

Inductive high temperature sensors

WITHSTAND EXTREME HEAT IN MULTIPLE ENVIRONMENTS

Standard inductive proximity sensors are not suitable in hot metal stamping, glass manufacturing, steel and aluminum manufacturing, steel forging, steam-curing, or other high-temperature environments.

Balluff offers solutions with a family of high-temperature proximity sensors rated to provide reliable, non-contact object detection in ambient temperatures up to 230 °C / 446 °F.

This heat-fighting sensor lineup is better equipped to combat heat-related malfunctioning and failure than standard proxies, where temperature ratings typically do not exceed 70 °C / 158 °F.

In order to withstand extreme temperatures, the face of each sensor is composed of a heat-resistant LCP (liquid crystal polymer) material. The head of

the sensor contains only the non-electronic passive components of the device, which are less susceptible to heat.

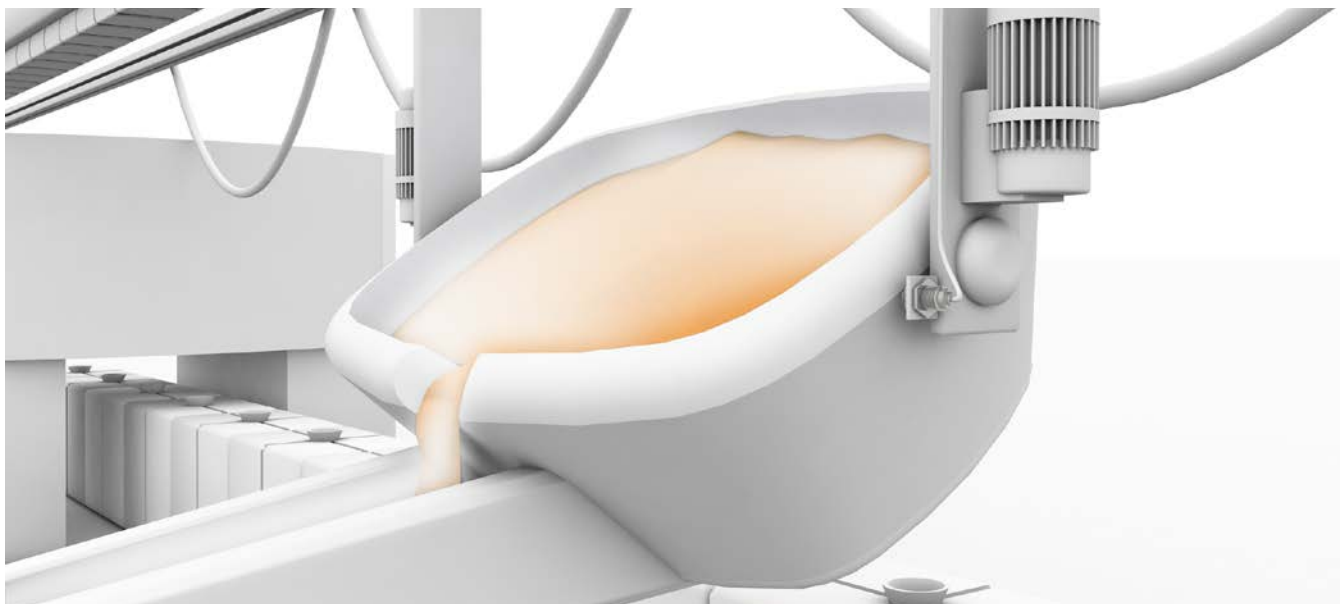
The electronic amplifier (rated to 70 °C / 158 °F) is molded into the M12 connector at the end of the cable and does not require separate mounting. The cable length of 5 m / 16 ft. allows placement of the amplifier well away from the process, outside the high-temperature zone. The cable jacket and insulation, made from heat-resistant PTFE, is specified to withstand the full-rated temperature of the sensor head.

Available in M18 and M30 tubular housings with integrated 5 m amplifier-connector cable, and in block styles with detachable 10 m / 33 ft. amplifier-connector cable (order separately).

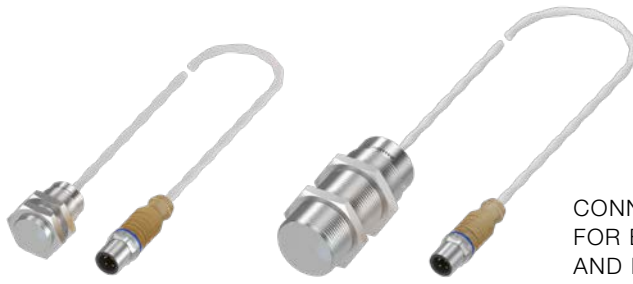
Key Features

- Ideal for high ambient temperatures up to 230 °C/446 °F
- Sensor face composed of high-temperature LCP
- Extended 5 m / 16 ft. amplifier-connector cable keeps electronic components at a safe distance from hot process areas
- Cables composed of heat-resistant PTFE
- M18 and M30 and multiple block-style housings available
- Standardized M12 connection for simple installation and replacement

CE EAC



INDUCTIVE
HIGH TEMPERATURE
SENSORS



CONNECTIVITY
FOR BES05N4
AND BES05N5



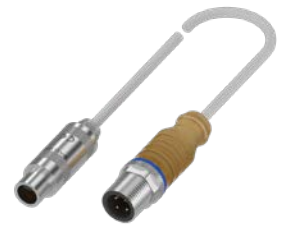
	BES05N4	BES05N5
Size	M18 × 1	M30 × 1.5
Dimension	Ø 18 × 35 mm	Ø 30 × 74 mm
Installation	for flush mounting	for flush mounting
Switching output	PNP normally open	PNP normally open
Rated operating distance	5 mm	10 mm
Operating voltage	10...30 V DC	10...30 V DC
Ambient temperature	Sensor head: 0...+230 °C M12 connector: -20...+70 °C	Sensor head: 0...+230 °C M12 connector: -20...+70 °C
IP rating	IP50	IP50
Approval/conformity	CE, EAC	CE, EAC
Material sensing surface	LPC	LPC
Housing material	Stainless steel	Stainless steel
Connection	5 m PTFE cable with M12 male, 4-pole	5 m PTFE cable with M12 male, 4-pole

	BCC0K7T
Connector	M12 female, straight, 5-pole
Cable	5 m TPE-O cable, electron beam cross-linked
Ambient temperature	Fixed routing: -55...+155 °C Flexible routing: -40...+155 °C
IP rating	IP68

INDUCTIVE
HIGH TEMPERATURE
SENSOR



CONNECTIVITY
FOR BES05N6



	BES05N6
Size	40 × 40 mm
Dimension	40 × 40 × 66.6 mm
Installation	for non-flush mounting
Switching output	PNP normally open (with BCC0K74)
Rated operating distance	20 mm
Operating voltage	10...30 V DC
Ambient temperature	Sensor head: 0...+230 °C
IP rating	IP50
Approval/conformity	CE, EAC
Material sensing surface	LPC
Housing material	Stainless steel
Connection	LEMO connector, 2-pole

	BCC0K74
Connector	M12 male, straight, 4-pole
Cable	10 m PTFE cable
Ambient temperature	Sensor connector: 0...+230 °C M12 connector: -20...+70 °C
IP rating	IP50