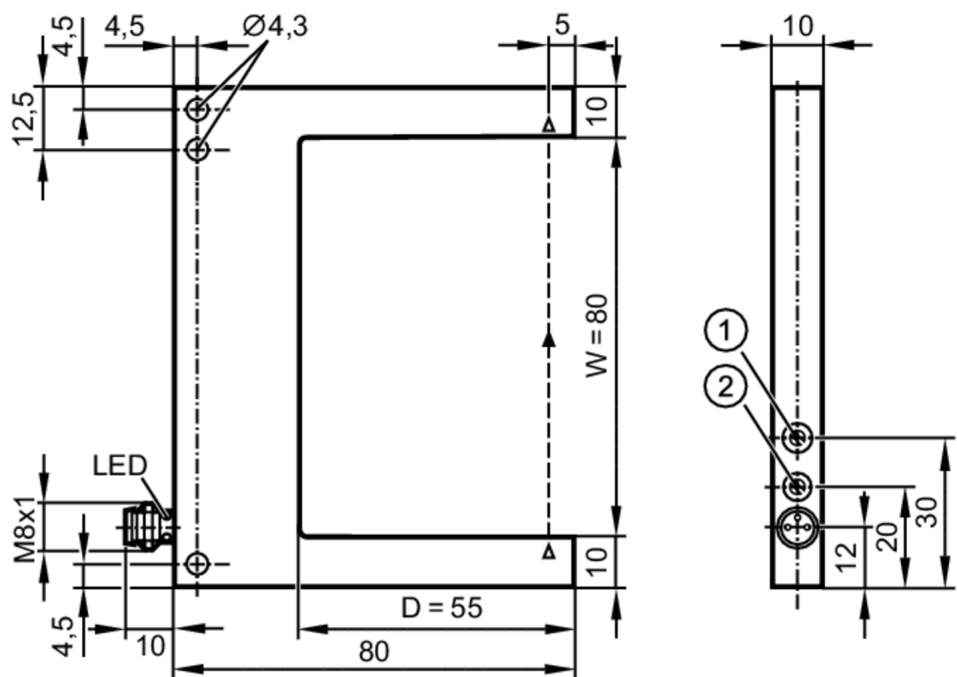


# OPU210



## Photoelectric fork sensor

OPU-FNKG/IO-LINK/AS



- 1 potentiometer sensitivity  
2 output function switch



### Product characteristics

|               |           |
|---------------|-----------|
| Type of light | red light |
|---------------|-----------|

### Electrical data

|                             |      |                                               |
|-----------------------------|------|-----------------------------------------------|
| Operating voltage           | [V]  | 10...30 DC; (cULus - Class 2 source required) |
| Current consumption         | [mA] | < 30                                          |
| Protection class            |      | III                                           |
| Reverse polarity protection |      | yes                                           |
| Type of light               |      | red light                                     |
| Wave length                 | [nm] | 660                                           |

### Outputs

|                                                 |      |                                     |
|-------------------------------------------------|------|-------------------------------------|
| Electrical design                               |      | NPN                                 |
| Output function                                 |      | light-on/dark-on mode; (selectable) |
| Max. voltage drop switching output DC           | [V]  | 1                                   |
| Permanent current rating of switching output DC | [mA] | 100                                 |
| Switching frequency DC                          | [Hz] | 5000                                |
| Short-circuit protection                        |      | yes                                 |
| Type of short-circuit protection                |      | yes (non-latching)                  |
| Overload protection                             |      | yes                                 |



## Photoelectric fork sensor

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| Monitoring range                                                                    |                                                   |                           |
|-------------------------------------------------------------------------------------|---------------------------------------------------|---------------------------|
| Diameter of the smallest detectable object                                          | [mm]                                              | 0.3                       |
| Interfaces                                                                          |                                                   |                           |
| Communication interface                                                             | IO-Link                                           |                           |
| Transmission type                                                                   | COM2 (38,4 kBaud)                                 |                           |
| IO-Link revision                                                                    | 1.1                                               |                           |
| SDCI standard                                                                       | IEC 61131-9                                       |                           |
| Profiles                                                                            | Smart Sensor - SSP 0                              | Generic Profiled Sensor   |
|                                                                                     | Function                                          | Device identification     |
|                                                                                     | Function                                          | Multiple switching signal |
|                                                                                     | Function                                          | Process data variable     |
|                                                                                     | Function                                          | Device diagnosis          |
|                                                                                     | Function                                          | Teach channel             |
| SIO mode                                                                            | yes                                               |                           |
| Required master port class                                                          | A                                                 |                           |
| Min. process cycle time                                                             | [ms]                                              | 3.2                       |
| Supported DeviceIDs                                                                 | Type of operation                                 | DeviceID                  |
|                                                                                     | default                                           | 1103                      |
| Operating conditions                                                                |                                                   |                           |
| Ambient temperature                                                                 | [°C]                                              | -25...60                  |
| Protection                                                                          | IP 67                                             |                           |
| Tests / approvals                                                                   |                                                   |                           |
| EMC                                                                                 | EN 60947-5-2                                      |                           |
| MTTF                                                                                | [years]                                           | 709                       |
| Mechanical data                                                                     |                                                   |                           |
| Weight                                                                              | [g]                                               | 164                       |
| Dimensions                                                                          | [mm]                                              | 100 x 10 x 80             |
| Fork depth D                                                                        | [mm]                                              | 55                        |
| Fork width W                                                                        | [mm]                                              | 80                        |
| Material                                                                            | housing: diecast zinc black anodized; lens: glass |                           |
| Displays / operating elements                                                       |                                                   |                           |
| Display                                                                             | Switching status                                  | 1 x LED, yellow           |
| Remarks                                                                             |                                                   |                           |
| Remarks                                                                             | cULus - Class 2 source required                   |                           |
| Pack quantity                                                                       | 1 pcs.                                            |                           |
| Electrical connection                                                               |                                                   |                           |
| Connector: 1 x M8; coding: A                                                        |                                                   |                           |
|  |                                                   |                           |

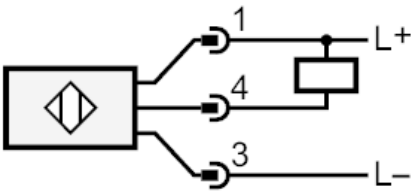
OPU210



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Connection



4 OUT / IO-Link

Other data

operating mode adjustable via IO-Link

|                     | standard   | High Resolution | Power   | Speed   |
|---------------------|------------|-----------------|---------|---------|
| Resolution          | 0.3 mm     | 0.2 mm          | 1.0 mm  | 0.3 mm  |
| Repeatability       | 0.02 mm    | 0.02 mm         | 0.02 mm | 0.02 mm |
| Switching frequency | 5000 Hz    | 1500 Hz         | 250 Hz  | 8000 Hz |
| Repeatability       | 3 $\sigma$ |                 |         |         |