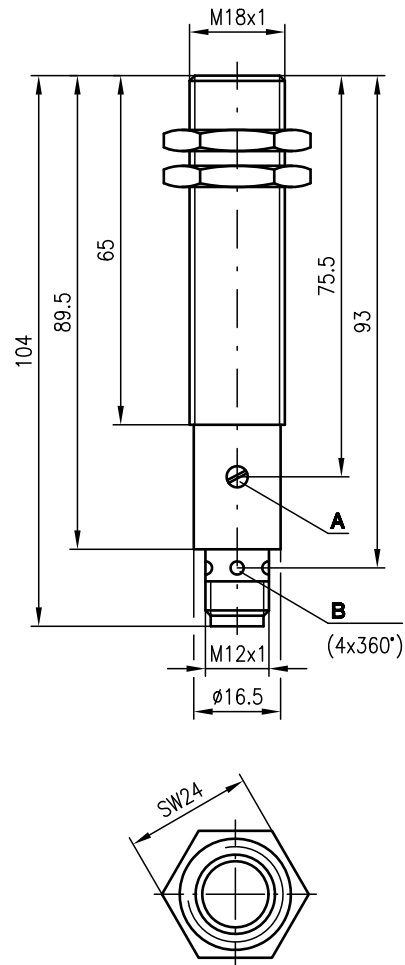


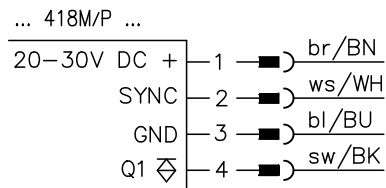


Dimensioned drawing



- A** End of switching range (only for ... 418M/P ...)
- B** Indicator diodes Q1

Electrical connection



50 ... 300mm
150 ... 1000mm



- Ideal for detection of levels of liquids, bulk materials, transparent media, ...
- Distance information largely independent of surface properties
- PC-configuration software for configuring sensor and switching output
- Up to 10 devices can be synchronised via the SYNC input
- Start and end of switching range adjustable separately via PC



Accessories:

(available separately)

- Mounting systems
- Cable with M12 connector (K-D ...)
- "USDS-Config" configuration software (free download from www.leuze.com)
- PGU 01 (programming unit)

We reserve the right to make changes • USDS_01gb.fm

Specifications

Ultrasonic specifications

	HRTU...-5010-300...	HRTU...-3010-1000...
Operating range ¹⁾	50 ... 300mm	150 ... 1000mm
Ultrasonic frequency	400kHz	200kHz
Opening angle	6°	
Resolution	1 mm	
Absolute measurement accuracy	± 2.5% of the measurement range end value	
Reproducibility	± 1mm	± 2mm
Switching hysteresis	10mm	10mm

Timing

	HRTU...-5010-300...	HRTU...-3010-1000...
Switching frequency (min.) ²⁾	5Hz	4Hz
Response time (max.) ²⁾	100ms	120ms
Delay before start-up	280ms	280ms

Electrical data

Operating voltage U _B	20 ... 30V DC (incl. ± 10% residual ripple)
Residual ripple	± 10% of U _B
Bias current	≤ 60mA
Switching output	PNP transistor
Function characteristics	switching in case of object recognition
Output current	150mA
Switching range adjustment	potentiometer 270°

Indicators

Yellow LED	output activated
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Mechanical data

Housing	metal / CuZn
Weight	50g
Connection type	M12 connector, plastic, 4-pin

Environmental data

Ambient temp. (operation/storage)	-25°C ... +70°C/-40°C ... +85°C
Protective circuit ³⁾	1, 2, 3
VDE safety class	III
Protection class	IP 67
Standards applied	IEC 60947-5-2
Fitting position	any

1) For the complete temperature range, measured object ≥ 10x10mm
 2) Can be configured up to 3 times faster using "USDS-Config"
 3) 1=short-circuit and overload protection, 2=polarity reversal protection, 3=wire break and inductive protection

Remarks

- **Approved purpose:**
The ultrasonic sensors are used for acoustic, contactless detection of objects.

Order guide

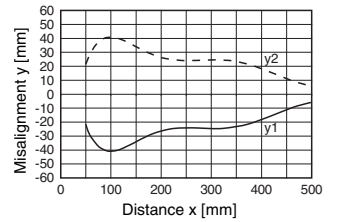
Designation	Part No.
HRTU 418M/P-5010-300-S12	500 36257
HRTU 418M/P-3010-1000-S12	500 36258

Tables

Diagrams

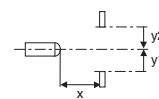
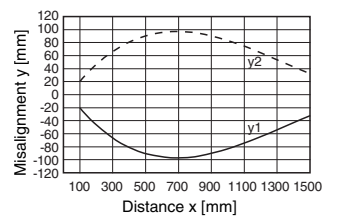
HRTU...-5010-300...

Typ. response behaviour (object 10x10mm)



HRTU...-3010-1000...

Typ. response behaviour (object 10x10mm)



Remarks

- **Synchronisation:**
Mutual interference is excluded by connecting the sensors with the SYNC input.

Configuration software "USDS-Config"

The configuration software runs under Windows 95/98/NT/2000/XP and offers the following features:

- Configuration of multiplex operation
- Configuration of the sensor (attenuation, switching frequency, response time)
- Adjustment of the switching output (start/end of switching range, hysteresis, object present yes/no)
- Adjustment of the analogue output
- Support of various languages