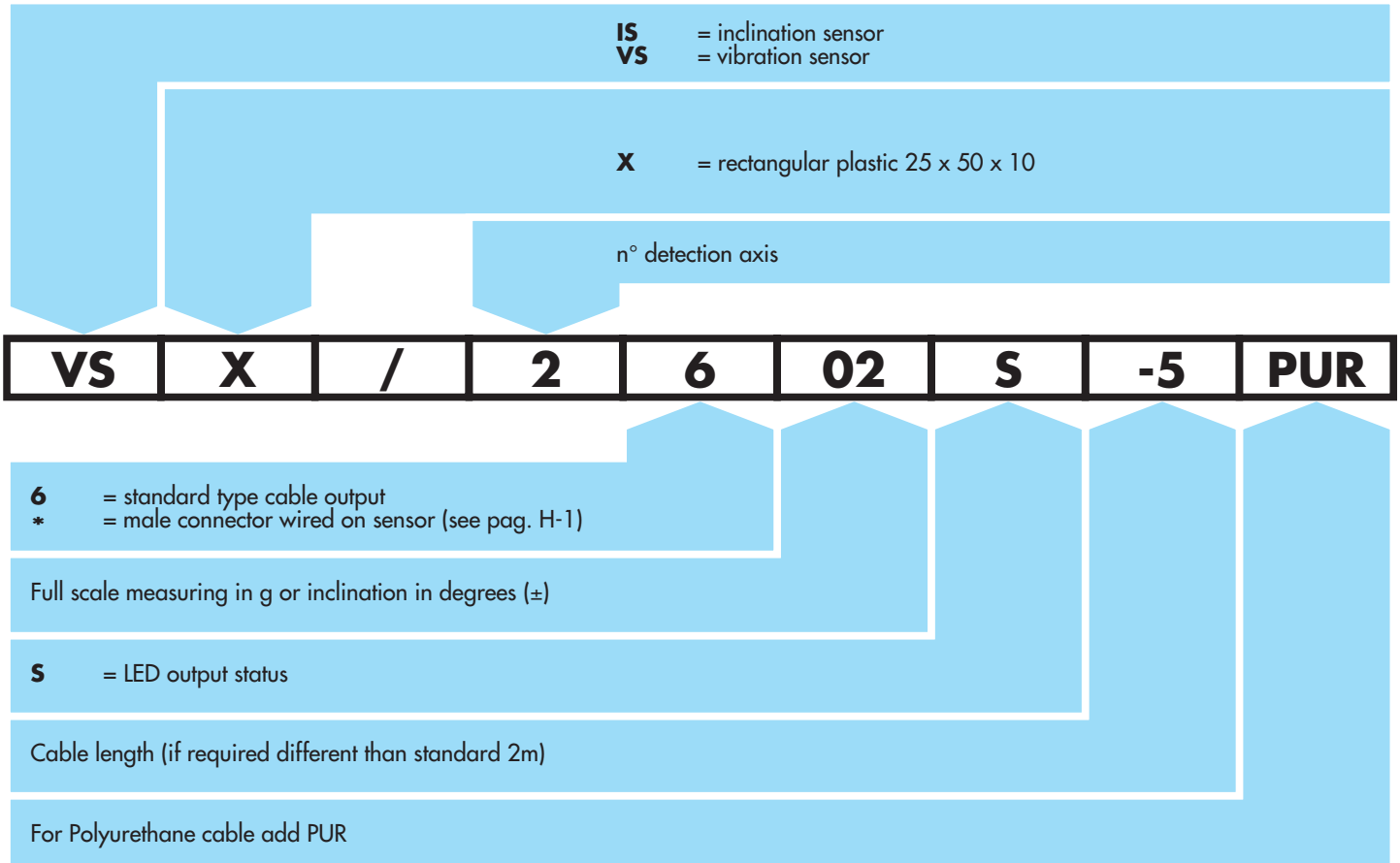
ACCELERATION SENSORS

Acceleration is a physical quantity related to any event of motion, rotation, vibration and inclination. Monitoring accelerations is an optimal way to gather reliable information on working process. Generally these information cannot be easily obtained by other sensor systems.

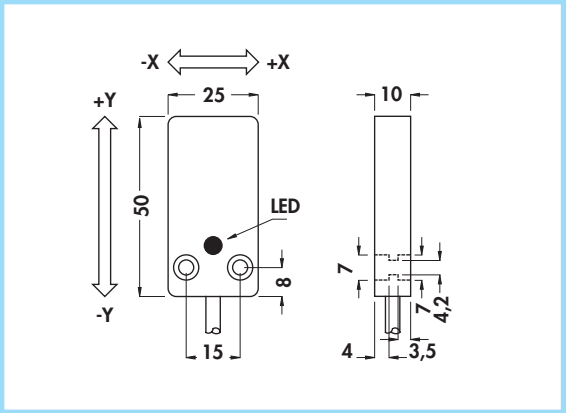
This kind of information is useful to make reliable automatic control diagnostic and supervision systems.

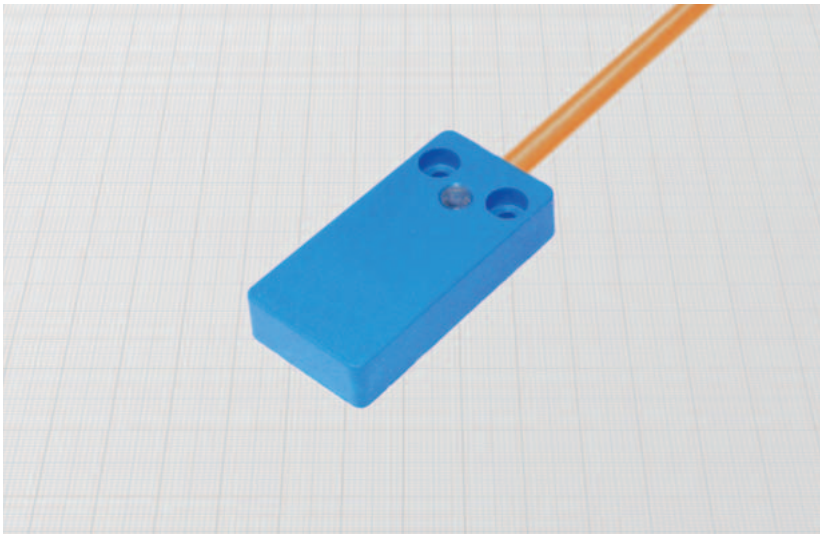
Accelerometers are inertial sensors that supply proportional electrical signal to accelerations applied to the device in specific directions.

Signal analysis and calculations are performed internally by the sensor, not requiring then external additional modules or software. The application is therefore very simple.

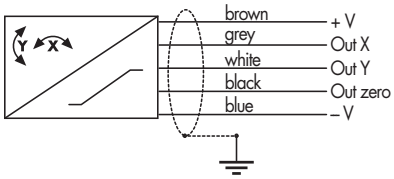


2 AXIS INCLINATION SENSORS (-60° ÷ + 60°) • Analog linear output • Cable output •





Connection diagram



Materials:

- Cable: 2 m PVC CEI 20 - 22 II; 90°C
- Housing: plastic

General Features:

These sensors give two output signals from 0,7 to 4,3 V proportional to the inclination of the X and Y axis respect the earth axis. An inclination of 0° gives on the outputs + 2,5 V respect to the negative of power supply (blue wire) or 0 V respect to the OUT zero.
Other outputs such as temperature and ON/OFF alarms, which are factory preset-ted at specified thresholds, are available upon request.

Applications:

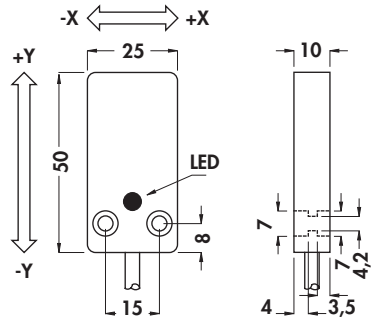
- Inclination control on lifting systems
- Vehicles inclination monitoring
- Feedback sensor on self-levelling systems

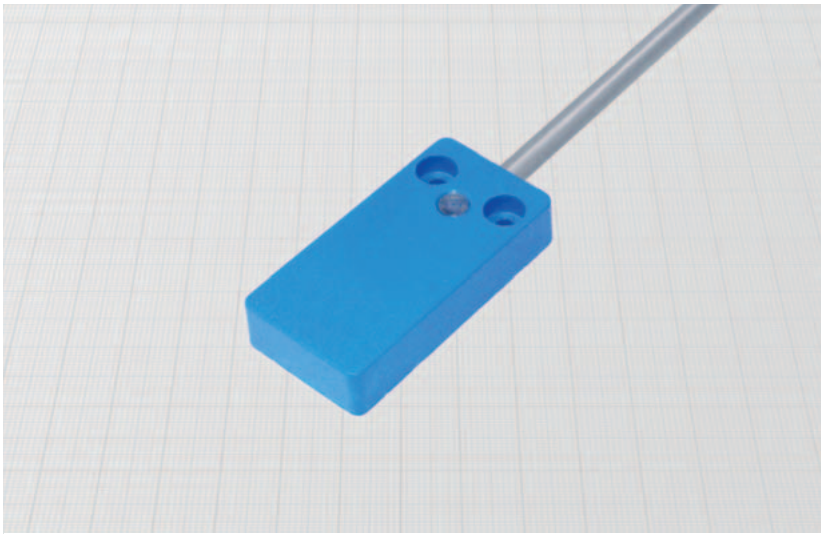
Technical data:

- Measuring range: - 60° ÷ + 60°
- Resolution: 0,2°
- Supply voltage: 8 ÷ 30 Vdc
- Power consumption: ≤ 10 mA
- Output voltage range:
  - respect to - V: 0,7 ÷ 4,3 V
  - respect to Out zero: - 1,8 ÷ + 1,8 V
- Sensitivity: 0,03 V/°
- Max thermal drift: 4,5 m V/°C
- Output resistance: 100 Ω
- Response time: 0,1 sec
- Linearity: < 1% full scale
- Hysteresis: < 0,2% full scale
- Cross axis sensitivity: < ± 2%
- Maximum survival shock: 1000 g
- Working temperature: 0 ÷ 70° C
- Storage temperature: - 20° ÷ 100° C
- Degree of protection: IP67
- Cable conductor cross section 0,22 mm^2 + shield
- LED indication: green = supply voltage
- Shock and vibration resistance according to EN60068-2-27 EN60068-2-6
- Electromagnetic compatibility (EMC) according to EN61000-6-2/-4 CE

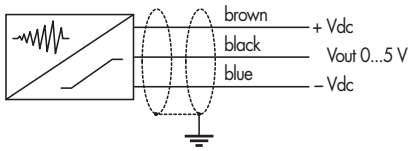
Type	Cable diameter mm	ORDERING REFERENCES
Biaxial	5	**ISX/2660S**

• 2 AXIS VIBRATION SENSORS
• Average value output
• Cable output





Connection diagram



Materials:

- Cable: 2 m PVC CEI 20 - 22 II; 90°C
- Housing: plastic

General Features:

These sensors give an analog signal proportional to the vibrations on both the X and Y axis. Since the measurement is made from a very low frequency, the gravity acceleration is not detected, so the measurement is not affected by the mounting position. The output voltage from 0 to 5 V is proportional to the average value of the sum of the accelerations measured on the X and Y axis.
Other outputs such as temperature and ON/OFF alarms, which are factory preset-ted at specific thresholds, are available upon request.

Applications:

- Alarm or feedback on the control for excessive vibrations
- Shock and collision ampitude indication
- Harmful unbalancing detection of the tool and tool holder in milling and grinding machines.

Technical data:

- Measuring range: ± 2; ±5; ± 18 g
- Supply voltage: 8 ÷ 30 Vdc
- Power consumption: ≤ 12 mA
- Output voltage range: 0 ÷ 5 V
- Sensitivity:
  - 2 g full scale: 2,5 V/g
  - 5 g full scale: 1 V/g
  - 18 g full scale: 0,27 V/g
- Output resistance: 100 Ω
- Frequency range: 2 ÷ 500 Hz
- Cross axis sensitivity: < ± 2 %
- Maximum survival shock: 1000 g
- Working temperature: - 20° ÷ + 70° C
- Storage temperature: - 40° ÷ + 100° C
- Degree of protection: IP67
- Cable conductor cross section: 0,35 mm^2 + shield
- LED indication: green = power supply
  yellow = vibration level >1% full scale
- Shock and vibration resistance according to EN60068-2-27 EN60068-2-6
- Electromagnetic compatibility (EMC) according to EN61000-6-2/-4 CE

Type	Cable diameter	Full scale measure	ORDERING REFERENCES
	mm	g	
Biaxial	5	2 g	**VSX/2602S**
Biaxial	5	5 g	**VSX/2605S**
Biaxial	5	18 g	**VSX/2618S**

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