BALLUFF

Steel Face Factor 1 and Ferrous / Non-Ferrous Proximity Sensors

REDUCE WELD CELL DOWNTIME AND LENGTHEN MAINTENANCE INTERVALS

Inductive sensors in harsh welding environments often have short life expectancies. Part loading impact damage and erosion from weld spatter leads to premature failure and costly downtime, resulting in lost production and lower profits.

Balluff addresses these challenges with a steel-faced, Factor 1, spatter-resistant inductive proximity sensor in an M18 tubular housing.

An improved coating on the device's face and body offers enhanced resistance to weld-spatter buildup compared to uncoated sensors. Additionally, Balluff's Factor 1 technology offers detection of all metals, ferrous and non-ferrous, at the same full sensing range.

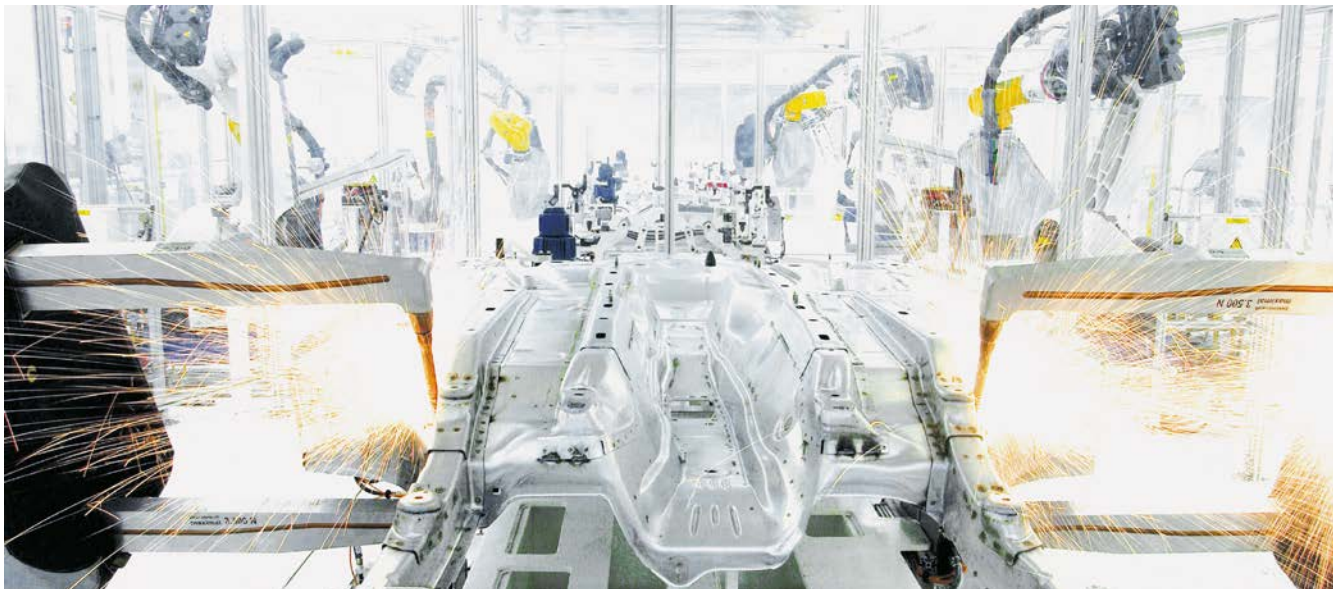
This technology is also inherently weld-field immune, offering continued status monitoring during welding operations, without a false triggering risk.

The sensor's face is a stainless steel construction, resulting in higher durability against weld-spatter burn-through and mechanical impact, when compared to a conventional plastic face. A flush-mount housing offers the same 8mm extended sensing range of standard non-flush types.

Replacement of failure-prone conventional proxes with this application-specific sensor can increase uptime, reduce sensor replacement costs, reduce maintenance effort, and lengthen periodic cleaning and service intervals.

For poka-yoke applications not directly exposed to welding, both ferrous-selective and non-ferrous selective versions are offered without coating. Enabling positive confirmation of specific component metallurgies, for example mixed assemblies combining aluminum and steel.

- Stainless steel face withstands mechanical impact and prevents weld spatter burn-through
- Factor 1 technology for weld-field immunity and detection of all metals at full range
- Extended 8mm range of a non-flush sensor in a flush-mount design
- Improved coating for enhanced protection against weld-spatter buildup
- Flush-mount design enables embedded mounting in the tooling for impact protection
- IP68 enclosure rating provides liquid ingress protection



INDUCTIVE FULL-METAL SENSORS



	BES05NC	BES05K8	BES05K9
Size	M18 x 1	M18 x 1	M18 x 1
Dimension	Ø 18 x 56 mm	Ø 18 x 56 mm	Ø 18 x 56 mm
Installation	for flush mounting	for flush mounting	for flush mounting
Switching output	PNP normally open	PNP normally open	PNP normally open
Rated operating distance	8 mm	8 mm	8 mm
Operating voltage	10...30 V DC	10...30 V DC	10...30 V DC
Additional features	**Factor 1, weld resistant coated**	**Selective ferrous**	**Selective non-ferrous**
Approval/conformity	CE, cULus, EAC	CE, cULus, EAC	CE, cULus, EAC
Material sensing surface	Stainless steel 1.4404, coated	Stainless steel 1.4404	Stainless steel 1.4404
Housing material	Stainless steel 1.4404, coated	Stainless steel 1.4404	Stainless steel 1.4404
Connection	M12 male, 3-pin	M12 male, 3-pin	M12 male, 3-pin

CONNECTORS




	BCC0EM1	BCC0EUC	BCC0EFY	BCC0EFZ
Cable	Silicone welding spark resistant black, 2.00 m	Silicone welding spark resistant black, 2.00 m	Silicone welding spark resistant black, 2.00 m	Silicone welding spark resistant black, 2.00 m
Connection 1	M12 female, straight, 5-pole, A-coded	M12 female, angled, 5-pole, A-coded	M12 female, straight, 5-pole, A-coded	M12 female, angled, 5-pole, A-coded
Connection 2	M12 male, straight, 4-pole, A-coded	M12 male, straight, 4-pole, A-coded		

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