



## Optical data transmission ISD300, ISD300 PROFIBUS/RS-485, RS- 485/PROFIBUS DP

ISD300-1312



**Model Name** > [ISD300-1312](#)  
**Part No.** > [6028214](#)



#### At a glance

- PROFIBUS interface
- Push button displays opposing device's reception level for simple one man alignment
- Up to 1.5 Mbit/s transfer rate
- Integrated 3-point mounting bracket

#### Your benefits

- Non-contact system eliminates wear and tear thus guaranteeing high machine uptime and significantly reduced maintenance costs
- Electronic alignment methods significantly reduce installation times thus saving costs
- Very long scanning range ensures high gain reserve even in challenging environmental conditions
- Reduced installation costs by eliminating cables
- Excellent ambient light immunity and EMC compatibility ensure accurate and reliable data transmission
- Increased system speed with fast data transmission
- Fast and easy integration into PROFIBUS network without additional converter cards
- Fast and easy assembly with integrated 3-point mounting bracket reduces installation time and costs



#### Performance

|                                  |                        |
|----------------------------------|------------------------|
| Light source:                    | LED, infrared (880 nm) |
| Heating:                         | -                      |
| Typ. light spot size (distance): | 1.75 m (at 100 m)      |
| Transmission range:              | 0.2 m ... 300 m        |
| Field of view:                   | Ca. $\pm 0.5^\circ$    |

#### Interfaces

|                                |                                                                             |
|--------------------------------|-----------------------------------------------------------------------------|
| Data transmission rate:        | 1.5 Mbit/s                                                                  |
| Output type:                   | 0 V ... 2 V: interference-free operation<br>VS -2 V: reduced system reserve |
| Switching input:               | 0 V ... 2 V: sender deactivated                                             |
| Signal delay:                  | $\leq 1.5 \mu\text{s} + 1 \text{ Tbit}$                                     |
| Data interface <sup>1)</sup> : | RS-485/PROFIBUS DP                                                          |

<sup>1)</sup> RS-485 on request

### Mechanics/electronics

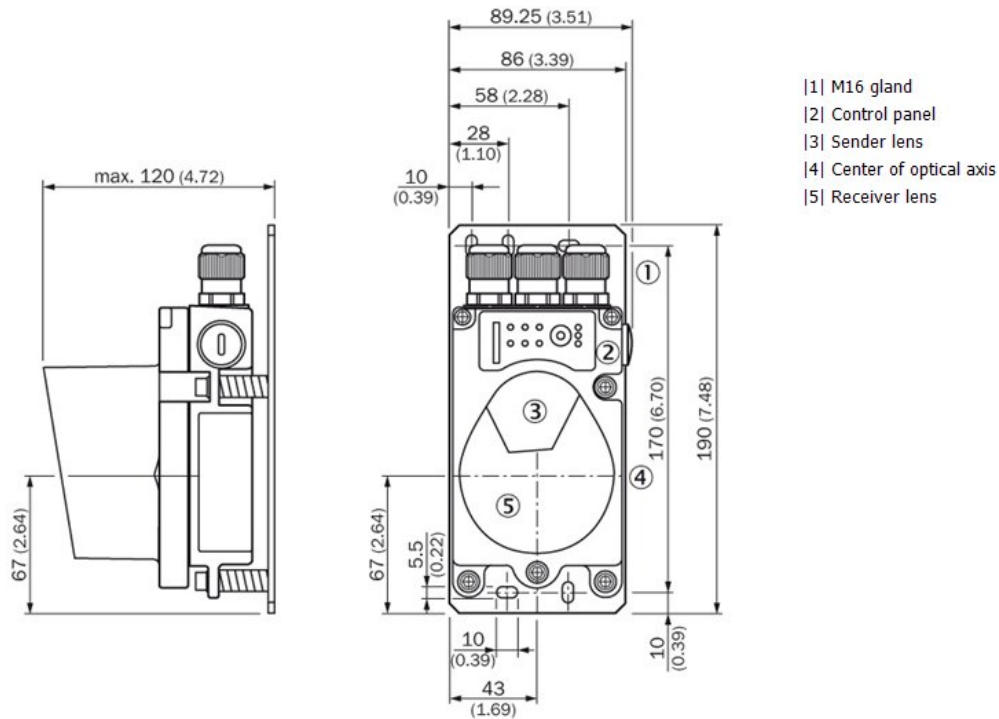
|                    |                  |
|--------------------|------------------|
| Supply voltage Vs: | DC 18 V ... 30 V |
| Power consumption: | ≤ 0.2 mA         |
| Weight:            | Ca. 1.2 kg       |
| Housing material:  | Metal            |
| Connection type:   | Terminals        |
| Frequency:         | 2                |

### Ambient data

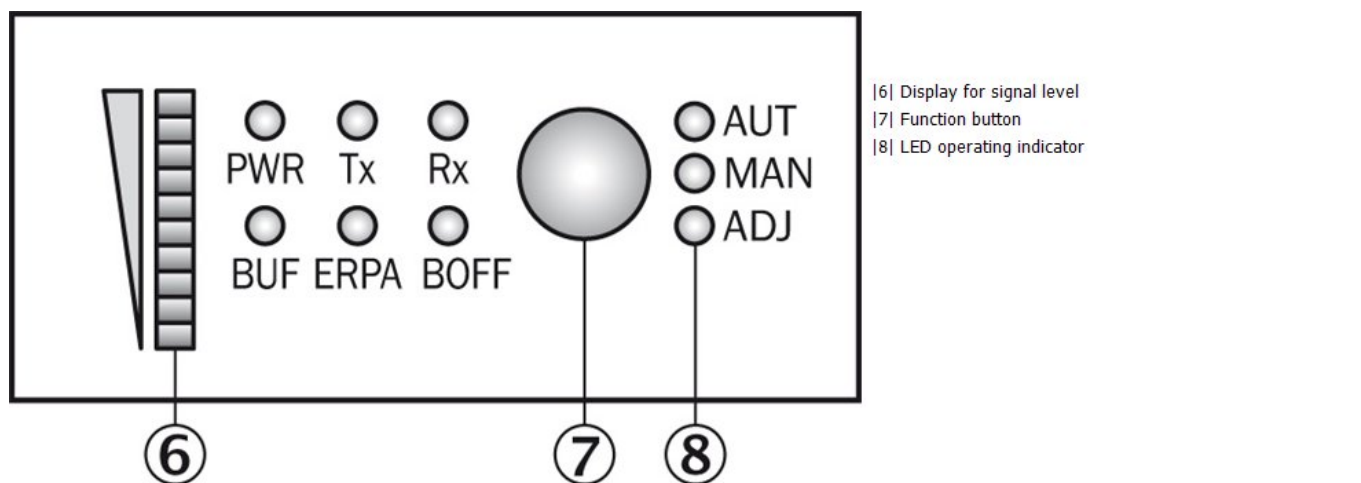
|                                      |                                         |
|--------------------------------------|-----------------------------------------|
| Enclosure rating:                    | IP 65                                   |
| Protection class:                    | I                                       |
| Ambient temperature:                 | Storage: -30 ... 70 °C                  |
| Max. rel. humidity (not condensing): | 90 %, non-condensing                    |
| Ambient operating temperature:       | -5 °C ... 50 °C                         |
| Electromagnetic compatibility (EMC): | EN 61000-6-2/EN 61000-6-4 <sup>1)</sup> |

<sup>1)</sup> This is a Class A device. This device can cause radio interference in living quarters.

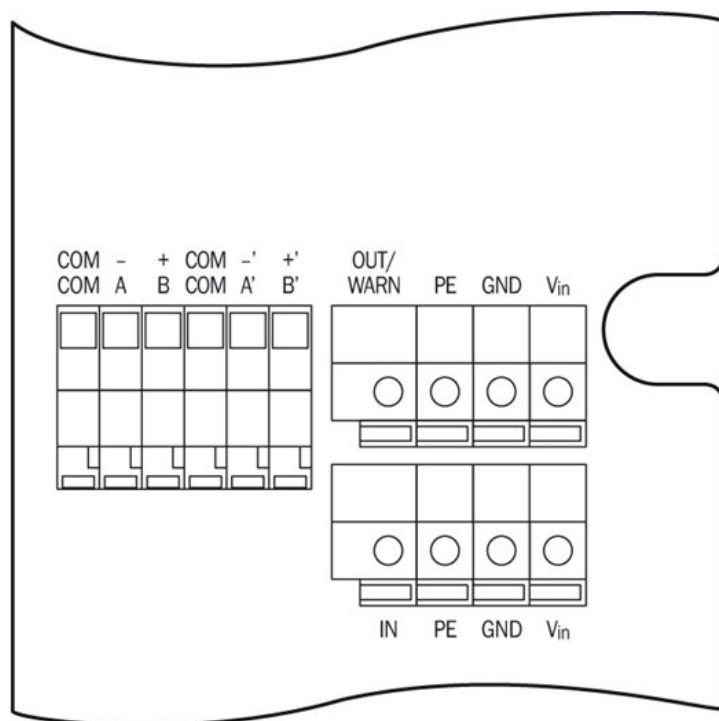
### Dimensional drawing



## Adjustments



| Connection type |
|-----------------|
|-----------------|



## Connection diagram

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### Terminals, general

|                       |               |
|-----------------------|---------------|
| <b>V<sub>in</sub></b> | L+            |
| <b>GND</b>            | M             |
| <b>PE</b>             | Shield        |
| <b>OUT/WARN</b>       | Q             |
| <b>IN</b>             | Switch. input |

### Terminals, PROFIBUS

|               |              |
|---------------|--------------|
| <b>A, -</b>   | A wire       |
| <b>B, +</b>   | B wire       |
| <b>COM</b>    | Pot. balance |
| <b>A', -'</b> | A wire       |
| <b>B', +'</b> | B wire       |

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