



HRTU 418

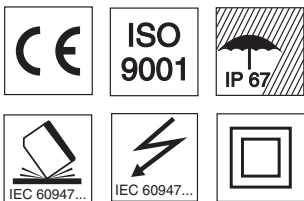
Ultrasonic distance sensors



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



- Ideal for detection of levels of liquids, bulk materials, transparent media, ...
- Distance information does not depend on the surface properties
- All settings are adjustable
- Up to 10 devices can be synchronised via the SYNC input
- Start and end of switching range adjustable separately

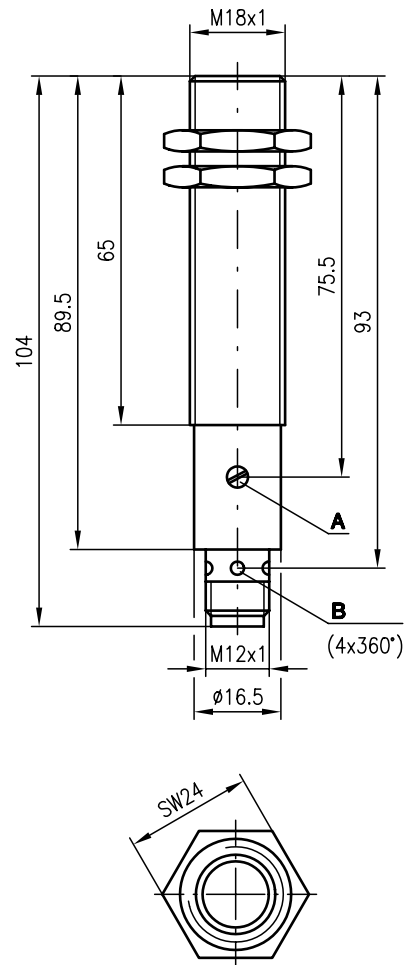


Accessories:

(available separately)

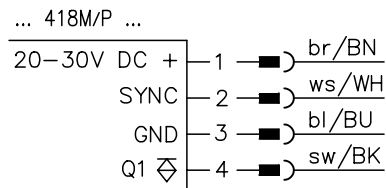
- Programming software "USDS-Config"
- PGU 01 (programming device)

Dimensioned drawing



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

Electrical connection





Specifications

	HRTU...-5010-300...	HRTU...-3010-1000...
Ultrasonic specifications		
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	
Reproducibility	± 1mm	± 2mm
Timing		
Switching frequency	5Hz	4Hz
Response time	100ms	120ms
Delay before start-up	280ms	280ms
Switching hysteresis	10mm	10mm
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		
LED yellow	output activated	
Mechanical data		
Housing	metal/CuZn	
Weight	50g	
Connection type	M 12 connector, plastic, 4-pin	
Environmental data		
Ambient temp. (operation/storage)	-25°C ... +70°C/-40°C ... +85°C	
Protective circuit ²⁾	1, 2, 3	
VDE safety class ³⁾	II, all-insulated	
Protection class	IP 67	
Standards applied	IEC 60947-5-2	
Fitting position	any	
Explosion protection	ex zone 2/zone 11/temperature class T5	

- 1) For the complete temperature range, measured object ≥ 10x10mm²
 2) 1=short-circuit and overload protection, 2=polarity reversal protection (not for analogue inputs),
 3=wire break and inductive protection
 3) Rating voltage 250VAC

Tables

Diagrams

Order guide

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

Remarks

- Synchronisation: mutual interference is excluded by connecting the sensors with the SYNC input.
- Multiplex: Achieved by parameterisation of the sensors using the "USDS-Config" software.