

CU-B1, B2, B4 E65C Technical Data



E65C CU-B1, B2, B4 communication units permit multiple meter reading of up to 32 E650 or E850 meters.

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E65C CU-B1, B2, B4 Technical Specifications

Designs

Type Surv	ey			
Туре	RS485	RS232	S01	S02
CU-B1	•	•	•	•
CU-B2	•*			
CU-B4	٠	•		

* One RS 485 interface with 2 sockets for rapid and trouble-free wiring.

Supported Communication Protocols IEC 62056-21 and *dlms*

Fitting

directly in meter (ZxD300/400xT or ZxQ)

S0 Interface

Only present on Type CU-B1

The pulse inputs permit the connection of external pulse emitting devices, e.g. electricity-, water-, gasor heat-meters.

Operating conditions

standard	IEC 61393 / DIN 43864
rated voltage	24 V DC
maximum voltage	27 V DC
current	
 condition "On" 	min. 10 mA, max 27 mA
 condition "Off" 	max. 2 mA
pulse length	≥30 ms
maximum line length	normally up to 0.5 m

RS232 Interface

Only present on Types CU-B1 and CU-B4 asymmetric, serial, asynchronous, bi-directional interface

- 3-wire design basic version for use with external modems with sufficient intelligence built in
- 6-wire design extended version for repeated initialisations of the external modem via communication unit

DIN 66256

Operating conditions

standard

pin connections 3-wire basic version

- TxD (Transmitted Data)
- RxD (Received Data)
- GND (Ground)

pin connections 6-wire extended version

- TxD (Transmitted Data)
- RxD(Received Data)
- GND (Ground)
- CTS (Clear to send)
- DTR (Data terminal ready)

- DSR (Dat	a set ready)	
rated voltage		\pm 12 V DC
maximum volt	tage	\pm 25 V DC
maximum bit i	rate	56 kbps
maximum line	elength	up to 15 m

additional functions (extended 6-wire version)

- modem initialisation with AT commands
- periodic modem initialisation
- flow control with DTR and CTS
- time window with multiple-use telephone lines
- acceptance of calls
- programmable number of ring signals

RS485 Interface

asymmetric, serial, asynchronous, bi-directional interface used as communications bus for multiple meter reading applications

Operating conditions	
standard	ISO-8482
signal condition binary 1	
 voltage difference 	< -0.2 V DC
signal condition binary 0	
 voltage difference 	> 0.2 V DC
maximum number of slaves	31
max. line length depending on enviro	onment/cable
- up to 250 m at max. 57'600 bps+ma	ax. 31 slaves
- up to 550 m at max. 38'400 bps+ma	ax. 31 slaves
- up to 1000 m at max. 19'200 bps+m	ax. 15 slaves

Environmental Operating Conditions

In General	same as for base meter	
exception: temperature ran	ge –20 °C to +55 °C	

Insulation Strength to Meter

Insulation Strength	4 kV at 50 Hz for 1 min
insulation spacing	at least 6.3 mm

Weight and Dimensions

Weight	approx. 100 g
Width / Height / Depth	65 / 103 / 38 mm

Connections

Connection to Meter

via 10-pin plug and socket serving for supply voltage and internal bus and 4-pin plug for ground connection



Material

Case

polycarbonate

Connection Diagram

Pulse input 1
Pulse input 2
Transmitted Data
Signal Ground
Received Data
Clear to Send
Transmitted Data
Signal Ground
Data Terminal Ready
Received Data
Data Set Ready

RS 485

С	Signal ground
а	Data a
b	Data b

Example CU-B1



Example CU-B2



Typical applications

Multiple meter reading (up to 32 meters)

The communication units of the CU-Bx family permit multiple meter reading of up to 32 meters (1 master and up to 31 slaves) via a bi-directional bus that connects the RS485 interfaces of the various meters.

If multiple meter reading of a larger number of meters is required, we are able to propose suitable solutions.

The Landis+Gyr E650 meter functioning as master uses its RS232 interface for communication with the PSTN modem or the GSM modem. If RS232 interfaces are fitted to the slave meters, these may be used for local applications

Multiple meter reading telephone modem (PSTN)



The Landis+Gyr E650 Meter operating as master uses the RS232 interface for communication with the PSTN-modem.

When using an interface of type RS232/+ it is possible to use a standard modem (transparent modem).

For the same application, Landis+Gyr also offers communication modules of type CU-M20 and CU-M22 with built-in PSTN-modem, so that the same application can be achieved without any external devices and cabling between. See respective documentation.

Multiple meter reading by GSM (e.g.MetcomT)



The configuration shown is practically identical to the one shown above, with the difference that instead of a PSTN modem a GSM modem, e.g. MetcomT is used.

Key to symbols used



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