

## Technical data sheet

### Optical data transmission

Part no.: 50036290

DDLS 200/120.1-20



For illustration purposes only

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## Technical data

### Basic data

|        |          |
|--------|----------|
| Series | DDLS 200 |
|--------|----------|

### Special version

|                 |                                                                           |
|-----------------|---------------------------------------------------------------------------|
| Special version | Not influenced by reflective surfaces<br>Operation of parallel light axes |
|-----------------|---------------------------------------------------------------------------|

### Optical data

|                        |                    |
|------------------------|--------------------|
| Working range          | 200 ... 120,000 mm |
| Light source           | LED                |
| Transmission frequency | F1                 |
| Opening angle          | 1 °                |

### Electrical data

#### Performance data

|                      |                 |
|----------------------|-----------------|
| Supply voltage $U_B$ | 18 ... 30 V, DC |
|----------------------|-----------------|

#### Inputs

|                                    |            |
|------------------------------------|------------|
| Number of digital switching inputs | 1 Piece(s) |
|------------------------------------|------------|

#### Outputs

|                                     |            |
|-------------------------------------|------------|
| Number of digital switching outputs | 1 Piece(s) |
|-------------------------------------|------------|

### Interface

|      |                    |
|------|--------------------|
| Type | RS 422, Interbus-S |
|------|--------------------|

#### Interbus-S

|                    |          |
|--------------------|----------|
| Transmission speed | 2 Mbit/s |
|--------------------|----------|

### Connection

|                       |            |
|-----------------------|------------|
| Number of connections | 3 Piece(s) |
|-----------------------|------------|

#### Connection 1

|                    |          |
|--------------------|----------|
| Type of connection | Terminal |
| Cable gland        | M16      |
| No. of pins        | 8 -pin   |

#### Connection 2

|                    |          |
|--------------------|----------|
| Type of connection | Terminal |
| Cable gland        | M16      |
| No. of pins        | 10 -pin  |

### Mechanical data

|                       |                                |
|-----------------------|--------------------------------|
| Dimension (W x H x L) | 89.25 mm x 196.5 mm x 111.8 mm |
| Housing material      | Metal                          |
| Net weight            | 1,245 g                        |

### Operation and display

|                 |                  |
|-----------------|------------------|
| Type of display | Bar graph<br>LED |
|-----------------|------------------|

### Environmental data

|                                |               |
|--------------------------------|---------------|
| Ambient temperature, operation | -5 ... 50 °C  |
| Ambient temperature, storage   | -30 ... 70 °C |

### Certifications

|                                                            |                                        |
|------------------------------------------------------------|----------------------------------------|
| Degree of protection                                       | IP 65                                  |
| Approvals                                                  | c UL US                                |
| Test procedure for EMC in accordance with standard         | EN 61000-6-2:2005<br>EN 61000-6-4:2001 |
| Test procedure for noise in accordance with standard       | EN 60068-2-64                          |
| Test procedure for oscillation in accordance with standard | EN 60068-2-6                           |
| Test procedure for shock in accordance with standard       | EN 60068-2-27<br>EN 60068-2-29         |

### Classification

|                       |          |
|-----------------------|----------|
| Customs tariff number | 84718000 |
| ECLASS 5.1.4          | 19039001 |
| ECLASS 8.0            | 19179090 |
| ECLASS 9.0            | 19179090 |
| ECLASS 10.0           | 19170506 |
| ECLASS 11.0           | 19170506 |
| ECLASS 12.0           | 19170506 |
| ECLASS 13.0           | 19170506 |
| ECLASS 14.0           | 19170506 |
| ECLASS 15.0           | 19170506 |
| ECLASS 16.0           | 19170506 |
| ETIM 5.0              | EC000515 |
| ETIM 6.0              | EC000515 |
| ETIM 7.0              | EC000515 |
| ETIM 8.0              | EC000515 |
| ETIM 9.0              | EC000515 |
| ETIM 10.0             | EC000515 |

## Electrical connection

### Connection 1

|                    |                |
|--------------------|----------------|
| Function           | Voltage supply |
| Type of connection | Terminal       |
| Cable gland        | M16            |
| No. of pins        | 8 -pin         |

## Electrical connection

| Terminal | Assignment |
|----------|------------|
| 1        | OUT WARN   |
| 2        | PE         |
| 3        | GND        |
| 4        | VIN        |
| 5        | IN 1       |
| 6        | PE         |
| 7        | GND        |
| 8        | VIN        |

### Connection 2

|                    |                |
|--------------------|----------------|
| Function           | Data interface |
| Type of connection | Terminal       |
| Cable gland        | M16            |
| No. of pins        | 10 -pin        |

| Terminal | Assignment |
|----------|------------|
| 1        | COM        |
| 2        | /DI1       |
| 3        | DI1        |
| 4        | /DO1       |
| 5        | DO1        |
| 6        | COM        |
| 7        | /DO2       |
| 8        | DO2        |
| 9        | /DI2       |
| 10       | DI2        |

## Operation and display

| LED | Display | Meaning            |
|-----|---------|--------------------|
| 1   | Green   | Operating mode     |
| 2   | Green   | PWR                |
| 3   | Green   | TRANSMIT DATA (Tx) |
| 4   | Green   | RECEIVE DATA (Rx)  |

## Suitable receivers

|                                                                                     | Part no. | Designation       | Operating range<br>Operating range<br>limit | Description                                                                                                                                                                                                               |
|-------------------------------------------------------------------------------------|----------|-------------------|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | 50036291 | DDLS 200/120.2-20 |                                             | Special version: Operation of parallel light axes, Not influenced by reflective surfaces<br>Working range: 200 ... 120,000 mm<br>Transmission frequency: F2<br>Interface: RS 422, Interbus-S<br>Connection: Terminal, M16 |