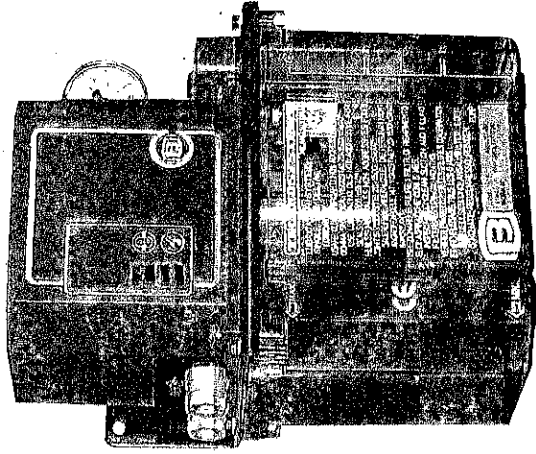




ELECTRICALLY CONTROLLED PUMPS AUTOMATIC GROUPS

Table
AD 0090.1
May 2006

GMK Series

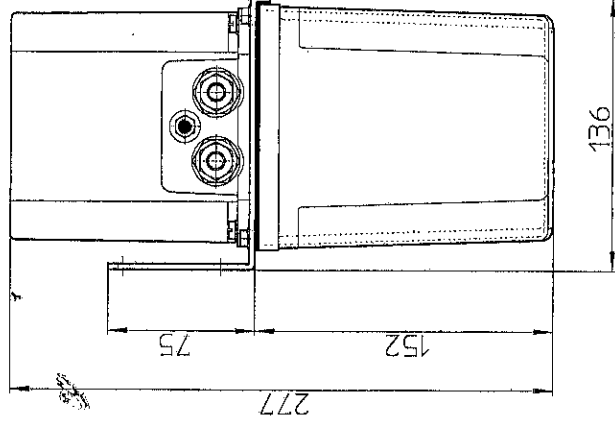
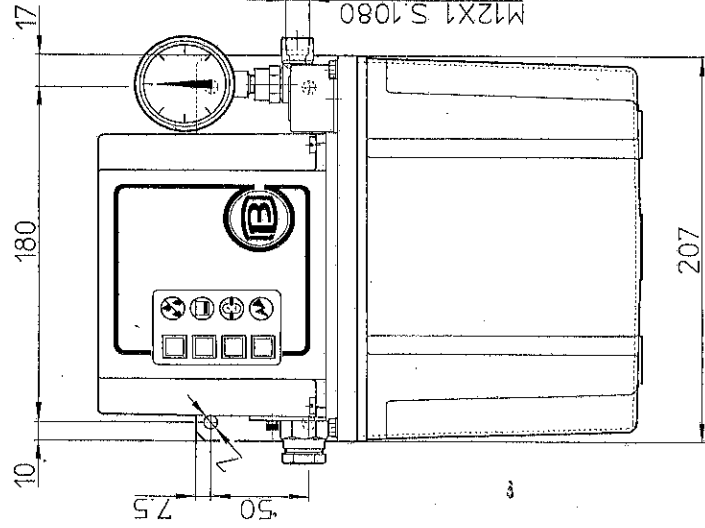


DESCRIPTION

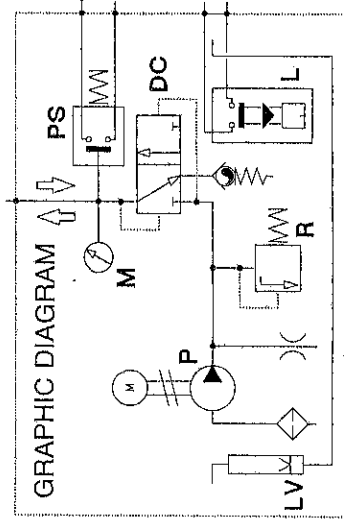
The GMK 3092 group is intended to supply a positive displacement centralized lubrication system, equipped with direct or indirect response distributors.

It carries out a cyclic lubrication, which can either be manually activated, or be fully automatic. In the table on the next page, all executions made by this group can be identified, divided into three main series:

- **Manual control**
- **Timed automatic control**
- **Self-controlled automatic control** (time or impulse pause)



The group consists of a geared motorpump, fitted with an induction single phase electric engine, and placed on a 3 lt transparent polycarbonate tank.
Above the tank are the control devices, both manual and electronic, kept in a closed housing. A control of the minimum level of lubricant and a pressure gauge can be fitted. The tank filler is fitted with a filter.



- **M** Geared motorpump 0.180 lt/min
- **LV** Level indicator
- **R** Pressure regulator, typically calibrated at 20-24 bar
- **L** Minimum level electromagnetic controller
- **DC** Rapid decompression valve, retaining minimum pressure in the system's main line
- **P** Pressure gauge 0-40 bar, indicating system's pressure
- **PS** Manostat controlling operating pressure



ELECTRICALLY CONTROLLED PUMPS AUTOMATIC GROUPS

Table
AD 0090.2
May 2006

GMK Series

GMK SERIES PUMPS														
TYPES	SYMBOL	START		PAUSE		OPERATION		LEV. CONTROL	MANOSTAT	PRESSURE GAUGE	SIGNS			NOTES
		AUTOMATIC	MANUAL	TIME	IMPULSES	ADJUSTABLE	FIXED 30 SEC				(V) VOLTAGE*	(G) PUMP ON	(R) MIN. LEVEL	
A	GMK 3092	•	•			•							* FLASHING 1) LIGHT OUTSIDE THE GROUP 1) LIGHT OUTSIDE THE GROUP	
	GMK 3092 M	•	•			•			•		1)			
	GMK 3092 L	•	•			•			•		•			
	GMK 3092 LM	•	•			•			•		•			
	GMK 3092 P	•	•			•			•		•			
	GMK 3092 MP	•	•			•			•		•			
B	GMK 3092 LP	•	•			•			•		•		1) LIGHT OUTSIDE THE GROUP	
	GMK 3092 LMP	•	•			•			•		•			
	GMK 3092 IT	•	•			•								
	GMK 3092 TP	•	•			•			•		1)			
C	GMK 3092 LT	•	•			•			•		•			
	GMK 3092 LTP	•	•			•			•		•			
	GMK 3092 TLM	•	•			•			•		•			
	GMK 3092 TMP	•	•			•			•		•			
	GMK 3092 LTM	•	•			•			•		•			
	GMK 3092 LTP	•	•			•			•		•			
D	GMK 3092 LTC	•	•			•			•		•			
	GMK 3092 LTC	•	•			•			•		•			
	GMK 3092 LTCM	•	•			•			•		•			
	GMK 3092 LTCM	•	•			•			•		•			

TECHNICAL FIGURES

Engine:

Induction, single-phase
Absorbed power: 0,1KW
Absorption: 0,75 A (220V)-1,5 A (110V)
Isolation: classe B
Voltage: 220 V - 50/60 Hz; 110 V - 50/60 Hz
Max operating time: 4 minutes
Max ratio operating time/pause: 1:4 min.
Minimum pause: 1 min.

Pump:

Gearred
Flow rate: 0,180 l/min.
Set-point pressure: 22 - 28 bar

Tank:

Capacity: litri 3
(transparent polycarbonate)

Minimum level control:

NO contact, typically open
(when lubricant is present)
NC contact can be supplied only if specifically requested
Max voltage: 250 V
Max current: 3 A
Max charge: 120 VA

Manostat:

NO contact, typically open, when lubricant is requested
NC contact can be supplied only if specifically requested
Max voltage: 220 V
Max current: 100VA
Set-point pressure: 18 bar

Protection level:

IP 54

Operation: "A" SERIES

"B" SERIES

Manual control

Pause time: selectable with dop-switches from 2.5 to 157.5 min, with 2.5 min intervals

Operating time: 30 sec. corresponding to a 90 cc pump flow rate
Manual control: extra automatic cycle
Pre-lubrication at each start; when requested, pre-lubrication can be excluded
Electromagnetic control of minimum lubricant level
Green led sign: equipment is energized
Yellow led sign: pump is operating
Manostat sign: pressurized system, can be used outside the group

"C" SERIES

Time or impulse selectable pause condition; 1-2048 min.; impulses with leds in the selected mode
Operating time: according to when operating pressure is reached, plus a 15 sec safety overtime
Warning signal: flashing red led after 40 sec. since the start of each lubrication cycle
Manual control: extra automatic cycle
Pre-lubrication at each start; when requested, pre-lubrication can be excluded
Electromagnetic control of minimum lubricant level
Control manostat of pressurized system; signal can be used remotely from the exchange contact
Green led sign: equipment is energized
Yellow led sign: pump is operating
Red led sign: minimum level reached

Lubricants:

Mineral oils with viscosity between 20 and 1500 cSt



ELECTRICALLY CONTROLLED PUMPS AUTOMATIC GROUPS

GMK Series

Table
AD 0090.3
May 2006

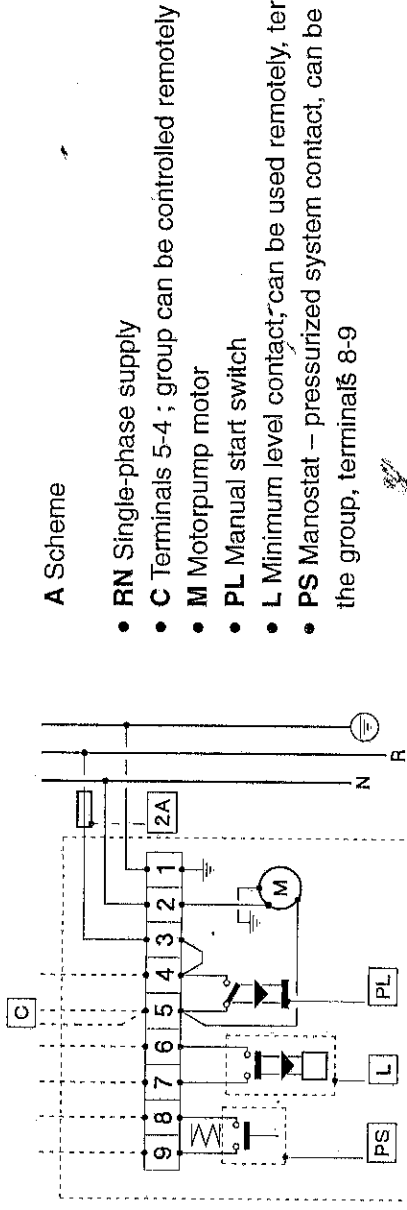
OPERATION

Manual start execution – A Series

A button is located on the left side of the group. The pump is activated by pushing it. The pump has to stop only when the delivery and portioning system is saturated, and maximum operating pressure has been reached.

The manual operation is facilitated by the use of a **pressure gauge**. The same results can be achieved by employing a manostat, which once set-point pressure has been reached, closes a contact and can cause a lamp to light, indicating the pump stopping.

The **pump operating time/pause** time ratio may not exceed **1:4**; however, the pump may not be energized for more than **4 minutes**.



A Scheme

- **RN** Single-phase supply
- **C** Terminals 5-4 ; group can be controlled remotely
- **M** Motor/pump motor
- **PL** Manual start switch
- **L** Minimum level contact, can be used remotely, terminals 6-7
- **PS** Manostat – pressurized system contact, can be used outside the group, terminals 8-9

Automatic execution and start, B and C Series

These are two different series; **B** Series is fitted with a very simple operation equipment, whereas **C** Series has several functions, both as regards start and control.

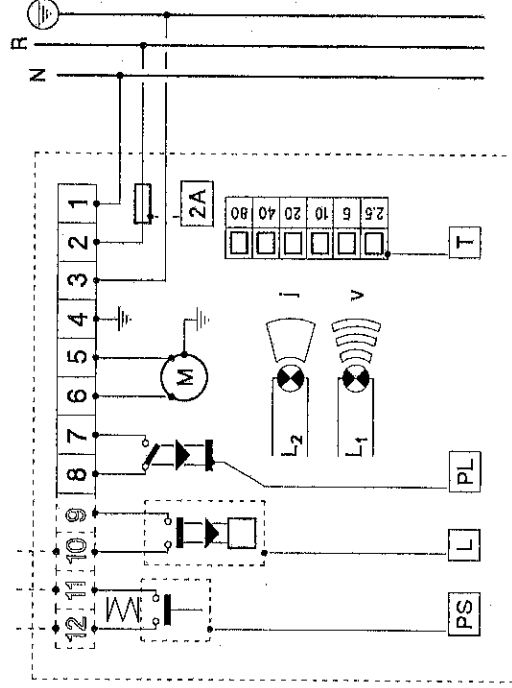
B Series

This series consists of different types with different executions – see table on the previous page; it is fitted with a **dip switch** determining pause time. There are six main times: 2.5-10-20-40-80 minutes, each of which is activated by a switch. **These times can be summed up**. Consequently, being **minimum time 2.5 min**, and the total sum **157.5 min**, different combinations are possible, determining a pause time variation at 2.5 min intervals.

The pump's operating time is **30 sec**, which allows for a supply of 80 cm³ lubricant for each cycle.

A push button allows for **extra lubrication** of the automatic cycle. A lubrication cycle is made, each time the equipment is energized: **prelubrication**.

Led signs for voltage group and operating pump. The minimum level sign and the pressurized system sign – **manostat** – have to be installed outside the group.



B Scheme

- **RN** Single-phase supply
 - **M** Motor/pump motor
 - **PL** Manual start switch for additional lubrication
 - **L** Minimum level contact, can be used remotely, terminals 6-7
 - **PS** Manostat – pressurized system contact, can be used outside the group, terminals 11-12
 - **L1** Green led: energized equipment sign
 - **L2** Yellow led: operating pump sign
- Dip-switches: pause time selection