Reflex Sensor

for Roller Conveyor Systems

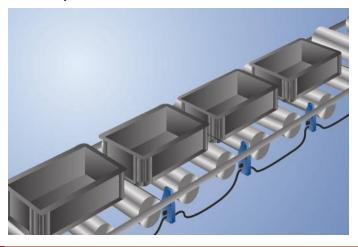
OPT1504

Part Number



- Energy savings thanks to EcoMode
- Optimized performance
- Quick wiring
- Scaled switching distance adjuster
- Time-saving installation with fast-clip mounting system

These sensors have been specially designed for use in accumulation roller conveyors. Their compact design allows for installation between rollers below the transport level. High-precision background suppression makes it possible to reliably detect even black objects at up to 900 mm. The scaled switching-distance adjuster assures quick and simple adjustment to the desired distance. Thanks to the innovative fast-clip mounting system and quick wiring, the sensor are installed and ready for use in no time flat.



Technical Data

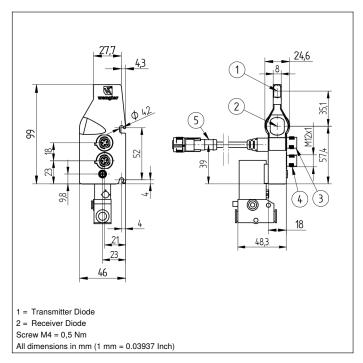
| ecnnical Data | |
|--|----------------|
| Optical Data | 000 |
| Range | 900 mm |
| Switching Hysteresis | < 5 % |
| Light Source | Infrared Light |
| Wavelength | 860 nm |
| Service Life (T = +25 °C) | 100000 h |
| Risk Group (EN 62471) | 1 |
| Max. Ambient Light | 90000 Lux |
| Opening Angle | 3 ° |
| Electrical Data | |
| Supply Voltage | 2327,8 V DC |
| Current Consumption Sensor (Ub = 24 V) | < 16 mA |
| EcoMode | yes |
| Switching Frequency | 100 Hz |
| Response Time | 5 ms |
| Temperature Drift | < 5 % |
| Temperature Range | -4060 °C |
| Number of Switching Outputs | 1 |
| Switching Output Voltage Drop | < 0,9 V |
| PNP Switching Output/Switching Current | 200 mA |
| Short Circuit Protection | yes |
| Reverse Polarity Protection | yes |
| Overload Protection | yes |
| Logic | yes |
| Single Discharge | yes |
| Block Forwarding | yes |
| Solenoid Valve | yes |
| Protection Class | III |
| Mechanical Data | |
| Setting Method | Potentiometer |
| Housing Material | Plastic |
| Degree of Protection | IP65 |
| Connection | M12 × 1; 4-pin |
| Cable Length | 150 cm |
| Pneumatic Solenoid Valve Unit | |
| Valve no. | K03 |
| Supply Voltage Valve | 21,626,4 V |
| Current Consumption Valve | 42 mA |
| Valve temperature range | -1055 °C |
| Operating Pressure | 08 bar |
| Nominal Width | 0,9 mm |
| Nominal flow rate 1 -> 2 | 22 NL/min |
| Nominal flow rate 2 -> 3 | 25 NL/min |
| Supply-Line Connector Pipe | 2× 8×1 |
| Working-Line Connector Pipe | 4×1 |
| Valve function | 3/2-Way |
| Switching function | NO NO |
| PNP NC | |
| | 704 |
| Connection Diagram No. | 734 |
| Control Panel No. | OP1 |
| Suitable Connection Equipment No. | 2 2s |
| Suitable Mounting Technology No. | 421 |

Complementary Products

Adapter OPT70N, OPT70S, OPT70P

ZPTX001 Quick Mount

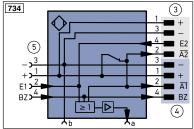




Ctrl. Panel



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



| Legen | nd | | PT | Platinum measuring resistor | ENARS42 | ₂ Encoder A/Ā (TTL) | |
|---------|---------------------------------|------------|----------|--------------------------------|---------|---------------------------------|--|
| + | Supply Voltage + | | nc | not connected | ENBR542 | Encoder B/B (TTL) | |
| - | Supply Voltage 0 V | | U | Test Input | ENA | Encoder A | |
| ~ | Supply Voltage (AC Voltage) | | Ū | Test Input inverted | ENB | Encoder B | |
| Α | Switching Output | (NO) | W | Trigger Input | Amin | Digital output MIN | |
| Ā | Switching Output | (NC) | W - | Ground for the Trigger Input | Амах | Digital output MAX | |
| V | Contamination/Error Output | (NO) | 0 | Analog Output | Аок | Digital output OK | |
| V | Contamination/Error Output | (NC) | 0- | Ground for the Analog Output | SY In | Synchronization In | |
| E | Input (analog or digital) | | BZ | Block Discharge | SY OUT | Synchronization OUT | |
| Т | Teach Input | | Awv | Valve Output | OLT | Brightness output | |
| Z | Time Delay (activation) | | а | Valve Control Output + | М | Maintenance | |
| S | Shielding | | b | Valve Control Output 0 V | rsv | reserved | |
| RxD | Interface Receive Path | | SY | Synchronization | Wire C | Colors according to DIN IEC 757 | |
| TxD | Interface Send Path | | SY- | Ground for the Synchronization | BK | Black | |
| RDY | Ready | | E+ | Receiver-Line | BN | Brown | |
| GND | Ground | | S+ | Emitter-Line | RD | Red | |
| CL | Clock | | ± | Grounding | OG | Orange | |
| E/A | Output/Input programmable | | SnR | Switching Distance Reduction | YE | Yellow | |
| • | IO-Link | | Rx+/- | Ethernet Receive Path | GN | Green | |
| PoE | Power over Ethernet | | Tx+/- | Ethernet Send Path | BU | Blue | |
| IN | Safety Input | | Bus | Interfaces-Bus A(+)/B(-) | VT | Violet | |
| OSSD | Safety Output | | La | Emitted Light disengageable | GY | Grey | |
| Signal | Signal Output | | Mag | Magnet activation | WH | White | |
| BI_D+/- | Ethernet Gigabit bidirect, data | line (A-D) | RES | Input confirmation | PK | Pink | |
| | Encoder 0-pulse 0-0 (TTL) | , , | EDM | Contactor Monitoring | GNYE | Green/Yellow | |

Switching Distance Deviation

Typical characteristic curve based on white, 90 % remission

