T 332
05.02.10 LB
REV. 03

CENTRAL OR REMOTE GSM MODEM

GSM 713 C1 Eng.

- **Uses digital GSM 900/1800 Mhz telecommunication networks.**
- **Supplied with:**
  - 1 230 V~ / 12 V– power supply;
  - 1 three - wire (black, red and yellow) cable for connection to 12 V– power supply (if present)
  - 1 serial cable with DB9 connector for connecting to RS232/C-Bus convertor
  - 1 RF Dual band aerial with male-male connector
  - 1 bracket for fixing to wall or DIN rail

CE

WARNING: When this Modem is used in fixed central stations for Remote Management, connect port RS 232 directly to a corresponding RS 232 port on the PC. Do not use conversions from or to USB ports.

In the presence of electrical disturbances, USB port configuration may be compromised, blocking Remote Management functions, and requiring reconfiguration.

1. APPLICATION

GSM 713 modem can be used for communications at either a remote PC (running SWC 701) or on site to remotely interrogate and control Coster C-Bus controllers .

2. FUNCTIONS

GSM 713 is a GSM dual-band modem (900/1800 MHz) with transmission speed configurable from 1200 to 9600 bps in non-transparent mode (with error correction).
It supports AT+ controls and comforms with the ETSI GSM 07.07 standard.
It is provided with autodiagnosis which indicates the presence of the GSM signal.
The digital interface conforms to Recommendations ITU-T V.24/RS232 DB9.

If used as a central modem it can be configured with transmission speed of 1200 to 9600 bps.
If used as a remote modem it must be configured with a transmission speed of 1200 bps (factory setting).

For C-Bus communication with electronic devices RS232 /C-Bus convertor must be used.

3. REFERENCE STANDARDS

GSM modem conforms to the current regulations regarding Directive R & TTE99/5/CE and in particular to the following standards::

Health and Safety (Art. 3.1 a) :	EN60950 ;
EMC (Art. 3.1 b) :	ETS 301 489-1, ETS 301 489-7 ;
RF spectrum efficency (Art. 3.2) :	3GPP TS 51.010-1, v4.2.0 (GSM 11.10-1), Draft ETSI EN 301 511, v7.0.0 (GSM 13.11).

In particular, the product has been approved to conform to the following standards:
ETS 301 511 ; ETS 301 489-1 ; ETS 301 489-7 : clausole 9.1…9.7 ; EN55022 ; EN61000-4-2 ; EN61000-4-3 RF ; EN61000-4-4 ; EN61000-4-5 Surge ; EN61000-4-6 ; EN61000-4-11 ; EN60950 (LVD).

4. ACCESSORIES

No.	Description	Code	Data sheet
1	Low powered signal convertor C-Bus to RS 232	**ACB 332**	T 423
	Medium powered signal convertor C-Bus to RS 232	**PCB 332**	T 422
	High powered signal convertor C-Bus to RS 232	**NAB 628**	T 412
1	5-metre aerial extension for GSM 713	**APA 812**	–
1	4-metre aerial extension for GSM 713 C1	**APA 812 C1**	–

5. TECHNICAL DATA

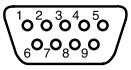
• Electrical & mechanical:

Power supply :	External transformer (supplied) Input : 230 V~ ± 10 % Output : 12 V– ; 1000 mA
Consumption	12 W
Protection	IP 40
Construction standards	see section 3
Ambient temperature:	
operating	– 20 ... + 55 °C
storage	– 25 ... + 70 °C
Dimensions	55 x 80 x 24 mm (L x W x H)
Weight	0.12 kg

• Transmission data:

Data format	asynchronous start-stop
Character format	7/8 bit data, 1/2 stop bit, parità odd/even/none
Transmission speed :	
as central modem	1200…9600 bps
as remote modem	1200 bps
Transmission standard	V.22bis, V.32
Transmission mode	full duplex
Interface speed	300 bps .. 115.2 Kbps
DataTerminal Equipment interface	conforms ITU-T V.24/V.28 attested on DB9 female connector
Data Terminal Ready management	OFF status of DTR prevents transmission/reception by modem.
Traffic control	RTS/CTS
RF power output (max)	2W for GSM900 1W for GSM1800
RF antenna	SMA connector

6. SERIAL CONNECTOR DB9 RS232 – REAR PANEL



Front view of serial cable connector

PIN	EIA	USE	IN/OUT
1	DCD	Data Carrier Detect	OUT
2	RX	Receiver Data	OUT
3	TX	Transmit Data	IN
4	DTR	Data Terminal Ready	IN
5	GND	Ground	
6	DSR	Data Set Ready	OUT
7	RTS	Request To Send	IN
8	CTS	Clear To Send	OUT
9	RI	Ring Indicator	OUT

7. CONNECTIONS

7.1 Female RS232 connector.

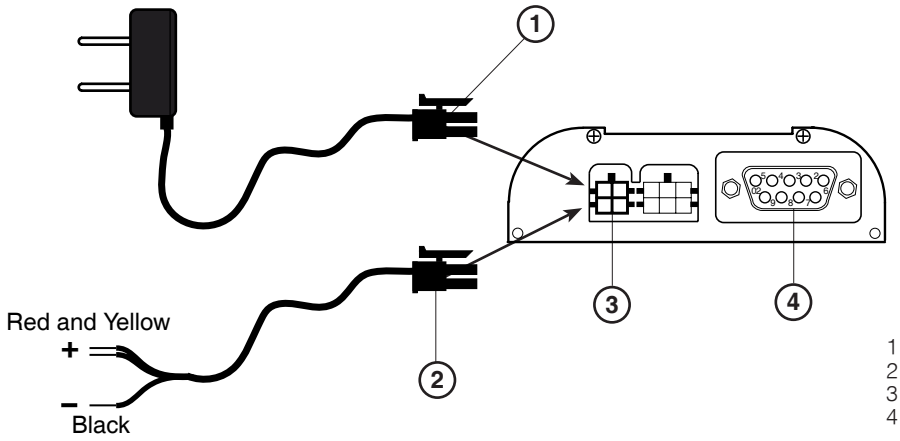
RS232 female connector with 9 pins (7.3.3) conforms to ITU-TV.24/V.28 recommendations.
Permits connecting to the Telemanagement PC or to RS232/C-Bus convertor..

7.2 RF aerial connector.

The magnetic aerial, supplied with the modem, should be mounted in a position to enable reception of a strong enough GSM network signal. This can be verified by using a mobile telephone which is on the same network as the SIM card to be used in the modem. The aerial cable can then be screwed into the GSM 713 (8.2.4).
WARNING: Turn the power supply OFF before connecting or disconnecting the aerial.

7.3 Power connector.

Use the transformer supplied with the modem, insert the connector (7.3.1) of the cable into the socket (7.3.2) on the rear panel of the modem then connect the tranformer to a 230 V~ mains supply.
As alternative, if a 12 Volt – power supply already exists, you can use a 3-wire (black, red and yellow) cable.



1 - Power connector
2 - 3 wire cable if 12 V–, power supply already exists
3 - Power socket
4 - RS232 female connector

8. SIM CARD

8.1 Purchase of SIM card.

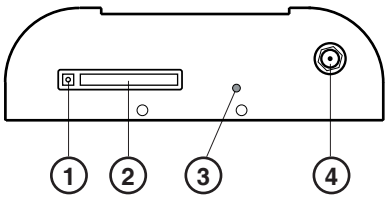
You are advised to purchase the SIM card from your chosen GSM network service provider for business networks.
When purchasing, it is essential to request the Fax/Data number for the SIM card, and reception of DATA with the following communication modes: AUTOBAUDING; ASYNCHRONOUS; NOT TRANSPARENT (correction data enabled).

8.2 Inserting SIM card in GSM 713

Before inserting the SIM card in the modem it is essential to disable the PIN code of the card.
To do this, use a GSM cellular telephone and insert the SIM card in it; then, following the instructions rsupplied with the telephone to disable the PIN code.

The operations required to install the SIM card in GSM 713 are as follows:

– Ensure that the modem is switched off, then disconnect the serial cable. You must NOT insert or remove the SIM card while the modem is switched on
– Using something pointed, press the yellow button (8.2.1) to extract the card holder.
– Insert the SIM card in the holder (8.2.2) making sure that it is the right way round.



1 - Button for extracting card holder
2 - Card holder
3 - Field indicator LED
4 - Aerial socket

8.3 GSM network signal strength indicator

The led (8.2.3) on the facia indicates the status of the GSM 713 modem:

– always off	: modem not powered;
– 600ms On / 600ms Off	: SIM card not inserted or searching for signal;
– 75ms On / 3s Off	: signal present, modem not transmitting;
– always lit	: modem transmitting or connected to telephone line.

To see the signal quality you must:
– connect GSM 713, powered and with SIM inserted, to a PC and transmit a communication program or, using SWC 701 Telemanagement program, send command “AT+CSQ” to the modem via the setting page;
– read reply coming from the GSM 713 :
  – from 0 to 9 = the field is almost always too weak
  – from 10 to 15 = the field is ususlly strong enough
  – over 15 = the field is good

Amendment to data sheet

Date	Revision No.	Page	Section	Amendment description
25.07.06 LB		1	4. ACCESSORIES	Updated table with accessories version C1
02.03.09 AM	**01**	3	8.3 GSM network signal strength indicator	Adjust measurement of field
16.07.09 VM	**02**	2	7.3 Power connector	Added design 3-wire cable
05.02.10 AM	**03**	1	Note	Add note for the correct use of modem

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