

**Mastering challenges.
Opening communication channels.
Redefining flexibility.**

R100 Series
A Unique Family of Small Photoelectric Sensors



Your automation, our passion.

 **PEPPERL+FUCHS**

A Complete Family in One Housing Type

The sensors in the R100 series vary only on the inside. The pioneering product design of the R100 series is the first to combine the complete family of photoelectric sensing modes in one housing.



DuraBeam: The New Laser Technology for a Noticeable Power Boost

In addition to the PowerBeam LED, the R100 features a powerful new laser technology: DuraBeam. For the first time, the strengths of LED technology are combined with the innovative benefits of laser technology, offering the best of both worlds. The eye-safe Class 1 lasers offer an exceptionally long service life and open up new application options, even at high ambient temperatures.

Another feature of this new laser technology is the special beam profile, which always casts a sharp, circular light spot on an object. This particular feature is ideal for extremely precise detection and distance measurement of small objects.

MPT Distance Measuring in a Compact Size

The R100 series distance sensors feature proven Multi Pixel Technology (MPT) from Pepperl+Fuchs. The small size of the measuring core makes this series the first to integrate high-precision, reliable distance measurements for close-range applications in a standard compact housing.

Combined with IO-Link, the R100 distance sensors offer powerful new possibilities in a small housing design. They achieve accurate measurements: Object detection and background suppression are extremely precise and the distance measurement function is highly reliable and adaptable in every situation.



Additional information is available at:
www.pepperl-fuchs.com/r100

R100 Series		PowerBeam LED	DuraBeam Laser
Sensing Modes	Type Code	IO-Link	IO-Link
Thru-beam sensor	OBE*-R100*	■	■
Retroreflective sensor with polarization filter	OBR*-R100*	■	■
Retroreflective sensor for clear object detection	OBG*-R100*	■	
Diffuse mode sensor	OBD*-R100*	■	
Diffuse mode sensor with background suppression	OBT*-R100*	■	■
Diffuse mode sensor with background evaluation	OBT*-R100*-1T*	■	■
Measuring sensor with multiple switch points	OQT*-R100*	■	■
Distance sensor	OMT*-R100*	■	■

Highlights

- State-of-the-art product design: integrating several photoelectric sensing technologies in one housing design
- Maximum flexibility and more integration possibilities than ever before
- Precise and reliable MPT distance measurement in a standard small housing
- Innovative DuraBeam laser technology for an exceptionally long life and increased operating temperature range
- Communication all the way down to sensor level with IO-Link as the basis for Sensor Technology 4.0 — in all sensor types

Your automation, our passion.

Explosion Protection

- Intrinsically Safe Barriers
- Signal Conditioners
- Fieldbus Infrastructure
- Remote I/O Systems
- HART Interface Solutions
- Wireless Solutions
- Level Measurement
- Purge and Pressurization Systems
- Industrial Monitors and HMI Solutions
- Electrical Explosion Protection Equipment
- Solutions for Explosion Protection
- Positioning Systems
- Inclination and Acceleration Sensors
- AS-Interface
- Identification Systems
- Logic Control Units