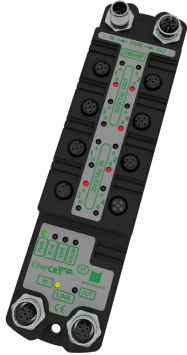




## Introduction



DB88IP is a slave EtherCAT module with up to 16 isolated input/output channels. Diagnostic leds indicate EtherCAT connection status and digital I/O.

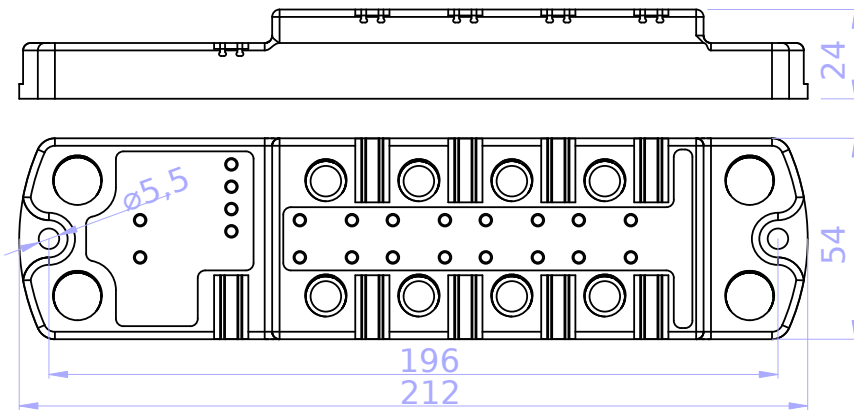


## Hardware Specification

Model	DB88IP
<b>Digital Output</b>	
Channels	8
Output current for each channel	2A
Load type	Ohmic, inductive and lamp
Output protection	Shortcircuit and overload
Switching time	<1ms
<b>Digital Input</b>	
Channels	8
OFF voltage level	<5V
ON voltage level	>15V
Maximum input voltage	36V
Input filter	Typical 1ms
Input current	4mA / Channel @ 24V
<b>Electrical</b>	
Supply voltage Vs/Vp	24 Vdc typ (range 18..36V)
Electrical isolation	2500Vrms
Power consumption (Vs)	3W
Interface	EtherCAT slave
Specification	EN 61131-2
Diagnostic leds	Power ● Run ● Error ● EtherCAT run ● Link IN ● Link OUT ●

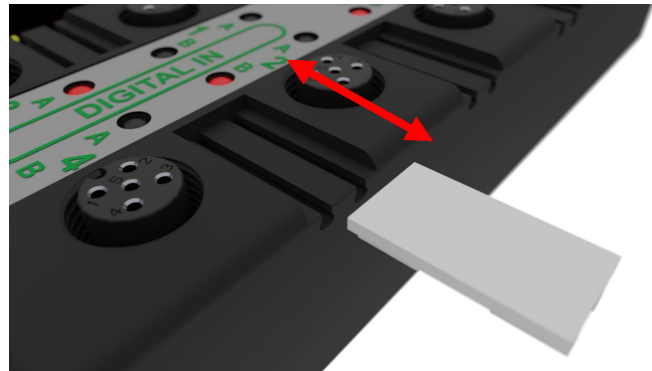


Mechanical	
Dimensions [W x H x D]	54x212x24mm
Installation	2 fixing holes 5mm diameter for M4 - pitch 196mm
Enviromtc	
Operating/storage temperature	-20°C to 60°C / -20°C to 85°C
Relative humidity	Max 95% without condensation
Degree of protection	IP65

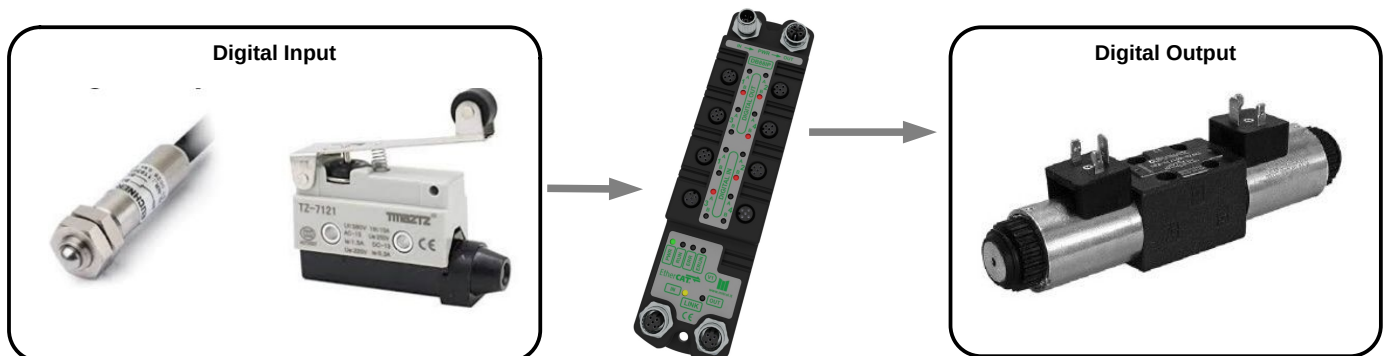


To facilitate wiring, there are 9 standard label holders, one for each connector, plus one for the module name

NOTE: suggested label code  
[www.phoenixcontact.com](http://www.phoenixcontact.com)  
 0801491



## Application





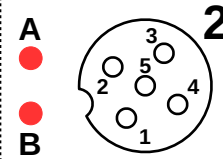
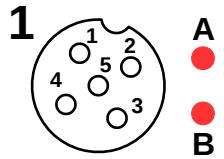
Pin Assignments DB88IP

**Power M12 L code**

1 - GND Vp/Vs  
2 - GND Vp/Vs  
3 - 24Vs  
4 - 24Vp  
5 - Earth

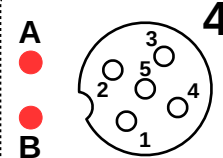
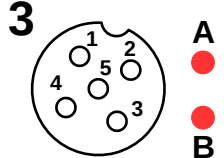
I/O connectors → M12 A code

PIN	Signal	LED
1	NC	
2	OUT 2	B
3	GND Vp/Vs	
4	OUT 1	A
5	Earth	



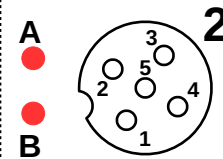
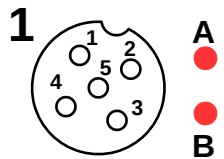
PIN	Signal	LED
1	NC	
2	OUT 4	B
3	GND Vp/Vs	
4	OUT 3	A
5	Earth	

PIN	Signal	LED
1	NC	
2	OUT 6	B
3	GND Vp/Vs	
4	OUT 5	A
5	Earth	



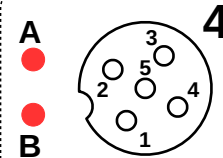
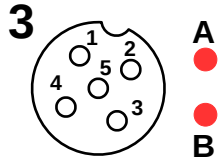
PIN	Signal	LED
1	NC	
2	OUT 8	B
3	GND Vp/Vs	
4	OUT 7	A
5	Earth	

PIN	Signal	LED
1	24Vs	
2	IN 2	B
3	GND Vp/Vs	
4	IN 1	A
5	Earth	



PIN	Signal	LED
1	24Vs	
2	IN 4	B
3	GND Vp/Vs	
4	IN 3	A
5	Earth	

PIN	Signal	LED
1	24Vs	
2	IN 6	B
3	GND Vp/Vs	
4	IN 5	A
5	Earth	



PIN	Signal	LED
1	24Vs	
2	IN 8	B
3	GND Vp/Vs	
4	IN 7	A
5	Earth	

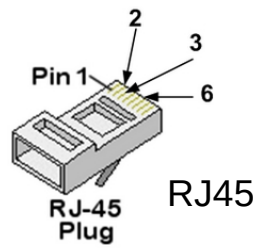
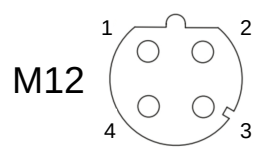
OUTPUT

INPUT

**EtherCAT M12 D code**

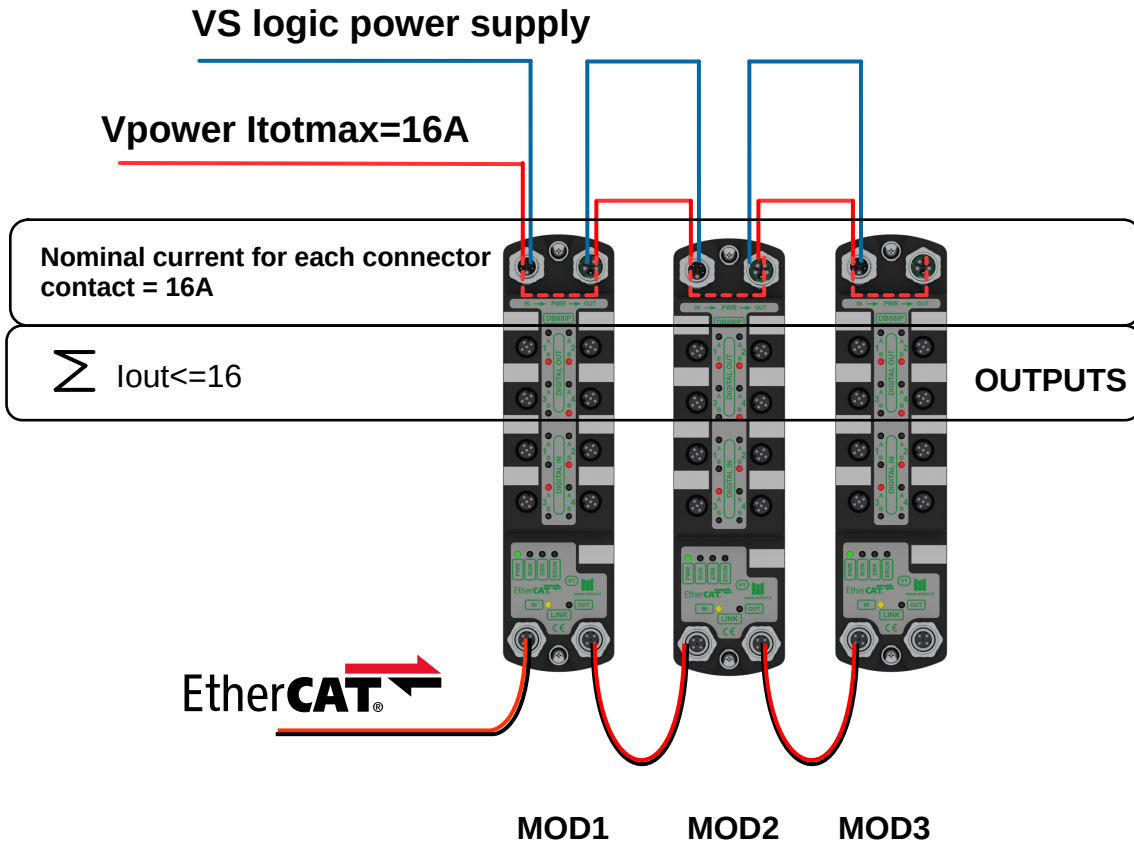
1 - TD+  
2 - RD+  
3 - TD-  
4 - RD-

1 - TD+  
2 - RD+  
3 - TD-  
4 - RD-





Example: daisy chain connection for power supply



Max. current for each channels	<b>Iout</b>	2A
Total current for each single module (no daisy chain) <i>It is possible to drive, at the same time, all the channels (8) with the maximum current of 2 A.</i>	<b>Itot</b>	16A
Max total current for N modules in daisy chain connection. <i>It is not possible to drive, at the same time, all the channels (8xN) with the maximum current. The sum of all the current output must be &lt; 16A.</i>	<b>Itot</b>	16A