

- 3 Identification**
- SH** Bores for countersunk screw, without switch
  - SL** Bores for countersunk screw, switch left
  - SR** Bores for countersunk screw, switch right
- 4 Type**
- AS** Connector plug at the top
  - CS** Connector plug at the backside
  - AK** Cable at the top
  - CK** Cable at the backside

Metric table

1		2		5 Dimensions in: millimeters / inches										
l <sub>1</sub>	l <sub>2</sub>	EN 239.3		h <sub>1</sub>	h <sub>2</sub>	h <sub>3</sub>	h <sub>4</sub>	l <sub>3</sub>	l <sub>4</sub>	l <sub>5</sub>	l <sub>6</sub> Cable length in meters type AK / CK		m <sub>1</sub>	m <sub>2</sub>
70 2.76	53 2.09	60 2.36		16 0.63	8 0.31	16 0.63	14.5 0.57	110 4.33	51.5 2.03	22.5 0.89	2	5	45 1.77	34 1.34

Specification

Hinge leaf

- Plastic, Polyamide (PA-HP)
- Glass fiber reinforced
- Black, matte finish

Pin

Stainless steel AISI 303

RoHS

On request

- Hinges with operation angle > 0°

Technical Information	Page
Mechanical and Technical Characteristics	QVX
List of Hinge Types	QVX
IP Protection Classes	QVX
Plastic Characteristics	QVX
Stainless Steel Characteristics	QVX

Hinges with integrated switch EN 239.4 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).

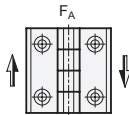
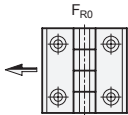
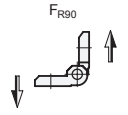
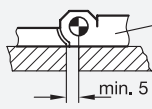
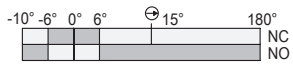
The integrated switch design, which features an ultrasonically-welded enclosure, makes these hinges compact, tamper-proof and easy to mount. Hinges without switch EN 239.3 are designed to be used in conjunction with hinges with integrated switch EN 239.4, in applications with larger doors or gates where several hinges are required. An operating instruction with important technical information is included with every hinge.

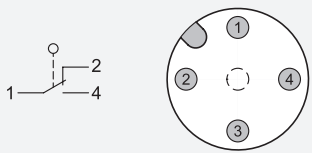
Accessory

GN 330 Cables with Connector Coupling (4-Pole, 5 or 10 Meters Long) QVX

How to order (With integrated switch)		1	Width l <sub>1</sub>
		2	Length l <sub>2</sub>
		3	Identification
		4	Type
		5	Cable length l <sub>6</sub>
EN 239.4-70-53-SL-AK-5			

How to order (Without switch)		1	Width l <sub>1</sub>
		2	Length l <sub>2</sub>
		3	Identification
EN 239.3-70-60-SH			

Mechanical Features				
<b>Maximum load</b> Information without safety factor  Examples of calculation → see operating instruction	Load direction			
	F max.	2100 N 472.10 lbf	2800 N 629.47 lbf	1300 N 292.25 lbf
<b>Assembly</b>	Types SH, SL und SR with countersunk for countersunk screws e.g. DIN 7991			<b>Mounting information</b> 
<b>Recommended torque</b>	5 Nm (Screws M6)			
<b>Protection class</b>	IP67		acc. to EN 60529	
<b>Switching principle, contact opening</b>	Changeover contact, with positive opening		acc. to IEC 60947-5-1	
<b>Contact material</b>	Silver alloy Ag 90 Ni 10			
<b>Operating travel diagram (scheme)</b>	The switching points are fix at 6°. By reaching the lifespan, it can rise up to 9°.  → see operating instruction			
<b>Maximum operating frequency</b>	1200 / hour			
<b>Mechanical life span</b>	10 <sup>6</sup> operating cycles		acc. to IEC 60947-5-1	
<b>Actuating speed</b>	min. 2° / second, max. 90° / second			

Electrical and Safety Features		
<b>Utilization category</b>	DC 13: 24 V DC / 4 A or 127 V DC / 0,3 A AC 15: 220 V AC / 4 A or 440 V AC / 3 A	acc. to EN 60947-5-2 acc. to EN 60947-5-1
<b>Contact termination</b> 4-pole plug M12 or cable with 2 m or 5 m length  <b>Pin and cable assignment</b>	<div>  </div>	
<b>Type of cable</b>	UL/CSA STYLE 2587 3X AWG 22	
<b>Short-circuit current</b>	1000 A	
<b>Rated insulation voltage</b>	250 V	
<b>Short-circuit protection</b>	6 A, 500 V, Typ gl	
<b>Operating temperature</b>	-4 °F to +176 °F (-20 °C to 80 °C)	
<b>Degree of pollution, external</b>	3	
<b>Mission time (T<sub>M</sub>)</b>	20 years	
<b>Number of cycles (B10 d)</b>	2 000 000	

Approvals, Conformities		
Low-voltage switchgear and controlgear		EN 60947-1-5 : 2003 +
CE declaration		A1/2009

Other important details and hints are given in the operating instructions for EN 239.4 hinges which are included with every hinge and which are also available as PDF downloads from „www.jwwinco.com“ under ‚Service‘.

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