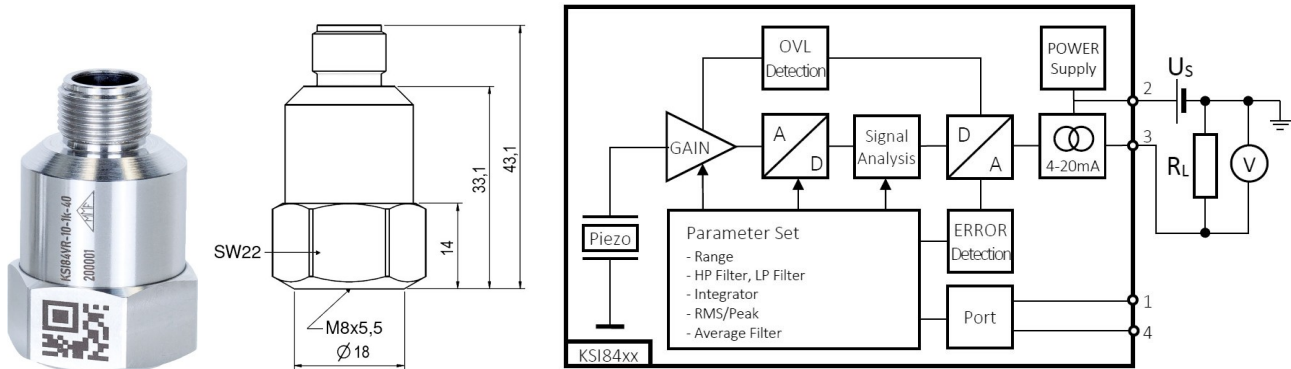


Vibration Velocity Sensor with RMS Output 4 – 20 mA

KSI84VR-...

Properties

- Suited for direct connection to standard control and measurement equipment, e.g. PLCs or panel meters
- Particularly suited for machine condition monitoring to ISO 20816
- 48 Types with different measurement ranges
- Loop powered
- Ground insulated
- Compact and rugged design
- M12 socket for easy cable connection
- Protected against false polarization and overvoltage
- Double shielded case for best EMC properties
- High protection grade IP68
- With identical design also available as acceleration and displacement sensor with RMS or peak output



Piezo design	Shear design	
Output	4 .. 20 mA, RMS of vibration velocity	
Full scale value (cf. type list)	10 / 12,7 / 20 / 25,4 / 40 / 50,8	mm/s
Linear range for <2 % error, referred to full scale output	1 – 112,5	%
Full scale tolerance	2	%
Destruction limit	±5000	g
Transverse sensitivity	<5	%
Lower frequency limit (cf. type list)	1,5 / 3 / 10 / 30	Hz
Upper frequency limit (cf. type list)	100 / 300 / 1000	Hz
Loop supply voltage	10 – 30	V
Settling time	4	s
Operating temperature range	-40 - 100	°C
Temperature coefficient of sensitivity	+0,015	%/K
4 mA offset drift over operating temperature range	±4	µA
4 mA offset drift over time	±1	µA
Weight without cable	60	g
Case material	Stainless steel	
Direction of connector	axial	
Connection	M12, 4 contacts, male. (Binder 713)	
Mounting	tapped hole M8 x 5,5	
Isolation at 250 VDC	>4	GΩ
Protection grade	IP68	

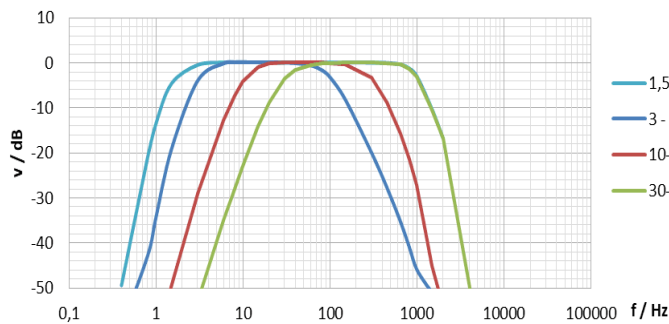
Type List

High pass H [Hz]	Low pass L [Hz]	Range* R [mm/s]	Type code KSI84VR-H-L-R	Noise* [mm/s]
1,5	100	40	KSI84VR-1-100-40	0,1
1,5	300	40	KSI84VR-1-300-40	0,1
1,5	1000	40	KSI84VR-1-1k-40	0,1
1,5	100	50,8	KSI84VR-1-100-50	0,1
1,5	300	50,8	KSI84VR-1-300-50	0,1
1,5	1000	50,8	KSI84VR-1-1k-50	0,1
3	100	20	KSI84VR-3-100-20	0,035
3	300	20	KSI84VR-3-300-20	0,035
3	1000	20	KSI84VR-3-1k-20	0,035
3	100	25,4	KSI84VR-3-100-25	0,035
3	300	25,4	KSI84VR-3-300-25	0,035
3	1000	25,4	KSI84VR-3-1k-25	0,035
3	100	40	KSI84VR-3-100-40	0,035
3	300	40	KSI84VR-3-300-40	0,035
3	1000	40	KSI84VR-3-1k-40	0,035
3	100	50,8	KSI84VR-3-100-50	0,035
3	300	50,8	KSI84VR-3-300-50	0,035
3	1000	50,8	KSI84VR-3-1k-50	0,035

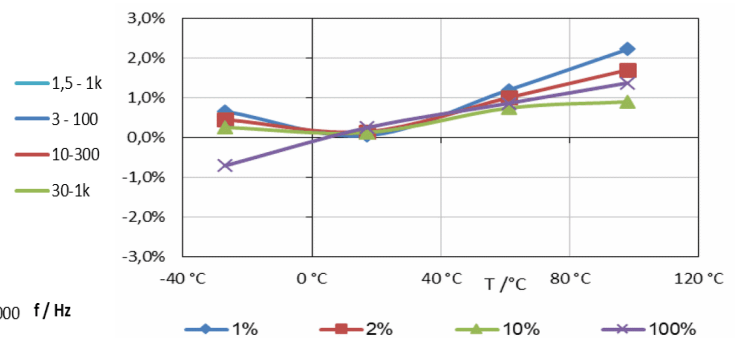
* RMS values

High pass H [Hz]	Low pass L [Hz]	Range* R [mm/s]	Type code KSI84VR-H-L-R	Noise* [mm/s]
10	100	10	KSI84VR-10-100-10	0,01
10	300	10	KSI84VR-10-300-10	0,01
10	1000	10	KSI84VR-10-1k-10	0,01
10	100	12,7	KSI84VR-10-100-12	0,01
10	300	12,7	KSI84VR-10-300-12	0,01
10	1000	12,7	KSI84VR-10-1k-12	0,01
10	100	20	KSI84VR-10-100-20	0,01
10	300	20	KSI84VR-10-300-20	0,01
10	1000	20	KSI84VR-10-1k-20	0,01
10	100	25,4	KSI84VR-10-100-25	0,01
10	300	25,4	KSI84VR-10-300-25	0,01
10	1000	25,4	KSI84VR-10-1k-25	0,01
10	100	40	KSI84VR-10-100-40	0,01
10	300	40	KSI84VR-10-300-40	0,01
10	1000	40	KSI84VR-10-1k-40	0,01
10	100	50,8	KSI84VR-10-100-50	0,01
10	300	50,8	KSI84VR-10-300-50	0,01
10	1000	50,8	KSI84VR-10-1k-50	0,01
30	300	10	KSI84VR-30-300-10	0,005
30	1000	10	KSI84VR-30-1k-10	0,005
30	300	12,7	KSI84VR-30-300-12	0,005
30	1000	12,7	KSI84VR-30-1k-12	0,005
30	300	20	KSI84VR-30-300-20	0,005
30	1000	20	KSI84VR-30-1k-20	0,005
30	300	25,4	KSI84VR-30-300-25	0,005
30	1000	25,4	KSI84VR-30-1k-25	0,005
30	300	40	KSI84VR-30-300-40	0,005
30	1000	40	KSI84VR-30-1k-40	0,005
30	300	50,8	KSI84VR-30-300-50	0,005
30	1000	50,8	KSI84VR-30-1k-50	0,005

Typical Amplitude Response (example)



Linearity vs. Temperature and Vibration Amplitude



Mounting Accessories

- 043: Mounting stud; M8 x 10
- 229: Adhesive flange; conductive; M8; D25; >250 °C
- 208: Rare earth magnetic base; M8; D30; 120 °C
- 230: Triaxial mounting cube; M8; □34

Connection Accessories

- 080G: Plug Binder 713 (female) with screw terminals, IP67; straight
- 080W: Plug Binder 713 (female) with screw terminals, IP67; angled
- 082-B713G-PIG-5: Cable for KSI84xx; 5 m; Binder 713; straight; female to pig tail; 80 °C; D5
- 082-B713W-PIG-5: Cable for KSI84xx; 5 m; Binder 713; angled; female to pig tail; 80 °C; D5

Contact Arrangement

