

ANGLE SENSORS

ANGLE SENSORS – Mechanical Configurations

Shaft



ANGLE SENSORS

Three different options available:

- Angle sensors with integrated connector
- Angle sensors with shaft
- Angle sensors with external magnet

External Magnet



Integrated connector

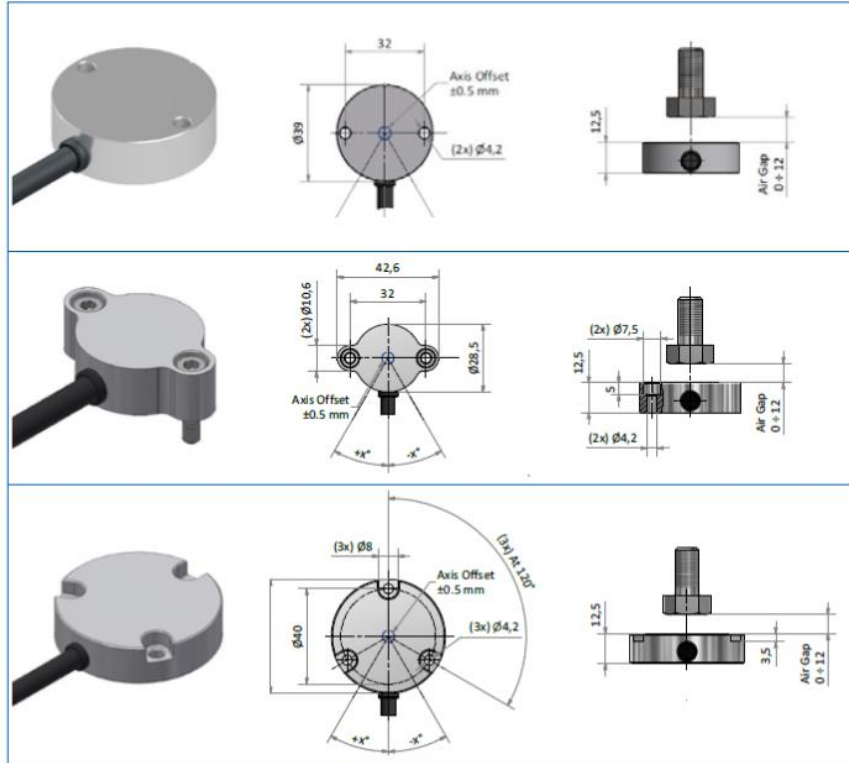


APPLICATIONS

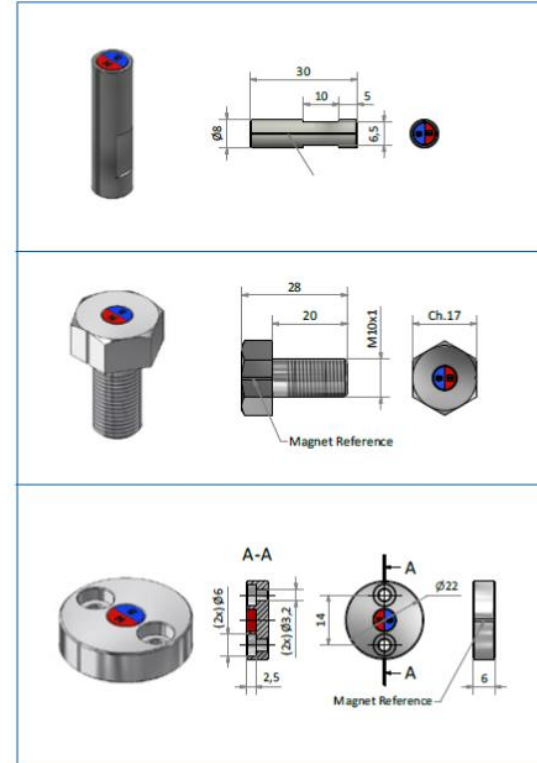
- Measure the angle of inclination of the axle

ANGLE SENSORS – Configurations with external magnet and cable

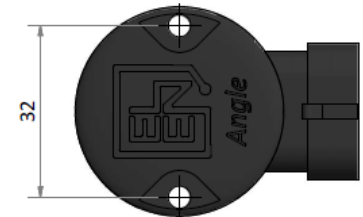
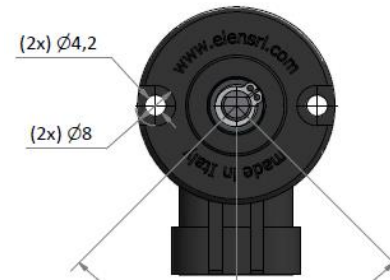
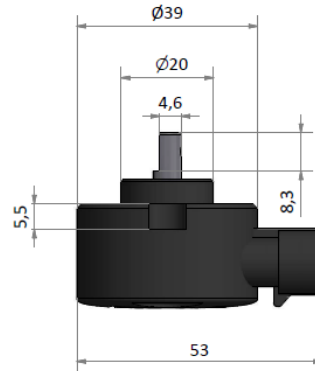
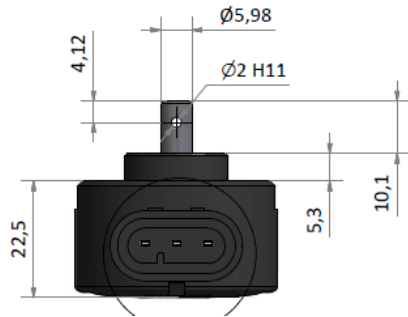
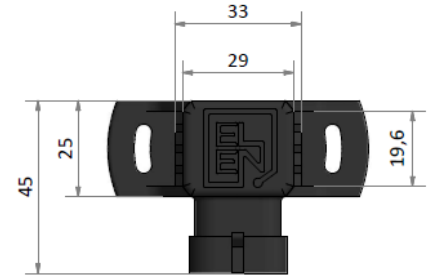
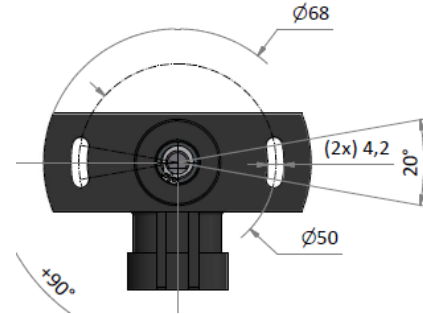
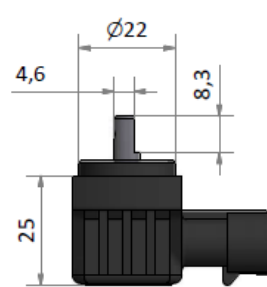
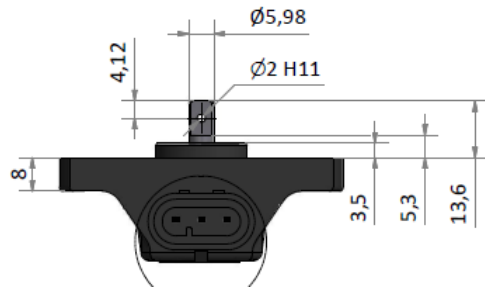
Case



Alberini



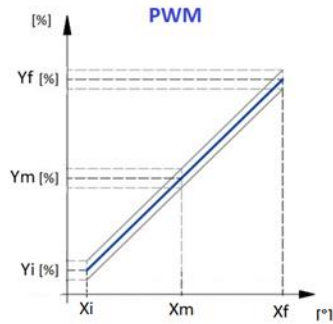
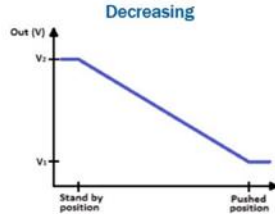
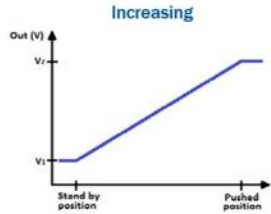
ANGLE SENSORS – Configurations with integrated connector



ANGLE SENSORS – Electronic Configurations

SINGLE SIGNAL

Analog

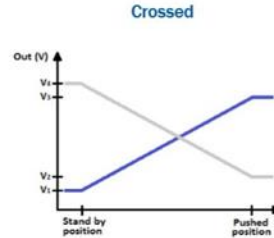
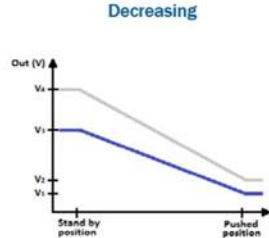
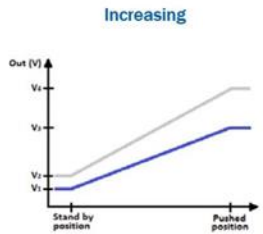


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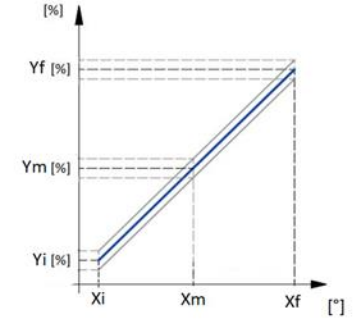
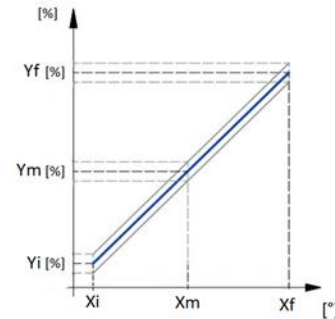


DOUBLE SIGNAL

Analog



PWM



ANGLE SENSORS – Product Features

GENERAL CHARACTERISTICS

1. VERSATILE

- Power supply: 5 V; 10-30V;
- Output signal: single or double;
- Configurable outputs (different configuration for each channel)
- Angular range up to 360°;
- Different mechanical configurations available in terms of fixing, sizes and materials (plastic or steel);
- Customizable cable length and connector type.

2. RELIABLE

- Contactless Hall-Effect;
- Protection Level: IP67;
- Immunity to vibrations and electromagnetic interferences;
- Operating Temperature: -40°/+105°;
- Protection against ESD, Load-dump, overvoltage, polarity inversion, output short-circuit.

3. FUNCTIONAL SAFETY

- Suitable for safety applications in accordance with EN ISO 13849 standard;
- Isolated and galvanically separated circuits.

OPERATING PRINCIPLE

An Hall-sensor intercepts the magnetic field generated by a magnet that rotates with the shaft. It generates a linear output signal proportional to the rotation angle or a square-wave signal with duty cycle proportional to the rotation angle.

TECHNICAL SPECIFICATIONS

1. PROGRAMMABLE ELECTRONIC BOARD

The programmable electronic board allows to get a wide range of different output configurations as well as a reliable, precise and repeatable output signal.

2. INDEPENDENT CIRCUITS

Double output versions are obtained by integrating two sensors with completely independent and galvanically isolated circuits, in accordance with functional safety standards about signal REDUNDANCY.

3. STAINLESS STEEL SHAFT

It is separate part without any contact with the sensing element; this makes the product immune to mechanical wear (typical of potentiometric solutions). The diaphragm seal guarantees protection against infiltrations of external agents and it prevents mechanical shocks on the shaft from damaging the electronic board or causing the alteration of the signal.

