

Inductive couplers for discrete sensors

QUICKLY CONNECT UP TO EIGHT SENSORS WITHOUT PHYSICAL CONTACT

When quick or frequent wiring changes need to be made, inductive couplers can provide a fast and error-free way to connect multiple discrete PNP sensors. Balluff offers two versions to meet your specific application needs. The version in an M18 cylindrical housing can connect to up to four sensors, while the version in a Q40 cuboid housing can connect up to eight sensors. These IP67-rated couplers transmit power and signals across a small air gap.

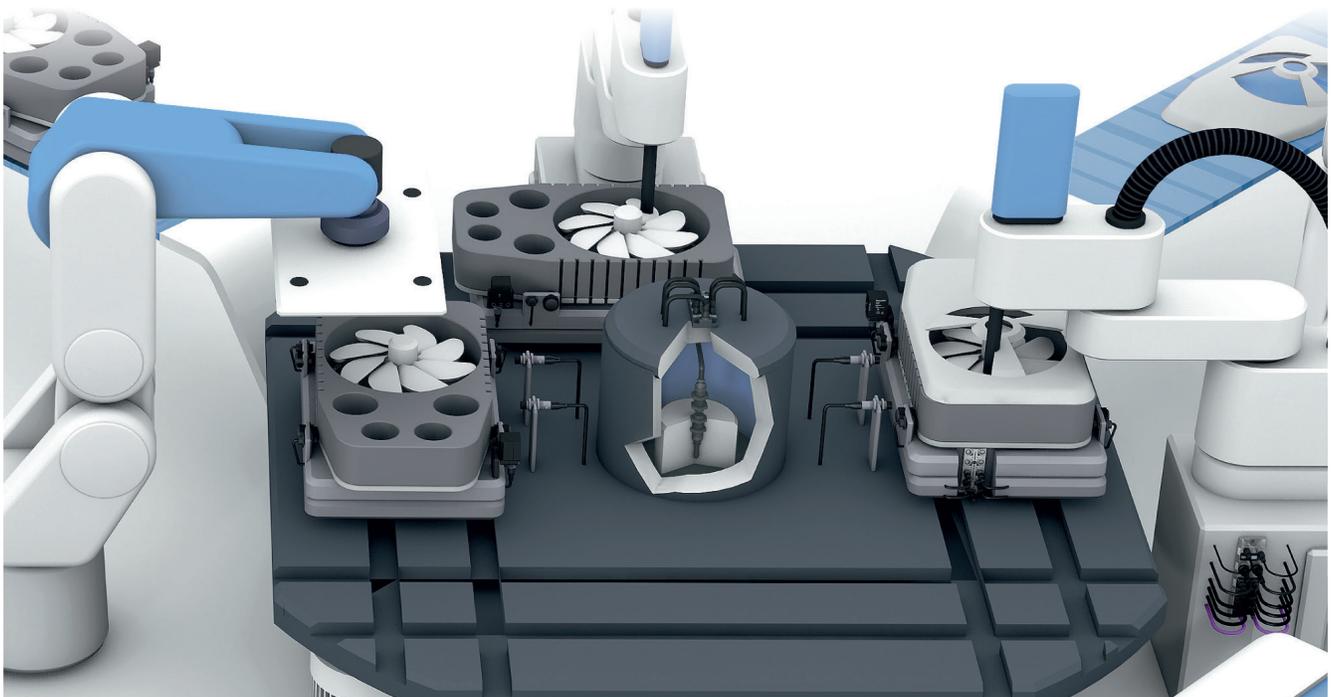
An inductive coil in the base and remote units sends and receives the magnetic signals. A single base unit can be used with multiple remote units, so you can create several wiring setups on the remote-unit side and interchange them as needed. Balluff's passive junction boxes make this wiring a simple task. To connect to the base unit, simply place the base in front of the remote. Perfect alignment isn't necessary, and their orientation can be changed. They begin communicating once they are in close

proximity, at which point LEDs on the base and remote will switch on to indicate that a connection is active. Magnetic mounts for the Q40 models protect the couplers and keep them aligned and at the optimal distance.

This is a smart retrofit to replace electro-mechanical or hardwired connections on existing machines. A slip ring or rotary connector will eventually wear out, but an inductive coupler avoids mechanical failure, since the base and remote don't come in contact. Changing a die or mold often requires disconnecting and reconnecting cables, where it's easy to bend a pin in the connector or put other stresses on the connector, eventually causing it to fail. With inductive couplers, you mount the remote coupler at the same position on each die or mold, and then swap as needed. Give your machines a productivity boost by changing out wired connectors for non-contact ones.

Features

- Two form factors
- 18 mm cylindrical (M18) unit for up to four sensors
- 40 mm cuboid (Q40) unit for up to eight sensors
- IP67 protection for harsh environments
- Internal temperature monitoring
- LEDs visualize operating status on base and remote



INDUCTIVE COUPLERS
FOR SIGNAL
TRANSMISSION



	BIC007T	BIC007U	BIC007J	BIC007K
Function	Signal transmission	Signal transmission	Signal transmission	Signal transmission
Signal type	Unidirectional	Unidirectional	Unidirectional	Unidirectional
Digital outputs	4 x PNP	4 x PNP	8x PNP	8x PNP
Transmission distance	1...3 mm	1...3 mm	0...5 mm	0...5 mm
Component	Base	Remote	Base	Remote
Connection	Cable, 5.00 m, PUR	Cable, 5.00 m, PUR	Connector, M12x1, 12-pin, 0.20 m, PUR	Connector, M12x1, 12-pin, 0.20 m, PUR
Rated operating voltage	24 V DC	24 V DC	24 V DC	
Output voltage		24 VDC		24 V DC
Rated output current		100 mA	500 mA	500 mA
Housing material	Nickel-plated brass	Nickel-plated brass	PBTP	PBTP
Dimension	M18 x 94 mm	M18 x 61 mm	40 x 40 x 52 mm	40 x 40 x 52 mm
Ambient temperature	0...+50 °C	0...+50 °C	-5...+65 °C	-5...+65 °C
IP rating	IP67	IP67	IP67	IP67

ACCESSORIES



	BAM0334	BAM0335	BAM0219	BAM00EY
Version	Magnetic holder	Magnetic holder	Mounting cuff	Mounting bracket
Use	For Q40 inductive coupler base	For Q40 inductive coupler remote	For M18 sensors	For M18 sensors
Material	POM	POM	Aluminum Anodized	Aluminum
Dimension	73.25 x 66.5 x 62 mm	73.25 x 66.5 x 62 mm	12 x 26 x 36 mm	30 x 40 x 40 mm

JUNCTION BLOCK



	BPI00HJ	BPI00HE	BPI008T	BPI008Y
Connection ports	8 x M8x1-Female, 3-pin	4 x M8x1-Female, 3-pin	4 x M12x1-Female, 5-pin 4 x M12x1-Female, 5-pin, A-coded	4x M12x1-Female, 5-pin, A-coded
Connection (COM 1)	M12x1-Male, 12-pin	M12x1-Male, 12-pin	M23x1-Male, 19-pin	M23x1-Male, 19-pin
Operating voltage U_b	10...30 VDC/10...30 VAC	10...30 VDC/10...30 VAC	10...30 VDC	10...30 VDC
Output current max.	1.5 A	1.5 A	4 A	4 A
Total current max.	1.5 A	1.5 A	8 A	8 A
Ambient temperature	-25...+80 °C	-25...+80 °C	-25...+80 °C	-25...+80 °C
IP rating	IP67	IP67	IP67	IP67