

Model Number

UJ4000-FP-E2-P1

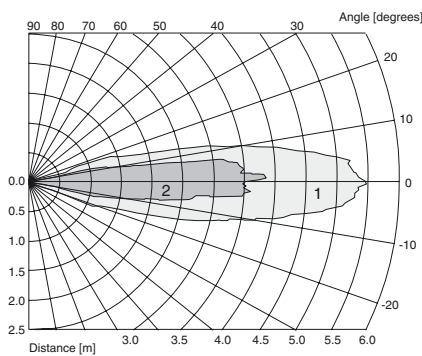
Single head system

Features

- **Absolute polarity reversal protection**
- **1 switch output**
- **Program input**
- **Reflex sensor function**

Curves

Characteristic response curves



Curve 1: flat surface 100 mm x 100 mm
Curve 2: round bar, Ø 25 mm

Technical data

General specifications

Sensing range	1000 ... 4000 mm
Operating range	0 ... reflector distance $s_R - 6\%$
Standard target plate	100 mm x 100 mm
Transducer frequency	approx. 85 kHz
Response delay	≤ 900 ms, for programming with +U _B ≤ 150 ms for programming with -U _B

Indicators/operating means

LED yellow	switching state switch output
LED red/green	green LED: Power on red LED, flashing at 2 Hz: error (reflector incorrectly positioned)

Electrical specifications

Operating voltage U _B	20 ... 30 V DC , ripple 10 % _{SS}
No-load supply current I ₀	≤ 90 mA

Input

Input type	1 program input, operating distance 1: -U _B ... (-U _B +2 V), operating distance 2: (+U _B -2 V) ... +U _B
------------	--

Output

Output type	1 switch output, NO pnp
Rated operational current I _e	200 mA , short-circuit/overload protected
Voltage drop U _d	≤ 3 V

Ambient conditions

Ambient temperature	-10 ... 50 °C (263 ... 323 K)
Storage temperature	-40 ... 85 °C (233 ... 358 K)

Mechanical specifications

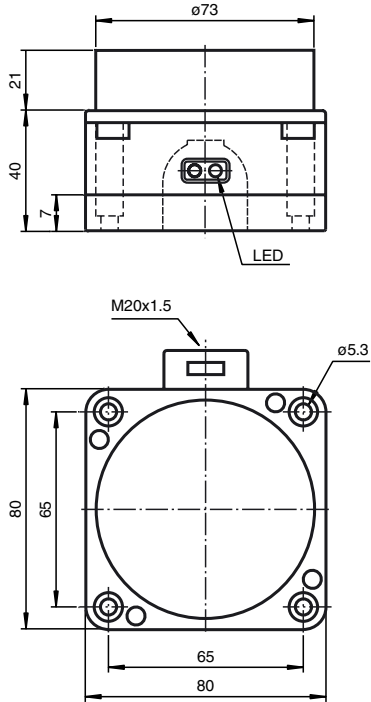
Protection degree	IP65
Connection	terminal compartment, ≤ 2.5 mm ² conductor csa
Material	
Housing	PBT
Transducer	epoxy resin/hollow glass sphere mixture; polyurethane foam
Mass	320 g

Compliance with standards and directives

Standard conformity	
Standards	EN 60947-5-2:2007 IEC 60947-5-2:2007

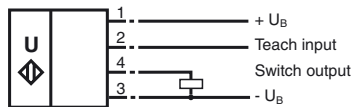
Release date: 2009-10-27 13:35 Date of issue: 2009-10-27 02:47:86_ENG.xml

Dimensions



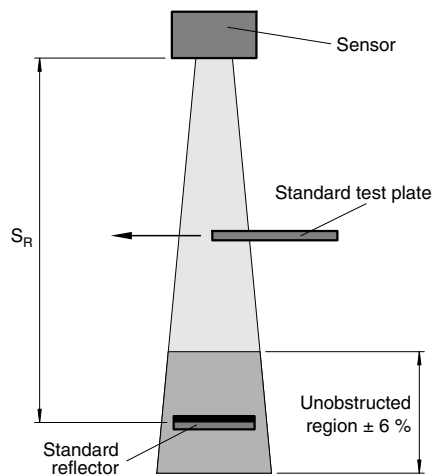
Electrical Connection

Standard symbol/Connection:



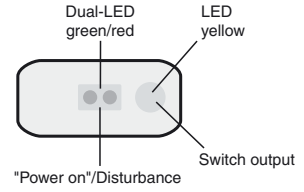
Description of the sensor functions

The measurement of the distance is realised using the echo time of ultrasonic pulses. After installation, the transmitter is taught with the distance to a stationary reflector and stores this value by shorting the TEACH-IN input with $-U_B$ or $+U_B$ (see Electrical Connection). The distance determined in this manner is retained for as long as required when the power supply is shut off. If an interruption of the barrier by an object is determined during operation, switch output is closed. If objects smaller than the standard measuring plate are to be detected, the reflector must also be reduced in size accordingly. This may result in a reduction of range.



Additional Information

LED-Window



Accessories

- PA-02**
Accessories
- MH 04-3505**
Mounting aid
- MHW 11**
Mounting aid