AMKASYN
Servo inverter KE/KW and KU
Interface card
"SERCOS interface"

Version: 2003/11
Part-No.: 26407

About this documentation

Name: PDK_026407_KUKW_Option_SC_en

Use: Hardware description option card KU-SC1 / KW-SC1

What has changed:

Version	Change	Subject	Letter symbol
2003/11			
2008/41		first Flare version	Bls

Further Documentation:

Target group:

Representation agreement:

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- Information located on the ID plate of the devices
- the software version
- the device setup and application
- the type of malfunction, suspected cause of failure
- the diagnostic messages (error messages)

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Content

1 Interface card “SERCOS interface“

Through the option card **SERCOS interface** the inverter (as a SERCOS SLAVE) is connected to the SERCOS MASTER.

Communication in the SERCOS ring takes place through fibre-optic cables:
X46: Fibre-optic receiver, **X45**: Fibre-optic transmitter.

The SERCOS interface card can be used on compact inverters KU (option KU-SC1 or KU-SC2) and KW (option KW-SC1). The option card is installed:

On KU:KU-SC1 (Order no. O567) or KU-SC2 (Order no. O590) on controller card in option slot 2
On KW:KW-SC1 (Order no. O669) on controller card in option slot 1 or option slot 2

KU-SC2

Deviating from interface card KU-SC1, which is connected to the internal inverter supply, an external 48V DC power supply is required for KU-SC2.

The external 48V supply voltage from un uninterruptible power system (UPS) through WAGO connector X52 maintains the repeater operation in the fibre-optic ring also in case of a mains failure.

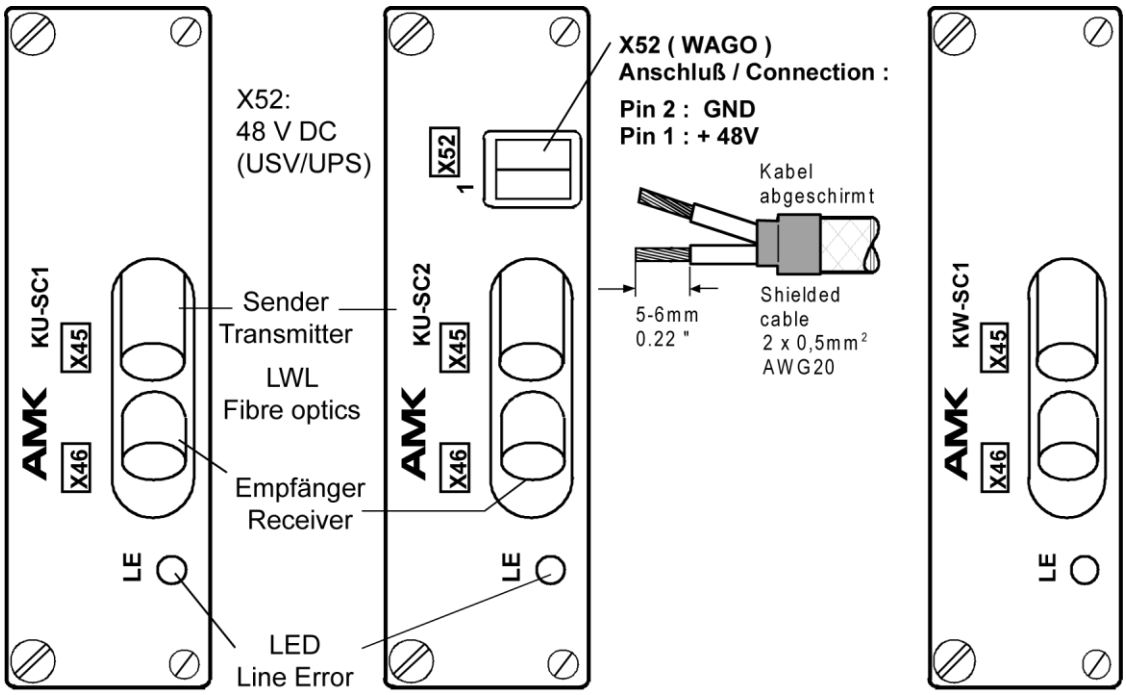
48V DC power supply requirements:

UPS with electrical isolation according to VDE0160 and RFI suppression according to EN55011, insulation voltage 500V DC

Output voltage:48V DC (KU-SC2 input voltage: 44V...52V DC)

For connection a shielded cable (2 x 0.5mm²/AWG20) must be used. Shield grounding single ended at the inverter housing!

1.1 SERCOS interface front plates

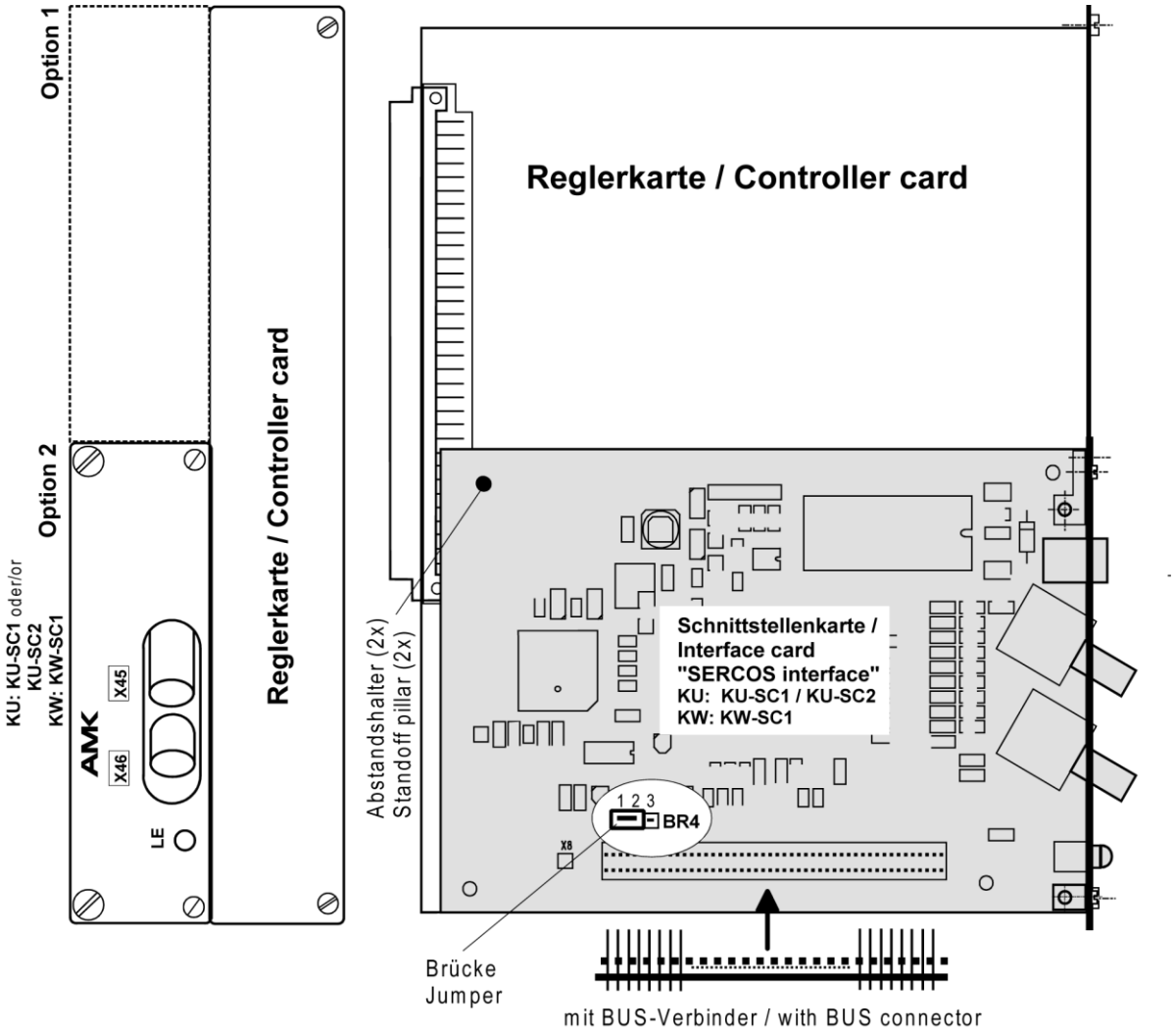


picture name: ZCH_KxSC12_fr

The “**LE**” **LED indicates** “Line Error“. This LED lights up if no signal is received or with a too large signal deviation of the receive signal.

1.2 SERCOS interface card: Front view and component mounting diagram (on KU / KW controller card)

(KU-SC1 installed in slot 2)



picture name: ZCH_KU_W-SC1

☞ Pins BR4-1 and BR4-2 on the SERCOS interface card must be jumpered for correct operation. As shipped this jumper is set.

1.3 Important notes on handling

Because of possible destruction of components by static discharge, touching the electrical connections and the contacts on the solder and mounting side of the option card must be avoided.
For discharge first touch PE before handling the option card!

1.4 Installation instructions for ”SERCOS interface card”

NOTICE

Electronic components could be destroyed through static discharge!

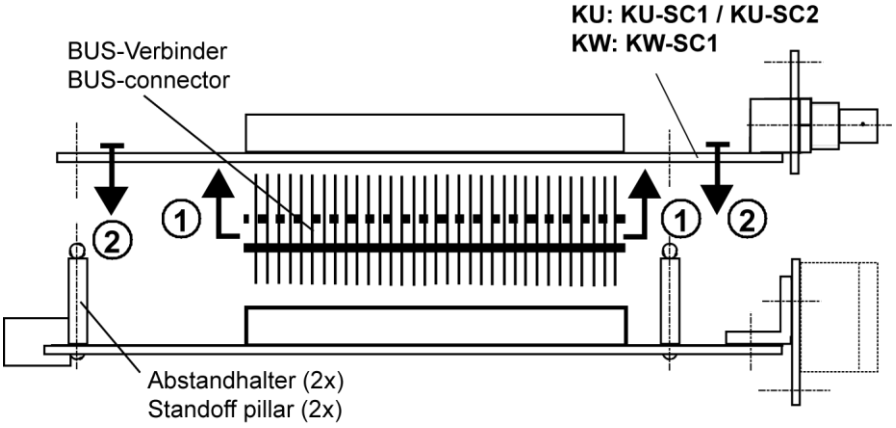
Therefore touching of the electrical connections on the card (e.g. option card, controller cards) must be avoided.

Steps to prevent:

Before handling the electronic component discharge yourself by touching PE.

The SERCOS interface card must be inserted in the appropriate slot on the KU / KW controller card.

1. Ensure that the AMKASYN system is disconnected from the power supply and that the DC BUS capacitors are discharged.
2. Remove blanking plate at the selected slot by loosening the two captive screws.
3. Loosen the two captive screws at the right edge of the controller card frontplate, then unplug the controller card carefully. Place the card only on a non-conductive, padded surface.
4. Press the two snap-in plastic standoff pillars in the corresponding holes on the controller card (assigned to the selected slot 1 or 2).
5. Press the BUS connector with the longer pins fully into the socket connector of the SERCOS interface card (BUS connector pins must be flush with socket connector).
6. Insert the BUS connector on the SERCOS interface card with the short pins into the socket connector on the controller card and at the same time snap in the standoff pillars into the holes of the SERCOS interface card.



picture name: ZCH_KUKW-SC1

7. Plug-in the controller card with the SERCOS interface card as a whole carefully into the card shaft until the controller card is plugged securely in the mating connector.
8. Tighten the captive screws at the frontpanel of the controller card and of the option card).

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