

# HC3-K28S-AP4X Capacitive Sensor – Grip Sensor



## Technical data

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Туре	HC3-K28S-AP4X
ID	2601400
Rated switching distance (flush)	3 mm
Secured operating distance	≤ (0.72 × Sn) mm
Hysteresis	120 %
Temperature drift	Typical 20 %
Repeat accuracy	≤ 2 % of full scale
Ambient temperature	-25+70 °C
Electrical data	
Operating voltage U <sub>B</sub>	65 VDC
	≤ 10 % U <sub>Bmax</sub>
DC rated operating current I <sub>e</sub>	≤ 200 mA
No-load current	≤ 15 mA
Residual current	≤ 0.1 mA
Switching frequency	0.1 kHz
Oscillation frequency	According to EN 60947-5-2, 8.2.6.2 Table 9: 0.12.0 MHz
Isolation test voltage	0.5 kV
Output function	3-wire, NO contact, PNP
Short-circuit protection	yes/Cyclic
Voltage drop at I	≤ 1.8 V
Wire break/reverse polarity protection	yes/Complete
Tests/approvals	
Mechanical data	
Design	Smooth barrel, 28 mm
Housing material	Plastic, PBT-GF30
Active area material	PBT-GF30

### Features

Smooth barrel, Ø 28 mm
Plastic, PA12-GF30
Capacitive grip sensor
Active face, circumferential
Dirt compensation on active face
DC 3-wire, 10...65 VDC
NO contact, PNP output

Cable connection

#### Wiring diagram



## Functional principle

Capacitive proximity switches are designed for non-contact and wear-free detection of electrically conductive as well as nonconductive metal objects.



### Technical data

Electrical connection	Cable
Cable quality	Ø 5.2 mm, LifYY, PVC, 2 m
Core cross-section	3 x 0.34 mm <sup>2</sup>
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
MTTF	1080 years acc. to SN 29500 (Ed. 99) 40 °C
Switching state	Yellow

## Mounting instructions

Product features

# Diameter active Ø 28 mm area B

The given minimum distances have been checked in compliance with the standard switching distance. Should the sensitivity of the sensors be changed via potentiometer, the data sheet specifications no longer apply.