



# Lilaas control lever - LF120

Lilaas offers a wide range of high quality type approved multipurpose levers for single/double propulsion and thruster control.

Below you will find a simple technical description of various basic LF120 models.



On single thruster controls the aft handle and attached mechanics are removed.



On single propulsion controls the left handle and attached mechanics are removed.

Specification details basic versions	
Materials / Finish	Steel A2, AI, POM, alodine, powder coating
Weight (net)	1,3 - 1,5 kg
Movement, handle / electrical	± 60°/300°
Detent	In zero
Potentiometers	Single 5 kΩ, linear
Termination	16 pins contact with plug
Integrated scale light	28V, bulb
IP grade	With panel plate, 66
Type approval: EN/IEC 60945, ABS, BV, DNV, GL, KR, LF	R, NK, RINA, RS, CRS
For standard scales, external dimensions and cut-out, see For customization and options see page 3.	page 2.

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For more info, see our website http://www.lilaas-elma.com

Propulsion scales

FWD



## Lilaas standard scales for LF120 control levers:

Thruster scale, FWD



Text: Helvetica medium, colour Marabu NCS-S 1500-N, id no. 449 offwhite. Background colours: Green - Marabu SR 1616, id no. 221.

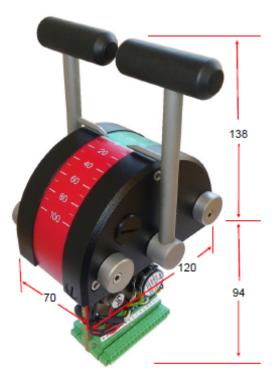
Red - Marabu SR 1323, id no. 248.

Scale light: 24V bulbs.

The potentiometer is of a plastic conductive type measuring 5 k $\Omega$  between the end points. The potentiometer must be used as a voltage divider and not as a rheostat. Wiper current must not exceed 1 mA...

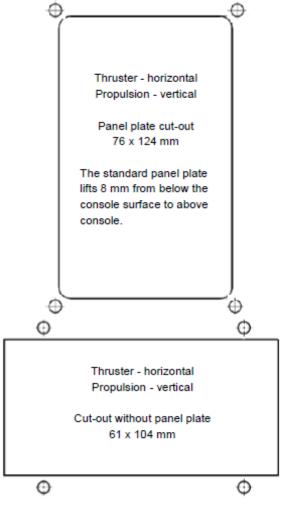
# - 100 - - 100 - - 80 - 80 - 60 - 20 - 20 - 40 - 40 - 60 - 60 - 80 - 100

# LF120, external dimensions and cut-out



On motorized contollers the panel plate is standard. Vertikal dimensions motorized controller: 146 mm above and 91 mm below ship's panel.

Lilaas LF90 and LF180 are smaller and larger versions of this controller







## Lilaas LF120 basic models:



Do you need an extended version? To simplify the customization process, please fill in your request to Elma B.V. in de Spec your request form below and forward it to lilaas@elmabv.nl. We will revert with price and availability.

# Options, other than standard

Panel plate 96 x 96 mm

Handle / shaft

Limited handle movement

Potentiometer

Springloaded return

Motorized

Panel plate custom

Handle interlock traight handle

Scale

**Detents** 

Micro switch

El shaft

Company

Contact person

E-mail

Telephone

Remarks



Lilaas AS is a world leading manufacturer of various types of control levers and joysticks for marine and offshore us.

As a result of unique design, top-grade materials and thorough test procedures, we produce products of high quality that requires a minimum of service and maintenance.

The control units from Lilaas include levers, controlling mechanism and accompanying electronics.

The products range from simple, one-axis control levers in different sizes, hand wheels and rudder controls to azimuth control units and multi-axis joysticks.

All units may be delivered motorised on all axes and with several optional features.

The products comply with stringent certification requirements.

All kinds of vessels, from small fishing boats and ferries, via supply vessels to large tankers and cruise ships may be manoeuvred by control levers from Lilaas.

The products are certified by DNV and the company is certified under NS-EN ISO 9001-2008.

# Elma B.V.

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