

- 3 Identification no.**
- 1 Contact block with 2NC / 2NO
 - 2 Contact block with 3NC / 1NO
- 4 Type**
- AS** Connector plug at the top
 - BS** Connector plug at the bottom
 - CS** Connector plug at the backside
 - CSK** Connector plug at the backside (with 0.2 m cable)
 - AK** Cable at the top
 - BK** Cable at the bottom
 - CK** Cable at the backside

Metric table

1		2		5					Dimensions in: millimeters - inches					
l_1	l_2	EN 239.6	EN 239.7	h_1	h_2	h_3	EN 239.6	EN 239.7	l_3	Cable length in meters (Type AK / BK / CK)	m_1	m_2	EN 239.6	EN 239.7
60 2.36	-	-	70 2.76	25 0.98	15 0.59	-	15	15	-	-	42 1.65	-	50 1.97	
60 +1 2.36 +0.04	110 4.33	110 4.33	110 4.33	25 0.98	15 0.59	12 0.47	15	15	2	5	42 1.65	91 3.58	91 3.58	91 3.58

Specification

- Body
Plastic, Technopolymer (Polyamide PA-HP)
- Glass fiber reinforced
- Black, matte finish
- Temperature resistant up to 176 °F (80 °C) (EN 239.6)
- Temperature resistant up to 212 °F (100 °C) (EN 239.7)
- Pin and mounting bushings
Plastic, Technopolymer (Polyamide PA)
- Glass fiber reinforced
- Black, matte finish
- Temperature resistant up to 176 °F (80 °C) (EN 239.6)
- Temperature resistant up to 212 °F (100 °C) (EN 239.7)
- IP Protection Classes → page 2130
- Plastic Characteristics → page 2135
- RoHS compliant

Accessory

- Cables with connector coupling → page 1436
8-pole, 5 or 10 meters long:
- GN 330-M12x1-8-G-5
- GN 330-M12x1-8-G-10

Information

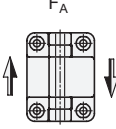
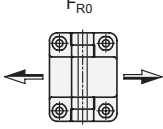
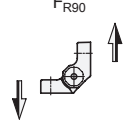
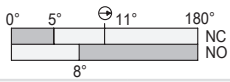
EN 239.6 hinges with integrated safety switch are designed for monitoring guard doors and covers of machines and production equipment. Opening the door activates the switch contacts, which then interrupts a protective circuit via a break contact (NC) and at the same time signal the door opening by closing a make-contact element (NO). The contact blocks are fitted with force-opening slow-action contacts, i.e. they will definitely be separated when activated and have no hysteresis. The angle at which the switching points are reached is adjustable (see contact travel diagram). The integrated contact block design makes these hinges compact, tamper-proof and easy to mount. An operating instruction with important technical information is included with every hinge. EN 239.7 hinges without switch are designed to be used in conjunction with EN 239.6 hinges with integrated safety switch, in applications with larger doors or gates where several hinges are required.

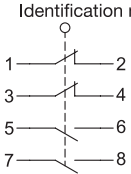
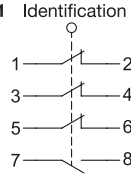
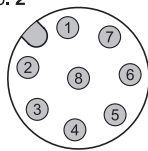
On request




- Hinges with operation angle > 0°
- Hinges with other contact block
- Body in gray, RAL 7040

How to order (With integrated safety switch)	1 Width l_1
	2 Length l_2
	3 Identification no.
	4 Type
	5 Cable length l_3
 EN 239.6-60-110-1-AK-2	

How to order (Without switch)	1 Width l_1
	2 Length l_2
 EN 239.7-60-70	

Mechanical features				
Maximum load Information without safety factor	Load direction			
	EN 239.6 Examples of calculation → see operating instruction	2100 N 472.10 lbf	2800 N 629.47 lbf	1300 N 292.25 lbf
	EN 239.7	4500 N 1011.64 lbf	7600 N 1708.55 lbf	5800 N 1303.89 lbf
Assembly	From the front, with countersunk screws or cylinder head screws, e.g. DIN 7991 / DIN 912 From the back, with hex head screws or nuts, e.g. DIN 933 / DIN 934			
Recommended torque	5 Nm (Screws and nuts M6)			
Protection class	IP67	acc. to EN 60529		
Switching principle, contact opening	Slow-action contacts force-fitted, with positive opening	acc. to IEC 60947-5-1, K		
Contact material	Silver alloy Ag 999			
Operating travel diagram (scheme)	The switching points are adjustable up to 4° in direction of 0°. → see operating instruction			
Maximum operating frequency	1200 / hour	acc. to IEC 60947-5-1		
Mechanical life span	10 ⁶ operating cycles	acc. to IEC 60947-5-1		
Actuating speed	min. 2° / second, max. 90° / second			

Electrical features			
Utilization category	acc. to IMQ	DC 13: 24 V DC / 2 A (connector plug) AC 15: 400 V AC / 4 A / DC 13: 250 V AC / 0.3 A (cable)	acc. to EN 60947-5-1 acc. to EN 60947-5-2
	acc. to UL	Plug - C 300 / Q 300: AC / DC Control signals 24 V / 2 A electrical circuit category 2 Cable - C 300: 240 V AC / 0.75 A / Q 300: 250 V DC / 0.27 A / therm. current 2.5 A	
Contact termination 8-pole connector M12 or cable with 2 m or 5 m length Pin and cable assignment	Identification no. 1  Identification no. 2   <ul style="list-style-type: none"> 1 - red 2 - pink 3 - brown 4 - gray 5 - yellow 6 - blue 7 - green 8 - white 		
Type of cable	UL/CSA STYLE 2587 8X AWG 22		
Short-circuit current	1000 A	acc. to IQM	
Rated insulation voltage	30 V AC/DC (connector plug) and 400 AC (cable)		
Short-circuit protection	4 A, 500 V, Type gG		
Ambient temperature	-4 °F to +176 °F (-20 °C to +80 °C)		
Degree of pollution, external	3	acc. to EN 60947-5-1	
Mission time (T_M)	20 years	acc. to EN ISO 13849-1	
Number of cycles (B10 d)	2 000 000	acc. to EN 61820-2	

Approvals, conformities, applicability		
Low-voltage switchgear and controlgear CE declaration IMQ: CA02.04800 UL: E 360222	  	EN 60947-1/2007 EN 60947-1-5 : 2004 + A1/2009
Safety applications	bis SIL 3 / PL e	acc. to EN ISO 13849-1

Other important details and hints are given in the operating instructions for EN 239.6 hinges which are included with every hinge and they are also available as PDF downloads from "www.jwwinco.com" under "Service".

The hinges with integrated safety switch must be mounted and commissioned by qualified technical personnel in compliance with the details given in the operating instructions and with the national / international rules and regulations along with the applicable standards. JW Winco will assume no statutory liability for missing or incorrect information and for any consequences arising therefrom.

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