**Technical Specification**

**360° mid-range LiDAR sensor**

The subject of the public contract is the delivery of a set of 4 pcs of 360° mid-range LiDAR (Light Detection and Ranging) sensors. The performance also includes transport to the place of performance. All sensors in the set shall be identical.

**360° mid-range LiDAR sensor manufacturer:**  *to be completed by the tenderer*

**Exact type designation of the 360° mid-range LiDAR sensor:** *to be completed by the tenderer*

**Number of pieces:**  **4**

**The 360° mid-range LiDAR sensor must have at least the following components and must fulfil at least the following parameters:**

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| **Basic technical parameters** | **Minimum required values - must be met!** | **Value of the offered device** |
| Range (@10% reflectivity) | Min. 90 m | *the tenderer shall indicate YES/NO and the specific value of the offered device* |
| Field of view (horizontal × vertical) | 360°x45° | *the tenderer shall indicate YES/NO* |
| Weight (sensor only) | <500 g | *the tenderer shall indicate YES/NO and the specific value of the offered device* |
| Power consumption (nominal) | <18 W | *the tenderer shall indicate YES/NO* |
| Points per second (Single return) | Min. 2 600 000 pts/s | *the tenderer shall indicate YES/NO and the specific value of the offered device* |
| Frame rate (configurable) | 10 Hz/20 Hz | *the tenderer shall indicate YES/NO* |
| Operating voltage | Min. 10-16 V | *the tenderer shall indicate YES/NO* |
| Application area | Automotive industry | *the tenderer shall indicate YES/NO* |
| |  | | --- | |  |   Number of channels | Min. 128 | *the tenderer shall indicate YES/NO and the specific value of the offered device* |
| Operating temperature | Min. –20℃ to +55℃ | *the tenderer shall indicate YES/NO* |
| Time synchronization | PTP (IEEE 1588 nebo 802.1AS) | *the tenderer shall indicate YES/NO* |
| Laser safety class | Class 1 – Eye-safe | *the tenderer shall indicate YES/NO* |
| Data per point | Range, signal, reflectivity, near-infrared, channel, azimuth angle and timestamp | *the tenderer shall indicate YES/NO* |
| Range accuracy | Max. ±3 cm | *the tenderer shall indicate YES/NO* |
| Ingress protection | Min. IP68 | *the tenderer shall indicate YES/NO* |
| IMU pose correction | Yes, required | *the tenderer shall indicate YES/NO* |

*The data shall be completed by the tenderer in accordance with the technical data of the offered device.*