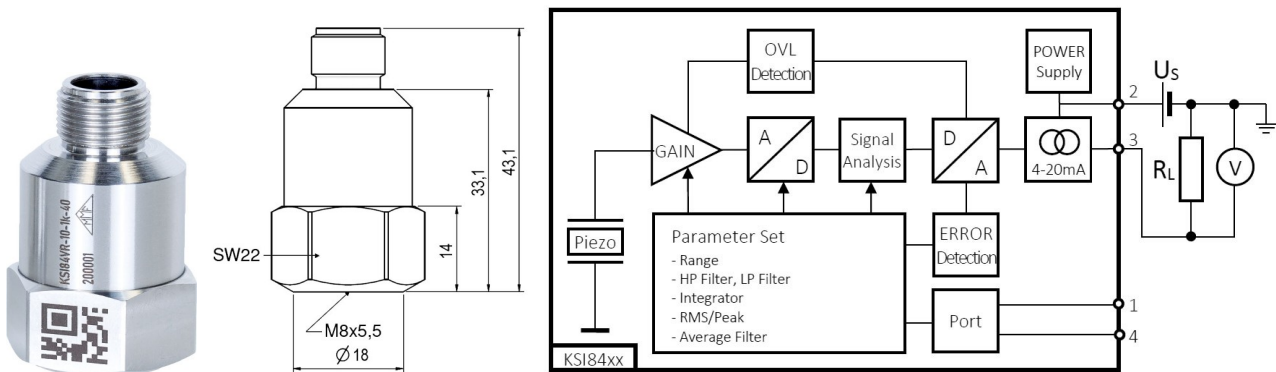


Vibration Displacement Sensor with Peak-to-Peak Output 4 – 20 mA

KSI84D-...

Properties

- Suited for direct connection to standard control and measurement equipment, e.g. PLCs or panel meters
- Particularly suited for Measurements at vibration conveyors, vibrating screens and separators
- 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 velocity and acceleration sensor with RMS or peak output



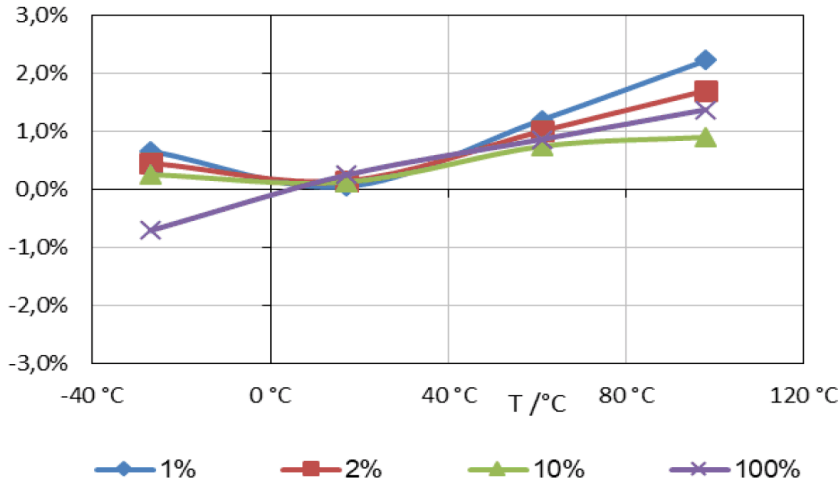
| | | |
|--|---|-----|
| Piezo design | Shear design | |
| Output | 4 .. 20 mA, peak-peak of vibration displacement | |
| Full scale value (cf. type list) | 10 / 12,7 / 20 / 25,4 / 40 / 50,8 | mm |
| Linear range for <2 % error, referred to full scale output | 1 – 112,5 | % |
| Full scale tolerance | 5 | % |
| Destruction limit | ±5000 | g |
| Transverse sensitivity | <5 | % |
| Lower frequency limit (cf. type list) | 3 | Hz |
| Upper frequency limit (cf. type list) | 300 | Hz |
| Loop supply voltage | 10 – 30 | V |
| Settling time | 5 | 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 | |
| Piezo design | Shear design | |

Type List

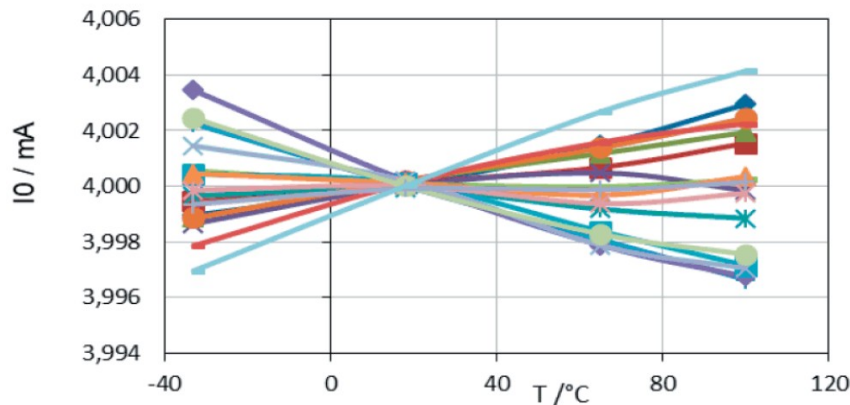
| High pass H [Hz] | Low pass L [Hz] | Range* R [mm] | Type code KSI84AP-H-L-R | Noise* [mm] |
|---------------------|--------------------|------------------|----------------------------|----------------|
| 3 | 300 | 10 | KSI84D-3-300-10 | 0,016 |
| 3 | 300 | 12,7 | KSI84D-3-300-12 | 0,020 |
| 3 | 300 | 20 | KSI84D-3-300-20 | 0,032 |
| 3 | 300 | 25,4 | KSI84D-3-300-25 | 0,040 |
| 3 | 300 | 40 | KSI84D-3-300-40 | 0,064 |
| 3 | 300 | 50,8 | KSI84D-3-300-50 | 0,080 |

* peak-peak values

Linearity vs. Temperature and Vibration Amplitude



Offset current 4 mA vs. Temperature



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

