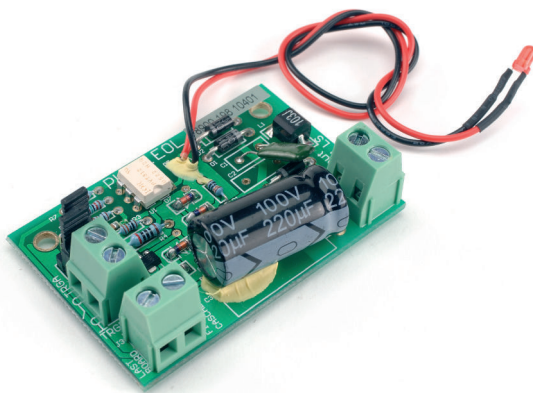


PLN-1EOL Plena End-of-Line Boards

www.boschsecurity.com



BOSCH
Invented for life



- ▶ Pilot tone detection on 100 V loudspeaker lines
- ▶ Voltage free switch 200 V 1 A and LED indications of pilot tone
- ▶ Daisy chainable for monitoring multiple zones on a single input contact
- ▶ Fits on built-in mounts on selected Bosch loudspeakers
- ▶ EN 54-16 certified

A Plena end-of-line board is a PCB designed to detect the 20 kHz pilot tone generated by a supervised public address or voice alarm system. It activates a voltage free switch in the presence of a 20 kHz signal (pilot tone) above 5 V, as well as an LED for easy visual confirmation of operation.

Functions

Plena end-of-line boards monitor the presence of a pilot tone on a loudspeaker line. The board connects at the end of a loudspeaker line and detects the 20 kHz pilot tone signal. This signal is always present on the line: when background music (BGM) is playing, when a call is in progress, and when no signal is present. The 20 kHz tone is inaudible and at a very low level (-20dB). When the pilot tone signal is present, an LED lights up, and a contact on the board is closed. When the pilot tone fails, the contact opens, and the LED goes off. If mounted at the end of the loudspeaker line, this applies to the integrity of the whole line. Presence of the pilot tone signal does not depend on the number of loudspeakers on the line, the load on the line, or the line capacitance. The contact can be connected to a PA system, such as the Bosch Voice Alarm System, to detect and report faults on a loudspeaker line.

Several EOL boards can be daisy-chained to a single fault input. This allows a loudspeaker line with several branches to be monitored.

Since the background music also includes a 20 kHz pilot tone signal, there is no need to interrupt background music.

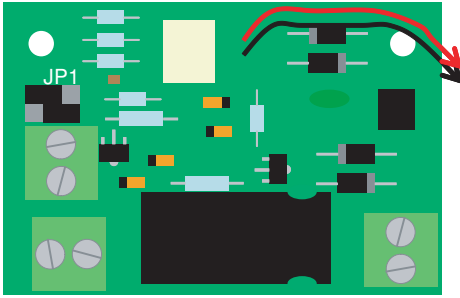
Certifications and approvals

Immunity	acc. to EN 50130-4
Emergency	acc. to EN 54-16 * / EN 60849 *

* When used with the Voice Alarm System and installed according to the *Installation and User Instructions*

Region	Certification	
Europe	CE	Declaration of Conformity
	CPD	

Installation/configuration notes

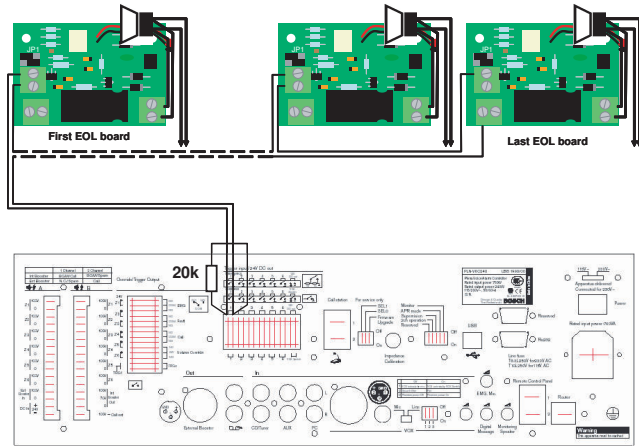


JP1 configuration for trigger output configuration

Using a daisy chain configuration it is possible to:

- Supervise several loudspeaker lines with only one fault input.
- Supervise several branches of a loudspeaker line with just one fault input

When connecting more than one EOL board on a single trigger input, and to supervise the boards, a 20 kohm or 22 kohm resistor should be connected in parallel with the trigger input. The boards are connected as shown in the following drawing.



Multiple boards on a single trigger input

Parts included

Quantity	Components
6	PLN-1EOL Plena End of Line Board
1	Application note

Technical specifications

Electrical

Input	1 x
Voltage	100 V loudspeaker line
Detection threshold	5 to 50 V @ 20 kHz
Output	2 x
Indicator	Red LED
Contact	Normally closed fail safe

Bipolar MOS switch 250 Vp
190 mA max

Detection threshold* 5 to 50 V @ 20 kHz (contact and LED)

* LED threshold and switch threshold may be slightly different.

Mechanical

Dimensions (H x W x D) 17 x 60 x 40 mm

Mounting WLS II

Weight Approx. 40 g

Environmental

Operating temperature -10 °C to +55 °C (14 °F to +131 °F)

Storage temperature -40 °C to +70 °C (-40 °F to +158 °F)

Relative humidity <95%

Ordering information

PLN-1EOL Plena End-of-Line Boards
set of 6 end-of-line supervision boards
Order number **PLN-1EOL**

Represented by:

Americas:

Bosch Security Systems, Inc.
12000 Portland Avenue South
Burnsville MN 55337, USA
Phone: +1-800-392-3497
Fax: +1-800-955-6831
audiosupport@us.bosch.com
www.boschsecurity.com

Europe, Middle East, Africa:

Bosch Security Systems B.V.
P.O. Box 80002
5617 BA Eindhoven, The Netherlands
Phone: + 31 40 2577 284
Fax: +31 40 2577 330
emea.securitysystems@bosch.com
www.boschsecurity.com

Asia-Pacific:

Robert Bosch (SEA) Pte Ltd, Security
Systems
11 Bishan Street 21
Singapore 573943
Phone: +65 6571 2808
Fax: +65 6571 2699
apr.securitysystems@bosch.com
www.boschsecurity.asia

China:

Bosch (Shanghai) Security Systems Ltd.
201 Building, No. 333 Fuquan Road
North IBP
Changning District, Shanghai
200335 China
Phone +86 21 22181111
Fax: +86 21 22182398
www.boschsecurity.com.cn

America Latina:

Robert Bosch Ltda Security Systems Division
Via Anhanguera, Km 98
CEP 13065-900
Campinas, Sao Paulo, Brazil
Phone: +55 19 2103 2860
Fax: +55 19 2103 2862
al.securitysystems@bosch.com
www.boschsecurity.com