

Control units



SKF

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LINCOLN

Overview of control units

Manually operated pumps									
Product	Description ¹⁾	Voltage		Timer	Level monitoring	Pulse evaluation	Without housing	Stand alone	Page
		VAC	V DC						
IGZ ...	only for one pump	115–230	24	•	•	–	•	–	52
EXZT ...	for one pump and one pulse generator	115–230	24	•	•	•	•	–	52
EOT-2	only for one pump	–	12, 24	•	–	–	–	•	54
LMC 2	for one pump and one pulse generator	230	24	•	•	•	–	•	55
LMC 301	. six pulse generators (with extension 10 extra)	90–264	24	•	•	•	–	•	56
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Control units

Control unit

IGZ/EXZT



Product description

IGZ 51 and EXZT universal electronic control and monitoring devices are used in multi-line and progressive lubrication systems and are available in two voltage versions. Developed for stationary industrial applications, these devices may be installed in a switching cabinet or internally in a compact lubrication unit. They can be used as time-dependent or pulse-dependent controllers to initiate a lubrication cycle. The EXZT devices control the pump running time and monitors simultaneously the strokes of the pulse generator or sensor of the metering device. All devices have custom-built functions integrated and can be set to meet system requirements.

Features and benefits

- Combined universal control and monitoring device
- Easy installation by top hat rail mounting
- Adjustable operating modes
- Time operation or load-dependent, machine-stroke operation
- Low-level control and EPROM included

Applications

- Stationary industrial applications
- Installation in switching cabinet of stationary general industry machines

Technical data

Function principle	universal electronic control and monitoring device
Operating temperature	0 to +60 °C, +32 to 140 °F
Output voltage	24 V DC +10%/-15%
Connector for class	II
Protection class	IP 30, clamps IP 20
Dimensions	70 x 75 x 110 mm 2.7 x 3 x 4.3 in

Version + 471

Input voltage	100 – 120 VAC; 200 – 240 VAC
Input current rated	70 mA / 35 mA
Power input	8 W
Frequency	50 – 60 Hz
Fuse	max. 6.3 A
Switching current	max. 5 A
Input voltage sensors	24 V DC

Version + 472

Input voltage	20 – 24 V DC; 20 – 24 V AC
Input current rated	75 mA at max. fan-out of 250 mA
Power input	5 W
Frequency	DC or 50 – 60 Hz
Fuse	max. 6.3 A
Switching current	max. 5 A
Input voltage sensors	24 V DC



NOTE

For further technical information, technical drawings, accessories, spare parts or product function descriptions, see the following publications available on SKF.com/lubrication:
1-1700-1 EN, 1-1700-2 EN, 951-180-001 EN

Control unit

IGZ/EXZT

Order information						
Order number	Input voltage	Monitoring time adjustable	Level monitoring	Interval time extension	Lubricant levels early warning, contact	Pulse monitoring
IG351-10-E + 471	120, 230 V AC	•	NO ³⁾	•	–	–
IG351-10-E + 472	24 V DC	•	NO ³⁾	•	–	–
EXZT 2A03-E + 471	120, 230 V AC	•	NC ⁴⁾	•	•	•
EXZT 2A03-E + 472	24 V DC	•	NC ⁴⁾	•	•	•

¹⁾ Only for one pump

²⁾ For one pump and one pulse transmitter

³⁾ NO = contact normally open

⁴⁾ NC = contact normally closed

Control units

Control unit

EOT - 2



Product description

The EOT-2 controller is designed to control lubrication pumps during interval operation in multi-line systems. Rotary switches on the printed circuit board may be used to adjust lubrication time in seconds or minutes and pause time in minutes or hours. The EOT-2 is suitable for retrofit installation and often is used when a lubrication pump has no integrated control unit. Additional lubrication cycles can be triggered via a pushbutton.

Features and benefits

- Easy-to-use controller for installation, indoor and outdoor
- Suitable for retrofit , easy time setting and function control

Applications

- Lubrication pumps without integrated controller
- Agricultural machinery, chain lubrication systems
- Simple lubrication systems in machines
- In connection with motor relay assembly;
also preferred for three-phase, multi-line pump units

Technical data

Function principle	control and monitoring device
Operating temperature	-25 to +70 °C, -13 to +158 °F
Supply voltage	12 or 24 V DC
Current draw	max. ≤ 7 A
Outputs	transistor / N.O.
Pause time	min. 4 min max. 15 h
Running time	min. 8 sec max. 30 min
Standard	CE
Protection class	IP 65
Dimensions	122 × 118 × 56 mm, 4.80 × 4.65 × 2.00 in
Mounting position	any

Order information

Order number	Description
236-10850-7	EOT-2 controller with motor starter 0,4–0,6 A
236-10850-8	EOT-2 controller with motor starter 0,6–1,0 A
236-10850-9	EOT-2 controller with motor starter 1,0–1,6 A
236-10980-6	EOT-2 controller with motor starter 2,4–4,0 A
664-34135-7	EOT-2 controller, for one pump only



NOTE

For further technical information, technical drawings, accessories, spare parts or product function descriptions, see the following publication available on SKF.com/lubrication:
16966 EN, 951-170-232

Control unit

LMC2



Control units

Product description

The LMC 2 is a controller for the electronic management and monitoring of lubrication systems. It combines the advantages of a specially developed printed circuit board (PCB) and a PLC in an economical, compact unit. For progressive systems, it controls the pump unit and the metering devices.

Features and benefits

- Integrated, flexible lubrication programs
- 8 inputs / 5 outputs; suitable for complex lubrication systems
- Time- or cycle-dependent control of lubrication intervals
- Can be interfaced with common field bus systems

Applications

- General lubrication sytems with a pump and pulse generator
- Railway
- Food and beverage
- ChaLMCin lubrication systems like Lincoln Cobra and PMA
- Multi-line as well as dual-line, single-line and progressive systems

Technical data


Function principle	control and monitoring device
Operating temperature	-10 to +70 °C, -14 to +158 °F
Supply voltage	12 or 24 V DC
Inputs	max. 8 digital inputs
Outputs	4 relay outputs, 1 electronic
Operating voltage	depending on model: 230 V AC, 24 V DC (± 10%)
Standard	CE
Protection class	IP 54
Dimensions	200×120×90 mm, 7.9×4.7×3.5 in
Mounting position	any

Order information

Order number	Description
236-10567-6	LMC 2; 230 AC (230 V AC)
236-10567-5	LMC 2; 24 DC (24 V DC)

For use with electrically operated 3-phase pump must order motor starter separately.

NOTE

For further technical information, technical drawings, accessories, spare parts or product function descriptions, see the following publication available on
 SKF.com/lubrication:
14004 EN

Control unit

LMC 301



Product description

The LMC 301 is a compact, modularly expandable control and monitoring device. It is equipped with an LCD display and six functional keys for programming, parameter setting and signalization. The user is guided through the setup menu. Additionally, there is offered a simple-to-use PC software for parameter setting and diagnostics.

Features and benefits

- Integrated, flexible lubrication programs
- Main device with 10 digital inputs, for 3 lubrication pumps and max. 6 pulse transmitters
- Up to 7 slave/extension modules can be added with additional inputs for max. 10 pulse transmitters
- Three lubrication pumps can be controlled and monitored

Applications

- General and heavy industry
- Mining – stationary and mobile excavators
- Multi-, dual-, single-line and progressive systems

Technical data

Function principle	Control and monitoring device
Operating temperature	VAC: -10 to + 50 °C; +14 to 122 °F VDC: -40 to +70°C; -40 to 158 °F
Inputs	10 count, short-circuit proof, 2 with analog
Outputs	8 count, relay outputs NO-contact 8 A, 2 of which up to 15 A
Operating voltage	depending in model 100-240 VAC, 24 VDC ±20%
Standard	CE; UL; CSA
Protection class	IP 65
Dimensions	270 x 170 x 90 mm 10.7 x 6.7 x 3.5 in
Mounting position	vertical

Order information

Order number	Designation
086500	LMC 301; 24 V DC, master
086501	LMC 301; 100-240 VAC, master
086502	LMC 301; 24 V DC, I/O board, slave
086503	LMC 301; 100-240 AC, I/O board, slave



NOTE

For further technical information, technical drawings, accessories, spare parts or product function descriptions, see the following publications available on SKF.com/lubrication:
15967 EN, 951-150-029 EN

Control units

LMC 301 - Accessories



LMC 301 motor relay assembly

Order number	Description
236-10850-7	with motor starter 0,4–0,6 A
236-10850-8	with motor starter 0,6–1,0 A
236-10850-9	with motor starter 1,0–1,6 A
236-10980-6	with motor starter 2,4–4,0 A

LMC 301 housing

Order number	Description
086504	door housing, complete
086505	cable USB

Order numbers

Order number	Description
086506	PG-M20 Cable gland kit , IP 65
086507	Multiple cable gasket set (3 x) Cable gasket set (3 x)
3515-10-6020	Cable glands PG-M20 ; complete, with cap nut, cable gasket set (2), screw plug cartridge (3)
3515-10-6620	Cable gasket set (2); 2-wire, Ø 0.24 in Cable gasket set (2); 4-wire, Ø 0.2 in
3515-10-7620	Blind plug
3515-10-6220	Gasket
3515-10-6320	Counter nut
3515-07-6120	Conduit glands, IP 65 , with flexible metal tube (FMC), UL approved
3515-10-2021	Conduit glands AMG-M 20 x 1,5; UL 514B
3515-07-2022	Counter nut M 20 x 1,5
179-990-486	Protection hose, liquid-proof protective; UL 360 (sold by the metre, when ordering specify the required length)
236-11066-1	Fuse, blade-type, FK1 3A (32 V) according to ISO 8820-3 Battery, 3 V lithium button cell, model CR3032
www.skf.com/LMC301	LMC 301 software , free download

1) The installation of the cable glands and cable sets to be provided and done by the customer. The customer is responsible for proper installation.