they can be equipped with different accessories for monitoring and controlling the operation:

- Manual pushbutton (intermediate lubrication)
- Electrical level (minimum level control in the tank)
- Pressure gauge (visual control of the pressure cycle)
- Green light (voltage input)
- Red light (alarm or system fault)

#### Hydraulic diagram



- |                       |                            |
|-----------------------|----------------------------|
| 1- Tank               | 6- Level switch            |
| 2- Filling cap-filter | 7- Gear pump               |
| 3- Pressure switch    | 8- Pressure limiting valve |
| 4- Pressure gauge     | 9- Relief valve            |
| 5- Electric motor     | P = Pressure outlet        |



#### Technical characteristics

Tank..... 3-6-10 litres in plastic / aluminium / metal  
Degree of protection..... IP54

#### Gear pump

Lubricant ..... Mineral or synthetic oil  
Viscosity ..... 30 ÷ 1500 cSt  
Flow ..... 0,2-0,5 l/min  
Maximum pressure ..... 30 bar  
Working temperature..... +10°C ÷ +40°C

#### Motor

Voltage.....	115V~	230V~	230/400V~	24Vdc
Frequency .....	50/60Hz	50/60Hz	50/60Hz	
Power (50Hz).....	100W	100W	100W	55W
Consump. (50Hz)...	0,6A	0,3A	0,5A	2,5A
rpm (50Hz).....	2800	2800	2800	2800

Service mode..... S3 20% \*  
Maximum operation time..... 5 min  
Maximum cycles/hour..... 20

\* 20% is the ratio between the operation time and the stop time.

E.g. 1 min of operation time corresponds to 5 min stop time



#### Caution!!!

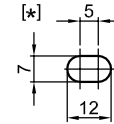
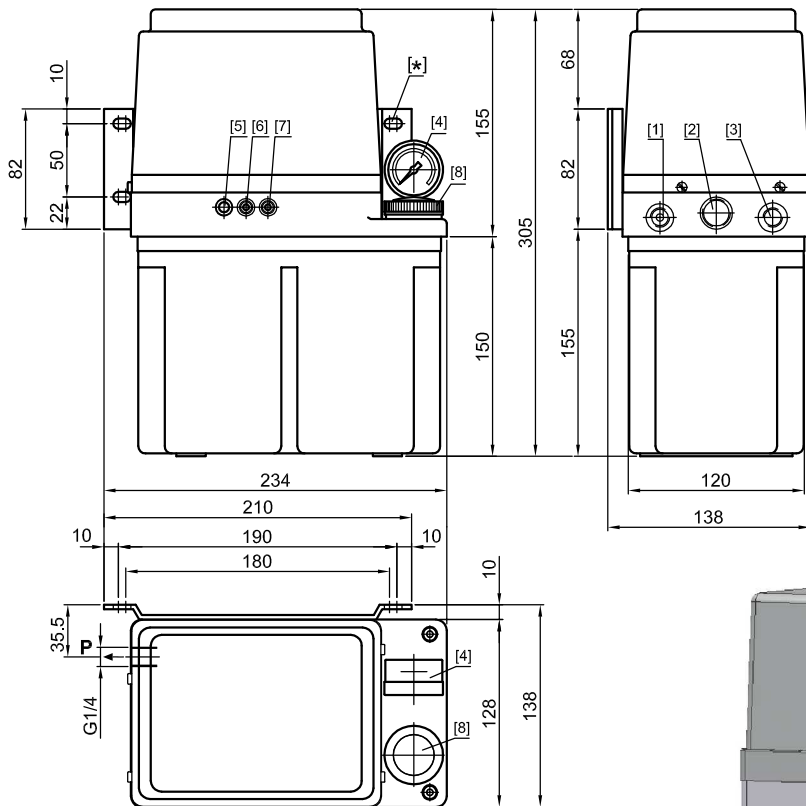
Safety measures must be taken: disconnect the main switch before carrying out connection coupling.

#### Pressure switch

Without pressure..... Open  
Breakdown voltage..... 42V  
Connection current..... 2,5A  
Maximum contact load..... 30VA  
Connection pressure..... 14 bar

#### Electric level switch

Type of contact..... Reed  
Voltage..... 230VUC  
Connection..... max. 0,5A  
Power breakdown..... max. 30W

**OIL lubrication unit**  
**Single line system**
**GE01/B**  
**3L Plastic**  
 132.000.000


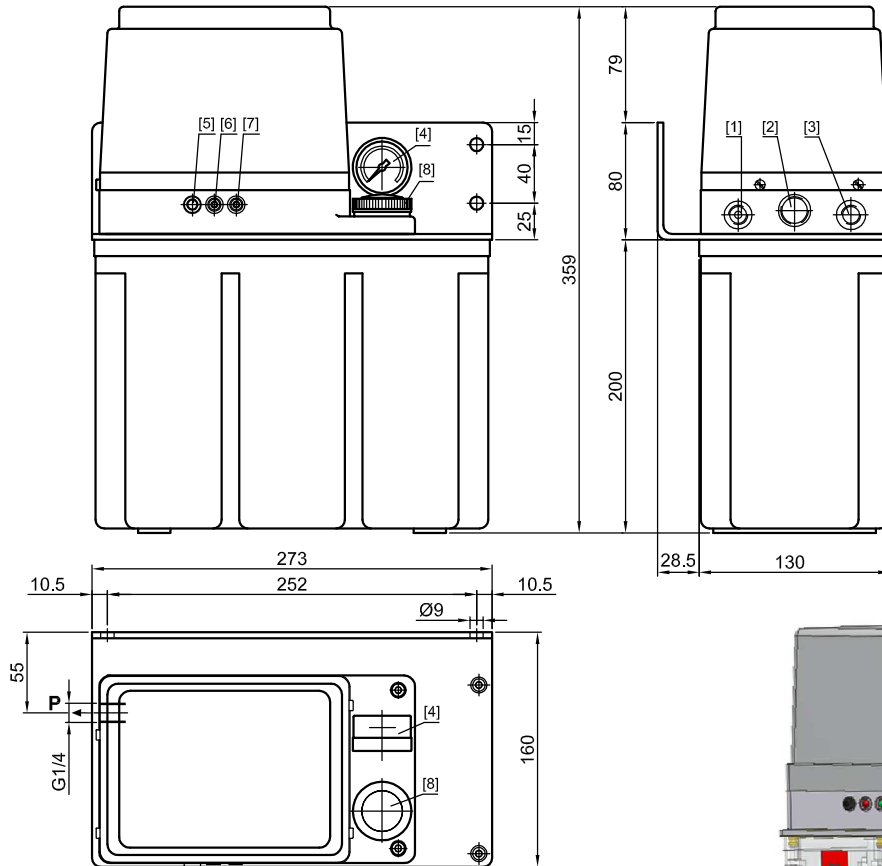
- [1] Pressure outlet 1/4 BSP
- [2] Inlet for electric cables PG11
- [3] Return, optional
- [4] Pressure gauge
- [5] Manual pushbutton
- [6] Red light
- [7] Green light
- [8] Plug-refilling filter


**GE01 / (X) - 1 - (X) (X) (X) (X)**

Tank capacity	Control system	Monitoring system						Flow l/min	Voltage	
		Mp	Ls	Pg	Ps	Gl	Rl			
(B) 3 Litres	(0) Without control	(1)	✓					(2) 0,2	(0) 24Vdc	
		(2)	✓	✓					(1) 115V~	
		(3)	✓	✓	✓			(5) 0,5	(2) 230V~	
		(4)	✓	✓	✓	✓			(3) 230/400V~	
	(2) Time	(7) Time or Pulse	(4)	✓	✓	✓	✓	✓	(2) 0,2	(0) 24Vdc
			(4)	✓	✓	✓	✓	✓		(1) 115V~
			(4)	✓	✓	✓	✓	✓	(5) 0,5	(2) 230V~
			(4)	✓	✓	✓	✓	✓		

Mp = Manual pushbutton  
 Ls = Level switch  
 Pg = Pressure gauge  
 Ps = Pressure switch  
 Gl = Green light  
 Rl = Red light

Only units with control have red and green lights:  
 -green light means unit under voltage  
 -red light means alarm

**OIL lubrication unit**  
**Single line system**
**GE01/C**  
**6L Plastic**  
 132.000.000


- [1] Pressure outlet 1/4 BSP
- [2] Inlet for electric cables PG11
- [3] Return, optional
- [4] Pressure gauge
- [5] Manual pushbutton
- [6] Red light
- [7] Green light
- [8] Plug-refilling filter

**GE01 / X - 1 - X X X X**

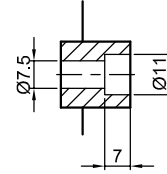
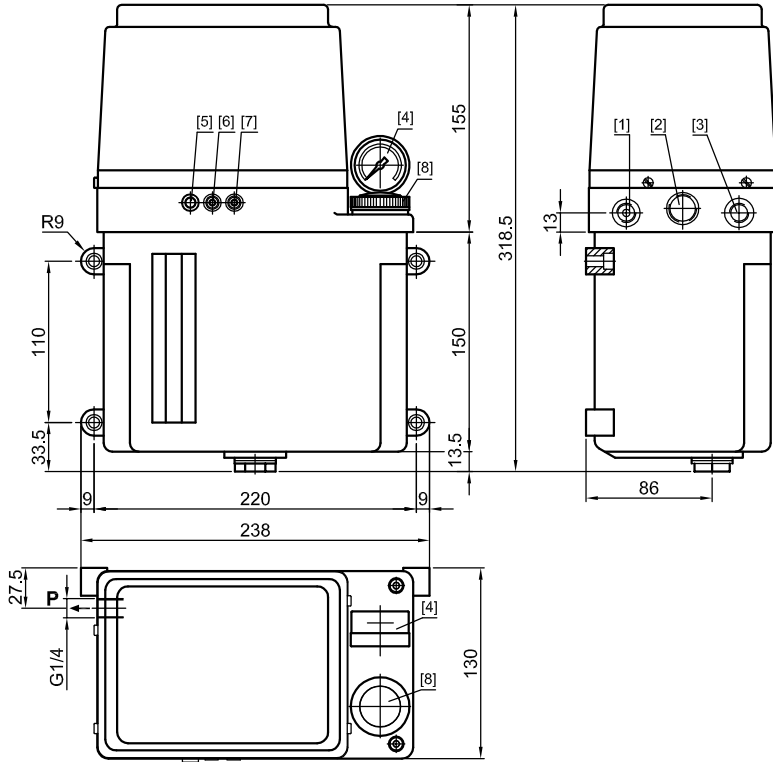
Tank capacity	Control system	Monitoring system						Flow l/min	Voltage
		Mp	Ls	Pg	Ps	Gl	Rl		
C 6 Litres	0 Without control	1	✓					2 0,2	0 24Vdc 1 115V~ 2 230V~ 3 230/400V~
		2	✓	✓					
		3	✓	✓	✓			5 0,5	
		4	✓	✓	✓	✓			
	2 Time	4						2 0,2	
	7 Time or Pulse	4	✓	✓	✓	✓	✓	5 0,5	

Mp = Manual pushbutton  
 Ls = Level switch  
 Pg = Pressure gauge  
 Ps = Pressure switch  
 Gl = Green light  
 Rl = Red light

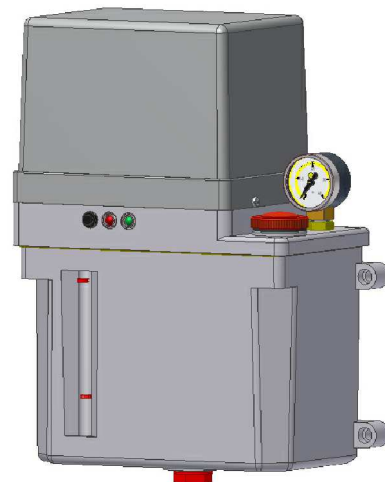
Only units with control have red and green lights:  
 -green light means unit under voltage  
 -red light means alarm

**OIL lubrication unit**  
Single line system

**GE02/B**  
2L Aluminium  
132.000.000



- [1] Pressure outlet 1/4 BSP
- [2] Inlet for electric cables PG11
- [3] Return, optional
- [4] Pressure gauge
- [5] Manual pushbutton
- [6] Red light
- [7] Green light
- [8] Plug-refilling filter



GE02 / (X) - 1 - (X) (X) (X) (X)

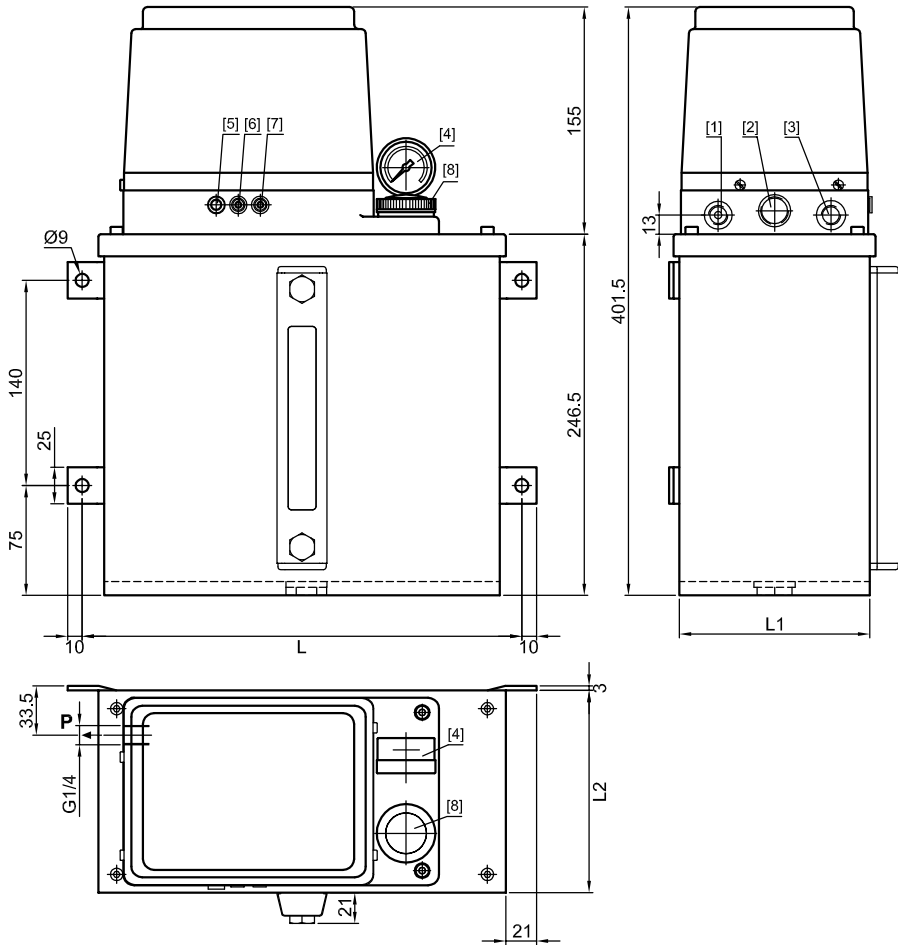
Tank capacity	Control system	Monitoring system						Flow l/min	Voltage
		Mp	Ls	Pg	Ps	Gl	Rl		
(B) 3 Litres	(0) Without control	(1)	✓					(2) 0,2	(0) 24Vdc
		(2)	✓	✓					
		(3)	✓	✓	✓			(5) 0,5	(2) 230V~
		(4)	✓	✓	✓	✓			(3) 230/400V~
	(2) Time	(4)	✓	✓	✓	✓	✓	(2) 0,2	(0) 24Vdc
	(7) Time or Pulse		✓	✓	✓	✓	✓	(5) 0,5	(1) 115V~ (2) 230V~

Mp = Manual pushbutton  
Ls = Level switch  
Pg = Pressure gauge  
Ps = Pressure switch  
Gl = Green light  
Rl = Red light

Only units with control have red and green lights:  
-green light means unit under voltage  
-red light means alarm

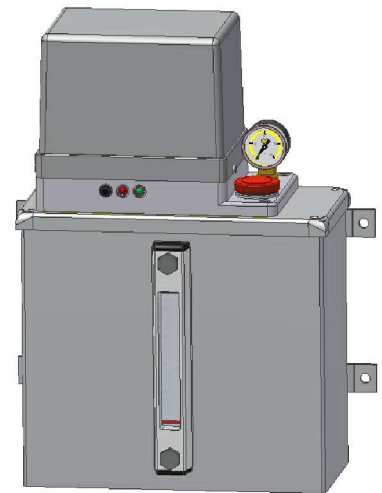
**OIL lubrication unit**  
Single line system

**GE03/C** 6L metal  
**GE03/D** 10L metal  
132.000.000



- [1] Pressure outlet 1/4 BSP
- [2] Inlet for electric cables PG11
- [3] Return, optional
- [4] Pressure gauge
- [5] Manual pushbutton
- [6] Red light
- [7] Green light
- [8] Plug-refilling filter

Capacidad	L	L1	L2
6 litros	300	130	138
10 litros	405	155	163



GE03 / (X) - 1 - (X) (X) (X) (X)

Tank capacity	Control system	Sistema de vigilancia						Flow l/min	Voltage
		Pul	Int	Man	Pre	Lv	Lr		
(C) 6 Litres (D) 10 Litres	(0) Without control	(1)	✓					(2) 0,2 (5) 0,5	(0) 24Vdc (1) 115V~ (2) 230V~ (3) 230/400V~
		(2)	✓	✓					
		(3)	✓	✓	✓				
		(4)	✓	✓	✓	✓			
	(2) Time						(2) 0,2 (5) 0,5	(0) 24Vdc (1) 115V~ (2) 230V~	
	(7) Time or Pulse	(4)	✓	✓	✓	✓			✓

Pul = Pulsador manual  
Int = Interruptor de nivel  
Man = Manómetro  
Pre = Presostato  
Lv = Lámpara verde  
Lr = Lámpara roja

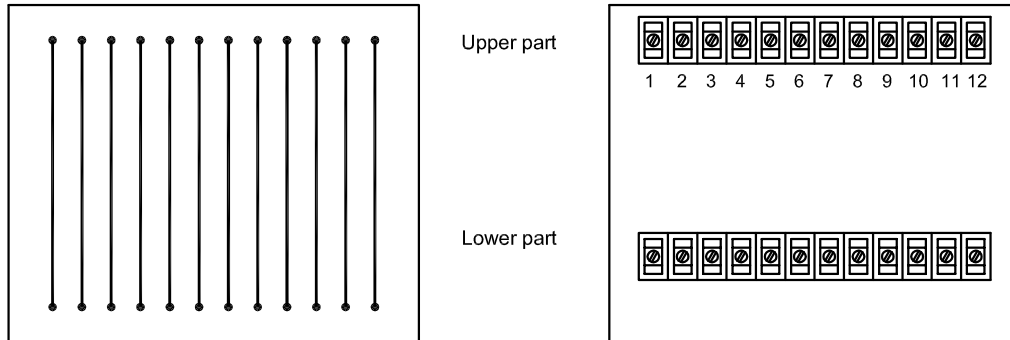
Las lámparas sólo se montan en las centrales con mando:  
-verde: central bajo tensión  
-rojo: alarma

## Connection plate for units without control

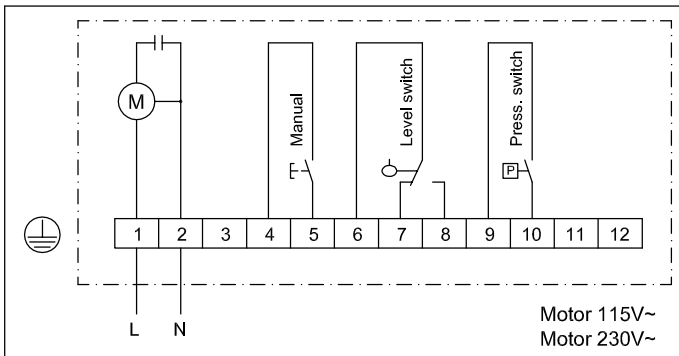
EF01/0-2

451060000

For application to connect the units' internal signals via the lower part with the control sources via the upper part.



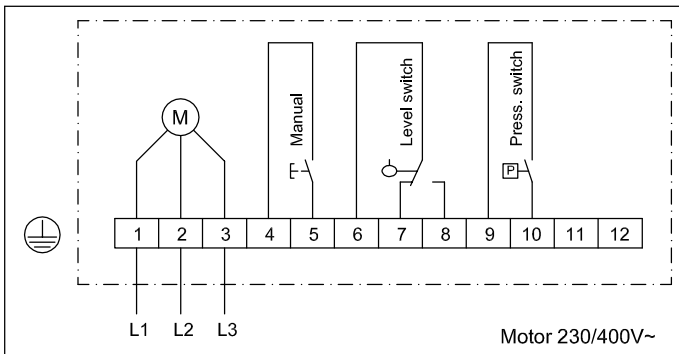
### Electrical connection diagram



All the contacts on this diagram are indicated at rest position.

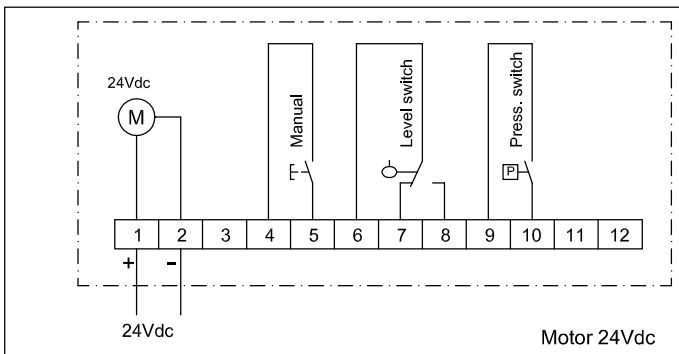
On the electrical level (tank without oil) the minimum level contact is activated by the float

- Electrical level  $\Rightarrow$  Tank without oil
- Pressure switch  $\Rightarrow$  Circuit without pressure
- Manual pushbutton  $\Rightarrow$  Not pressed



### CAUTION!!!

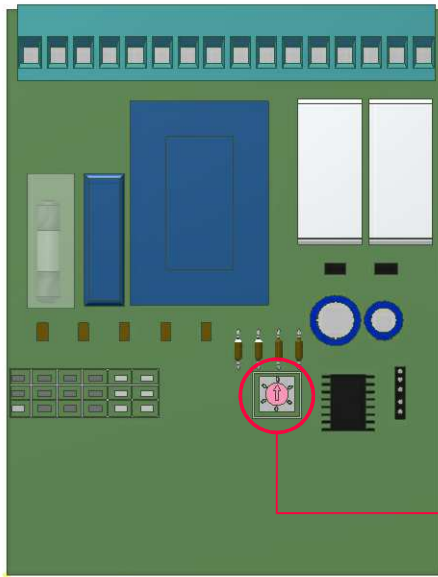
Safety measures must be taken: disconnect the main switch before carrying out connection coupling.



## Control and Monitoring device

24Vdc ⇒ **EE02/C-1-0**  
 115V~ ⇒ **EE02/C-1-1**  
 230V~ ⇒ **EE02/C-1-2**

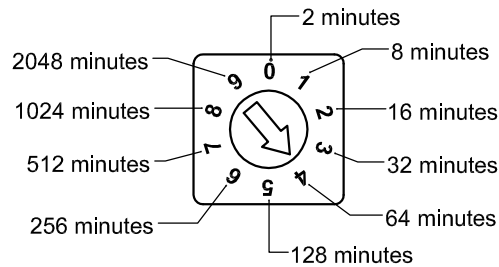
450.400.000



### -TIME-

- PAUSE time programmable by time via the selector
- OPERATION time: pressure switch signal + 10 seconds. Depends on the flow and number of points in the installation. A maximum duration of 3 minutes has been set, after which the alarm will be activated.

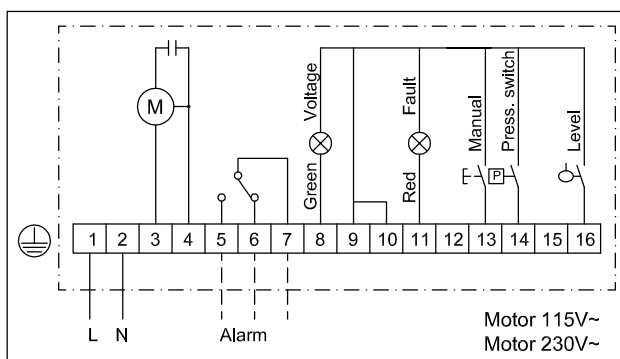
Configuring the device: select the desired pause time value by turning the selector in the direction of the corresponding number.



### Monitoring system

If the alarm is activated during start-up, the red led will light up indicating the relevant fault:

Type of alarm	Indicates	To cancel the fault
Fixed red led	1- Minimum level of oil in the tank 2- Level switch fault	-Fill the tank and press the manual pushbutton -Check the level switch
2 flashes of red led	Pressure fault (not enough pressure after motor in operation for 3 minutes)	-Check there are no leaks in the circuit -Check pressure switch status



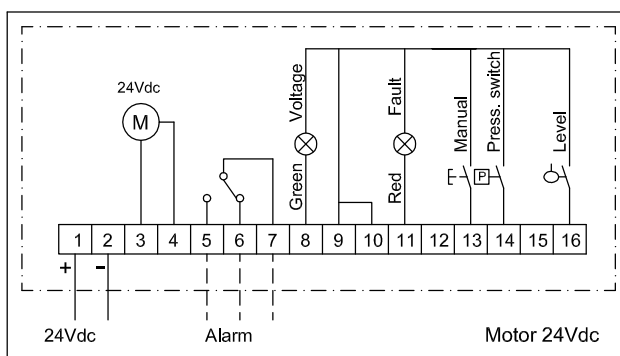
All the contacts on this diagram are indicated at rest position.

On the electrical level (tank without oil) the minimum level contact is activated by the float

Electrical level ⇒ Tank without oil

Pressure switch ⇒ Circuit without pressure

Manual pushbutton ⇒ Not pressed



### CAUTION!!!

Safety measures must be taken: disconnect the main switch before carrying out connection coupling.

## Control and Monitoring device

 24Vdc ⇒ **EE03/C-1-0**

 115V~ ⇒ **EE03/C-1-1**

 230V~ ⇒ **EE03/C-1-2**

450.500.000

### -TIME OR PULSES-

-PAUSE time programmable via the selector by time or pulses (electrical signals emitted during a machine's working rhythm)

-OPERATION time: pressure switch signal + 10 seconds.

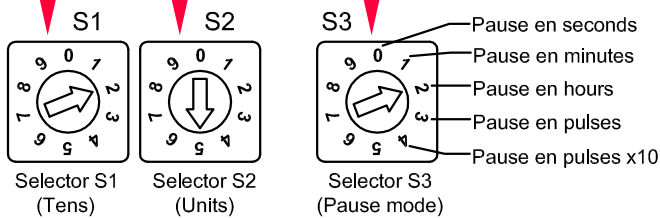
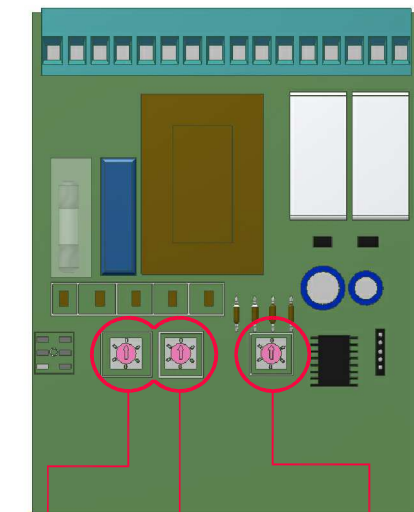
Depends on the flow and number of points in the installation.

A maximum duration of 3 minutes has been set, after which the alarm will be activated.

Configuring the device:

-Select the desired pause mode via selector S3: Time / Pulses.

-Select the value of this pause via selectors S1 and S2 ( Tens and Units)



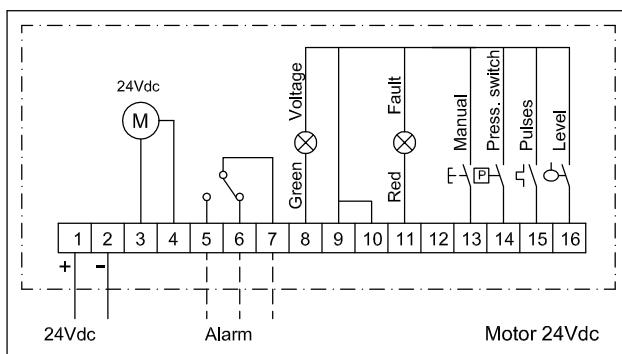
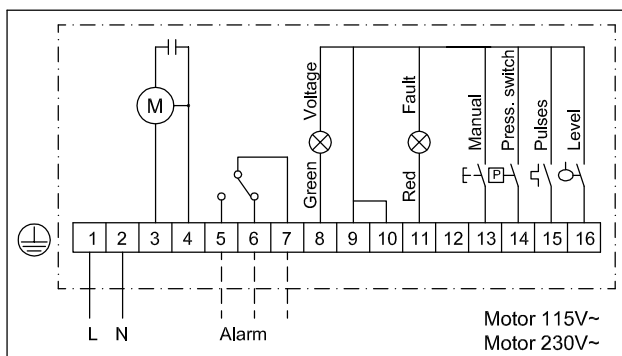
Application examples:

S1	S2	S3	One lubrication cycle every:
9	0	0	90 seconds
3	5	1	35 minutes
0	1	2	1 hour
8	0	3	80 pulses
7	5	4	75 pulses(x10)=750 pulses

### Monitoring system

If the alarm is activated during start-up, the red led will light up indicating the relevant fault:

Type of alarm	Indicates	To cancel the fault
Fixed red led	1- Minimum level of oil in the tank 2- Level switch fault	-Fill the tank and press the manual pushbutton -Check the level switch
2 flashes of red led	Pressure fault (not enough pressure after motor in operation for 3 minutes)	-Check there are no leaks in the circuit -Check pressure switch status
3 flashes of red led	Device configuration fault	Check that -The pause mode selector is not out of range -The units and tens selectors are not at "0" at the same time



All the contacts on this diagram are indicated at rest position.

On the electrical level (tank without oil) the minimum level contact is activated by the float

Electrical level ⇒ Tank without oil

Pressure switch ⇒ Circuit without pressure

Manual pushbutton ⇒ Not pressed



### CAUTION!!!

Safety measures must be taken: disconnect the main switch before carrying out connection coupling.