

## IDXYmP MkII & IDXYmP-ID3 MkII Series



- Programmable micro controller device able to measure tilt on two axes
- Up to two supplementary outputs for axes or four for semi-axes
- MEMS technology (no moving parts). Can be mounted upside down.
- Safety level for IDXYmP: up to PL b (EN 13849-1)
- Safety level for IDXYmP-ID3: PL d (EN 13849-1)
- Could be factory programmed with custom configuration
- Programmable intervention range from -20 to +20 degrees
- Planarity output with free polarized relay contact or positive transistor
- Positive transistor axes or semi-axes outputs
- Hardware and software filtering to remove vibrations and noise
- Inputs and outputs protected against polarity inversion and short circuit
- Waterproof, plastic, compact body (glass fiber reinforced Nylon 6)
- Easy setup with BPE software (RS-232 connection)
- Zero cable to store the device zero

**On request:**

- Digital input for second alarm level selection
- Auxiliary transistor output for pre-alarm function (instead axes and semi-axes outputs)

*Typical fields of application: mounted cranes, mobile cranes, aerial platforms, industrial automation and generic mobile machines.*

**Note: the user/installer is responsible for evaluating the values and, thus, the safety of the application**



### Technical data

Technical data	Transistor ID output	Relay ID output
Power supply	9 to 33 V <sub>DC</sub>	12 V <sub>DC</sub> : from 9 to 16.8 V <sub>DC</sub> @ 20°C <sup>(2)</sup> 24 V <sub>DC</sub> : from 18 to 33 V <sub>DC</sub> @ 20°C <sup>(2)</sup>
Axes and semi-axes outputs max current	1.5 A (2.5 A if only one output is activated) <sup>(3)</sup>	
Planarity output max current	Positive: 3.0 A   Negative: 0.6 A	3.0 A <sup>(4)</sup>
Power draw	30 mA <sup>(5)</sup>	
Intervention range	from -20 degrees to +20 degrees on every axis	
Accuracy	1% FS	
Resolution	0.025 degrees	
Temperature drift (zero point)	±0.008 degrees/°C (typ.)	
Operating temperature	from -40 to +70 °C <sup>(6)</sup>	
Maximum weight	0.25 kg	
Housing material	glass fiber reinforced Nylon 6	
Sealing	two component polyurethane resin	
Standard protection grade	IP66 / IP67	
Standard cable length	45 cm	
Buzzer (Optional)	105dB, alternating tone, IP54	
CE conformity	EMC Directive: 2014/30/EU Machine Directive: 2006/42/EC	
EMC: Immunity   Emission	EN 61000-6-2, EN61000-6-3   EN 13309 <sup>(7)</sup>	
Vibration resistance – Sinus	EN 60068-2-6: 10 g, 10 to 150 Hz	EN 60068-2-6: 5g, 10 to 150Hz
Shock resistance – Shock	EN 60068-2-27: 200 g, 6 ms	EN 60068-2-27: 30g, 6ms
MTTFd	EN 13849-1: ≥ 100 years (for every channel) for the planarity transistor output version	

<sup>(1)</sup> Planarity relay output must be protect with an external fuse (not supplied)

<sup>(2)</sup> 12 V<sub>DC</sub>: from 10.2 to 16.2 V<sub>DC</sub> @ 70°C. 24 V<sub>DC</sub>: from 20.4 to 32.4 V<sub>DC</sub> @ 70°C

<sup>(3)</sup> Mutually exclusive, maximum two contemporary enabled

<sup>(4)</sup> Protected by external fast fuse

<sup>(5)</sup> Without loads on the output

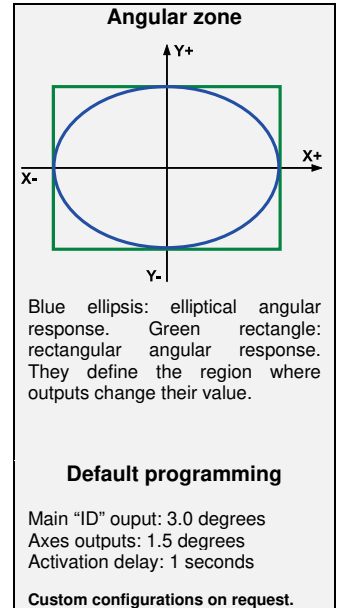
<sup>(6)</sup> From -20 to +70 °C for Cat. 3 or PL d versions (IDXYmP-ID3 MkII)

<sup>(7)</sup> Excluding Pulse 5 (ISO 7637)

## IDXYmP MkII & IDXYmP-ID3 MkII Series

### Ordering Code

IDXYmP MkII	UNI	PT	C	PLb_	4AP_	A	1	R	PC	SWZ	C80	N	N	H	0														
Type	Power supply	Main "ID" output	Safety level	Axes outputs	Alarm levels	Angular zone	RS-232 serial port cable	Zero setting cable	Electrical connection	Flange	Buzzer	Placement	Sup. dig. output																
<b>IDXYmP-ID3 MkII</b>	<b>UNI</b>	<b>PT</b>	<b>C</b>	<b>PLd_</b>	<b>4AP_</b>	<b>A</b>	<b>1</b>	<b>R</b>	<b>PC</b>	<b>SWZ</b>	<b>C90</b>	<b>N</b>	<b>N</b>	<b>H</b>	<b>0</b>														
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<b>Power supply</b>	<table border="1"> <tr><td>1</td><td>2</td><td>V</td></tr> <tr><td>2</td><td>4</td><td>V</td></tr> <tr><td>U</td><td>N</td><td>I</td></tr> </table>	1	2	V	2	4	V	U	N	I			<table border="1"> <tr><td>12 V<sub>DC</sub> power supply</td></tr> <tr><td>24 V<sub>DC</sub> power supply</td></tr> <tr><td>Power supply from 9 to 33 V<sub>DC</sub>. No "CR" ID output. No buzzer.</td></tr> </table>	12 V <sub>DC</sub> power supply	24 V <sub>DC</sub> power supply	Power supply from 9 to 33 V <sub>DC</sub> . No "CR" ID output. No buzzer.													
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<b>Alarm level</b>	<table border="1"> <tr><td>1</td></tr> </table>	1			<table border="1"> <tr><td>Standard</td></tr> </table>	Standard																							
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<b>Angular zone</b>	<table border="1"> <tr><td>R</td></tr> <tr><td>E</td></tr> </table>	R	E			<table border="1"> <tr><td>Rectangular angular response</td></tr> <tr><td>Elliptical Rectangular angular response (for main "ID" output only)</td></tr> </table>	Rectangular angular response	Elliptical Rectangular angular response (for main "ID" output only)																					
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<b>RS-232 serial cable</b>	<table border="1"> <tr><td>N</td><td>O</td></tr> <tr><td>P</td><td>C</td></tr> </table>	N	O	P	C			<table border="1"> <tr><td>Without serial connection for configuration and calibration</td></tr> <tr><td>With serial connection for configuration and calibration</td></tr> </table>	Without serial connection for configuration and calibration	With serial connection for configuration and calibration																			
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<b>Zero setting cable</b>	<table border="1"> <tr><td>S</td><td>W</td><td>Z</td></tr> </table>	S	W	Z			<table border="1"> <tr><td>With cable for zero calibration</td></tr> </table>	With cable for zero calibration																					
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<b>Electrical connection</b>	<table border="1"> <tr><td>C</td><td>8</td><td>0</td></tr> <tr><td>C</td><td>9</td><td>0</td></tr> </table>	C	8	0	C	9	0			<table border="1"> <tr><td>45cm free cables (for IDXYmP only)</td></tr> <tr><td>45cm free cables (for IDXYmP-ID3 only)</td></tr> </table>	45cm free cables (for IDXYmP only)	45cm free cables (for IDXYmP-ID3 only)																	
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<b>Flange</b>	<table border="1"> <tr><td>F</td></tr> <tr><td>M</td></tr> <tr><td>N</td></tr> </table>	F	M	N			<table border="1"> <tr><td>With flange and spacers</td></tr> <tr><td>With flange and springs</td></tr> <tr><td>Without flange</td></tr> </table>	With flange and spacers	With flange and springs	Without flange																			
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<b>Placement</b>	<table border="1"> <tr><td>H</td></tr> <tr><td>V</td></tr> </table>	H	V			<table border="1"> <tr><td>Horizontal mounting</td></tr> <tr><td>Vertical mounting</td></tr> </table>	Horizontal mounting	Vertical mounting																					
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<b>Digital output</b>	<table border="1"> <tr><td>0</td></tr> </table>	0			<table border="1"> <tr><td>Supplementary digital output not available in standard configurations</td></tr> </table>	Supplementary digital output not available in standard configurations																							
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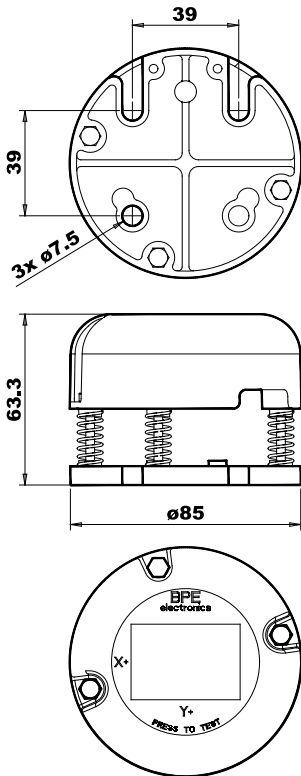
Custom configurations are available on request.

### Possible configurations

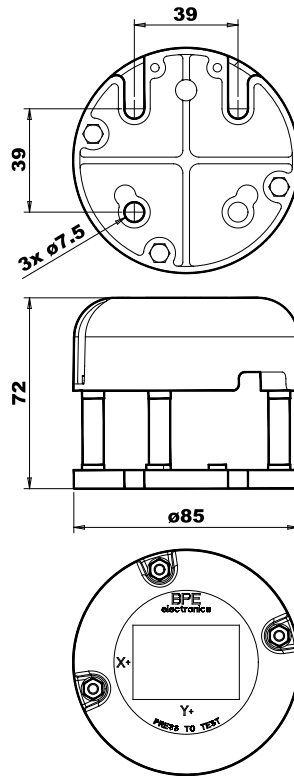
IDXYmP-ID3 MkII	12V 24V	CR	C	PLd_	NOT_ 4AP_	N C A	1	R E	NO PC	SWZ	C90	F M N	N Z N	H V	0
<b>IDXYmP MkII</b>	12V 24V	CR	C	PLb_	NOT_ 4AP_	N C A	1	R E	NO PC	SWZ	C80	F M N	N Z N	H V	0

## IDXYmP MkII & IDXYmP-ID3 MkII Series

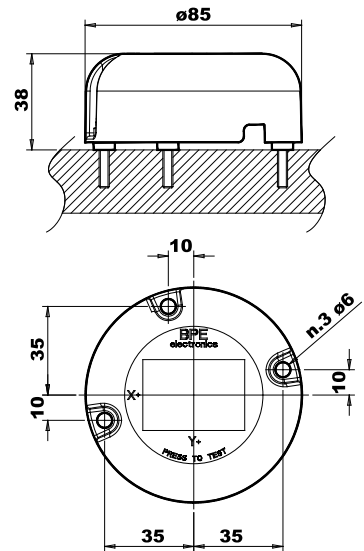
### Dimensions [mm]



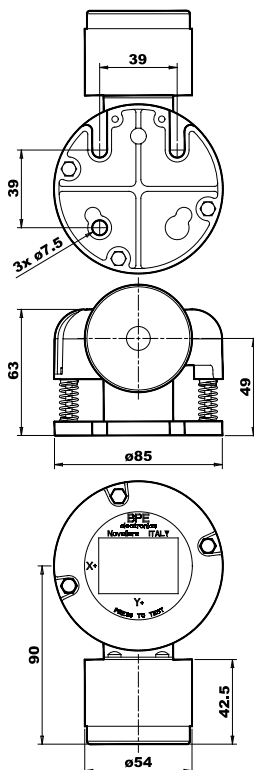
**M:** With flange and springs



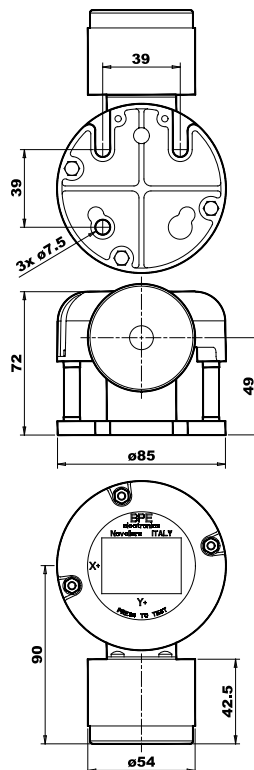
**F:** With flange and spacers



**N:** Without flange



**M Z:** With spring and buzzer



**F Z:** With spacers and buzzer

*IDXYmP MkII & IDXYmP-ID3 MkII Series*
**Accessories**

<b>Type</b>	<b>Description</b>	<b>Code</b>	<b>Notes</b>
<b>Fitting kit</b>	Springs and flange kit	7.003.049	
<b>RS-232 connection kit</b>	RS-232/USB connection kit for BPE boards, composed by: № 1 RS-232 serial connection cable L=4 meters P/N 7.045.068; № 1 RS-232 AMPSEAL/Modu2 serial adapter P/N 7.045.069; № 1 USB/RS-232 DB9 adapter P/N 7.045.008;	7.045.022	
<b>RS-232 connection</b>	RS-232 serial cable to connect a PC (DB9 connector) to BPE boards (AMPModu2 connector) L=4meters	7.045.068	
<b>RS-232 connection</b>	AMP Sseal 3p connector adapter for serial cables P/N 7.045.067 or 7.045.068.	7.045.069	
<b>RS-232 connection</b>	USB/RS-232 DB9 adapter	7.045.008	