

Installation Instructions for the TBSA/TBSB/TCSA Damper GOLD/COMPACT

1. General

TBSA/TBSB/TCSA Dampers can be used as shut-off dampers or boosting dampers. The larger dampers with modulating damper actuator (GOLD sizes 12 – 120) can also be used for other applications, such as an outdoor air damper for the ReCO2 control function.

2. Maintenance

Inspect the damper for correct operation, inspect the seals and clean the damper if necessary at least twice a year.

3. Installation

For the installation of dampers in duct systems, see the individual instructions entitled: Installation Instructions for Duct Accessories.

4. Technical Data

Actuator, GCA 321.IE

Permissible ambient air temperature range -32 to +50°C
Enclosure class IP 54

Actuator, LM 230-F

Permissible ambient air temperature range -30 to +50°C
Enclosure class IP 54

Actuator, NM 230

Permissible ambient air temperature range -30 to +50°C
Enclosure class IP 54

Actuator, SM 230 A

Permissible ambient air temperature range -30 to +50°C
Enclosure class IP 54

Actuator, GCA 161.IE

Permissible ambient air temperature range -32 to +55°C
Enclosure class IP 54

Actuator GCA, 161.IE

Permissible ambient air temperature range -32 to +50°C
Enclosure class IP 54



TBSA



TBSB



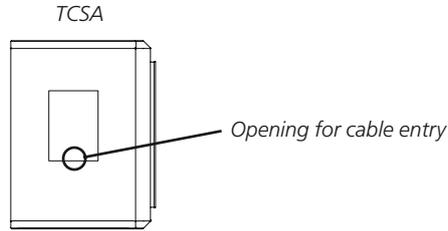
TCSA

5. Electrical Connections

The electrical connections are to be wired by a qualified electrician in accordance with local electrical safety regulations.

TBSA/TBSB: The last digit in the damper specification denotes the type of damper.

TCSA: The type of damper is specified in plain text (Swedish/English) on the type identification plate. An opening for cable entry is provided on the lower edge of the cover panel in front of the damper actuator. See illustration.



N.B.! If actuators of different voltage are used, always check the type of actuator on the actuator rating plate prior to wiring electrical connections!

TBSA/B with spring return (TBSX-x-xxx-xxx-x-1) TCSA with spring return (TCSA-1-xx)

For use as a shut-off damper.

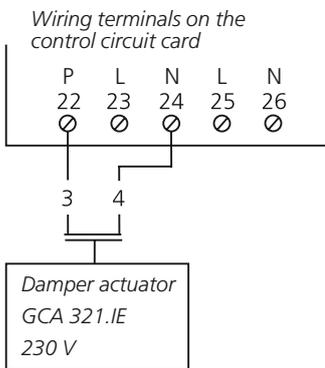
The damper actuator has a 0.9 metre long connection cable. The cable cross section is 2 x 0.75 mm.².

TBSA/B on/off (TBSX-x-xxx-xxx-x-2) TCSA on/off (TCSA-1-xx)

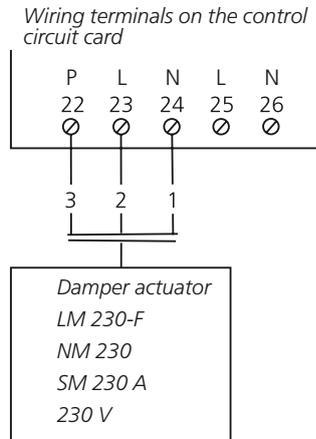
To be used as a shut-off or boosting damper.

The damper actuator has a 1 metre long connection cable. The cable cross section is 3 x 0.75 mm.².

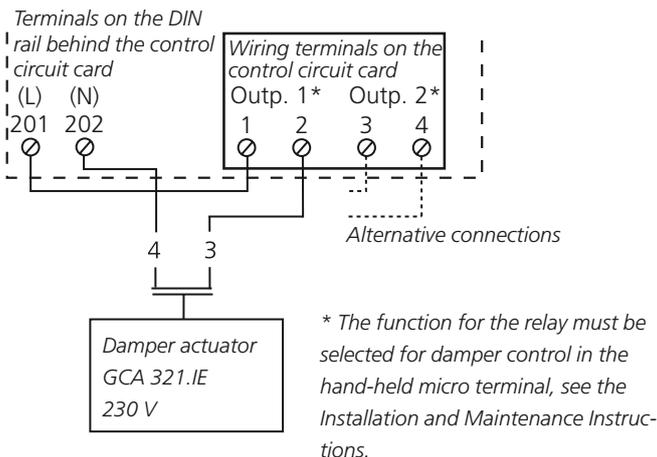
GOLD RX/PX/CX/SD



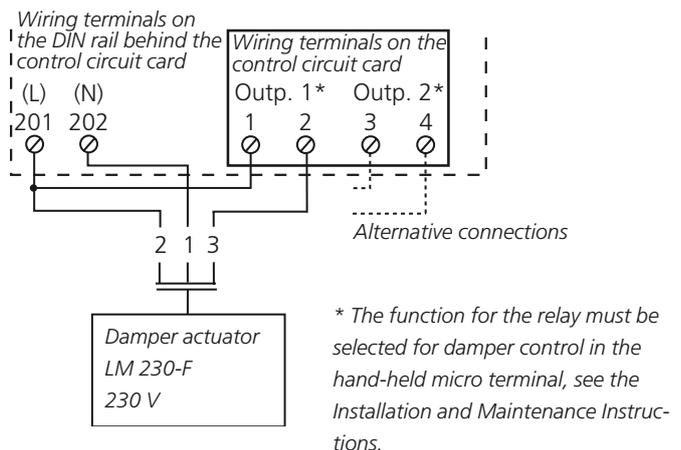
GOLD RX/PX/CX/SD



GOLD LP/COMPACT



GOLD LP/COMPACT

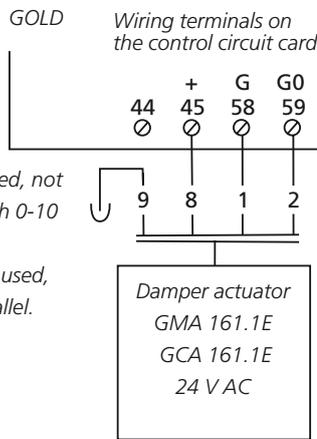


**TBSA modulating (TBSA-x-xxx-xxx-x-3)
TCSA modulating ((TCSA-1-xx)
For use in the GOLD SD extract air or supply air handling unit.**

The damper actuator has a 0.9 metre long connection cable. The cable cross section is 4 x 0.75 mm².

24 V supply voltage, on control circuit card wiring terminals 58-59 and 60-61. The max. permissible load on these terminals is 32 VA.

**Option 1
The damper must not be closed if the air handling unit stops.**



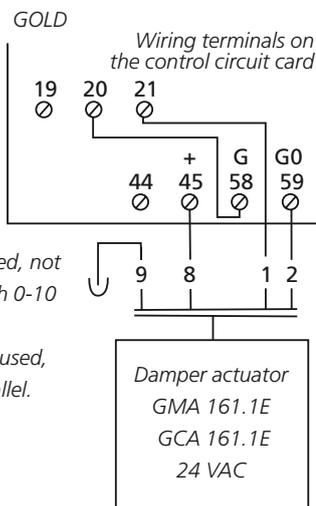
Wire number 9 must be insulated, not to be connected (energised with 0-10 V output).

If several damper actuators are used, they must be connected in parallel.

Under normal operating conditions, the damper opens and closes by means of the damper actuator's motor drive (actuating time: 90 seconds).

**Option 2
The actuator should close the damper if the air handling unit stops.**

If the damper actuator should close the damper when the air handling unit is idle, the 24 V supply voltage cable can be wired via the GOLD air handling unit's service contact.



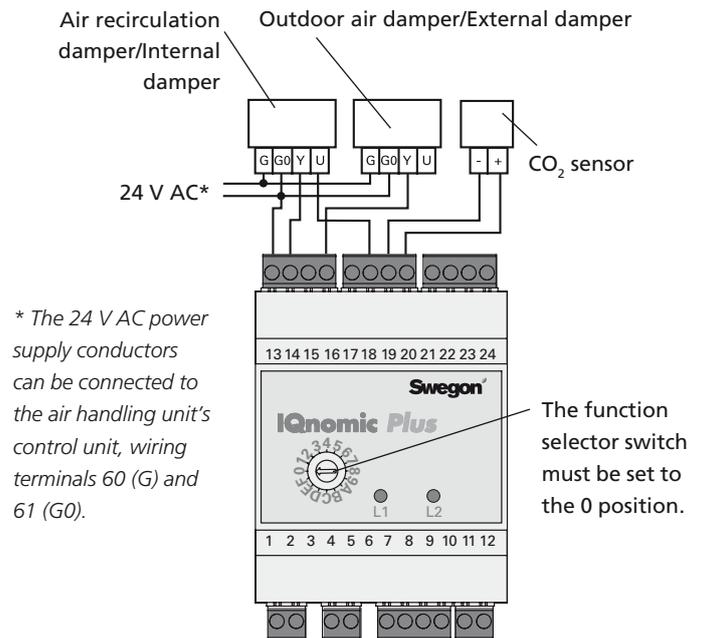
Wire number 9 must be insulated, not to be connected (energised with 0-10 V output).

If several damper actuators are used, they must be connected in parallel.

**TBSA modulating (TBSA-x-xxx-xxx-x-3)
TCSA modulating ((TCSA-1-xx)
For use as an outdoor air damper or an air recirculation damper if the ReCO₂.**

2 function is selected. The damper actuator has a 0.9 metre long connection cable. The cable cross section is 4 x 0.75 mm².

24 V supply voltage, on control circuit card terminals 58-59 and 60-61. The max. permissible load on these terminals is 32 VA.



* The 24 V AC power supply conductors can be connected to the air handling unit's control unit, wiring terminals 60 (G) and 61 (G0).

