

4E-EOL quick guide

Author: DD
 Design revision: 2.0

SUMMARY

This document is the quick guide of the 4E-EOL surveillance module. It is addressed to trained technical personnel such as installers, service technicians and commissioning engineers.

REVISION AND APPROVAL

Rev.	Date	Nature of Changes	Approved By
00	21-08-2020	Original draft EOL-V04	AJH
01	24-08-2020	LINK-connector added. Packaging data	AJH

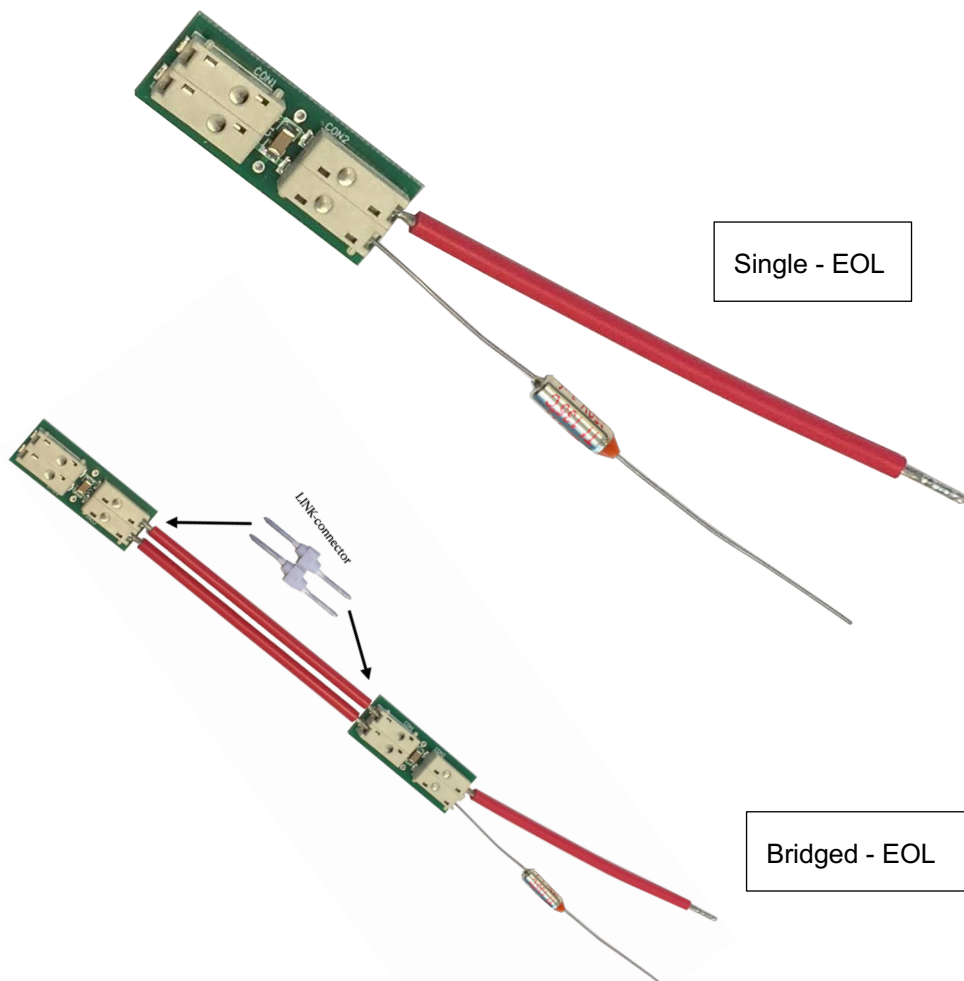


Table of Contents

1. 4E-EOL board	2
2. Ordering information	3
3. Technical specifications	3

1. 4E-EOL board

4EVAC voice evacuation systems support surveillance of loudspeaker lines based on 20 kHz impedance measurement.



Loudspeaker line with EOL module

The purpose of the 4E-EOL is to create reference load at the monitoring frequency of 20kHz. With the EOL connected, monitoring of load impedance is more accurate and less sensitive to slow and long-term impedance drift of the loudspeakers due to aging and weather conditions. It also gives the most reliable fault indication when a large number of loudspeakers is connected to a long line.

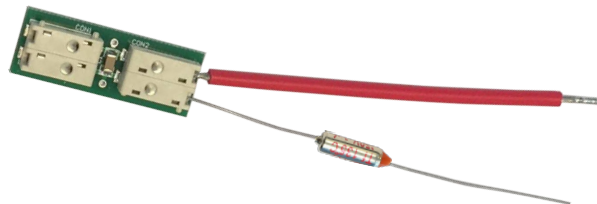
4E-EOL is required for reliable impedance monitoring of a loudspeaker line. Connect the EOL board to the end of the loudspeaker line in parallel, preferably inside the last loudspeaker on the line.

In order to prevent short-circuits caused by accidental electrical contact with sharp edges of the metal housing, the 4E-EOL board must be placed in the supplied insulating sleeve for installation.

The EOL is not polarity-sensitive.



NOTE: The EOL module features a 135°C thermal fuse, minimizing the risk of a line short-circuit under fire conditions. Exposing the EOL board to temperatures exceeding 135°C will damage the EOL circuit and cause an open fault of the loudspeaker line.



4E-EOL board with thermal fuse



NOTE: It is required to use the EOL module on every monitored loudspeaker line, at the end of the line.

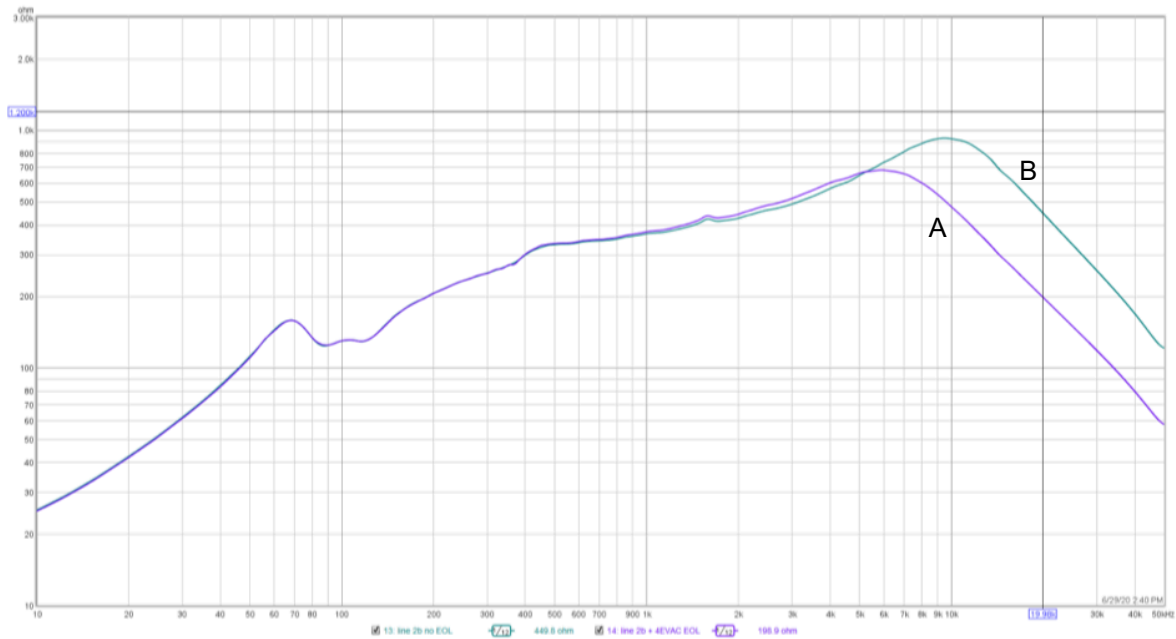
NOTE: EOL instructions are set-out in the COMPACT and SW6 user guide.

In some cases, in order to optimize the loudspeaker line impedance measurement, adjustment of the EOL impedance may be required. This is done by bridging TWO EOL's together using wires or LINK-connector (wires or bridge-connector are included). The load settings of EOL are described in the table below:

EOL load setting	EOL impedance @ 20kHz
Single EOL	250 Ω
Bridged EOL (Using wires or LINK-connector)	125 Ω

4E-EOL quick guide

Author:	DD
Design revision:	2.0



Impedance characteristics of a typical 100V loudspeaker line. Line (A) with EOL, Line (B) without EOL

2. Ordering information

The EOL boards are not supplied with the 4EVAC main unit and are available at 4EVAC as a separate product.

3. Technical specifications

4E-EOL

Electrical	
Surveillance method	Impedance measurement with EOL
Centre frequency	20kHz
Impedance @ centre frequency	250 Ω
Impedance @ 1kHz	>7.5 kΩ
Mechanical	
Dimensions (HxWxD)	32 x 12 x 6 mm
Weight	6 g
Mounting	Inside loudspeaker housing or at the end of loudspeaker line
Operating conditions	
Temperature	-5°C~40°C
Relative humidity	max. 90% (non condensing)
Storage temperature	-40~70°C
Package includes	10 pcs of EOL 10 pcs of cover jacket 10 pcs of thermal fuse, type 135°C 10 pcs of connection wire RED 5 pcs of LINK-connector

All information provided in this document is subject to change without notice. 4EVAC may also make improvements and/or changes in the products described in this information at any time without notice.

Hacousto Holland bv
Industrieweg 87
2651BC Berkel & Rodenrijs



4E-EOL quick guide

Author:

DD

Design revision:

2.0



M A D E I N T H E N E T H E R L A N D S

4EVAC is a trade name of:

Hacousto Holland bv
Industrieweg 87
2651BC Berkel & Rodenrijs
The Netherlands

www.4EVAC.com