

Intech Instruments Ltd

July 2010



You shouldn't compare apples with lemons...

Tom needed to connect a new 4~20mA loop into a PLC from a new temperature probe. PLC input cards are not usually isolated and Tom didn't want any interference with other input loops so he decided to isolate the signal to keep everything smooth.

There were several firms Tom could ring for an isolator but he remembered a recent outfit that could supply an isolator purported to be the greatest invention since slice bread and could even fry eggs if laid flat. The isolator arrived and Tom wired it in. He powered up the 4~20mA loop and 'KAZAM!' he could see the PLC input working. Perfect.

A couple of days later, Tom suspected that something was wrong. He checked his wiring but all looked OK. After another few days, the production guys were starting to complain to Tom that the new temperature did not always appear to read correctly, causing production problems.

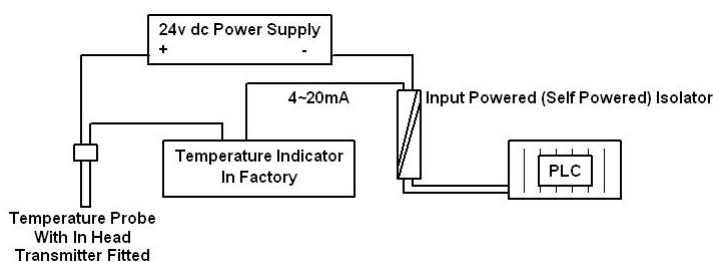


After a lot of wasted time and phone calls to the supplier, Tom was getting no where. All he had done was install a simple temperature probe that had a 4~20mA output into his PLC via this new isolator. Tom calls in Earl the instrument service guy, who after listening to Tom's story, had a suspicion of what was going on.

Earl replaces the Input Powered Isolator with a quality isolator from **Intech Instruments** and for Tom everything turns to **gold**. The temperatures read correctly, the production guys are happy and Tom has time for a cup of coffee. Does Earl have the Midas touch??? Well..... Yes and no.



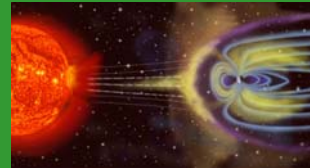
Input Powered (Self Powered) 4~20mA isolators are not always apples for apples and are very sensitive to other devices on the 4~20mA loop. Their specifications on some units appear to be written by kindergarten kids and are very vague and hard to understand. This is what Tom's simple loop looked like:



In This Issue:

- >>You shouldn't compare apples with lemons...
- >>Your Chance to Win!!!

Did you Know?...



Ten years ago, 14th July 2000, a large explosion from the Sun's atmosphere caused a X5-class solar flare, which caused a geomagnetic storm on Earth.



The People of France offered the Statue of Liberty to the people of the United States on the 4th of July 1886. The Statue was built on the 26th of October that year.



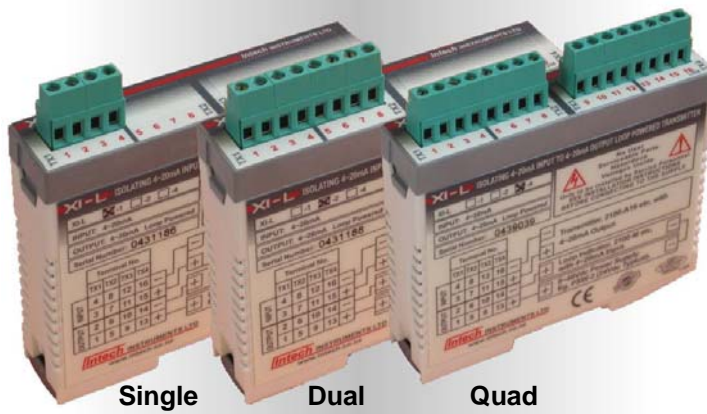
On the 22nd of July 838, the battle of Anzen was fought between the Byzantine Empire and the forces of the Abbasid Caliphate. Abbasid was victorious giving them the chance to continue forward and sack Amorion, the largest Byzantine city in Anatolia.

As with any current signal the loop loadings have to be considered. If the loop load is too great then as Ohms law suggests, you will run out of current. The extra loading of the temperature indicator on the 4~20mA loop was enough to stop the first isolator output rising above 16mA. It worked fine between 4 and 16mA, but did not have enough drive to reach 20mA which caused Tom's temperature input to the PLC to flat line.

Moral of the story: *Not all isolators are apples for apples – some perform better than others as unfortunate Tom found out.*

Intech manufactured isolators units are technically superior to almost all other options. That's a fact.

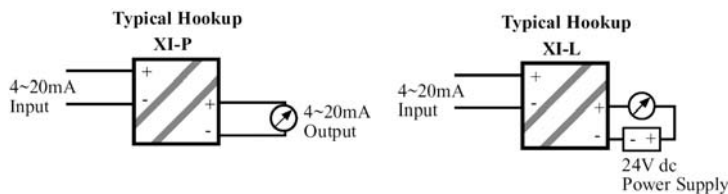
Intech XI Isolators:



Intech has **Two** series available: The **XI-P** input powered isolators, and the **XI-L** Loop powered Isolators.

Features:

- Input to Output Isolation 1kV
- High Accuracy 0.1%
- Reverse Polarity Protected
- Compact DIN Rail Mount Enclosure
- Both Series Available with 1,2, or 4 Transmitter per Enclosure
- Easy to Install
- Low Cost



For More Information Visit:
www.intech.co.nz/xi-p or www.intech.co.nz/xi-l



Your Chance to Win!!

Here's your chance to **win** 1 of 3 pairs of 'Silver' tickets to the Bledisloe Cup Game on August 7th in Christchurch.



All you have to do is answer the following questions:-

1. According to the NZRU, where & when was the first Bledisloe Cup match played?
2. What temperature is displayed on the JUMO thermostat on the Intech website home page?

ALL correct answers go into the draw to receive 1 of 3 pairs of tickets to the game.

Good Luck!



Contact us:-
 Tel: +64 3 3430646
 Fax: +64 3 3430649
 Email: sales@intech.co.nz
 Web: www.intech.co.nz



You are receiving our monthly newsletter because we think it may be useful to you.

View email in browser | Unsubscribe | Update your profile | Forward to a friend