

Profound IS – Geotechnical Monitoring System



IS-Power Supply

ISB.0033* - IS-Power Supply

The IS-Power Supply is an essential part of an IS-PC network. After start-up the network PC automatically detects via the IS-Power Supply the sensors attached to the network, and the sensors will start measuring at the time intervals set by the user.

The measurement results are sent to the local central PC for real-time viewing, whereby the IS-Power Supply:

- provides the necessary power for up to 100 IS-sensors in the IS-network
- checks voltage and power consumption in the IS-network
- communicates with the IS-sensors connected to the IS-Power Supply
- has a built-in internal absolute air pressure sensor for compensating pore pressure and standpipe measurements

The IS-Power Supply is powered by AC power (230 or 110 V) or by DC power (using two 12 V_{DC} car batteries in series). When both power sources are connected, the DC power input will function as a backup to the AC power input.

The IS-power supply consist of a robust case with built-in ventilation slots.

Technical specifications

Rear	
Voltage setting I	230 V ~, 50/60 Hz Fuse: 0.4 A IEC 127
Voltage setting II	110 V ~, 50/50 Hz Fuse: 0.8 A IEC 127
External DC input voltage:	24 V _{DC} ≤ 2.5 A (fused)
V _{min}	≥ 20.4 Volt
V _{max}	≤ 40 Volt
Hysteresis	2.3 V
No load current	11 mA
Front	
IS-Power Supply to PC	USB port
CAN signal protection	38 V transient suppression
IS-network connector (out)	Harting HAN3A female
Output voltage	15 V _{DC}
Output current	max 2.5 A
Internal termination resistor	None
Dimensions (w x h x d)	243 x 75 x 220 mm (9.5 x 3 x 8.75 in)
Case material	grey ABS
Weight	2.2 kg
Protection	IP30
Internal atmospheric pressure sensor	
Pressure range	0.8 – 1.6 bar (11.6 – 23.2 psia) absolute
Pressure hysteresis (0 → P _{max} → 0)	≤ 0.1%
Linearity error	Typical 0.15%, max. ≤ 0.35%
Items supplied with IS-Power Supply	
Harting connector	Harting HAN3A male/ HAN3A Hood
24 V _{DC} connector	Phoenix SACC-M12MS-SCON-PG7-M
USB cable	1.8 m (6 ft) Type AM-BM
AC power cable with Euro/UK/USA plug	
Dismantling key for IS-Power Supply case	
Calibration certificate of the internal pressure sensor	
Profound ISN-software CD	
Manual IS-system	



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