

	XBP24	XBP24-E	XDP24	XDP24-E
Protection against polarity inversions	Yes			
Power monitoring	Yes and value available through the application «FB Status», 1/10V, 5%.			

**Inputs**

**Digital and high speed digital inputs 24 VDC - 4 inputs from I1 to I4**

**Input used as digital input**

Input voltage	24 VDC (-15% / +20%)		
Input current	1.8 mA @ 20.4 V 2.1 mA @ 24 V 2.5 mA @ 28.8 V		
Input impedance	11.6 kΩ		
Logic 1 voltage threshold	≥ 15 VDC		
Making current at logic state 1	≥ 1.3 mA		
Logic 0 voltage threshold	≤ 10 VDC		
Release current at logic state 0	≤ 0.8 mA		
Response time	1 to 2 cycle times		
Sensor type	Contact or 3-wire PNP		
Conforming to IEC/EN 61131-2	Type 1		
Input type	Resistive		
Isolation between power supply and inputs	None		
Isolation between inputs	None		
Protection against polarity inversions	Yes		
Status indicator	No		On LCD screen
Cable length	≤ 100 m		

**Input used as high speed digital input**

Maximum counting frequency	3 channels encoder (I1, I2, I3): 5 kHz* 2 independent counters (I1, I2) (I3, I4) (Cumul, IND, DIR): 2 channels: 10 kHz*, 4 channels: 5 kHz*, 2 independent counters (I1, I2) (I3, I4) (PH, PH2): 2/4 channels: 5 kHz* 4 independent counters (I1, I2, I3, I4) (Up/Down) : 1 channel: 15 kHz*, 2 channels: 10 kHz*, > 2 channels: 5 kHz* * with a time cycle ≤ 10 ms and a ton / toff = 50% ± 5%, level 0 < 2V and level 1 > 20,4V		
Other functions	4 tachometers (I1, I2, I3, I4 )		
Cable length	≤ 3 m with shielded twisted cable		

**Digital 24 VDC and analog inputs 12 bits / 28.8 V - potentiometer - 8 inputs from I5 to I8**

**Input used as digital input**

Input voltage	24 VDC (-15% / +20%)		
Input current	1.8 mA @ 20.4 V 2.1 mA @ 24 V 2.5 mA @ 28.8 V		
Input impedance	11.6 kΩ		
Logic 1 voltage threshold	≥ 11 VDC		
Making current at logic state 1	≥ 1 mA		
Logic 0 voltage threshold	≤ 9 VDC		
Release current at logic state 0	≤ 0.7 mA		
Response time	1 to 2 cycle times		
Sensor type	Contact or 3-wire PNP		
Conforming to IEC/EN 61131-2	Type 1		
Input type	Resistive		
Isolation between power supply and inputs	None		
Isolation between inputs	None		
Protection against polarity inversions	Yes		

	XBP24	XBP24-E	XDP24	XDP24-E
Status indicator	No		On LCD screen	
Cable length	≤ 30 m			
<b>Input used as analog input</b>				
Measuring range	0 → 10 V, 0 → V power supply or Voltmeter			
Input impedance	11.6 kΩ			
Maximum value without destruction	28.8 VDC max			
Input type	Common mode			
Resolution	12 bit at maximum input voltage (10 bit at 10V)			
Value of LSB	7.03 mV			
Conversion time	Controller cycle time			
Maximum error in 0-10V mode	± 3.5 % of full scale at 25°C (77°F) ± 5 % of full scale at 55°C (131°F)			
Maximum error in 0-V power supply mode	± 5 % of full scale at 25°C (77°F) ± 6.2 % of full scale at 55°C (131°F)			
Repeat accuracy at 55°C (131°F)	± 2 %			
Voltmeter	From 0 to 30.5 V, 5%			
Isolation between analogue channel and power supply	None			
Protection against polarity inversions	Yes			
Potentiometer control	2.2 kΩ / 0.5 W (recommended), 10 KΩ max.			
Cable length	≤ 10 m with shielded twisted cable (sensor not isolated)			
<b>Digital 24 VDC - 4 inputs from ID to IG</b>				
Input voltage	24 VDC (-15% / +20%)			
Input current	1.5 mA @ 20.4 V 1.7 mA @ 24 V 2.1 mA @ 28.8 V			
Input impedance	13.9 kΩ			
Logic 1 voltage threshold	≥ 11 VDC			
Making current at logic state 1	≥ 0.8 mA			
Logic 0 voltage threshold	≤ 8 VDC			
Release current at logic state 0	≤ 0.5 mA			
Response time	1 to 2 cycle times			
Sensor type	Contact or 3-wire PNP			
Conforming to IEC/EN 61131-2	Type 1			
Input type	Resistive			
Isolation between power supply and inputs	None			
Isolation between inputs	None			
Protection against polarity inversions	No			
Status indicator	No		On LCD screen	
Cable length	≤ 30 m			
<b>Outputs</b>				
<b>6 A relay output - 2 outputs from O1 to O2</b>				
Breaking voltage	250 VAC max			
Breaking current	6 A Derating: UL: ≥ 45°C (113°F): 4A max			
Maximum breaking current in the common	IEC @ 25°C (77 °F): 12 A IEC @ 60°C (140 °F) or UL: 10 A			
Mechanical life	5 000 000 operations (cycles)			