

## DS2 CZUJNIK FOTOELEKTRYCZNY OBSZARU DO DETEKCJI I POMIARU

DS2-05-07-045-JV

Czujnik obszaru kurtyna, 450mm, 5m, PNP, 0-10V,  
RS485

- Wysokość pomiaru od 150 do 2500 mm
- Rozdzielczość do 12 mm
- Dystans między nadajnikiem i odbiornikiem do 10m
- Programowane przez przełącznik DIP lub PC



### OPIS PRODUKTU

Seria DS2 firmy Datalogic to czujniki fotoelektryczne obszarowe do wykrywania i pomiaru obiektów o nieregularnych kształtach i wymiarach. Kurtyny serii DS2 posiadają oba wyjścia PNP oraz analogowe 0-10 V. Programowanie jest możliwe w 3 różnych opcjach Ethernet, DIP lub port RS485. Rozdzielczość pomiaru 6 mm dla szerokości 5m lub 25 mm dla 10m, wysokość 15-250 mm, maksymalna szerokość 4m.

### DANE TECHNICZNE

|                                                                                    | DS2-05-07-xxx-JV                           | DS2-05-25-xxx-JV | DS2-05-07-xxx-JE                           |
|------------------------------------------------------------------------------------|--------------------------------------------|------------------|--------------------------------------------|
| Napięcie zasilania                                                                 | 24 Vdc $\pm$ 20%                           |                  | 24 Vcc $\pm$ 20%                           |
| Pobór prądu nadajnika                                                              | 250 mA maks. bez obciążenia                |                  | 250 mA maks. bez obciążenia                |
| Wyjścia                                                                            | 1 PNP, 100mA, Zabezpieczone przed zwarciem |                  | 1 PNP, 100mA, Zabezpieczone przed zwarciem |
|                                                                                    | 1 wyjście analogowe; 0-10 V (DVmaks. 2%)   |                  | 1 wyjście analogowe; 0-10 V (DVmaks. 2%)   |
| Wyjście                                                                            | 1 mA; Zabezpieczone przed zwarciem         |                  | 1 mA; Zabezpieczone przed zwarciem         |
| Czas reakcji                                                                       | Patrz tabela poniżej                       |                  | Patrz tabela poniżej                       |
| Źródło światła                                                                     | Podczerwień (880 nm)                       |                  | Podczerwień (880 nm)                       |
| Rozdzielczość                                                                      | 12 mm                                      | 25 mm            | 12 mm                                      |
| Względna dokładność pomiaru                                                        | $\pm$ 6 mm                                 | $\pm$ 22.5 mm    | $\pm$ 6 mm                                 |
| Absolutna dokładność pomiaru                                                       | 6 mm                                       | 22.5 mm          | 6 mm                                       |
| Różnica wymiarów między jednakowo wykrytymi obiektami w trybie absolutnym Teach In | $\pm$ 6 mm                                 | $\pm$ 22.5 mm    | $\pm$ 6 mm                                 |
| Różnica wymiarów między jednakowo wykrytymi obiektami w trybie względnym Teach In  | D = 12 mm                                  | D = 45 mm        | D = 12 mm                                  |

|                             |                                                              |            |                                                              |
|-----------------------------|--------------------------------------------------------------|------------|--------------------------------------------------------------|
| <b>Odległość wyczuwania</b> | 0.3 ÷ 5 m                                                    | 0.3 ÷ 10 m | 0.3 ÷ 5 m                                                    |
| <b>Zakres temperatury</b>   | 0 ... + 50 °C                                                |            | 0 ... + 50 °C                                                |
| <b>Stopień ochrony</b>      | IP65 (EN 60529)                                              |            | IP65 (EN 60529)                                              |
| <b>Wibracje</b>             | Amplituda 0.5 mm, częstotliwość 10 ... 55 Hz, (EN 60068-2-6) |            | Amplituda 0.5 mm, częstotliwość 10 ... 55 Hz, (EN 60068-2-6) |
| <b>Materiał obudowy</b>     | Malowane aluminium                                           |            | Malowane aluminium                                           |
| <b>Materiał soczewki</b>    | PMMA                                                         |            | PMMA                                                         |
| <b>Połączenia</b>           | TX: Złącze M12 4-pinowe                                      |            | TX: Złącze M12 4-pinowe                                      |
|                             | RX: Złącze M12 8-pinowe                                      |            | RX: Złącze M12 8-pinowe + M12 4-pinowe typ "D"               |
| <b>Masa</b>                 | Min. 1.9 kg – Maks. 4.6 kg                                   |            | min. 3.3 Kg – maks. 6.5 Kg (z uszczelką)                     |

| Czas reakcji - Kilka wersji |                     |                  |                                                                                                                           |                  |                  |                   |                   |                   |                   |
|-----------------------------|---------------------|------------------|---------------------------------------------------------------------------------------------------------------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|
|                             |                     | Tmin<br>(msec)   | <div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div> |                  |                  |                   |                   | Tmax<br>(msec)    |                   |
|                             |                     |                  | T2                                                                                                                        | T3               | T4               | T5                | T6                | T7                |                   |
| Nr katalogowy               | Konfiguracja        |                  |                                                                                                                           |                  |                  |                   |                   |                   |                   |
|                             | Tryb pracy          | Upper light beam | Upper light beam                                                                                                          | Upper light beam | Upper light beam | Total beam status | Total beam status | Total beam status | Total beam status |
|                             | Prędkość transmisji | 57600 baud       | 9600 baud                                                                                                                 | 57600 baud       | 9600 baud        | 57600 baud        | 9600 baud         | 57600 baud        | 9600 baud         |
|                             | Kodowanie           | Binarne          | Binarne                                                                                                                   | ASCII            | ASCII            | Binarne           | Binarne           | ASCII             | ASCII             |
| DS2-05-07-015-JV            |                     | 5.5              | 12.5                                                                                                                      | 5.05             | 13               | 5.5               | 15                | 6.5               | 10                |
| DS2-05-07-030-JV            |                     | 7                | 14                                                                                                                        | 7                | 14.5             | 7                 | 18                | 8.5               | 21                |
| DS2-05-07-045-JV            |                     | 8.5              | 15.5                                                                                                                      | 8.5              | 16               | 8.5               | 21                | 10                | 24                |
| DS2-05-07-060-JV            |                     | 10               | 17                                                                                                                        | 10               | 18               | 10                | 26                | 12                | 38                |
| DS2-05-07-075-JV            |                     | 11.5             | 18.5                                                                                                                      | 11.5             | 19               | 11.5              | 31                | 15                | 44                |
| DS2-05-07-090-JV            |                     | 13               | 20                                                                                                                        | 13               | 20               | 13                | 36                | 17                | 54                |
| DS2-05-07-105-JV            |                     | 14.5             | 21.5                                                                                                                      | 14.5             | 22               | 14.5              | 40                | 19                | 62                |
| DS2-05-07-120-JV            |                     | 17               | 24                                                                                                                        | 17               | 24               | 17                | 44                | 21                | 70                |
| DS2-05-07-135-JV            |                     | 18.5             | 25                                                                                                                        | 19               | 26               | 19                | 48                | 23                | 80                |
| DS2-05-07-150-JV            |                     | 20               | 26.5                                                                                                                      | 21               | 28               | 21                | 53                | 25                | 84                |
| DS2-05-07-165-JV            |                     | 22               | 28                                                                                                                        | 23               | 30               | 23                | 56                | 28                | 91                |
| DS2-05-25-045-JV            |                     | 5                | 11                                                                                                                        | 5                | 11               | 5                 | 13                | 6                 | 18                |
| DS2-05-25-060-JV            |                     | 5.5              | 12                                                                                                                        | 5.5              | 12.5             | 5.5               | 14.5              | 6.5               | 19.5              |
| DS2-05-25-075-JV            |                     | 6                | 13                                                                                                                        | 6                | 13.5             | 6                 | 16                | 7                 | 21                |
| DS2-05-25-090-JV            |                     | 6.5              | 13.5                                                                                                                      | 6.5              | 14.5             | 6.5               | 17.5              | 7.5               | 22.5              |

Czas reakcji - wersja z ETHERNET-em

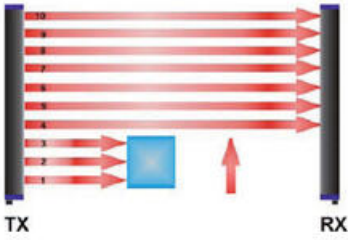
Nr katalogowy

Konfiguracja

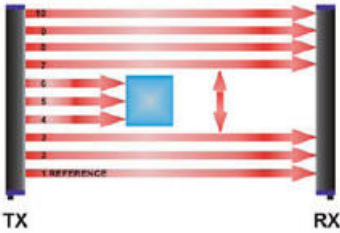
| Tryb pracy | Upper light beam |       | Total beam status |       |
|------------|------------------|-------|-------------------|-------|
| Kodowanie  | binarne          | ASCII | binarne           | ASCII |

|                  |   |      |      |      |    |
|------------------|---|------|------|------|----|
| DS2-05-07-060-JE | X | 10   | 10   | 10   | 12 |
| DS2-05-07-075-JE |   | 11.5 | 11.5 | 11.5 | 15 |
| DS2-05-07-090-JE |   | 13   | 13   | 13   | 17 |
| DS2-05-07-120-JE |   | 17   | 17   | 17   | 21 |
| DS2-05-07-150-JE |   | 20   | 21   | 21   | 25 |
| DS2-05-07-165-JE |   | 22   | 23   | 23   | 28 |

Przykłady

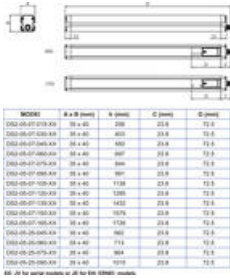


Detekcja i pomiar wysokości lub profilu



Detekcja

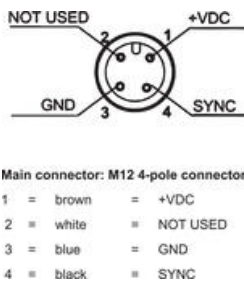
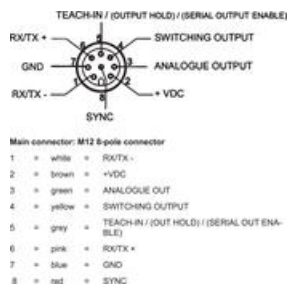
WYMIARY



SCHEMAT POŁĄCZEŃ

Wersja standardowa - RX

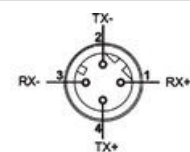
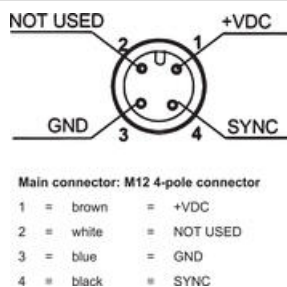
Wersja standardowa - TX



## Wersja Ethernet - RX



## Wersja Ethernet- TX



Secondary connector: M12 4-pole connector

|   |         |        |
|---|---------|--------|
| 1 | = brown | = RX + |
| 2 | = white | = TX - |
| 3 | = blue  | = RX - |
| 4 | = black | = TX + |

## DANE DO ZAMÓWIENIA

| Order number     | Optics interaxis (mm) | h1 length of controlled area (mm) | A x B (mm) | h (mm) | N°. beams |
|------------------|-----------------------|-----------------------------------|------------|--------|-----------|
| DS2-05-07-015-JV | 6.75                  | 147                               | 35 x 40    | 256    | 21        |
| DS2-05-07-030-JV | 6.75                  | 294                               | 35 x 40    | 403    | 42        |
| DS2-05-07-045-JV | 6.75                  | 441                               | 35 x 40    | 550    | 63        |
| DS2-05-07-060-JV | 6.75                  | 588                               | 35 x 40    | 697    | 84        |
| DS2-05-07-075-JV | 6.75                  | 735                               | 35 x 40    | 844    | 105       |
| DS2-05-07-090-JV | 6.75                  | 882                               | 35 x 40    | 991    | 126       |
| DS2-05-07-105-JV | 6.75                  | 1029                              | 35 x 40    | 1138   | 147       |
| DS2-05-07-120-JV | 6.75                  | 1176                              | 35 x 40    | 1285   | 168       |
| DS2-05-07-135-JV | 6.75                  | 1323                              | 35 x 40    | 1432   | 189       |
| DS2-05-07-150-JV | 6.75                  | 1470                              | 35 x 40    | 1579   | 210       |
| DS2-05-07-165-JV | 6.75                  | 1617                              | 35 x 40    | 1726   | 231       |
| DS2-05-25-045-JV | 25                    | 453                               | 35 x 40    | 562    | 18        |

|                  |      |      |         |      |     |
|------------------|------|------|---------|------|-----|
| DS2-05-25-060-JV | 25   | 604  | 35 x 40 | 713  | 24  |
| DS2-05-25-075-JV | 25   | 755  | 35 x 40 | 864  | 30  |
| DS2-05-25-090-JV | 25   | 912  | 35 x 40 | 1015 | 36  |
| DS2-05-07-060-JE | 6.75 | 588  | 35 x 40 | 697  | 84  |
| DS2-05-07-075-JE | 6.75 | 735  | 35 x 40 | 844  | 105 |
| DS2-05-07-090-JE | 6.75 | 882  | 35 x 40 | 991  | 126 |
| DS2-05-07-120-JE | 6.75 | 1176 | 35 x 40 | 1285 | 168 |
| DS2-05-07-150-JE | 6.75 | 1470 | 35 x 40 | 1579 | 210 |
| DS2-05-07-165-JE | 6.75 | 1617 | 35 x 40 | 1726 | 231 |

## PLIKI DO POBRANIA

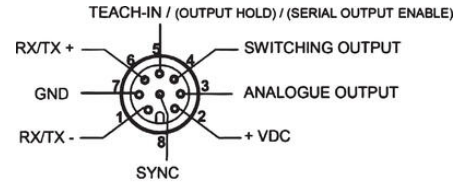
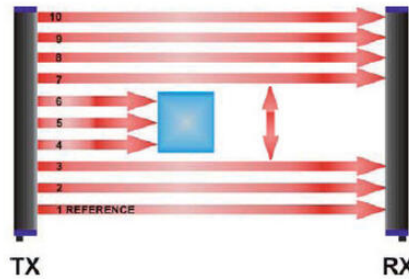
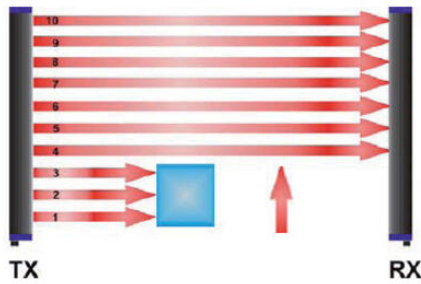
Karta katalogowa

[Pobierz](#)

## SPECYFIKACJA TECHNICZNA

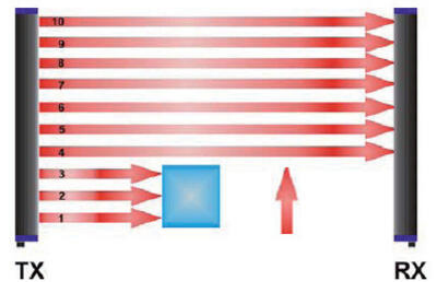
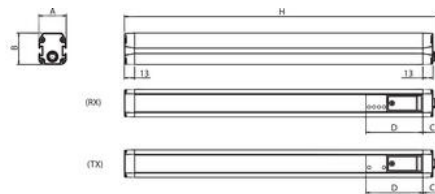
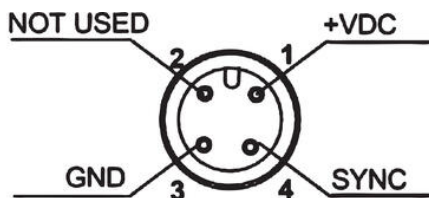
|                              |                                          |
|------------------------------|------------------------------------------|
| Absolutna dokładność pomiaru | 6 mm                                     |
| Czas reakcji                 | 5 ms                                     |
| Dopuszczenia                 | CE, cULus                                |
| Materiał obudowy             | Aluminium                                |
| Materiał soczewki            | PMMA                                     |
| Max. temperatura pracy       | 50 °C                                    |
| Max. temperatura składowania | 70 °C                                    |
| Min. temperatura pracy       | 0 °C                                     |
| Min. temperatura składowania | -25 °C                                   |
| Napięcie zasilania           | 24 V DC                                  |
| Pobór mocy (max)             | 0,25 A                                   |
| Podłączenie elektryczne      | Złącze M12 8-pinowe, Złącze M12 4-pinowe |
| Prąd wyjściowy max.          | 0,1 A                                    |
| Stopień ochrony IP           | IP65                                     |
| Technologia czujnika         | Czujnik obszaru                          |
| Typ światła                  | IR LED                                   |
| Wskaźnik LED                 | Tak                                      |
| Wyjście                      | 0–10 V, PNP                              |
| Wymiary                      | 35 x 40 x 550                            |

|                             |         |
|-----------------------------|---------|
| Wysokość detekcji           | 441 mm  |
| Względna dokładność pomiaru | ± 6 mm  |
| Zasięg max                  | 5000 mm |
| Zasięg min                  | 300 mm  |



Main connector: M12 8-pole connector

- 1 = white = RX/TX -
- 2 = brown = +VDC
- 3 = green = ANALOGUE OUT
- 4 = yellow = SWITCHING OUTPUT
- 5 = grey = TEACH-IN / (OUT HOLD) / (SERIAL OUT ENABLE)
- 6 = pink = RX/TX +
- 7 = blue = GND
- 8 = red = SYNC

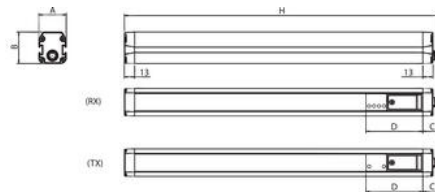
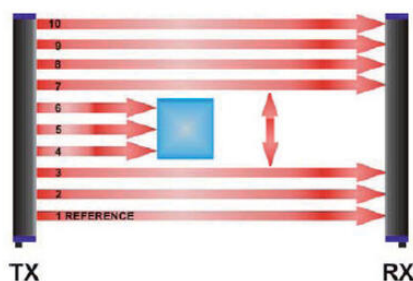


Main connector: M12 4-pole connector

- 1 = brown = +VDC
- 2 = white = NOT USED
- 3 = blue = GND
- 4 = black = SYNC

| MODEL            | A x B (mm) | h (mm) | C (mm) | D (mm) |
|------------------|------------|--------|--------|--------|
| DS2-05-07-015-XX | 35 x 40    | 256    | 23.8   | 72.5   |
| DS2-05-07-030-XX | 35 x 40    | 403    | 23.8   | 72.5   |
| DS2-05-07-045-XX | 35 x 40    | 550    | 23.8   | 72.5   |
| DS2-05-07-060-XX | 35 x 40    | 697    | 23.8   | 72.5   |
| DS2-05-07-075-XX | 35 x 40    | 844    | 23.8   | 72.5   |
| DS2-05-07-090-XX | 35 x 40    | 991    | 23.8   | 72.5   |
| DS2-05-07-105-XX | 35 x 40    | 1138   | 23.8   | 72.5   |
| DS2-05-07-120-XX | 35 x 40    | 1285   | 23.8   | 72.5   |
| DS2-05-07-135-XX | 35 x 40    | 1432   | 23.8   | 72.5   |
| DS2-05-07-150-XX | 35 x 40    | 1579   | 23.8   | 72.5   |
| DS2-05-07-165-XX | 35 x 40    | 1726   | 23.8   | 72.5   |
| DS2-05-25-045-XX | 35 x 40    | 562    | 23.8   | 72.5   |
| DS2-05-25-060-XX | 35 x 40    | 713    | 23.8   | 72.5   |
| DS2-05-25-075-XX | 35 x 40    | 864    | 23.8   | 72.5   |
| DS2-05-25-090-XX | 35 x 40    | 1015   | 23.8   | 72.5   |

XX: JV for serial models or JE for Eth ERNET models



| MODEL            | A x B (mm) | h (mm) | C (mm) | D (mm) |
|------------------|------------|--------|--------|--------|
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| DS2-05-07-030-XX | 35 x 40    | 403    | 23.8   | 72.5   |
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| DS2-05-07-060-XX | 35 x 40    | 697    | 23.8   | 72.5   |
| DS2-05-07-075-XX | 35 x 40    | 844    | 23.8   | 72.5   |
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| DS2-05-07-165-XX | 35 x 40    | 1726   | 23.8   | 72.5   |
| DS2-05-25-045-XX | 35 x 40    | 562    | 23.8   | 72.5   |
| DS2-05-25-060-XX | 35 x 40    | 713    | 23.8   | 72.5   |
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