

IDXYmP MkII & IDXYmP-ID3 MkII Series



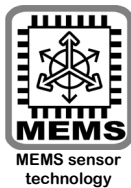
- Programmable micro controller device able to measure tilt on two axes
- Up to two supplementary outputs for axes or four for semi-axes
- MEMS technology (no moving parts). Can be mounted upside down.
- Safety level for IDXYmP: up to PL b (EN 13849-1)
- Safety level for IDXYmP-ID3: PL d (EN 13849-1)
- 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



MEMS sensor technology



PLd (EN 13849-1)



Intervention range ±20°



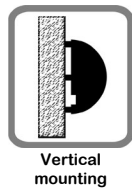
Protection Grade IP66/IP67



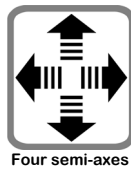
Easy PC setup with BPEterminal



Until -40°C



Vertical mounting



Four semi-axes



Automatic levelling

Technical data

	Transistor ID output	Relay ID output
Power supply	9 to 33 V _{DC}	12 V _{DC} : from 9 to 16.8 V _{DC} @ 20°C ⁽²⁾ 24 V _{DC} : from 18 to 33 V _{DC} @ 20°C ⁽²⁾
Axes and semi-axes outputs max current	1.5 A (2.5 A if only one output is activated) ⁽³⁾	
Planarity output max current	Positive: 3.0 A Negative: 0.6 A	3.0 A ⁽⁴⁾
Power draw	30 mA ⁽⁵⁾	
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 ⁽⁶⁾	
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 ⁽⁷⁾	
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	

⁽¹⁾ Planarity relay output must be protect with an external fuse (not supplied) ⁽²⁾ 12 V_{DC}: from 10.2 to 16.2 V_{DC} @ 70°C. 24 V_{DC}: from 20.4 to 32.4 V_{DC} @ 70°C

⁽³⁾ Mutually exclusive, maximum two contemporary enabled ⁽⁴⁾ Protected by external fast fuse

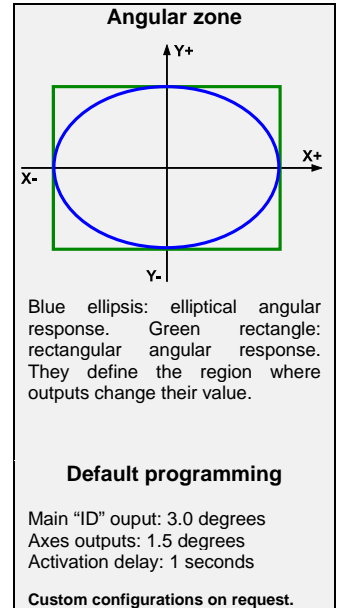
⁽⁵⁾ Without loads on the output ⁽⁶⁾ From -20 to +70 °C for Cat. 3 or PL d versions (IDXYmP-ID3 MkII)

⁽⁷⁾ 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																	
IDXYmP-ID3 MkII	UNI	PT	C	PLd_	4AP_	A	1	R	PC	SWZ	C90	N	N	H	0															
Type	Power supply	Main "ID" output	Safety level	Axes outputs	Alarm levels	Angular zone	RS-232 serial cable	Zero setting cable	Electrical connection	Flange	Buzzer	Placement	Sup. dig. output																	
Power supply	<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_{DC} power supply</td></tr> <tr><td>24 V_{DC} power supply</td></tr> <tr><td>Power supply from 9 to 33 V_{DC}. No "CR" ID output. No buzzer.</td></tr> </table>	12 V _{DC} power supply	24 V _{DC} power supply	Power supply from 9 to 33 V _{DC} . No "CR" ID output. No buzzer.														
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Safety level	<table border="1"> <tr><td>N</td><td>O</td><td>T</td><td>_</td></tr> <tr><td>P</td><td>L</td><td>b</td><td>_</td></tr> <tr><td>P</td><td>L</td><td>d</td><td>_</td></tr> </table>	N	O	T	_	P	L	b	_	P	L	d	_			<table border="1"> <tr><td>Main "ID" output safety or performance level equal to nothing</td></tr> <tr><td>Main "ID" output performance level equal to PL b (EN 13849-1)</td></tr> <tr><td>Main "ID" output performance level equal to PL d (EN 13849-1)</td></tr> </table>	Main "ID" output safety or performance level equal to nothing	Main "ID" output performance level equal to PL b (EN 13849-1)	Main "ID" output performance level equal to PL d (EN 13849-1)											
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Alarm level	<table border="1"> <tr><td>1</td></tr> </table>	1			<table border="1"> <tr><td>Standard</td></tr> </table>	Standard																								
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Angular zone	<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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RS-232 serial cable	<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																				
N	O																													
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Zero setting cable	<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																						
S	W	Z																												
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Electrical connection	<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)																		
C	8	0																												
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Flange	<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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Buzzer	<table border="1"> <tr><td>N</td></tr> <tr><td>Z</td></tr> </table>	N	Z			<table border="1"> <tr><td>Without buzzer</td></tr> <tr><td>With buzzer</td></tr> </table>	Without buzzer	With buzzer																						
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Placement	<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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Digital output	<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.

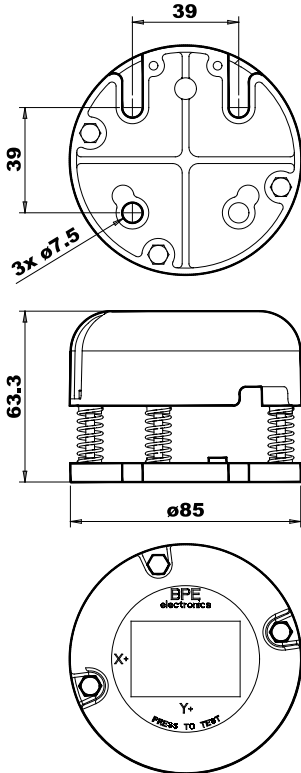
Possible configurations

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
	UNI	PT	C	PLd_	NOT_ 4AP_	N C A	1	R E	NO PC	SWZ	C90	F M N	N Z N	H V	0

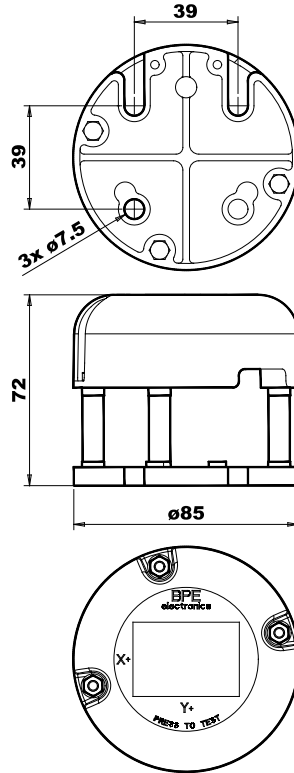
IDXYmP MkII	12V 24V	CR	C	PLb_	NOT_ 4AP_	N C A	1	R E	NO PC	SWZ	C80	F M N	N Z N	H V	0
	UNI	PT	C	PLb_	NOT_ 4AP_	N C A	1	R E	NO PC	SWZ	C80	F M N	N Z N	H V	0
		NT	C	PLb_	NOT_ 4AP_	N C A	1	R E	NO PC	SWZ	C80	F M N	N Z N	H V	0

IDXYmP MkII & IDXYmP-ID3 MkII Series

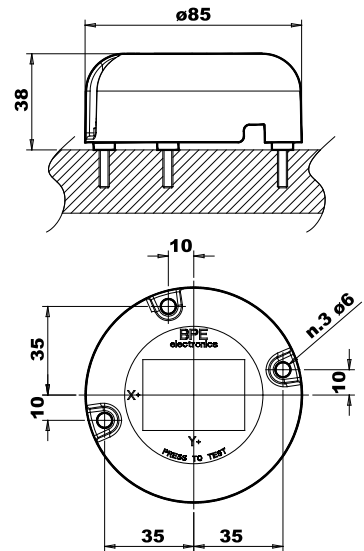
Dimensions [mm]



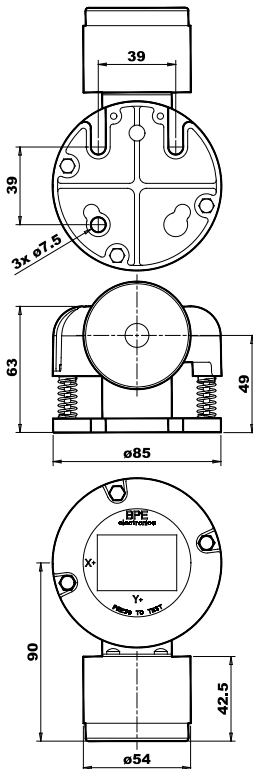
M: With flange and springs



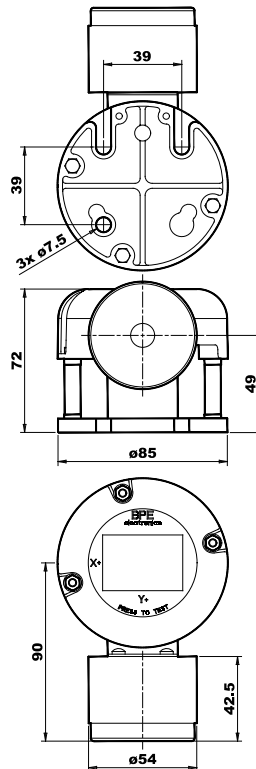
F: With flange and spacers



N: Without flange



M Z: With spring and buzzer



F Z: With spacers and buzzer