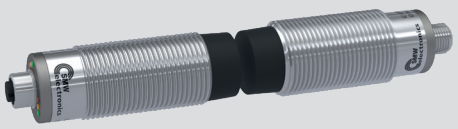
M30-IOL

Axial coupler

Inductive Coupling Sytem

■ **Contact free transmission of energy and signals**



IO-Link

Application/customer benefits

- Contact free, safe transmission of energy and signals between moving / rotating and stationary 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

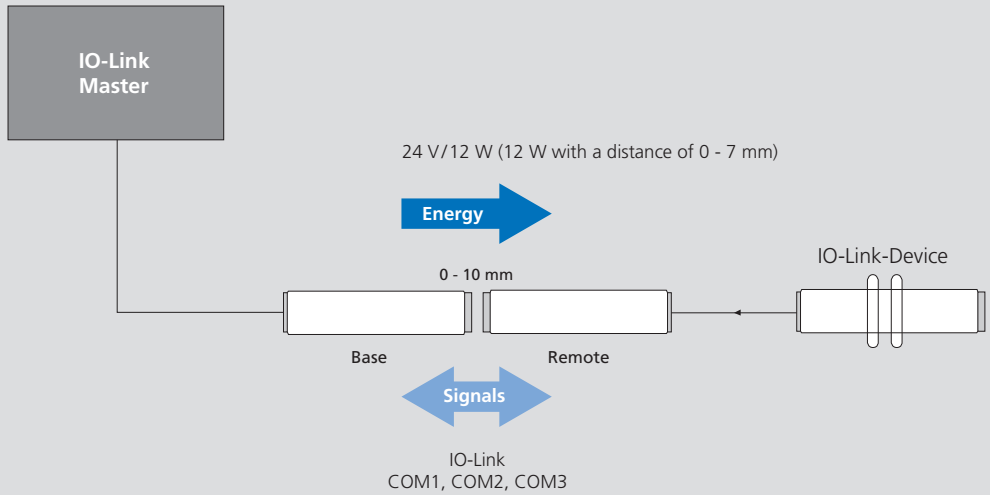
Technical features

- Mounting: M30 x 1.5
- Operating voltage: 24 V (18 ... 30 V)
- Transmission distance: 0 - 10 mm
- Transmission of energy: 24 V / 12 W (500 mA) with a distance of 0 - 7 mm
- Transmission of signals: IO-Link (COM1, COM2, COM3), 1 digital signal
- Connection: Base male connector M12 (5-pin), remote female connector M12 (5-pin)
- Protection class: IP67

Standard equiment

Inductive coupler Base or Remote

Block diagram



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

IO-Link

LED Function display Base	
LED Power	
Color	Green/red
Function	Off green » Unit not supplied with voltage
	Flashes green for 3 s/0.5 s » Device supplied with voltage 18 V < U < 30 V
	On green » Voltage ok and mobile unit detected
	Flashes 2 Hz red/green » Alternately U in > 30 V, remote overload
	Flashes 2 Hz red » Base overtemperature
	Flashes red for 3 s/0.5 s » Foreign object detected
LED Signal 1	
Color	Yellow/red
Function	Off yellow » No mobile unit detected
	On yellow » Mobile unit detected, no IOL mode
	Flashes 900 ms/100 ms yellow » IOL mode (COM1, COM2, COM3)
	2 Hz red » Signal overload (C/Q, DO, DAV)
LED Signal 2	
Color	Yellow
Function	Off yellow » Digital channel not switched (low)
	On yellow » Digital channel switched (high)
Data Valid Output	
Function	ON » Handset has been recognized and there is no error
	OFF » The data at the output is not valid because the mobile unit is not recognized, overload at the output, mobil unit power supply overloaded.

LED Function display Remote	
LED Coupling	
Color	Green/red
Function	Off green » Device is not coupled
	On green » Device is coupled and 24 V out ok
	2 Hz red/green » Overload at 24 V out or insufficient power supply
	2 Hz red » Overtemperature
	2 Hz rot » Overload cut-off at 24 V out
LED IO-Link	
Color	Yellow/red
Function	Off yellow » No stationary part detected
	On yellow » Stationary part detected, no IOL mode
	Flashes 900 ms/100 ms yellow » IOL mode (COM1, COM2, COM3)
	2 Hz red » Signal overload (C/Q)
LED Signal	
Color	Yellow
Function	Off yellow » Digital channel not switched (low)
	On yellow » Digital channel switched (high)

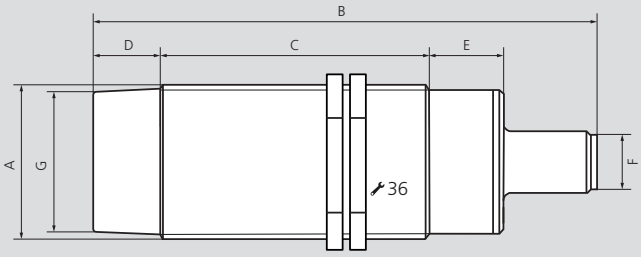
Inductive Coupling System

■ Stationary Unit - Base
■ Mobile Unit - Remote

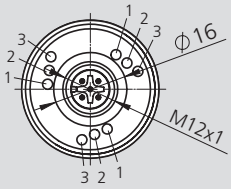
M30-IOL

Axial coupler

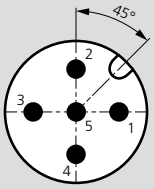
Base / Remote



Display Base LED

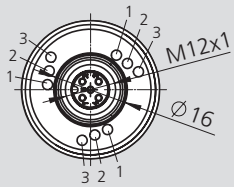


Base

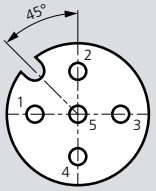


Male connector 5-pin
M 12 x 1

Display Remote LED



Remote



Female connector 4-pin
M 12 x 1

Number	LED	Color
1	Power LED	Green / Red
2	Signal LED	Yellow
3	IOL LED	Yellow / Red

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

Inductive coupling system M30-IOL			
Type		**Base**	**Remote**
Id. No.		**0E011604**	**0E011605**
A	mm	M30 x 1.5	
B	mm	96	94
C	mm	52	
D	mm	13	
E	mm	18	
F	mm	M12 x 1 / Male	M12 x 1 / Female
G	mm	Ø 27	
Housing material		CrNi, PA66, PC GF30%	
Protection class		IP67	
Operating temperature		-20°C ... +50°C	
Storage temperature		-20°C ... +80°C	
Transmission distance		0 mm ... 10 mm (12 W: 0 mm ... 7mm)*	
Weight	kg	0.13	0.13
Operating voltage		24 V (18 ... 30 V)	-
Output voltage		-	24 V ± 10% DC
Power consumption (Base)		1500 mA	-
Power output (Remote)		-	500 mA
Overload protection / short circuit protection		✓	✓
Residual ripple		-	< 200 mV
Reverse polarity protection		✓	-
Temperature monitoring		✓	✓
Data-Valid Output		150 mA	-
Ready delay		< 600 ms	

PIN assignment	PIN	Signal Base	Signal Remote
Supply voltage	1	24 V IN	24 V OUT
Digital signal	2	0/24 V OUT	0/24 V IN
Ground	3	GND	GND
IO-Link Signal	4	IO-Link CQ	IO-Link CQ
Data-Valid	5	DAV 24 V	-

* V in ≥ 22 V Base