

Specification

board	32.0 x 34.65 x 1.6 mm
enclosure (outer)	38.0 x 40.65 x 20.6 mm
wall / floor / lid	2.0 / 2.0 / 2.0 mm
mounting	4 screw bosses, pilot 1.87 mm
cutouts	J4 (north), J3 (south)
ingress intent	dust

Quality checks

watertight (base)	manifold	PASS
watertight (lid)	manifold	PASS
min wall (base)	2.00 mm measured vs 2.0 mm designed	PASS
board/enclosure interference	0 of 1016 board vertices inside base	PASS
mass properties	base 8.5 g + lid 5.1 g = 13.6 g (ABS)	PASS

Structural check (analytic)

method	Roark plate, simply supported, center load	
load case	30 N at lid center, span 34.0 x 36.65 mm	
material	ABS (E=2300 MPa, nu=0.35, yield=40 MPa)	
deflection	0.254 mm	PASS
stress / safety factor	15.41 MPa · SF 2.6	PASS

Analytic closed-form check — not a finite-element result.