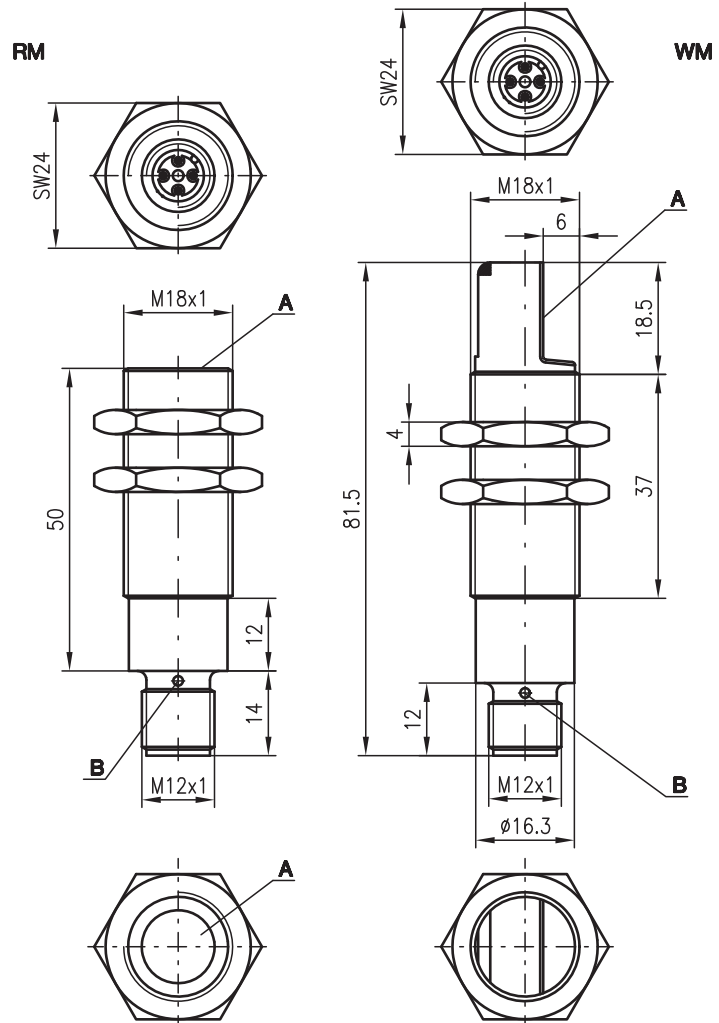


**RKU 418 RM/WM**

**Retro-reflective ultrasonic sensor**



**Dimensioned drawing**



**A** Active surface  
**B** Indicator diode Q1

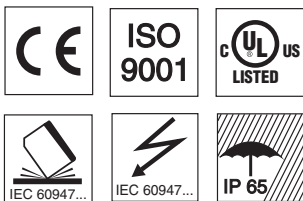
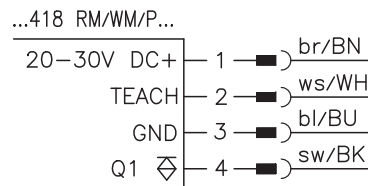


**0 ... 200mm**  
**0 ... 700mm**



- Colour and transmission independent detection of objects
- Switching behaviour largely independent of surface properties
- No dead zone
- Distance teachable
- Small construction

**Electrical connection**



**Accessories:**

(available separately)

- Mounting systems
- Cable with M12 connector (K-D ...)

We reserve the right to make changes • USDS\_12gb.fm

**Specifications**

**Ultrasonic specifications**

Operating range <sup>1)</sup>  
Adjustment range  
Dead zone

Ultrasonic frequency  
Typ. opening angle  
Direction of beam

Temperature drift

**Timing**

Switching frequency  
Response time  
Delay before start-up

**Electrical data**

Operating voltage  $U_B$   
Residual ripple  
Bias current  
Switching output  
Function characteristics  
Output current  
Switching range adjustment

**Indicators**

Yellow LED  
Flashing yellow LED

**Mechanical data**

Housing  
Weight  
Connection type

**Environmental data**

Ambient temp. (operation/storage)  
Protective circuit <sup>2)</sup>  
VDE safety class  
Protection class  
Standards applied  
Fitting position

**RKU 418 ...-200-S12**

0 ... 200mm  
120 ... 220mm  
≤ 20mm in front of reflector surface  
400kHz  
see diagrams  
RKU 418RM/P...: straight,  
RKU 418WM/P...: angular, 90°  
± 0.17%/K

**RKU 418 ...-700-S12**

0 ... 700mm  
350 ... 750mm  
≤ 50mm in front of reflector surface  
200kHz

10Hz  
50ms  
20ms

5Hz  
100ms

20 ... 30V DC (incl. ± 10% residual ripple)  
± 10% of  $U_B$   
≤ 20mA  
PNP transistor  
switching in case of object recognition  
150mA  
teach-in, teach input (pin 2) connected to GND for ≥ 3s

output activated  
teaching procedure

metal / CuZn  
50g  
M12 connector, plastic, 4-pin

-25°C ... +70°C / -40°C ... +85°C  
1, 2, 3  
III  
IP 65  
IEC 60947-5-2  
any

1) For the complete temperature range, measured object ≥ 20x20mm  
2) 1=short-circuit and overload protection, 2=polarity reversal protection, 3=wire break and inductive protection

**Order guide**

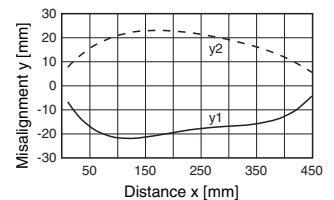
	Designation	Part No.
Range: 0 ... 200mm, direction of beam: straight	RKU 418RM/P-5020-200-S12	500 38637
Range: 0 ... 200mm, direction of beam: 90°	RKU 418WM/P-5020-200-S12	500 38638
Range: 0 ... 700mm, direction of beam: straight	RKU 418RM/P-3020-700-S12	500 38641
Range: 0 ... 700mm, direction of beam: 90°	RKU 418WM/P-3020-700-S12	500 38642

**Tables**

**Diagrams**

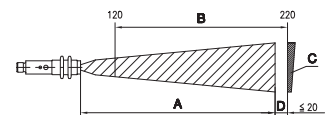
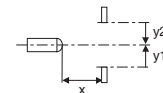
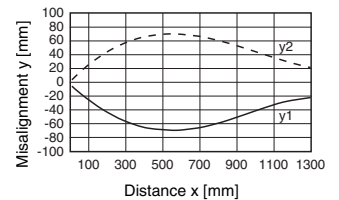
**RKU 418 ...-200-S12**

Typ. response behaviour (object 20x20mm)



**RKU 418 ...-700-S12**

Typ. response behaviour (object 20x20mm)



- A** Operating range
- B** Adjustment range
- C** Reflector
- D** Dead zone

**Remarks**

- **Approved purpose:**  
The retro-reflective ultrasonic sensors are ultrasonic sensors for acoustic, contactless detection of objects.
- **Teaching procedure:**  
Position reflector at the desired switching distance. Connect teach input (pin 2) to GND for ≥ 3s. Reconnect teach input to + $U_B$  or leave unconnected; switching output is taught.
- **Temperature drift**  
± 0.17%/K