

# FEATURES AND BENEFITS

## MERIDIAN UNIVERSAL GAS DETECTOR



FEATURE	BENEFIT
Truly universal gas detector	Unique in the industry, the Meridian's universal detector head can accept toxic as well as combustible sensors. Its single user interface as well as its single set of accessories make it very easy to use, and maintain. With global regulatory approvals, the Meridian is an easy choice for any region.
Supports a full range of toxic and combustible gases	Meridian supports over fifty toxic and combustible gases to meet a wide range of applications. Included in its sensor portfolio are the Scott Rock Solid™ toxic sensors which offer reliable and accurate detection due to their high specificity and minimal drift in harsh environments.
2 wire as well as 3-4 wire offering	With 2 Wire as well as 3-4 Wire offerings, the Meridian Universal Gas Detector can be easily integrated into any field application.
Multiple sensors	The Meridian 3-4 Wire platform can support up to 3 sensors. Each sensor can be installed remotely from the transmitter up to 100 feet. This can significantly reduce the customer's upfront capital expenditure.
Metal Oxide Semiconductor (MOS) sensor for Hydrogen Sulfide (H <sub>2</sub> S)	The Meridian Metal Oxide Semiconductor sensor is designed for H <sub>2</sub> S detection in extreme climates where electrochemical sensor performance can be limited by extreme temperatures and relative humidity. It is designed to meet the ISA-92.0.01, Part I-1998, Performance Requirements specifications.
Plug & play sensor technology	Meridian sensors are designed with ease of use and maintenance in mind. Sensors plug in and out of the detector head easily. No special tools or additional personnel are required, thereby minimizing customers' maintenance time and effort.
Hot swappable sensors	With its intrinsically safe design all Meridian sensors, whether toxic, solid state or combustible, can be installed or replaced in hazardous locations without powering down the instrument or declassifying the area.
One sensor with multiple ranges	The Meridian toxic and oxygen sensors are able to support multiple ranges allowing the user to select the specific range for their application requirements without the need to recalibrate the sensor.
Range invariant calibration	To help customers reduce operational hazard and maintenance cost, the Meridian toxic sensor is designed to be range agnostic. Sensor range can be changed without recalibration, thereby minimizing customers' maintenance time and effort.
Remote calibration	Sensor can be bench calibrated and then installed in the field without additional re-calibration on site. The available Duct Mount calibration kit makes it easy to perform calibration on remote sensor installations that are difficult to access.

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Automatic voltage detection

To minimize installation and commissioning time, the Meridian automatically detects current voltage and makes the required voltage adjustments for catalytic bead sensors without intervention from the installer. This reduces installation time and also the required tooling expertise necessary for sensor installation.

Multiple communication protocols

Designed for global use, the Meridian Universal Gas Detector supports industry standard protocols for integration into any industrial network. Support for digital protocols allows for advanced diagnostics data to be available, making it possible to take proactive measures to maintain a safe environment and lowering your overall cost of ownership. Standard communications protocols include 4-20mA, and Modbus. Optionally, HART, Wireless HART, or Wireless ISA100.11A can be added.

Future proof modular design

Meridian's future proof plug-and-play design allows all future sensing technologies from Scott to easily integrate into the Meridian gas detector. Its modular communication interface allows you to add future communication protocols as they become available on the platform.

Global approvals

The Meridian gas detector is certified using the highest international standards for global use. Approvals include: IECEx, cCSAus, ATEX, INMETRO, EURASIAN CUSTOMS UNION, CHINA EX, CCCF, RCM, FCC, INDUSTRY CANADA, CE, ANATEL, MARINE DIRECTIVE SHIP'S WHEEL, ABS, SIL-2 (Third Party Certification by TUV-Rheinland).

Functional safety  
(SIL2 Certified by TUV Rheinland)

Designed with safety and reliability in mind, the Meridian Universal Gas Detector is suitable for use in SIL-2 and SIL-3-rated systems under the IEC 61508 standards, certified by TUV Rheinland, an independent third-party agency. Third party SIL certification validates that the product meets the most rigorous standards for reliability and performance and confirms its ability to reduce your potential for downtime and increase your safety factor.