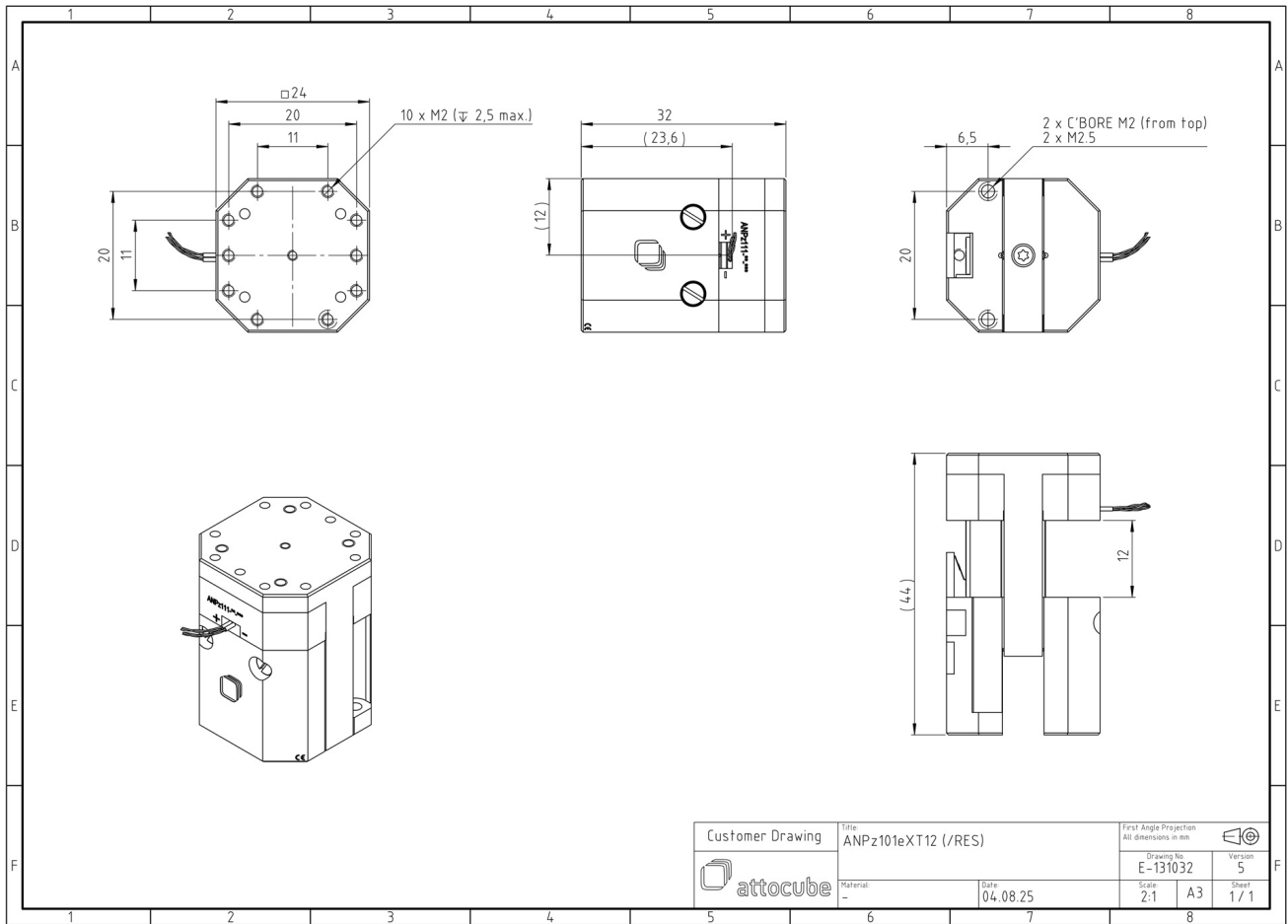


# ANPz101eXT12/RES/LT/HV - linear z-nanopositioner

1005150

## Technical Specifications

|                                       |                                |
|---------------------------------------|--------------------------------|
| <b>Size and Dimensions</b>            |                                |
| footprint; height                     | 24 mm x 24 mm; 32 mm           |
| maximum installation space            | 24 mm x 24 mm; 44 mm           |
| weight                                | 58.8 g                         |
| height                                | 32 mm                          |
| cable                                 | 30 cm cable with connector     |
| <b>Materials</b>                      |                                |
| positioner body                       | titanium                       |
| actuator                              | PZT ceramics                   |
| connecting wires                      | insulated twisted pair, copper |
| <b>Coarse Positioning Mode</b>        |                                |
| travel range (step mode)              | 12 mm                          |
| maximum drive velocity @ 300 K        | ~ 3 mm/s                       |
| input voltage range                   | 0 - 60 V                       |
| <b>Fine Positioning Mode</b>          |                                |
| fine linear positioning range @ 300 K | 5 $\mu$ m                      |
| fine linear positioning range @ 4 K   | 0.8 $\mu$ m                    |
| fine positioning resolution           | sub-nm                         |
| input DC voltage range @ 300 K        | 0 - 100 V                      |
| input DC voltage range @ 4 K          | 0 - 150 V                      |
| <b>Position Encoder</b>               |                                |
| readout mechanism                     | resistive sensor               |
| encoded travel range                  | full travel                    |
| sensor resolution                     | ~ 200 nm                       |
| sensor power (when measuring)         | 0.01 - 1 mW                    |
| repeatability                         | 1..2 $\mu$ m (unidirectional)  |
| <b>Load (@ ambient conditions)</b>    |                                |
| maximum load                          | 200 g                          |
| maximum dynamic force along the axis  | 5 N                            |
| <b>General Specifications</b>         |                                |
| environment                           | /LT/HV                         |



|                  |                            |            |  |             |
|------------------|----------------------------|------------|--|-------------|
| Customer Drawing | Title: ANPz101eXT12 (/RES) |            | First Angle Projection<br>All dimensions in mm |             |
|                  | Material: --               |            | Drawing No. E-131032                           | Version 5   |
| Date: 04.08.25   |                            | Scale: 2:1 | A3   | Sheet 1 / 1 |