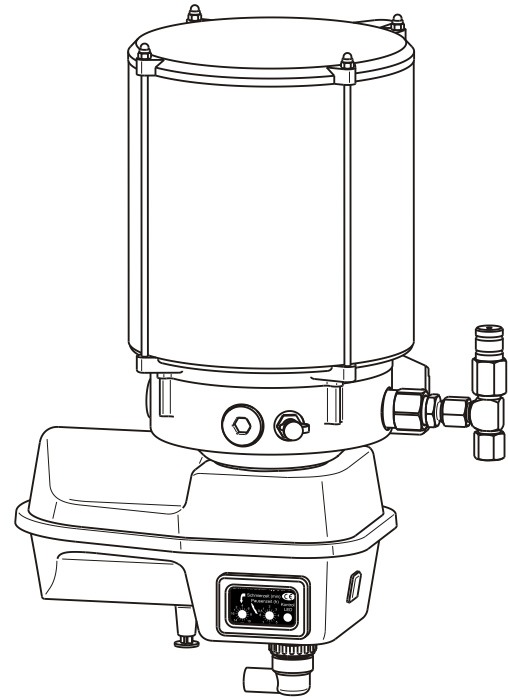


Integrated electronic controller Type S-EP 4

with bayonet connector

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Electronic pump EP-1 with integrated controller S-EP 4:

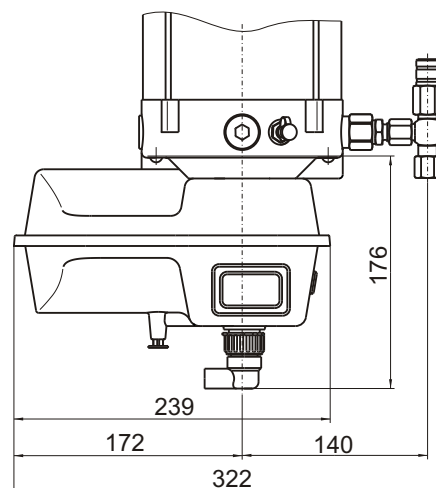


1. General information:

The electronic control device S-EP 4 is used for the time-dependent control of a central lubrication device both for the progressive system (EP pumps) and for the multiple line system (OC pumps):

Installation dimensions:

The electrical pump EP-1 with integrated controller S-EP 4 can be equipped with various reservoir versions. For the installation dimensions of the reservoir versions, see the description EP-1.



S-EP 4

2. Function sequence

Once the ignition has been switched on the yellow LED or the green signal lamp (optional) lights up on the control panel for 1.5 sec. and shows that the controller is operational (activation control).

Every time the controller is activated for the first time, a lubrication process begins. The green LED in the control half shell is lit during the entire lubrication procedure.

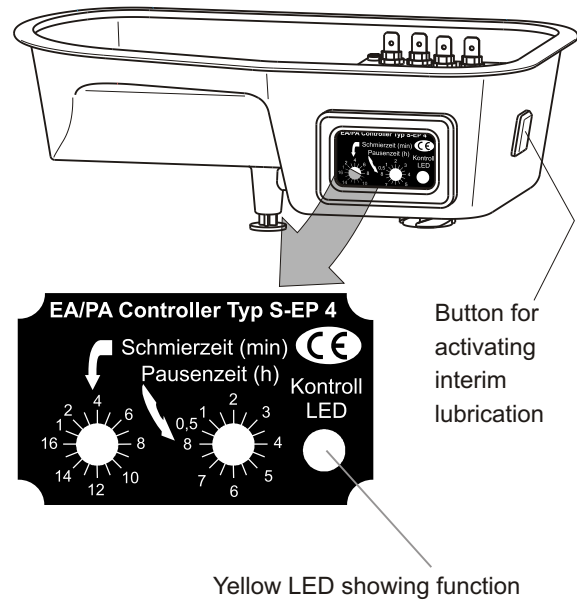
The S-EP 4 integrated electronic controlling device has memory at its disposal. This also serves to keep a record of time elapsed. Should the ignition be switched off during lubrication or operational pauses occur, then the time is stopped and recorded. Once the ignition is switched on again the remaining lubrication or pause time is read from the memory and the sequence will be resumed where it was interrupted.

At any time when the ignition is on, an interim lubrication occurs when the button on the side of the pump motor housing or the illuminated button on the control panel is activated, this serves as a check of functionality. The pump then immediately starts its lubrication cycle, the lubrication or break duration recorded up to that point is reset and starts from the beginning.

An interim lubrication can also be triggered via an external button, and the indication of the yellow LED can also be displayed by a red or green signal lamp in the driver's cap.

A error can be reset by pressing the interim lubrication button and the pump starts the lubrication process anew.

S-EP 4 integrated electronic controller:



Technical data for the controller:

Operating voltage:	10 to 60 V DC
Maximum current load:	I = 6,0 A
Fuse (not included in device):	F 6,3 A (5x20) medium slow-blow fuse
Signal lamp outlet:	I = 0,4 A
Temperature range:	-35°C to +75°C
Degree of protection:	IP 65

Before the electrical connection:

Observe the voltage of the pump motor.

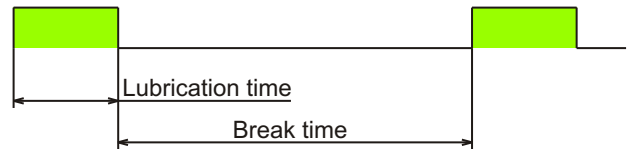
S-EP 4

Method of operation and adjusting the parameters

3. Method of operation -Time controller:

When the central lubrication processor is time controlled, the break time and the lubrication time can be adjusted. "Break time" means the time interval between two lubrication times.

Diagram of cycle sequence:



4. Adjusting the parameters:

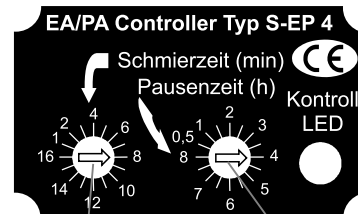
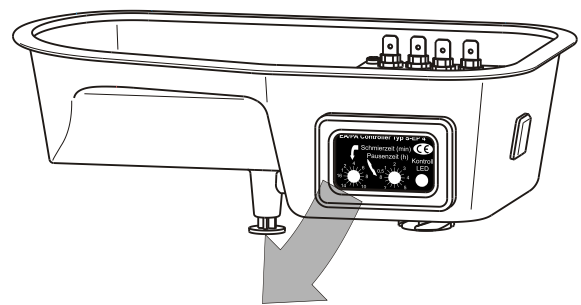
The break time or lubrication time can be set by means of graduating switches in the controller's sight glass.

To adjust the time setting, remove the red frame on the pump's motor housing using a flat screwdriver, loosen the four Phillips screw and remove the transparent protective cover.

The break time or lubrication time can be adjusted using a flat screwdriver.

If the cover plate is not replaced properly, water may enter the controller and damage it. In this case, the guarantee is no longer valid.

S-EP 4 integrated electronic controller:



Graduating switch for setting the break duration

Graduating switch for setting the lubrication duration

Adjusting the parameters:

Lubrication time:

1 to 16 min. (16 grades every 1 min.)

2 to 32 min. (16 grades every 2 min.)

Break time:

0.5 to 8 h (16 grades every 0.5 h)

S-EP 4

Summary of Signal Indicators and Terminal diagram

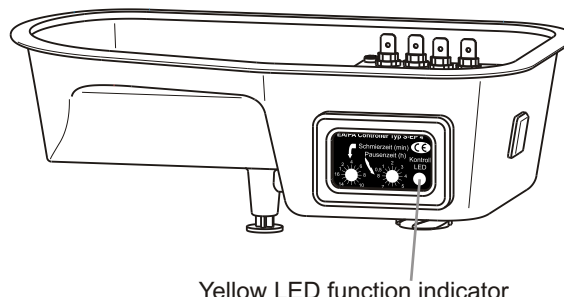
5. Summary of Signal Indicators:

The pump's functions are indicated via a control LED (yellow) in the display on the pump's motor casing.

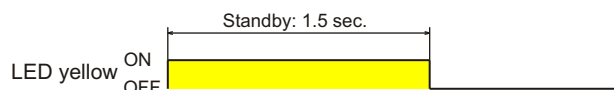
These control LED functions may be indicated in the driver's cab of the vehicle via a built-in signal lamp. These must be specially ordered.

a) Standby

S-EP 4 integrated electronic controller:

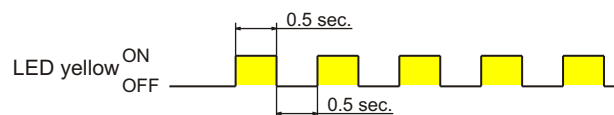


Standby indicator:

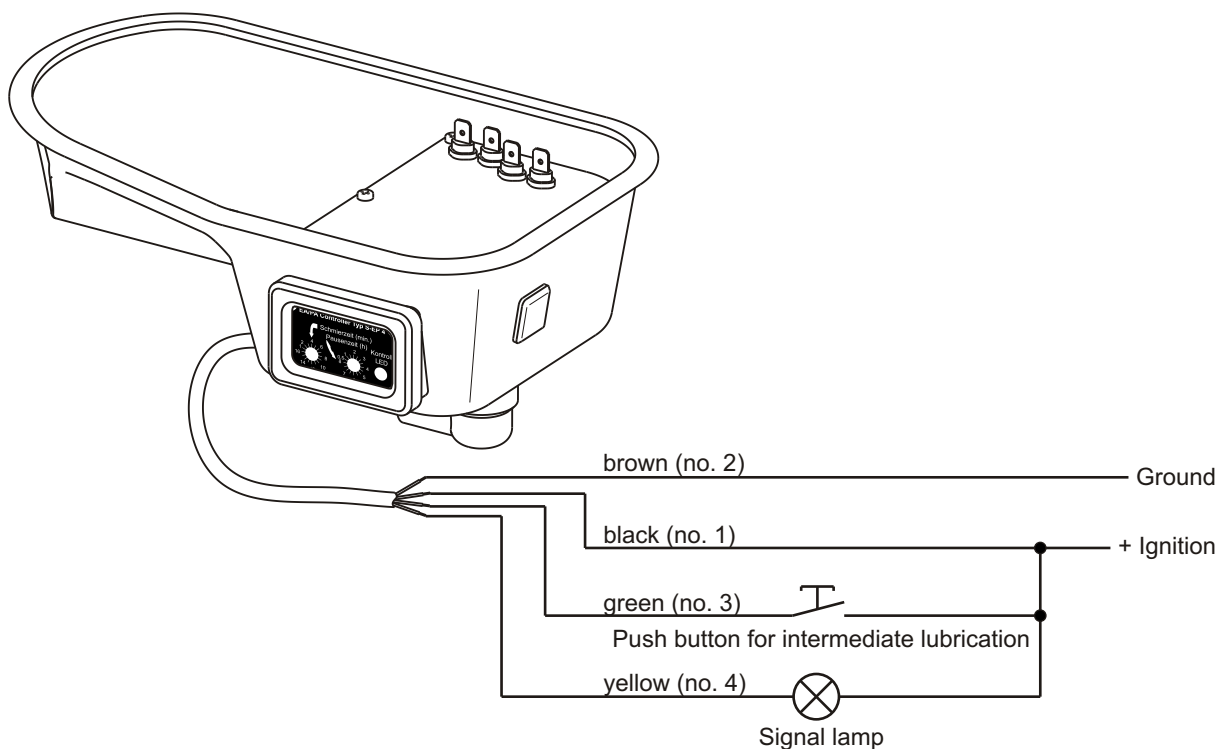


b) Lubrication activated

Lubrication sequence:



6. Terminal diagram:



(no. ...) = Cable-no. at unicolored Cables

Subject to alterations!

S-EP 4

7. Ordering key for EP-1 with integrated controller

Construction type	2147 . 3 . 1 . 1 . 2 . 1 . 000
Motor voltage	
with bayonet connector	
12 V	24 V
3	4

	Fig.				
1	1	2	3	4	0
2	1	2	3	4	0
3	1	2	3	4	0
Outlet position	PE-120	PE-120 V	PE-60	PE-170	without

Fig.	Code	Fig.	Code	Fig.	Code	Fig.	Code
001	G	002	K	003	N	004	R
010	U	020	L	030	P	040	S
011	J	022	M	033	Q	044	T
100	1	200	4	300	V	400	X
110	2	220	5	330	W	440	Y
111	3	222	6	122	8	444	Z
120	7	112	9	Special variants		I	

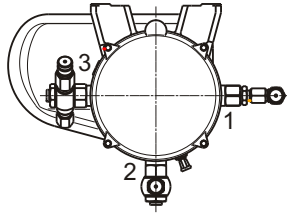
Other combination of pump elements on demand!

				2 Parts	1 Part
Size of reservoir (kg)	1.9	2.5	4	8	8
Code	5	1	2	3	8

Lubricating time		
Time range 1	1 min. to 16 min.	1
Time range 2	2 min. to 32 min.	2

Button for interim lubrication	Yes	No
Code	1	0

Special type	000
	179



Order example:
 Outlet position: 1 2 3
 Fig.: 1 2 2
 Code: 8

Special types:
 179 = with 15 m cable

Subject to alterations!

S-EP 4

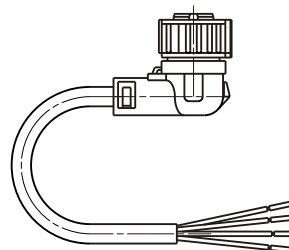
Replacement and Ordering key for S-EP 4 controller

8. Replacement:

The integrated controller S-EP 4, installed in the lower motor casing, is also available separately to replace an existing controller.

Controllers delivered individually are not provided with connection cable, as this is normally available. Should the controller be installed in a pump which had been equipped so far with a controller with a different connector, the connection cable must be ordered separately.

Connection cable, 4 wires, with bayonet connector:



length 10 m: Order-no.: FAZ02499-15

length 15 m: Order-no.: FAZ02499-17

9. Order key for integrated controller, installed in lower casing:

Construction type				2147 . 9010 . 2 . 1 . 00
Lubrication time				
Time range I	1 min. to 16 min.	1		
Time range II	2 min. to 32 min.	2		
Button for interim lubrication				
	Yes	No		
Code	1	0		
Special type				
	00			

Subject to alterations!

