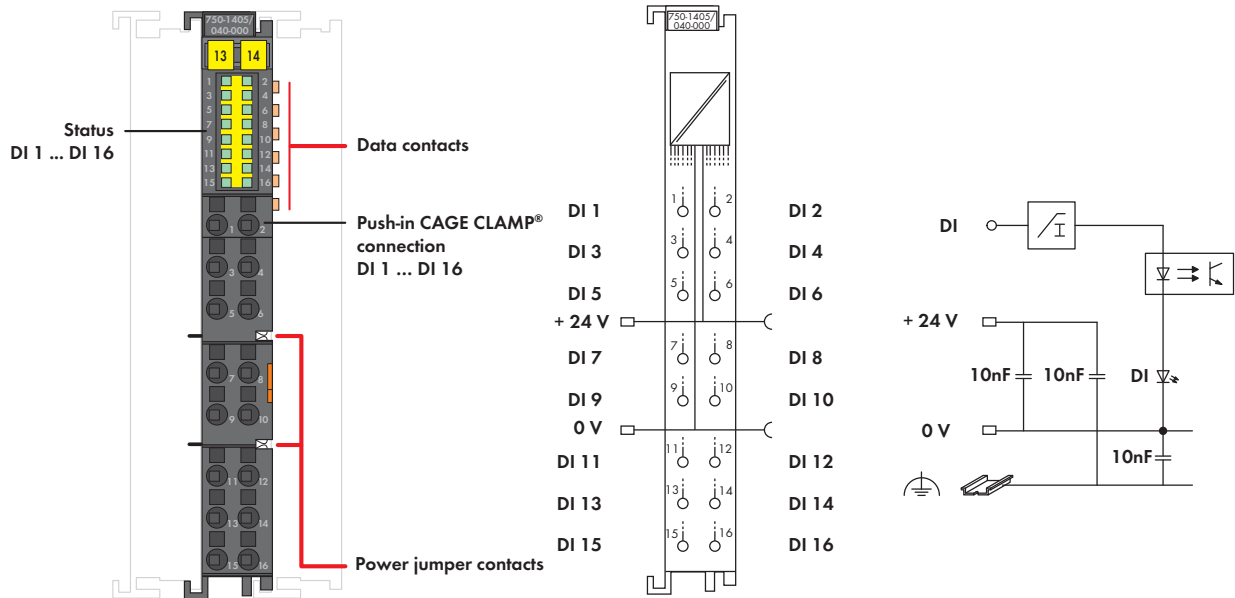


16-Channel Digital Input Module 24 VDC

for eXTReme environmental conditions; high-side switching



This digital input module provides 16 channels at a width of just 12 mm. It receives binary control signals from digital field devices (e.g., sensors, encoders, switches or proximity switches). The module features Push-in CAGE CLAMP® connections providing push-in termination of solid conductors. Each input channel has a noise-rejection RC filter with 3.0 ms time constant. A green LED indicates the switched status of each channel. Field and system levels are electrically isolated.

The module is ideally suited for operation in harsh environmental conditions:

- extended temperature range
- higher dielectric strength and EMC resistance
- higher vibration and shock resistance

Description	Item No.	Pack. Unit
16DI 24VDC 3.0ms /XTR	750-1405/040-000	1
Accessories		
Miniature WSB Quick marking system		
plain	248-501	5
with marking	see Section 11	
Operating tool, with partially insulated shaft, type 1, blade (2.5 x 0.4) mm	210-719	50
Approvals		
Conformity marking	CE	
Korea Certification	KCC	
Marine applications	GL, LR	
UL 508		
ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4	
TÜV 17 ATEX 193969 X	II 3G Ex ec IIC T4 Gc	
IECEx TUN 16.0046 X	Ex ec IIC T4 Gc	
Technical Data		
Wire connection	Push-in CAGE CLAMP®	
Cross sections	0.25 mm ² ... 1.5 mm ² / AWG 24 ... 16	
Strip lengths	8 ... 9 mm / 0.33 in	
Dimensions (mm) W x H x L	12 x 62 x 100	
Weight	60 g	
Operating temperature	-40 °C ... +70 °C	
Storage temperature	-40 °C ... +85 °C	
Relative humidity	Max. 95 % short-term condensation per Class 3K7/IEC EN 60721-3-3 and E DIN 40046-721-3 (except wind-driven precipitation, water and ice formation)	
Operating altitude	without temperature derating: 0 m ... 2000 m; with temperature derating: 2000 m ... 5000 m (0.5 K/100 m); max.: 5000 m	

Technical Data	
Number of inputs	16
Input type	Type 1 (IEC 61131-2), high-side switching
Signal voltage (0)	-3 V ... +5 VDC
Signal voltage (1)	15 V ... 30 VDC
Input current (typ.)	+0.6 mA (at 5 VDC) +2.1 mA ... +2.4 mA (at 24 VDC)
Input filter	3.0 ms
Delay time "0" > "1"	3 ms
Delay time "1" > "0"	4 ms
Current consumption (internal)	25 mA
Voltage via power jumper contacts	24 VDC
under laboratory conditions +15 °C ... +35 °C	18 V ... 31.2 V (17.4 V ... 31.2 V) ¹⁾
for -40 °C ... +55 °C	18 V ... 28.8 V (17.4 V ... 28.8 V) ¹⁾
for +55 °C ... +70 °C	18 V ... 26.4 V (17.4 V ... 26.4 V) ¹⁾
	¹⁾ including residual ripple of 15 %
Current via power jumper contacts (max.)	10 A
Rated surge voltage	1 kV
Bit width	16 bits
Vibration resistance	acc. to IEC 60068-2-6 (acceleration: 5g), EN 60870-2-2, IEC 60721-3-1, -3, EN 50155, EN 61373
Shock resistance	acc. to IEC 60068-2-27 (15g/11 ms/half-sine/1000 shocks; 25g/6 ms/1000 shocks), EN 50155, EN 61373
EMC immunity of interference	acc. to EN 61000-6-1, -2, EN 61131-2, marine applications, EN 50121-3-2, -4, -5, EN 60255-26, EN 60870-2-1, EN 61850-3, IEC 61000-6-5, IEEE 1613, VDEW: 1994
EMC emission of interference	acc. to EN 61000-6-3, -4, EN 61131-2, EN 60255-26, marine applications, EN 60870-2-1, EN 61850-3, EN 50121-3-2, -4, -5