

# Emsis | Technical Specifications

Description	Value
Weight	80 PFD: 298 g 80 EMS: 230 g
Size	80 PFD: 82 x 82 x 65 mm 80 EMS: 82 x 82 x 45 mm
Operational voltage	6 V to 32 V
Current	150 mA (PFD) or 140 mA (EMS) at 12 V 85 mA at 24 V
Operating temperature	-30 °C to +85 °C
Humidity	30 % to 90 %, non condensing
Panel hole	80 mm (3.15 inch) diameter, standard fit
Altitude range	-500 m to 16000 m (-1600 to 52000 feet)
Acceleration	16 bit, 3D, dynamic range 0 to 16 g, typical resolution 0.12 mg
Angular rate	16 bit, 3D, 250°/s, resolution 0.009°/s
Barometric sensor	24 bit, 10 to 1200 hPa, 20 cm resolution
Airspeed sensor	12 bit, 0 to 69 hPa, 381 km/h, 205 kt resolution < 0.1 km/h
(units before Oct 19)	0 to 50 hPa, 325 km/h, 175 kt
GPS	10 Hz, 66 channel, hot start 1 s, cold 35 s, sensitivity -165 dBm
OAT	12 bit, range -55°C to 125°C, 0.5°C accuracy
QNH range	590 hPa to 1080 hPa (17.42 to 31.89 inHg)
Communication	CAN bus, 29 bit header, 500 kbit, Kanardia protocol
Display	240 x 320 pix, 2.7", 24 bit, full colour, super bright

Table 1: Basic technical specifications for the 80 mm Emsis.

Description	Value
Weight	80 PFD: 312 g 80 EMS: 235 g
Size	80 PFD: 112 x 69 x 65 mm 80 EMS: 112 x 69 x 45 mm
Operational voltage	6 V to 32 V
Current	170 mA (PFD) or 130 mA (EMS) at 12 V 85 mA at 24 V
Operating temperature	-30 °C to +85 °C
Humidity	30 % to 90 %, non condensing
Panel hole	3.5 PFD: custom fit; see 3.5 cutout scheme
Altitude range	-500 m to 16000 m (-1600 to 52000 feet)
Acceleration	16 bit, 3D, dynamic range 0 to 16 g, typical resolution 0.12 mg
Angular rate	16 bit, 3D, 250°/s, resolution 0.009°/s
Barometric sensor	24 bit, 10 to 1200 hPa, 20 cm resolution
Airspeed sensor	12 bit, 0 to 69 hPa, 381 km/h, 205 kt resolution < 0.1 km/h
(units before Oct 19)	0 to 50 hPa, 325 km/h, 175 kt
GPS	10 Hz, 66 channel, hot start 1 s, cold 35 s, sensitivity -165 dBm
OAT	12 bit, range -55°C to 125°C, 0.5°C accuracy
QNH range	590 to 1080 hPa (17.42 to 31.89 inHg)
Communication	CAN bus, 29 bit header, 500 kbit, Kanardia protocol
Display	240 x 320 pix, 3.5", 24 bit, full colour, super bright

Table 2: Basic technical specifications for the 3.5 inch Emsis.