










| Model | FOV HxV | Horizontal angular resolution | Vertical angular resolution | Min range (m) | Max range (m) | Accuracy | Scan rate | Data interface | Power | Voltage | Mass (g) | Size (mm) |
|-------|---------|-------------------------------|-----------------------------|---------------|---------------|----------|-----------|----------------|-------|---------|----------|-----------|
|-------|---------|-------------------------------|-----------------------------|---------------|---------------|----------|-----------|----------------|-------|---------|----------|-----------|





**Velodyne**



|   |                |  |             |   |            |      |   |     |      |           |       |             |
|---|----------------|--|-------------|---|------------|------|---|-----|------|-----------|-------|-------------|
|  HDL-64E       | 360°x<br>26.9° | 5Hz: 0.08°<br>10Hz: 0.17°<br>20Hz: 0.35° | 0.4°        | — | 120        | 2 cm | ~1.3M pps (single)<br>~2.2M pps (dual)  | ETH | 60 W | 12-32 V   | 12700 | 215x215x283 |
|  HDL-32E       | 360°x<br>41.3° | 5Hz: 0.08°<br>10Hz: 0.17°<br>20Hz: 0.35° | 1.33°       | — | 100        | 2 cm | ~695K pps (single)<br>~1.39M pps (dual) | ETH | 12 W | 9-18 V    | 1000  | 85x85x144   |
|  Puck LITE     | 360°x30°       | 5Hz: 0.1°<br>10Hz: 0.2°<br>20Hz: 0.4°    | 2°          | — | 100 (@80%) | 3 cm | ~300K pps (single)<br>~600K pps (dual)  | ETH | 8 W  | 9-18 V    | 590   | 103x103x72  |
|  Puck          | 360°x30°       | 5Hz: 0.1°<br>10Hz: 0.2°<br>20Hz: 0.4°    | 2°          | — | 100 (@80%) | 3 cm | ~300K pps (single)<br>~600K pps (dual)  | ETH | 8 W  | 9-18 V    | 830   | 103x103x72  |
|  Puck Hi-Res   | 360°x20°       | 5Hz: 0.1°<br>10Hz: 0.2°<br>20Hz: 0.4°    | 1.33°       | — | 100 (@80%) | 3 cm | ~300K pps (single)<br>~600K pps (dual)  | ETH | 8 W  | 9-18 V    | 830   | 103x103x72  |
|  Ultra Puck   | 360°x40°       | 5Hz: 0.1°<br>10Hz: 0.2°<br>20Hz: 0.4°    | 0.33° (min) | — | 200        | 3 cm | ~600K pps (single)<br>~1.2M pps (dual)  | ETH | 10 W | 10.5-18 V | 925   | 103x103x87  |
|  Alpha Prime | 360°x40°       | 5Hz: 0.1°<br>10Hz: 0.2°<br>20Hz: 0.4°    | 0.11°       | — | 245        | 3 cm | ~2.4M pps (single)<br>~4.8M pps (dual)  | ETH | 22 W | 9-28 V    | 3500  | 166x166     |

**Valeo**

|   |            |                                       |      |     |                          |       |       |     |        |         |                             |                             |
|---|------------|---------------------------------------|------|-----|--------------------------|-------|-------|-----|--------|---------|-----------------------------|-----------------------------|
|  SCALA Gen 1 | 145°x3.6°  | 0.25°                                 | 0.8° | 0.5 | 200 (@80%)<br>100 (@10%) | 10 cm | 25 Hz | ETH | < 10 W | 9 - 14V | 610<br>(1560 w/<br>bracket) | 70x140x100<br>(125x205x125) |
|  SCALA Gen 2 | 133°x10.5° | 0.125° (inner)<br>0.25° (outer lobes) | 0.6° | 0.5 | 200 (@80%)<br>100 (@10%) | 10 cm | 25 Hz | ETH | < 10 W | 9 - 14V | 750<br>(1150 w/<br>bracket) | 68x150x107<br>(137x191x123) |

**SICK**

|  |           |              |      |     |                         |       |                 |         |     |        |      |           |
|--|-----------|--------------|------|-----|-------------------------|-------|-----------------|---------|-----|--------|------|-----------|
|  LD-MRS400001 | 110°x3.2° | up to 0.125° | 0.8° | 0.5 | 50 (@10%)<br>150 (@90%) | 10 cm | 12.5/25/50 Hz   | ETH/CAN | 8 W | 9-27 V | 1000 | 165x93x88 |
|  LD-MRS800001 | 110°x6.4° | up to 0.125° | 0.8° | 0.5 | 50 (@10%)<br>150 (@90%) | 10 cm | 6.25/12.5/25 Hz | ETH/CAN | 8 W | 9-27 V | 1000 | 165x93x88 |
|  LD-MRS400102 | 110°x3.2° | up to 0.125° | 0.8° | 0.5 | 30 (@10%)<br>90 (@90%)  | 10 cm | 12.5/25/50 Hz   | ETH/CAN | 8 W | 9-27 V | 1000 | 165x93x88 |
|  LD-MRS UAV   | 110°x3.2° | up to 0.125° | 0.8° | 0.5 | 50 (@10%)<br>150 (@90%) | 10 cm | 12.5/25/50 Hz   | ETH/CAN | 8 W | 9-27 V | 770  | 165x93x88 |

| Model   | FOV HxV   | Horizontal angular resolution | Vertical angular resolution | Min range (m) | Max range (m)          | Accuracy | Scan rate         | Data interface | Power | Voltage   | Mass (g) | Size (mm)   |
|---|-----------|-------------------------------|-----------------------------|---------------|------------------------|----------|-------------------|----------------|-------|-----------|----------|-------------|
|  LMS111            | 270°      | 0.25°/0.5°                    | —                           | 0.5           | 18 (@10%)<br>20 (max)  | 4 cm     | 25/50 Hz          | ETH/CAN        | 8 W   | 10.8-30 V | 1100     | 105×102×152 |
|  LMS151            | 270°      | 0.25°/0.5°                    | —                           | 0.5           | 18 (@10%)<br>50 (max)  | 4 cm     | 25/50 Hz          | ETH/CAN        | 8 W   | 10.8-30 V | 1100     | 105×102×152 |
|  LMS500-21000 Lite | 190°      | 0.25°/0.5°/1°                 | —                           | 0             | 26 (@10%)<br>80 (max)  | 4 cm     | 25/35/50/75       | ETH/CAN        | 22 W  | 24 V      | 3700     | 160×155×185 |
|  MRS1104C-111011   | 275°×7.5° | 0.25°                         | 2.5°                        | 0.2           | 16 (@10%)<br>30 (@90%) | 3 cm     | 50 (55k-165k pps) | ETH            | 13 W  | 10-30 V   | 1200     | 152×150×93  |
|  TIM551-2050001    | 270°      | 1°                            | —                           | 0.05          | 10                     | 2 cm     | 15                | ETH/USB        | 4 W   | 9-28 V    | 250      | 60×60×86    |

## NEPTEC

|  |               |            |            |   |             |        |                   |     |       |         |       |             |
|--|---------------|------------|------------|---|-------------|--------|-------------------|-----|-------|---------|-------|-------------|
|  Opal 3 P500 (Conical)     | 45/60/90/120° | Rosette... | Rosette... | — | 500 (@low)  | 2.5 cm | 300k pps (single) | ETH | 110 W | 18-36 V | 11800 | 178×178×338 |
|  Opal 3 P500 (Panoramic)  | 360°×45°      | Rosette... | Rosette... | — | 500 (@low)  | 3.5 cm | 300k pps (single) | ETH | 110 W | 18-36 V | 13200 | 178×178×456 |
|  Opal 3 P1000 (Conical)   | 45/60/90/120° | Rosette... | Rosette... | — | 1000 (@low) | 2.5 cm | 300k pps (single) | ETH | 110 W | 18-36 V | 11800 | 178×178×338 |
|  Opal 3 P1000 (Panoramic) | 360°×45°      | Rosette... | Rosette... | — | 1000 (@low) | 3.5 cm | 300k pps (single) | ETH | 110 W | 18-36 V | 13200 | 178×178×456 |

Disclaimer: Specifications are subject to change, without notice

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