

- 3 Type**
- A** Connector plug at the top
  - B** Connector plug from the bottom
  - C** Connector plug at the backside (with 0.2 m cable)
  - AK** Cable at the top
  - BK** Cable from the bottom
  - CK** Cable from the backside

**Metric table**

1		2				4		Dimensions in: millimeters - inches										
$l_1$	Hinge wing small	$l_2$	Hinge wing broad	$l_3$		$l_4$		$l_5$	Hinge wing small	Hinge wing broad	Cable length in meter	$h_1$	$h_2$	$m_1$	$m_2$	$m_3$	Hinge wing small	Hinge wing broad
49	79	101	79	30		81		15	15	30	2	12	22.5	71	17	27	27	50
1.93	3.11	3.98	3.11	1.18		3.19		0.59	0.59	1.18		0.47	0.89	2.80	0.67	1.06	1.06	1.97

**Specification**

- Body  
Zinc die-cast  
Powder coated  
Silver metallic finish
- Pin  
Stainless steel  
European Standard No. 1.4305 (AISI 303)
- RoHS compliant

**Accessory**

- Cable with connector coupling  
8-pole, 5 or 10 meters:  
- GN 330-M12x1-8-G-5  
- GN 330-M12x1-8-G-10
- GN 139.3 / GN 139.4 mounting plates

**On request**

- Hinges with operating angle > 0°
- Hinges with other contact load ratings

**Information**

GN 139.1 hinges with integrated safety switches have been designed for use on monitoring doors and covers of machines and equipment. Opening the door activates the switch contacts. This causes an interruption in a protective circuit via broken contact (NC) and at the same time signals the door opening by closing a normally open contact element (NO).

The contact blocks are fitted with positive 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.

GN 139.2 hinges without safety switch are identical to GN 139.1 except they lack the connector plug.

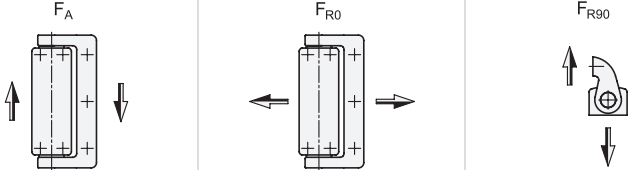
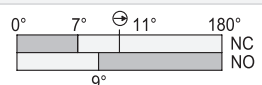
The compact construction combines safety and attractive design. The hinges are tamper-proof because of the covered mounting from the back side.

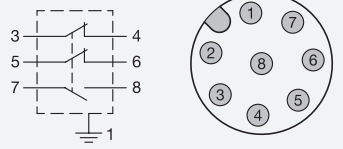
see also...

- List of Hinge Types

How to order (With safety switch)	1 Width $l_1$
<p><b>GN 139.1-49-101-AK-5</b></p>	2 Length $l_2$
	3 Type
	4 Cable length $l_6$

How to order (Without safety switch)	1 Width $l_1$
<b>GN 139.2-49-101</b>	2 Length $l_2$

Mechanical features									
<b>Maximum load</b> Information with safety factor									
	<table border="1"> <tr> <td><math>I_1 = 49</math></td> <td>1500 N 337.21 lbf</td> <td>1000 N 224.81 lbf</td> <td>1000 N 224.81 lbf</td> </tr> <tr> <td><math>I_1 = 79</math></td> <td>750 N 168.61 lbf</td> <td>500 N 112.40 lbf</td> <td>500 N 112.40 lbf</td> </tr> </table>	$I_1 = 49$	1500 N 337.21 lbf	1000 N 224.81 lbf	1000 N 224.81 lbf	$I_1 = 79$	750 N 168.61 lbf	500 N 112.40 lbf	500 N 112.40 lbf
$I_1 = 49$	1500 N 337.21 lbf	1000 N 224.81 lbf	1000 N 224.81 lbf						
$I_1 = 79$	750 N 168.61 lbf	500 N 112.40 lbf	500 N 112.40 lbf						
Examples of calculation → see operating instruction									
<b>Fixing</b>	from the back, 7 x threads M5, 6 mm deep								
<b>Recommended torque</b>	5 Nm (Screws M5)								
<b>Protection class</b>	IP67 / IP69K (Mind the cable conduit!) acc. to EN 60529								
<b>Switching principle, contact opening</b>	Slow-action contacts force-fitted, with positive opening acc. to IEC 60947-5-1, K								
<b>Contact material</b>	Silver alloy								
<b>Operating travel diagram (scheme)</b>	The switching points are adjustable up to 4° in direction of 0°. see operating instruction 								
<b>Maximum operating frequency</b>	600 operating cycles / hour acc. to IEC 60947-5-1,								
<b>Mechanical life span</b>	10 <sup>6</sup> operating cycles one operating cycle includes one opening and one closing action								
<b>Actuating speed</b>	min. 2° / second, max. 90° / second								

Electrical features / Safety features	
<b>Utilization category</b>	AC 15: 24 Vac / 2A / DC 13: 24 Vdc / 2A (connector plug) acc. to EN 60947-5-1 AC 15: 250 Vac / 4A / DC 13: 250 Vdc / 0,3 A (cable)
<b>Contacts, termination</b> 8-pole connector M12 or cable with 2 m or 5 m length	 <ul style="list-style-type: none"> <li>1 - green-yellow</li> <li>3 - black</li> <li>5 - red</li> <li>7 - brown</li> <li>4 - black-white</li> <li>6 - red-white</li> <li>8 - blue</li> </ul>
<b>Pin and cable assignment</b>	
<b>Type of cable</b>	Typ N 7x0.5 mm <sup>2</sup> , jacket PVC H05VV-F acc. to IEC 60332-1-2 et seqq.
<b>Short-circuit current</b>	1000 A acc. to EN 60947-5-1
<b>Rated insulation voltage</b>	30 V AC / 36 V DC (connector plug) / 250 Vac (cable)
<b>Short-circuit protection</b>	2 A, 500 V, Typ gG (connector plug) / 6 A, 500 V, Type gG (cable)
<b>Ambient temperature</b>	- 25 °C up to + 80 °C
<b>Degree of pollution, external</b>	3 acc. to EN 60947-5-1
<b>Mission time (T<sub>M</sub>)</b>	20 years acc. to EN ISO 13849-1
<b>Number of cycles (B10 d)</b>	5 000 000 acc. to EN 61820-2

Approvals, Conformities, Applicability	
Low-voltage switchgear and controlgear CE declaration IMQ: CA02.03746 UL: E 131787	
<b>Safety applications</b>	EN 60947-1/2007 EN 60947-1-5 : 2004 + A1/2009 acc. to EN ISO 13849-1

Other important details and hints are given in the operating instruction for GN 139.1 hinges which are included with every hinge and which are also available as PDF downloads from "www.jwwinco.com" under "Service".

The hinges with 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 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.