



# Photoelectric Through-beam Fork Sensors U-Frame

## Overview

The di-soric OGU series is ideal for applications requiring quick detection of small objects with any surface type and are available with fork openings from 5 to 250mm [0.19 to 9.84 in]. The OGU series fork sensors offer high-resolution, sensitivity adjustment and selectable Light-on/Dark-on operation. Four selectable modes optimize the sensors for standard, high-resolution, power, or speed operation using I/O Link v1.1, standard mode is default.

## Features

- Light-on/Dark-on Selectable
- Up to 14 kHz switching frequency
- 10-30 VDC operating voltage
- IP67 protection rating
- Sensitivity adjustment via potentiometer or IO-Link v1.1
- Standard, high-resolution, power, and speed modes configured via I/O Link v1.1



**OGU041G3-T3**

## Photoelectric Through-beam Fork Sensors - U Frame

| Part Number                     | Price    | Light Emission    | Max. Switching Frequency | Fork Opening                               | Housing Material | Housing Size                                 | Weight lb [g]                              | Drawing Link        |
|---------------------------------|----------|-------------------|--------------------------|--------------------------------------------|------------------|----------------------------------------------|--------------------------------------------|---------------------|
| <a href="#">OGU005G3-T3</a>     | \$153.00 | Infrared          | 14 kHz                   | 5mm [0.19 in]                              | Aluminum         | 25 x 45 x 10mm<br>[0.98 x 1.77 x 0.39 in]    | 0.07 [31.75]                               | <a href="#">PDF</a> |
| <a href="#">OGU010G3-T3</a>     | \$141.00 |                   | 14 kHz                   | 10mm [0.39 in]                             | Die-cast zinc    | 40 x 50 x 10mm<br>[1.57 x 1.96 x 0.39 in]    | 0.06 [27.21]                               | <a href="#">PDF</a> |
| <a href="#">OGU020G3-T3</a>     | \$162.00 |                   | 8 kHz                    | 20mm<br>[0.78 in]                          |                  |                                              | 0.11 [49.89]                               | <a href="#">PDF</a> |
| <a href="#">OGU021G3-T3</a>     | \$157.00 | Visible red       | 8 kHz                    | 50 x 60 x 10mm<br>[1.57 x 2.36 x 0.39 in]  |                  | 0.15 [68.03]                                 |                                            |                     |
| <a href="#">OGU030G3-T3</a>     | \$176.00 | Infrared          | 8 kHz                    | 30mm<br>[1.18 in]                          |                  | 60 x 70 x 10mm<br>[2.36 x 2.75 x 0.39 in]    | 0.19 [86.18]                               | <a href="#">PDF</a> |
| <a href="#">OGU031G3-T3</a>     | \$176.00 | Visible red       | 8 kHz                    | 40mm<br>[1.57 in]                          |                  | 70 x 80 x 10mm<br>[2.75 x 3.14 x 0.39 in]    | 0.21 [95.25]                               | <a href="#">PDF</a> |
| <a href="#">OGU041G3-T3</a>     | \$184.00 |                   | 8 kHz                    | 50mm<br>[1.96 in]                          |                  | 80 x 80 x 10mm<br>[3.14 x 3.14 x 0.39 in]    | 0.22 [99.79]                               | <a href="#">PDF</a> |
| <a href="#">OGU050G3-T3</a>     | \$191.00 | Infrared          | 8 kHz                    | 60mm<br>[2.36 in]                          | Aluminum         | 90 x 80 x 10mm<br>[3.54 x 3.14 x 0.39 in]    | 0.13 [58.96]                               | <a href="#">PDF</a> |
| <a href="#">OGU051G3-T3</a>     | \$191.00 | Visible red       | 8 kHz                    |                                            |                  | 70mm<br>[2.75 in]                            | 100 x 80 x 10mm<br>[3.93 x 3.14 x 0.39 in] | 0.15 [68.03]        |
| <a href="#">OGU061G3-T3</a>     | \$196.00 |                   | 8 kHz                    | 80mm<br>[3.14 in]                          | Die-cast zinc    | 100 x 80 x 10mm<br>[3.93 x 3.14 x 0.39 in]   | 0.26 [117.93]                              | <a href="#">PDF</a> |
| <a href="#">OGU071G3-T3</a>     | \$206.00 | Infrared          | 8 kHz                    |                                            | Aluminum         | 100 x 105 x 10mm<br>[3.93 x 4.13 x 0.39 in]  | 0.28 [127.00]                              | <a href="#">PDF</a> |
| <a href="#">OGU080G3-T3</a>     | \$206.00 | Visible red       | 8 kHz                    |                                            | Die-cast zinc    | 100 x 80 x 10mm<br>[3.93 x 3.14 x 0.39 in]   | 0.26 [117.93]                              | <a href="#">PDF</a> |
| <a href="#">OGU081/80G3-T3</a>  | \$260.00 |                   | 8 kHz                    | 90mm<br>[3.54 in]                          | Aluminum         | 110 x 80 x 10mm<br>[4.33 x 3.14 x 0.39 in]   | 0.17 [77.11]                               | <a href="#">PDF</a> |
| <a href="#">OGU081G3-T3</a>     | \$206.00 |                   | 8 kHz                    | 100mm<br>[3.93 in]                         | Die-cast zinc    | 120 x 80 x 10mm<br>[4.72 x 3.14 x 0.39 in]   | 0.29 [131.54]                              | <a href="#">PDF</a> |
| <a href="#">OGU091G3-T3</a>     | \$226.00 |                   | 8 kHz                    | 144 x 90 x 12mm<br>[5.66 x 3.54 x 0.47 in] |                  | 0.69 [312.97]                                | <a href="#">PDF</a>                        |                     |
| <a href="#">OGU101G3-T3</a>     | \$213.00 | Infrared          | 8 kHz                    | 120mm<br>[4.72 in]                         | Aluminum         | 144 x 175 x 12mm<br>[5.66 x 6.88 x 0.47 in]  | 0.63 [285.76]                              | <a href="#">PDF</a> |
| <a href="#">OGU120G3-T3</a>     | \$213.00 |                   | 8 kHz                    |                                            |                  | 144 x 235 x 12mm<br>[5.66 x 9.25 x 0.47 in]  | 0.74 [335.65]                              | <a href="#">PDF</a> |
| <a href="#">OGU121/145G3-T3</a> | \$269.00 |                   | 8 kHz                    | 170mm<br>[6.69 in]                         | Die-cast zinc    | 144 x 90 x 12mm<br>[5.66 x 3.54 x 0.47 in]   | 0.66 [299.37]                              | <a href="#">PDF</a> |
| <a href="#">OGU121/205G3-T3</a> | \$316.00 |                   | 8 kHz                    |                                            |                  | 194 x 140 x 12mm<br>[7.63 x 5.51 x 0.47 in]  | 1.07 [485.34]                              | <a href="#">PDF</a> |
| <a href="#">OGU121G3-T3</a>     | \$213.00 |                   | 8 kHz                    |                                            |                  | 244 x 140 x 12mm<br>[9.60 x 5.51 x 0.47 in]  | 1.21 [548.84]                              | <a href="#">PDF</a> |
| <a href="#">OGU171G3-T3</a>     | \$325.00 | Visible red       | 6.5 kHz                  | 220mm<br>[8.66 in]                         | Aluminum         | 274 x 140 x 12mm<br>[10.78 x 5.51 x 0.47 in] | 0.77 [349.26]                              | <a href="#">PDF</a> |
| <a href="#">OGU221G3-T3</a>     | \$340.00 |                   | 6.5 kHz                  | 250mm<br>[9.84 in]                         |                  | 50 x 60 x 10mm<br>[1.57 x 2.36 x 0.39 in]    | 0.15 [68.03]                               | <a href="#">PDF</a> |
| <a href="#">OGU251G3-T3</a>     | \$347.00 |                   | 10 kHz                   | 30mm<br>[1.18 in]                          | Die-cast zinc    | 70 x 80 x 10mm<br>[2.75 x 3.14 x 0.39 in]    | 0.19 [86.18]                               | <a href="#">PDF</a> |
| <a href="#">OGUL031G3-T3</a>    | \$285.00 | Class 1 red laser | 10 kHz                   | 50mm<br>[1.96 in]                          |                  | 100 x 80 x 10mm<br>[3.93 x 3.14 x 0.39 in]   | 0.26 [117.93]                              | <a href="#">PDF</a> |
| <a href="#">OGUL051G3-T3</a>    | \$300.00 |                   | 10 kHz                   | 80mm<br>[3.14 in]                          |                  | 144 x 90 x 12mm<br>[5.66 x 3.54 x 0.47 in]   | 0.66 [299.37]                              | <a href="#">PDF</a> |
| <a href="#">OGUL081G3-T3</a>    | \$315.00 |                   | 10 kHz                   | 120mm<br>[4.72 in]                         |                  |                                              |                                            |                     |
| <a href="#">OGUL121G3-T3</a>    | \$321.00 |                   | 10 kHz                   |                                            |                  |                                              |                                            |                     |



# Photoelectric Through-beam Fork Sensors U-Frame



| Photoelectric Through-beam Fork Sensors - U Frame Specifications |                                                       |
|------------------------------------------------------------------|-------------------------------------------------------|
| Operating Voltage                                                | 10–30 VDC                                             |
| Maximum No-load Current                                          | 30mA                                                  |
| Insulation Voltage Endurance                                     | 500V                                                  |
| Protection Class                                                 | III, operation on protective low voltage              |
| Operation Modes                                                  | Standard, high resolution, power, speed               |
| Interface                                                        | IO-Link (V1.1, COM2 38.4 kBd, Smart Sensor Profile)   |
| Light Source                                                     | LED                                                   |
| Output State                                                     | Light-On / Dark-On (selectable)                       |
| Switching Output                                                 | Push-pull, NPN or PNP, 100mA                          |
| Operating Temperature                                            | -25 to 60°C [-13 to 140°F]                            |
| Connection                                                       | 3-pin M8 quick-disconnect (purchase cable separately) |
| Protection Type                                                  | IP67                                                  |
| Agency Approval                                                  | cULus File E303138, CE, UKCA                          |

To obtain the most current agency approval information, see the Agency Compliance & Certifications Checklist section on the specific part number's web page.

## Wiring Diagram

