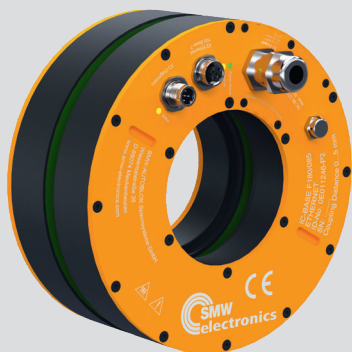


F180 Ethernet

Axial coupler

Inductive Coupling System

■ Contact free transmission of energy and signals



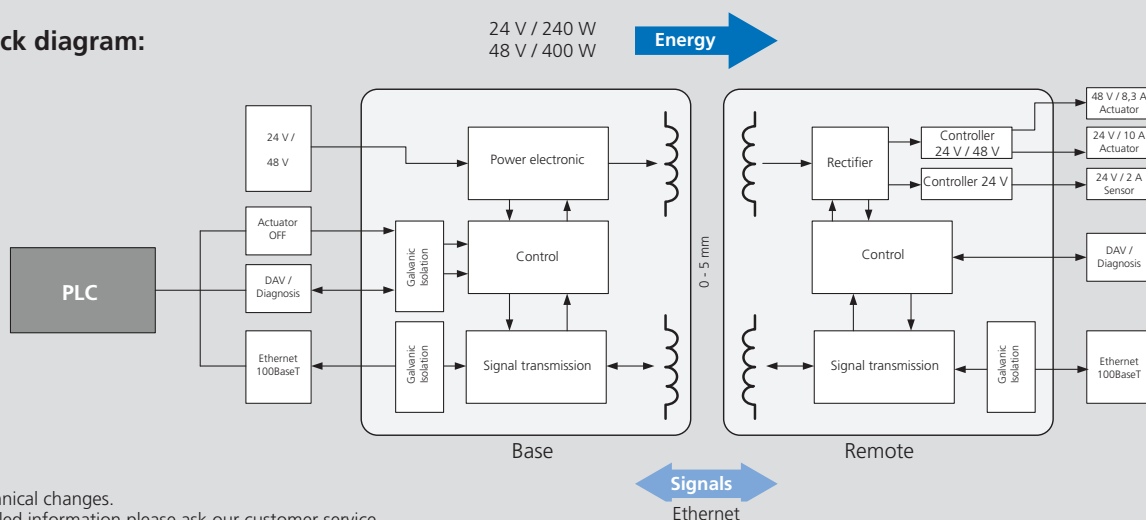
Application/customer benefits

- Contact free, safe transmission of energy and signals between moving / rotating and stationary components
- Application examples: Packaging machines, special machines, Automation, Machine Tools, Printing Machines, Robot applications (EOAT)
- Substitution of slip ring / connector
- Dynamic Pairing
- Wear and maintenance free
- Protective functions: temperature monitoring, foreign object detection
- Multi-level LED with good visibility

Technical features

- Diameter: 180 mm / Through hole: 85 mm
- Operating voltage: 24 V or 48 V
- Transmission distance: 0 - 5 mm at 24 V or 0 - 3 mm at 48 V
- Energy transmission: 24 V / 240 W or 48 V / 400 W (settable)
- Signal transmission: Ethernet 100 Base-T
- Transmission bandwidth < 5 MBit/s
- Connections: M12 Ethernet (D-coded), M12 Diagnosis (A-coded), terminal block (Energy)
- Protection class: IP 67

Block diagram:



Subject to technical changes.
For more detailed information please ask our customer service.

Inductive coupling system F180 Ethernet

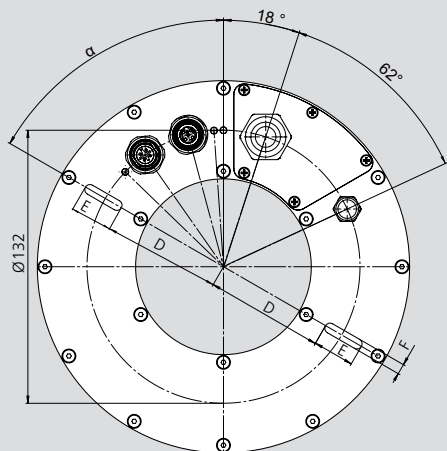
SMW-electronics Type	Base	Remote
Id. No.	0E011246	0E011247
Operating temperature (body surface)	-20° C ... +60° C	
Stocking temperature	-20° C ... +60° C	
Transmission distance	0 mm ... 5 mm (24 V) 0 mm ... 3 mm (48 V)	
Operating voltage	24 V / 48 V	-
Output voltage (Actuator supply)*	-	24 V DC / 10 A 48 V DC / 8,3 A
Output voltage (Sensor supply)*	-	24 V DC / 4 A
Signal transmission	Ethernet 100 Base-T	
LED function display	3 LEDs 2-color	
Current consumption (base)	15 A (24 V) 12 A (48 V)	-
Overload protection / short-circuit protection	✓	✓
Reverse polarity protection	-	< 50 mV
Data valid output	max. 100 mA	-
Ready delay	< 1 s	

*max 400 W total

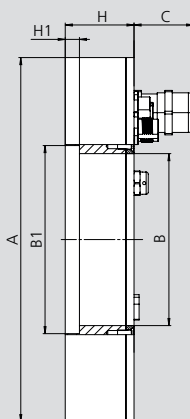
- Stationary Unit - Base
- Mobile Unit - Remote

Axial coupler

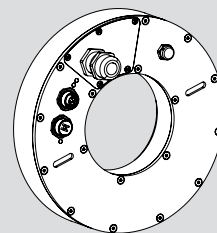
Base / Remote:



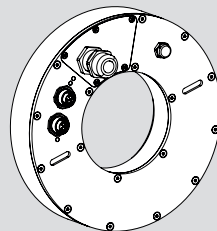
Base / Remote:



Base:



Remote:



Subject to technical changes.
For more detailed information please ask our customer service.

Inductive coupling system F180 Ethernet

SMW-electronics Type		Base	Remote
Id. No.		0E011246	0E011247
A	mm	180	
B	mm	85	
B1	mm	93	
C	mm	29.5	
D	mm	57	
E	mm	20	
F	mm	5	
H	mm	34	
H1	mm	7	
α	degree	60	
Housing material		Al, GFK	
Protection class		IP 67	

Function Base		Function Remote	
LED Power		LED Actuator	
Color	Green/red	Color	Green/red
	Off » Unit not supplied with voltage (or undervoltage)		Off » Unit not paired
	On (green) » Voltage ok and mobile unit has been detected		On (green) » Unit paired, voltage output actuator ok
	2 Hz green 50/ 50% » Operating temperature in critical range		Flashes 2 Hz red » Unit paired but short circuit on actuator
	1 Hz green 25/75% » Voltage ok but no mobile unit detected		Flashes 5 Hz red » Internal error
	1 Hz red/green » Incompatible mobile unit detected		
	2 Hz red » Foreign element detected		
	5 Hz red » Internal error		
LED Signal transmission Ethernet		LED Sensor supply	
Color	Yellow/red	Color	Green/red
	Off » No mobile unit detected		Off » Unit not paired
	On/yellow » Signal transmission ready		On (green) » Unit paired, voltage output sensor (24 V) ok
	1 Hz yellow » Data packets are being transmitted		Flashes 2 Hz red » Unit paired but short circuit on sensor (24 V)
	3 Hz yellow » 50% of the transmission bandwidth used (10 s)		Flashes 5 Hz red » Internal error
	8 Hz red » Data packets were discarded (in the last 10 s)		
	On/red » Error in data transmission (internal error)		
LED Energy transmission		LED Signal transmission	
Color	Yellow/red	Color	Yellow/red
	Off » No mobile unit detected		Off » No mobile unit detected
	On (yellow) » Unit coupled, voltage output ok		On/yellow » Signal transmission ready
	1 Hz red/yellow » Short circuit at voltage output sensor		Flashes 1 Hz yellow » Data packets are being transmitted
	3 Hz red/yellow » Short circuit at voltage output actuator		Flashes 3 Hz yellow » 50% of the transmission bandwidth used (10 s)
	3 Hz red » Short circuit at both voltage outputs		Flashes 8 Hz red » Data packets were discarded (in the last 10 s)
	5 Hz red » Internal error		On/red » Error in data transmission (internal error)