



# DS4 Standard

957650022

DS4-05-2100-S08-JZ

DETECTION AND MEASUREMENT AREA SENSOR

## OVERVIEW

Versatile area sensors for detecting and measuring in various industrial applications. Conveniently configured using IO-Link and wirelessly programmable through AppGUI for detailed parameter adjustments and advanced setups.



## TECHNICAL FEATURES

### Detection properties

|                          |                                                                                                                                              |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| Nominal sensing distance | 0.2...5 m Transparent objects ( $T = 0...50\text{ °C}$ ; $H \leq 1.5\text{ m}$ ): 10% (0.35 - 1.5 m)<br>20% (0.35 - 2.5 m) 30 % (0.35 - 4 m) |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|

|             |      |
|-------------|------|
| Beams space | 5 mm |
|-------------|------|

|                   |         |
|-------------------|---------|
| controlled height | 2100 mm |
|-------------------|---------|

|                |     |
|----------------|-----|
| number of rays | 420 |
|----------------|-----|

|                        |                               |
|------------------------|-------------------------------|
| Sensitivity adjustment | remote teach, IO-Link, AppGUI |
|------------------------|-------------------------------|

|                                  |                                                              |
|----------------------------------|--------------------------------------------------------------|
|                                  |                                                              |
| Detection capability             | ≥ 3.5 mm (with Teach-In), 10 mm (without Teach-In)           |
| Features and performances        |                                                              |
| Detection capability             | 0                                                            |
| Application                      |                                                              |
| Description                      | DS4-05-2100-S08-JZ 5mm H=2100mm IOL                          |
| Outputs                          |                                                              |
| Output type                      | PNP or NPN or Push-Pull , 0...10 V, 4..20 mA, IO-Link, RS485 |
| Output Function                  | Light array for detection and measurement                    |
| Electrical data                  |                                                              |
| Operating Voltage                | 19.2...28.8 Vdc                                              |
| No-Load supply current           | 360 mA (emitter and receiver)                                |
| Leakage current                  | 100 mA                                                       |
| Output voltage drop              | 2.5 V @ IL=100 mA                                            |
| Time delay before availability   | 13.60 s                                                      |
| Short-circuit protection         | Yes                                                          |
| Reverse Polarity Protection      | Yes                                                          |
| Emission                         | Infrared (850 nm) Emitter + Receiver                         |
| Impulsive Overvoltage Protection | Yes                                                          |
|                                  |                                                              |

|                                    |     |
|------------------------------------|-----|
| Protection against inductive loads | Yes |
|------------------------------------|-----|

**Mechanical data**

|                       |                                                                                        |
|-----------------------|----------------------------------------------------------------------------------------|
| Material              | Aluminium / PBT                                                                        |
| Housing material      | Aluminium                                                                              |
| Optic window material | PMMA                                                                                   |
| Weight                | 1.4 Kg/m (single bar, without package)                                                 |
| Connections           | M12 5 poles + 200 mm length cable TPU (TX), M12 8 poles + 200 mm length cable TPU (RX) |
| Active Head Material  | PMMA                                                                                   |
| Storage temperature   | -30...+70 °C                                                                           |
| Humidity              | 15...95 % (without freeze)                                                             |

**Test/Approvals**

|                       |                                                                                                                                                |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| Shocks and vibrations | 10 mm / 3g, 5 ... 150 Hz frequency, (EN 60068-2-6 / Class 3M7 IEC TR 60721-4-3); 25g x 6 ms x 600 (EN 60068-2-27 / Class 3M7 IEC TR 60721-4-3) |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------|

**Accessories**

|                      |                |
|----------------------|----------------|
| Supplied Accessories | Fixing brakets |
|----------------------|----------------|

**Generical Data**

|                       |                              |
|-----------------------|------------------------------|
| Dimensions            | 35 x 40 x 2113 mm            |
| Operating Temperature | -30...+50°C (without freeze) |
| Mechanical Protection | IP65 IP67                    |

HMI/UI

LED indicators

TX: Green (Power ON), Yellow (Emission range) Red (Test, failure, Firmware ongoing update), Blue (Emission range, Firmware update completed) RX: Green (Power ON), Yellow (Status output, Connection and teach-in active) Red (Hardware Errors, Invalid con

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