



## Automatización Eléctrica

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# Limit switch in compact metal housing with terminal block

The compact housing size and the terminal block with side facing cable exit allow the mounting where space is crucial and self-wiring connection is preferred. The rugged and tight housing construction provides high protection while the low-force actuators make the ZC limit switch ideal for switching smaller or lighter objects.

- · Terminal block for self-wiring with side facing cable exit
- · Low-force actuators for switching smaller or lighter objects
- Rugged metal housing with IP67 protection



### **Ordering Information**

Actuator type		Connection method	Order code
	Plunger	Terminal block with side facing cable exit (left/right changeable) for cables dia 8.5 to 10.5 mm <sup>-1</sup>	ZC-D55
	Plunger with M14 mounting		ZC-Q55
	Sealed roller plunger		ZC-N2255
	Roller plunger with M14 mounting		ZC-Q2255
	Sealed cross roller plunger		ZC-N2155
	Cross roller plunger with M14 mounting		ZC-Q2155
	Hinge lever - 50R		ZC-W55
	Hinge lever - 70R		ZC-W155
	Hinge roller lever - 50R		ZC-W255
	Hinge roller lever - 70R		ZC-W2155

<sup>\*1</sup> Models with M20 conduit or other connection variations are available. Refer to OPTIONAL FEATURES in complete datasheet for details.



#### Specifications

#### Voltage and current rating

Model	Rated voltage	Non-inductive load			Inductive load			Inrush current		
		Resistive load Lamp load		Inductive	Inductive load Motor loa		ad	1		
		NC and NO	NC	NO	NC	NO	NC	NO	NC	NO
Standard type	125 VAC	10	3	1.5	10		5	2.5	30 A	15 A
	250 VAC		2.5	1.25			3	1.5		
	8 VDC		3	1.5	6	6	5	2.5		
	14 VDC									
	30 VDC	6			5					
	125 VDC	0.5	0.4	0.4	0.05					
	250 VDC	0.25	0.2	0.2	0.03					
High current at high VDC switching type <sup>*1</sup>	8 VDC	10	3		10	10	5	2.5		
	14 VDC									
	30 VDC									
	125 VDC				7.5	6				
	250 VDC	3	1.5	0.75	2	1.5	2	1.5		

\*1 Refer to OPTIONAL FEATURES in complete datasheet for details.

#### **General specifications**

Durability	Mechanical	10.000.000 operations min				
	Electrical	500.000 operations min				
Operating speed Plunger		1.05 mm/s to 0.5 m/s				
Operating frequency	Mechanical	120 operations / min				
Electrical		20 operations / min				
Insulation resistance		100 MΩ min (at 500VDC)				
Contact resistance (initial)		15 mΩ max				
Dielectric strength		1,000 VAC, 50/60 Hz for 1 min between non-continuous terminals 2,000 VAC, 50/60 Hz for 1 min between each terminal and non-current-carrying metal part				
Vibration resistance	Malfunction	10 to 55 Hz, 1.5 mm double amplitude				
Shock resistance	Destruction	1,000 m/s <sup>2</sup> min				
Malfunction		300 m/s² min				
Ambient temperature Operating		-10°C to 80°C (with no icing)				
Ambient humidity Operating		35% to 95% RH				
Degree of protection		IEC 60529: IP67				

#### Additional specifications after EN60947-5-1 (TÜV Rheinland File No J50041904)

Category	AC-12 10A/250 VAC
Rated insulation voltage	1,000 VAC
Short circuit protective device	10A fuse type gG (IEC60269)
Protection against electrical shock	Class II

#### **Operating characteristics**

Values for OF and RF are in N and values for PT, OT, MD and OP are in mm unless otherwise specified.

	ZC-D	ZC-Q2	ZC-Q5	ZC-N2	ZC-W1	ZC-W21	ZC-W25	ZC-W5
Operating force (OF)	11.8			6.86	2.75		3.92	
Release force (RF)	4.9			1.67	0.59		0.78	
Pre-travel (PT)	1.5				-			
Overtravel (OT)	2.4	3		2.5	8.4		6	
Movement differential (MD)	0.2				1.4		1	
Operating Position (OP)	32.4±0.8	47.4±0.8	38.2±0.8	47.4±0.8	28.5±1.2	43.0±1.2		28.5±1.2





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