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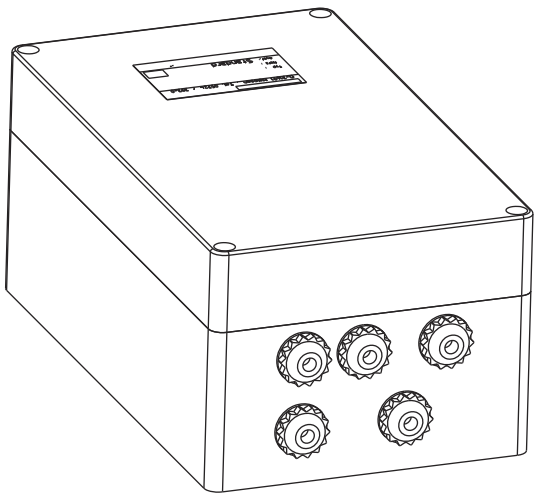
HAUTAU

Installation and operating instruction

SYN 225, SYN 325, SYN 425, SYN 2+2, SYN 2+2F

Member of the expert group for smoke and heat exhaust ventilation systems controlled by motor drives

ZVEI



Safety and installation information

Any work on live components may only be performed by a trained electrician. Safety information to be observed:

Observing DIN, VDE, and government safety organisation regulations as well as the provisions of your local power company is mandatory.

Disconnect the mains supply before performing any work.

The installation must be protected against accidental actuation.

No wires conducting 24 V DC must be laid together with electric power lines (follow VDE regulations).

All wire lengths and cross sections must correspond with the technical specifications.

Check all functions after installing the sync control system successfully.

Technical specifications

Input voltage	24 DC (max. 32 V)
Current consumption without drives	< 60 mA
Output current (per channel)	2,5 A
Duty cycle	50 %
Ambient temperature	+10 °C to +36 °C
Lead wires (number of wires)	4 wires
Connection terminals	pluggable
Housing dimensions H/W/D	200 x 120 x 86 mm
Protection class	IP 65

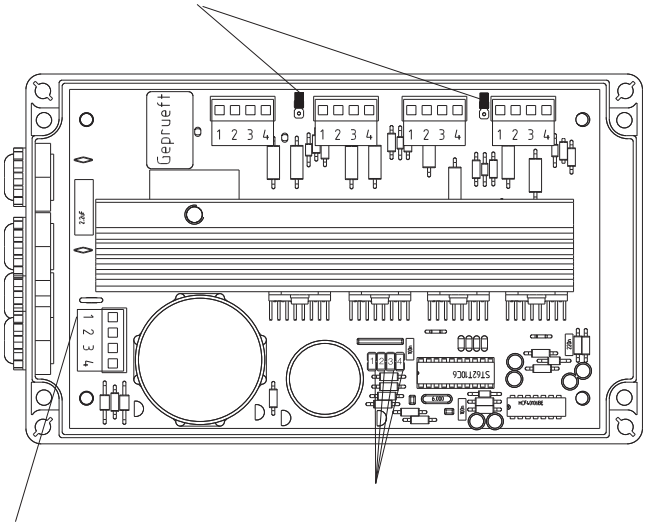
Current at output:

Drives	max. 2,5 A
Pulse generator on spindle	9 pulses/rev.

The maximum current at the output is set as specified in the table

Jumper setting

Current setting via jumpers



With the jumpers set, both channels must be interpreted as one

1 + 2 Supply and change of direction
3 Malfunction (max. 100 mA)
4 Display "Window open" (max. 100 mA)

Functional description

The SYN 425 sync control system is used for connecting 4 drives with a current consumption of 2,5 A per channel. The drives include a pulse generator featuring an output frequency (Lower) of 25 Hz and are connected to the sync control system via a
4-wire lead (motor +/-, GND, imp.) and plug-in terminal screws. The output of the pulse generator is protected against reverse polarity.

When switched to OPEN direction, the drives will open the window and send a Window open message to the central control unit.

When set to CLOSE direction, the drives will close.

After all drives have closed, the message Window open will be retracted.

The sync control system is supplied with voltage and given the command for the running direction by the central control unit.

The control system monitors and controls the synchronous run of the sync drives. If the difference between the drives exceeds 20 pulses, the process is interrupted, and an error message will be sent to the central control unit.

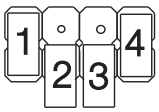
The current settings for the drives are adjusted via jumpers.

The SYN 325 sync control system is used for connecting 3 drives.

The SYN 225 sync control system is used for connecting 2 drives.

The SYN 2+2 sync control system is used for connecting 4 drives with 2 drive pairs running in sync independent of one another.

The SYN 2+2F sync control system is used for connecting 4 drives with 2 drive pairs running in sync and sequence independent.



0 - Jumper set
1 - Jumper not set
Example: 0110 = 1,5 A

I/A	0,25	0,50	0,75	1,00	1,25	1,50	1,75	2,10	2,35	2,60	2,90
J1	0	0	0	0	0	0	0	1	1	1	1
J2	0	0	0	1	1	1	1	0	0	0	0
J3	0	1	1	0	0	1	1	0	0	1	1
J4	1	0	1	0	1	0	1	0	1	0	1

Wire cross section

The wire length between the control system ans the drive must nor exceed 3 m.

Lead wire from the control unit to the control system.

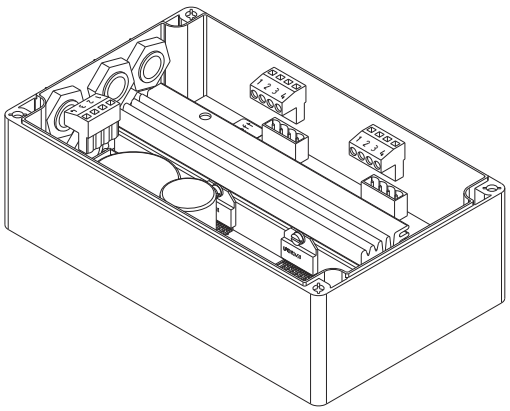
The minimum wire cross section depends on the total current consumption of all drives installed in the feeder wire and the length of the wire.

Formula for calculating the wire cross section:

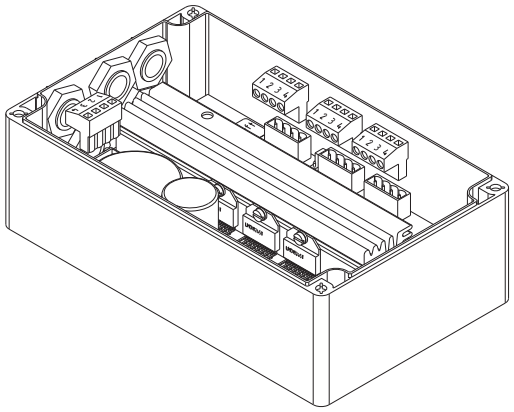
Wire cross section [mm2]=

$$\frac{\text{total current consumption of all drives [A]} \times \text{wire length [m]}}{73}$$

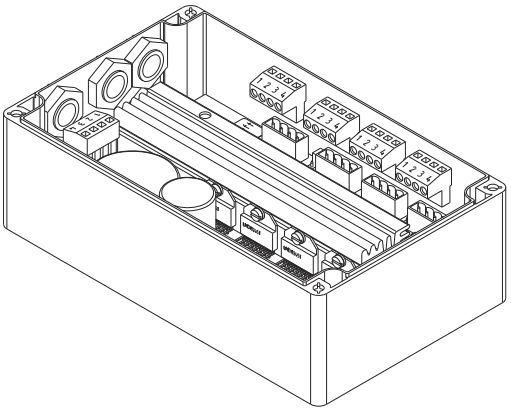
For the application examples on how to calculate the cross section, please refer to the instructions of the included central control unit.



SYN 225

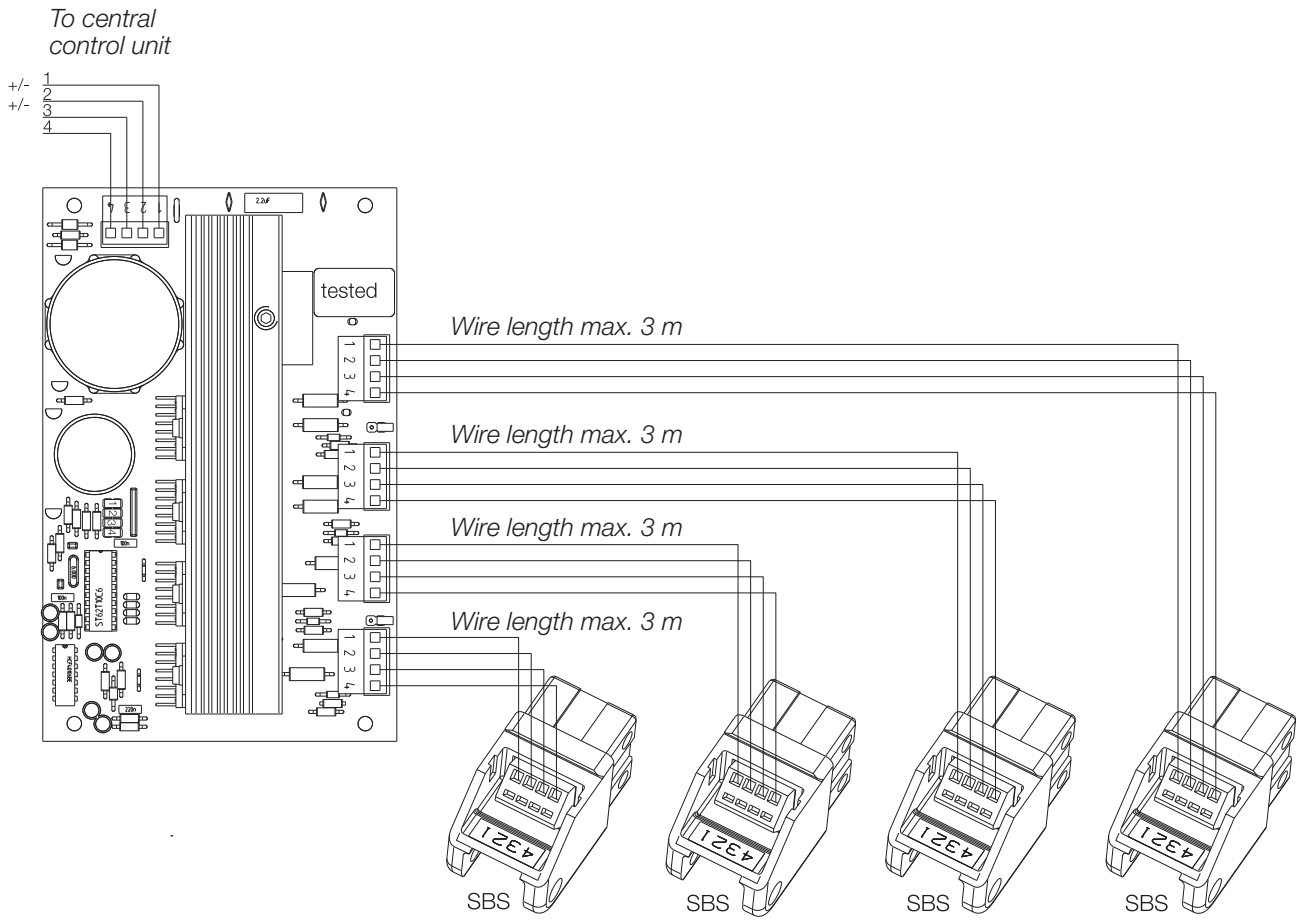


SYN 325



SYN 425

Application example



HAUTAU GmbH · Postfach 1151 · D 31689 Helpsen
Fon + 49 57 24 / 3 93-0 · Fax Sales GLT -124 (domestic) / -138 (export)
Info@HAUTAU.de · www.HAUTAU.de