

HSM ECO - V.92

User Guide V 1.00



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1 Introduction

With a industry standard DIN-rail mount fixing the HSM-Series modems are designed specifically for professional and industrial applications supporting a wide range of communications capabilities, dial-up, analogue, ISDN, DECT and GSM modem and point-to-point / multi-point leased line operation.

Modem-Signalling and Compatibility

The HSM ECO V.92 supports the following communications standards:

- V.92 (max. 56.000 bps download – max. 48.000 bps upload)
- V.34 (2400 - 33.600 bps)
- V.32 (9.600 bps)
- V.22 (1200 bps)
- Bell 212A (1.200 bps)
- V.17 (14.400 bps FAX)
- V.27ter (4.800 bps FAX)
- V.42bis (Data compression)
- MNP 5 (Data compression)
- V.90 (max. 56.000 bps download – max. 33.600 bps upload)
- V.32bis (14.400 bps)
- V.22bis (2.400 bps)
- V.23 (1200 bps)
- Bell 103 (300 bps)
- V.29 (9.600 bps FAX)
- V.21 (300 bps Fax Channel 2)
- V.42 (Error correction)
- MNP 2-4 (Error correction)

2 Modem Set-Up

2.1 Power Connection

HSM-Series modems can be powered from an 9V - 36V DC power source rating at 1.0 Watts max. The power input is via a 3.5mm pitch terminal block plug and socket (Phoenix contact) that is located on the frontside of the modem next to the RJ45 telephone network socket, as shown below.



- FGND** Frameground / Protective Ground
- GND** Ground
- V+** 9 – 36V DC

Connect the modem to your terminal (PLC / embedded controller / PC) using the Sub-D 9 connector. The pinning of the (female) plug of the modem is conform to the pinning of DCEs (Data Carrier Equipment). It can directly be connected (1:1) to the serial port of a PC. No crossover cable is required.

2.2 DTE Serial Port Connection

The host terminal device (PLC / PC) connects to the DB9F connector. DB9F pin-out is;

Pin 1	DCD
Pin 2	RXD
Pin 3	TXD
Pin 4	DTR
Pin 5	Ground
Pin 6	DSR
Pin 7	RTS
Pin 8	CTS
Pin 9	RI

The metal outer ring the DB9 connector is connected to protective earth / frame ground (FGND).

2.3 Line Port Connection (RJ45, Western plug)

PIN	Modem
1	not connected
2	not connected
3	a2 (feedback, country depending)
4	a (TIP)
5	b (RING)
6	b2 (feedback, country depending)
7	not connected
8	not connected

3 Special Functions

3.1 LED - Indicators

The HSM ECO - V.92 has 2 LED – Indicators:

PWR-LED:

ON	Power On
OFF	Power Off

OH-LED:

OFF	Das Modem ist ON HOOK und belegt nicht die Telefonleitung
ON	Das Modem belegt die Telefonleitung

LEDs at POWER UP:

After Reset (Power On) the HSM-ECO starts an automatic selftest. The PWR-LED will be on and OH-LED will be off.

4 AT – Command Reference

Please refer the AT – Command Reference Manual added on the Compact Disk.

Filename: SIM_AT_Cmd.pdf

5 Technical Data

Technical Data

- Supply Voltage 9V - 36V DC
- Power Supply Current Online-Mode <= 40 mA @ 24V DC (typ. 35 mA)
Command Mode <= 35 mA @ 24V DC (typ. 30 mA)
- Serial Interface RS232, 300 – 230.400 bps / Autobaud
- Size (HxLxD): 94 x 35 x 77mm
- Temperature 0...+70°C
- Humidity 5%...95% non condensing
- Storage -30...+85°C

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