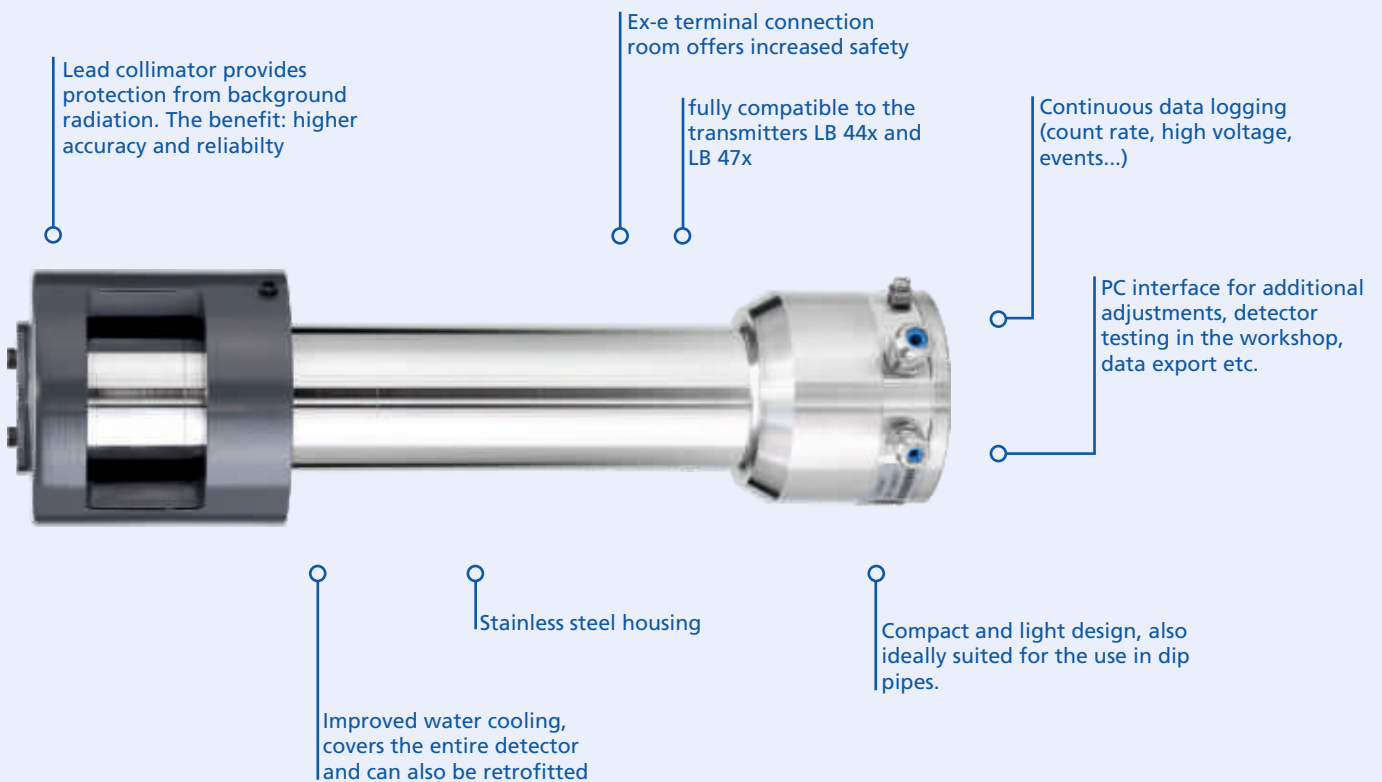


DuoSeries Detectors LB 4700

Proven 2-wire technology with advanced functionality

Our Bestseller - newly designed

- Applicable for level, level switch, mass flow and density measurements
- Perfect for all standard applications as well as for tricky measurement tasks
- Proven 2-wire technology
- Advanced self diagnostics and monitoring features
- Operation by transmitters LB 44x or LB 47x, PC interface as an option
- ATEX and IECEx certifications





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Detector operating data

Power supply	supplied by connected transmitter LB 44x or LB 47x			
Cable connections	1x M12 for cable 3 ... 6 mm, 1x M16 for cable 4 ... 9 mm			
Maximum cable length	with Berthold cable ID no. 32024, 1000 m (for polymer cable glands)			
Wire cross-section	0.75 ... 2.5 mm ²			
Housing material	Stainless steel ISO 1.4301 / AISI 304 (others upon request)			
Water cooling	Option (can also be retrofitted), max. 6 bar			
Cascading	up to 17 detectors			

	Scintillator size Ø x length [mm]	Weight [kg]	Weight with cooling [kg]	Collimator
CrystalSENS (point detectors)	50 x 50 NaI(Tl)	9	12	Option
	50 x 50 polymer	9	12	Option
UniSENS (rod detectors)	50 x 500 polymer	13	19	Option
	50 x 1000 polymer	17	27	Option
	50 x 1500 polymer	21	34	Option
	50 x 2000 polymer	27	43	Option
Ambient temperature (Operation and storage)	-40 ... +60°C (-40 ... +140°F) for CrystalSENS point detectors*			
	-40 ... +55°C (-40 ... +131°F) for UniSENS rod detectors			
	* for temperatures exceeding the range of -20 ... +60°C / 55°C the extended temperature kit is required.			
Temperature stability	≤ 0.002 %/°C (-40 ... +60°C) for CrystalSENS point detectors			
	≤ 0.01 %/°C (-40 ... +60°C) for UniSENS rod detectors			

Detector certificates & tests

IP protection	IP 66 / IP 67		
Explosion protection	ATEX II 2 G Ex d beb IIC T1-T5(T6) II 2 D Ex tb IIIC T80°C (T85°C)	-40 ... +80°C (+75°C) -40 ... +80°C (+85°C)	
Other certificates	IECEX, others upon request		
Environmental tests	IEC 60068-2-6 Vibration (1.9 g) IEC 60068-2-27 Mechanical shock (30g) IEC 60068-2-38 Climatic (-10 ... +65°C; 90% rel. humidity) IEC 60068-2-14 NA Temperature shock (-45°C ... +65°C in 10s)		

Accessories

Extended temperature kit	Metal cable glands -40 ... +60 °C (-40 ... +140 °F) with water cooling: -40 ... +100 °C (-40 ... +212 °F)
Detector Service Modem	for PC interface

Proven technology - easy to use!

The detectors LB 4700 are based on two wire technology. They are powered by the transmitter, which means that only two wires need to be installed in the field. They are ideally suited to be used in plant revamps or upgrades or in any other case when the existing infrastructure and cables should not be changed.

The detectors are compatible to the existing transmitters LB 44x and LB 47x. For data analyzing, additional adjustments or functional testing in the workshop the detectors can be operated with the Berthold's intuitive and easy to use PC software.