


**NEW!**



# IMPULSES FOR AUTOMATION

## PowerBox

**PowerBox** is a relay module of the AS-Interface family.

- AS-Interface slave 2 I / 1 O (0 - 250 V)
- 2 digital inputs via 2 x M12 sockets
- 1 relay output (6 A)
- Easily replaceable relay
- Output plug 7/8" (4-pin)
- Power supply via 7/8" connector (3-pin)
- Temperature range -25 °C to +70 °C
- Degree of protection IP 67
-  **UL** us




## Application

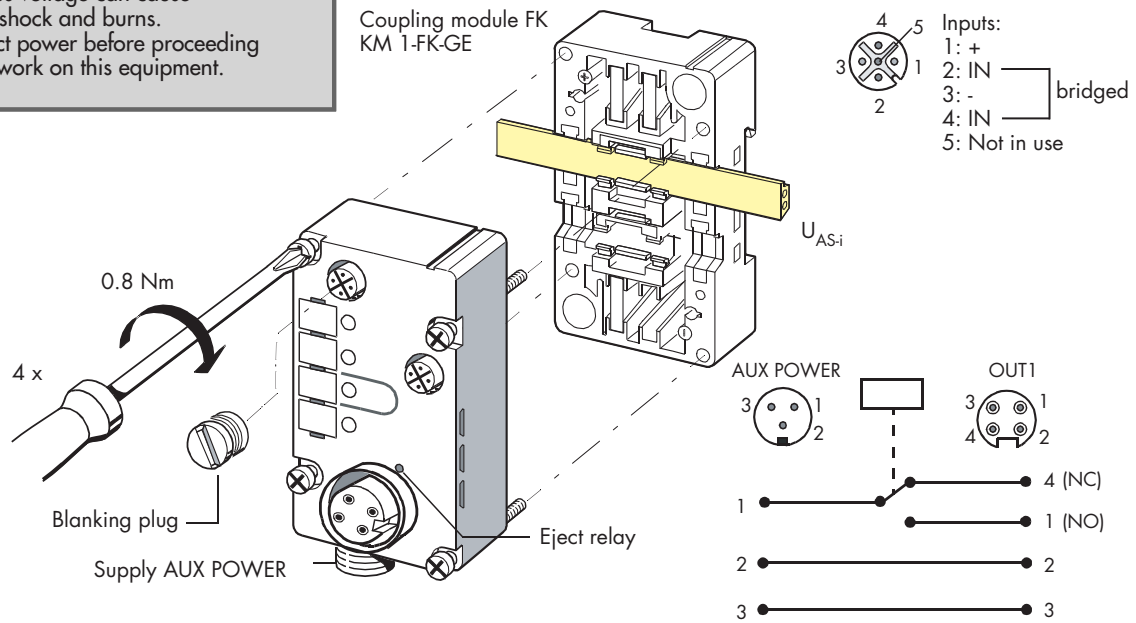
The **PowerBox** has 2 inputs and 1 relay output. You can wire up the input sockets directly with sensors (PNP, via M12 plugs) in 2- or 3-wire connection.

The sensors are supplied with energy from the relay module. For the relay output, you will require a supplementary external supply (max. 250 V / 6 A).

The relay can easily be replaced with a new one with the aid of the "eject relay" button.

## Installation / wiring

**Warning:**  
 Hazardous voltage can cause electrical shock and burns. Disconnect power before proceeding with any work on this equipment.



## Putting into service

For putting the relay module into service, the steps are as follows:

1. Set the address. To do this, use an addressing unit or a programming and service unit. Valid addresses are 1 to 31. Default address is 0. Use each address once per bus segment only.

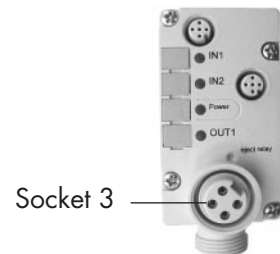
2. Fit the yellow AS-i cable in the guide(s) on the coupling module FK.  
 3. Screw the relay module tightly onto the coupling module. The green LED lights up when AS-i voltage is present.  
 4. Connect the supplementary supply to the 7/8" plug (outside thread).  
 5. Connect max. 2 sensors to the M12 sockets (inside thread).

6. Connect 1 load to the 7/8" socket (inside thread).

## Logical assignment

The table below shows the logical assignment of the data bits:

Data bit	Meaning	LEDs	Socket / Pin
I0	Input IN 1	yellow	1 / 2
I1	Input IN 2	yellow	2 / 2
O2	Output OUT 1	yellow	3 / -



## Notes

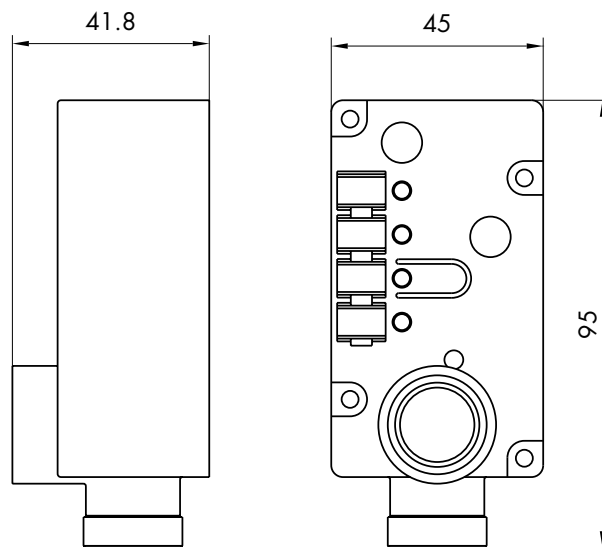
Note the following:

- To attain degree of protection IP 67, insert blanking plugs in the M12 sockets not in use.
- For protection against contact inset blanking plugs 7/8" not in use.

- Connect inductive loads via free-wheeling diodes.
- The supplementary power must be fused with one B16 circuit-breaker (max. 200 A short-circuit current).

- If communications are interrupted, the outputs are reset automatically.

## Dimensions



## Technical data Daten (as per AS-i specifications)

<b>AS-i certificate number</b>	ZU no.	45001
<b>Electrical data</b>	I/O code, ID code (hex)	3, F, F, F
<b>U<sub>AS-i</sub> (yellow cable)</b>	Operational voltage	26.5 ... 31.6 V
	Own current requirements	≤ 40 mA
	Total current input I	≤ 140 mA
<b>Inputs</b>	For signal "0" I <sub>in</sub>	≤ 1.5 mA
	For signal "1" U <sub>in</sub> , I <sub>in</sub>	≥ 10 V, ≥ 5 mA
<b>Sensor power supply</b>	Voltage range U <sub>out</sub>	20 ... 30 V DC
	Current carrying capacity I <sub>out</sub>	100 mA (short-circuit proof)
	(Total current for all sensors)	
<b>Outputs</b>	Relay	1 C/O
	Nominal contact voltage	250 V AC
	Nominal contact current	6 A
	Max. switching capacity (AC/DC)	1500 VA / 144 W
	Min. switching capacity	100 mA, 12 V
<b>Electrical protection</b>	Polarity reversal protection	integrated
	EMC-measures IEC 60801-2	8 kV
	EMC-measures IEC 60801-3	10 V/m
	EMC-measures IEC 60801-4	1 kV / 2 kV
<b>Mechanical data</b>	Degree of protection (with coupling module)	IP 67
	Weight	approx. 200 g
	Dimensions (h x w x d) [mm]	95 x 45 x 41.8
<b>Temperature range</b>	Rated temperature T <sub>u</sub>	25 °C
	Ambient temperature T <sub>a</sub>	-25 ... 70 °C
	Storage temperature T <sub>s</sub>	-25 ... 70 °C

## Order data

Part number	Description
<b>PowerBox</b>	PowerBox, AS-i cable yellow, relay 250 V AC / 6 A
<b>KM 1-FK-GE</b>	Coupling module FK (AS-i flat cable yellow/yellow) for PowerBox, AirBox 1 or 32

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