

APPLICATIONS


Proximity switches can be used in many control functions and in particular they can operate even in the hardest conditions for any type of mechanical switch. The most frequent applications are:

- Limit switch without contact
- Detection of working pieces
- Sequence detection
- Detection of rotating or sliding speed
- Incremental encoder function (2 sensors with 90° out of phase signals)
- Measurements of thickness and waviness of metallic sheets (linear sensors)
- Detection of materials and alloys composition (linear sensors)

BENEFITS

The use of proximity sensors solves all the difficult problems of automation and detection in industrial and automotive places.

Compared to traditional mechanical micro-switches, they offer more advantages:

- No physical contact is required for operation
- Elimination of contact oxidation, being only electronic components
- No sparking of contacts; types in execution  can work in places with explosive gas or inflammable liquids and solvents evaporations
- Impermeableness against liquids, oils, powders, thanks to the resin clad
- High resistance against vibrations and impacts
- Very long life time thanks to non-electromechanical circuits
- No bounces on the switching edges
- Possibility of direct connecting to logical circuits and counters
- Unlimited life time non depending by the number of cycles

STANDARDS

Conformities

In accordance with the European Directives 2004/108/EC and 2006/95/EC, all products are in accordance with the rules for electromagnetic compatibility and safety standards for the low voltage machinery. These standards are met in accordance with EN60947-5-2.

Namur Sensors non-amplified

The non-amplified d.c. sensors are built according to EN60947-5-6 standards.

Amplified sensors

The amplified d.c. types (DCA and AC types) are manufactured according to EN60947-5-2.

ATEX sensors

For potentially explosive atmosphere applications a wide range of sensors is available certified according to the ATEX directive 94/9/EC. Please refer to the specific catalogue.

CABLE CHARACTERISTICS

All the standard sensor cables are produced of flexible PVC type with flammability resistance according to CEI 20-22 II - IEC 332.3A, with these characteristics:

- conductor formation according to VDE 0295 class 6
- insulation: PVC flammability resistance
- sheath: YM2 flammability resistance to VDE 0209/3.69

The standard cable length is 2 metres, however it is possible on request to have different cable lengths. It is also possible to have BDC sensors with PUR (polyurethane cable) sheath, particularly safe against oils, acids or continuous stress. The cables can also be supplied with insulation and thermoplastic elastomer sheath (TPE-O) for temperatures from - 40° up to +140° C (sensors for high-low temperatures).