



APSTAR

LIMITED

IN CONTROL SINCE 1988

ApStarnet Data Sheet

Part number: APSN-004-001

1. Easy to install and configure Starnet/ESP to Modbus protocol converter for 4 RS485 communications Links
 - Four multi use RS485 communications ports are provided
 - Total galvanic isolation & transient protection
 - Tx and Rx termination resistors user selectable
 - Fully configurable from PLC code, or from software configuration package
 - Simply connect to pre-existing Starnet/ESP serial links
 - HDLC 48, 180 kb/sec baud rates, Primary or Secondary
 - ESP 1200, 2400, 4800 and 9600 b/sec baud rates, Control or Tributary
2. LED based indication and diagnostics
 - Each LED indicates various conditions
 - USB connection available for diagnostic use
 - Unit firmware upgradeable on site
3. Designed for industrial use
 - Can be DIN rail mounted
 - Can be screwed directly to back plate
 - 12-24Vdc 250mA
4. Flexible communications to control systems
 - Use with Modbus, the most widely implemented protocol there is
 - Modbus TCP/IP or RTU (each of the four communications ports can provide Modbus RTU access)
 - Up to 16 Modbus TCP/IP clients supported
 - Used with Siemens S7-1200, GE Fanuc Rx3i, Schneider Electric M340 and many more
5. Configuration and Monitoring Application available
 - Contact Apstar for details of PLC and computer, hardware and software solutions
 - USB port appears as COM port on Windows PC, .inf file available from Apstar
6. Full Starnet implementation
 - Special function control implemented as user control messaging
 - Table exchange mode for up to 111 registers per partner, with user control
 - Independent link speeds
 - HDLC Ports can be either Primary or Secondary
 - ESP Ports can be either Control or Tributary
 - Up to 31 HDLC slaves per port
 - Up to 15 ESP Secondary's per port
 - Full support for Broadcast commands, with and without response
 - Compatible with Gem80 products, PLC and drives

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Table Exchange Mode

Three modes of table exchange are provided:

- Multi drop table exchange – fast and simple communications to a maximum of 31 secondary's
- Broadcast without response – up to 111 registers transmitted to all secondary's, no reply is expected
- Broadcast with response – As above but a single secondary is select to provide a response.
- Configurable user control of exchange

User controlled messaging

Purely user controlled messaging is supported

- Up to 777 registers can be transmitted/received
- Broadcast without response – up to 111 registers transmitted to all secondary's, no reply is expected
- Broadcast with response – As above but a single secondary is select to provide a response.

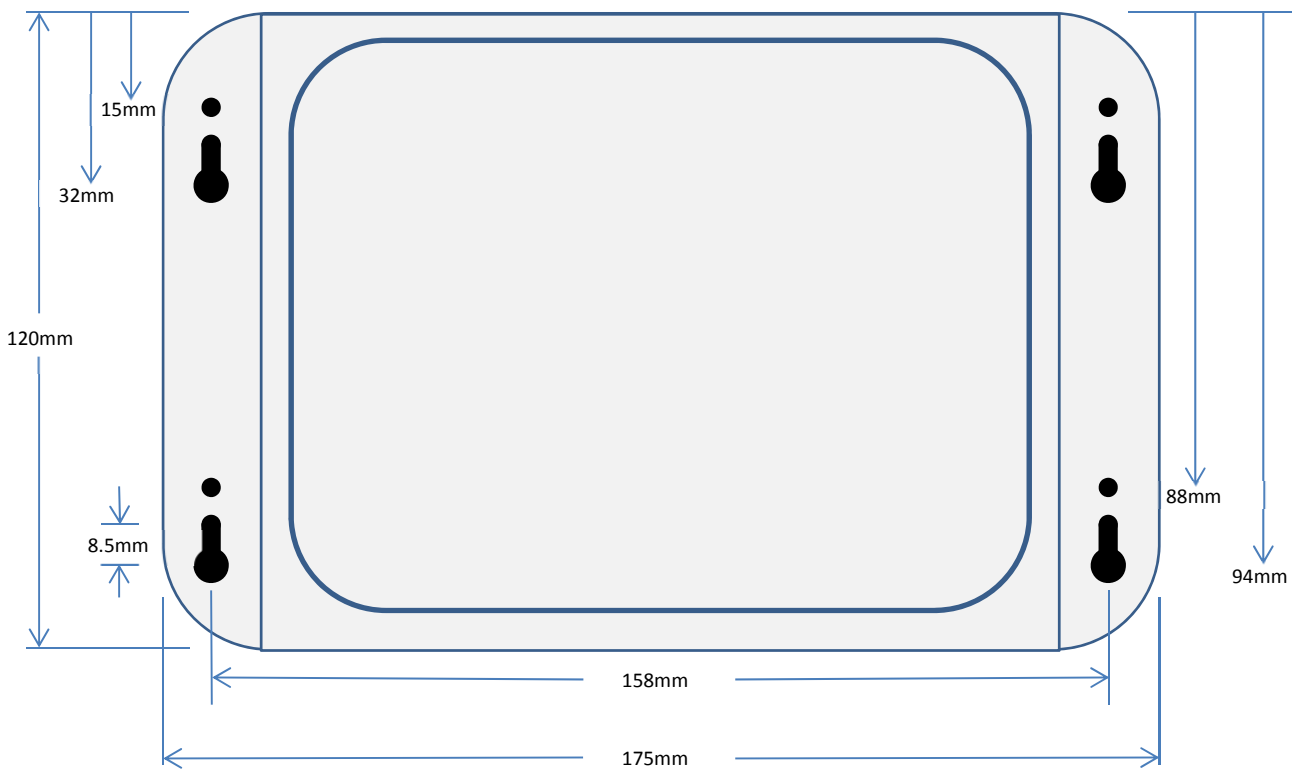
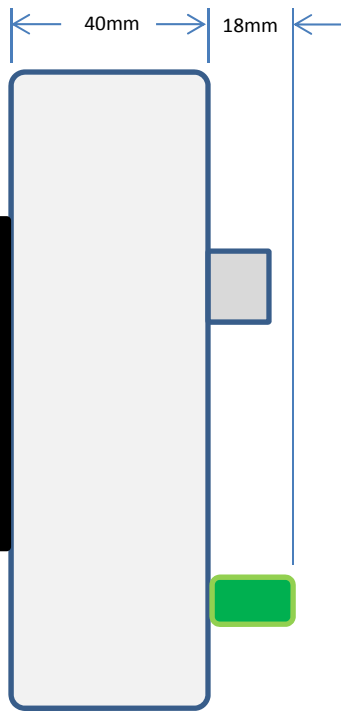
PLC Access using Modbus

PLC or other intelligent devices can interface with the ApStarnet using Modbus

- Up to 16 Modbus TCP/IP Clients are supported
- Any of the four communications ports can provide access to a Modbus RTU Master
- The USB port also provides access to a Modbus RTU Master

Technical Specification	
Part Number	APSN-004-001
Physical	
Mounting	DIN rail or surface mount
Weight	600g
Connectors	Phoenix MC1.5 Series (3.8mm pitch) connector: 3 way for PSU Phoenix MC1.5 Series (3.8mm pitch) connector: 5 way for Gembus
Electrical supply requirements	
Power	3 Watts
PSU Requirements	12 to 24 Vdc +/- 20%, 250mA, plus Earth
Communications	
Communications Ports	4 RS485 ports
Ethernet	10/100 Mbit/s RJ45
USB	USB type B connector. Appears as COM port on PC.
Temperatures (°C)	
Operating Temperature	-40 to +60 °C
Storage & Transport	-40 to +60 °C

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Return to Manufacturer for re-cycling at end of life.



Designed and manufactured in the EU

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