

### 3 Type

- A** Connector plug at the top
- B** Connector plug from the bottom
- C** Connector plug at the back (with 0,2 m cable)
- CK** Cable from the back

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>h<sub>1</sub></b>	<b>h<sub>2</sub></b>	<b>m<sub>1</sub></b>	<b>m<sub>2</sub></b>	<b>m<sub>3</sub></b>	<b>m<sub>4</sub></b>
l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	l <sub>5</sub>	l <sub>6</sub> Cable length in metre Type CK						
76	126	40	99,4	22	2    5	15,5	31,5	88	29	41	9

## Specification

- Stainless Steel precision casting
  - AISI 316L
  - polished, Ra < 0,8 µm
- Pin  
Stainless Steel AISI 316L
- *Stainless Steel characteristics*  
→ *Main catalogue page 1144*
- **RoHS compliant**

## Accessory

- Cable with connector coupling → *Page 7*  
8-pole, 5 or 10 meter long:
  - GN 330-M12x1-8-G-5
  - GN 330-M12x1-8-G-10

## On request

- Hinges with operating angle > 0°
- Hinges with other contact loadings

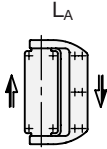
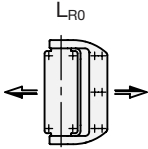

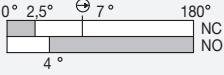
## Information

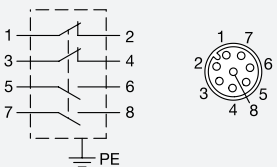
Hinges GN 139.5 with integrated safety switches have been designed for monitoring doors and covers of machines and plants. Opening the door will activate the switch contacts which, in turn, will then e.g. interrupt a protective circuit via break contact (NC) and at the same time signal the door opening 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 are adjustable.

Together with the integrated contact blocks, the hinges are a compact, easy to mount unit with an attractive design. The mounting from the back make the hinge more tamper-proof. Hinges GN 139.6 without switching function act as additional hinges, e.g. for larger doors or gates where several hinges are required.

Hinge with safety switch	
<b>1</b>	l <sub>1</sub>
<b>2</b>	l <sub>2</sub>
<b>3</b>	Type
<b>4</b>	l <sub>6</sub>

Hinge without safety switch	
<b>1</b>	l <sub>1</sub>
<b>2</b>	l <sub>2</sub>

Mechanical features			
<b>Maximum load</b> Information with safety factor  Examples of calculation → see operating instruction	Load direction		
			
	F max.	2000 N	2000 N
<b>Fixing</b>	from the back, 10 x threads M6, 8 mm deep		
<b>Recommended torque</b>	10 Nm (Screws M6)		
<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	
<b>Contact material</b>	Silver alloy		
<b>Operating travel diagram (scheme)</b>	The switching points are adjustable up to 2° 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) AC 15: 250 Vac / 3A / DC 13: 250 Vdc / 0,3 A (cable)	acc. to EN 60947-5-1
<b>Contacts, termination</b> 8-pole connector M12 or 9 wire cable with 2 m or 5 m length  <b>Pin and cable assignment</b>		1 - black 2 - black-white 3 - red 4 - red-white 5 - brown 6 - blue 7 - purple 8 - purple-white  PE - yellow-green (only Type CK)
<b>Type of cable</b>	9x0,34 mm <sup>2</sup> , PVC H05VV-F, black	acc. to IEC 60332-1
<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) / 3 A, 500 V, Typ 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>Safety parameters</b>	B10: 1 000 000, B10 d: 5 000 000, B10 / B10 d: 20%	acc. to EN ISO 13849-1

Approvals, Conformities, Applicability		
Low-voltage switchgear and controlgear CE declaration EAC- and UL-certified	  	EN 60947-1/2007 EN 60947-1-5 : 2004 + A1/2009
<b>Safety applications</b>	until SIL 3 / PL e	acc. to EN ISO 13849-1

Other important details and hints are given in the operating instruction for GN 139.5 hinges which are included with every hinge and which are also available as PDF downloads from „www.ganter-griff.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. Otto Ganter GmbH & Co. KG will assume no statutory liability for missing or incorrect information and for any consequences arising therefrom.