

Functional Requirement	Proposed Force	Proposed Distance	Measured Force	Measured Distance
Z Accuracy	100N	0.02mm	1N	0.01mm
X Accuracy	10N	—	1N	—
Z Repeatability	100N	0.02mm	10N	0.01mm
X Repeatability	10N	—	10N	—
Z Resolution	100N	0.02mm	1N	0.005mm
X Resolution	10N	—	0.3N	—
Z Range	10kN	2mm	$\geq 10\text{kN}$	6.5mm
X Range	1kN	—	$\geq 1\text{kN}$	—