

A850 Telemetry Gateway

The A850 Telemetry Gateway forms the heart an Adcon monitoring system. The A850 acts as a mid term storage device for data collected from Adcon's UHF radio and mobilke phone (GPRS) based remote telemetry units (RTUs). The unit is built around an embedded Linux operating system for reliable 24/7 operation. An integrated UPS ensures interruption-free operation throughout power outages.

The A850 communicates with radio RTUs (A723, A724, A733, etc.) via an A440 Wireless Modem. Data from GPRS RTUs is fed from the provider's broadband data service via the units' Ethernet port. The A850 also supports up to 10 Remote A440 units. These may be used to service clusters of radio RTUs in remote areas, with data returned to the A850 via a GPRS connection.



A web interface is used to configure the A850 and to set up the parameters for the individual RTUs. Data can be retrieved either through its 100MBit Ethernet port or an external USB modem. Integrated diagnostics scan RTUs for potential malfunctions, with a range of log files available for trouble shooting.

Technical data

Dimensions	259 x 186 x 47 mm (W x D x H)	Operating time off internal battery	Depending on number of RTUs and polling interval up to 20 hours
Weight	1.500 g	Number of RTUs supported	5 / 100 / 250 / 500 / 1.000 (of which up to 200 can be UHF)
Ingress Protection class	IP-50	Number of external radio modems supported	up to 10 modems of type A440 and / or RA440
Temperature range	-10°C to +55°C	External analog modems supported	max. 2
Case	steel, painted	RTU polling intervals	from 1x per minute to 1x per week
Connectors	2x USB 1x 100MBit Ethernet 1x RS-232 1x RS-485 (to A440)	Diagnostics	RF signal strength; transmission success rate; transmission delay; battery voltage
Power supply	90 - 230VDC mains 9V NiMH battery 4 Ah	Type approvals	CE, FCC
Operating System	Embedded Linux	Ordering Information:	
Configurator	web-enabled Java application; provides GUI for setting all RTU parameters	100.850.001	A850 Gateway for 5 RTUs
Data viewer	Integrated graph and table	100.850.002	A850 Gateway for 100 RTUs
Internal memory	256MB on CF card; stores data of 200 RTUs for approx. 1 week; 1 million read/write cycles	100.850.003	A850 Gateway for 250 RTUs
Data retrieval	through Adcon's XML-based addUPI protocol (OPC upon request)	100.850.004	A850 Gateway for 500 RTUs
		100.850.005	A850 Gateway for 1.000 RTUs
		100.850.051	A850 Base Station/5 + A440 Radio B1
		100.850.051	A850 Base Station/5 + A440 Radio B2
		100.850.051	A850 Base Station/5 + A440 Radio B3
		100.850.051	A850 Base Station/5 + A440 Radio B4