



# Safety Limit Switch/Signal Limit Switch Data Sheet

---

## Contents

Introduction.....	3
Features and options.....	4
Usage .....	4
Ordering example .....	5
Dimensions.....	6
Information.....	6
Cable length - Safety Limit Switch.....	7
Cable length - Signal Limit Switch .....	7

## Introduction

There are 2 types of SLS switches, an analogue and an OpenBus™ type.

The analogue SLS can be used as safety feature to cut off the current to the actuator. The SLS is available with 1 or 2 switches (activated by the same button). It can be placed to prevent an unintentional positioning of the various frame segments in relation to each other or simply as an external limit switch to protect the frame against the full thrust of the actuator in end position. The actuator stops immediately when the button is pressed.

The OpenBus SLS is to be used together with the OpenBus control boxes.

It is available both as a passive and as an active type. It comes with 1 switch, Normally Open (NO). The standard OpenBus SLS is not to be used for safety (Signal Limit Switch).

Both types can be used as an external signal unit that gives a signal to the control box. This signal can limit or interrupt the functions on for instance a bed or can be used to start an OpenBus function.

## Features and options

Compatibility:	Fully compatible with LINAK® systems
Housing:	Sturdy, grey plastic housing <ul style="list-style-type: none"> <li>To be mounted on the cable between the control box and the actuator LA28, LA28S, LA30, LA31 or LA34 (analogue SLS)</li> <li>To be mounted directly on the OpenBus system (OpenBus SLS), on the control box or via an MJB</li> </ul>
Mounting:	
Dimensions:	Small dimensions for easy installation
Voltage:	Rated at 5A / 24V DC (analogue)
Software:	Customised Software (OpenBus)
Protection class:	IPX6, IPX6 Washable* (all ultrasonic welded)
Colour:	Light grey (RAL 7035)

## Usage

Usage temperature:	5 °C to 40 °C
Storage temperature	-10 °C to 50 °C
Atmospheric pressure:	700 to 1060 hPa
Height above sea level:	Max. 3000 meters
Approvals:	IEC60601-1 ANSI/AAMI ES60601-1 CAN/CSA-22.2 No 60601-1

## Ordering example

SLS 0 0 0 + 0 100 0 100

<p>— CABLE LENGTH L2 (right)</p> <p>— PLUG TYPE for L2</p> <p>— CABLE LENGTH L1 (left)</p> <p>— PLUG TYPE for L1</p> <p>— COLOUR</p> <p>— ACTUATOR</p> <p>— FUNCTION</p> <p>— IP DEGREE</p>	<p><b>CABLE LENGTH L2</b> Length in cm*</p> <p>000 = <b>No cable (+ blind plug)</b></p> <p>100 = Straight, 1000mm</p> <p>120 = Straight, 1200mm</p> <p>150 = Straight, 1500mm</p> <p>200 = Straight, 2000mm</p> <p>245 = Straight, 2450mm</p> <p>C20 = Coiled, 200mm</p> <p>C40 = Coiled, 400mm</p> <p><b>PLUG TYPE for L2</b></p> <p>0 = <b>No plug</b></p> <p>1 = Jack plug</p> <p>2 = DIN plug (4P)</p> <p>X = Other</p> <p><b>CABLE LENGTH L1</b> Length in cm*</p> <p>000 = <b>No cable (+ blind plug)</b></p> <p>100 = Straight, 1000mm</p> <p>120 = Straight, 1200mm</p> <p>150 = Straight, 1500mm</p> <p>200 = Straight, 2000mm</p> <p>245 = Straight, 2450mm</p> <p>C20 = Coiled, 200mm</p> <p>C40 = Coiled, 400mm</p> <p><b>PLUG TYPE for L1</b></p> <p>0 = <b>No plug</b></p> <p>1 = Jack plug</p> <p>2 = DIN plug (4P)</p> <p>3 = Modular Plug (RJ45 10 pins/5 wires, only for OpenBus function)</p> <p>X = Other</p> <p><b>COLOUR</b></p> <p>+ = Grey</p> <p>- = Black (does not exist yet)</p> <p><b>ACTUATOR</b></p> <p>0 = <b>No actuator</b></p> <p>1 = LA28</p> <p>2 = LA30</p> <p>3 = LA30 IPX6</p> <p>4 = LA31</p> <p>6 = LA34</p> <p>7 = LA34 Compact</p> <p><b>FUNCTION</b></p> <p>0 = 1 actuator outwards direction, stops when switch is activated/ inwards direction is always possible (1*NC with diode)</p> <p>1 = 1 actuator inwards direction, stops when switch is activated/ outwards direction is always possible (1*NC with diode)</p> <p>2 = 1*NO switch external signal unit/simple switch function</p> <p>3 = 1*NC switch external signal unit/simple switch function</p> <p>4 = for OpenBus™ SLS NO <b>with</b> Power Request, <b>H30</b>, only plug type "L1"/ Modular plug</p> <p>5 = for OpenBus™ SLS NO, <b>no</b> Power Request, <b>H31</b>, only plug type "L1"/ Modular plug</p> <p>6 = for OpenBus™ SLS NO, <b>no</b> Power Request, <b>H30</b>, only plug type "L1"/ Modular plug</p> <p>7 = for OpenBus™ SLS NO <b>with</b> Power Request, <b>H29</b>, only plug type "L1"/ Modular plug</p> <p>8 = for OpenBus™ SLS NO, <b>no</b> Power Request, <b>H29</b>, only plug type "L1"/Modular plug</p> <p>9 = for OpenBus™ SLS NO <b>with</b> Power Request, <b>H31</b>, only plug type "L1"/ Modular plug</p> <p>X = Other</p> <p><b>IP DEGREE</b></p> <p>4 = IP X6 welding</p> <p>6 = IP X6 washable welding</p>	<p><b>Jack</b></p> <p>0015705</p> <p>0015705</p> <p>0015704</p> <p>0015704</p> <p>0015704</p> <p>0015734</p> <p>0015736</p> <p><b>Din</b></p> <p>0015171-A</p> <p>0015171-A</p> <p>0015171-A</p> <p>0015171-A</p> <p>0015171-A</p> <p>0015350</p> <p>(does not exist)</p> <p><b>No plug</b></p> <p>0015034 or</p> <p>0015036 for</p> <p>LA31</p> <p><b>Jack</b></p> <p>0015705</p> <p>0015705</p> <p>0015704</p> <p>0015704</p> <p>0015704</p> <p>0015734</p> <p>0015736</p> <p><b>Din</b></p> <p>0015171-A</p> <p>0015171-A</p> <p>0015171-A</p> <p>0015171-A</p> <p>0015171-A</p> <p>0015350</p> <p>(does not exist)</p> <p><b>MP(RJ45)</b></p> <p>0964050-A</p> <p>0964050-A</p> <p>0964050-A</p> <p>0964050-A</p> <p><b>No plug</b></p> <p>0015034 or</p> <p>0015036 for</p> <p>LA31</p>
---	---	--

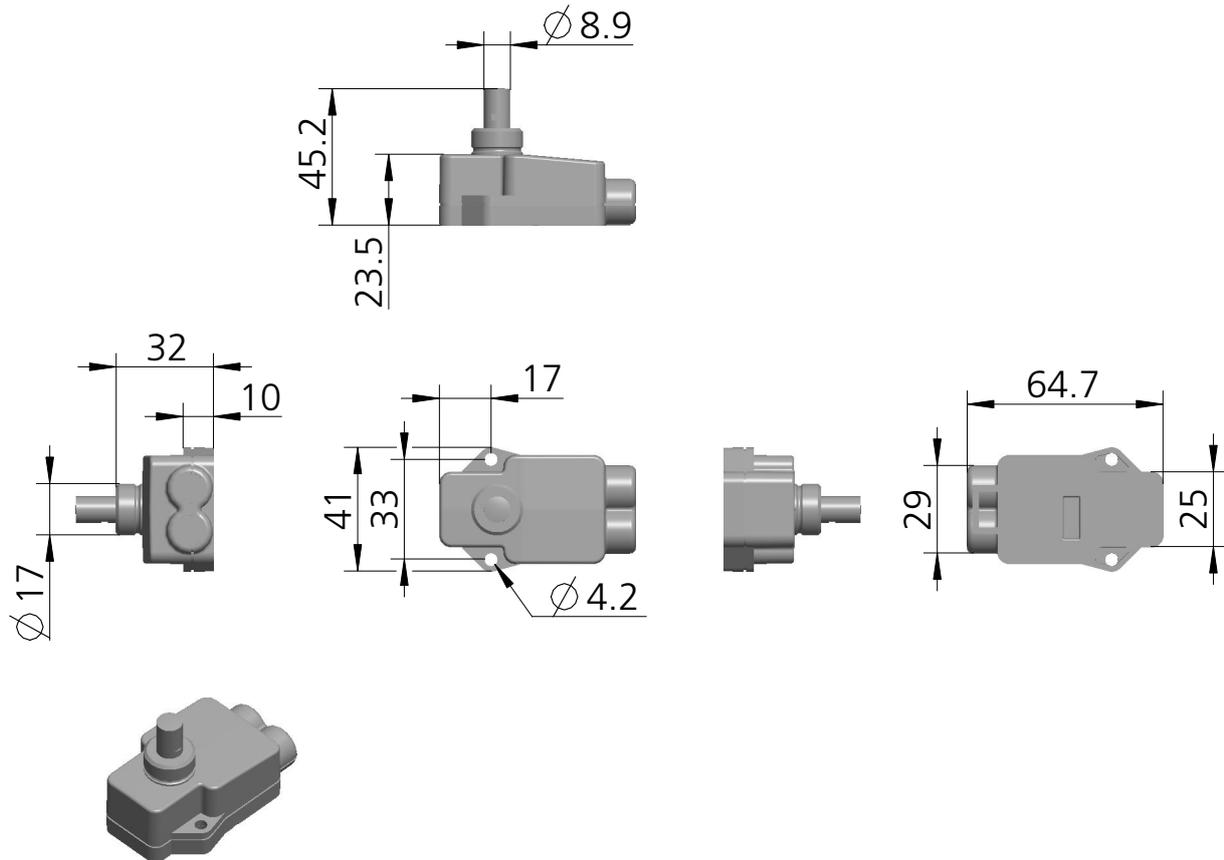
\* Also possible to order other lengths (min. Length 100mm)

Double switch must be ordered as a special article.

### Note:

- Cable lengths L1 and L2 in mm can be seen in the cable drawing
- It is no longer possible to order the SLS version fitted with screws

## Dimensions

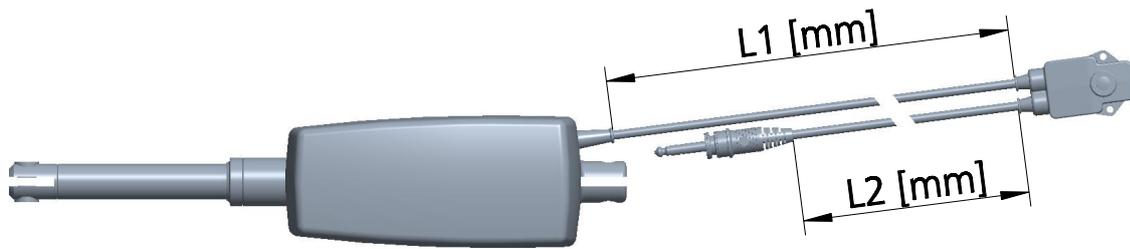


Drawing number: 09144001

## Information

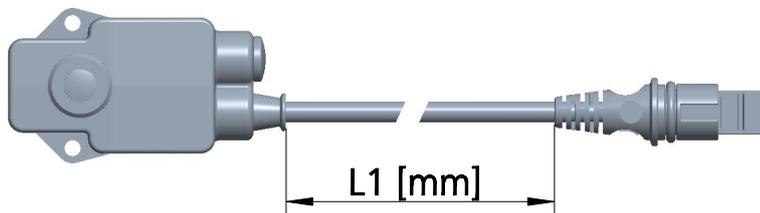
- The ultrasonic welded SLS is fully compatible with the SLS fitted with screws.
- All outer dimensions as well as the activation point are unchanged.

## Cable length - Safety Limit Switch



Drawing number: 09144002

## Cable length - Signal Limit Switch



Drawing number: 09144003

**FACTORIES**

DENMARK - HEADQUARTERS  
 LINAK A/S  
 PHONE: +45 73 15 15 15  
 FAX: +45 74 45 80 48  
 FAX (SALES): +45 73 15 16 13  
 WWW.LINAK.COM

CHINA  
 LINAK (SHENZHEN) ACTUATOR SYSTEMS, LTD.  
 PHONE: +86 755 8610 6656  
 PHONE: +86 755 8610 6990  
 WWW.LINAK.CN

SLOVAKIA  
 LINAK SLOVAKIA S.R.O.  
 PHONE: +421 51 7563 444  
 WWW.LINAK.SK

THAILAND  
 LINAK APAC LTD.  
 PHONE: +66 33 265 400  
 WWW.LINAK.COM

USA  
 LINAK U.S. INC.  
 AMERICAS HEADQUARTERS  
 PHONE: +1 502 253 5595  
 FAX: +1 502 253 5596  
 WWW.LINAK-US.COM  
 WWW.LINAK-LATINAMERICA.COM

**SUBSIDIARIES**

Australia  
 LINAK Australia Pty. Ltd  
 Phone: +61 3 8796 9777  
 Fax: +61 3 8796 9778  
 E-mail: sales@linak.com.au  
 www.linak.com.au

Austria  
 LINAK Repräsentanz - Österreich (Wien)  
 Phone: +43 (1) 890 7446  
 Fax: +43 (1) 890 744615  
 E-mail: info@linak.de  
 www.linak.at - www.linak.hu

Belgium  
 LINAK Actuator-Systems NV/SA  
 (Belgium & Luxembourg)  
 Phone: +32 (0)9 230 01 09  
 E-mail: beinfo@linak.be  
 www.linak.be - www.fr.linak.be

Brazil  
 LINAK Do Brasil Comércio De Atuadores Ltda.  
 Phone: +55 (11) 2832 7070  
 Fax: +55 (11) 2832 7060  
 E-mail: info@linak.com.br  
 www.linak.com.br

Canada  
 LINAK Canada Inc.  
 Phone: +1 502 253 5595  
 Fax: +1 416 255 7720  
 E-mail: info@linak.ca  
 www.linak-us.com

Czech Republic  
 LINAK C&S s.r.o.  
 Phone: +42 058 174 1814  
 Fax: +42 058 170 2452  
 E-mail: info@linak.cz  
 www.linak.cz - www.linak.sk

Denmark - International  
 LINAK International  
 Phone: +45 73 15 15 15  
 E-mail: info@linak.com  
 www.linak.com

Denmark - Sales  
 LINAK DANMARK A/S  
 Phone: +45 86 80 36 11  
 Fax: +45 86 82 90 51  
 E-mail: linak@linak-silkeborg.dk  
 www.linak.dk

Finland  
 LINAK OY  
 Phone: +358 10 841 8700  
 E-mail: linak@linak.fi  
 www.linak.fi

France  
 LINAK FRANCE E.U.R.L.  
 Phone: +33 (0) 2 41 36 34 34  
 Fax: +33 (0) 2 41 36 35 00  
 E-mail: linak@linak.fr  
 www.linak.fr

Germany  
 LINAK GmbH  
 Phone: +49 6043 9655 0  
 Fax: +49 6043 9655 60  
 E-mail: info@linak.de  
 www.linak.de

India  
 LINAK A/S India Liaison Office  
 Phone: +91 120 4531797  
 Fax: +91 120 4786428  
 E-mail: info@linak.in  
 www.linak.in

Ireland  
 LINAK UK Limited (Ireland)  
 Phone: +44 (0)121 544 2211  
 Fax: +44 (0)121 544 2552  
 +44 (0)796 855 1606 (UK Mobile)  
 +35 387 634 6554

(Republic of Ireland Mobile)  
 E-mail: sales@linak.co.uk  
 www.linak.co.uk

Italy  
 LINAK ITALIA S.r.l.  
 Phone: +39 02 48 46 33 66  
 Fax: +39 02 48 46 82 52  
 E-mail: info@linak.it  
 www.linak.it

Japan  
 LINAK K.K.  
 Phone: 81-45-533-0802  
 Fax: 81-45-533-0803  
 E-mail: linak@linak.jp  
 www.linak.jp

Malaysia  
 LINAK Actuators Sdn. Bhd.  
 Phone: +60 4 210 6500  
 Fax: +60 4 226 8901  
 E-mail: info@linak-asia.com  
 www.linak.my

Netherlands  
 LINAK Actuator-Systems B.V.  
 Phone: +31 76 5 42 44 40 /  
 +31 76 200 11 10  
 E-mail: info@linak.nl  
 www.linak.nl

New Zealand  
 LINAK New Zealand Ltd  
 Phone: +64 9580 2071  
 Fax: +64 9580 2072  
 E-mail: nzsales@linak.com.au  
 www.linak.com.au

Norway  
 LINAK Norge AS  
 Phone: +47 32 82 90 90  
 E-mail: info@linak.no  
 www.linak.no

Poland  
 LINAK Polska  
 LINAK Danmark A/S (Spółka Akcyjna)  
 Phone: +48 22 295 09 70 /  
 +48 22 295 09 71  
 E-mail: info@linak.pl  
 www.linak.pl

Republic of Korea  
 LINAK Korea Ltd.  
 Phone: +82 2 6231 1515  
 Fax: +82 2 6231 1516  
 E-mail: info@linak.kr  
 www.linak.kr

Slovakia  
 LINAK SLOVAKIA S.R.O.  
 Phone: +421 51 7563 444  
 www.linak.sk

Spain  
 LINAK Actuadores, S.L.U.  
 Phone: +34 93 588 27 77  
 Fax: +34 93 588 27 85  
 E-mail: esma@linak.es  
 www.linak.es

Sweden  
 LINAK Scandinavia AB  
 Phone: +46 8 732 20 00  
 Fax: +46 8 732 20 50  
 E-mail: info@linak.se  
 www.linak.se

Switzerland  
 LINAK AG  
 Phone: +41 43 388 31 88  
 Fax: +41 43 388 31 87  
 E-mail: info@linak.ch  
 www.linak.ch - www.fr.linak.ch  
 www.it.linak.ch

Taiwan  
 LINAK (Shenzhen) Actuator systems Ltd.  
 Taiwan Representative office  
 Phone: +886 2 272 90068  
 Fax: +886 2 272 90096  
 E-mail: sales@linak.com.tw  
 www.linak.com.tw

Turkey  
 LINAK İth. İhr. San. ve Tic. A.Ş.  
 Phone: +90 312 4726338  
 Fax: +90 312 4726635  
 E-mail: info@linak.com.tr  
 www.linak.com.tr

United Kingdom  
 LINAK UK Limited  
 Phone: +44 (0)121 544 2211  
 Fax: +44 (0)121 544 2552  
 E-mail: sales@linak.co.uk  
 www.linak.co.uk

**DISTRIBUTORS**

Argentina  
 NOVOTEC ARGENTINA SRL  
 Phone: 011-4303-8989 / 8900  
 Fax: 011-4032-0184  
 E-mail: info@novotecargentina.com  
 www.novotecargentina.com

Colombia  
 MEM Ltda  
 Phone: +[57] (1) 334-7666  
 Fax: +[57] (1) 282-1684  
 E-mail: servicioalcliente@memltda.com.co  
 www.mem.net.co

India  
 Mechatronics Control Equipments India Pvt Ltd  
 Phone: +91-44-28558484, 85  
 E-mail: bala@mechatronicscontrol.com  
 www.mechatronicscontrol.com

Indonesia  
 PT. HIMALAYA EVEREST JAYA  
 Phone: +6 221 544 8956,  
 +6 221 544 8965  
 Fax: +6 221 619 1925  
 Fax (Sales): +6 221 619 4658  
 E-mail: hejplastic-div@centrin.net.id  
 www.hej.co.id

Israel  
 NetivTech LTD  
 Phone: +972 55-2266-535  
 Fax: +972 2-9900-560  
 Email: info@NetivTech.com  
 www.netivtech.com

Singapore  
 Servo Dynamics Pte Ltd  
 Phone: +65 6844 0288  
 Fax: +65 6844 0070  
 E-mail: servodynamics@servo.com.sg

South Africa  
 Industrial Specialised Applications CC  
 Phone: +27 011 466 0346  
 E-mail: gartht@isagroup.co.za  
 www.isaza.co.za

United Arab Emirates  
 Mechatronics  
 Phone: +971 4 267 4311  
 Fax: +971 4 267 4312  
 E-mail: mechtron@emirates.net.ae

**Terms of use**

LINAK® takes great care in providing accurate and up-to-date information on its products. However, the user is responsible for determining the suitability of LINAK products for a specific application. Due to continual development, LINAK products are subject to frequent modifications and changes. LINAK reserves the rights to conduct modifications, updates, and changes without any prior notice. For the same reason, LINAK cannot guarantee the correctness and actual status of imprinted information on its products.

LINAK uses its best efforts to fulfil orders. However, for the reasons mentioned above, LINAK cannot guarantee availability of any particular product at any given time. LINAK reserves the right to discontinue the sale of any product displayed on its website or listed in its catalogues or in other written material created and produced by LINAK, LINAK subsidiaries, or LINAK affiliates. All sales are subject to the 'Standard Terms of Sale and Delivery for LINAK A/S' available on LINAK websites. LINAK and the LINAK logotype are registered trademarks of LINAK A/S. All rights reserved.