



## Data sheet

### IM 253DP, PROFIBUS-DP slave (253-1DP31)

#### Technical data

|  |  |
|--|--|
| <b>Order no.</b>                               | <b>253-1DP31</b>   |
| Type   | IM 253DP, PROFIBUS-DP slave  |
| <b>General information</b>                     |  |
| Note   | -  |
| Features                                       | PROFIBUS-DP slave (DP-V0, DP-V1)<br>For max. 8 peripheral modules<br>244 Byte input and 244 Byte output data |
| <b>Technical data power supply</b>             |  |
| Power supply (rated value)                     | DC 24 V  |
| Power supply (permitted range)                 | DC 20.4...28.8 V   |
| Reverse polarity protection                    |                             |
| Current consumption (no-load operation)        | 50 mA  |
| Current consumption (rated value)              | 300 mA   |
| Inrush current                                 | 60 A   |
| $I_{\Delta t}$                                 | 0.4 A <sup>2</sup> s   |
| Max. current drain at backplane bus            | 0.8 A  |
| Max. current drain load supply                 | -  |
| Power loss                                     | 1.5 W  |
| <b>Status information, alarms, diagnostics</b> |  |
| Status display                                 | yes  |
| Interrupts                                     | yes, parameterizable   |
| Process alarm                                  | yes, parameterizable   |
| Diagnostic interrupt                           | yes, parameterizable   |
| Diagnostic functions                           | yes, parameterizable   |
| Diagnostics information read-out               | possible   |
| Supply voltage display                         | green LED  |
| Service Indicator                              | -  |
| Group error display                            | red SF LED   |
| Channel error display                          | none   |
| <b>Hardware configuration</b>                  |  |
| Racks, max.                                    | 1  |
| Modules per rack, max.                         | 8  |
| Number of digital modules, max.                | 8  |
| Number of analog modules, max.                 | 8  |
| <b>Communication</b>                           |  |
| Fieldbus                                       | PROFIBUS-DP to EN 50170  |
| Type of interface                              | RS485  |
| Connector                                      | Sub-D, 9-pin, female   |
| Topology                                       | Linear bus with bus termination at both ends   |
| Electrically isolated                          |                           |

|                              |            |
|------------------------------|------------|
| Number of participants, max. | 125        |
| Node addresses               | 1 - 125    |
| Transmission speed, min.     | 9.6 kbit/s |
| Transmission speed, max.     | 12 Mbit/s  |
| Address range inputs, max.   | 244 Byte   |
| Address range outputs, max.  | 244 Byte   |
| Number of TxPDOs, max.       | -          |
| Number of RxPDOs, max.       | -          |

### Housing

|          |                    |
|----------|--------------------|
| Material | PPE / PA 6.6       |
| Mounting | Profile rail 35 mm |

### Mechanical data

|                    |                         |
|--------------------|-------------------------|
| Dimensions (WxHxD) | 25.4 mm x 76 mm x 78 mm |
| Weight             | 90 g                    |

### Environmental conditions

|                       |                 |
|-----------------------|-----------------|
| Operating temperature | 0 °C to 60 °C   |
| Storage temperature   | -25 °C to 70 °C |

### Certifications

|                     |     |
|---------------------|-----|
| UL508 certification | yes |
|---------------------|-----|