



# EA-300

Laser-based Elemental Analyzer



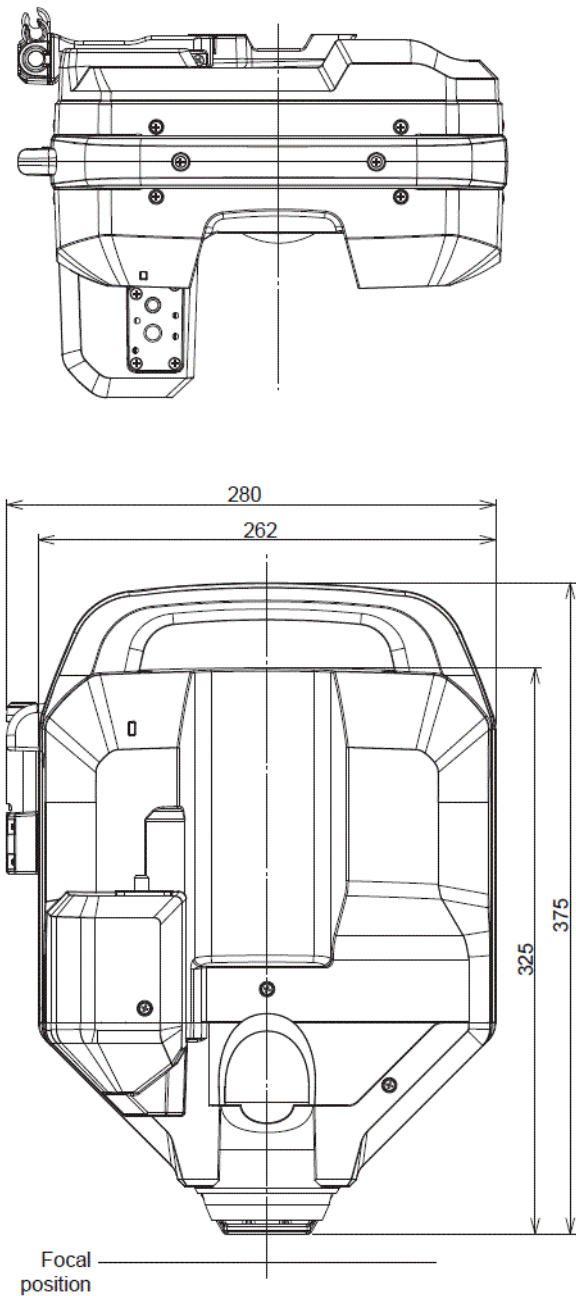
\*Please note that accessories depicted in the image are for illustrative purposes only and may not be included with the product.

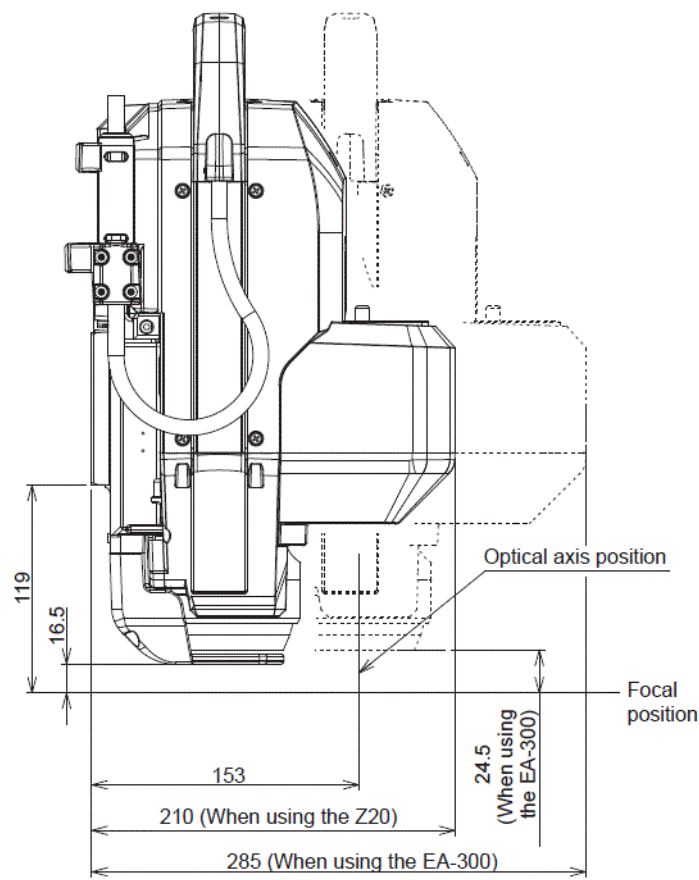
## Specifications

|                            |                                            |                                                                                                              |                                                                                  |
|----------------------------|--------------------------------------------|--------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| Model                      |                                            | EA-300                                                                                                       |                                                                                  |
| Analysis optical system    | Detection principle                        |                                                                                                              | Laser-induced breakdown spectroscopy                                             |
|                            | Supported elements                         |                                                                                                              | H1 to U92                                                                        |
|                            | Laser                                      | Laser type                                                                                                   | Nd: YAG laser                                                                    |
|                            |                                            | Laser class                                                                                                  | Class 1 laser product (IEC/EN 60825-1, JIS C 6802, FDA (CDRH) Part 1040.10)      |
|                            |                                            | Laser wavelength                                                                                             | 355 nm                                                                           |
|                            |                                            | Spot size                                                                                                    | 10 μm (typ.)                                                                     |
| Observation optical system | Image sensor                               |                                                                                                              | 1/1.8-inch, 3.19-megapixel CMOS image sensor                                     |
|                            | Observation magnification                  |                                                                                                              | 300× to 1000×                                                                    |
|                            | Scanning system                            |                                                                                                              | Progressive                                                                      |
|                            | Frame rate                                 |                                                                                                              | 50 fps (max.)                                                                    |
|                            | Optical system                             | Lens type                                                                                                    | Specially designed reflective objective lens                                     |
|                            |                                            | Objective lens working distance                                                                              | 25 mm 0.98"                                                                      |
|                            | High dynamic range                         |                                                                                                              | 16-bit intensity range through RGB data from each pixel                          |
|                            | Gain                                       |                                                                                                              | Manual, Preset                                                                   |
|                            | Electronic shutter                         |                                                                                                              | Auto, Manual, 1/60, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/5000, 1/9000, 1/19000 |
|                            | Supercharge shutter                        |                                                                                                              | Can be set in 0.01 s increments from 0.02 to 16 s                                |
|                            | White balance                              |                                                                                                              | Push-set, Manual, Preset (2700K, 3200K, 5600K, 9000K)                            |
|                            | Built-in coaxial illumination light source | Type                                                                                                         | High-brightness LED                                                              |
|                            |                                            | Service life                                                                                                 | 100000 hours (reference value)                                                   |
|                            |                                            | Color temperature                                                                                            | 5810K (typ.)                                                                     |
|                            | Built-in ring illumination light source    | Type                                                                                                         | High-brightness LED                                                              |
|                            |                                            | Service life                                                                                                 | 100000 hours (reference value)                                                   |
|                            |                                            | Color temperature                                                                                            | 5810K (typ.)                                                                     |
| Power supply               | Power supply method                        |                                                                                                              | Power supplied via dedicated cable from VHX Series controller camera port        |
| Environmental resistance   | Ambient temperature                        |                                                                                                              | 10 to 33°C 50.0°F to 91.4°F                                                      |
|                            | Relative humidity                          |                                                                                                              | 35 to 80% RH (No condensation)                                                   |
| Dimensions                 |                                            | 280 (W) × 375 (H) × 210 (D) mm 11.02"(W) × 14.76" (H) × 8.27" (D) (with lens stored) (excluding protrusions) |                                                                                  |
| Weight                     |                                            | Approx. 7.2 kg 15.87 lb (Analysis system main unit)                                                          |                                                                                  |

# Dimensions

\* Download CAD file or product manual for larger image/text and more detail.





Unit: mm