

# IL MOD BK DI8 DO4-PAC


Order No.: 2878696

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Modbus/RTU(ASCII) bus coupler, 8 inputs, 24 V DC, 4 outputs, 24 V DC, 500 mA, complete with I/O connectors

Modbus/RTU

## Commercial data

GTIN (EAN)	
sales group	K410
Pack	1 pcs.
Customs tariff	85389091
Catalog page information	Page 258 (AX-2009)

## Product notes

WEEE/RoHS-compliant since:  
11/27/2007



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## Product description

The bus coupler for the Modbus/RTU(ASCII) protocol has 4 digital outputs and 8 digital inputs. This package contains all the necessary Inline connectors for connecting the supply and the I/Os.

The Inline terminals can be labeled using pull-out labeling fields. The fields have insert cards that can be labeled individually to suit the application. Additionally, there is the ZBFM-6... Zack marker strip for labeling the terminal points.

## Technical data

### General data

Width	80 mm
Height	119.8 mm
Depth	71.5 mm
Note on dimensions	Specifications with male connectors
Weight	320 g
Note on weight specifications	with male connectors
Mounting type	DIN rail
Ambient temperature (operation)	-25 °C ... 60 °C
Ambient temperature (storage/transport)	-45 °C ... 85 °C
Permissible humidity (operation)	95 % (according to DIN EN 61131-2)
Permissible humidity (storage/transport)	95 % (according to DIN EN 61131-2)
Air pressure (operation)	80 kPa ... 106 kPa (up to 3000 m above sea level)
Air pressure (storage/transport)	70 kPa ... 106 kPa (up to 3000 m above sea level)
Degree of protection	IP20
Mechanical tests	Vibration resistance in acc. with IEC 60068-2-6 5g Shock test in acc. with IEC 60068-2-27 Operation: 25 g, 11 ms duration, semi-sinusoidal shock impulse

### Interface

Fieldbus system	Lokalbus
Name	Inline local bus
Type of connection	Inline data jumper
Transmission speed	500 Kbit / 2 MBaud
Fieldbus system	Modbus RTU
Name	Modbus RTU
Type of connection	D-SUB-9 female connector
Transmission speed	1,2 kBit/s bis 115,2 kBit/s
Number of positions	9
Name	Supply
Type of connection	8-pos. Inline connector

### Power supply for module electronics

Supply voltage	24 V DC (via Inline connector)
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Current consumption	max. 0.98 A (from $U_{BK}$ )

### Inline potential routing

Communications power $U_L$	7.5 V DC $\pm$ 5%
Power supply at $U_L$	max. 0.8 A DC
Main circuit supply $U_M$	24 V DC
Supply voltage range $U_M$	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Power supply at $U_M$	max. 8 A DC (Sum of $U_M + U_S$ )
Current consumption from $U_M$	max. 8 A DC
Segment supply voltage $U_S$	24 V DC
Supply voltage range $U_S$	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Power supply at $U_S$	max. 8 A DC (Sum of $U_M + U_S$ )
Current consumption from $U_S$	max. 8 A DC
I/O supply voltage $U_{ANA}$	24 V DC
Supply voltage range $U_{ANA}$	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Power supply at $U_{ANA}$	max. 0.5 A DC

### Digital inputs

Input name	Digital inputs
Description of the input	EN 61131-2 type 1
Type of connection	Spring-cage connection
Connection method	2, 3-wire
Number of inputs	8
Typical response time	Approx. 500 $\mu$ s
Protective circuit	Polarity reversal Suppressor diode
Input voltage	24 V DC
Input voltage range "1" signal	15 V DC ... 30 V DC
Typical input current per channel	Typ. 3 mA

### Digital outputs

Output name	Digital outputs
Type of connection	Spring-cage connection
Connection method	2, 3-wire
Number of outputs	4
Protective circuit	Short-circuit and overload protection Free running circuit
Output voltage	24 V DC -1 V (At nominal current)
Nominal output voltage	24 V DC
Maximum output current per channel	500 mA

Maximum output current per module	2 A
Nominal load, inductive	12 VA
Nominal load, lamp	12 W
Nominal load, ohmic	12 W

**Certificates / Approvals**



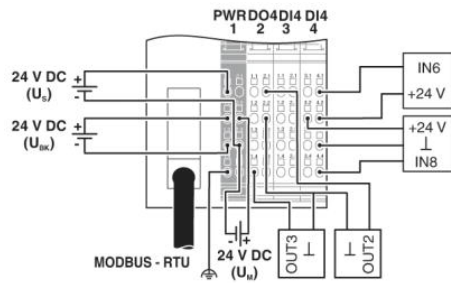
Certification: ABS, BV, CUL, DNV, GL, LR, UL  
 Certification Ex: PxC-EX

**Accessories**

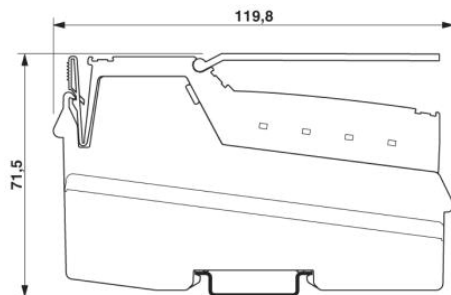
Item	Designation	Description
<b>Assembly</b>		
3022218	CLIPFIX 35	Snap-on end bracket, for 35 mm NS 35/7.5 or NS 35/15 DIN rail, can be fitted with Zack strip ZB 8 and ZB 8/27, terminal strip marker KLM 2 and KLM, width: 9.5 mm, color: gray
<b>Marking</b>		
0809492	ESL 62X10	Insert strip for laser printer, lettering field: 62 x 10 mm
0809502	ESL 62X46	Insert strip for laser printer, lettering field: 62 x 46 mm
2727501	IB IL FIELD 2	Labeling field, width: 12.2 mm
2727515	IB IL FIELD 8	Labeling field, width: 48.8 mm
<b>Plug/Adapter</b>		
2878599	IL BKDIO-PLSET	Connector set, for Inline bus coupler with I/Os mounted in rows
2310808	SUBCON-PLUS-MODBUS/IL/BK	D-SUB connector, 9-pos., male connector, two cables to be fed in at 35°, bus system: for Inline Modbus RTU/ASCII bus coupler termination resistance can be connected via slide switch, pin assignment: 3, 5, 6, 8; screw connection terminal blocks

## Diagrams/Drawings

### Connection diagram



### Dimensioned drawing



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