

short-circuit protected; high-side switching; with diagnostics

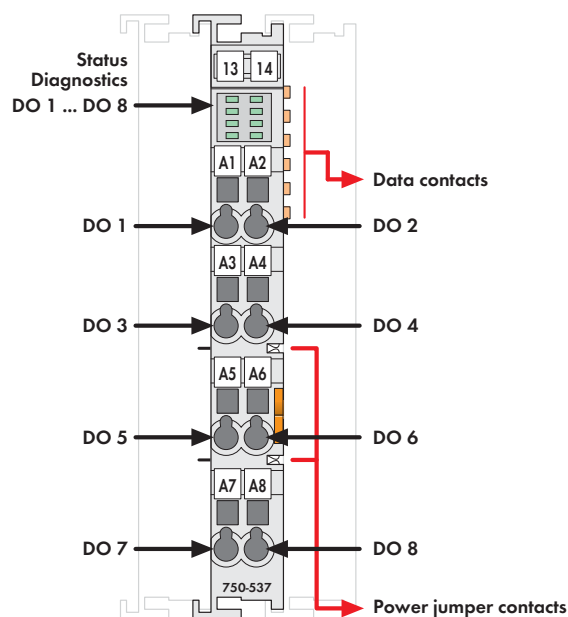


Figure 1 illustrates the DO pin connections and the associated circuit diagram. The left side shows a pinout for an 8-pin connector, with pins 1 through 8 and corresponding DO 1 through DO 8 labels. The right side shows a circuit diagram for a DO pin, including a 270pF capacitor, a 24V supply, a 10nF capacitor, a 0V supply, a diode, a transistor, and a microcontroller (µC) connected to Status and Diagnostics pins.

NOTE: Connection point marking (i.e., 1 ... 8) does not refer to channel assignment

All outputs are electronically short-circuit-protected.

The error is visually indicated by error LEDs and a bit is set in the process image.

The module has eight output channels and eight actuators may be connected to the module.

Description	Item no.	Pack. unit
8DO 24V DC 0.5A, diagnostics	750-537	1
Accessories	Item no.	Pack. unit
Miniature WSB quick marking system,		
 plain	248-501	5
with marking	see pages 256 ... 257	
Approvals		
Series 750		
Conformity marking	CE	
UL 508		
ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4	
EN 60079-15	I M2 / II 3 GD Ex nA IIC T4	
Marine applications	see "Approvals Overview" in section 1	

Technical Data	
No. of outputs	8
Current consumption max. (internal)	50 mA
Voltage via power jumper contacts	DC 24 V (-25 % ... +30 %)
Type of load	resistive, inductive, lamps
Switching rate (max.)	1 kHz
Reverse voltage protection	yes
Output current	0.5 A, short-circuit protected
Short-circuit limitation (typ.) Pwm	12 A
Open-circuit detection	< 0.1 mA
Diagnostics	Open-circuit, overload and short-circuit
Inductive load switch off energy dissipation W (max.)	0.1 J; $L_{max} = 2 \times W_{max} / I^2$
Current consumption typ. (field side)	16 mA / module + load
Isolation	500 V system/supply
Internal bit width	8 bits out, 8 bits in (diagnostics)
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 2.5 mm² / AWG 28 ... 14
Stripped lengths	8 ... 9 mm / 0.33 in
Width	12 mm
Weight	48.5 g
EMC CE-Immunity to interference	acc. to EN 61000-6-2 (2001)
EMC CE-Emission of interference	acc. to EN 61000-6-3 (2001)
EMC marine applications -	
Immunity to interference	acc. to Germanischer Lloyd (2003)
EMC marine applications -	
Emission of interference	acc. to Germanischer Lloyd (2003)