

DIGITAL 1- AND 2-AXIS INDUSTRIAL JOYSTICK MJ-2K CP OM



The MJ-2K series joysticks are also available with digital output signals. Mechanical detents provide tactile feedback. The galvanized isolated directional contacts provide maximum operating reliability for the control of crane systems on factory floors or on construction sites. Despite their robustness, the joysticks are very light and ergonomically designed for comfortable operation.

FEATURES

- Long service life
- Robust design
- Compact
- Conductive plastic technology

APPLICATIONS

- Aerial work platforms
- Wireless remote controls
- Forklift trucks
- Hydraulics



ELECTRICAL SPECIFICATIONS

Switching current	5 mA at 5 V *
Versions	Digital 1- to 4-stage (1-0-1 to 4-0-4)
Deflection angle, el.	4 x 6,5° *
Zero position switch per axis	< ± 3° open
Load capacity/axis	0,2 W at 40°
Operating voltage (VCC)	Max. 30 VDC
Insulation resistance	1 GΩ at 500 VDC
Dielectric strength	2000 V

MECHANICAL SPECIFICATIONS

Service life	> 3 million cycles
Deflection angle, mech.	See drawing
Operating force	5 N typically

Specifications are subject to change without notice.
* Other values on request.

Gate shape	Square, soft cross guide
Wiper zero position	± 1°
Impact strength	100 N
User control	Handle with Gaiter
Mounting	Outside mounting (OM)

AMBIENT CONDITIONS

Storage temperature	−40°C ... +85°C
Operating temperature	−25°C ... +70°C
Protection class	IP 66

MATERIALS

Base	Aluminium
Bearing	Stainless steel / plastic
Electrical connection	12-pin Hirose plug
Mounting	M2.5x16 with 3mm mounting plate, mounting ring. Select screw length to match plate thickness.

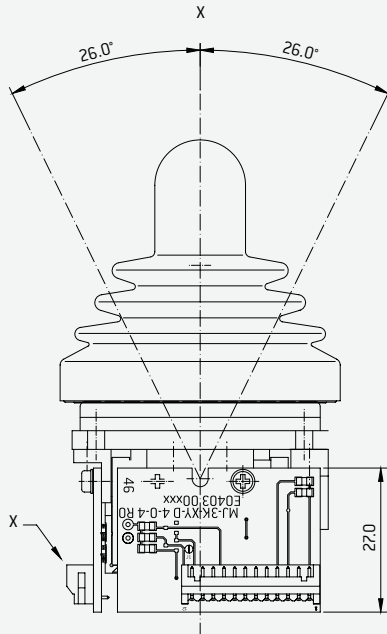
MJ-2K CP (CONDUCTIVE PLASTIC) DIGITAL OM

Type	MJ-2K CP X: 0 Y: 4-0-4 OM Hirose 12-pin	Type	MJ-2K CP XY: 4-0-4 DS series IB OM Hirose 12-pin
Item number	E060200421	Item number	E060200397
Type	MJ-2K CP XY: 4-0-4 OM Hirose 12-pin	Connection cable	MJ-2K Hirose 12-pin (ws) LiYv 0.14mm_500mm
Item number	E060200398	Item number	Z301000512

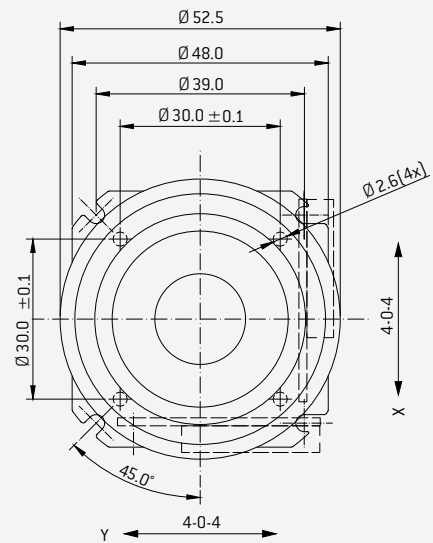
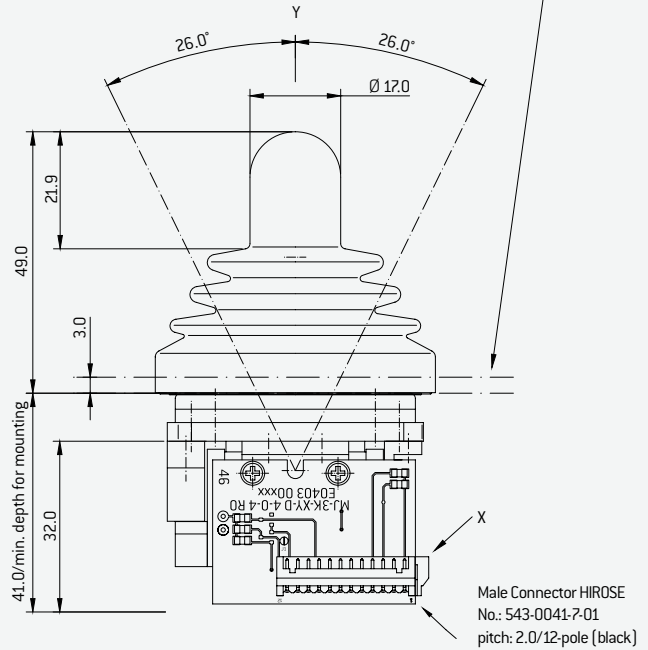
MJ-2K CP (CONDUCTIVE PLASTIC) ANALOGUE OM/MECHANICAL DETENTS

Type	MJ-2K X:0 Y: 4-0-4 5k MC 1-0-1 OM Hirose 12-pin	Type	MJ-2K X:0 Y: 5-0-5 5k MC 1-0-1 OM Hirose 12-pin
Item number	E060200450	Item number	E060200451
Type	MJ-2K XY: 4-0-4 5k MC 1-0-1 OM Hirose 12-pin	Type	MJ-2K XY: 5-0-5 5k MC 1-0-1 OM Hirose 12-pin
Item number	E060200402	Item number	E060200443
Type	MJ-2K XY: 4-0-4 5k MC 1-0-1 DS series IB OM Hirose 12-pin	Connection cable	MJ-2K Hirose 12-pin (ws) LiYv 0.14mm_500mm
Item number	E060200420	Item number	Z301000512

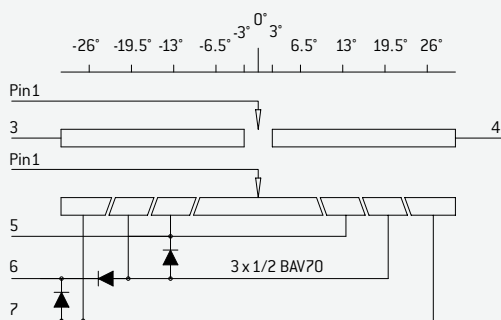
DRAWINGS FOR MJ-2K CP XY OM



Assembly of Gaiter together with Mounting Ring
MJ-2K 4xM2,5/30x30 MLX-Art-No.: Z404000023
If thickness of mounting panel is 3mm: Use Screw M2,5x16mm / Center Hole D=35,0



CONNECTOR PIN ASSIGNMENT / DIAGRAM



Contact Resistance Switch < 1kOhm
Life CP/PCB > 3 Mio Cycles
Anti-interference condensator {100pF} for switch contacts 4-0-4

	-26°	-19.5°	-13°	-6.5°	0°	6.5°	13°	19.5°	-26°
PIN 3	x	x	x	x					
PIN 4						x	x	x	x
PIN 5	o	x	x				x	x	o
PIN 6	x	x						x	x
PIN 7	x								x

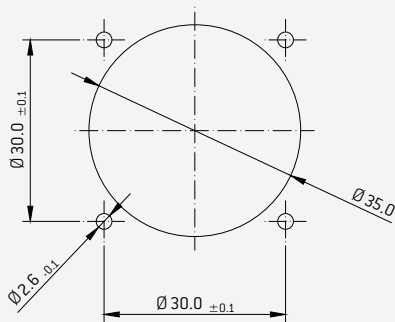
x = electrical Connection/Combination o = optional with Solder-Jumper J1

MOUNTING HOLES FOR MJ-2K AND MJ-3K



Mounting, Technology and Options

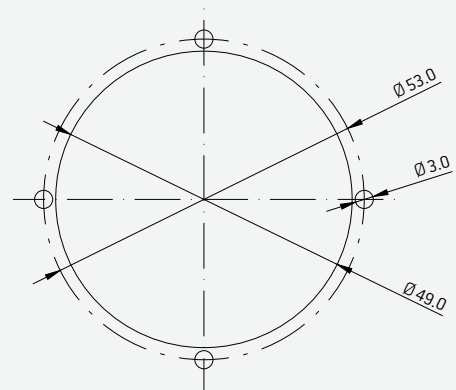
MOUNTING HOLE MJ-2K OM



Dimension Tolerance
DIN ISO 2768-m

If thickness of mounting panel/housing is 3mm thickness, following screw is to be used: Mounting Screw Type for example: M2,5x16 DIN7985 (4x) /H/Z/TX
Material: Steel galvanized/A2 (stainless). Length of screw has to be changed accordingly to mounting panel/housing thickness, to avoid damages to the gaiter!

MOUNTING HOLE MJ-3K



Dimension Tolerance
DIN ISO 2768-m

If thickness of mounting panel/housing is 3mm thickness, following screw is to be used: Mounting Screw Type for example: M3x10 DIN7985 (4x) /H/Z/TX
Material: Steel galvanized/A2 (stainless). Length of screw has to be changed accordingly to mounting panel/housing thickness.

KEY TECHNOLOGY / OPTIONS	SHORT FORM
Technology	
Conductive plastic	CP
Membrane sensor	MTP
Hall-Effect	Hall
Options	
Square platform	MJ-2K
Circular platform	MJ-3K
Grip height 55 [only MJ-3K]	55
Grip height 65 [only MJ-3K]	65
Center tap	MC
Dead man switch outside	DS series IB
Dead man switch (microswitch-inside)	DS
Cross gate	CG
Gaiter assembled from "outside" with respective mounting ring; IP 66	OM
Brake stepless – Put and Stay	BRS
Brake respective step – max. 2-0-2	BR 2-0-2
Circular deflection: 19,5°	3C
Soft control	SC
No guiding	NG