

Series description: Control EC-L

Wilo-Control EC-L-1x12A-MT34-DOL-WM



Equipment/function

Functions

- Two different operating modes for a broad field of application:
 - "Drain" operating mode: For draining sewage chambers
 - "Fill" operating mode: For filling water tanks and rainwater storage tanks
- Configurable overload protection
- Thermal motor monitoring
- Pump kick function
- Adjustable follow-up time
- Automatic pump alteration (for switchgear for 2 or 3 pumps)
- Service life optimisation (for switchgear for 2 or 3 pumps)
- Standby pump (for switchgear for 2 or 3 pumps)
- Automatic fault-actuated switchover (for switchgear for 2 or 3 pumps)
- Direction of rotation monitoring
- High water alarm with forced switch-on of the connected pump(s)
- Dry-running protection
- Fault memory for 10 error messages including the type of fault

Equipment

- Display of the current operating status and data, as well as faults via the LCD display and LEDs
- Symbol-based menu navigation
- Configuration of operating parameters and operation via operating button
- Main switch (depending on version)
- Remote access via ModBus
- Integrated alarm buzzer
- Operating mode "Ex" for loading presets for "Ex" applications

Type key

Example:

Control
EC
L
1
12 A
T34

DOL
WM
EMS
IPS

Wilo-Control EC-L 1x12A-T34-DOL-WM-EMS-IPS

Switchgear
 Easy control series
 "Lift" version for water lifting applications
 Number of pumps that can be connected
 Maximum rated current per pump
 Mains connection: M = 1-220-230 V, 50/60 Hz T4 = 3-380-400 V, 50/60 Hz 34 = live wire voltage, e.g. 380-400 V
 Starting mode: Direct activation
 Installation type: Wall installation
 Without main switch
 Internal pressure sensor for direct connection of an immersion bell

Your advantages

- Reliable control and monitoring of one or two pumps, thanks to various monitoring and alarm functions
- Flexible level measurement with level sensor, dynamic pressure bell or float switches
- Increased plant safety when controlling pumps in explosive areas by extending the monitoring functionality in Ex-mode (hardware and software)
- Easy operation with alphanumeric, symbol-based menu and red-button technology
- Operating statuses can be viewed at any time. Greater ease of use via integration with remote monitoring systems via Modbus or optionally via GSM
- Flexible installation. Universal power supply for single-phase current and three-phase current and a wide operating temperature range of -30 °C to +60 °C
- Universal use for water supply and sewage disposal – also in potentially-explosive areas
- Advanced system control with individual operation and fault signal, optionally also in the event of power failure
- Additional operational safety thanks to separate level recording for high water and dry-running protection

Series description: Control EC-L

Technical data

Mains connection: 1~220-230 V, 50/60 Hz or 3~380-400 V, 50/60 Hz

Max. rated power (P_2) per pump: 4 kW

Maximum rated current I_N per pump: 12 A

Activation type of connected pumps: Direct

Control voltage: 24 V DC

Ambient/operating temperature: -30...+50 °C

Storage temperature: -30...+60 °C

Max. relative humidity: 90 %, non-condensing

Housing material: Polycarbonate, UV-resistant

Protection class: IP54

Electrical safety: Pollution degree II

Description/construction

Microcontroller-controlled switchgear for level-dependent control of two or three submersible pumps with analogue or digital signal transmitters. Individual parameters are entered via symbol-based menu navigation and an operating button.

Inputs

1x analogue precision input 4 – 20 mA for level control with level sensor to control 1 to 3 pumps

2x (for 1 pump) or 3x (for 2 pumps) digital inputs for level control with float switch

1x digital input for low water level with float switch (dry-running protection)

1x digital input for high water signal with float switch (high water alarm)

1x input for level control with an immersion bell ("IPS" version only)

1x ... 3x inputs* for thermal winding monitoring with bimetallic temperature sensor.
Connection of PTC sensors is not possible!

1x ... 3x inputs* for connecting moisture sensors (e.g. motor compartment leakage or sealing chamber monitoring)

1x digital input for External On/Off for remote activation and deactivation of automatic mode

Outputs

1x potential-free contact for the collective run signal (SBM)

1x potential-free contact for the collective fault signal (SSM)

1x potential-free contact for the individual run signal (EBM) per pump

1x potential-free contact for the individual fault signal (ESM) per pump

1x potential-free contact for the high water alarm

1x analogue output 0-10 V for the output of the actual level value

*Depending on the number of pumps that can be connected.

Series

Control EC-L

Product list: Control EC-L

Product description	Article number
EC-L-1x12A-DOL-MT34-WM	2543210
EC-L-1x12A-DOL-MT34-WM-EMS	2543211
EC-L-1x12A-DOL-MT34-WM-EMS-IPS	2543212
EC-L-2x12A-DOL-MT34-WM	2543220
EC-L-2x12A-DOL-MT34-WM-EMS	2543221
EC-L-2x12A-DOL-MT34-WM-EMS-IPS	2543222

Data sheet: EC-L-1x12A-DOL-MT34-WM

Technical data

Mains connection	1~220 V, 50/60 Hz
Min. nominal current /	1.0 A
Max. nominal current /	12.0 A
Activation type	Direct online (DOL)
Control	Without frequency converter
IP protection class	IP54
Max. number of controllable pumps	1

Materials

Material, housing	PC
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Operating data

Min. ambient temperature	-30 °C
Max. ambient temperature	50 °C
Min. storage temperature	-30 °C
Max. storage temperature	60 °C

Information for order placements

Net weight, approx. <i>m</i>	2.00 kg
Make	Wilo
Item no.	2543210
Installation	Wall-mounted installation

Data sheet: EC-L-1x12A-DOL-MT34-WM-EMS

Technical data

Mains connection	1~220 V, 50/60 Hz
Min. nominal current /	1.0 A
Max. nominal current /	12.0 A
Activation type	Direct online (DOL)
Control	Without frequency converter
IP protection class	IP54
Max. number of controllable pumps	1

Materials

Material, housing	PC
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Operating data

Min. ambient temperature	-30 °C
Max. ambient temperature	50 °C
Min. storage temperature	-30 °C
Max. storage temperature	60 °C

Information for order placements

Net weight, approx. <i>m</i>	2.00 kg
Make	Wilo
Item no.	2543211
Installation	Wall-mounted installation

Data sheet: EC-L-1x12A-DOL-MT34-WM-EMS-IPS

Technical data

Mains connection	1~220 V, 50/60 Hz
Min. nominal current /	1.0 A
Max. nominal current /	12.0 A
Activation type	Direct online (DOL)
Control	Without frequency converter
IP protection class	IP54
Max. number of controllable pumps	1

Materials

Material, housing	PC
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Operating data

Min. ambient temperature	-30 °C
Max. ambient temperature	50 °C
Min. storage temperature	-30 °C
Max. storage temperature	60 °C

Information for order placements

Net weight, approx. <i>m</i>	2.00 kg
Make	Wilo
Item no.	2543212
Installation	Wall-mounted installation

Data sheet: EC-L-2x12A-DOL-MT34-WM

Technical data

Mains connection	1~220 V, 50/60 Hz
Min. nominal current /	1.0 A
Max. nominal current /	12.0 A
Activation type	Direct online (DOL)
Control	Without frequency converter
IP protection class	IP54
Max. number of controllable pumps	2

Materials

Material, housing	PC
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Operating data

Min. ambient temperature	-30 °C
Max. ambient temperature	50 °C
Min. storage temperature	-30 °C
Max. storage temperature	60 °C

Information for order placements

Net weight, approx. <i>m</i>	2.00 kg
Make	Wilo
Item no.	2543220
Installation	Wall-mounted installation



Data sheet: EC-L-2x12A-DOL-MT34-WM-EMS

Technical data

Mains connection	1~220 V, 50/60 Hz
Min. nominal current /	1.0 A
Max. nominal current /	12.0 A
Activation type	Direct online (DOL)
Control	Without frequency converter
IP protection class	IP54
Max. number of controllable pumps	2

Materials

Material, housing	PC
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Operating data

Min. ambient temperature	-30 °C
Max. ambient temperature	50 °C
Min. storage temperature	-30 °C
Max. storage temperature	60 °C

Information for order placements

Net weight, approx. <i>m</i>	2.00 kg
Make	Wilo
Item no.	2543221
Installation	Wall-mounted installation

Data sheet: EC-L-2x12A-DOL-MT34-WM-EMS-IPS

Technical data

Mains connection	1~220 V, 50/60 Hz
Min. nominal current /	1.0 A
Max. nominal current /	12.0 A
Activation type	Direct online (DOL)
Control	Without frequency converter
IP protection class	IP54
Max. number of controllable pumps	2

Materials

Material, housing	PC
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Operating data

Min. ambient temperature	-30 °C
Max. ambient temperature	50 °C
Min. storage temperature	-30 °C
Max. storage temperature	60 °C

Information for order placements

Net weight, approx. <i>m</i>	2.00 kg
Make	Wilo
Item no.	2543222
Installation	Wall-mounted installation