

SONARANGE® Ultrasonic Sensors

UPK Series

- ✦ The top series
- ✦ Highest detection sensitivity
- ✦ Very low profile, small size
- ✦ Measuring distances 80mm...>6m (3.15"...>20ft)
- ✦ Versions with analogue and/or binary outputs
- ✦ Versions with synchronisation input



The UPK series is characterized by its high acoustic power combined with small sensor size. This is achieved with new optimized **SONARANGE®** transducers, working at high electrical voltages. Thus also small, moving and poorly reflecting objects can be safely detected. Moreover the sensors work also under high contamination. With a length of <40mm (1.5") the UPK sensors are the most compact ultrasonic sensors for such high measuring ranges.

UPR Series

- ✦ The medium series
- ✦ Small size M18x1
- ✦ Versions with 90° radial transducer
- ✦ Measuring distances from 160mm up to 1.5m (7...60")
- ✦ Versions with analogue and/or binary outputs
- ✦ Versions with synchronisation input
- ✦ Versions with chemically resistant PTFE housing



Outstanding features of the UPR series are the compact M18 size and the version with 90° radial **SONARANGE®** transducer for confine mounting conditions. The sensors are available as pure proximity switches and as distance sensors with V or mA analogue output as well. Typical applications are detection of objects as well as distance and level measurement.

UPX / UPS / UPL Series

- ✦ The miniature sensors
- ✦ Detection ranges 20...500mm
- ✦ Small size (popular 'R-shape', M12, M30)
- ✦ Versions with analogue or binary outputs



UPX
Universal proximity switches with fast reaction time t_{on}
UPS
Miniature sensors (M12) with narrow detection beam
UPL
Good value ultrasonic proximity switch with fixed switching distance.
UPY
Non contact ultrasonic switch for door automation

UPB / UPF Series

- ✦ The ultrasonic barriers
- ✦ Large detection range combined with high speed
- ✦ No blind zone
- ✦ For detection of fast objects and objects with small mutual distance
- ✦ For detection of non right-angled objects
- ✦ Adjustable transmitter power and switching delay

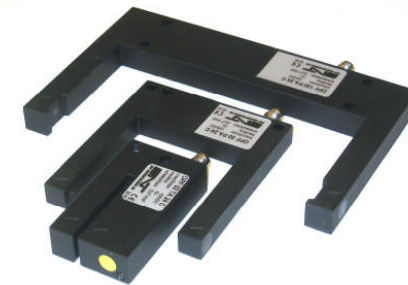


The high measuring speed combined with the large measuring range of 1500mm (5ft) are the outstanding characteristics of the UPB ultrasonic barrier. Die UPF barrier with analogue output is well suited for edge detection on web guiding systems.

OPTORANGE® Optical Sensors

OPF Series

- ✦ Fast and precise fork light barriers
- ✦ Simple and quick mounting and Teach-In
- ✦ Detection of smallest objects
- ✦ Fork widths 2...120mm
- ✦ High switching frequency up to 4kHz
- ✦ Versions with red light IR or laser light



Fork light barriers have several advantages compared to standard light barriers. Transmitter and receiver are perfectly aligned. Mounting is therefore very easy. There is no mechanical misalignment possible after mounting. Furthermore each version of fork width is optimized in light intensity, sensitivity and measuring frequency. Thus fork light barriers have a high resolution and reproducibility. They are ideally suited for detection of small parts and for precise edge detection. The versions with laser instead of red light are even approx. 10 times more precise.

OPE / OPD Series

- ✦ The OP... proximity switches are the basic electronics for the SNT optical wave guides types FOY and FOI
- ✦ They can be used as a stand-alone proximity switch as well
- ✦ Switching distances up to 1500mm without wave guide
- ✦ Least susceptible to parasitic light sources thanks to infrared light
- ✦ Teach-In
- ✦ Versions for 110/230VAC with relay output



Optical wave guide sensors are ideally suited when objects have to be detected in confine conditions. The sensor is separated from the small scanner head. Glass-fibre wave guides are more robust and have longer service life compared to plastic guides. They have lower attenuation and thus allow also very long wave guides.

FOY Series

- ✦ Miniature glass-fibre scanners
- ✦ For detection under very confine conditions
- ✦ High scanning distances
- ✦ High temperature range, ATEX
- ✦ No aging
- ✦ Various cross sections and scanner heads
- ✦ Smallest diameters 1mm
- ✦ Lengths from 25cm to >5m
- ✦ Customized versions offered
- ✦ Operates together with OP... proximity switches



FOI Series

- ✦ Miniature glass-fibre light barriers
- ✦ For barrier widths up to 1500mm
- ✦ Very robust thanks to glass instead of plastic
- ✦ High temperature range, ATEX
- ✦ No aging
- ✦ Various cross sections and scanner heads
- ✦ Smallest diameters 1mm
- ✦ Various lengths
- ✦ Customized versions offered
- ✦ Operates together with OP... proximity switches

