



WEBINAR

ifm Introduction to IO-Link Webinar Wednesday 22 July



Questions & Answers

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ifm – close to you!

Q & A

Are sensors between vendors parameters standardized? Would I need to change settings in the PLC?

The IO link consortium has standardized on what is called the smart sensor profile. This will standardize mapping of all the vendor sensors so that it is represented in the same byte / words of the IO link input. An alternative is to identify which sensor is connected using the device ID / Vendor ID displayed in the PLC and have different functions blocks that can be set to read from which byte / word depending on the sensor connected.

If using the digital signal instead of a conventional analog signal, what is the accuracy of the digital signal?

Digitalized signal is more accurate than conventional analog signal due to the number of conversions that take place to present the analog signal in a PLC. Analog signals are subjected to at least 3 conversions. IO link signals are subjected to 1 conversion.

How does the speed of conversion compare for signals use instead of analogue signals?

It is much faster. An average time to process the data from a sensor on IO link to the plc is roughly 10ms.

Can you use IO link with ASI?

Yes, there are ASI IO link slaves available from IFM.

What is the advantage of I/O link over ASI BUS?

IO link is a communication method between sensor and I/O modules. IO link communication allows you access to more data from the sensor such as diagnostics.

ASI bus is a method of networking multiple I/O modules to 1 Gateway. Diagnostics are predominantly only available up to the ASI module level and not down to the sensor level.

What is the max length between IO Link master and Expansion Hubs?

20m without IO link Repeaters. With 3 x IO link Repeaters you can achieve 240m between IO link master and Expansion hub.

If the maximum connection Medium length is 20m can that be extended e.g. Using repeaters?

Yes, with repeaters you can achieve up to 240m. Maximum number of repeaters used between IO link master and sensor is 3.

Q & A

That 100m cable between the repeaters, does ifm supply the cable or is it something we can source elsewhere.

You can source the cable from IFM , alternatively you can use any standard instrument 3 wire cable.

Can we use our own patch cables in the installation, for example Ethernet/IP in my case?

Yes you can , IO link masters only connect onto a fieldbus and do not replace it. There may be a need for some accessories for your existing fieldbus cable such as self wire-able M12 connectors or RJ45 connectors that will connect onto the IO link masters.

Is the 3 repeaters rule applicable per Master or per port?

Maximum 3 repeaters between IO link master port and the sensor. E.g. You can have 3 IO link repeaters on each port of the IO Link master.

If ever needed can we go further than 240m?

It is not recommended to exceed 240m.

Are you looking at catering for thermocouple and RTD inputs?

IFM does offer Thermocouple hubs available for 4 x Type K and Type J thermocouples. For RTD's – we offer single signal convertors between RTD and IO link port.

How can one access the parametrization software?

The software is installed on a PC and is accessed using this PC. It is also possible to connect this PC onto a network / Wi-Fi and another PC can make use of the software from another location if required. The software is hosted as a webpage on the pc that it is installed on. For this reason any other pc or device with a web browser can access the software.

What is the ideal architecture/module needed to bring in a conventional AI signal into my IO Link master?

The most ideal and cost effective method is the use the multiport expansion hub that offers 8 x AI ports . This expansion hub than connects to an IO link port on the IO link master. IO link masters can have up to 8 x IO link ports. This means you can connect 8 x Expansion hubs onto an IO link master. $8 \times 8 = 64$ Analog signals.

Q & A

If you were to remove the PLC and only use IOT. Could you also drive outputs? Or can you only read inputs?

It is possible to drive outputs from the IOT application. This would be done using JSON code syntax and set data commands.

Is there a limitation on how many IO-Link masters you can have connected to a PLC?

Yes, the limitation is the availability of fieldbus addresses on your network as well as memory size available in the plc.

Is there an option for zoned areas like zone 21 or 22?

Unfortunately not yet. There has been no development for IO link in ATEX applications yet. But this will most likely be made available in the future.



Thank you for Participation in our Webinar

Do you have any questions about the products featured?



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