Type **B** 

 $I_4$ 

81

15

small

15

hinge wing

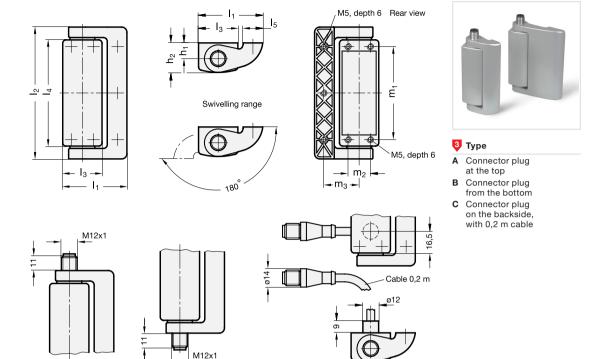
I<sub>3</sub>

30

# Hinges with safety switch







# **Specification**

 $I_1$ 

small

49

hinge wing

Type A

broad

79

hinge wing

101

- Zinc die casting plastic coated silver metallic
- Pin Stainless Steel German Material No. 1.4305
- RoHS compliant

## **Accessories**

- Cable with connection coupling 8-pin, 5 and/or 10 meter long:
  - GN 330-M12x1-8-G-5
  - GN 330-M12x1-8-G-10
- Mounting plates GN 139.3 / GN 139.4

## On request

• Hinge with operation angle > 0°

## Information

broad

30

hinge wing

The hinges with safety switch GN 139.1 have been designed for the position monitoring of pivoted protective safety equipment, e.g. protection covers.

m<sub>1</sub>

71

 $m_2$ 

17

 $m_3$ 

small

27

hinge wing

broad

50

hinge wing

Type C

 $h_2$ 

22.5

h<sub>1</sub>

12

The switching element is fully integrated in the mechanical hinge and invisible from the outside. Hinges with and without safety switch are identical except the connector plug. In addition, the covered bolts at the rear make the hinge tamper-proof.

The compact construction combines safety and attractive design.

The version with broad hinge wing has been designed for mounting against glass or polycarbonate doors.

1	I <sub>1</sub>
2	l <sub>2</sub>
3	Туре
1	I,



Technical information			
Switch type	Interlocking mechanism without tension pickup acc. to EN 1088		
Actuator, internal	Safety switch encapsulated in hinge		
Max. load	GN 139.1 / GN 139.2		
	I <sub>1</sub> = 49		
	1000 N 25 Nm max 12 Nm max 1500 N max 750 N max		
	Computation examples → see operating instruction		
Actuating velocity	min. 2°/second, max. 90°/second		
Operating angle for forced separation (after switching point 0°)	The switching point is adjustable within +4°.  → see operating instruction		
Mechanical life acc. to IEC 60947-5-1	106 operating cycles		
Operating frequency acc. IEC 60947-5-1	max. 720 / hour		
Useful life (T <sub>M</sub> ) acc. to EN ISO 13849-1	20 years		
Number of cycles until hazardous failure (B10 d) acc. to EN 61820-2	5 000 000		
Utilisation category acc. to EN 60947-5-1	AC 15 / DC 13: Ue 24 V, le 2 A		
Protection class	IP 67 (plug) / IP69K (cable)		
Contact material	Silver alloy, solid		
Contact complement	8-pin plug  2x NC (Normally closed)		
Switching principle	Slow-action contact		
Contact opening	Force-locking, forced		
Design isolation voltage	30 V AC, 36 V DC		
Conventional technical current	max. 2 A		
Short-circuit protection acc. to IEC 60269-1	2 A, 500 V, Type gG		
Ambient temperature	- 25 °C bis + 80 °C		
<b>Degree of polution</b> external acc. to EN 60947-5-1	3		



# Conformity with international directives

The GN 139.1 / GN 139.2 hinges with safety switch comply with the following international directives:

BG-GS-ET-15 CEI 17-45 CEI 44-5 CEI 70-1 CEI EN 60947-5-1 EN 1088 EN 60204-1 EN 60529 EN 60947-5-1 EN ISO 12100-1 EN ISO 12100-2 IEC 204-1 IEC 337-1 IFC 529 IEC 947-5-1 NFC 63-140 VDE 0113 VDE 0660-200

## **Special features**

Double safety function with 2 contact switches

High load-bearing capacity owing to robust zinc die cast design

Load ratings:

1500 Nm (axial)

1000 Nm (radial)

25 Nm (torsion)

GN 139.2 hinges without switch in the same design for uniform appearance

Switching angle adjustment

Encapsulated inside actuator guarantees the proper function also under difficult conditions

Tamper-proof owing to bolting from the rear

Protection class IP 67 (plug)

IP 69K (cable)

More important details and notices are found in the operating instructions for the hinges GN 139.1 and GN 139.2. They are included with every hinge and can also be downloaded as PDF under "www.ganter-griff.com" at ,Service'.