

**Safely and reliably  
detect objects in explosion protected areas**

## EXPANDED EX PORTFOLIO: INTRINSICALLY SAFE INDUCTIVE SENSORS FOR EXPLOSION PROTECTED AREAS

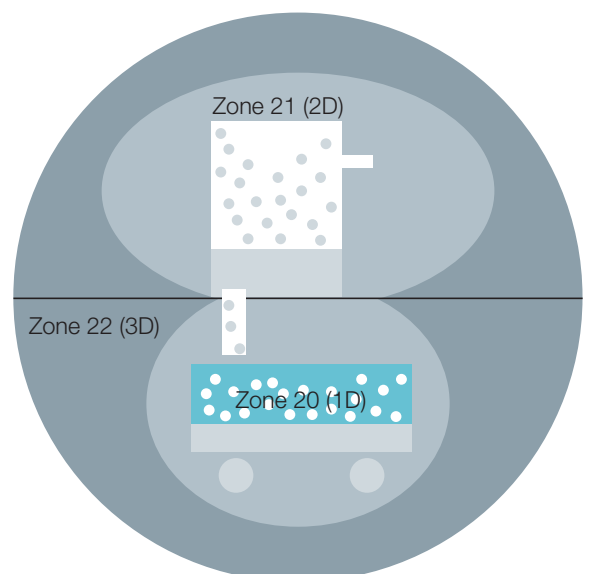
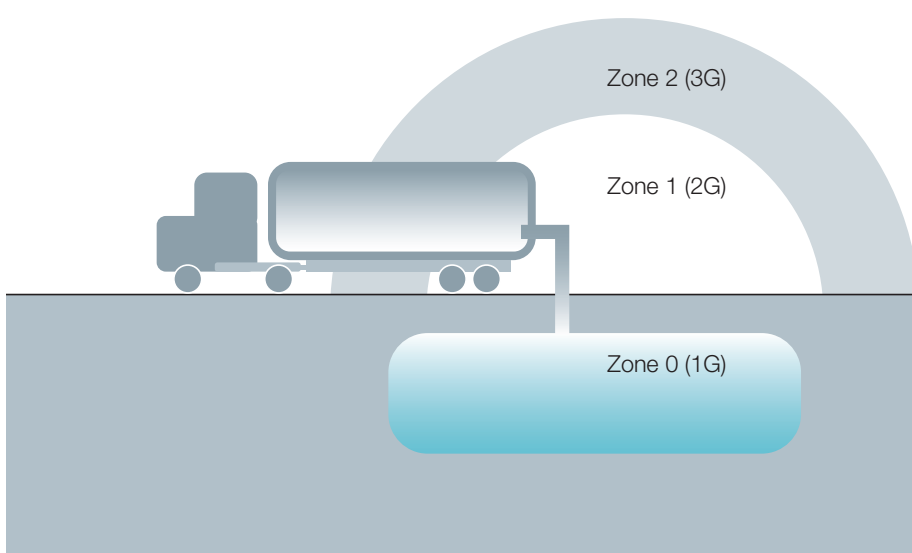
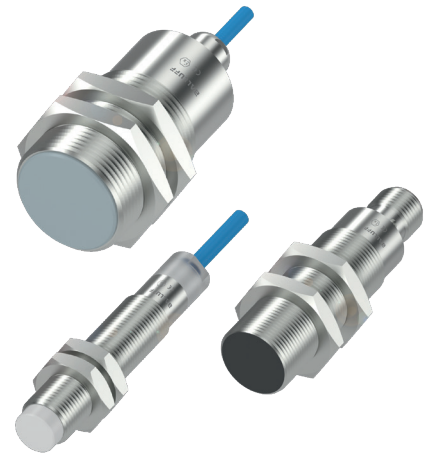
Balluff's new inductive portfolio for explosion protected areas is approved for ATEX zones where an explosive atmosphere due to gas or dust is frequent or permanent. This offers reliable detection and positioning in explosion protected areas.

The sensor families are available in M12, M18 and M30 form factors, so that you can solve a variety of application challenges. Their inductive switching principle gives you non-contact and wear-free switching. Thanks to uniform standard connections and cable versions, our Ex sensor are easy to install.

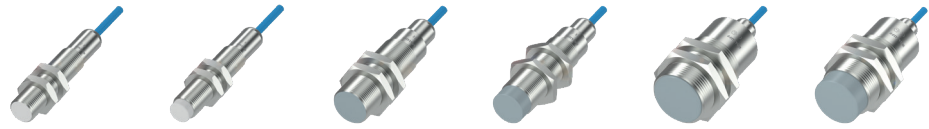
### Features

- Common form factors M12, M18 and M30
- For ATEX zones 0, 1, and 2, and zones 20, 21, and 22
- Intrinsically safe sensors from a single source
- Fast installation and replacement using standardized connections

Further sensors for explosion protected areas can be found on [www.balluff.com](http://www.balluff.com)



INDUCTIVE  
EX SENSORS  
INTRINSICALLY SAFE  
ZONES 0/20



HIGH TEMPERATURE	BES05NE	BES05NF	BES05NH	BES05NJ	BES05NK	BES05NL
Style	M12 × 1	M12 × 1	M18 × 1	M18 × 1	M30 × 1.5	M30 × 1.5
Installation type	Flush	Non-flush	Flush	Non-flush	Flush	Non-flush
Switching distance	2 mm	4 mm	5 mm	8 mm	10 mm	15 mm
Output function	NAMUR					
Supply voltage	12.6 V DC					
Degree of protection	IP68 (3 bar), IP69					
Ambient temperature	Zone 0: -20...+60 °C, Zone 1: -25...+75 °C, Zone 20/21: -25...+140 °C					
Housing material	Stainless steel 1.4571					
Connection	2 m FEP cable					
Ex zone	0, 20					
Approval/conformity	CE, EAC, ATEX, IECEx					



LOW TEMPERATURE	BES05NM	BES05NN	BES05NP	BES05NR	BES05NT	BES05NU
Style	M12 × 1	M12 × 1	M18 × 1	M18 × 1	M30 × 1.5	M30 × 1.5
Installation type	Flush	Non-flush	Flush	Non-flush	Flush	Non-flush
Switching distance	2 mm	4 mm	5 mm	8 mm	10 mm	15 mm
Output function	NAMUR					
Supply voltage	12.6 V DC					
Degree of protection	IP68 (3 bar), IP69					
Ambient temperature	Zone 0: -20...+60 °C, Zone 1/20/21: -60...+60 °C					
Housing material	Stainless steel 1.4571					
Connection	2 m FEP cable					
Ex zone	0, 20					
Approval/conformity	CE, EAC, ATEX, IECEx					



STANDARD	BES05MW	BES05MY	BES05MZ	BES05N0	BES05N1	BES05N2
Style	M12 × 1	M12 × 1	M18 × 1	M18 × 1	M30 × 1.5	M30 × 1.5
Installation type	Flush	Non-flush	Flush	Non-flush	Flush	Non-flush
Switching distance	2 mm	4 mm	5 mm	8 mm	10 mm	15 mm
Output function	NAMUR					
Supply voltage	12.6 V DC					
Degree of protection	IP67					
Ambient temperature	Zone 0: -20...+60 °C, Zone 1/20/21: -25...+75 °C					
Housing material	Brass, coated					
Connection	M12 male, 4-pin					
Ex zone	0, 20					
Approval/conformity	CE, EAC, ATEX, IECEx					

## ACCESSORIES



ISOLATING AMPLIFIER	BAE00ZU	BAE00ZW	BAE00ZY
Rated operating voltage U <sub>e</sub>	24 V DC	230 V AC	115 V AC

## CABLES



	BCC0E49	BCC0E48	BCC0E47	BCC0E46
Connection	M12x1-Female, angled, 5-pin, A-coded	M12x1-Female, angled, 5-pin, A-coded	M12x1-Female, straight, 5-pin, A-coded	M12x1-Female, straight, 5-pin, A-coded
Interface	NAMUR	NAMUR	NAMUR	NAMUR
Cable	PUR blue, 10.00 m	PUR blue, 2.00 m	PUR blue, 10.00 m	PUR blue, 2.00 m
Number of conductors	2	2	2	2
Cable temperature, fixed routing	-25...80 °C	-25...80 °C	-25...80 °C	-25...80 °C
Cable temperature, flexible routing	-5...80 °C	-5...80 °C	-5...80 °C	-5...80 °C
Operating voltage U <sub>b</sub>	250 VDC / 250 VAC	250 VDC / 250 VAC	250 VDC / 250 VAC	250 VDC / 250 VAC
Degree of protection	IP67, IP68, IP69K	IP67, IP68, IP69K	IP67, IP68, IP69K	IP67, IP68, IP69K
Approval/Conformity	EAC, WEEE	EAC, WEEE	EAC, WEEE	EAC, WEEE