

## Inductive flatpack sensors with Fortron sensing face

# RUGGED PART DETECTION FOR EXTREME WELDING APPLICATIONS

In welding applications, customers need to install sensors to error-proof and confirm part position with proper part nesting. These harsh and demanding applications, which are hostile and hot with ever-changing tolerances within the product, create major obstacles for sensors. Easily damaged sensors due to cable burn through, excessive weld spatter and impact damage result in machine downtime and lost productivity.

Balluff's new flatpack inductive sensors with polyphenylene sulfide (Fortron) reinforced sensing faces are ideal for these application issues. Thanks to the use of Fortron in the sensing face, these new offerings provide thermal stability and are resistant to weld spatter and impact. They include a high durability, full silicone cable with LEDs to combat extreme heat and burn through. With these key features, the new inductive flatpacks are problem solvers that increase machine uptime.

### Product Benefits

- Fortron PPS sensor face resists weld spatter burn through
- Die-cast zinc housing combats adhesion of weld spatter
- High-temp silicone cable jacket protects conductors from weld-spatter burn through
- LED in the connector eliminates typical LED burn through on sensor housing
- Weld-field immune (WFI) option for stable operation near electrical welding currents



IND. CONT. EQ  
81U2  
Class 2 Type 1



## INDUCTIVE FLAT-PACK SENSORS WITH FORTRON SENSING FACE



	BES05EP	BES05K5
Dimension	32 x 20 x 8 mm	32 x 20 x 8 mm
Range	7 mm	5 mm
Switching output	PNP Normally open (NO)	PNP Normally open (NO)
Switching frequency	150 Hz	100 Hz
Housing material	Die-cast zinc	Die-cast zinc
Material sensing surface	Fortron 6165 A6	Fortron 6165 A6
Connection	Cable with connector, M12 male, 3-pole, 0.30 m, silicone	Cable with connector, M12 male, 3-pole, 0.30 m, silicone
Operating voltage $U_b$	10...30 VDC	10...30 VDC
Ambient temperature	-25...70 °C	-25...70 °C
Magnetic field immune		Magnetic field immune (AC/DC)
IP rating	IP67	IP67
Approval/Conformity	CE, cULus, EAC	CE, cULus, EAC

## ACCESSORIES



	BAM00NK	BAM00NL
Description	Mounting bracket for bunker protection	Mounting bracket for mounting protection
Material	Aluminum	Aluminum

## CONNECTORS



1 M			BCC0ELZ
2 M			BCC0EM1
5 M	BCC0EUZ	BCC0EW1	BCC0EUW
Connector 1	M12 female, straight, 5-pole	M12 female, angled, 5-pole	M12 female, straight, 5-pole
Connector 2			M12 male, straight, 4-pole
Cable	Silicone welding spark resistant black	Silicone welding spark resistant black	Silicone welding spark resistant black

## SERVICES

Service – You can rely on our support over the entire life cycle of our products and solutions: Including the design and planning of your projects, testing and setup on site, and training and support. For more information, visit us online at [www.balluff.com/services](http://www.balluff.com/services)