

# Reflex Sensors

with Background Suppression **LASER**

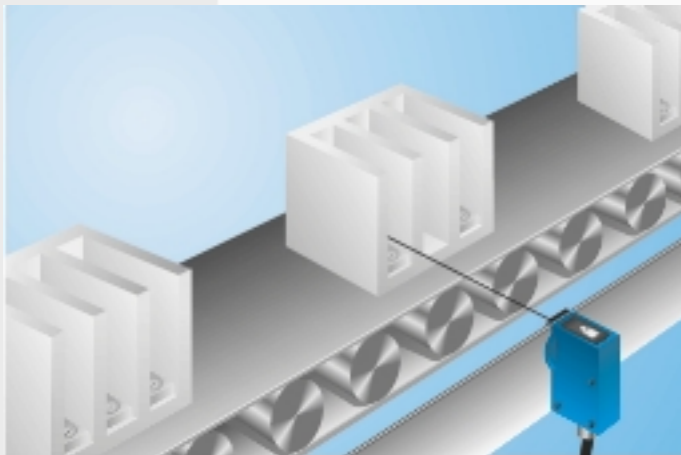
## YR24PCT2

Part Number



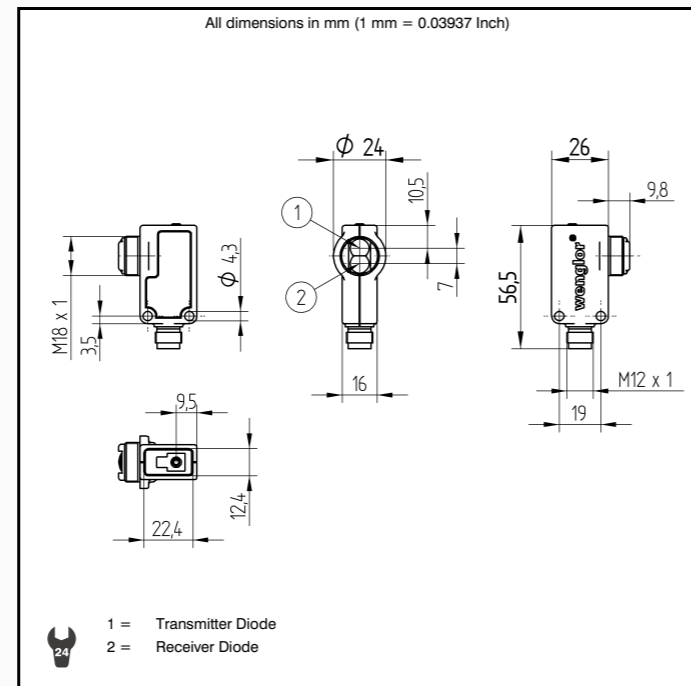
- Easy to install
- Electronic Background Suppression
- Spot Diameter: 0.5 mm
- Teach-In, external Teach-In, RS-232 Interface

These sensors are particularly well suited for recognizing objects in front of any type of background. The color, shape and surface characteristics of the object have practically no influence on sensor switching performance. The sensor is easy to install with its integrated M18 threaded fixation, and can be easily protected as well.



### Technical Data

| Optical Data                               |              |
|--|--------------|
| Range                                      | 150 mm       |
| Adjustable Range                           | 25...150 mm  |
| Switching Hysteresis                       | < 10 %       |
| Light Source                               | Laser (red)  |
| Wave Length                                | 655 nm       |
| Service Life (T = +25°C)                   | 100000 h     |
| Laser Protection Class (EN 60825-1)        | 2            |
| max. Ambient Light                         | 10000 Lux    |
| Electrical Data                            |              |
| Supply Voltage                             | 10...30 V DC |
| Current Consumption (U <sub>b</sub> = 24V) | < 40 mA      |
| Switching Frequency                        | 600 Hz       |
| Response Time                              | 833 μs       |
| Temperature Drift                          | < 10 %       |
| Temperature Range                          | -25...60 °C  |
| Switching Output Voltage Drop              | < 2.5 V      |
| PNP Switching Output/Switching Current     | 200 mA       |
| Short Circuit Protection                   | yes          |
| Reverse Polarity Protection                | yes          |
| Overload Protection                        | yes          |
| Teach Mode                                 | HT,VT        |
| Mechanical Data                            |              |
| Housing                                    | Plastic      |
| Full Encapsulation                         | yes          |
| Protection Mode                            | IP 67        |
| Connection                                 | M 12x1       |
| Protective Insulation, Rated Voltage       | 50 V         |



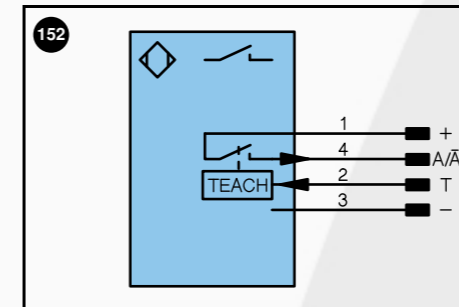
Specifications are subject to change without notice  
11/03



Table 1

|                     |        |          |        |
|---------------------|--------|----------|--------|
| Range               | 50 mm  | 100 mm   | 150 mm |
| Light Spot Diameter | 1,2 mm | < 0,5 mm | 1,5 mm |

| Plug Version           | Part Number |
|------------------------|-------------|
|                        | YR24PCT2    |
| PNP NO/NC switchable   | ●           |
| RS-232 with Adapterbox | ●           |
| Connection Diagram No. | 152         |
| Control Panel No.      | M 3         |
| Suitable Plug No.      | 1           |

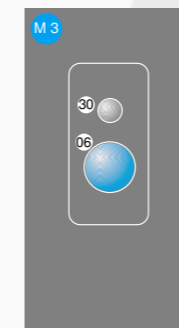


| Legend |                                   | Wire colors according to DIN IEC 757 |
|--------|-----------------------------------|--------------------------------------|
| +      | Power supply "+"                  | BK black                             |
| -      | Power supply "0V"                 | BN brown                             |
| -      | Power supply (AC Voltage)         | RD red                               |
| A      | Switching output (1,2,3...)/ NO   | OG orange                            |
| A      | Switching output (1,2,3...)/ NC   | YE yellow                            |
| V      | Contamination / Error output (NO) | GN green                             |
| V      | Contamination / Error output (NC) | BU blue                              |
| E      | Input (analog or digital)         | VT violet                            |
| T      | Teach input                       | GY grey                              |
| Z      | Time delay (activation)           | WH white                             |
| S      | Shielding                         | PK pink                              |
| RxD    | RS-232 receive path               | GNYE green yellow                    |
| TxD    | RS-232 send path                  |                                      |
| U      | Test input                        |                                      |
| W      | Trigger input                     |                                      |
| O      | Analog output (1,2,3,...)         |                                      |
| O-     | Ground for the analog output      |                                      |
| BZ     | Block discharge                   |                                      |
| Aw     | Valve output                      |                                      |
| a      | Valve control output "+"          |                                      |
| b      | Valve control output "0V"         |                                      |
| SY     | Synchronization                   |                                      |
| E+     | Receiver-Line                     |                                      |
| S+     | Emitter-Line                      |                                      |
| ⊕      | Grounding                         |                                      |

### Accessories

- Adapterbox A232
- Mounting Bracket W18

### Ctrl. Panel



- 06 = Teach Button
- 30 = Switching Status/Contamination Warning