SERIES 200 plus
Isolator Base
Model B524IEFT-1

SYSTEM SENSOR®

Product Overview

Features

- Low profile (26mm)
- Low Current consumption (100 µA)
- Up to 99 isolators per loop
- Complete isolation of short circuits
- Automatic restore when short circuit is corrected
- Rugged industrial construction
- Remote LED Connection
- Sensor continues to operate in case of a short circuit on either side of isolator base


Description

The System Sensor B524IEFT-1 isolator base is designed for use with all System Sensor 200 analogue addressable detectors. The B524IEFT isolator base prevents an entire communications loop from being disabled when a short circuit occurs.
It achieves this by isolating the part of the loop containing the short from the remainder of the circuit. The base will automatically restore the entire loop when the cause of the short circuit is corrected. Up to 20 devices may be isolated per isolator base, depending on the device type (see tables 1 and 2).

This base accepts the following System Sensor detectors : 1551E, 2551E, 5551E, 5551HTE, 5551RE, 1251E, 2251E and 3251.
The table below shows the maximum number of detectors and modules that can be installed between isolators

Detector / module type	Maximum number between isolators
Standard Detectors in B501 base (1251E, 2251E, 5551E, 5551RE, 5551HTE)	20
Standard modules M500ME, M500CHE, M501ME, M503ME, M500KAC, SSM500DKM, M512ME (External power)	20
M512ME (Loop power)	Not compatible with isolators
Loop-powered Sounders EMA24ALx, DBS24ALx	8
Omni Sensor	Consult panel manufacturer
Any detector (except Omni Sensor) in B524RE relay base	5

Architect/Engineer Specifications
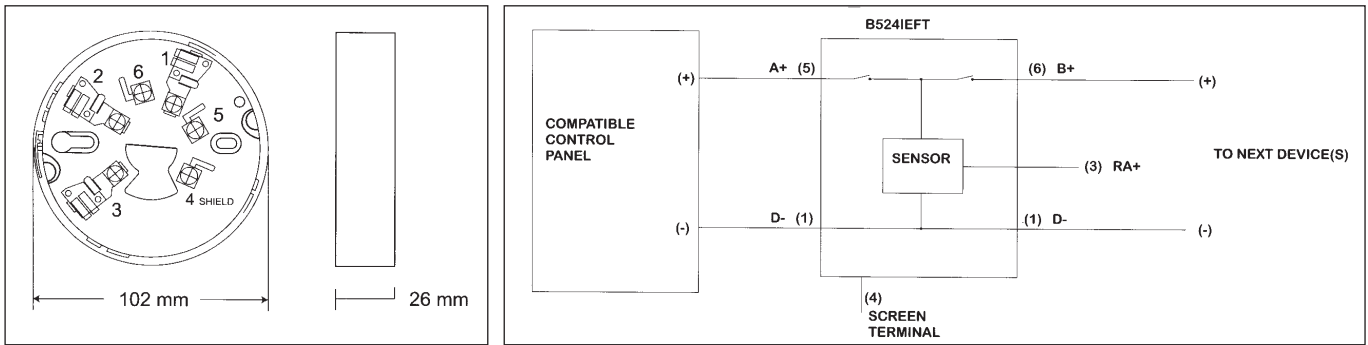
Since devices of different types are likely to be mixed between isolators, it is useful to be able to calculate the maximum number of devices between isolators where different types of device are mixed. To do this, we have allocated an 'isolator compatibility number' to each analogue / addressable device. To check whether the current draw between a pair of isolators is within specification, simply add up the compatibility number for all the devices between each pair of isolators. The number should be equal to or less than 20, if the B524IEFT-1 is used.

Detector / module type	Compatibility Number
Standard Detectors in B501 base (1251E, 2251E, 5551E, 5551RE, 5551HTE)	1
Standard modules M500ME, M500CHE, M501ME, M503ME, M500KAC, SSM500DKM, M512ME (External power)	1
M512ME (Loop power)	Not compatible with isolators
Loop-powered Sounders EMA24ALx, DBS24ALx	2.5
Omni Sensor	Consult panel manufacturer
Any detector (except Omni Sensor) in B524RE relay base	4

TABLE 2. COMPATIBILITY RATINGS WHEN MIXED DEVICE TYPES ARE USED
Example: Six 2251E detectors in B501 bases, one 5551E detector in a B524RE base, two 1251E detectors in B501 bases and two loop-powered sounders used between a pair of B524IEFT-1 isolators:
Total compatibility number = 6 x 1 + 1 x 4 + 2 x 1 + 2 x 2.5 = 17
Since the maximum compatibility number for the B524IEFT-1 is 20, the system will work correctly.

Electrical Specifications

Operating Voltage Range

15 to 28.5VDC

Standby Current

100µA maximum @ 24VDC

Maximum ON Resistance (24V)

0Ω2

Maximum ON Resistance (15V)

0Ω29

Environmental Specifications

Application Temperature Range

-30ÞC to 70ÞC

Humidity
0 to 95% Relative Humidity
(non-condensing)

Mechanical Information

Base Diameter

102mm

Base Height

26mm

Max Wire Gauge for Terminals

0.5mm² – 1.5mm²

Weight

70g

DSB524IEFT-05