

Reflex Sensor for Roller Conveyor Systems

OPT231

Part Number

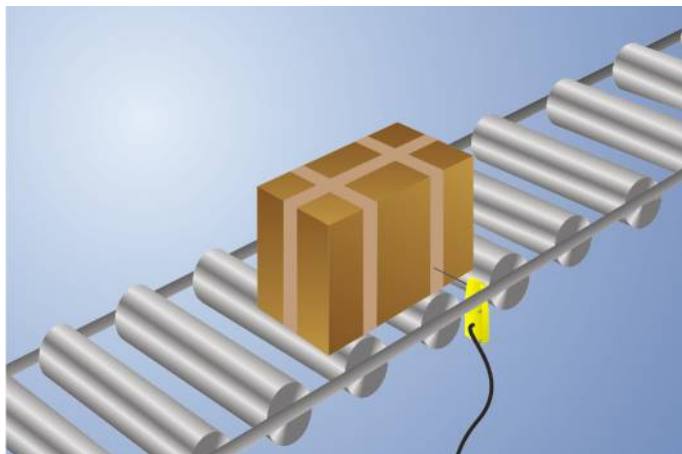


- Electronic background suppression
- Fully encapsulated
- Scaled switching distance adjuster

Technical Data

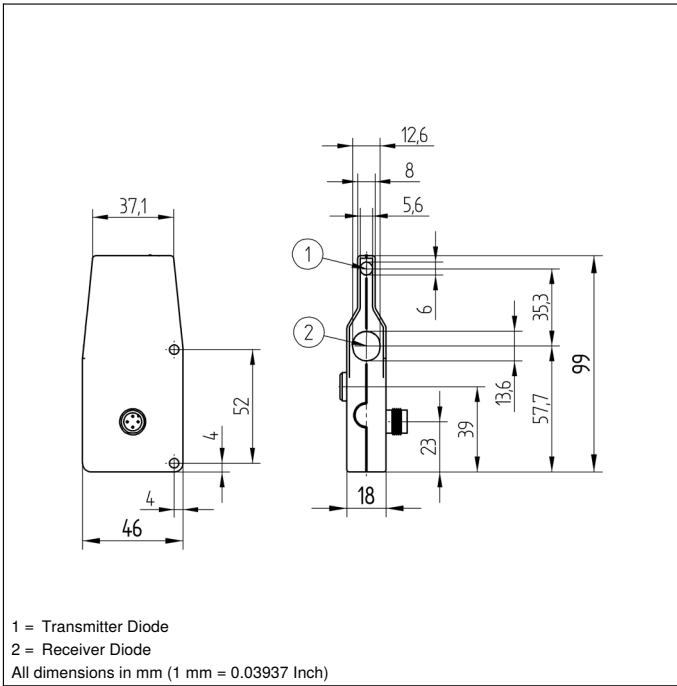
| Optical Data | |
|--|----------------|
| Range | 760 mm |
| Potentiometer min | 250...300 mm |
| Potentiometer center | 400...550 mm |
| Potentiometer max | 760...900 mm |
| Switching Hysteresis | < 15 % |
| Light Source | Infrared Light |
| Wave Length | 880 nm |
| Service Life (T = +25 °C) | 100000 h |
| Risk Group (EN 62471) | 1 |
| Max. Ambient Light | 10000 Lux |
| Opening Angle | 5 ° |
| Electrical Data | |
| Supply Voltage | 18...30 V DC |
| Current Consumption Sensor (U _b = 24 V) | < 30 mA |
| Switching Frequency | 100 Hz |
| Response Time | 5 ms |
| Temperature Drift | < 10 % |
| Temperature Range | -25...60 °C |
| Switching Outputs | 1 |
| Switching Output Voltage Drop | < 1,5 V |
| PNP Switching Output/Switching Current | 200 mA |
| Short Circuit Protection | yes |
| Reverse Polarity Protection | yes |
| Overload Protection | yes |
| Logic | no |
| Protection Class | III |
| Mechanical Data | |
| Adjustment | Potentiometer |
| Housing Material | Plastic |
| Full Encapsulation | yes |
| Degree of Protection | IP65 |
| Connection | M12 × 1; 4-pin |
| PNP NO | ● |
| Connection Diagram No. | 712 |
| Control Panel No. | OP1 |
| Suitable Connection Technology No. | 2 |
| Suitable Mounting Technology No. | 420 |

These sensors have been specially designed for use in accumulation roller conveyors. Their compact design allows for installation between rollers below the transport level. They are thus protected against mechanical damage.

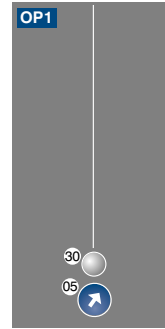


Complementary Products

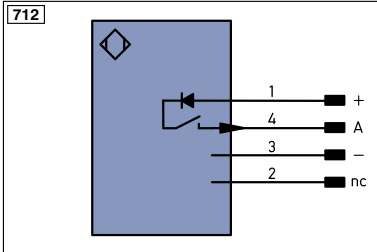
PNP-NPN Converter BG2V1P-N-2M



Ctrl. Panel



05 = Switching Distance Adjuster
 30 = Switching Status/Contamination Warning



| Legend | | | | | |
|--------|---------------------------------|-------|------------------------------|--------|---|
| + | Supply Voltage + | PT | Platinum measuring resistor | ENa | Encoder A |
| - | Supply Voltage 0 V | nc | not connected | ENb | Encoder B |
| ~ | Supply Voltage (AC Voltage) | U | Test Input | AMn | Digital output MIN |
| A | Switching Output (NO) | U | Test Input inverted | AMax | Digital output MAX |
| Ā | Switching Output (NC) | W | Trigger Input | Aok | Digital output OK |
| V | Contamination/Error Output (NO) | O | Analog Output | SY In | Synchronization In |
| ȳ | Contamination/Error Output (NC) | O- | Ground for the Analog Output | SY OUT | Synchronization OUT |
| E | Input (analog or digital) | BZ | Block Discharge | Out | Brightness output |
| T | Teach Input | AMV | Valve Output | | |
| Z | Time Delay (activation) | a | Valve Control Output + | | Wire Colors according to DIN IEC 757 |
| S | Shielding | b | Valve Control Output 0 V | BK | Black |
| RxD | Interface Receive Path | SY | Synchronization | BN | Brown |
| TxD | Interface Send Path | E+ | Receiver-Line | RD | Red |
| RDY | Ready | S+ | Emitter-Line | OG | Orange |
| GND | Ground | ± | Grounding | YE | Yellow |
| CL | Clock | SrR | Switching Distance Reduction | GN | Green |
| E/A | Output/Input programmable | Rx+/- | Ethernet Receive Path | BU | Blue |
| | IO-Link | Tx+/- | Ethernet Send Path | VT | Violet |
| PoE | Power over Ethernet | Exe | Interfaces-Bus A(+)/B(-) | GY | Grey |
| IN | Safety Input | Mag | Magnet activation | WH | White |
| OSSD | Safety Output | RES | Input confirmation | PK | Pink |
| Signal | Signal Output | EDM | Contacting Monitoring | GNYE | Green Yellow |
| M | Maintenance | | | | |

