

# iTRANS•2

## FREQUENTLY ASKED QUESTIONS

- 1. What is the difference between iTrans and iTrans 2?**  
iTrans 2 supports HART protocol and integrates new infrared sensors for combustible gases or CO<sub>2</sub> detection. It also supports the v9.0 firmware just like the version of iTrans released after March 2013.
- 2. I already have iTrans which communicates via ModBus. Can I replace one of the transmitters with an iTrans 2 without changing the wiring?**  
There is no problem with this as long as the hardware configuration remains exactly the same (same gas, same range, and same number of detection heads).
- 3. Are iTrans 2 sensors compatible with iTrans?**  
Other than the infrared sensors, sensors built for iTrans 2 are all compatible with iTrans.
- 4. Can I install an infrared sensor on iTrans?**  
The infrared sensors are only available for iTrans 2.
- 5. What is HART communication used for?**  
With a digital signal superimposed on the 4-20 mA analog signal, it is now possible to communicate with the sensor. Hart communication greatly facilitates sensor maintenance and configuration.
- 6. Can I combine the “Relay” and “Hart” options?**  
As an option, it is possible to combine three internal relays with HART communication.
- 7. iTrans offered ModBus communication as the default. What is the default for iTrans 2?**  
The ModBus option for iTrans 2 is included in the base price, so there is no increased cost. However, you must make your selection using the new references (Option D=0 or 1).
- 8. Is it possible to select both HART and ModBus communication?**  
The two options cannot be in use at the same time. It is however possible to add optional relays separately from the communication protocol.
- 9. Can Hart transmitters and ModBus transmitters be combined in the same unit ?**  
The only restriction is that the transmitters must not be connected using the same unit inputs because the HART transmitter is considered an analog detector and the ModBus detector is purely digital.
- 10. Is the calibration procedure for iTrans 2 the same as for iTrans?**  
The calibration procedures in both intrusive and non-intrusive modes are exactly the same.
- 11. Is the iTrans going to be obsolete?**  
The iTrans will be gradually replaced by the iTrans 2 as we get the certifications. NEPSI and CSA versions will be first obsolete, then IECEx, ATEX, InMetro and finally GOST. The iTrans will be obsolete by the end of 2013.
- 12. I am already using a lot of iTrans on my plant. Is the iTrans 2 compatible?**  
iTrans 2 and existing iTrans share the same replacement sensors (sensors manufactured after March 2013, except infrared sensors which are available on the iTrans 2 only). In addition, configuration menus remain the same making your maintenance team's life easier as employees do not have to learn again how it works.
- 13. Can I upgrade my iTrans to the iTrans 2?**  
While they look the same, iTrans and iTrans 2 are different. Should you want to use infrared sensors or HART protocol, you have to replace existing iTrans with an iTrans 2.
- 14. Can I install two LEL sensors on a dual-head iTrans 2 unit?**  
Any combination of available sensors can be installed to form a dual-head iTrans 2 gas detector. This includes the combination of two catalytic bead LEL sensors.
- 15. I currently have a three-wire gas detection system. Can I install a dual-head iTrans 2 in that system?**  
Yes, the iTrans can be installed as a replacement sensor head in any 3 or 4 wire 4-20mA gas detection system.



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**16. I currently have a three-wire gas detection system. Can I install a dual-head iTrans 2 in that system?**

A dual-head iTrans 2 unit has two 4-20 mA analog outputs and, therefore, requires a 4-wire installation.

**17. Do I need a “hot work” permit to calibrate the iTrans 2 gas detector?**

The iTrans 2 gas detector utilizes a non-intrusive calibration system. The unit does not need to be opened for calibration and therefore no hot work permits are required to perform calibration.

**18. How do I access the non-intrusive calibration functions of the iTrans 2?**

The iTrans 2 calibration system is accessed by activating the calibration menu with a magnet through the glass window on the iTrans 2 enclosure. All zeroing, calibration and calibration gas settings can be accessed through the magnetically controlled menus.

**19. How far can I locate remote sensors away from the iTrans 2 electronics module?**

All iTrans 2 remote sensor modules, including the LEL module, are capable of being installed at remote distances up to 200 meters from the iTrans 2 electronics module.

**20. Do the sensors on a dual-head iTrans 2 gas detector share the same output?**

No. The iTrans 2 includes individual 4-20 mA outputs for each sensor in a dual-head configuration.

**21. Can I install the iTrans 2 in a system controlled by a DCS or digital PLC?**

The iTrans 2 is capable of functioning in any RS485-based digital network system utilizing the ModBus RTU communication protocol.

**22. How many iTrans 2 units can be installed in a digital network system?**

Over 200 digital addresses can be set in the iTrans 2 unit. Therefore, a digital network can have 200 or more iTrans 2 units installed on it.

**23. When a dual-head iTrans 2 unit is installed in a digital system, does each sensor have to have its own unique address?**

The digital network accesses each sensor in a dual-head iTrans 2 unit by accessing the appropriate ModBus register for each sensor in the unit. Therefore the sensors do not require a unique address selection to operate in the network.



**24. Can remote iTrans 2 sensors be installed as stand-alone units in a digital network?**

Yes. Because each of the “smart sensor” modules used in iTrans 2 are capable of having their own unique address, they can be installed to operate independently of the iTrans 2 electronic module in a digital network system.

**25. Is the iTrans 2 available with on-board relays?**

The iTrans 2 may have three optional relays installed in the electronics module. The relays are utilized for fail, low and high alarm configurations.

**26. If I have a dual-head iTrans 2 unit, can the relays be programmed for each sensor?**

The iTrans 2 may have three optional relays installed in the electronics module. The relays are utilized for fail, low and high alarm configurations.

**27. If I have a dual-head iTrans 2 unit, can the relays be programmed for each sensor?**

Yes. The iTrans 2 relays are fully programmable and can be set for individual sensor channels or to have different activation points for each individual sensor channel.

**28. Do the 4-20 mA ranges for each sensor in a dual-head iTrans 2 unit have to be same?**

No. The 4-20 mA outputs for each sensor operate independently and can be set individually in the field to represent any desired sensor range.

*The Fixed Gas Detection People*

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