

Model DTX832-He Helium Analyzer



DIN rail mounted digital transmitter



DESCRIPTION

The MSA Model DTX832-He, powered by Neutronics Technology, is a DIN rail mounted analyzer for helium in air measurement. With an Ethernet digital communication interface along with 4 to 20 mA output, this analyzer combines ease of use with simple installation, configuration, and integration into DCS and PLC control systems. Used with a well-proven thermal sensor technology that combines the sensor element, signal processing and digital calibration on one small chip, this helium analyzer is an ideal choice for demanding and cost sensitive process control applications.

Features

Digital communications, Ethernet (Modbus TCP), for fast and easy system integration

Simple to use: Simple setup using the built-in web server

Simple to install: Compact 35mm DIN rail mounted module with removable terminal blocks

Flexible: Firmware can be updated over the Ethernet interface

Reliable performance: Status and fault change events are logged and retrievable for precise resolution

Low cost of ownership: With no user serviceable parts inside the analyzer, routine maintenance is all that is required

The DTX832-He analyzer features the Model TC100 thermal conductivity sensor. The TC100 sensor uses a thermal conductivity gauge to measure the thermal conductivity of the gas stream and then compare it to the factory calibration measurement. The analyzer is easy to install. With a small footprint, it is designed for installation on a 35mm DIN rail mounting bracket for integration into a wide variety of equipment components. In addition to the helium sensor, the unit includes a sensor interface cable with a right angle 6-pin connector and a power cable for connection to a 24V DC power supply.

In addition to a response time of 100 milliseconds, the sensor provides excellent repeatability and long-term stability. The helium concentration measurement is based on the difference between the thermal conductivity of both helium and air. Along with the available 4 to 20 mA output, the analyzer is equipped with one digital interface – Ethernet. The RJ45 connection port complies with IEEE Standard 802.3(u) with auto-negotiation implementation for a 10/100 Mbps link speed and full/half duplex data transmission mode. Modbus TCP/IP protocol provides all measurement signals, alarms, and faults.

The DTX832-He features a web browser interface that allows users to confirm system settings, check DHCP client functionality, and view the time-stamped event log. The analyzer's built-in digital processor has the ability to monitor status and fault change events on a 24-hour basis. Selectable sample rates range from once per second to once per minute. The analyzer records the data along with the status of the digital I/Os with a timestamp to ensure that each recorded value is associated with a date and time of acquisition.

All units are calibrated at the factory. The components used in the fabrication of the sensor are extremely stable with very long estimated lifetimes. The expected sensor service life is greater than 100 years, and it does not require periodic calibration.



MORE INFORMATION:

Scan the QR code to learn more about the Model DTX832-He Helium Analyzer and other MSA products.

Model DTX832-He Helium Analyzer



Description	Part Number
DTX832-HE Analyzer includes analyzer module PN 8-32-0000-02-0 & power supply cable	7-10-0000-06-0

Specifications	Description
Measurement range	0 to 100% helium
Display	3.7mm four-character alphanumeric display driven by an onboard CMOS IC
Display resolution	1 to 9.99% (X.XX); 10 to 99.9% (XX.X)
Status indicators	Color coded LEDs for power (green) and system fault (yellow)
Warm-up time	< 30 seconds
Relative humidity	0 to 95%, non-condensing
Operating temperature	+15 to 40°C (+59 to 104°F)
Communication protocol	Ethernet (Modbus TCP); 4 to 20 mA
Ethernet connection	Standard CAT5 cable required
Mounting	Modular via 35mm DIN rail mounting bracket
Power requirements	24VDC ±10%, 0.5A maximum, by field supplied DC power supply
DC supply cable	PN 6-01-1000-00-0 (factory supplied)
Dimensions	4.16" (105.6mm) length x 2.07" (52.5mm) width x 2.79" (70.8mm) height
Weight	2 lbs. (0.9 kg)
Environmental	IP30 rating (no hazardous moving parts or electrical hazards)
Approvals / certificates (pending)	CE, ETL (conforms to UL/IEC STD 61010-1, certified to CSA STD C22.2 No. 61010-1)
Warranty	12 months from date of shipment

Specifications are subject to change without notice.

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