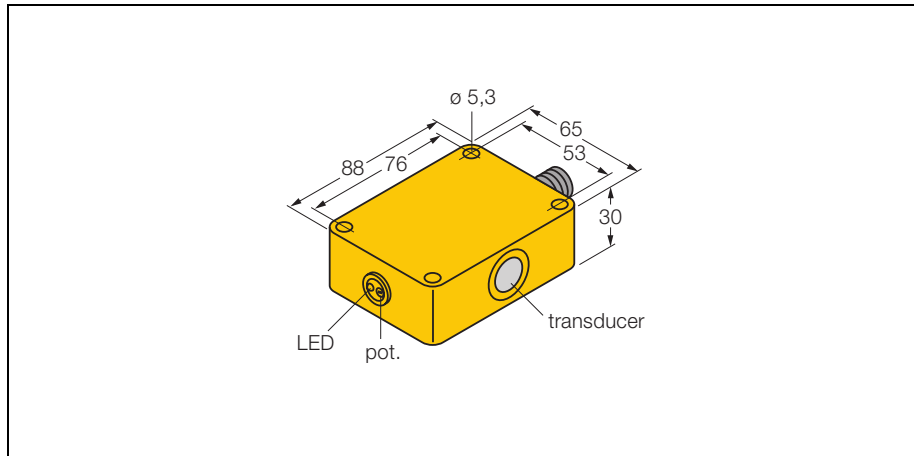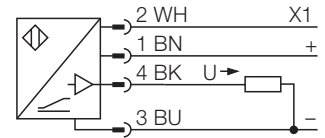# ultrasonic sensor
# diffuse mode sensor
# RU30-Q30-LUX-H1141

- ● ultrasonic sensor
- ● upper analogue range value adjustable via potentiometer
- ● analogue output, 0…10 V
- ● "object detected" indication
- ● synchronizable
- ● opening angle of sonic cone 6°

### Wiring diagram



```
2 WH        X1
1 BN        +
4 BK   U→
3 BU        −
```

### Functional principle

Ultrasonic sensors use ultrasonic waves for non-contact and wear-free detection of a large variety of objects. It does not matter whether the object is transparent or opaque, metallic or non-metallic, or of liquid, solid or powdery consistence. Environmental conditions such as spray, dust or rain hardly affect their function.

| | |
|---|---|
| **Type** | RU30-Q30-LUX-H1141 |
| Ident-No. | 1820005 |
| **Range** | 6… 30 cm |
| Ultrasound frequency | 400 kHz |
| Temperature drift | 0.17 % / K |
| Repeatability | $\geq \pm 0.45$ mm |
| Edge lengths of the nominal actuator | 10 mm |
| Pass speed | 1.5 m/s |
| Approach speed | 4 m/s |
| Ambient temperature | 0…+ 55 °C |
| **Operating voltage** | 18… 35VDC |
| No-load current $I_0$ | 35 mA |
| voltage output | 0… 10 V |
| Load resistance | $\geq 1000\ \Omega$ |
| Short-circuit protection | yes / cyclic |
| Reverse polarity protection | complete |
| Wire breakage protection | yes |
| **Housing** | rectangular, Q30 |
| Dimensions | 88 x 65 x 30 mm |
| Housing material | plastic, PBT-GF30-V0 |
| Connection | connectors, M12 x 1 |
| Degree of protection | IP65 |
| **Display ' Object detected '** | LED yellow |