DIGITAL 1- AND 2-AXIS INDUSTRIAL JOYSTICK MJ-3K

Digital versions of the Metallux MJ-3K joysticks were designed for optimal control of crane systems. They are also available with mechanical detents for a distinct feedback and ease of control for the operator. Galvanically isolated direction contacts provide the necessary operational reliability and meet the requirements of the Machinery Directive. Their light weight and long service life encourage high productivity not only on construction and building sites but also on factory floors.

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); 4-bit gray code / upon request
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 bei 500 VDC
Dielectric strength	2000 V

MECHANICAL SPECIFICATIONS	
Service life	> 3 million cycles
Deflection angle, mech.	± 26°
Operating force	5 N typically
Gate shape	Square, soft cross guide
Wiper zero position	± 1°
Impact strength	100 N
User control	Handle with Gaiter

AMBIENT CONDITIONS	
Storage temperature	−40°C ... +85°C
Operating temperature	−25°C ... +70°C
Protection class	IP 65

MATERIALS	
Base	Aluminium
Bearing	Stainless steel/plastic
Electrical connection	12-pin Hirose plug, 6-pin Dubox plug
Mounting	Screws M3

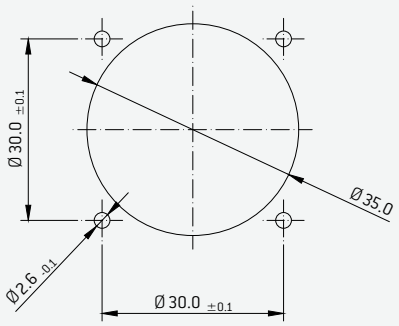
Specifications are subject to change without notice.
* Other values on request.

MJ-3K CP (CONDUCTIVE PLASTIC) DIGITAL			
Type Item number	MJ-3K 55 CP x:0 y:4-0-4 Dubox 6-pin E0602xxxxx (1-axis)	Type Item number	MJ-3K 65 CP x:0 y:4-0-4 Dubox 6-pin E0602xxxxx (1-axis)
Type Item number	MJ-3K 55 CP xy:4-0-4 Dubox 6-pin E060200428 (2-axis)	Type Item number	MJ-3K 65 CP xy:4-0-4 Dubox 6-pin E060200468 (2-axis)
Type Item number	MJ-3K 55 CP x:0 y:4-0-4 Hirose E0602xxxxx (1-axis)	Connection cable Item number	MJ-3K 65 CP xy:4-0-4 DS Dubox 6-pin E060200430 (2-axis)
Type Item number	MJ-3K 55 CP xy:4-0-4 Hirose E060200411 (2-axis)	Connection cable Item number	Hirose 12-pin (ws) LiYv 0.14mm² 500mm Z301000512
Type Item number	MJ-3K 55 CP xy:4-0-4 DS Dubox 6-pin E060200025	Connection cable Item number	Dubox 6-pin LiYv 0.14mm² 500mm Z301000500

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

Mounting, Technology and Options

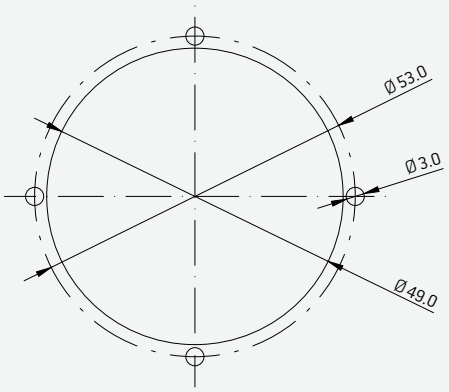
MOUNTING HOLE MJ-2K OM



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

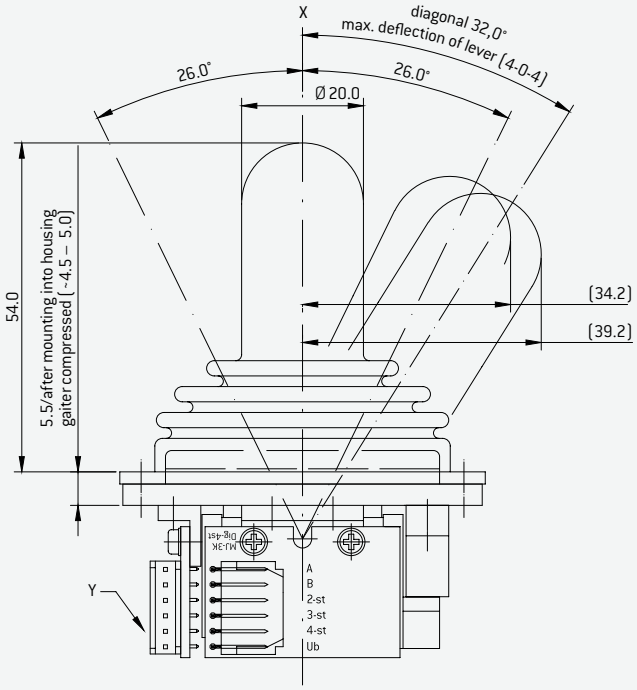


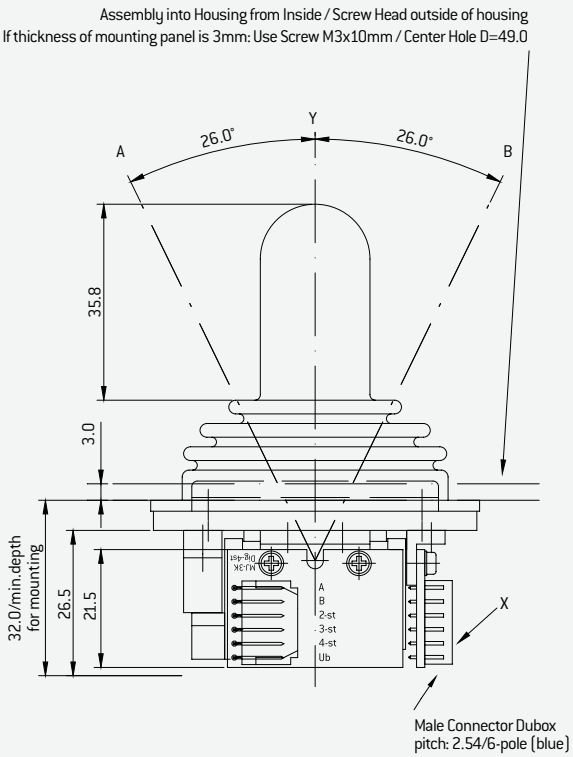
Dimension Tolerance
DIN ISO 2768-m

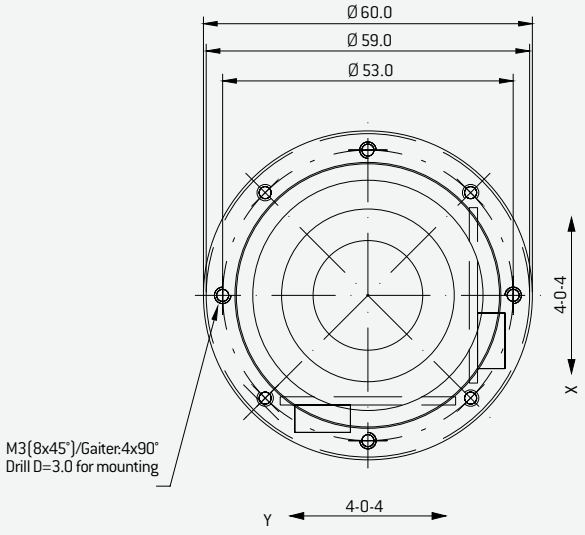
If thickness of mounting panel/housing is 3mm thickness, following screw is to be used: Mounting Screw Type for example: M3x10 DIN7985 (4x) /H/Z/TX Material: Steel galvanized/A2(stainless). Length of screw has to be changed accordingly to mounting panel/housing thickness.

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

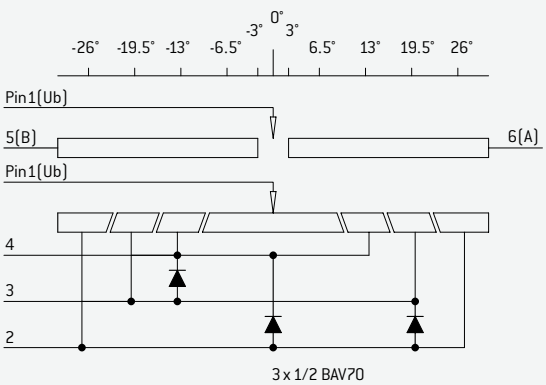
DRAWINGS FOR MJ-3K 55 DIGITAL







CONNECTOR PIN ASSIGNMENT / DIAGRAM



	−26°	−19.5°	−13°	−6.5°	0°	6.5°	13°	19.5°	−26°
PIN 5	x	x	x	x					
PIN 6						x	x	x	x
PIN 4	x	x	x				x	x	x
PIN 3	x	x						x	x
PIN 2	x								x

x = electrical Connection/Combination

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