



SAA232-5

Model 003

The SAA232-5 interface unit is designed to get the most out of your investment in ShapeArray instrumentation. Interface units control communications between the ShapeArray and the data logger, as well as power. Unlike traditional geotechnical instruments that use only a few sensors, ShapeArrays often have hundreds of sensors in one instrument that require electricity. ShapeArray's unique power requirements determine tight regulation to ensure optimum function. A 12V battery system can produce a range of fluctuating voltage—10.5V to 15V—depending on their condition. SAA232-5 contains a high quality DC-to-DC converter that boosts and regulates voltage supplied by 12V battery systems to a constant 13.5V. The SAA232-5 unit also extends the length of cable that can be run between the ShapeArray and its data logger, providing a 16.5V boost for longer cables. SAA232-5 also protects against electrical surges and voltage strikes.

There are two versions of the SAA232-5 interface: the SAA232-5, and the SAA232. The SAA232-5 can be used to connect up to 5 ShapeArrays to a single COM port, while the SAA232 is used to connect a single ShapeArray to a single COM port on a Data Logger.

Related products: ShapeArray, SAASPD

SPECIFICATIONS



SPECIFICATIONS

DIMENSIONS	30 mm x 248 mm x 51 mm
MOUNTING	2 x 5 mm holes, spaced 229 mm
WEIGHT	0.62 kg
OPERATING TEMPERATURE	-40°C to +80°C
OPERATING HUMIDITY	0% to 95% Non-condensing
LED INDICATORS	5 – SAA Power On, SAAs are powered on one at a time
POWER REQUIREMENTS	9.5 V to 16 V
OUTPUT POWER	13.5 V automated software adjusted 16.5 V
STANDBY CURRENT CONSUMPTION	< 2 mA
OPERATING CURRENT CONSUMPTION	70 mA active
POWER UP TIME	10 ms
DATA RECEIVE DELAY TO POWER OFF	4 s (or program shut down)
SERIAL PROTOCOL	RS232 to RS485, slew rate limited
DATA RATE	38.4 kbps
SURGE SUPPRESSION	600 W (10/1000 μ s), 4 kW (8/20 μ s), 2kA (8/20 μ s) from gas discharge tubes
MATING 4-PIN TERMINAL BLOCK PLUG	Phoenix PN 1757035, DigiKey PN 277-1013-ND
MATING 5-PIN TERMINAL BLOCK PLUG	Phoenix PN 1757048, DigiKey PN 277-1014-ND

WIRING DIAGRAM

