

Inductive Couplers for Reliable Energy Transmission

TRANSMIT POWER WITHOUT CONTACT ACROSS AN AIR GAP

Our inductive couplers are an optimal choice for noncontact, high-power transmission applications. The inductive coupler system transmits high-level electrical power, up to 120 W, 5 A at 24 VDC, from the base unit to a remote unit across an air gap.

The inductive couplers are an ideal method to replace mechanical slip rings, which have mechanical components that require ongoing maintenance. No maintenance is required when using noncontact coupling.

Additional uses are found in battery charging stations for automated guided vehicles (AGV), automated tool changers and robotic end effectors with high power requirements. With pin-based coupling, pins can break,

oxidate, and are susceptible to dust and water. With magnetic induction for power transmission there is nothing to plug in or connect. The remote coupler only needs to be in proximity to the base's magnetic field.

Additionally, these couplers provide flexibility in aligning the base and remote surfaces. LEDs on the base side of the coupler provide operating status visualizations indicating power, in/out of zone, connection established, and an overload or short circuit condition.

The IP67-rating provides protection from oil and water, while internal temperature monitoring protects them from overheating.

Features

- High-level power transfer — up to 5 A at 24 VDC
- No mechanical wear, completely maintenance-free
- IP67-rated protection for harsh environments
- LED visualization of operating status
- Internal temperature monitoring



INDUCTIVE COUPLERS FOR POWER SUPPLY



	BIC0073	BIC0074	BIC0075	BIC0076
Function	Power only	Power only	Power only	Power only
Transmission distance	0...4 mm	0...4 mm	0...4 mm	0...4 mm
Component	Base	Remote	Base	Remote
Connection	Connector, 7/8", 5-pole	Connector, 7/8", 5-pole	Connector, 7/8", 4-pole	Connector, 7/8", 4-pole
Operating voltage	24 V DC	24 V DC	24 V DC	24 V DC
Output current		5 A		5 A
Housing material	Aluminum, black anodized	Aluminum, black anodized	Aluminum, black anodized	Aluminum, black anodized
Dimension	120 × 45 × 120 mm			
Ambient temperature	-10...50 °C	-10...50 °C	-10...50 °C	-10...50 °C
IP rating	IP67	IP67	IP67	IP67

CONNECTIVITY



	BCC06HE	BCC06FN	BCC0A8E	BCC0A8T
Connection 1	7/8" female, straight, 5-pole	7/8" female, straight, 5-pole	7/8" female, straight, 4-pole	7/8" female, straight, 4-pole
Connection 2		7/8" male, straight, 5-pole		7/8" male, straight, 4-pole
Cable	PUR, 2.00 m	PUR, 2.00 m	TPE, 2.00 m	TPE, 2.00 m