

## Industrial Joystick Analog 3-axis Controller

### MJ-2K CP OM



#### Features

- excellent lifetime
- robust design
- small design
- conductive plastic

#### Applications

- platform lifts
- remote controls
- forklift trucks
- hydraulic
- robotic
- microscopy

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## Electrical Characteristics

Resistance range/axis	5 k $\Omega$ *)
Resistance tolerance	$\pm 20$ %
Electrical angle	XY: $> \pm 18,5^\circ$ ; Z: $> \pm 36^\circ$ *)
Independent linearity	$\pm 2$ %
Centre detect switch/axis	XY: $< \pm 3^\circ$ open ; Z: $< \pm 4^\circ$ open
Power rating/axis	0,2 W at 40°
Operating voltage (VCC)	Max. 30 V <sub>DC</sub>
Wiper current	$< 10$ $\mu$ A
Max. wiper current	1 mA in failure mode
Insulation resistance	1 G $\Omega$ at 500 V <sub>DC</sub>
Dielectric withstanding voltage	2000 V

## Mechanical Characteristics

Life time	XY: $> 5$ Mio. cycles ; Z: $> 2$ Mio. cycles
Displacement angel	XY: $> \pm 19,5^\circ$ Z: $> \pm 37^\circ$
Seal condition	IP66
Operating force	XY: 5 N typ. ; Z: operating torque 0,11 Nm *)
Coulisse	Quadrate *)
Mid. position wiper	$\pm 1,5^\circ$
Impact force	XY: 100 N ; Z: 1 Nm

## Environmental Characteristics

Storage temperature	- 40°C ... + 85°C *)
Operating temperature	- 25°C ... + 70°C *)
Climatic class	25/085/56
Vibration	10 G
Shock	50 G

## Material

Housing	aluminium
Bearing	stainless steel/plastic
Electrical connection	Hirose connector, 12-poles
Mounting	screws M 2,5 ; assembly ring

Specifications subject to change without notice

\*) Other values on request

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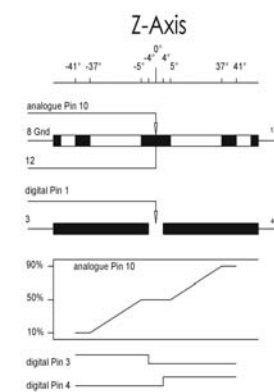
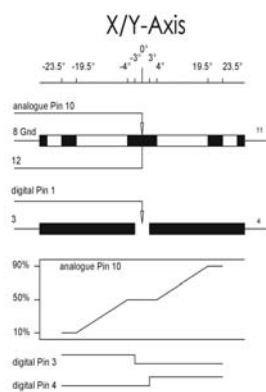
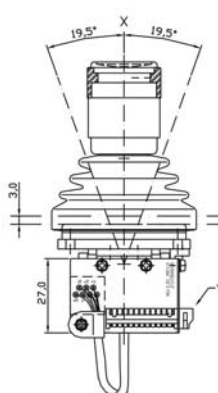
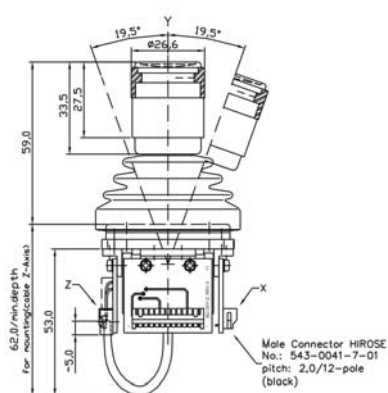


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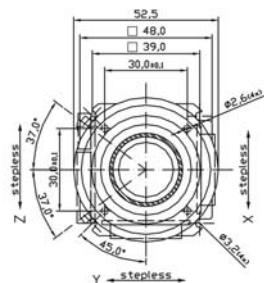
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## Drawing MJ-2K CP XY OM

## Connector pin assignment/Diagram



Connect. Resistance 5 kOhm ±20%  
Analogue band 10% - 90% Utotal ±3%  
Medium Voltage 50% Utotal ±2.5%  
Linearity = ±2%  
Contact Resistance Switch < 1 kOhm  
Life CP/PCB > 5 Mio Cycles



## Bestellbezeichnung

Type

M J - 2 K C P

Joystick MJ-2K CP

Elec. Output

X Y Z

X - 5K MC 1-0-1  
Y - 5K MC 1-0-1  
Z - 5K MC 1-0-1

Options

C G O M

Standard:

CG - Crossgate

Customised:

Other resistance values  
Redundant version  
Modified operating element  
Cable connector  
Mounting plate  
Digital version  
Solder connection