Q&A

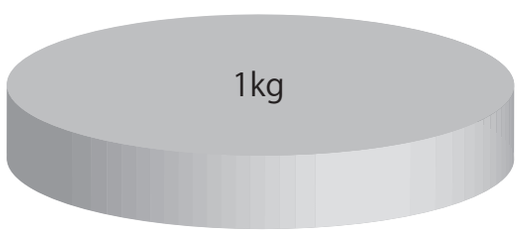
Question:

Tell us the detail about "Inertia for rotary direction/Moment of Inertia" in the Specifications.

It is the theoretical value of rotating entity to keep ones condition as it is. It indicates the difficulty of rotation.
In V-Z-θ Actuator, it is physical quantity which shows working mass can be moved toward rotary direction. This number varies depending on its material and radius of rotating object.
Even the same mass, radius is getting larger, the Inertia needs to be larger.
Common example will be the umbrella, it feels heavier when rotate it with opened than one with closed.

【Work item A】

【Work item B】



In the diagram above, work item A and B both have the same mass, however Work item B required more force(torque) due to its larger radius compared with Work item A.
In Z-θ Actuator Specification, Capacity is shown as Rated weight(kg) in Z direction, and as Inertia(kg・m^2) in θ direction.

■Spec Notation of Z-θ Actuator

Linear Direction	Rotary Direction
Weight Capacity m (kg)	Moment of Inertia J (kg・m^2)

Movable force will be changed depending on the radius (shape) of the work item.