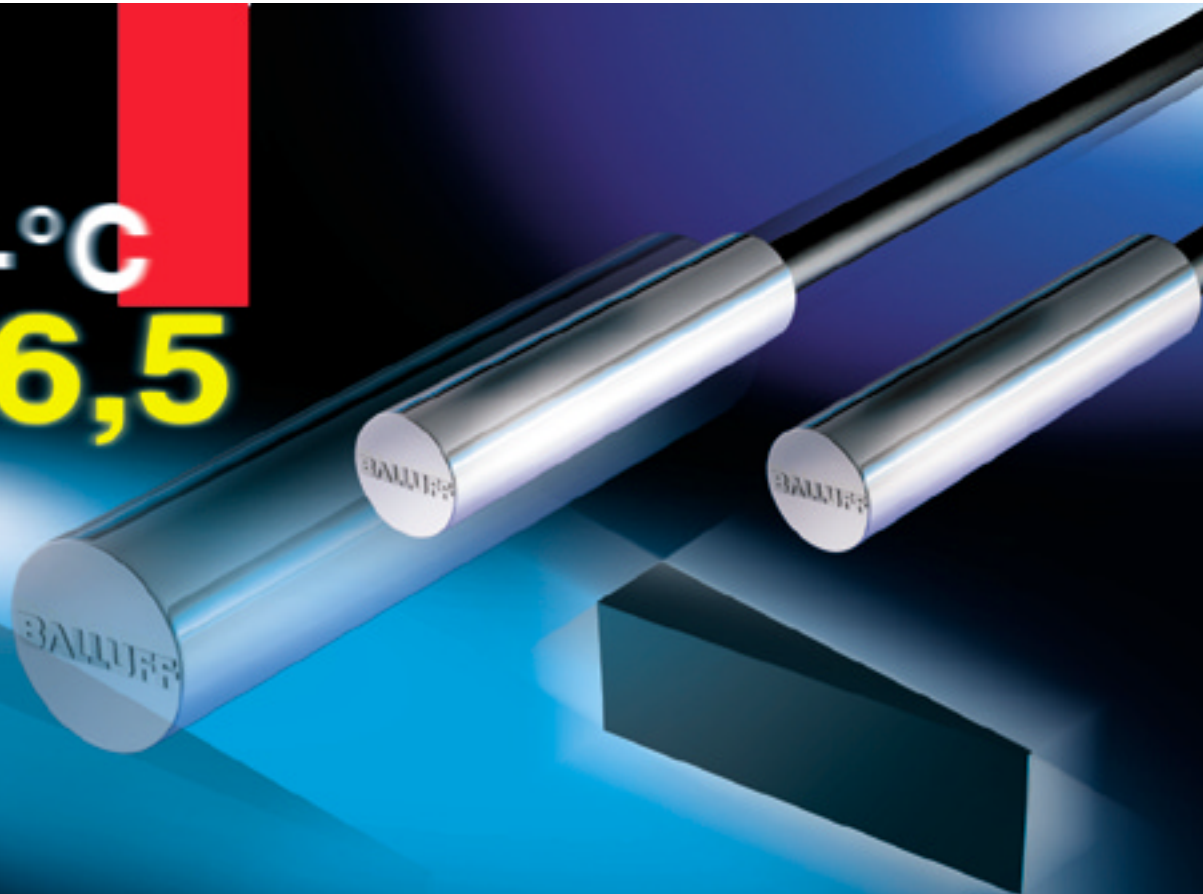


BALLUFF

Analog Sensors BAW
the smallest one
also with
temperature output



World's first – Analog sensor with 6.5 mm diameter

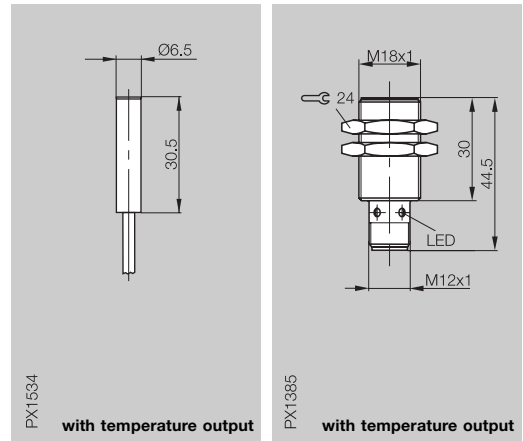
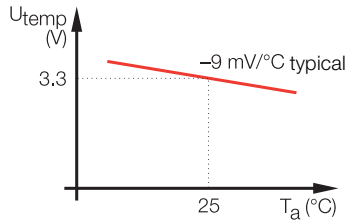
BAW 6.5 mm – This world's first has the measuring range of an M12 BAW sensor! This benefit has been achieved by narrowing the temperature range to +10...+60 °C.

BAW M18 – Another innovation in the standard series. This one gets improved technical features. By optimizing the temperature for a range of +20...+50 °C, the temperature drift has been reduced to a bandwidth of 2 %. But function is guaranteed even when used in a temperature range of -10...+70 °C!

A common feature of both these sensors is that they sense and output temperature information. As is the case of the entire BAW product family, this measurement is done with extreme precision in the front section of the sensor. In the case of these two versions, the measured temperature change is output in the form of a linear signal which can be further processed in your controller.

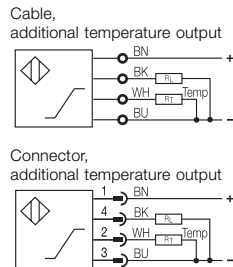
- Distances of up to 1.5 and 5 mm can be precisely measured
- The 0...10 V output signal changes in proportion to the distance from target to active surface
- High repeatability in the µm range
- Senses temperature changes in the surrounding material

Housing size	Ø 6.5 mm	M18x1
Mounting	flush	flush
Output signal	voltage 0...10 V	voltage 0...10 V
Linear range s _i	0.5...2 mm	1...5 mm



Ordering code	BAW G06EE-UAF20B-EP03-K	BAW M18ME-UAE50B-S04G-K
Rated operational voltage U _e	24 V DC	24 V DC
Supply voltage U _B	21.6...26.4 V DC	21.6...26.4 V DC
Ripple	≤ 10 % of U _e	≤ 10 % of U _e
Rated insulation voltage U _i	75 V DC	75 V DC
Rated sensing distance s _a	1.25 mm	3 mm
Load resistance R _L	≥ 5 kΩ	≥ 2 kΩ
Load resistance R _T	≥ 5 kΩ	≥ 2 kΩ
No-load supply current I ₀ at U _e	≤ 15 mA	≤ 10 mA
Protected against polarity reversal	no	yes
Short circuit protected	no	yes
Ambient temperature range T _a	+10...+60 °C	+20...+50 °C
Temperature drift at s _i	≤ 5 % of U _a max.	≤ 2 % of U _a max.*
Max. non-linearity at s _i	±3 % of U _a max.	±3 % of U _a max.
Repeatability	≤ 3 % of U _a max.	≤ 3 % of U _a max.
Adjustment indication (end of linear range)	no	yes
Degree of protection per IEC 60529	IP 67	IP 67
Housing material	stainless steel	CuZn nickel plated
Material of sensing face	PBT	PBT
Connection	3 m cable, PUR	connector
No. of wires x conductor cross section	4 x 0.14 mm ²	
Approval		cULus
Recommended connector		BKS-B/S 19/BKS-B/S 20 * ≤ 5 % of U _a max. at -10...+70 °C

Wiring diagrams



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For more sensors see main catalog "The Sensor Program" on CD-ROM or online!