

Piezo sensors - Accelerometers

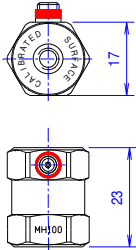
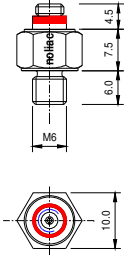
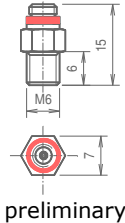
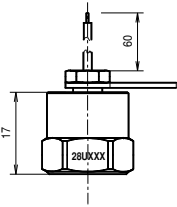
1 High temperature accelerometers

Parameter ¹	Unit	MH118	MH119	MH128	MH129
Accelerometer type	-	piezoelectric	piezoelectric	piezoelectric	piezoelectric
Output	-	charge/voltage	charge/voltage	charge/voltage	charge/voltage
Design	-	Ring Shear®	Ring Shear®	Ring Shear®	Ring Shear®
Charge sensitivity	pC/ms ⁻²	1	1	3.16	3.16
Capacity	pF	400	400	400	400
Mass	g	12	15	21	25
Transverse sensitivity (max.)	%	2	2	2	2
Resonance frequency (mounted 180g)	kHz	32	32	25	25
Max. shock acceleration	kms ⁻²	40	40	20	20
Min. leak resistance (at room temp.)	G□	10	10	10	10
Magnetic sensitivity	ms ⁻² /T	1,2	1,2	2	2
Temperature transient sensitivity ²	ms ⁻² /K	0.25	0.25	0.2	0.2
Temperature range	□C	-40 to 250	-40 to 250	-40 to 250	-40 to 250
Material	-	AISI 304	AISI 304	AISI 304	AISI 304
Sensing element	-	piezoelectric	piezoelectric	piezoelectric	piezoelectric
Seismic mass	g	3.3	3.3	10	10
Centre of seismic mass gravity ³	mm	6	12	8,5	14
Connector	-	coaxial 10-32 UNF	coaxial 10-32 UNF	coaxial 10-32 UNF	coaxial 10-32 UNF
Outlet	-	axial	radial	axial	radial
Mounting thread	-	M5	M5	M5	M5
Dimensions: (not in scale) 1 Typical parameters obtained in accordance with relevant parts of ISO 5347 and ISO 16063 standards. 2 LFF (low frequency filter) = 3 Hz 3 From mounting surface at central axis.					

2. Industrial accelerometers

Parameter	Unit	MH158	MH157	ME155	MH155
Accelerometer type	-	IEPE ⁴	IEPE	IEPE	piezoelectric
Output	-	voltage	voltage	voltage	charge/voltage
Design	-	Ring Shear®	Ring Shear®	Ring Shear®	Ring Shear®
Charge sensitivity	pC/ms ⁻²	-	-	-	3.16
Voltage sensitivity	mV/g	100	10	100	-
Capacity	pF	-	-	-	400
Mass	g	68	40	60	60
Transverse sensitivity (max.)	%	2	2	2	2
Resonance frequency (mounted 180g)	kHz	22	32	-	-
Max. shock acceleration	kms ⁻²	40	40	20	20
Temperature transient sensitivity	ms ⁻² /K	0.25	0.25	0.2	0.2
Temperature range	□C	-40 to 125	-40 to 125	-25 to 100	-25 to 100
Material	-	AISI 304	AISI 304	AISI 304	AISI 304
Sensing element	-	piezoelectric	piezoelectric	piezoelectric	piezoelectric
Seismic mass	g	6	1	10	10
Centre of seismic mass gravity	mm	14	9	18	18
Connector	-	MIL-C 50-15	2x Faston 2,8 mm	coaxial 10-32 UNF	coaxial 10-32 UNF
Outlet	-	axial	axial	radial	radial
Mounting thread	-	M6	M8	4 x M4	4 x M4
Dimensions: (not in scale) 4 Piezoelectric sensor with integrated electronics.					

3. Shock and special purpose accelerometer

Parameter ¹	Unit	MH100 Referential	MH164 Acceleration and shocks	MH184 High shocks	MH128U OEM product
Accelerometer type	-	piezoelectric	piezoelectric	piezoelectric	piezoelectric
Output	-	charge/voltage	charge/voltage	charge/voltage	charge/voltage
Design	-	Ring Shear®	Ring Shear®	compression	Ring Shear®
Charge sensitivity	pC/ms ⁻²	1	0.1	0.05	3.16
Capacity	pF	400	260	64	400
Mass	g	35	8	5	10
Transverse sensitivity	%	2	2	2	-
Resonance frequency (mounted 180g)	kHz	32	60	-	25
Max. shock acceleration	kms ⁻²	40	100	150	20
Min. leak resistance (at room temp.)	G□	10	10	10	10
Magnetic sensitivity	ms ⁻² /T	1.2	-	-	2
Temperature transient sensitivity ²	ms ⁻² /K	0.25	-	-	0.2
Temperature range	□C	-5 to 45	-40 to 150	-40 to 135	-40 to 180
Material	-	AISI 304	AISI 304	AISI 304	AISI 304
Sensing element	-	piezoelectric	piezoelectric	piezoelectric	piezoelectric
Seismic mass	g	10	0.5	0,2	10
Connector	-	coaxial 10-32 UNF	coaxial 10-32 UNF	coaxial 10-32 UNF	wire
Outlet	-	radial	radial	axial	radial
Mounting thread	-	2 x M5	M6	M6	M5
Dimensions: (not in scale) 1 Typical parameters obtained in accordance with relevant parts of ISO 5347 and ISO 16063 standards. 2 LFF (low frequency filter) = 3 Hz				 <p>preliminary</p>	

4. Electronic purpose accelerometers

Parameter ¹	Unit	ME118	ME119	ME128	ME129
Accelerometer type	-	IEPE	IEPE	IEPE	IEPE
Output	-	voltage	voltage	voltage	voltage
Design	-	Ring Shear®	Ring Shear®	Ring Shear®	Ring Shear®
Sensitivity	mV/ms ⁻²	1	1	10	10
Mass	g	12	15	21	25
Transverse sensitivity (max.)	%	2	2	2	2
Resonance frequency (mounted 180g)	kHz	32	32	25	25
Max. shock acceleration	kms ⁻²	40	40	20	20
Magnetic sensitivity	ms ⁻² /T	-	-	-	-
Temperature transient sensitivity ²	ms ⁻² /K	-	-	-	-
Temperature range	□C	-40 to 125	-40 to 125	-40 to 125	-40 to 125
Material	-	AISI 304	AISI 304	AISI 304	AISI 304
Sensing element	-	piezoelectric	piezoelectric	piezoelectric	piezoelectric
Seismic mass	g	3.3	3.3	10	10
Centre of seismic mass gravity ³	mm	6	12	8.5	14
Connector	-	coaxial 10-32 UNF	coaxial 10-32 UNF	coaxial 10-32 UNF	coaxial 10-32 UNF
Outlet	-	axial	radial	axial	radial
Mounting thread	-	M5	M5	M5	M5
Dimensions: (not in scale) 1 Typical parameters obtained in accordance with relevant parts of ISO 5347 and ISO 16063 standards. 2 LFF (low frequency filter) = 3 Hz 3 From mounting surface at central axis.					