Centre for Advanced Materials and Technologies CEZAMAT



File reference: CEZAMAT/91/DmGMiG/2022 Appendix 1 to the request for quotation

Detailed Description of the Subject of the Contract

"A reader for various plate formats"

- 1. The Purchaser allows offering equipment equivalent to that indicated in Appendix 1 on condition that the Contractor proves the equivalence of the equipment offered to the one indicated. Equipment with parameters not worse than those indicated by the Purchaser shall be considered as equivalent.
- 2. The quotation shall contain specifications of the offered equipment in the form of at least a list of catalogue numbers or links to the offered equipment (if the catalogue containing a description of detailed parameters of the assortment is publicly available in electronic version). Otherwise, the Purchaser shall require that the data be sent with the quotation.

No.	Name	Required minimum parameters	Qty
1	A reader for various plate formats	 The quotation must include a fully functioning reader with all its components, such as the reader, PC, monitor, fluorescent light source, software, installation (IQ/OQ protocol) and software training. The manufacturer shall guarantee full functionality. The resolution of the camera must be at least 5 megapixels. The computer's operating system must be Windows 10 Professional (64-bit) or equivalent. Minimum computer requirements: Intel Core i7 processor, 32 GB RAM, 512 GB SSD and ≥ 2 TB hard drive. MS Office or equivalent must be available. The monitor shall have a resolution of 27", QHD, 16:9 or better. The instrument must be capable of colorimetric (6-, 12-, 24-, 48-, 96- and 384-well plate formats) and fluorescence (96-well plates) assessment. For colorimetric tests, single and multi-colour analysis shall be available. For fluorescent assays, the analysis shall be capable of distinguishing at least three fluorescence bands/colours per well. The instrument shall contain 3 or more highly 	

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- specific narrowband filters (with hard coating) for excitation and emission wavelengths respectively, one for each colour/fluorophore. It is required to be able to upgrade the instrument to 7 different narrowband filters.
- 5. It must be possible to use individual camera settings for each filter to compensate for differences in fluorescence signal intensity of different fluorophores.
- 6. The software must be able to visually display single and multi-coloured patches.
- 7. The software must use a two-level analysis method to distinguish between single and multicolour fluorescent spots and provide the relevant parameters of these spots for further analysis in .txt, .xlsx, .csv and PDF format.
- 8. The instrument must store unprocessed (raw) images of each well so that they are available for later analysis.
- 9. The duration of a complete analysis (reading and counting) shall not exceed 3 minutes for the enzymatic assay and 9 minutes for the two-colour fluorescence assay in a 96-well plate.
- 10. The camera positions and cavity size settings for the various plate formats must be completely controlled and present by the software (the stepper motor of the Z axis ball bearing spindle must move the camera to the correct position). Mechanical changes to the equipment made by the user to adapt the reader to various plate formats are not necessary.
- 11.Internal daylighting must be provided by an LED light source.
- 12. All parts of the Reader System must be brand new, no remanufactured parts are allowed.
- 13. The quotation must include at least two additional software licences.
- 14. The instrument must be CE marked and ISO 13485 certified.
- 15. The warranty must be at least 24 months. During this period, updates must be provided free of charge. An annual preventive maintenance visit must be available and specific Service Contracts after the warranty period.
- 16. The quotation must include a customer telephone

- hotline and online support.
- 17. The price shall include training and configuration of the instrument.
- 18. The price shall include delivery to the Purchaser's premises and commissioning of the instrument.
- 19. The supply shall include all materials and accessories necessary for assembling, installing, testing and operating the instrument as intended, including power cables.
- 20. The instrument shall be supplied with technical documentation and user manuals in Polish or English in electronic or paper versions.