GSM-4G modem CA 524

Installation guide

www.sulzer.com

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1   MOUNTING

1.1   Part number 28007012 contains:

1.   Modem
2.   Antenna
3.   Power cable
4.   DIN rail socket with 2 screws
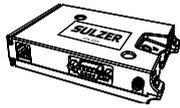
1. The Modem   2. Antenna   3. Power cable   4. DIN rail socket with 2 screws

1.2   Part number 28007013 contains:

Same items as part number 28007012 above with additional RS-232 cable which also can be ordered separately (p/n: 43320588). See accessory list on page 7 below.

5. RS-232 cable

1.3   DIN-rail socket (no. 4)

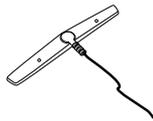If the modem is to be mounted on a DIN-rail; attach the DIN rail socket on the rear side of the modem. Use the two screws included to fasten the socket.

1.4   Antenna (no. 2)

Mount the antenna into the connector at the modem. Place the antenna in open environment and shielded from precipitation. The backside of the antenna has adhesive Sellotape or Scotch tape for mounting on a clean surface. Avoid mounting the antenna on a grounded metal plate; it short circuits the signal.

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1.5 Power connection

Use the enclosed power cable (no. 3). Plug in the RJ6/8 connector to the power jack in the modem. Connect the open ends to your power supply according to description below. The modem is supplied with recommended +10 - 30 VDC (Maximum Rating +8 - 57 VDC).

Pin assignment and typical connection:

1 Blue   +10 — +30 V
2 Black
3 Red
4 Green
5 Yellow
6 Brown   0 V

1.6 Power Supply

NOTE: Normally the modem is supplied from same source as the control unit.

1.7 Mounting of DIN-rail holder

The DIN-rail holder is fastened with two screws enclosed in the kit to fit an universal 35 mm DIN-rail according to DIN EN 60715.

Figure 1-1   Mounting the holder for DIN-rail

1.8 Antenna

The enclosed antenna is a **Dipole type T** and is to be mounted on a nonmetallic surface. For metal cabinet; use the "Smartdisc"-antenna. The Dipole-T and the Smartdisc antenna cable must not be extended.

In the section of **4.1 Accessory List** are additional antennas which can be ordered from Sulzer if the receiving signal is not sufficient.

2   RS-232 communication and cable configurations

Use the communication cable (section 1.2 on page 3) to connect the substation. Follow the table below to ensure communication. The default parameters for the modem are; **115200** baud, **No** parity, **8** data bits, **1** stop bit.

CA 524 D-Sub 9 (F)	D-Sub 9 (M) Cable color	Connections in controllers				
		Signal	EC 531	PC 441	PC 242	PCx
1	Pink					
2	Brown	RXD	23	51	23	47
3	White	TXD	24	50	24	48
4	Blue	RTS	25	49	25	49
5	Gray	GND	22	52	22	46
6	-					
7	Green	RTS	25	49	25	49
8	Yellow	CTS	26	48	26	50
9	-					

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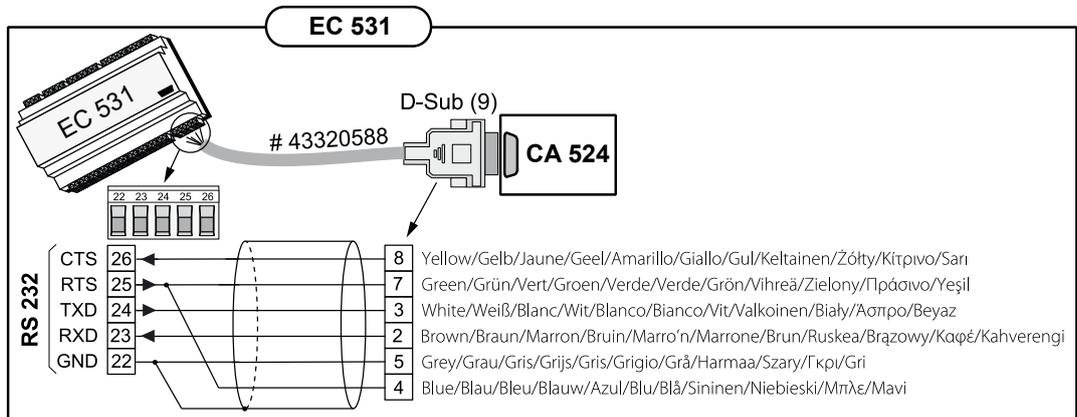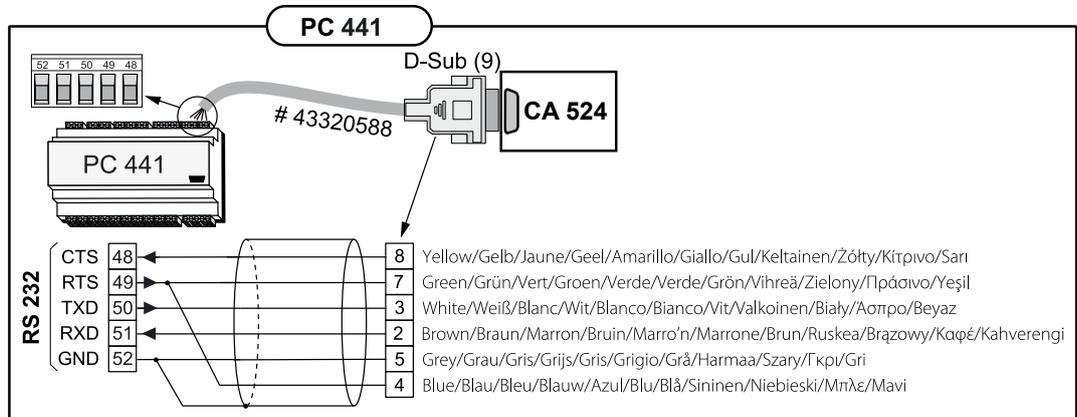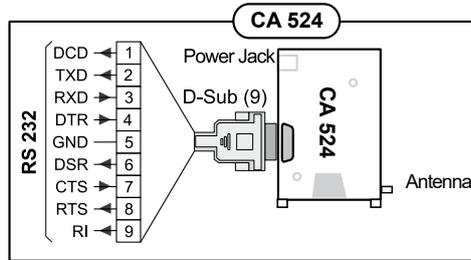
3   Installing the SIM card

Green LED
(Power on/off)

Yellow LED
(Network status)
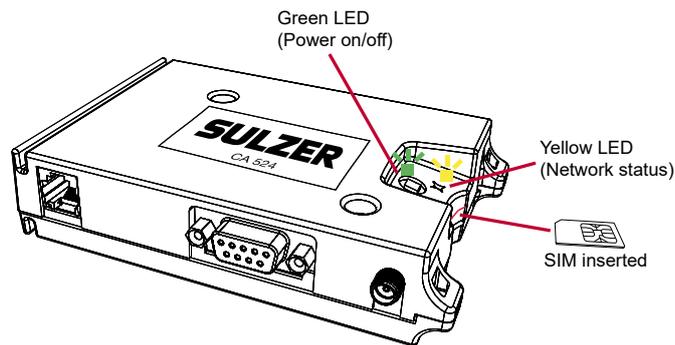
SIM inserted

The SIM - with the circuit side facing towards the Sulzer logo - is inserted by gently pushing it into the SIM card holder until it snaps hold. It is now protected from accidental removal. The SIM can be removed from the card holder by using a flat object such as a screwdriver to carefully press the inserted SIM until it snaps out again.

3.1 Status LEDs

- A green LED; Power ON

- A yellow LED blinking every 2nd second; Network search

- A yellow LED flashes every 4th second; Connected to 2G/3G/4G network

3.2 About SIM cards

AquaWeb
Sulzer provides the AquaWeb SIM-cards. To connect your station to Aquaweb, follow the instructions enclosed with the SIM.

SIM card from other providers
Only telematics enabled SIM card is working. Consult with the SIM provider which functions need to be enabled on the SIM card subscription.

4 Technical data

GSM/GPRS/EDGE	Quad band GSM: 850/900/1800/1900MHz
UMTS/HSPA+ (I, II, IV, V, VIII, IX, XIX)	Seven band: UMTS 800/850/900/(1700/2100)/1800/1900/2100MHz
LTE: (1, 2, 3, 4, 5, 7, 8, 12, 18, 19, 20, 28)	Twelve band LTE: 700/800/850/900/1700/2100/1800/1900/2100/2600MHz
Ambient operating temperature	–30 to +65 °C (–22 to +149 °F)
Automatic thermal shutdown	Min: <-40 °C, Max: >+90°C (± 3°C) (Min. <-40 °F, Max: >194 °F)
Degree of protection	IP 20, NEMA: Type 1
Housing material	PPO and PC
Mounting	With socket; DIN Rail 35 mm
Humidity	0–90% RH non-condensing
Dimensions	H x W x D: 26 x 115 x 86 mm (1.0 x 4.5 x 3.5 inch)
Power supply	Recommended +10 - 30 VDC (Maximum Rating +8 - 57 VDC)
Power consumption	< 5 W
Altitude	Max 2000 MASL or 6562 ft. AMSL
Compliance	$C\epsilon$ R&TTE, GCF, FCC, PTCRB, IC, UL

Attention If the unit is used in a manner not described in this document the protection provided by the equipment may be impaired.
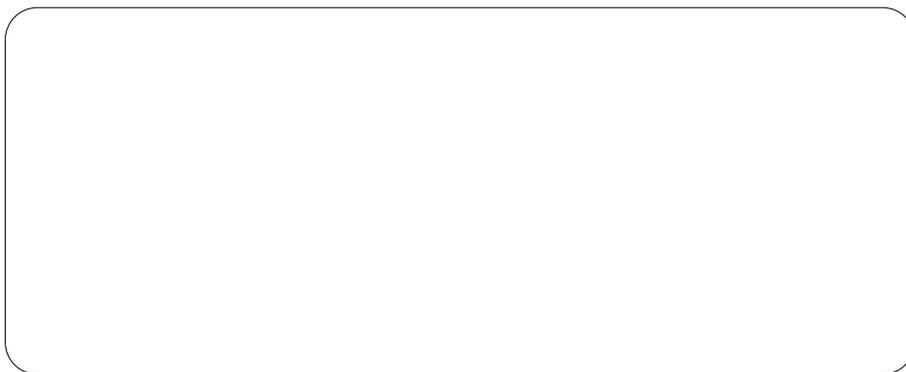
4.1 Accessory list

Part number	Description	Note
43320588	Modem cable with DB9M + open end	This part is included in 28007013

Antenna Accessories		
Part number	Description	Note
28007007	Low profile Smartdisc (SMA-M) +1 dB, 2.5 m	Extension of the cable is not recommended
28007008	Align antenna kit +6.0 — +9.0 dBi	Included in kit: Antenna 10 m cable 2 m cable Wall and mast mounting equipment

4.2 Cleaning

How to clean the unit

Power off the unit and only outside/front shall be cleaned by using a dry, soft cloth. A good choice would be the microfiber type of cloth and gently wipe the CA 524 unit on front in order not to scratch the overlay. If the dry cloth did not completely remove the dirt, do not press harder in an attempt to scrub it off. If necessary, moisten the cloth by adding a small amount of water with thin solution of mild detergent and try again. Never use detergent with polish or solvent which can have an impact of the plastic surface.

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