



— Inductive Couplers



— Sensoric



— Measuring Systems



— Connectivity



— RFID

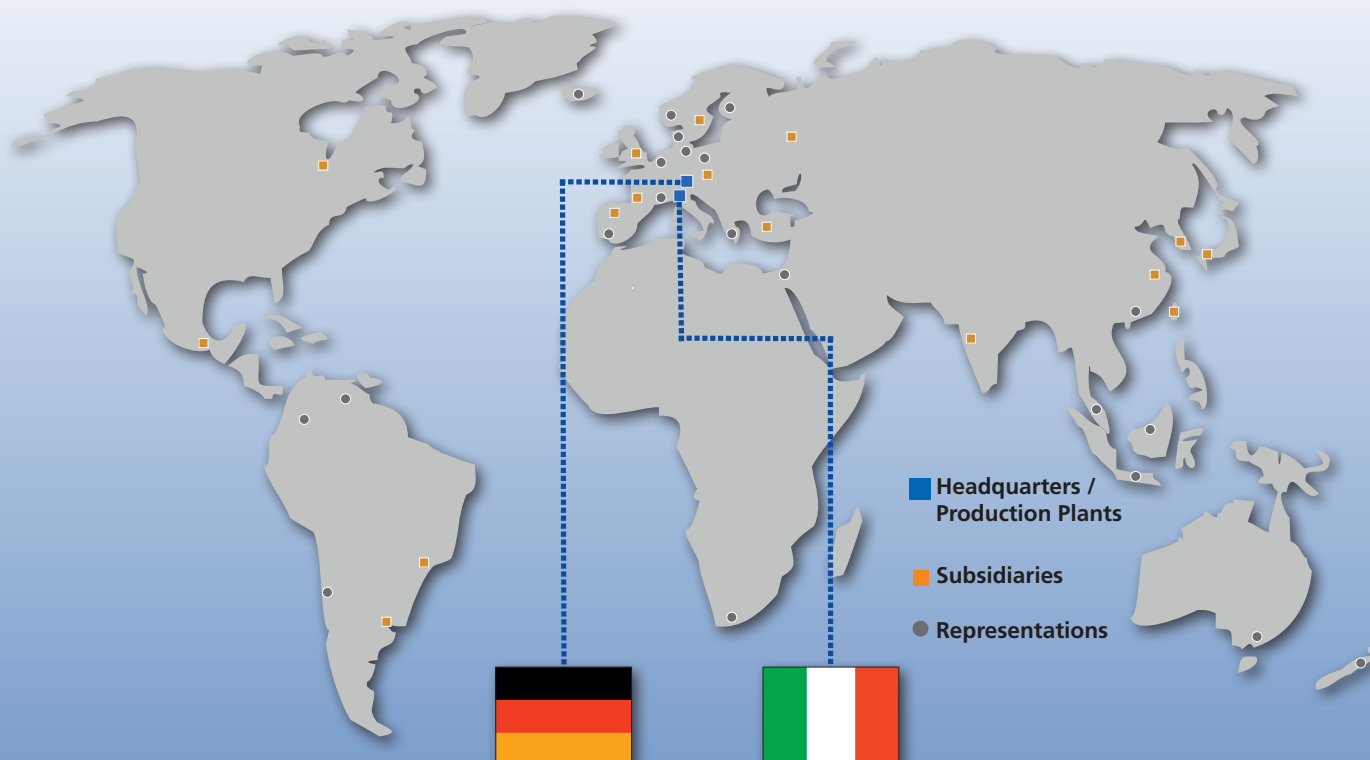


— Digital Products



— R+D Service

SMW-AUTOBLOK worldwide



SMW-AUTOBLOK manufacturing plant Meckenbeuren
Development | Manufacturing | Sales | Service | Support



SMW-electronics Meckenbeuren



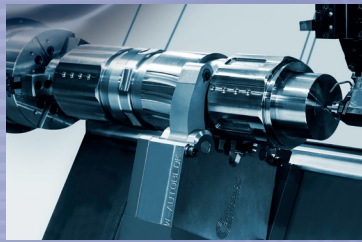
SMW-AUTOBLOK technology and logistics center Meckenbeuren

Visit our website: www.smw-electronics.com

Market segments



Automotive



Industrial Equipment



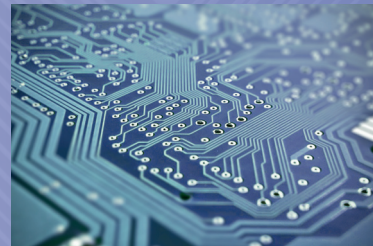
OCTG



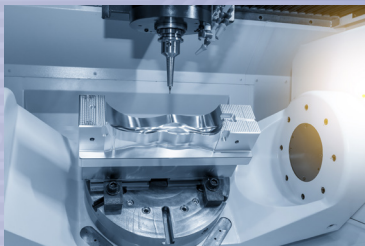
Aerospace



Off Highway



Electronics



Mold Industry



Plastics



**Automation
and Handling**



**Mining Industry
Cranes**



Robots / Cobots



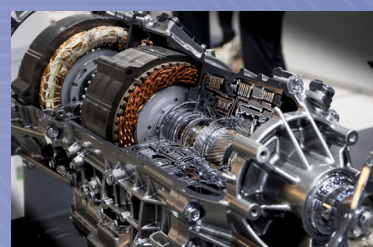
Medical Technology



Intralogistics

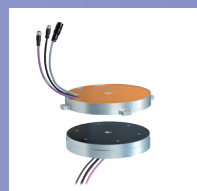


Packaging Industry



Powertrain

Product range



Page 10

Inductive coupler F280

Axial coupler

- Contact free transmission of energy and signals
- Transmission of energy up to 1100W (40A)
- Transmission of signals 2 x CAN-Bus, 2 x digital
- Diameter 280 mm



Page 24

Inductive coupler M18-4

Axial coupler

- Contact free transmission of energy and signals
- Transmission of energy up to 1.2W
- Transmission of signals 4 x digital
- Mounting M18 x 1



Page 12

Inductive coupler F180 Ethernet

Axial coupler

- Contact free transmission of energy and signals
- High transmission of energy up to 400W
- Transmission of signals Ethernet 100 Base-T
- Diameter 180 mm / through-hole 85 mm



Page 26

Inductive coupler M30-2

Axial coupler

- Contact free transmission of energy and signals
- Transmission of energy up to 18W
- Transmission of data 8 x digital
- Mounting M30 x 1.5



Page 14

Inductive coupler F180 Ethernet CAN

Axial coupler

- Contact free transmission of energy and signals
- High transmission of energy up to 400W
- Transmission of signals Ethernet 100 Base-T and CAN-Bus
- Diameter 180 mm / through-hole 85 mm



Page 28

Inductive coupler M30-8

Axial coupler

- Contact free transmission of energy and signals
- Transmission of energy up to 18W
- Transmission of data 8 x digital
- Mounting M30 x 1.5



Page 16

Inductive coupler Gamma M

Axial coupler

- Contact free transmission of energy and signals
- Transmission of energy up to 2.5W
- Transmission of signals (4 x digital, 4 x analog 0 - 10V)
- Base with mounting flange
- Diameter 60 mm / through-hole 36 mm



Page 30

Inductive coupler M30-IOL

Axial coupler

- Contact free transmission of energy and signals
- Transmission of energy up to 12W
- IO-Link interface COM1 / COM2 / COM3 transparent
- Mounting M30 x 1.5



Page 18

Inductive coupler Gamma S

Axial coupler

- Contact free transmission of energy and signals
- Transmission of energy up to 2.5W
- Transmission of signals (4 x digital, 4 x analog 0 - 10V)
- Diameter 60 mm / through-hole 36 mm



Page 32

Inductive coupler Beta M30

Axial coupler

- Contact free transmission of energy and signals
- Transmission of energy up to 6W
- Transmission of signals 4 x analog (4 - 20mA / 0 - 10V)
- Mounting M30 x 1.5



Page 20

Inductive coupler F120

Axial coupler

- Contact free radial transmission of energy
- Transmission of energy 120W



Page 34

Inductive coupler Gamma Duplex

Axial coupler

- Contact free transmission of energy and signals
- Transmission of energy up to 12W
- Transmission of signals 8 / 8 x digital (bidirectional)
- Mounting M30 x 1.5

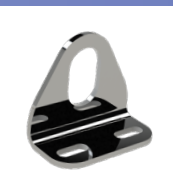


Page 22

Inductive coupler M12-2

Axial coupler

- Contact free transmission of energy and signals
- Transmission of energy up to 1W
- Transmission of signals 2 x digital
- Mounting M12 x 1



Page 36

Mounting brackets

Accessories

- Mounting brackets for inductive couplers M30, M18 und M12

Continuation
on the next page

Product range



Page 37

Inductive coupler

Individual solutions

- Individual customized adaptations
- Customizable geometry
- Energy and signal transmission depending on customer requirements



Page 38

HRU

Hybrid rotary union digital

- For energy and data
- For 1 Medium
- For 2 Media



Page 40

LPS 4.0 14 IO

Linear Positioning System

- Inductive positioning system
- Output analog and IO-Link interface
- Measuring range = 14 mm



Page 41

LPS 4.0 48 IO

Linear Positioning System

- Inductive positioning system
- Output analog and IO-Link interface
- Measuring range = 48 mm



Page 42

LPS 4.0 80 IO

Linear Positioning System

- Inductive positioning system
- Output analog and IO-Link interface
- Measuring range = 80 mm



Page 43

LPS 4.0 120 IO

Linear Positioning System

- Inductive positioning system
- Output analog and IO-Link interface
- Measuring range = 120 mm



Page 44

Measuring Systems

GFT-X 4.0

- Wireless grip force measuring
- Assistance systems APPs
- Tablet IP 67 protected
- Integrated software for clamping force / speed evaluation



Page 48

Digital Products

- App programming
- Cloud solutions
- PNP programming
- Monitoring and analysis software
- Software for mechatronic clamping systems



Page 50

Connectivity

Accessories

- IO-Link Hub 16 x digital IN/OUT
- IO-Link Hub 16 x digital IN
- Connecting cable sensors / actuators



Page 56

RFID

Accessories

- Write / read station
- Transponder ISO 15693



Page 58

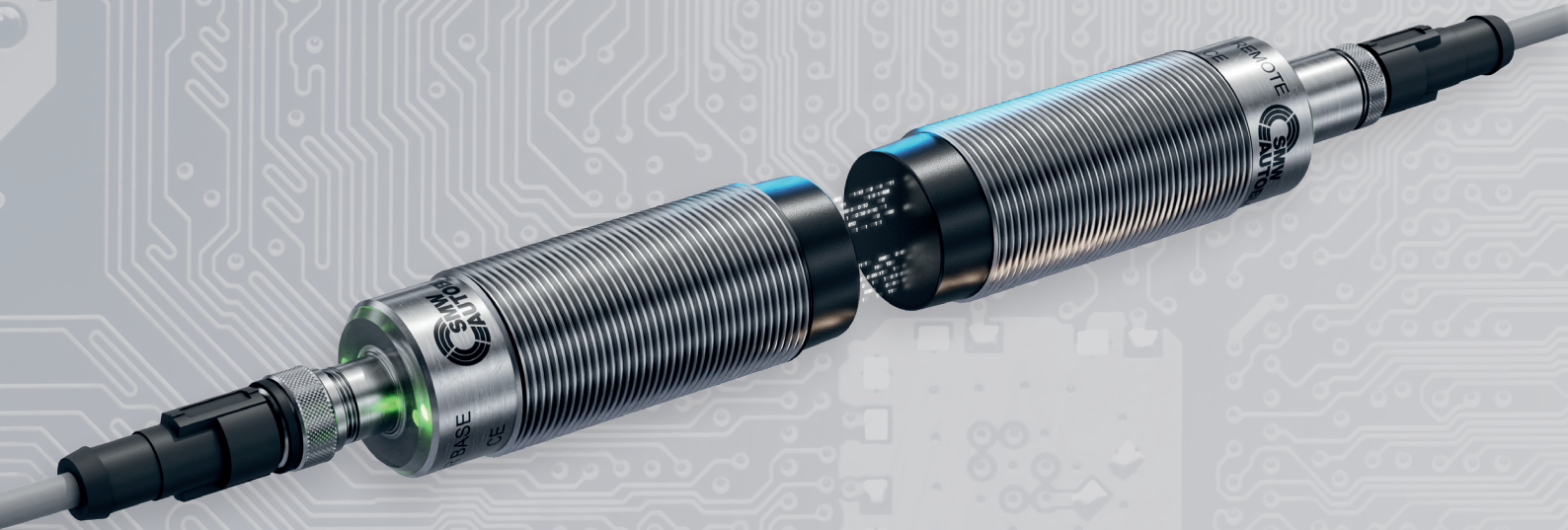
Application Examples

- Inductive coupling systems
- LPS 4.0

Continuation from
previous page

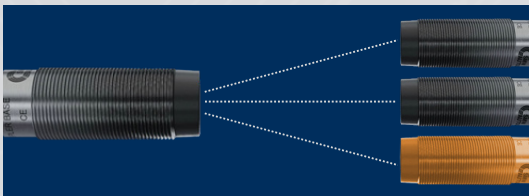
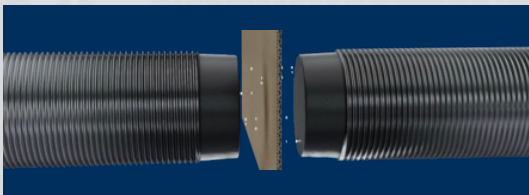
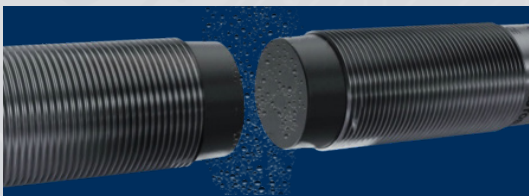
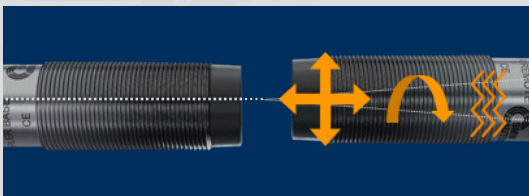
Inductive transmission of energy and signals

Wireless transmission of energy and signals via air gap



Benefits

Inductive transmission of energy and signals

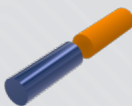





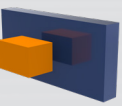



- Flexible installation due to the large transmission distance
- Safe transmission even when the mobile element rotates
- Also suitable for high speeds
- Insensitive to vibrations
- No cable break
- Safe transmission of data
- Completely free from wear and maintenance
- Can be used in rough conditions and also for pure room applications
- Protected according to IP67
- Safe transmission even through non-metallic obstacles
- Dynamic Pairing: Base unit (stationary) can communicate with different remote units (mobile)

Technical possibilities of energy and signal transmission

- **Energy transfer inductive**
 - Up to 1100W
- **Signal transfer inductive**
 - Analog signals (0 - 10V / 4 - 20mA)
 - Temperature signals (PT100)
 - Digital switching PNP signals
 - Field bus (CAN or Profibus)
 - IO-Link
 - Ethernet
- **Hybrid systems**
 - Energy transfer via friction ring / contact pins
 - Inductive signal transmission

Examples of geometric design for inductive energy and signal transmission

							
Transmission	Axial	Axial	Axial	Axial	Radial	Radial	Translational
Motion	Rotation / Linear	Rotation	Rotation	Rotation	Rotation	Rotation	Linear
Geometry	Cylinder (also cubic)	Disc	Ring	Ring segment / Ring	Segment / Ring	Ring / Ring	Cubic
Application examples	Palletizing, automation, mechanical engineering, tool monitoring, connector replacement	Mechanical engineering, mechatronics, collector ring replacement	Printing machines, robotics, collector ring replacement	Mechanical engineering, process technology	Packaging machines, centrifuges, process technology	Rotary indexing tables, packaging machines	Transport systems

 **Blue:** Stationary unit (base)

 **Orange:** Mobile unit (remote)

Inductive coupler F280

Axial coupler

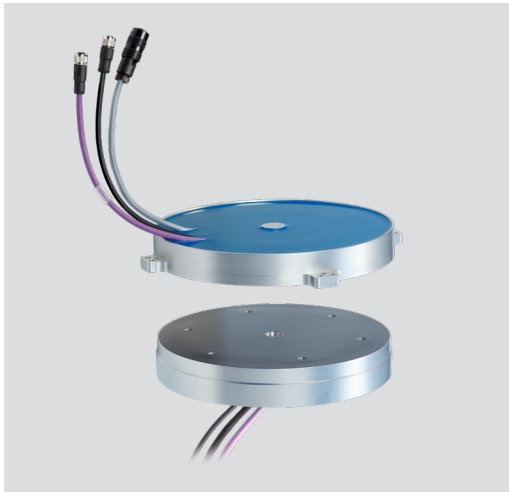
Contact free transmission of energy and signals

Application/customer benefits

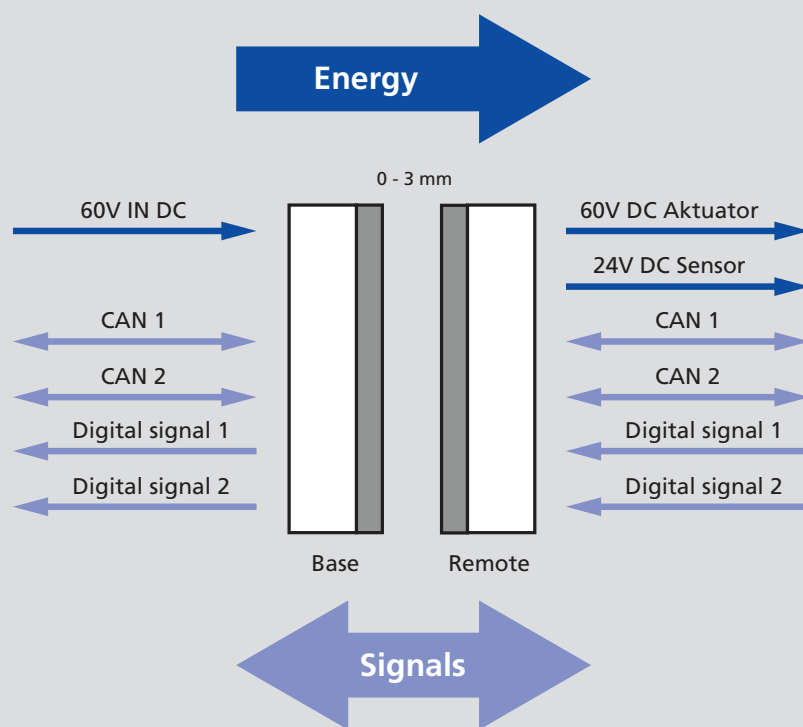
- Contact free transmission of energy and signals between rotating and stationary components
- Connection from mechatronic clamping systems (MM / RT e-motion line) within machine tools, slip ring replacement
- Dynamic Pairing
- Free from wear and maintenance

Technical features

- Supply voltage $60V \pm 10\%$
- Power transmission: 60V / 1100W (18A) actuators, 24V (2A) sensors
- Signal transmission: Bus system 2x CAN BUS
- Signal transmission: Digital 2 x 24V switching signal remote to base
- Diameter 280 mm
- Transmission distance 0 - 3 mm
- Inverse-polarity protection (base), short-circuit proof (remote)
- Protection class: IP 67
- Id. No. Base: 208004
- Id. No. Remote: 208005



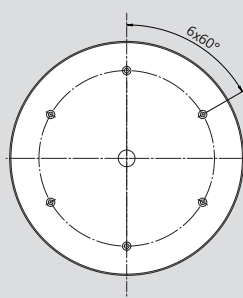
Block diagram:



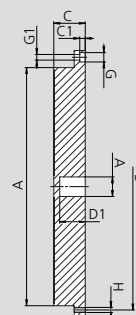
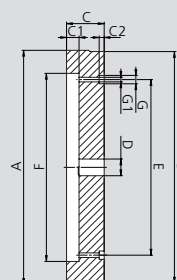
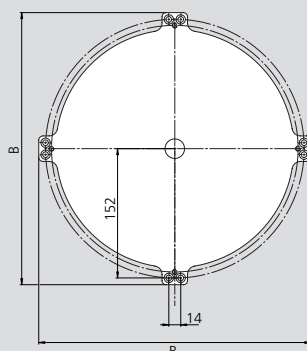
Subject to technical changes.
For more detailed information please ask our customer service.

- Stationary unit - Base
- Mobile unit - Remote

Base:



Remote:



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

Inductive coupler F280

SMW-electronics Type		Base	Remote
Id. No.		208004	208005
A	mm	280	280
B	mm	277	320
C	mm	45	37
C1	mm	15	6.4
C2	mm	6	-
D	mm	20	23
D1	mm	-	30
E	mm	210	290
F	mm	225	-
G	mm	10	11
G1	mm	5.5	6.6
H	mm	-	M6
Weight		4.6 kg	4.1 kg
Housing material		Aluminium, PA12	Aluminium, PA12
Protection class		IP 67	IP 67
Operating temperature		-10°C ... +50°C	-10°C ... +50°C
Storage temperature		-25° ... +70°C	-25° ... +70°C
Coupling distance		0 mm ... 3 mm	0 mm ... 3 mm
Operating voltage		60V DC	-
Output voltage actuator		-	60V DC
Output voltage sensor		-	24V DC
Power consumption (Base)		< 0.3A	-
Power output (Remote)		-	Max. 18A Aktuator (60V) / max. 2A Sensor (24V)
Overload protection / short circuit protection		✓	✓
Residual ripple		-	< 5V
Reverse polarity protection		✓	-
Operational readiness		< 800 ms	< 800 ms

Inductive coupler F180 Ethernet

Axial coupler

Contact free transmission of energy and signals



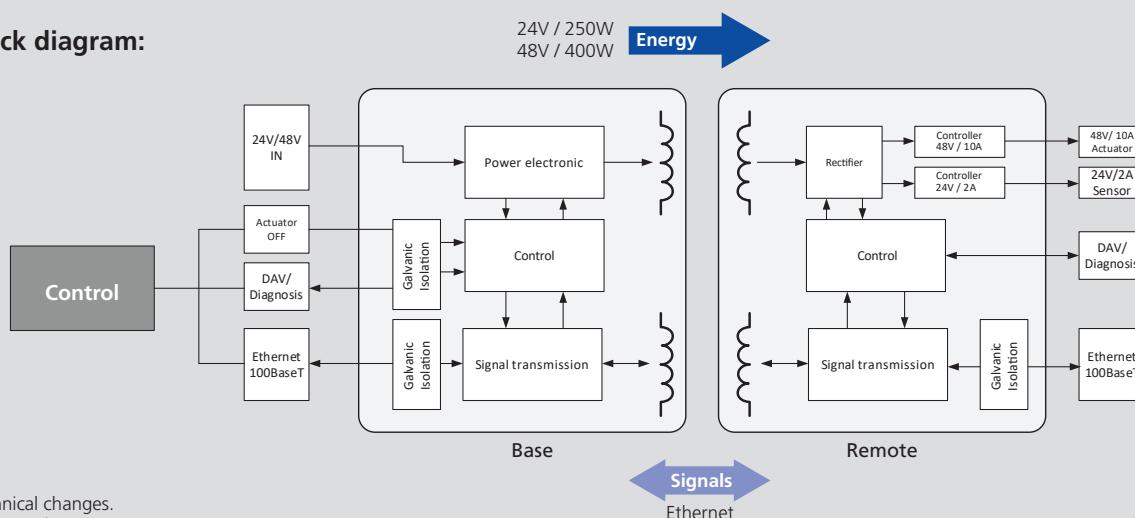
Application/customer benefits

- 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
- Substitution of slip ring / connector
- Dynamic Pairing
- Wear and maintenance free
- Protective functions: temperature monitoring, foreign object detection, reverse polarity protection
- Multi-level LED with good visibility

Technical features

- Diameter 180 mm / Inner diameter 85 mm
- Supply voltage 24V / 48V
- Transmission distance 0 - 20 mm
- Transmission of energy 24V / 250W or 48V / 400W (selectable)
- Transmission of signals Ethernet 100 Base-T
- Transmission bandwidth Ethernet < 100 MBit
- Protection class: IP 67

Block diagram:



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

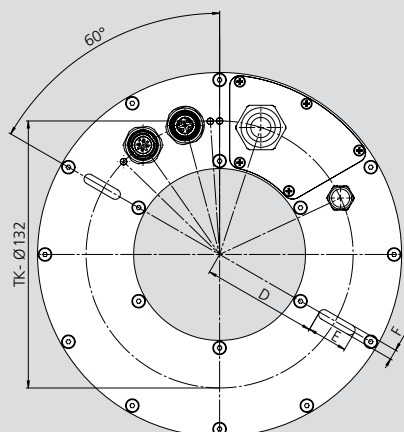
Inductive coupler F180 Ethernet

SMW-electronics Type	Base	Remote
Id. No.	0E011246	0E011247
Operating temperature (body surface)	-20°C ... +60°C	-20°C ... +60°C
Stocking temperature	-20°C ... +60°C	-20°C ... +60°C
Transmission distance	0 mm ... 20 mm	0 mm ... 20 mm
Operating voltage	22V ... 52V	-
Output voltage	-	24V DC / 48V DC
Actuator supply	-	250W / 400W
Sensor supply	-	48W
Signal transmission	Ethernet 100 Base-T	Ethernet 100 Base-T
LED function display	3 LEDs 2x	3 LEDs 2x
Current consumption (base)	16A (24V)	-
Overload protection / short-circuit protection	✓	✓
Residual ripple	-	< 50mV
Reverse polarity protection	✓	-
Data valid output	max. 100mA	-
Ready for Operation	< 600 ms	< 600 ms

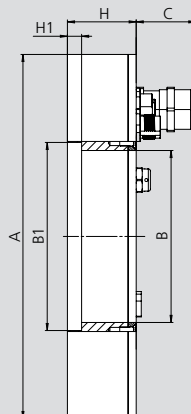
- Stationary unit - Base
- Mobile unit - Remote

Axial coupler

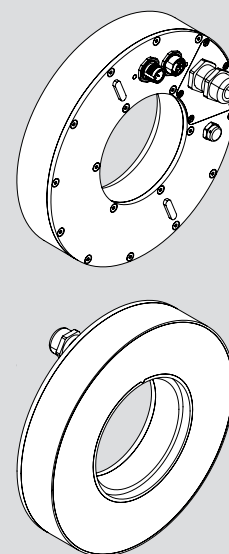
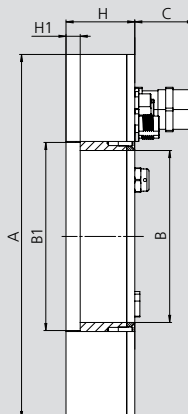
Base / Remote:



Base:



Remote:



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

Inductive coupler F180 Ethernet

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

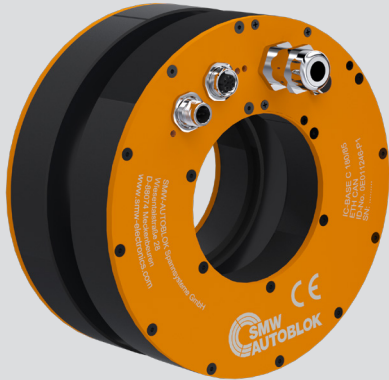
Function Base	
LED Power	
Color	Green / red
Function	Off » Unit not supplied with voltage (or undervoltage)
	On (green) » Voltage ok and mobile unit has been detected
	2Hz green 50 / 50% » Operating temperature in critical range
	1Hz green 25 / 75% » Voltage ok but no mobile unit detected
	1Hz red /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

Function Remote	
LED Actuator	
Color	Green / red
Function	Off » Unit not paired
	On (green) » Unit paired, voltage output actuator ok
	Flashes 2Hz red » Unit paired but short circuit on actuator
	Flashes 5Hz red » Internal error
LED Sensor supply	
Color	Green / red
Function	Off » Unit not paired
	On (green) » Unit paired, voltage output sensor (24V) ok
	Flashes 2Hz red » Unit paired but short circuit on sensor (24V)
	Flashes 5Hz red » Internal error
LED Signal transmission	
Color	Yellow / red
Function	Off » No mobile unit detected
	On / yellow » Signal transmission ready
	Flashes 1Hz yellow » Data packets are being transmitted
	Flashes 3Hz yellow » 50% of the transmission bandwidth used (10s)
	Flashes 8Hz red » Data packets were discarded (in the last 10s)
	On / red » Error in data transmission (internal error)

Inductive coupler F180 Ethernet / CAN

Axial coupler

Contact free transmission of energy and signals



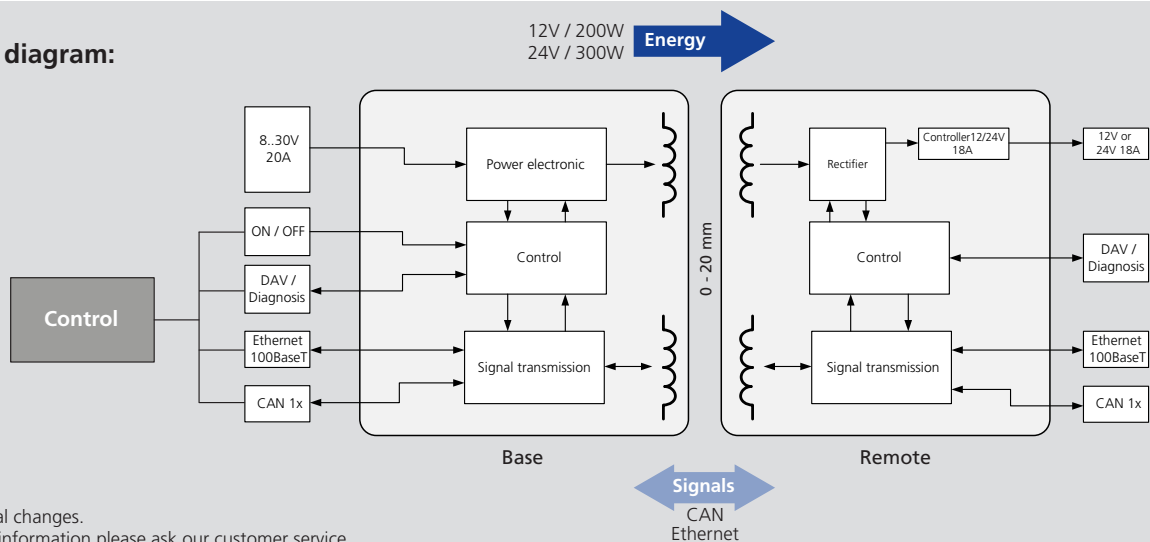
Application/customer benefits

- Contact free, safe transmission of energy and signals between moving / rotating and stationary components
- Application examples: Automotive, Off Highway, Automation, Mechanical engineering
- Substitution of slip ring / connector
- Dynamic Pairing
- Wear and maintenance free
- Protective functions: temperature monitoring, foreign object detection, reverse polarity protection
- Multi-level LED with good visibility

Technical features

- Diameter 180 mm / Inner diameter 85 mm
- Supply voltage 12V / 24V
- Transmission distance 0 - 20 mm
- Transmission of energy 12V / 200W or 24V / 300W (selectable)
- CAN 125 Bit/s ... 1 MBit/s
- Transmission of signals Ethernet 100 Base-T
- Transmission bandwidth Ethernet < 100 MBit
- Protection class: IP 67

Block diagram:



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

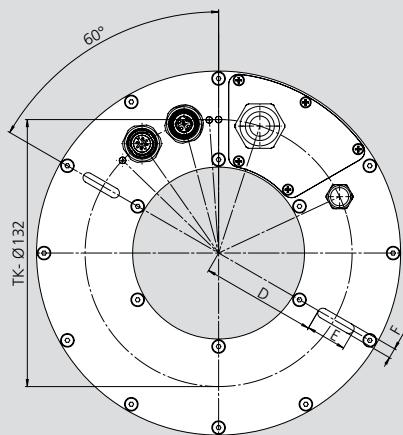
Inductive coupler F180 Ethernet / CAN

SMW-electronics Type	Base	Remote
Id. No.	0E011244	0E011245
Operating temperature (body surface)	-20°C ... +60°C	-20°C ... +60°C
Stocking temperature	-20°C ... +60°C	-20°C ... +60°C
Transmission distance	0 mm ... 20 mm	0 mm ... 20 mm
Operating voltage	12V ... 24V	-
Output voltage	-	12V / 24V
Actuator supply	-	200W / 300W
Signal transmission Ethernet (bidirectional)	Ethernet 100 Base-T	
Signal transmission CAN (bidirectional)	125 Bit/s ... 1 MBit/s (Adjustable via DIP switch)	
LED	3 LEDs 2x	3 LEDs 2x
Current consumption (base)	16A (24V)	-
Overload protection / short-circuit protection	✓	✓
Residual ripple	-	< 50mV
Reverse polarity protection	✓	-
Data valid output	max. 100mA	-
Ready for Operation	< 600 ms	< 600 ms

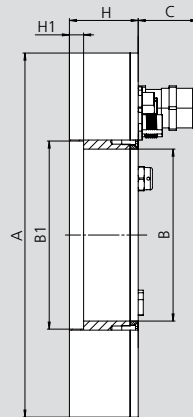
- Stationary unit - Base
- Mobile unit - Remote

Axial coupler

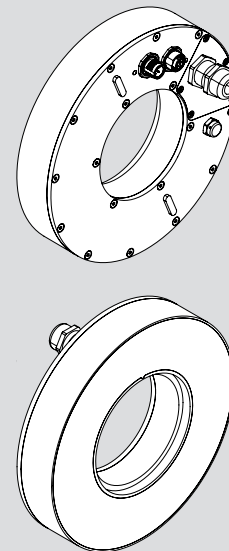
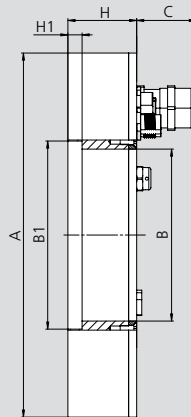
Base / Remote:



Base:



Remote:



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

Inductive coupler F180 Ethernet / CAN

SMW-electronics Type		Base	Remote
Id. No.		0E011244	0E011245
A	mm	180	180
B	mm	85	85
B1	mm	93	93
C	mm	29.5	29.5
D	mm	57	57
E	mm	20	20
F	mm	5	5
H	mm	34	34
H1	mm	7	7
α	degree	60	60
Housing material		Aluminium, GFK	Aluminium, GFK
Protection class		IP 67	IP 67

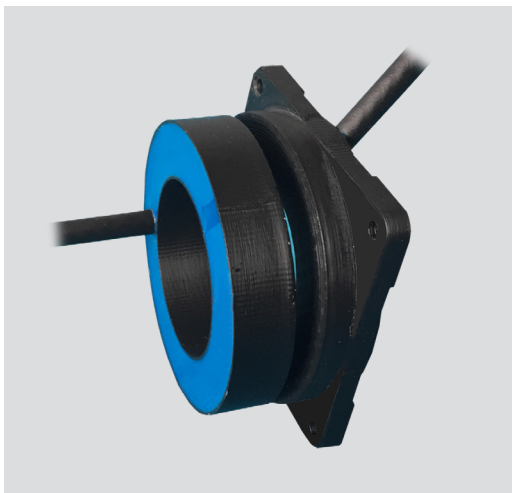
Function Base	
LED Power	
Color	green / red
Function	Off » Unit not supplied with voltage (or undervoltage)
	On (green) » Voltage ok and mobile unit has been detected
	2Hz green 50 / 50% » Operating temperature in critical range
	1Hz green 25 / 75% » Voltage ok but no mobile unit detected
	1Hz red / green » Incompatible mobile unit detected
	2Hz red » Foreign element detected
	5Hz red » Internal error
LED Signal transmission Ethernet	
Color	Yellow / red
Function	Off » No mobile unit detected
	On / yellow » Signal transmission ready
	1Hz yellow » Data packets are being transmitted
	3Hz yellow » 50% of the transmission bandwidth used (10s)
	8Hz red » Data packets were discarded (in the last 10s)
	On / red » Error in data transmission (internal error)
LED Signal transmission CAN	
Color	Yellow / red
Function	Off » Unit not paired
	On (yellow) » Unit coupled, voltage output ok
	2Hz yellow (75% / 25%) » CAN data is being transmitted (last 2s)
	5Hz red » Internal error

Function Remote	
LED Power	
Color	Green / red
Function	Off » Unit not paired
	On (green) » Unit paired, voltage output ok
	Flashes 2Hz red » Paired but short circuit
	Flashes 5Hz red » Internal error
LED Sensor supply / CAN	
Color	Yellow / red
Function	Off » Unit not paired
	On (yellow) » Unit paired, voltage output ok
	2Hz yellow (75% / 25%) » CAN data is being transmitted (last 2s)
	5Hz red » Internal error
LED Signal transmission Ethernet	
Color	Yellow / red
Function	Off » No mobile unit detected
	On / yellow » Signal transmission ready
	1Hz yellow » Data packets are being transmitted
	3Hz yellow » 50% of the transmission bandwidth used (10s)
	8Hz red » Data packets were discarded (in the last 10s)
	On / red » Error in data transmission (internal error)

Inductive coupler Gamma M

Axial coupler

Contact free transmission of energy and signals



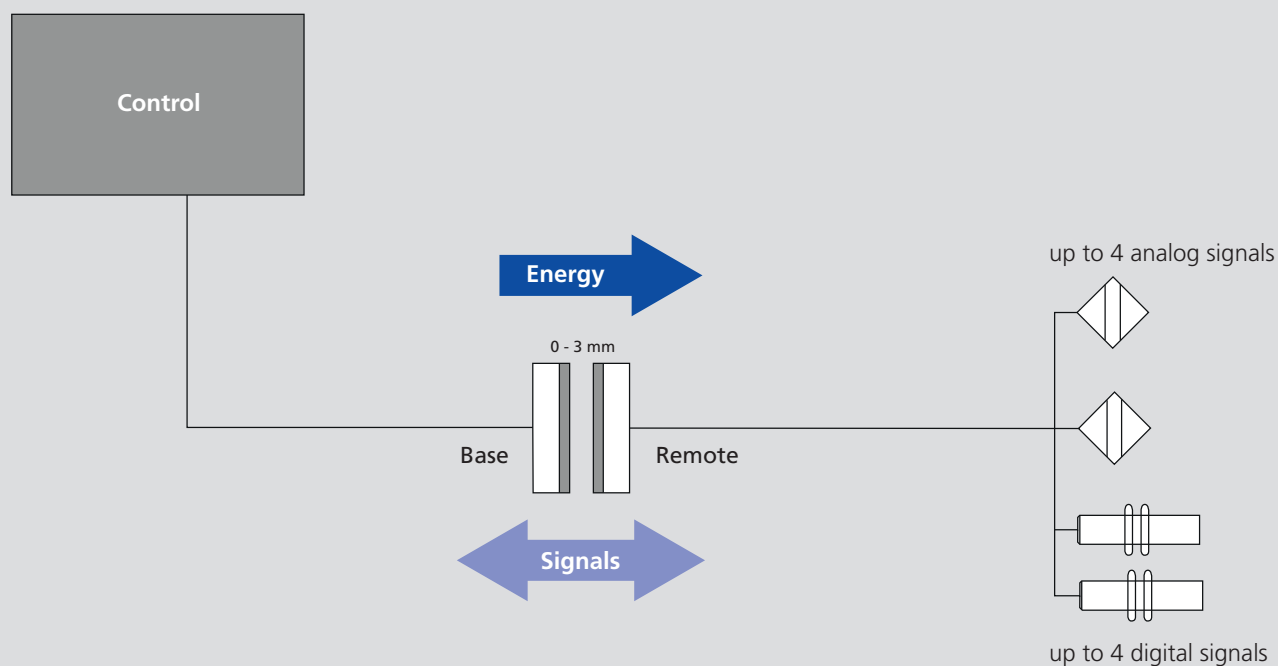
Application/customer benefits

- Contact free transmission of energy and signals between rotating and stationary components
- Application example: Monitoring of sensors in clamping systems, automation, slip ring replacement
- Base with mounting flange
- Dynamic Pairing
- Free from wear and maintenance

Technical features

- Supply voltage $24V \pm 10\%$
- Transmission distance 0 - 3 mm
- Transmission of energy: 24V / 2.5W (100mA)
- Transmission of signals: 4 analog signals (0 - 10V) / 4 digital signals
- Inverse-polarity protection (base), short-circuit proof (remote)
- Protection class: IP 67
- Id. No. Base: OE010972
- Id. No. Remote: OE010973

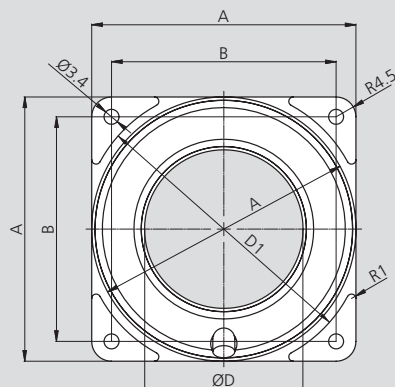
Block diagram:



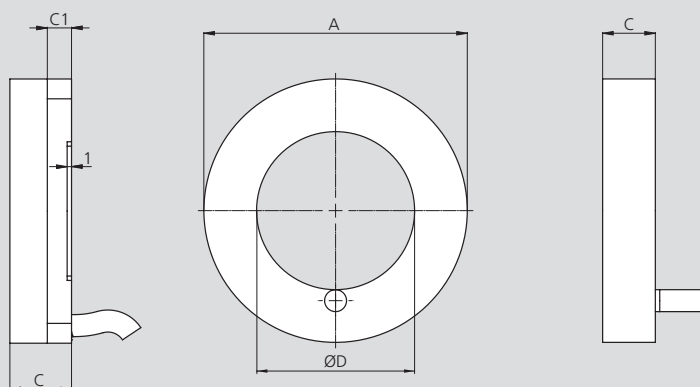
Subject to technical changes.
For more detailed information please ask our customer service.

- Stationary unit - Base
- Mobile unit - Remote

Base:



Remote:



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

Inductive coupler Gamma M

SMW-electronics Type		Base	Remote
Id. No.		0E010972	0E010973
A	mm	60	60
B	mm	51	-
C	mm	14	12
C1	mm	13	13
D	mm	36	36
D1	mm	64	-
Housing material		POM, PA66, PC GF 30%	POM, PA66, PC GF 30%
Protection class		IP 67	IP 67
Operating temperature		0°C ... +60°C	0°C ... +60°C
Storage temperature		-10° ... +70°C	-10° ... +70°C
Coupling distance		0 mm ... 3 mm	0 mm ... 3 mm
Operating voltage		24V ± 10% DC	-
Output voltage		-	24V ± 10% DC
Power consumption (Base)		< 300mA	-
Power output (Remote)		-	< 100mA
Overload protection / short circuit protection		✓	✓
Residual ripple		-	< 200 mV
Reverse polarity protection		✓	-
Data-Valid Output		0 / 24V	-
Operational readiness		≤ 100 ms	≤ 100 ms

Inductive coupler Gamma S

Axial coupler

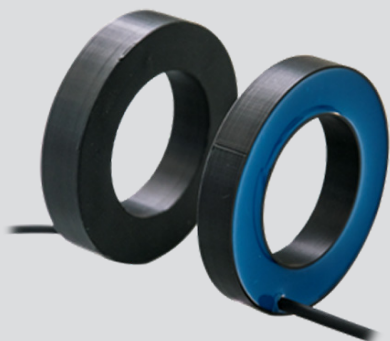
Contact free transmission of energy and signals

Application/customer benefits

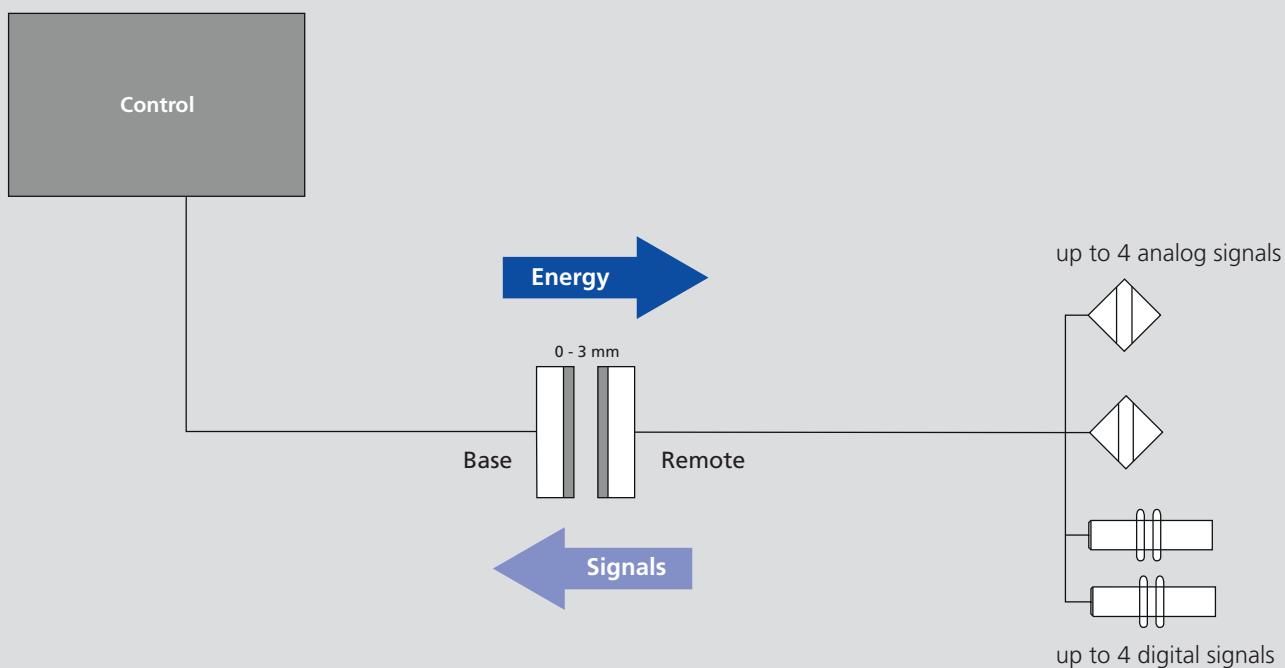
- Contact free transmission of energy and signals between rotating and stationary components
- Application examples: Robotics, slip ring replacement
- Dynamic Pairing
- Free from wear and maintenance

Technical features

- Supply voltage $24V \pm 10\%$
- Transmission distance 0 - 3 mm
- Transmission of energy: 24V / 2.5W (100mA)
- Transmission of signals: 4 analog signals (0 - 10V) / 4 digital signals
- Inverse-polarity protection (base), short-circuit proof (remote)
- Protection class: IP 67
- Id. No. Base: 0E010974
- Id. No. Remote: 0E010975



Block diagram:

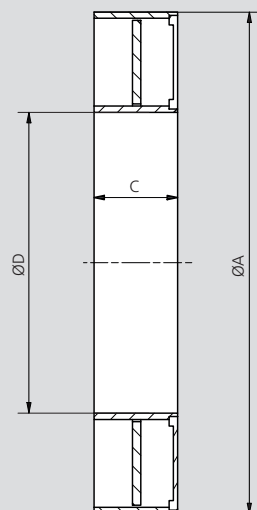


Subject to technical changes.
For more detailed information please ask our customer service.

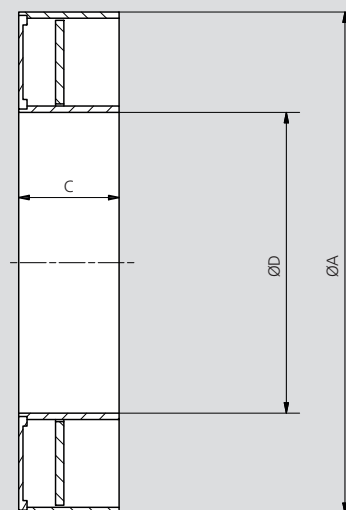
- Stationary unit - Base
- Mobile unit - Remote

Axial coupler

Base:



Remote:



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

Inductive coupler Gamma S

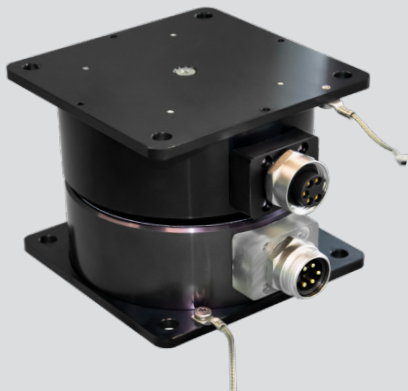
SMW-electronics Type		Base	Remote
Id. No.		0E010974	0E010975
A	mm	60	60
C	mm	10	12
D	mm	36	36
Housing material		POM, PA66, PC GF 30%	POM, PA66, PC GF 30%
Protection class		IP 67	IP 67
Operating temperature		0°C ... +60°C	0°C ... +60°C
Storage temperature		-10° ... +70°C	-10° ... +70°C
Coupling distance		0 mm ... 3 mm	0 mm ... 3 mm
Operating voltage		24V ± 10% DC	-
Output voltage		-	24V ± 10% DC
Power consumption (Base)		< 300mA	-
Power output (Remote)		-	< 100mA
Overload protection / short circuit protection		✓	✓
Residual ripple		-	≤ 200mV
Reverse polarity protection		✓	-
Data-Valid Output		0 / 24V	-
Operational readiness		≤ 100 ms	≤ 100 ms

Inductive coupler F120

Axial coupler

Contact free transmission of energy

- Stationary unit - Base
- Mobile unit - Remote



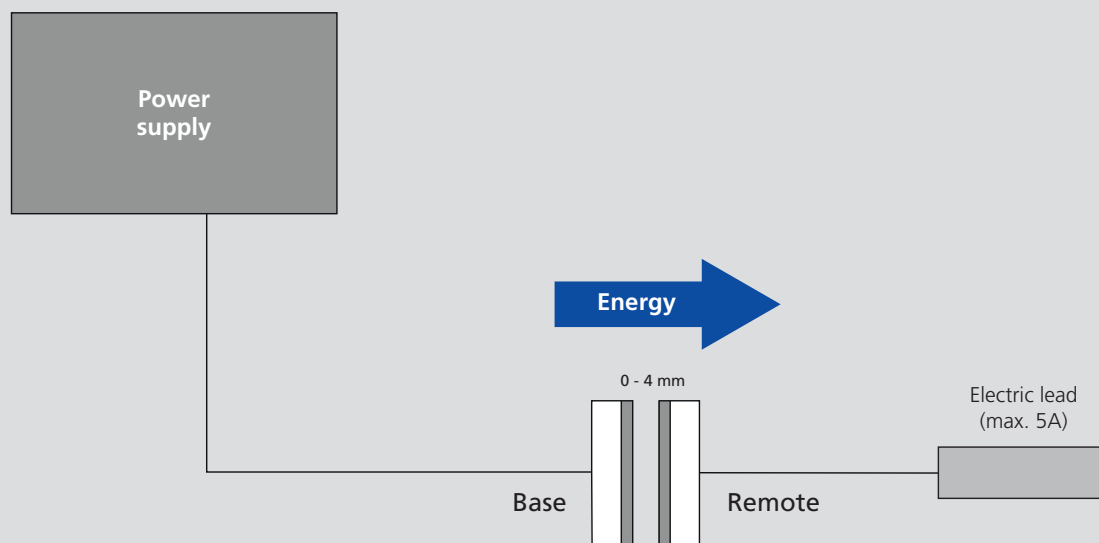
Application/customer benefits

- Contact free radial transmission of energy (power only) between moving and stationary components
- Application examples: Automation, replacement of collector ring
- Dynamic Pairing
- Free from wear and maintenance

Technical features

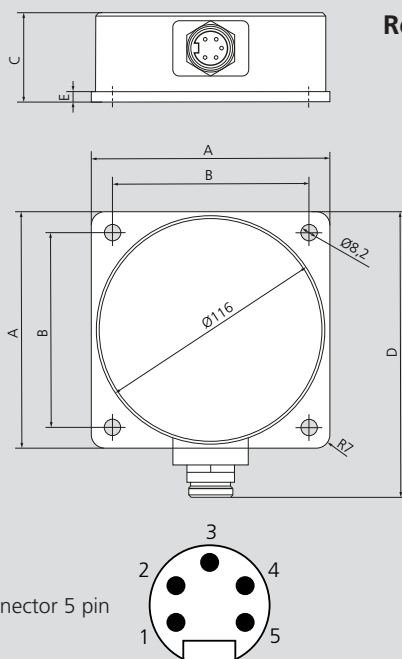
- Flange mounting 120 x 120 mm (Diameter 116 mm)
- Supply voltage 24V \pm 10%
- Transmission distance 0 - 4 mm
- Transmission of energy 24V / 120W
- Inverse-polarity protection (base), short-circuit proof (remote)
- Protection class: IP 67
- Id. No. Base: OE010983
- Id. No. Remote: OE010984
- Interface: Base male connector 7/8" (5-pin), remote female connector 7/8" (5-pin)
- LED interface (base)
 - color: green
 - slow flashing: power on / no remote detected
 - static: connection to remote established
 - fast flashing: overload / short circuit

Block diagram:

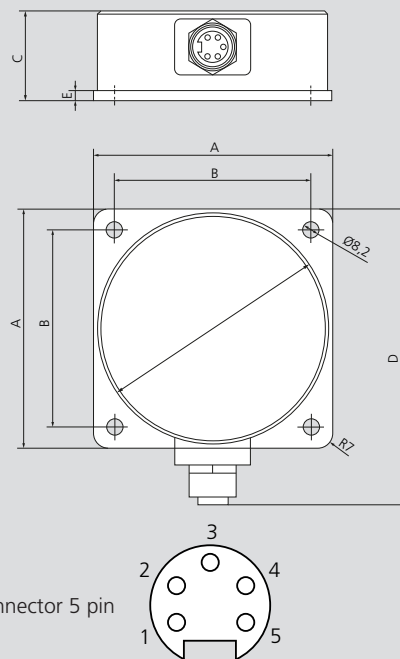


Subject to technical changes.
For more detailed information please ask our customer service.

Base:



Remote:



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

Inductive coupler F120

SMW-electronics Type		Base	Remote
Id. No.		0E010983	0E010984
A	mm	120	120
B	mm	99	99
C	mm	45	45
D	mm	145	148.5
E	mm	5	5
Weight		850 g	850 g
Housing material		Aluminium, PA66, PC GF 30%	Aluminium, PA66, PC GF 30%
Protection class		IP 67	IP 67
Operating temperature		0°C ... +50°C	0°C ... +50°C
Storage temperature		-10° ... +70°C	-10° ... +70°C
Coupling distance		0 mm ... 4 mm	0 mm ... 4 mm
Operating voltage		24V ± 10% DC	-
Output voltage		-	24V ± 10% DC
Power consumption (Base)		< 10A	-
Power output (Remote)		-	< 5A
Overload protection / short circuit protection		✓	✓
Residual ripple		-	< 200mV
Reverse polarity protection		✓	-
Data-Valid Output		-	-
Operational readiness		< 500 ms	< 500 ms
PIN assignment		Signal Base	Signal Remote
Connection line 1	1	GND	GND
Connection line 2	2	GND	GND
Connection line 3	3	PE	PE
Connection line 4	4	24V IN	24V OUT
Connection line 5	5	24V IN	24V OUT

Inductive coupler M12-2

Axial coupler

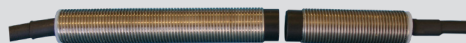
Contact free transmission of energy and signals

Application/customer benefits

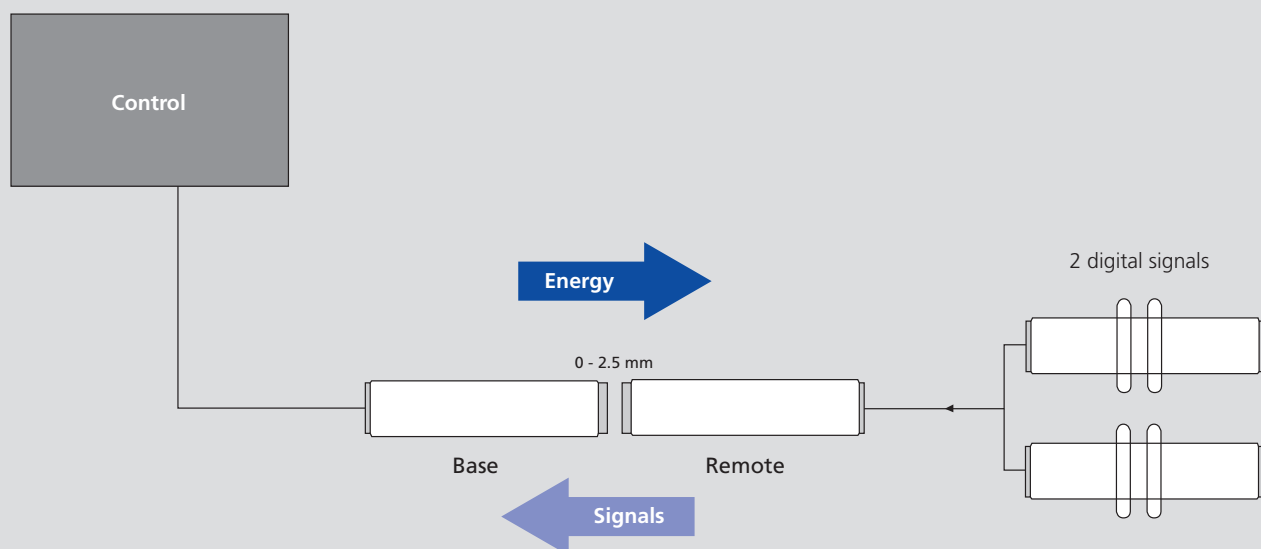
- Contact free transmission of energy and signals between stationary and moved components
- Application examples: Supply of mobile sensors, supply and monitoring of remote systems, monitoring of door contacting
- Dynamic Pairing
- Free from wear and maintenance
- Operating display

Technical features

- Mounting M12 x 1
 - Supply voltage 24V \pm 10%
 - Transmission distance 0 - 2.5 mm
 - Transmission of energy: 24V / 1W (35mA)
 - Transmission of signals: 2 digital signals
 - Inverse-polarity protection (base), short-circuit proof (remote)
 - Id. No. Base: OE010970
 - Id. No. Remote: OE010971
 - Interface: Base cable 300 mm with male connector M12 (5-pin), remote cable 300 mm with female connector M12 (5-pin)
- | | |
|----------------------|-------------------------------|
| LED interface (base) | |
| color: | green |
| slow flashing: | power on / no remote detected |
| static: | in position |
| fast flashing: | overload / short circuit |



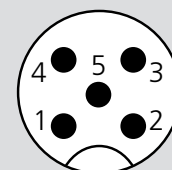
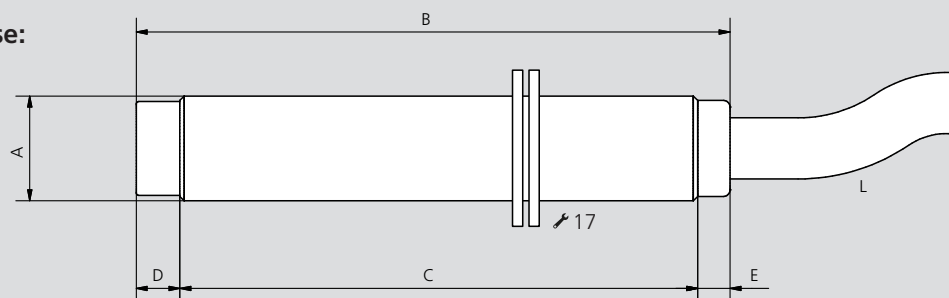
Block diagram:



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

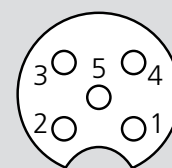
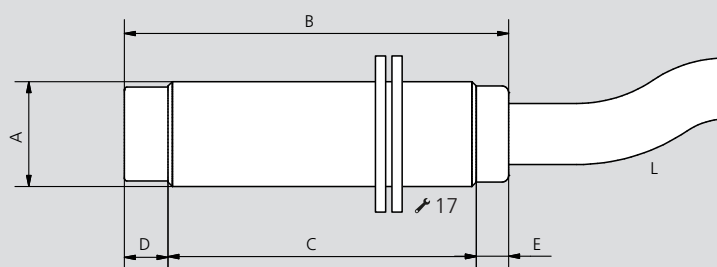
- Stationary unit - Base
- Mobile unit - Remote

Base:



Male connector
5 pin

Remote:



Female connector
5 pin

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

Inductive coupler M12

SMW-electronics Type		Base	Remote
Id. No.		0E010970	0E010971
A Thread	mm	M12 x 1	M12 x 1
B	mm	68	44
C	mm	59.3	35.3
D	mm	5	5
E	mm	3.7	3.7
L Cable length	mm	300	300
Housing material		CuZn, PA66, PC GF 30%	CuZn, PA66, PC GF 30%
Protection class		IP 67	IP 67
Operating temperature		-10°C ... +55°C	-10°C ... +55°C
Storage temperature		-25° ... +70°C	-25° ... +70°C
Coupling distance		0 mm ... 2.5 mm	0 mm ... 2.5 mm
Operating voltage		24V ± 10% DC	-
Output voltage		-	24V ± 10% DC
Power consumption (Base)		> 400mA	-
Power output (Remote)		-	< 50mA
Overload protection / short circuit protection		✓	✓
Residual ripple		-	< 200mV
Reverse polarity protection		✓	-
Data-Valid Output		max. 100mA	-
Operational readiness		< 20 ms	< 20 ms
PIN assignment		Signal Base	Signal Remote
Supply voltage	1	+24V IN	+24V OUT
Digital signal 1	2	0 / 24V OUT	0 / 24V IN
Ground connection	3	GND	GND
Digital signal 2	4	0 / 24V OUT	0 / 24V IN
Data-Valid	5	0 / 24V OUT	0 / 24V IN

Inductive coupler M18-4

Axial coupler

Contact free transmission of energy and signals

Application/customer benefits

- Contact free transmission of energy and signals between stationary and moved components
- Application examples: Automation, piloting of magnet valves, reading of status signals, online monitoring of sensor signals in the remote area, contacting at rotary tables, plug replacement for SPS signals
- Dynamic Pairing
- Free from wear and maintenance
- Operating display

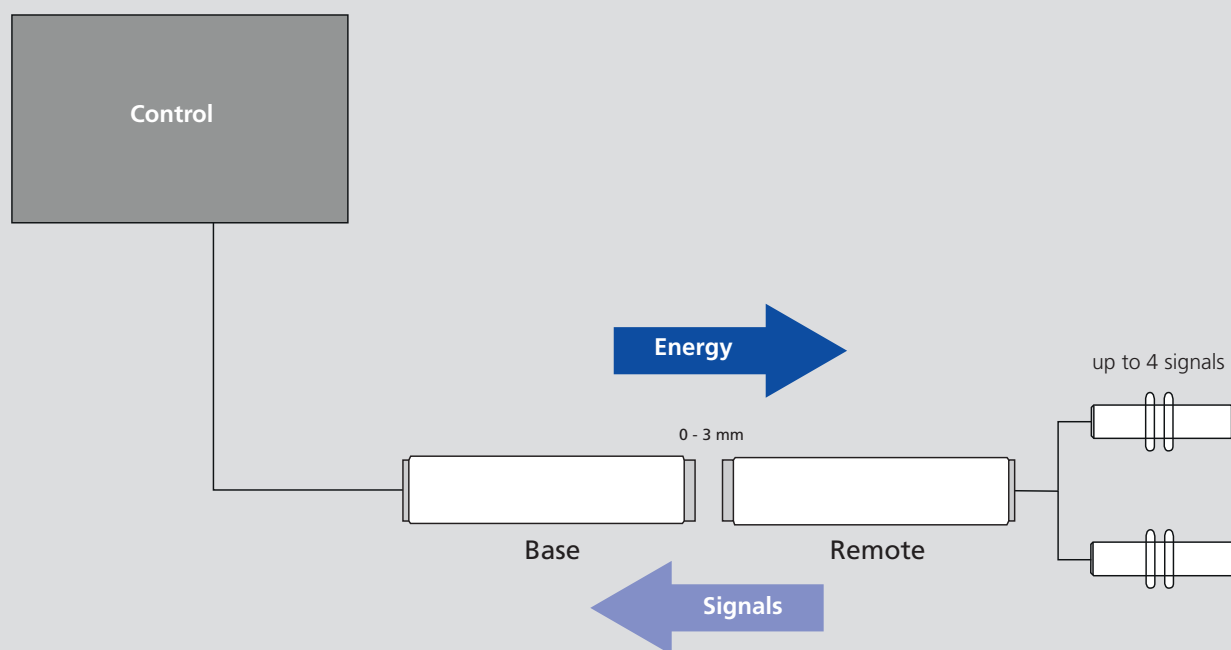
Technical features

- Mounting M18 x 1
- Supply voltage 22V ... 30V \pm 10%
- Transmission distance 0 - 3 mm
- Transmission of energy: 12V / 1.2W (100mA)
- Transmission of signals: 4 digital signals
- Inverse-polarity protection (base), short-circuit proof (remote)
- Id. No. Base: 0E010954
- Id. No. Remote: 0E010955
- Interface: Base cable 2000 mm open ended, remote cable 2000 mm open ended
- Protection class: IP 67
- LED interface (base)

color:	green
slow flashing:	power on
static:	in position
fast flashing:	overload / short-circuit



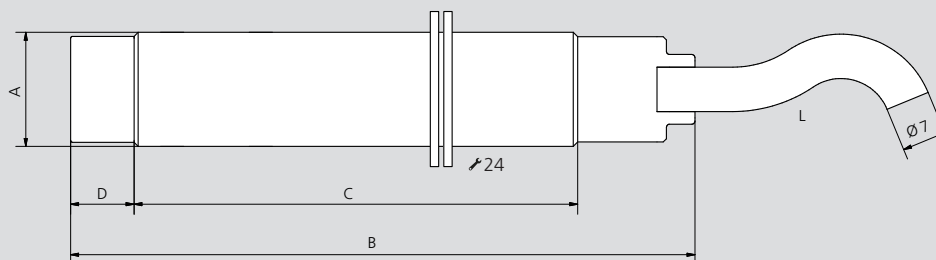
Block diagram:



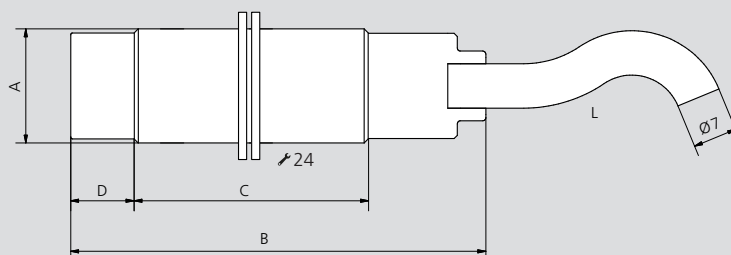
Subject to technical changes.
For more detailed information please ask our customer service.

- Stationary unit - Base
- Mobile unit - Remote

Base:



Remote:



Legend PIN assignment

WH	=	White
BU	=	Blue
GY	=	Grey
BN	=	Brown
PK	=	Pink
YE	=	Yellow
GN	=	Green

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

Inductive coupler M18

SMW-electronics Type		Base	Remote
Id. No.		0E010954	0E010955
A Thread	mm	M18 x 1	M18 x 1
B	mm	98.5	65.5
C	mm	70	37
D	mm	10	10
L Cable length	mm	~ 2000	~ 2000
Housing material		CuZn, PA66, PC GF 30%	CuZn, PA66, PC GF 30%
Protection class		IP 67	IP 67
Operating temperature		0°C ... +50°C	0°C ... +50°C
Storage temperature		-10° ... +70°C	-10° ... +70°C
Coupling distance		0 mm ... 3 mm	0 mm ... 3 mm
Operating voltage		22V ... 30V	-
Output voltage		-	12V ± 10% DC
Power consumption (Base)		≤ 500mA	-
Power output (Remote)		-	< 100mA
Overload protection / short circuit protection		✓	✓
Residual ripple		-	< 200mV
Reverse polarity protection		✓	-
Data-Valid Output		max. 100mA	-
Operational readiness		< 80 ms	< 80 ms
PIN assignment	PIN	Signal Base	Signal Remote
Connection line WH (Base) / WH (Remote)	1	Supply voltage 24V IN	Supply voltage VCC 12V OUT
Connection line BU (Base) / BU (Remote)	2	GND 0 V	GND
Connection line GY (Base) / BN (Remote)	3	Data-Valid 0 / 24V OUT	Digital signal 1: 0 / 24V IN
Connection line BN (Base) / PK (Remote)	4	Digital signal 1: 0 / 24V OUT	Digital signal 2: 0 / 24V IN
Connection line PK (Base) / YE (Remote)	5	Digital signal 2: 0 / 24V OUT	Digital signal 3: 0 / 24V IN
Connection line YE (Base) / GN (Remote)	6	Digital signal 3: 0 / 24V OUT	Digital signal 4: 0 / 24V IN
Connection line GN (Base) / GY (Remote)	7	Digital signal 4: 0 / 24V OUT	-

Inductive coupler M30-2

Axial coupler

Contact free transmission of energy and signals



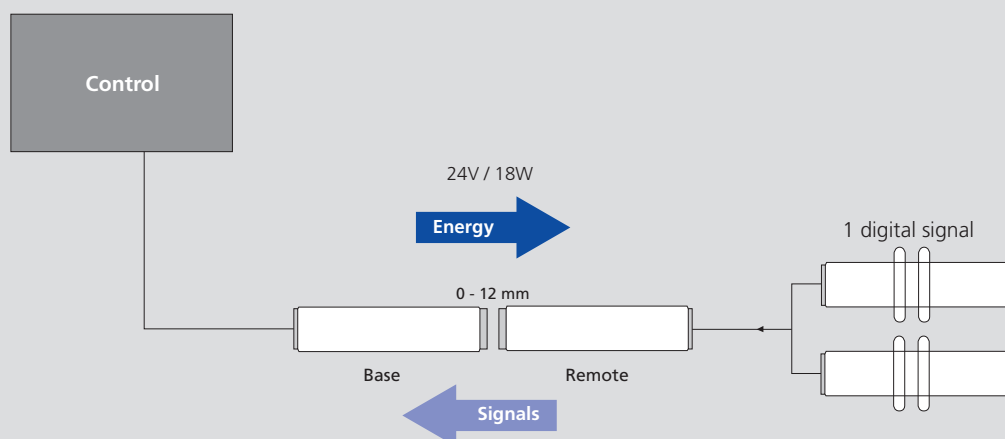
Application/customer benefits

- Contact free transmission of energy and signals between stationary and moved components
- Application examples: Supply of sensors, supply and monitoring of remote systems, contactless battery charge (W-Charge), monitoring of door contacting, valve control, plug replacement
- Dynamic Pairing
- Wear and maintenance free
- Protective functions: Temperature monitoring, foreign object detection, reverse polarity protection
- Multi-level LED with good visibility

Technical features

- Mounting M30 x 1.5
- Supply voltage 24V (18 ... 30V)
- Transmission distance 0 - 12 mm
- Transmission of energy: 24V / 12W (500mA)
- Transmission of signals: 2 digital signals
- Id. No. Base: OE011600
- Id. No. Remote: OE011601
- Interface: Remote female connector M12x1 (4-pin), base male connector M12x1 (4-pin)

Block diagram:

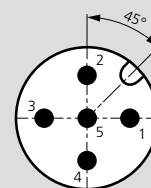
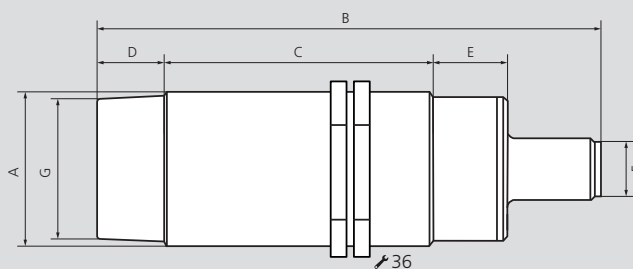


Subject to technical changes.
For more detailed information please ask our customer service.

Function Base	
LED Power	
Color	Green / red
Function	Off » Unit not supplied with voltage (or undervoltage)
	On (green) » 24V ok and remote unit has been detected
	Flashes 2Hz green » 24V ok but no remote unit detected
	Flashes 1Hz green / red » Incompatible remote unit detected
	Flashes 2Hz red » Foreign object detected
LED Signal 1	
Color	Yellow
Function	Off » Digital input 1 is not connected or no remote unit detected
	On » Digital input 1 is connected
	Flashes 2Hz » Digital input connected but short circuit at the output
	Flashes 5Hz » Overload voltage output remote unit
LED Signal 2	
Color	Yellow
Function	Out » Digital input 2 is not connected or no remote unit detected
	On » Digital input 2 is connected
	Flashes 2Hz » Digital input connected but short circuit at the output
	Flashes 5Hz » Overload voltage output remote unit

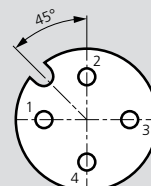
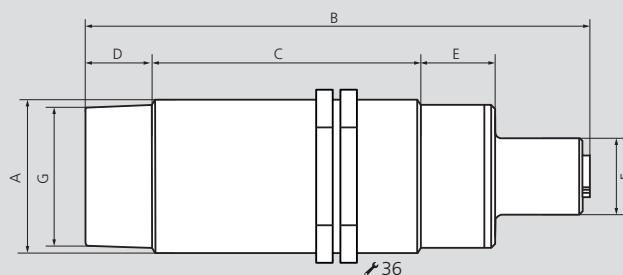
Function Remote	
LED Coupling	
Color	Green / red
Function	Off » Unit is not connected
	On (green) » Unit is connected, voltage output DC24V ok
	Flashes 2Hz red » Unit is connected but short circuit at DC24V
	Flashes 5Hz red » Internal error
LED Signal 1	
Color	Yellow
Function	Off » Digital input 1 is not connected
	On » Digital input 1 is connected
LED Signal 2	
Color	Yellow
Function	Off » Digital input 2 is not connected
	On » Digital input 2 is connected

Base:



Male connector 5 pin

Remote:



Female connector 4 pin

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

Inductive coupler M30-2			
SMW-electronics Type		Base	Remote
Id. No.		0E011600	0E011601
A Thread	mm	M30 x 1.5	M30 x 1.5
B	mm	98	98
C	mm	52	52
D	mm	13	13
E	mm	14.5	14.5
F	mm	M12 x 1 / Male	M12 x 1 / Female
G	mm	Ø 27	Ø 27
Housing material		CuZn, PA66, PC GF 30%	CuZn, PA66, PC GF 30%
Protection class		IP 67	IP 67
Operating temperature		-20°C ... +60°C	-20°C ... +60°C
Storage temperature		-20°C ... +80°C	-20°C ... +80°C
Coupling distance		0 mm ... 8 mm*	0 mm ... 8 mm*
Operating voltage		24V (18 ... 30V)	-
Output voltage		-	24V ± 10% DC
Power consumption (Base)		< 1000mA	-
Power output (Remote)		-	-
Overload protection / short circuit protection		✓	✓
Residual ripple		-	< 200mV
Reverse polarity protection		✓	-
Temperature monitoring		✓	✓
Data-Valid Output		150mA	-
Operational readiness		< 300 ms	< 300 ms
PIN assignment		Signal Base	Signal Remote
Supply voltage	1	24V IN	24V OUT
Digital signal	2	Digital output 1	Digital output 2
Ground connection	3	GND	GND
Data-Valid	4	Digital output 1	Digital output 2
	5	DAV 24V	-

* Up to 12 mm with reduced power

Inductive coupler M30-8

Axial coupler

Contact free transmission of energy and signals



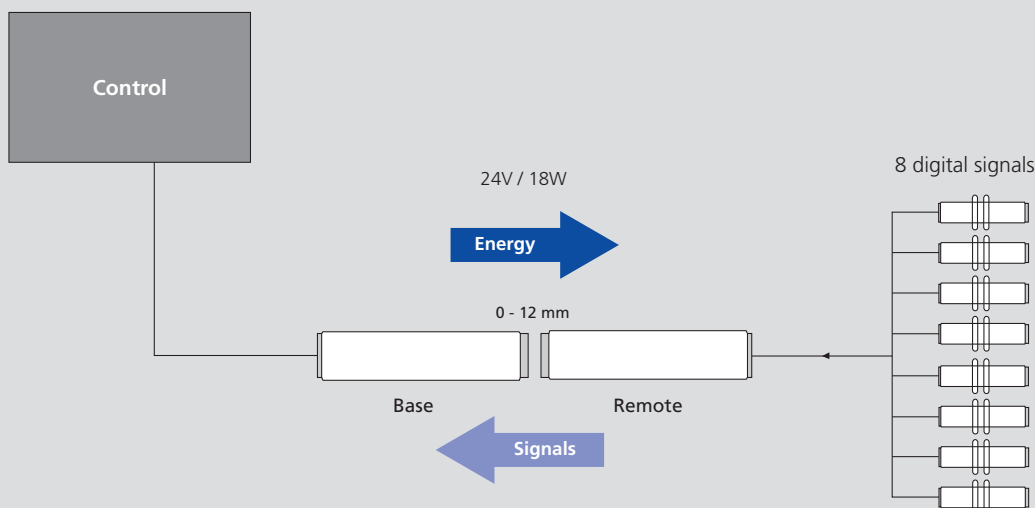
Application/customer benefits

- Contact free transmission of energy and signals between stationary and moved components
- Application examples: Supply of sensors, supply and monitoring of remote systems
- Dynamic Pairing
- Wear and maintenance free
- Protective functions: Temperature monitoring, foreign object detection, reverse polarity protection
- Multi-level LED function display with good visibility

Technical features

- Mounting M30 x 1.5
- Supply voltage 24V (18 ... 30V)
- Transmission distance 0 - 18 mm
- Transmission of energy: 24V / 18W (500mA)
- Transmission of signals: 8 digital signals
- Id. No. Base: OE011602
- Id. No. Remote: OE011603
- Interface: Remote female connector M12x1 (12-pin), base male connector M12x1 (12-pin)

Block diagram:



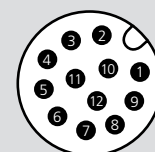
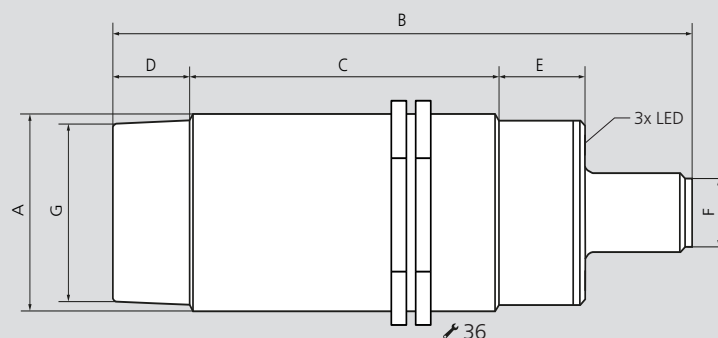
Subject to technical changes.
For more detailed information please ask our customer service.

Function Base	
LED Power	
Color	Green / red
Function	Off » Unit not supplied with voltage (or undervoltage)
	On (green) » 24V ok and mobile unit has been detected
	Flashes 2Hz green » 24V ok but no mobile unit detected
	Flashes 1Hz green / red » Incompatible mobile unit detected
	Flashes 2Hz red » Foreign object detected
	Flashes 5Hz red » Internal error
LED Data Valid	
Color	Yellow
Function	Off » No mobile unit detected
	On » Mobile unit detected and signals are transmitted
	2Hz » Short circuit on at least one of the outputs
	Flashes 5Hz » Overload voltage output mobile unit

Function Remote	
LED Coupling	
Color	Green / red
Function	Off » Unit not connected
	On (green) » Unit connected, Voltage output DC24V ok
	Flashes 2Hz red » Unit connected but short circuit at DC24V
	Flashes 5Hz red » Internal error

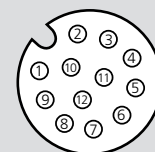
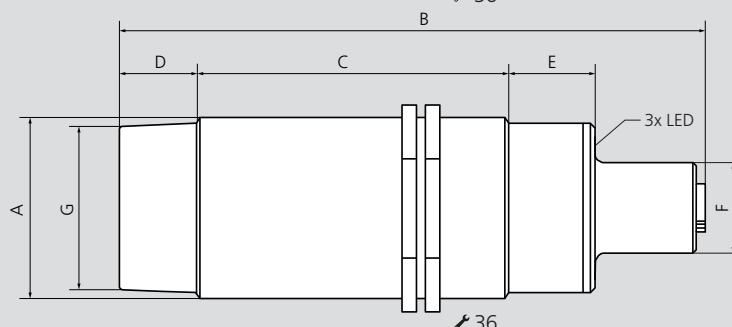
- Stationary unit - Base
- Mobile unit - Remote

Base:



Male connector
12 pin

Remote:



Female connector
12 pin

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

Inductive coupler M30-8

SMW-electronics Type		Base	Remote
Id. No.		0E011602	0E011603
A Thread	mm	M30 x 1.5	M30 x 1.5
B	mm	98	98
C	mm	52	52
D	mm	13	13
E	mm	14.5	14.5
F	mm	M12 x 1 / Male	M12 x 1 / Female
G	mm	Ø 27	Ø 27
Housing material		CuZn, PA66, PC GF 30%	CuZn, PA66, PC GF 30%
Protection class		IP 67	IP 67
Operating temperature		-20°C ... +80°C	-20°C ... +80°C
Storage temperature		-20°C ... +80°C	-20°C ... +80°C
Coupling distance		0 mm ... 8 mm*	0 mm ... 8 mm*
Operating voltage		24V (18 ... 30V)	-
Output voltage		-	24V ± 10% DC
Power consumption (Base)		< 1000mA	-
Power output (Remote)		-	< 100mA
Overload protection / short circuit protection		✓	✓
Residual ripple		-	< 200mV
Reverse polarity protection		✓	-
Temperature monitoring		✓	✓
Data-Valid Output		150mA	-
Operational readiness		< 300 ms	< 300 ms
PIN assignment	PIN	Signal Base	Signal Remote
Supply voltage	1	24V IN	24V OUT
Digital signal 1	2	0 / 24V OUT	0 / 24V IN
Digital signal 2	3	0 / 24V OUT	0 / 24V IN
Digital signal 3	4	0 / 24V OUT	0 / 24V IN
Digital signal 4	5	0 / 24V OUT	0 / 24V IN
Digital signal 5	6	0 / 24V OUT	0 / 24V IN
Digital signal 6	7	0 / 24V OUT	0 / 24V IN
Digital signal 7	8	0 / 24V OUT	0 / 24V IN
Digital signal 8	9	0 / 24V OUT	0 / 24V IN
Ground connection	10	GND	GND
Data-Valid	11	0 / 24V OUT	-
-	12	-	-

* Up to 12 mm with reduced power

Inductive coupler M30-IO

Axial coupler

Contact free transmission of energy and signals



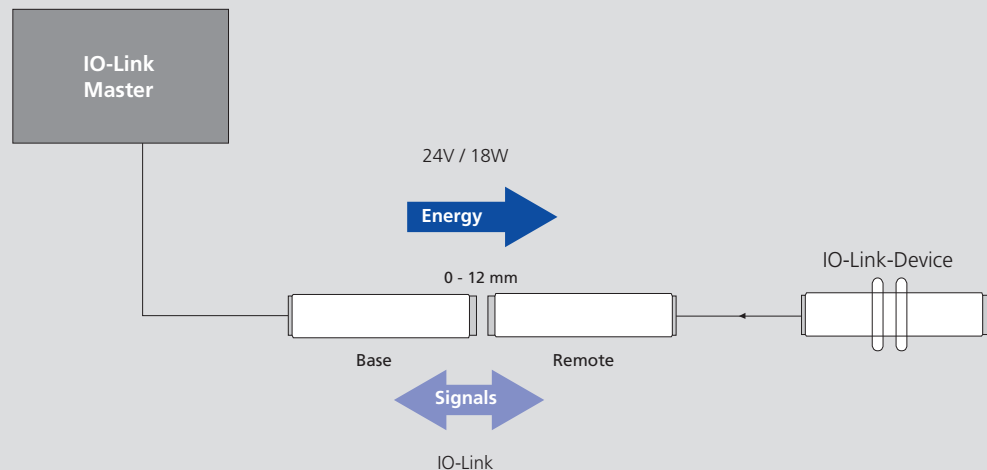
Application/customer benefits

- Contact free transmission of energy and signals between stationary and moved components
- Application examples: Supply of sensors, supply and monitoring of remote systems
- Dynamic Pairing
- Wear and maintenance free
- Protective function: Temperature monitoring, foreign object detection, reverse polarity protection
- Multi-level LED with good visibility

Technical features

- Mounting M30 x 1.5
- Supply voltage 24V (18 ... 30V)
- Transmission distance 0 - 18 mm
- Transmission of energy: 24V / 12W (500mA)
- Transmission of signals: IO-Link COM1 / COM2 / COM3 fully transparent
- Id. No. Base: 0E011604
- Id. No. Remote: 0E011605
- Interface: Remote female connector M12 x 1 (4-pin), base male connector M12 x 1 (5-pin)
- Additional digital-switching signal from Remote » Stat. is transmitted

Block diagram:



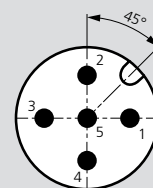
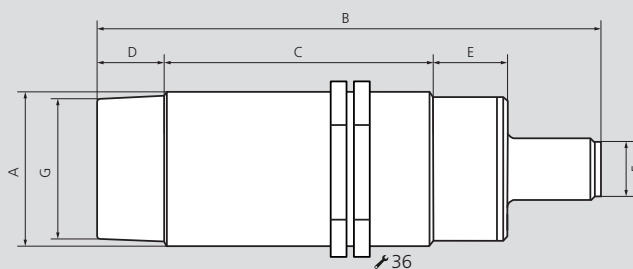
Subject to technical changes.
For more detailed information please ask our customer service.



Function Base		Function Remote	
LED Power		LED Coupling	
Color	Green / red	Color	Green / red
Function	Off » Unit not supplied with voltage (or undervoltage)	Function	Off » Unit is not connected
	On (green) » 24V ok and mobile unit has been detected		On (green) » Unit coupled, voltage output DC24V ok
	Flashes 2Hz green » 24V ok but no mobile unit detected		Flashes 2Hz red » Connected but short-circuited at DC24V
	Flashes 1Hz red / green » Incompatible mobile unit detected		Flashes 5Hz red » Internal error
	Flashes 2Hz red » Foreign object detected	LED IO-Link	
	Flashes 5Hz red » Internal error	Color	Green / red
LED IO-Link		Function	Green » Signals IO-Link operation according to IO-Link specification (1000ms on / 100ms off)
Color	Green / red		Green » On (SIO Mode Signal on)
Function	Green » Signals IO-Link operation		Green » Off (SIO Mode Signal off)
	Green » On (SIO Mode Signal on)		Flashes 2Hz red » Short circuit at the IO-Link PIN
	Green » Off (SIO Mode Signal off)		Flashes 5Hz red » Overload voltage output mobile unit
	Flashes 2Hz red » Short circuit at the IO-Link PIN	LED Signal 2	
	Flashes 5Hz red » Overload voltage output remote unit	Color	Yellow
LED Signal		Function	Off » Digital input 2 is not connected or no mobile unit detected
Color	Yellow		On / yellow » Digital input 2 is connected
Function	Off » Digital input is not connected or no mobile unit detected		
	On » Digital input is connected		
	Flashes 2Hz » Digital input is connected but short circuit at the output		
	Flashes 5Hz » Overload voltage output mobile unit		

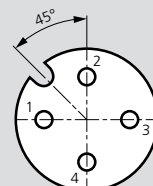
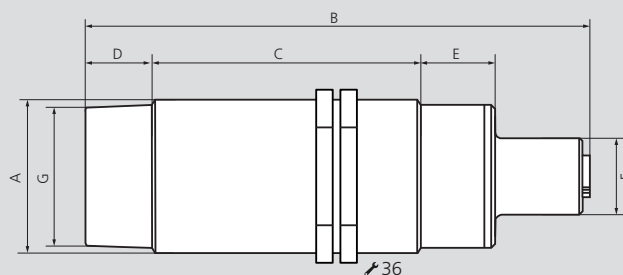
- Stationary unit - Base
- Mobile unit - Remote

Base:



Male connector 5 pin

Remote:



Female connector 4 pin

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

Inductive coupler Alpha

SMW-electronics Type		Base	Remote
Id. No.		0E011604	0E011605
A Thread	mm	M30 x 1.5	M30 x 1.5
B	mm	98	98
C	mm	52	52
D	mm	13	13
E	mm	14.5	14.5
F	mm	M12 x 1 / Male	M12 x 1 / Female
G	mm	Ø 27	Ø 27
Housing material		CuZn, PA66, PC GF 30%	CuZn, PA66, PC GF 30%
Protection class		IP 67	IP 67
Operating temperature		-20°C ... +50°C	-20°C ... +50°C
Storage temperature		-20°C ... +80°C	-20°C ... +80°C
Coupling distance		0 mm ... 8 mm*	0 mm ... 8 mm*
Operating voltage		24V (18 ... 30V)	-
Output voltage		-	24V ± 10% DC
Power consumption (Base)		1000mA	-
Power output (Remote)		-	500mA
Overload protection / short circuit protection		✓	✓
Residual ripple		-	< 200mV
Reverse polarity protection		✓	-
Temperature monitoring		✓	✓
Data-Valid Output		150mA	-
Operational readiness		< 600 ms	< 600 ms
PIN assignment	PIN	Signal Base	Signal Remote
Supply voltage	1	24V IN	24V OUT
Digital signal	2	Digital output 1	Digital output 2
Ground connection	3	GND	GND
Data-Valid	4	Digital output 1	Digital output 2
	5	DAV 24V	-

* Up to 12 mm with reduced power

Inductive coupler Beta M30

Axial coupler

Contact free transmission of energy and signals

- Stationary unit - Base
- Mobile unit - Remote

Application/customer benefits

- Contact free axial transmission of energy and signals between stationary and moved components
- Application examples: Process monitoring edibles, manufacturing of plastic, test engineering, machine tools
- Dynamic Pairing
- Free from wear and maintenance
- Operating display

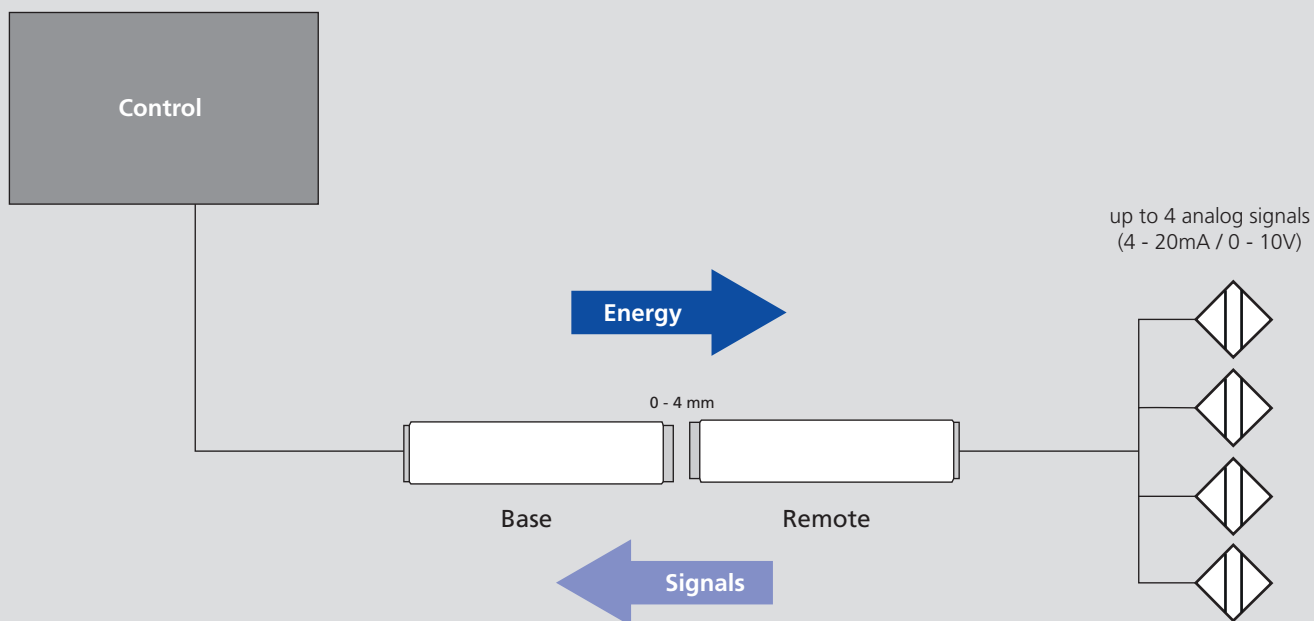
Technical features

- Mounting M30 x 1.5
- Supply voltage 24 V \pm 10%
- Transmission distance 0 - 4 mm
- Transmission of energy: 24V / 6W (250mA)
- Transmission of signals: 4 analog signals (4 - 20mA / 0 - 10V)
- Inverse-polarity protection (base), short-circuit proof (remote)
- Interface: Base male connector M12 (12-pin), remote female connector M12 (12-pin)
- Protection class: IP 67
- LED interface (base)

color:	green
slow flashing:	power on
static:	in position
fast flashing:	overload / short circuit

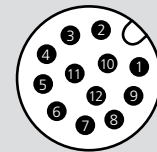
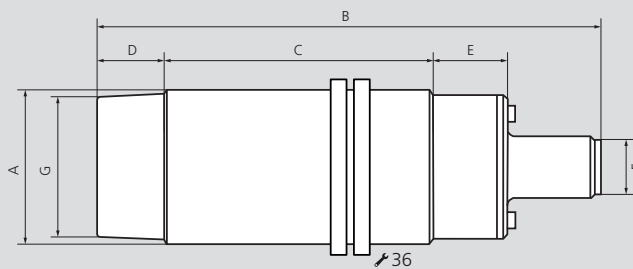
- Id. No. Base (4 x 0 - 10V): OE010958
- Id. No. Remote (4 x 0 - 10V): OE010959
- Id. No. Base (4 x 4 - 20mA): OE010960
- Id. No. Remote (4 x 4 - 20mA): OE010961

Block diagram:



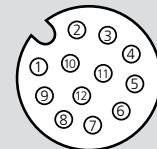
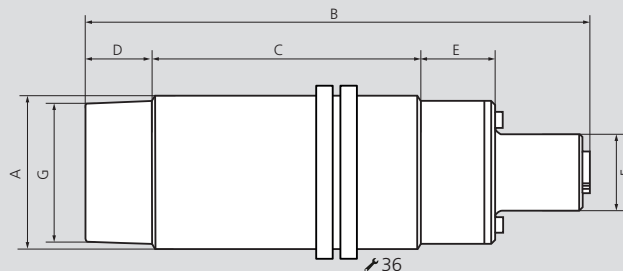
Subject to technical changes.
For more detailed information please ask our customer service.

Base:



Male connector 12 pin

Remote:



Female connector 12 pin

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

Inductive coupler Beta M30

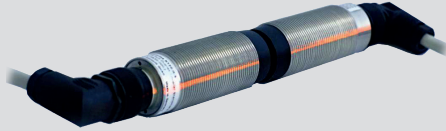
SMW-electronics Type		Base 0 ... 10V	Remote 0 ... 10V	Base 4 ... 20mA	Remote 4 ... 20mA	
Id. No.		0E010958	0E010959	0E010960	0E010961	
A Thread	mm	M30 x 1.5	M30 x 1.5	M30 x 1.5	M30 x 1.5	
B	mm	98	98	98	98	
C	mm	52	52	52	52	
D	mm	13	13	13	13	
E	mm	14.5	14.5	14.5	14.5	
F	mm	M12	M12 / Female connector	M12	M12 / Female connector	
G	mm	Ø 27	Ø 27	Ø 27	Ø 27	
Housing material		CuZn, PA66, PC GF 30%	CuZn, PA66, PC GF 30%	CuZn, PA66, PC GF 30%	CuZn, PA66, PC GF 30%	
Protection class		IP 67	IP 67	IP 67	IP 67	
Operating temperature		0°C ... +60°C	0°C ... +60°C	0°C ... +60°C	0°C ... +60°C	
Storage temperature		-10° ... +80°C	-10° ... +80°C	-10° ... +80°C	-10° ... +80°C	
Coupling distance		0 mm ... 4 mm	0 mm ... 4 mm	0 mm ... 4 mm	0 mm ... 4 mm	
Operating voltage		24V ± 10% DC	-	24V ± 10% DC	-	
Output voltage		-	24V ± 10% DC	-	24V ± 10% DC	
Power consumption (Base)		< 500mA	-	< 500mA	-	
Power output (Remote)		-	250mA	-	250mA	
Overload protection / short circuit protection		✓	✓	✓	✓	
Residual ripple		-	< 200mV	-	< 200mV	
Reverse polarity protection		✓	-	✓	-	
Data-Valid Output		max. 100mA	-	max. 100mA	-	
Data-Valid Visual		✓	-	✓	-	
Operational readiness		< 100 ms	< 100 ms	< 100 ms	< 100 ms	
PIN assignment		PIN	Signal Base (V)	Signal Remote (V)	Signal Base (mA)	Signal Remote (mA)
Supply voltage		1	+24V IN	+24V OUT	+24V IN	+24V OUT
Analog signal 1		2	CH 1 0 ... 10V OUT	CH 1 0 ... 10V IN	CH 1 4 ... 20mA OUT	CH 1 4 ... 20mA IN
Ground connection		3	GND	GND	GND	GND
Analog signal 2		4	CH 2 0 ... 10V OUT	CH 2 0 ... 10V IN	CH 2 4 ... 20mA OUT	CH 2 4 ... 20mA IN
Ground connection		5	GND	GND	GND	GND
Analog signal 3		6	CH 3 0 ... 10V OUT	CH 3 0 ... 10V IN	CH 3 4 ... 20mA OUT	CH 3 4 ... 20mA IN
Ground connection		7	GND	GND	GND	GND
Analog signal 4		8	CH 4 0 ... 10V OUT	CH 4 0 ... 10V IN	CH 4 4 ... 20mA OUT	CH 4 4 ... 20mA IN
Ground connection		9	GND	GND	GND	GND
Ground connection		10	GND	GND	GND	GND
		11	NC	NC	NC	NC
*0 = no remote detected / 24V = remote detected		12	*Data-Valid OUT	NC	NC	NC

* Only with inductive coupler Beta M30 Base 0 ... 10V

Inductive coupler Gamma Duplex

Axial coupler

Contact free transmission of energy and signals



Application/customer benefits

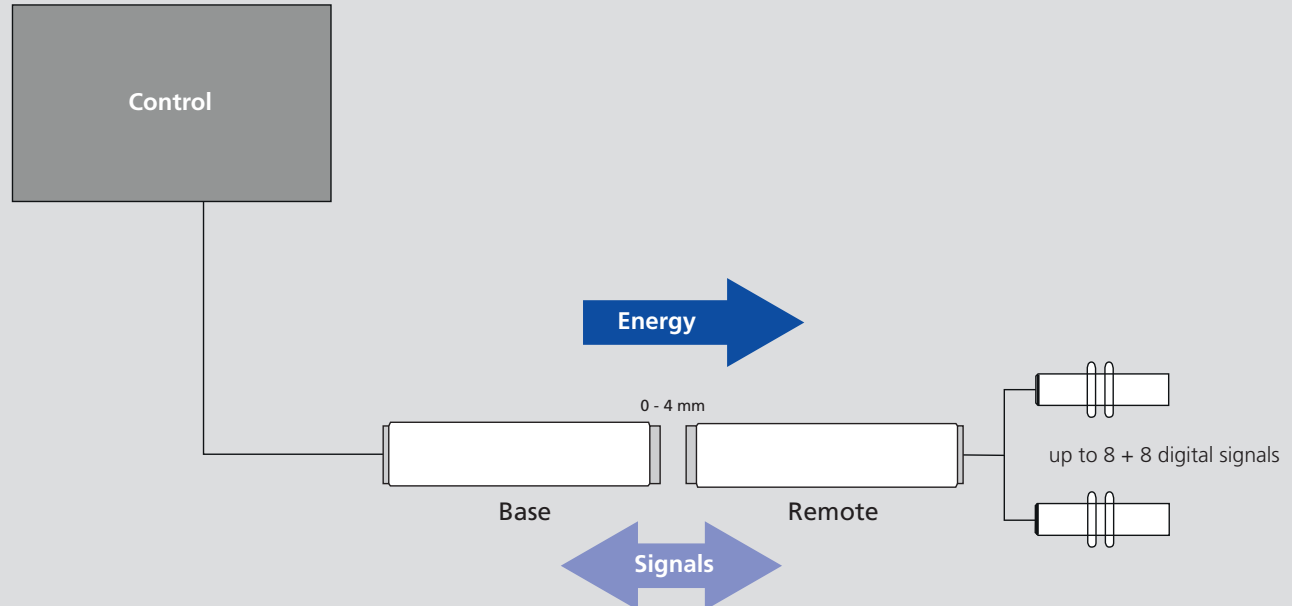
- Contact free axial transmission of energy and signals between stationary and moved components
- Application examples: Automation, piloting of magnet valves, reading of status signals, online monitoring of sensor signals in the remote area, contacting at rotary tables, plug replacement for SPS signals
- Dynamic Pairing
- Free from wear and maintenance
- Operating display

Technical features

- Mounting M30 x 1.5
- Supply voltage $24V \pm 10\%$
- Transmission distance 0 - 4 mm
- Transmission of energy: 24V / 12W (500mA)
- Transmission of signals: 8 + 8 digital (bidirectional)
- Inverse-polarity protection (base), short-circuit proof (remote)
- Id. No. Base: OE010964
- Id. No. Remote: OE010965
- Interfaces: Base male connector M16 (19-pin), remote female connector M16 (19-pin)
- Protection class: IP 67
- LED interface (base)

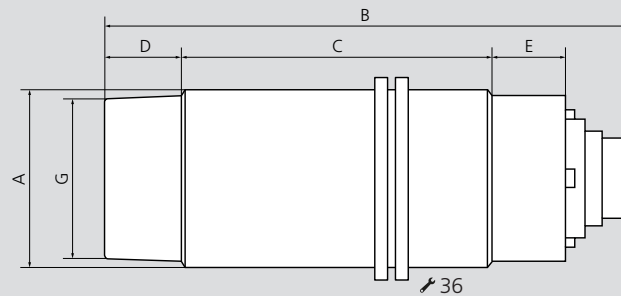
color:	green
slow flashing:	power on
static:	in position
fast flashing:	overload / short-circuit

Block diagram:

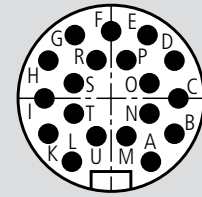
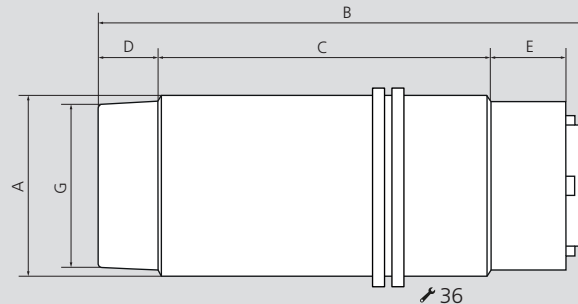


Subject to technical changes.
For more detailed information please ask our customer service.

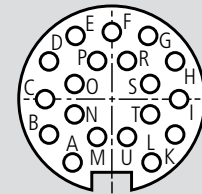
Base:



Remote:



Male connector
19 pin



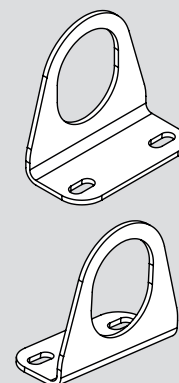
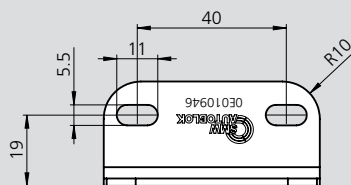
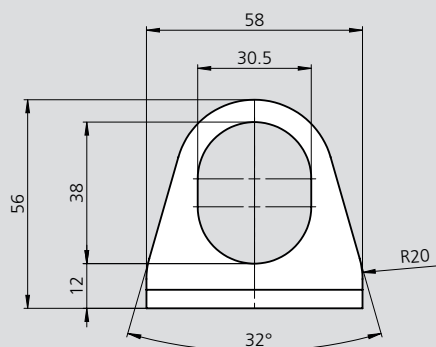
Female connector
19 pin

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

Inductive coupler Gamma Duplex

SMW-electronics Type			Base	Remote			
Id. No.			0E010954	0E010955			
A Thread	mm	M30 x 1.5		M30 x 1.5			
B	mm	88.5		81			
C	mm	52		52			
D	mm	13		13			
E	mm	14.5		14.5			
F	mm	M16		M16 / Buchse			
G	mm	Ø 27		Ø 27			
Housing material			CuZn, PA66, PC GF 30%	CuZn, PA66, PC GF 30%			
Protection class			IP 67	IP 67			
Operating temperature			0°C ... +50°C	0°C ... +50°C			
Storage temperature			-10° ... +70°C	-10° ... +70°C			
Coupling distance			0 mm ... 4 mm	0 mm ... 4 mm			
Operating voltage			24V ± 10% DC	-			
Output voltage			-	24V ± 10% DC			
Power consumption (Base)			< 500mA	-			
Power output (Remote)			-	< 500mA			
Overload protection / short circuit protection			✓	✓			
Residual ripple			-	< 200mV			
Reverse polarity protection			✓	-			
Data-Valid Output			max. 100mA	-			
Operational readiness			< 80 ms	< 100 ms			
PIN assignment	PIN	Signal Base	Signal Remote	PIN assignment	PIN	Signal Base	Signal Remote
Digital signal 8	A	0 / 24V IN	0 / 24V OUT	Digital signal 8	L	0 / 24V OUT	0 / 24V IN
Digital signal 7	B	0 / 24V IN	0 / 24V OUT	Ground connection	M	GND	GND
Digital signal 5	C	0 / 24V IN	0 / 24V OUT	Digital signal 6	N	0 / 24V IN	0 / 24V OUT
Digital signal 3	D	0 / 24V IN	0 / 24V OUT	Digital signal 4	O	0 / 24V IN	0 / 24V OUT
Digital signal 2	E	0 / 24V IN	0 / 24V OUT	Digital signal 1	P	0 / 24V IN	0 / 24V OUT
Data-Valid	F	0 / 24V OUT	-	Digital signal 1	R	0 / 24V OUT	0 / 24V IN
Digital signal 2	G	0 / 24V OUT	0 / 24V IN	Digital signal 4	S	0 / 24V OUT	0 / 24V IN
Digital signal 3	H	0 / 24V OUT	0 / 24V IN	Digital signal 6	T	0 / 24V OUT	0 / 24V IN
Digital signal 5	I	0 / 24V OUT	0 / 24V IN	Voltage	U	24V IN	0 / 24V OUT
Digital signal 7	K	0 / 24V OUT	0 / 24V IN				

Mounting bracket for inductive coupler M30



Scope of delivery: 1 piece

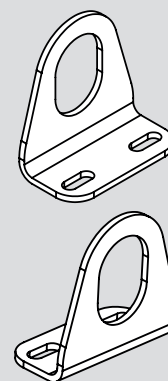
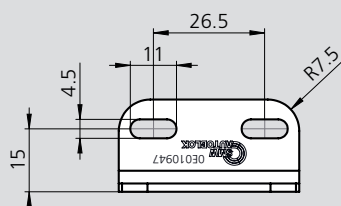
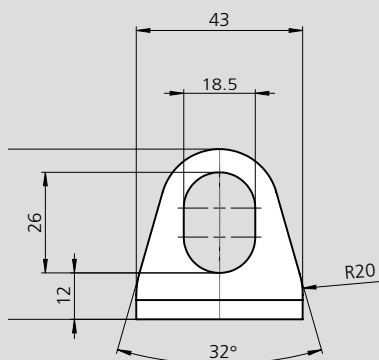
SMW-electronics Type

Id. No.

Mounting bracket M30

0E010946

Mounting bracket for inductive coupler M18



Scope of delivery: 1 piece

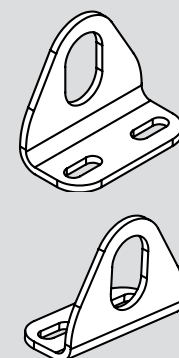
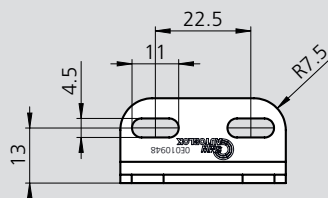
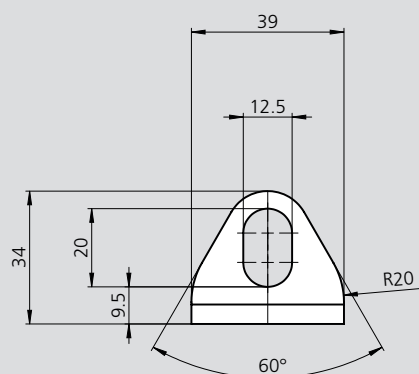
SMW-electronics Type

Id. No.

Mounting bracket M18

0E010947

Mounting bracket for inductive coupler M12



Scope of delivery: 1 piece

SMW-electronics Type

Id. No.

Mounting bracket M12

0E010948

**Application/customer benefits**

- Wireless axial transmission of energy and data between stationary and moving components
- Customization of the geometry and data transfer for the best possible integration
- Designed for permanent use
- Free from wear and maintenance

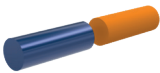
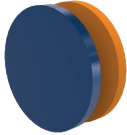




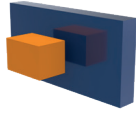
Technical features

- Energy transfer: Up to 1500W
- Possible signal transfer:
 - Analog signals (0 - 10V / 4 - 20mA)
 - Temperature signals (PT100)
 - Digital signals / PNP signals
 - Field bus (CAN, Profibus, RS485, RS232)
 - IO-Link
 - Ethernet

Request form for individual customized adaption

Please tick the selection that applies to you or enter your desired parameters in the fields provided and afterwards send the completed inquiry form to info@smw-electronics.de

Specifications - Mechanics

<input type="checkbox"/> Axial Cylindrical	<input type="checkbox"/> Axial Disc	<input type="checkbox"/> Axial Ring	<input type="checkbox"/> Radial	<input type="checkbox"/> Radial Ring / Ring	<input type="checkbox"/> Axial Segment / Ring	<input type="checkbox"/> Linear
						
ØA	ØA	ØA	ØA	ØA	ØA	L1
L1		ØI	ØI	ØI	ØI	L2
L2						

ØA = Outside diameter, ØI = Inside diameter, L1 = Length part 1, L2 Length part 2

Specifications - Electronics

Voltage ☐ 24 V Other

Type of supply ☐ Sensors ☐ Actuator technology Other

Distance mm

Signal transfer

Signals / Interface	Quantity signals remote to base (unidirectional)	Quantity signals base to remote (bidirectional)
Analog 0...4 V		
Analog 4...20 mA		
Temperature measurement / PT100		
Digital switching / PNP signals		
IO Link		
Ethernet < 100 MBit/s		
CAN / Bus		
Customized		

Ask our experts. We would be happy to provide you with an individual solution.
 You can reach us at the following email address: info@smw-electronics.de

- For energy and data
- For 1 medium (air, oil+air, cooling lubricant)

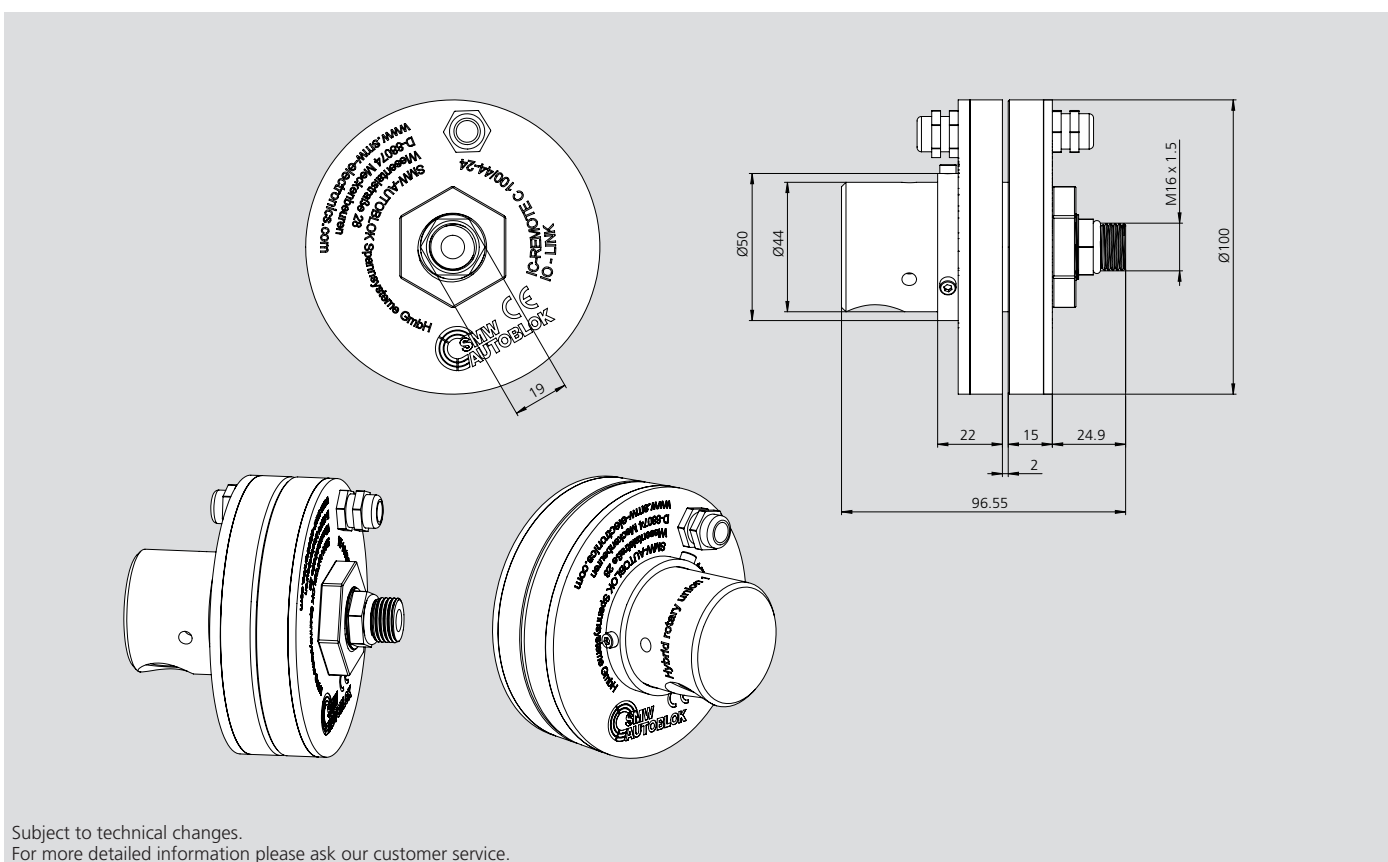


Application/customer benefits

- Rotary feed with loss- and wear-free energy, data and media transmission
- Application examples: Packaging machines, machine tools, labelling machines, robotics, rotary tables
- Data transmission Ethernet or IO-Link
- Media transmission: 1 medium (air, oil+air, cooling lubricant)

Technical features

- Power transmission 24V, 100W
- Signal transmission: Ethernet 100 Base-T or IO-Link (COM 3)
- Media connection G1/4"
- Speed max. 7000 r.p.m.



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

SMW-electronics Type	Hybrid rotary union digital - 1 medium
Id. No.	OE011700
Energy transmission	24V, 100W
Signal transmission	Ethernet 100 Base-T or IO-Link (COM 3)
Connection Media	G1/4"
Max. speed	7000 r.p.m.

- For energy and data
- For 2 media (air, oil+air, cooling lubricant)

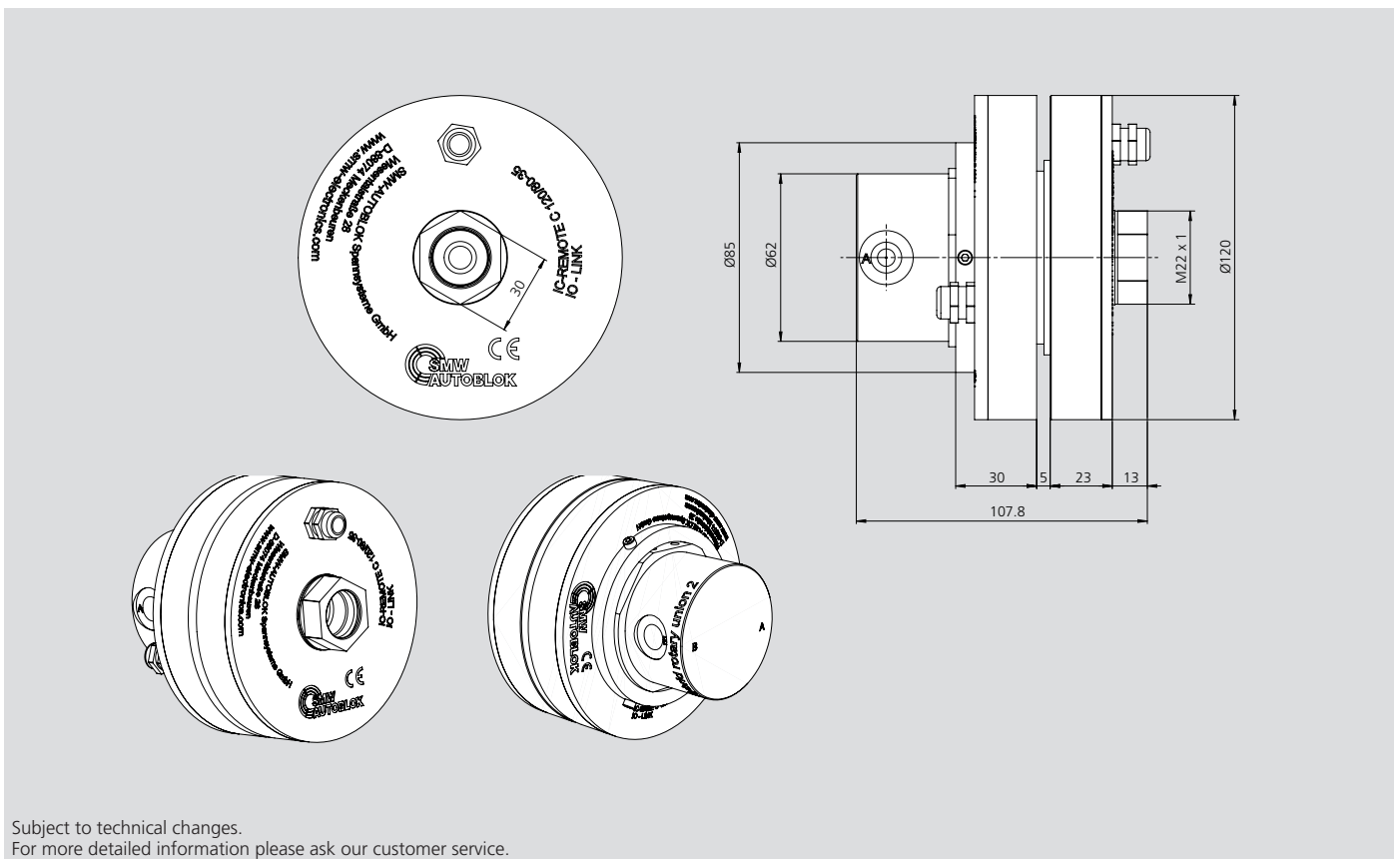


Application/customer benefits

- Rotary feed with loss- and wear-free energy, data and media transmission
- Application examples: Packaging machines, machine tools, labelling machines, robotics, rotary tables
- Data transmission Ethernet or IO-Link
- Media transmission: 2 media (air, oil+air, cooling lubricant)

Technical features

- Power transmission 24V, 100 Watt
- Signal transmission: Ethernet 100 Base-T or IO-Link (COM 3)
- Media connection 2 x G1/4
- Speed max. 6000 r.p.m.



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

SMW-electronics Type	Hybrid rotary union digital - 2 media
Id. No.	0E011701
Energy transmission	24V, 100W
Signal transmission	Ethernet 100 Base-T or IO-Link (COM 3)
Connection Media	2 x G1/4"
Max. speed	6000 r.p.m.

LPS 4.0 14 IO

Linear Position Sensor
Measuring range 14 mm

Linear Position Sensor



Application/customer benefits

- High precise inductive linear position measuring system
- Ready for Industry 4.0

Technical features

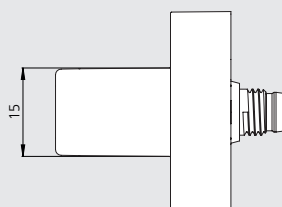
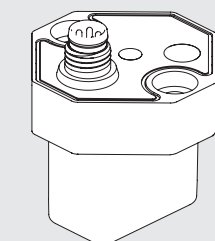
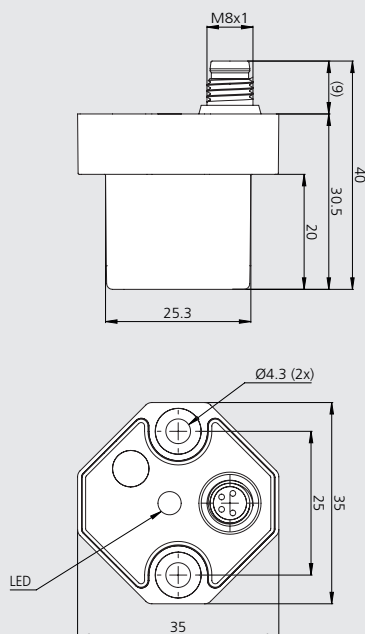
- Inductive measuring system
- No interference from magnetic fields
- Measuring range = 14 mm
- Compact design / simple installation
- Analog output 0 - 10V (Id. No. 208106)
- IO-Link standard interface
- Protection class IP 67

Standard equipment

LPS 4.0 14 IO without cable

Ordering example

LPS 4.0 14 IO 0 - 10V
Id. No. 208106
Cable with elbow plug 5 m
Id. No. 208241



Pin Assignment Plug M8 x 1

Pin	Description
1	24V DC
2	Signal output 0 - 10V
3	GND
4	C/Q (IO-Link)



Technical data

SMW-AUTOBLOK Type	LPS 4.0 14 IO 0 - 10V
Id. No.	208106
Measuring range	14 mm
Output signal	0 - 10V
Power supply	24V DC
Repeat accuracy	± 0.05 mm
Linearity	± 0.20 mm
Temperature drift	0.25 mm
Operating temperature	10 - 60°
Protection class	IP 67
Interface	IO-Link 1.0
MTTF _d	490 a
Mission time (T _M)	20 a
Diagnostic Coverage (DC)	0%

Cables for LPS 4.0 14 IO*	Length	Id. No.	
Sensor connection cable straight plug M8 x 1 5-pin	5 m	208238	
	10 m	208239	
	15 m	208240	
Sensor connection cable elbow plug M8 x 1 5-pin	5 m	208241	
	10 m	208242	
	15 m	208243	

* Shielded PUR cable, 1 side cable end, 1 side with socket M8 x 1, machined and gold-plated contacts.



Application/customer benefits

- High precise inductive linear position measuring system
- Ready for Industry 4.0

Technical features

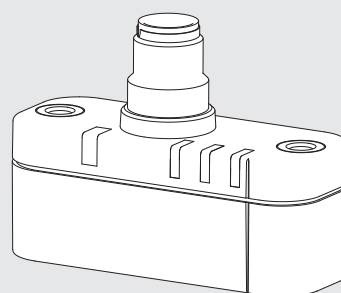
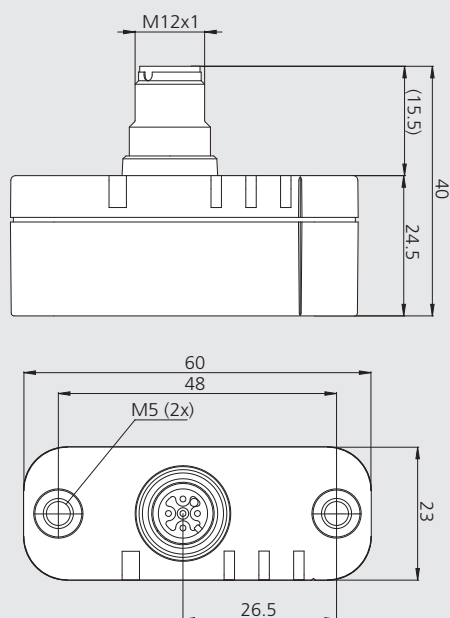
- Inductive measuring system
- No interference from magnetic fields
- Measuring range = 48 mm
- Compact design / simple installation
- Analog output 0 - 10V (Id. No. 208108) / 4 - 20mA (Id. No. 208107)
- IO-Link standard interface
- Protection class IP 67
- LEDs for operating status

Standard equipment

LPS 4.0 48 IO without cable

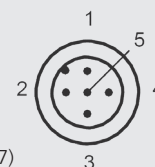
Ordering example

LPS 4.0 48 IO 0 - 10V
Id. No. 208108
Cable with elbow plug 5 m
Id. No. 208247



Pin Assignment Plug M12 x 1

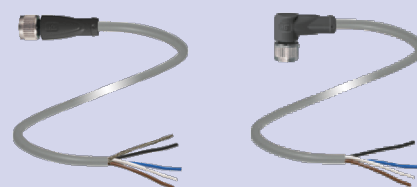
Pin	Description
1	24V DC
2	not used
3	GND
4	C/Q (IO-Link)
5	Signal output 0 - 10V (Id. No. 208108) Signal output 4 - 20mA (Id. No. 208107)



Technical data

SMW-AUTOBLOK Type	LPS 4.0 48 IO 0 - 10V	LPS 4.0 48 IO 4 - 20mA
Id. No.	208108	208107
Measuring range	48 mm	48 mm
Output signal	0 - 10V	4 - 20mA
Power supply	24V DC	24V DC
Repeat accuracy	± 0.1 mm	± 0.1 mm
Linearity	± 0.2 mm	± 0.2 mm
Temperature drift	0.25 mm	0.25 mm
Operating temperature	10 - 60°	10 - 60°
Protection class	IP 67	IP 67
Interface	IO-Link 1.1	IO-Link 1.1
MTTF _d	365 a	365 a
Mission time (T _M)	20 a	20 a
Diagnostic Coverage (DC)	0%	0%

Cables for LPS 4.0 48 IO*	Length	Id. No.
Sensor connection cable straight plug M12 x 1 5-pin	5 m	208244
	10 m	208245
	15 m	208246
Sensor connection cable elbow plug M12 x 1 5-pin	5 m	208247
	10 m	208248
	15 m	208249



* Shielded PUR cable, 1 side cable end, 1 side with socket M12 x 1, machined and gold-plated contacts.

LPS 4.0 80 IO

Linear Position Sensor
Measuring range 80 mm

Linear Position Sensor



Application/customer benefits

- High precise inductive linear position measuring system
- Ready for Industry 4.0

Technical features

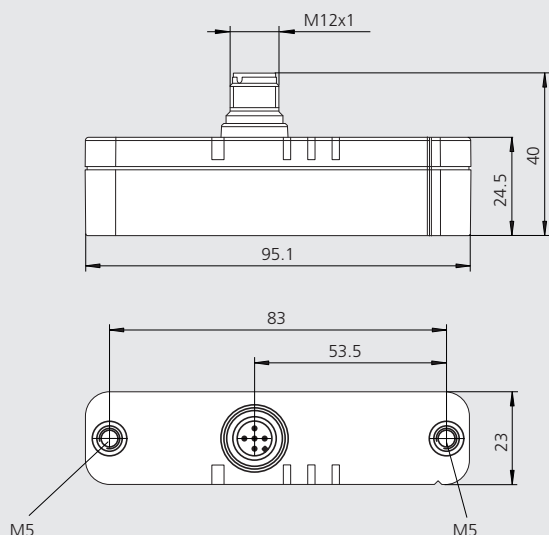
- Inductive measuring system
- No interference from magnetic fields
- Measuring range = 80 mm
- Compact design / simple installation
- Analog output 0 - 10V (Id. No. 212001) / 4 - 20mA (Id. No. 212000)
- IO-Link standard interface
- Protection class IP 67
- LEDs for operating status

Standard equipment

LPS 4.0 80 IO without cable

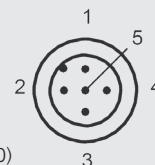
Ordering example

LPS 4.0 80 IO 0 - 10V
Id. No. 212001
Cable with elbow plug 5 m
Id. No. 208247



Pin Assignment Plug M12 x 1

Pin	Description
1	24V DC
2	not used
3	GND
4	C/Q (IO-Link)
5	Signal output 0 - 10V (Id. No. 212001) Signal output 4 - 20mA (Id. No. 212000)



Technical data

SMW-AUTOBLOK Type	LPS 4.0 80 IO 0 - 10V	LPS 4.0 80 IO 4 - 20mA
Id. No.	212001	212000
Measuring range	80 mm	80 mm
Output signal	0 - 10V	4 - 20mA
Power supply	24V DC	24V DC
Repeat accuracy	± 0.1 mm	± 0.1 mm
Linearity	± 0.2 mm	± 0.2 mm
Temperature drift	0.25 mm	0.25 mm
Operating temperature	10 - 60°	10 - 60°
Protection class	IP 67	IP 67
Interface	IO-Link 1.1	IO-Link 1.1
MTTF _d	311 a	311 a
Mission time (T _M)	20 a	20 a
Diagnostic Coverage (DC)	0%	0%

Cables for LPS 4.0 80 IO*	Length	Id. No.	
Sensor connection cable straight plug M12 x 1 5-pin	5 m	208244	
	10 m	208245	
	15 m	208246	
Sensor connection cable elbow plug M12 x 1 5-pin	5 m	208247	
	10 m	208248	
	15 m	208249	

* Shielded PUR cable, 1 side cable end, 1 side with socket M12 x 1, machined and gold-plated contacts.



Application/customer benefits

- High precise inductive linear position measuring system
- Ready for Industry 4.0

Technical features

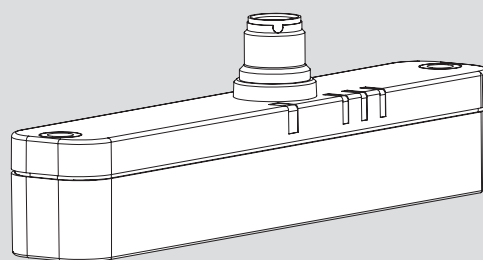
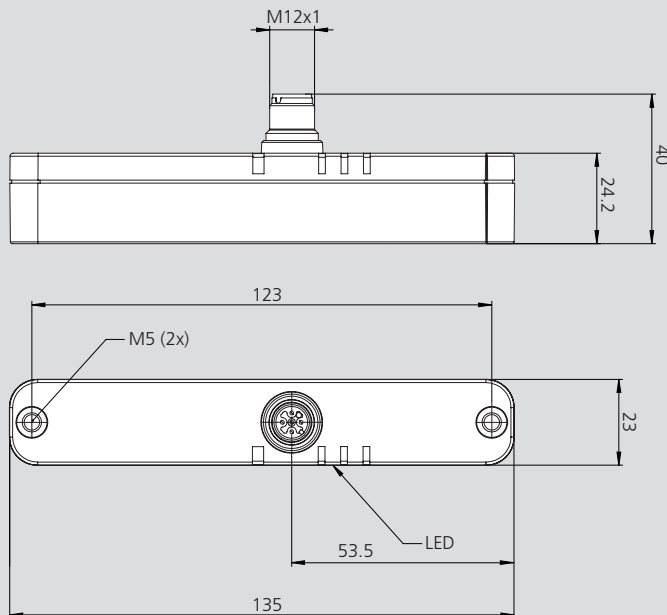
- Inductive measuring system
- No interference from magnetic fields
- Measuring range = 120 mm
- Compact design / simple installation
- Analog output 0 - 10V (Id. No. 208110) / 4 - 20mA (Id. No. 208109)
- IO Link standard interface
- Protection class IP 67
- LEDs for operating status

Standard equipment

LPS 4.0 120 IO without cable

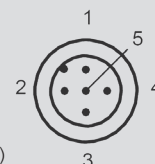
Ordering example

LPS 4.0 120 IO 0 - 10V
Id. No. 208110
Cable with elbow plug 5 m
Id. No. 208247



Pin Assignment Plug M12 x 1

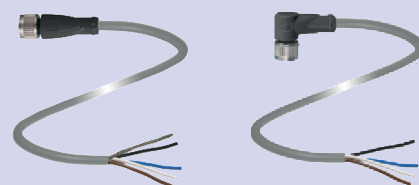
Pin	Description
1	24V DC
2	not used
3	GND
4	C/Q (IO-Link)
5	Signal output 0 - 10V (Id. No. 208110) Signal output 4 - 20mA (Id. No. 208109)



Technical data

SMW-AUTOBLOK Type	LPS 4.0 120 IO 0 - 10V	LPS 4.0 120 IO 4 - 20mA
Id. No.	208110	208109
Measuring range	120 mm	120 mm
Output signal	0 - 10V	4 - 20mA
Power supply	24V DC	24V DC
Repeat accuracy	± 0.1 mm	± 0.1 mm
Linearity	± 0.2 mm	± 0.2 mm
Temperature drift	0.25 mm	0.25 mm
Operating temperature	0 - 70°	0 - 70°
Protection class	IP 67	IP 67
Interface	IO-Link 1.1	IO-Link 1.1
MTTF _d	271 a	271 a
Mission time (T _M)	20 a	20 a
Diagnostic Coverage (DC)	0%	0%

Cables for LPS 4.0 120 IO*	Length	Id. No.
Sensor connection cable straight plug M12 x 1 5-pin	5 m	208244
	10 m	208245
	15 m	208246
Sensor connection cable elbow plug M12 x 1 5-pin	5 m	208247
	10 m	208248
	15 m	208249



* Shielded PUR cable, 1 side cable end, 1 side with socket M12 x 1, machined and gold-plated contacts.

MULTI DEVICE

Gripping Force Tester GFT-X 4.0

Wireless gripping force and speed measuring of jaw chucks and collet chucks in dynamic or static measuring mode.



Measuring heads

M3/M4

Measuring heads for jaw chucks

Clamping-Ø 72 to 108 mm



Measuring head convertible for 2 and 3 jaws

Measuring head	Range/gripping force	
	2 Jaws	3 Jaws
M3	0 to 180 kN	0 to 270 kN
	Id. No. 207074	
M4	0 to 30 kN	0 to 45 kN
	Id. No. 207259	



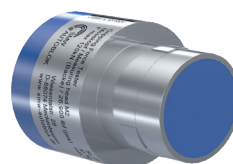
Separate measuring head for 2, 3 and 6 jaws

Measuring head	Range/gripping force
	6 Jaws
M3-6	0 to 270 kN on request
M4-6	0 to 45 kN on request

M2

Measuring head for collet chucks

Clamping-Ø 42 mm



For collets with 3 segments

Measuring head	Range/gripping force
	Collets
M2	0 to 120 kN
	Id. No. 207258

M1

Measuring head for collet chucks

Clamping-Ø 18 mm



For collets with 3 segments

Measuring head	Range/gripping force
	Collets
M1	0 to 75 kN
	Id. No. 207257

Features GFT-X 4.0

- **Wireless data transfer** from measuring head to table via Bluetooth for the measuring of dynamic and static clamping forces and speed (with included bracket)
- **Built-in camera** in tablet
- **Assistance systems:**
Manuals, Jaw Finder, Chuck Finder, Technical calculations
- **Rechargeable battery**, operation time in use: 8h
- **Smart user interface**
- Tablet suitable for **industrial use** (Protection class IP 67)
- **Display** kN or lbf
- **Languages:**
German, English, Italian, Spanish, Russian, Chinese and Japanese
- **Measured clamping forces can be evaluated** by the integrated software or by the display software on Laptop / PC
- **4 Measuring heads** for jaw chucks and
2 Measuring heads for collet chucks



Gripping force tester – GFT-X 4.0 with measuring head



GFT-X 4.0

Wireless Gripping Force Tester

Expert Multi Device

- Technical data
- Ordering review

Standard equipment with GFT-X 4.0

Case with:

- Large Multi Device Tablet.
- Measuring head M3 (2 and 3 jaws) for jaw chucks with extensions and loading device.
- Torx-key T15 and spare screws.
- Bracket with magnet for measuring of speed.
- Loading cable with USB port.
- USB cable for Tablet.
- Adapter for USA, UK and Southern Europe.



Ordering data

GFT-X 4.0 case incl. Tablet, Measuring head M3 (2 and 3 jaws) Id. No. 206844

Option:

Measuring head M1 (for collet chucks)	Id. No.	207257
Measuring head M2 (for collet chucks)	Id. No.	207258
Measuring head M3 (2 and 3 jaws)	Id. No.	207074
Measuring head M4 (2 and 3 jaws, high-precision)	Id. No.	207259
Measuring head M3 (6 jaws)	Id. No.	207586
Measuring head M4 (6 jaws, high-precision)	Id. No.	207587

Display software PC / Laptop

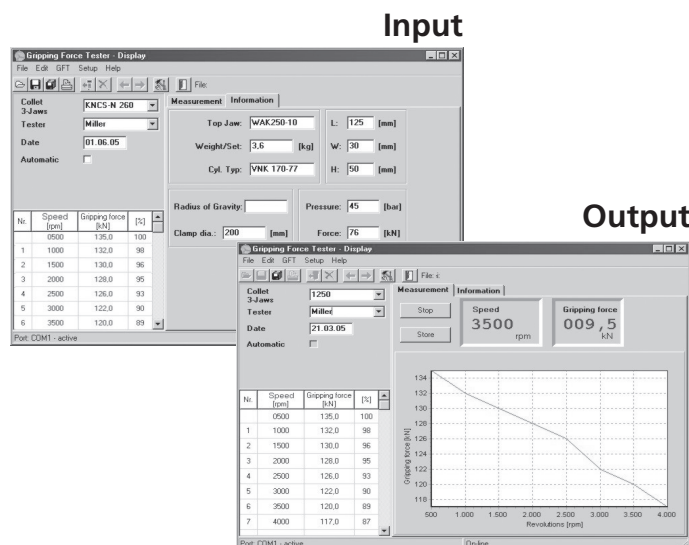
- The data transfer is via an USB interface.
- The software can be run under all standard windows systems.

Input

- Automatic measuring of the data (gripping force - speed).
- The number of measuring steps can be programmed free.

Output

- Table gripping force / speed.
- Diagram gripping force / speed.



Technical data

Tablet

Display / Grip force F – speed	Display in kN / lbf - r.p.m
Data transfer	Bluetooth 4.0
Power supply / Transformer	100 / 240 V AC, 50 to 60 Hz
Distance Tablet / Measuring head	1-4 m (appr.)
Interface PC / Laptop	USB 2.0
Operating temp.	0 to 40° (32°-100 °F)
Protection class	IP 67

Warning: Machine door must be closed while measuring head is rotating!

Measuring heads

	Measuring head M1	Measuring head M2	Measuring head M3	Measuring head M4
Application	collet Ø 18	collet Ø 42	chuck 2 / 3 or 2 / 3 / 6 jaws	
Clamping diameter	18 mm	42 mm	72 to 108 mm	72 to 108 mm
No. of jaws	collet 3 x slotted	collet 3 x slotted	2 and 3 jaws / 6 jaws	
Power supply	internal rechargeable capacitor			
Capacity of power supply	ca. 1.5 h at 50 % d.c.			
Data transfer	Bluetooth 4.0			
Range / gripping force F max.	0 to 75 kN	0 to 120 kN	0 to 180 kN (2-jaws) 0 to 270 kN (3 / 6-jaws)	0 to 30 kN (2-jaws) 0 to 45 kN (3 / 6-jaws)
Speed r.p.m	<10.000 r.p.m.	<8.000 r.p.m.	<6.000 r.p.m.	<6.000 r.p.m.
Accuracy (F / r.p.m)	<5% / <1% fsr	<5% / <1% fsr	<3% / <1% fsr	<1.5% / <1% fsr

Notes

Digital products

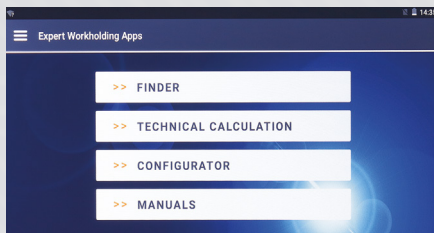
Customised software programming



Efficient development process:

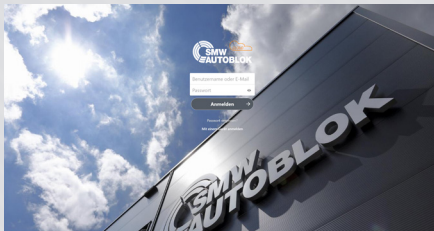
- 1 - Requirements analysis
- 2 - Design
- 3 - Implementation
- 4 - Test cycle
- 5 - Release
- 6 - Customer test

Software solutions



App programming

Solutions for PC / Laptop
and Tablets / Smartphones



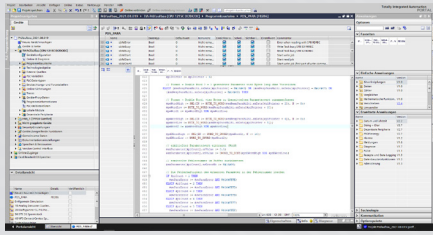
Cloud solutions

Cloud-based individual solutions



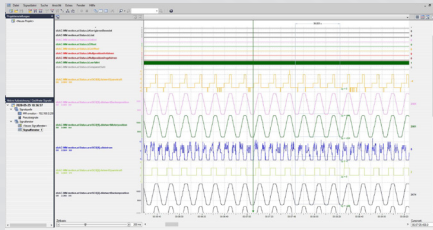
OPC UA

Secure data exchange using
the latest technology standards



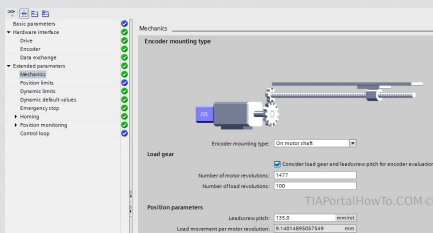
SPS programming

Control technology solutions for the digitalised production process



Monitoring / analysis software

Software for monitoring and evaluation of processes



Motion Control

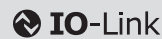
Software for motion control in the range of mechatronics / automation / robotics

Software mechatronic clamping systems

- S7 TIA
- Codesys
- IEC 61131



Hub

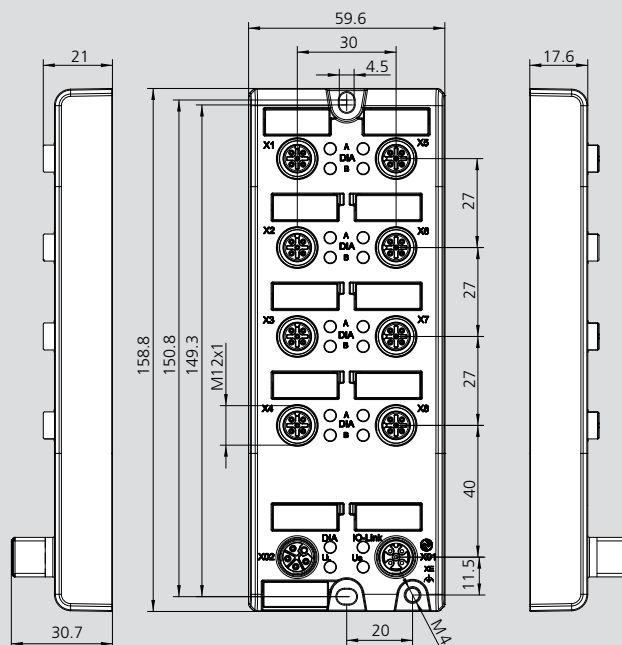


Application/customer benefits

- Module for 16 digital input and output signals
- 8 x M12 plug connections
- Solid metal housing
- Plug and Play

Technical features

- IO-Link Hub
- 8 x M12 A-coded I/O connection
- 16 digital signals (IN/OUT)
- Reverse polarity protection, short circuit proof
- Id.-No.: OE011403
- M12, 5-poles, L-coded power connection
- Protection class: IP69K



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

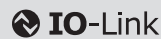
SMW-electronics Type	IO-Link Hub 16DIO
Id. No.	OE011403
Housing material	Metal, zinc die-cast
Protection degree / IP rating	IP69K
Dimensions (WxHxD)	60 mm x 31 mm x 159 mm
Weight	400 g
Ambient temperature (operation)	-20 °C to 70 °C
Contact base material	gold-plated

Input / output module for up to 16 signals (IN/OUT)		IO-Link Hub 16DIO
		Hub
SMW-electronics Type	IO-Link Hub 16DIO	
Id. No.	0E011403	
IO-Link		
Connection	M12, 5-poles, A-coded	
Specification	V1.1.2	
Transmission rate / COM mode	COM 3 (230.4 kbps)	
Power supply		
Connection module supply voltage	M12, 5-poles, A-coded	
Supply voltage	18...30V	
Reverse polarity protection	Yes	
Status indicator	LED green	
Diagnostic indicator	LED red	
Connection sensor supply voltage	M12 power, 5-poles, L-coded	
Number of connections	1	
Sensor supply voltage	18...30V	
Digital input channels		
Number of digital input channels	16	
Connection	M12, 5-poles, A-coded	
Number of ports	8x, X1 to X8	
Input wiring	2-, 3-, 4-wire	
Nominal voltage	24V DC via US (module power supply)	
Digital output channels		
Number of digital output channels	16	
Connection	M12, 5-poles, A-coded	
Number of ports	8x, X1 to X8	
Output wiring	2-, 3-wire	
Nominal voltage	24V DC (supplied PIN 2 / 4 of M12 power connector)	

IO-Link Hub 16DI

Input module for up to 16 signals (IN)

Hub

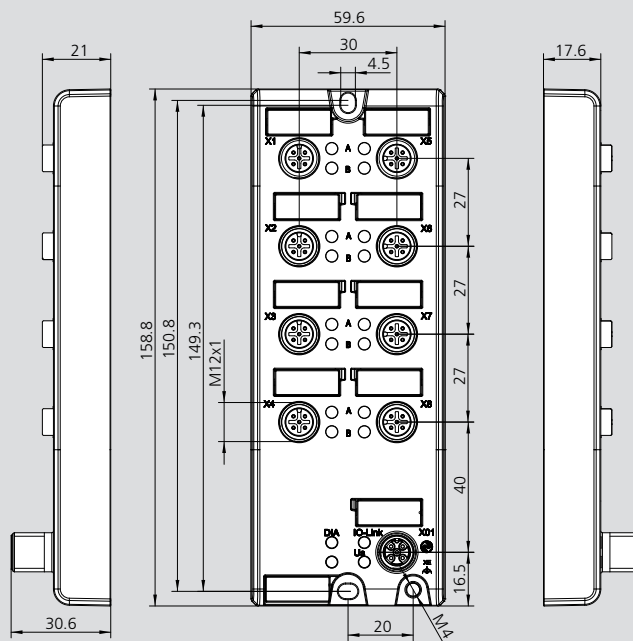


Application/customer benefits

- Input module for up to 16 digital input signals
- 8 x M12 plug connections
- Solid metal housing
- Plug and Play

Technical features

- IO-Link Hub
- 8 x M12 A-coded I/O connection
- 16 digital signals (IN)
- Reverse polarity protection, short circuit proof
- Id.-No.: OE011404
- M12, 5-poles, L-coded power connection
- Protection class: IP69K

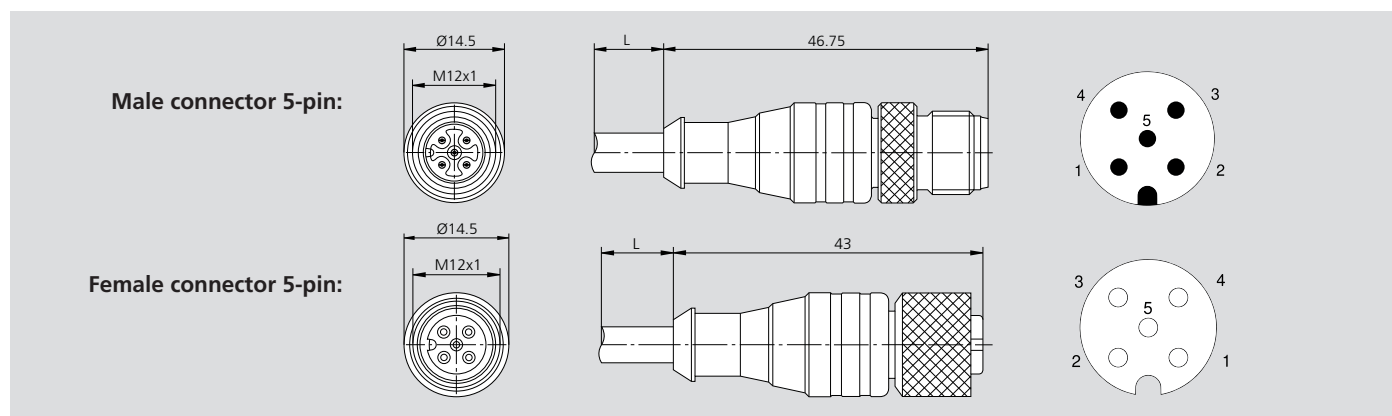


Subject to technical changes.
For more detailed information please ask our customer service.

SMW-electronics Type	IO-Link Hub 16DI
Id. No.	OE011404
Housing material	Metal, zinc die-cast
Protection degree / IP rating	IP69K
Dimensions (WxHxD)	60 mm x 31 mm x 159 mm
Weight	390 g
Ambient temperature (operation)	-20 °C to 70 °C
Contact base material	gold-plated

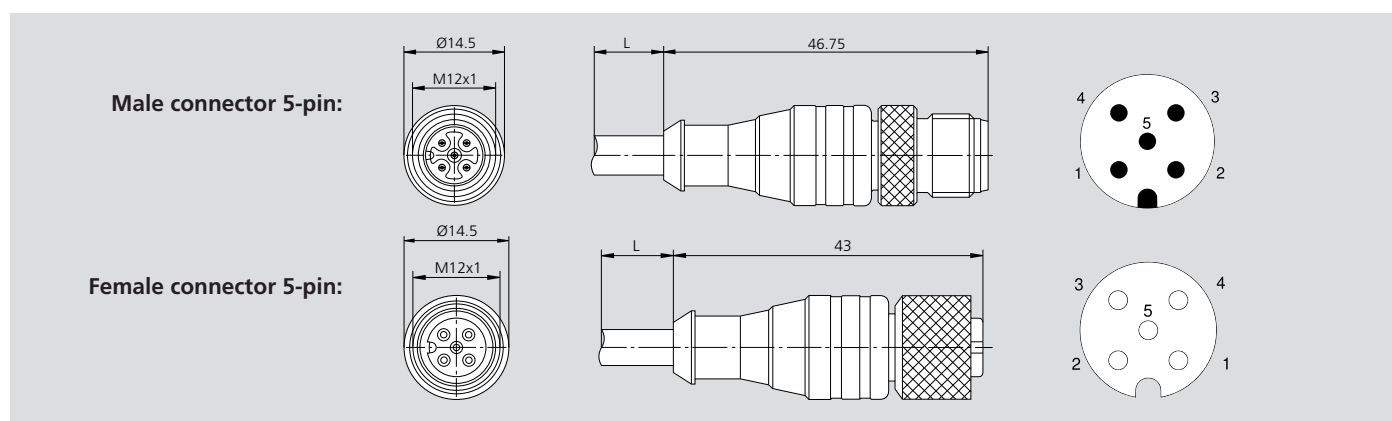
Input module for up to 16 signals (IN)		IO-Link Hub 16DI
		Hub
SMW-electronics Type	IO-Link Hub 16DI	
Id. No.	0E011404	
IO-Link		
Connection	M12, 5-poles, A-coded	
Specification	V1.1.2	
Transmission rate / COM mode	COM 3 (230.4 kbps)	
Power supply		
Connection module supply voltage	M12, 5-poles, A-coded	
Power supply	18...30V	
Reverse polarity protection	Yes	
Status indicator	LED green	
Diagnostic indicator	LED red	
Connection sensor supply voltage	M12 power, 5-poles, L-coded	
Sensor supply voltage	18...30V	
Digital input channels		
Number of digital input channels	16	
Connection	M12, 5-poles, A-coded	
Number of ports	8x, X1 to X8	
Input wiring	2, 3-wire	
Nominal voltage	24V (module power supply)	
Sensor type	PNP	

Sensor actuator cable - 1 meter



SMW-electronics Type	Connection cable M12 pin straight to M12 socket straight
Id. No.	0E011405
Number of poles	Side 1 = 5, side 2 = 5
Coding	A
Material contact	CuSn, gold-plated
Cable sheath	PUR black
Cable construction	5 x 0.5 mm ²
UL approval	UL 2238; cURus
IP protection class	IP65, IP67, IP68, IP69K
Length	1 m

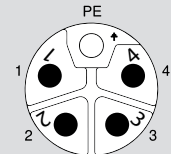
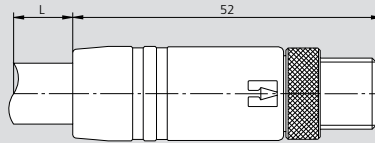
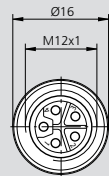
Sensor actuator cable - 3 meters



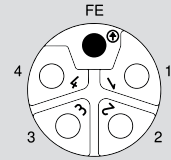
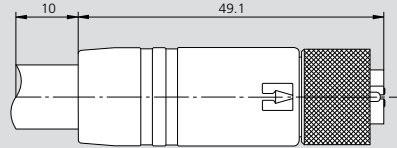
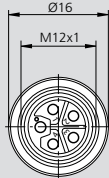
SMW-electronics Type	Connection cable M12 pin straight to M12 socket straight
Id. No.	0E011406
Number of poles	Side 1 = 5, side 2 = 5
Coding	A
Material contact	CuSn, gold-plated
Cable sheath	PUR black
Cable construction	5 x 0.5 mm ²
UL approval	UL 2238; cURus
IP protection class	IP65, IP67, IP68, IP69K
Length	3 m

Power cable for IO-Link hub (0E011404)

Male connector 5-pin:



Female connector 5-pin:



SMW-electronics Type	M12 power connection cable: socket, straight
Id. No.	0E011407
Number of poles	5 (4+FE)
Coding	L
Material contact	CuNi, gold-plated
Cable sheath	PUR grey
Cable construction	5 x 1.5 mm ²
UL approval	UL 2237; cULus
IP protection class	IP65, IP67, IP68, IP69K
Length	5 m
Shielding	unshielded
Operating voltage	63V
Rated current	16A

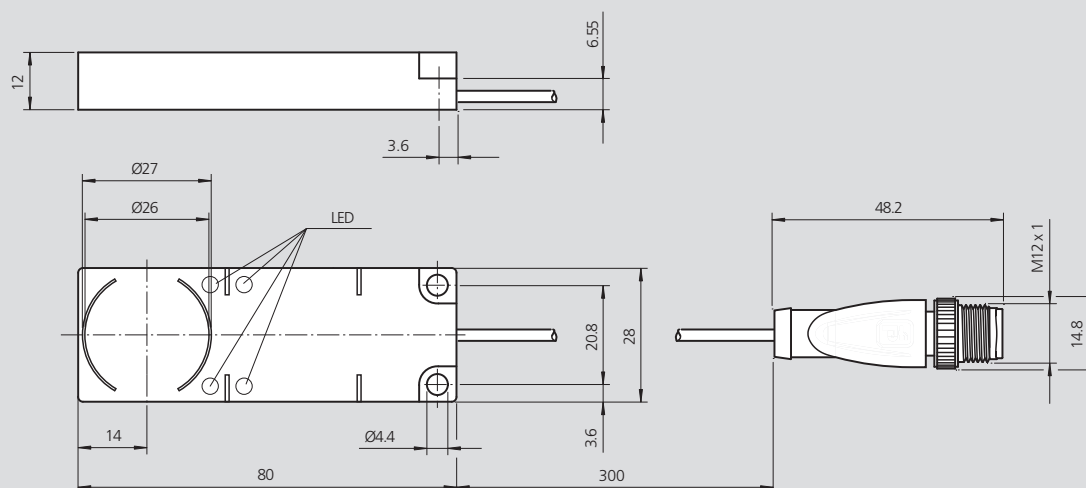


Application/customer benefits

- RFID read/write stations with IO-Link interface
- Frequency range 13.56 MHz according to standard ISO15693
- The unit supports transponders according to standard ISO 15693
- Plug and Play - Easy integration
- Proven and flexible recognition system
- LEDs for function display
- Particularly flat design
- Mountable on metal

Technical features

- Protection class IP67
- Connection Plug connector M12 x 1
- IO-Link interface V1.1 (COM 3)
- Read / write distance 0 - 55 mm
- Dimensions 80 x 28 mm
- Operating frequency 13.56 Mhz



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

SMW-electronics Type	RFID read / write station
Id. No.	0E011400
General data	
Operating frequency	13.56 MHz
Transmission rate	26 kBit/s
Read distance	0 ... 55 mm
Write distance	0 ... 55 mm
Functional safety characteristics	
MTTF _d	280 a
Diagnostic coverage (DC)	0 %
Displays / controls	
LED green	ON: Power ON / flashing: IO-Link communication
LED yellow	Data carrier detected
LED red	Flashing: IO-Link communication disturbed
LED blue	Write / read attempt is being carried out
Interface	
Interface type	IO-Link
Mode	COM 3
Environmental conditions	
Ambient temperature	-25 ... 70°C (-13 ... 158°F)
Mechanical data	
Protection class	IP67
Connection	Connector M12 x 1

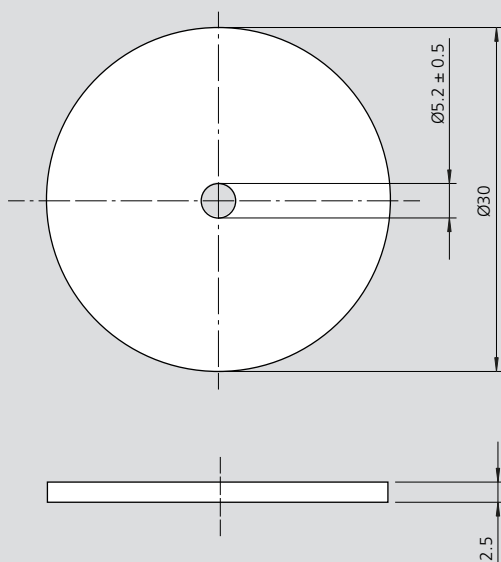


Application/customer benefits

- 2000 bytes of memory freely available
- Readable and writable from both sides
- Simple mounting due to fixing hole
- Can be rewritten as often as required

Technical features

- Protection class IP68
- Operating frequency 13.56 Mhz
- 64 bit fixed code

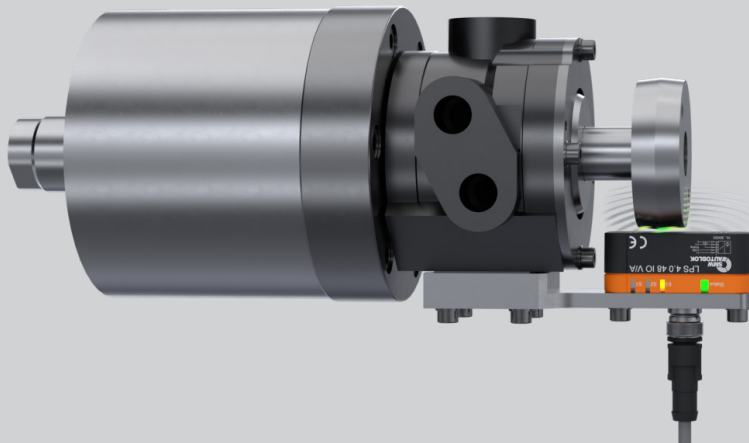


Subject to technical changes.
For more detailed information please ask our customer service.

SMW-electronics Type	RFID Transponder
Id. No.	0E011401
General data	
Operating frequency	13.56 MHz
Transmission rate	26 kBit/s
Memory	
Chip type	FRAM MB89R118 (Fujitsu)
FRAM	16 kBit
UID	64 Bit
Memory organisation	8 Byte / Block
Read cycles	unlimited
Write cycles	unlimited
Data retention time	10 years
Environmental conditions	
Ambient temperature	-40 ... 90 °C
Mechanical data	
Protection class	IP68

Note: Other versions available on request.

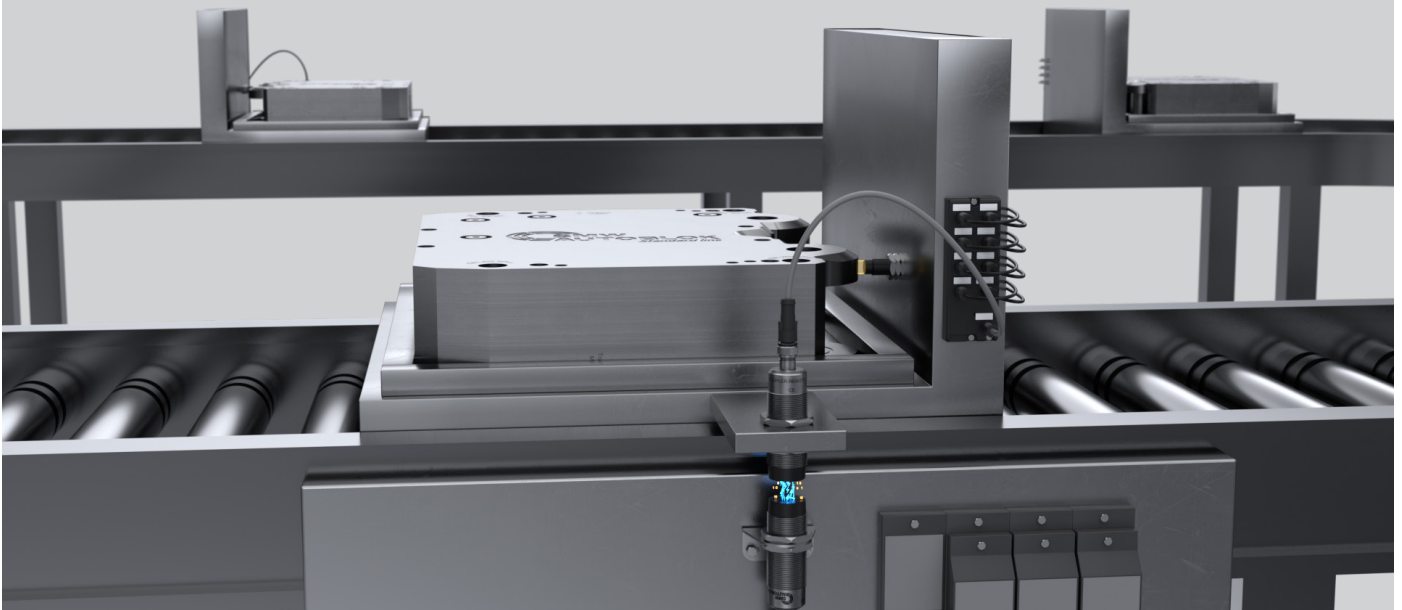
Application: Cylinder stroke sensing with linear position sensor LPS 4.0



- Inductive position monitoring
- Highest accuracy
- Signal output IO-Link, analog signal
- Various measuring lengths: 14, 48, 80 and 120 mm

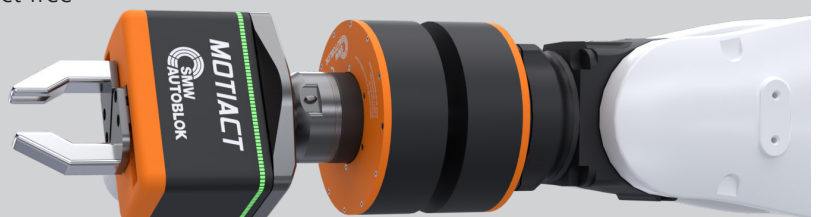
Application: Status query transport system with inductive coupler M30

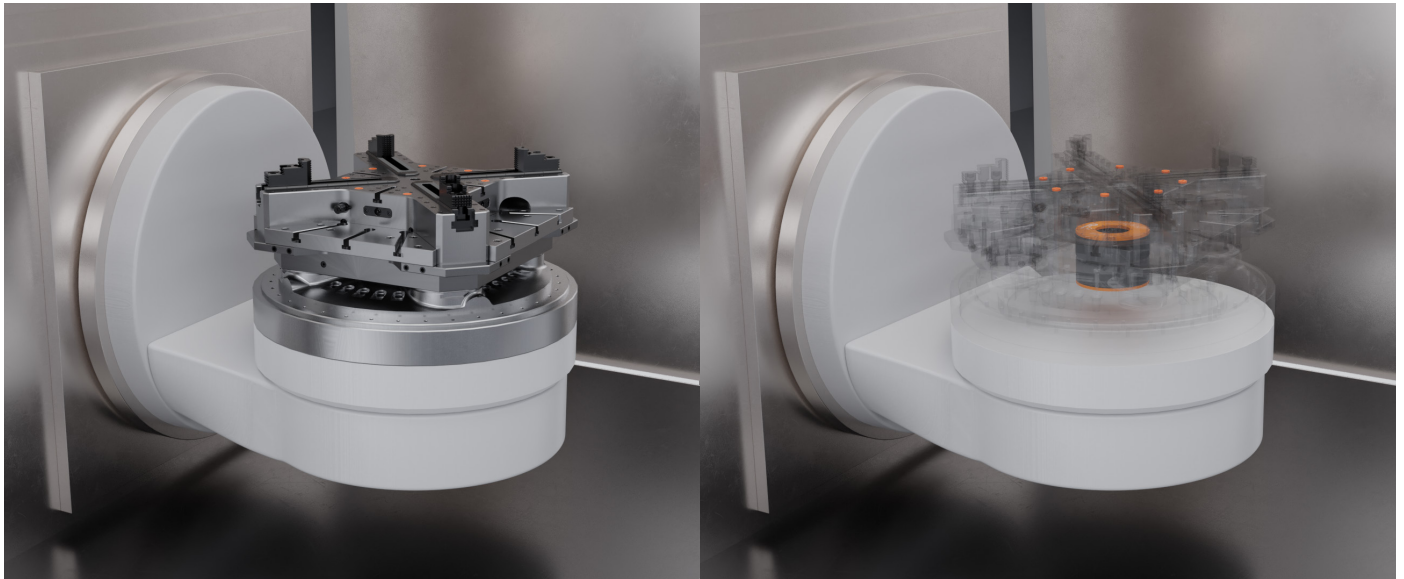
- Inductive transmission of energy and signals
- Very fast connection set-up between base and remote system
- Dynamic pairing: 1 base system connects to several remote units
- Suitable for pure room applications
- Different signals possible (IO-Link, digital signals, analog signals)



Application: Robotics End of Arm Tooling

- Inductive transmission of energy and signals
- Contact free Ethernet transmission for ultra-fast data transmission for camera application
- Power supply for camera and gripper also contact free
- Suitable for pure room applications
- Endless rotating gripper motion possible





Application: Machine tool

- Inductive transmission of energy and signal between machine table and pallet
- Digitalised clamping devices: Monitoring of different process parameters even during machining by using integrated sensor technology
- Ethernet or IO-Link

Application: Off Highway

- Inductive energy and signal transmission
- Plug replacement for safe communication between excavator and attachment tool
- Wear-resistant (even with a high degree of degree of contamination) and maintenance-free
- Quick and unmanned tool change



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