



# DS4 Base

957650006

DS4-05-1050-B05-JA

DETECTION AND MEASUREMENT AREA SENSOR

## OVERVIEW

Basic version of detection and measurement area sensors designed for simple applications. Reliable performance and ease of use ensure detection and measurement in industrial applications.



## TECHNICAL FEATURES

### Detection properties

|                          |                                   |
|--------------------------|-----------------------------------|
| Nominal sensing distance | 0.2...5 m                         |
| Beams space              | 5 mm                              |
| controlled height        | 1050 mm                           |
| number of rays           | 210                               |
| Sensitivity adjustment   | High/Low emission (input emitter) |

## Features and performances

|                      |       |
|----------------------|-------|
| Detection capability | 10 mm |
|----------------------|-------|

## Application

|             |                                      |
|-------------|--------------------------------------|
| Description | DS4-05-1050-B05-JA Base 5mm H=1050mm |
|-------------|--------------------------------------|

## Outputs

|             |                                                    |
|-------------|----------------------------------------------------|
| Output type | PNP or NPN or Push-Pull , 0...10V, 4..20mA IO-Link |
|-------------|----------------------------------------------------|

|                 |                                           |
|-----------------|-------------------------------------------|
| 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 | 7.30 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

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|                       |                                                                                        |
|-----------------------|----------------------------------------------------------------------------------------|
| 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 5 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 1060.5 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), Blue (Emission range) RX: Green (Power ON), Yellow (Status output, Connection |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------|

Active) Red (Hardware Errors, module occupied)

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**date of  
printing**  
10/08/2026  
03:06:18