

# SmartSeries LB 414

## SMART DEVICE FOR THE NON-EX AREA

### Cost-optimized

The optimal solution for density and level switch measurements in non-explosive areas

### Simple & intuitive

Detector and transmitter in one system. Operation via local user interface, HART, or PC interface

### Temperature stable

Stable and reliable measurement even under high temperatures and severe temperature fluctuations

### Robust & water resistant

Designed for harsh operating conditions such as those in the mining industry, during cement production and in the paper industry for example.

### Reliable & maintenance free

Outstanding accuracy and reproducibility over many years without any maintenance and recalibration



# TECHNICAL DATA & FACTS

## SmartSeries LB 414

### Detector

Applications	Density, concentration, solids content, level switch
Power supply	100 ... 240 V AC, 50/60 Hz, max. 8 VA 24 V DC (18 ... 32 V DC), max. 8 W
Housing material	Stainless steel ISO 1.4301 / AISI 304
Measuring range	40/35, 50/50, 50/60 mm
Ambient temperature	–20 ... +60 °C (–4 ... +140 °F)
Extended temperature range*	–40 ... +60 °C (–40 ... +140 °F) –40 ... +100 °C (–40 ... +212 °F) due to additional water cooling
Temperature stability	≤0,002 %/°C (–40 ... +50 °C) for CrystalSENS with NaI(Tl) crystal ≤0,01 %/°C (–20 ... +50 °C) for CrystalSENS with polymer scintillator
Water cooling for higher temperatures	Optional
Collimator for background suppression	Optional
Outputs	Analog 4 ... 20 mA potential-free, HART, max. impedance 500 Ω, active or passive Digital Relay contact (SPDT) optionally for: status indications, min. / max. alarm, detector temperature Permissible load at ohmic load: max. 5A oder 30 V DC
Interfaces	RS485 interfaces for software update and PC software interface
IP protection	IP66/67 (with lid closed)

### Special features

- Compact and cost-optimized field device with integrated transmitter
- Quick start with menu navigation
- Integrated locking system prevents unintentional removal of the lid
- Optionally available with collimator, IR remote control, HART connector and water cooling

\*Accessory set for extended temperature range: cover and cable glands in stainless steel

Berthold Technologies GmbH & Co. KG

Calmbacher Straße 22 · 75323 Bad Wildbad · Germany  
+49 7081 1770 · [industry@berthold.com](mailto:industry@berthold.com) · [www.berthold.com](http://www.berthold.com)

