

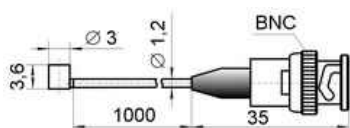


Miniature Vibration Transducers with Built-In Electronics NTIP2019, NTIP2030, NTIP2031

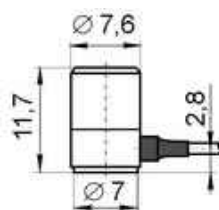


Parameter	Unit	NTIP2019	NTIP2030	NTIP2031
Axial sensitivity ( $\pm 10\%$ ).....	mV/g <sup>*1</sup>	0.5	3	3
Relative transverse sensitivity.....	%	< 5	< 3	< 3
Amplitude range.....	g <sup>*1</sup>	$\pm 7000$	$\pm 1500$	$\pm 1500$
Max. shock limit (peak value).....	g <sup>*1</sup>	$\pm 10000$	$\pm 3000$	$\pm 3000$
Operating temperature range.....	° C	-40...+125	-40...+125	-40...+125
Frequency range (ripple $\pm 1$ dB)....	Hz	5...22000	0.5...20000	0.5...22000
Self-resonant frequency in attached condition.....	kHz	> 100	> 60	> 60
Noise level, RMS (1 Hz ... 10 kHz).....	g <sup>*1</sup>	< 0.005	< 0.002	< 0.002
Output resistance.....	Ohm	< 500	< 500	< 500
Voltage power.....	V	+(15...30)	+(15...30)	+(15...30)
Current power.....	mA	2...20	2...20	2...20
Constant output voltage level....	V	8...11	8...11	8...11
Design.....	-	Shear	Shear	Shear
Bottom insulation.....	-	no	yes	no
Built-in cable length.....	m	1 <sup>*2</sup>	2 <sup>*2</sup>	2 <sup>*2</sup>
Connector type.....	-	.....BNC	BNC	BNC
Housing material.....	-	titanium alloy	titanium alloy	titanium alloy
Weight (without connector and cable).....	gram	0.18	1.6	1.6

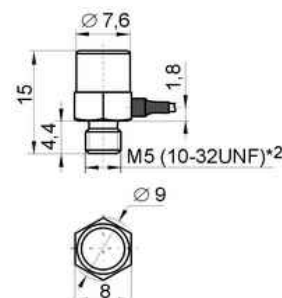
General view of NTIP2019



General view of NTIP2030

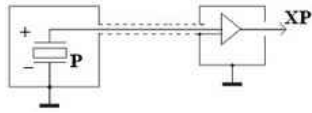


General view of NTIP2031

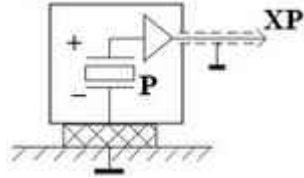




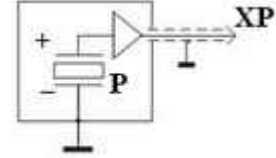
Electrical circuit of NTIP2019



Electrical circuit of NTIP2030



Electrical circuit of NTIP2031



The circuit of connection to a data-acquisition equipment

