

DuoSeries Density Transmitter LB 474

Cutting-edge radiometric density system with real 2-wire detector technology

Next Generation Density Transmitter

- Measuring density, concentration, solid content
- Maximum ease of use and advanced Touch HMI interface
- Simplified calibration procedure
- 2-wire technology, no additional power cables in the field
- Valued self diagnostics and monitoring features (SIL standard)
- Direct replacement of predecessor model LB 444
- Interfaces with all 2-wire detectors LB 44xx, LB 54xx and LB 4700

Monitored current output ensures highest measurement reliability

Display of history and trends (Process value, count rate, and detector temperature)

Additional service interfaces via USB and Ethernet, for remote access

3 relay outputs (2x SPDT and 1x SPST)

Very easy handling and operation through 3.5" TFT touch panel. Alternatively, keyboard and mouse can be connected via USB.

Only two wires required to detector in the field

Detector powered from remote-mount transmitter



Diagnostics according to Namur NE-107 with event log, change log and data log



Designed for Operators

The DuoSeries LB 474 density transmitter is characterized by an advanced, customer-driven operation. The main enhancement compared to its predecessor is the ease of operation with the outstanding and robust 3.5" TFT touch panel with industrial design. Moreover the transmitter provides a number of valued diagnostic and monitoring features for improved plant reliability.

Operators also benefit from the new service functionalities like data logging, which can be accessed either remotely through Ethernet connection or through the USB port at the front panel of the system.

Dual Core CPU

The measurement itself is managed independently from the user interface by using two separate cores. Thus the measurement can continue even in case the display or the user interface fails, ensuring high operational safety where reliability matters.

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Operating data

Power supply	100...240 VAC $\pm 10\%$, 50 ... 60 Hz, 30 VA 24 VDC (18 ... 30 VDC), 30 W
Ambient temperature (Transmitter)	Operation: -20 ... +60°C (-4 ... +140°F), no condensation Storage: -20 ... +85°C (-4 ... +185°F), no condensation
Design	19" module 3RU, 21HU, protection IP 20
Processor	Dual Core CPU
Installation	In wall-mounted cabinet (up to 2 units) In 19" rack (up to 4 units) Other options available on request

Certificates

Other certificates	CE NRTL according to UL/CSA approval
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Signal inputs and outputs

Signal output	4 ... 20 mA, potential-free / max. impedance 500 Ω
Digital inputs	2 inputs, configurable for hold, external adjust
Digital outputs	1 relay (SPDT) for failure event 2 relays (SPDT and SPST) for high/low PV alarm, detector temperature or others Permissible ohmic load: Max. 30V 1A AC/DC
Analog inputs	4 ... 20 mA, for temperature compensation
Interfaces	USB (for software update, data backup, keyboard, mouse) RS 485, Ethernet (for remote access)
Data backup	internally: in non-volatile memory externally: USB memory device

Software

Menu languages	English, German, French, Chinese, Russian, Portugese, Italian, others on request
Features	- Up to 4 calibration curves - Compensation of product temperature variations (PT100 connected to detector or analog input) - Dynamic adjustment of time constant - Radiation Interference Detection - Automatically generated message for pending source exchange - Diagnostics according to Namur NE-107 with event log, change log, data log

For technical details of field-mounted detectors please see DuoSeries detector LB 4700 brochure



Cabinet

Optionally the transmitter can be installed in a robust wall-mounted, steel cabinet (IP 65).