

Function:

The electro-pneumatic converter is a connecting element between controller and pneumatic control valve. It creates a control signal from "+"- or "-"- impulse of 3-point-step controller and from available compressed air. Voltage application on exhaust solenoid valve 1 (see drawings on pages 2-3) effects de-aeration of the pneumatic actuator, voltage application on supply solenoid valve 2 effects aeration of the pneumatic actuator. For proper functioning of converter with quick-exhaust function, it is necessary to apply voltage also on solenoid valve 3. Voltage interruption on this valve activates the quick-exhaust function: de-aerating of the pneumatic actuator. The pneumatic output signal depends on the supply air pressure and must not be higher than the maximum permissible pressure of the actuator. The flow rate of the supply and exhaust air can be modified with throttling valves, therefore it is possible to adjust the positioning time of the pneumatic actuator if necessary.

Installation and wiring:

- Attention:**
- Installation, operation and maintenance should be done only by qualified personnel.
 - Disconnect pressure air supply before working on the valve and make sure, that it is impossible to connect it unintentionally (injury hazard)
 - Crushing and injury hazard because of moving parts
 - Observe corresponding operating manuals for actuator



- Fasten E/P converter with two M8 screws on the actuator cover (use convenient adapter if necessary)
- Connect operating air output with pneumatic actuator input using hose or tube
- Connect supply air from the pneumatic maintenance unit to converter input
- Check tightness of all pneumatic connections
- Connect converter electrically with the 3-point-step controller

Observe applicable accident prevention and safety regulations for electrical equipment!

Additional for E/P converter with quick-exhaust function (type 390365.):

- Apply voltage from the safety chain on the 3/2-way exhaust solenoid valve 3

Initiation:

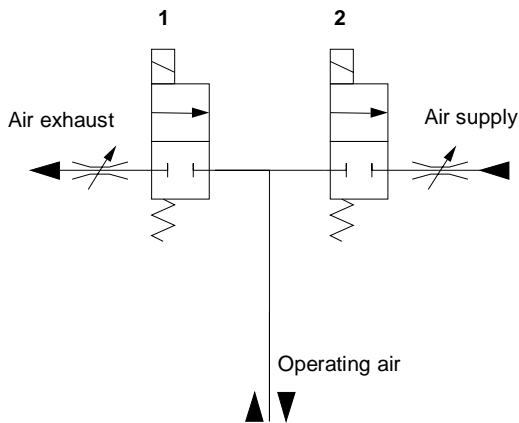
- Adjust pressure of the supply air on the pneumatic maintenance unit according to the required air pressure for the pneumatic actuator
- Hint:** Operation with too high air pressure causes reduction of the control quality
- Generate „+“ or „-“ impulse from the controller by changing of the set point and check the function of the control valve
 - Adjust the operating time of the control valve with throttling valves for air supply and air exhaust.
Clockwise turning of the handwheel: longer operating time
Anticlockwise turning of the handwheel: shorter operating time
The operating time by permanent „+“ or „-“ signal should be about 20-30 s (factory setting)
 - Dismount the handwheels of the throttling valves to avoid undesirable alterations of the adjustment, if necessary

Additional for E/P converter with quick-exhaust function (type 390365.):

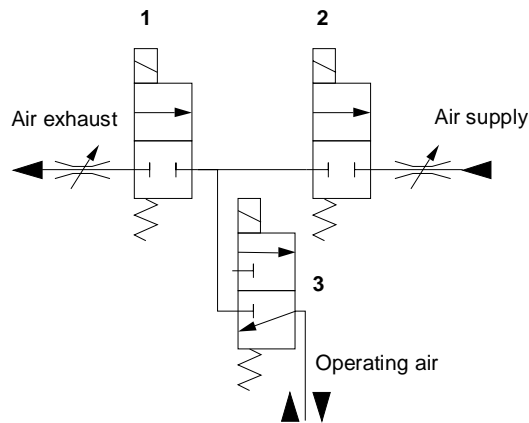
- Check the voltage on the 3/2-way exhaust solenoid valve
(there is no control function possible without voltage application on this valve)

Technical data:

Input signal:	3-point-step signal
Supply:	230V / 50Hz, alternatively: 24V / 50Hz, 24V DC
Electrical connection:	Connector acc. to DIN EN 175301-803, Form A
Connecting cable:	Ø4,5-6 mm / max. 0,75 mm ²
Compressed air supply:	Class 3 acc. to ISO 8573-1
Air pressure:	1,4...6 bar (20...90 psi)
Output signal:	0...100% air pressure
Air connection:	G 1/4"
Protecting class:	IP65 acc. to DIN EN 60529



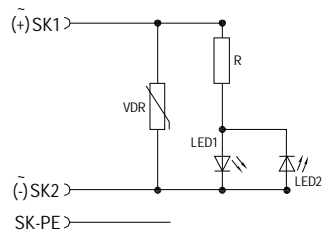
Type 390 360.*
without quick-exhaust function



Type 390 365.*
with quick-exhaust function

* = All solenoid valves are shown currentless

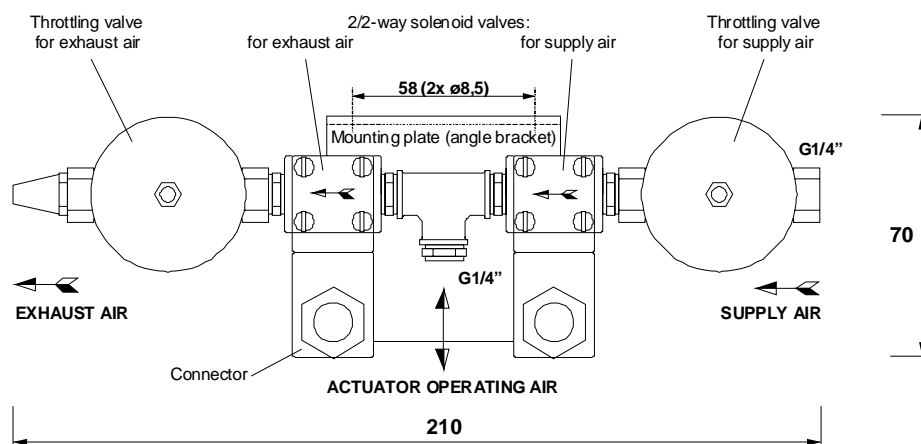
Electrical wiring - connector:



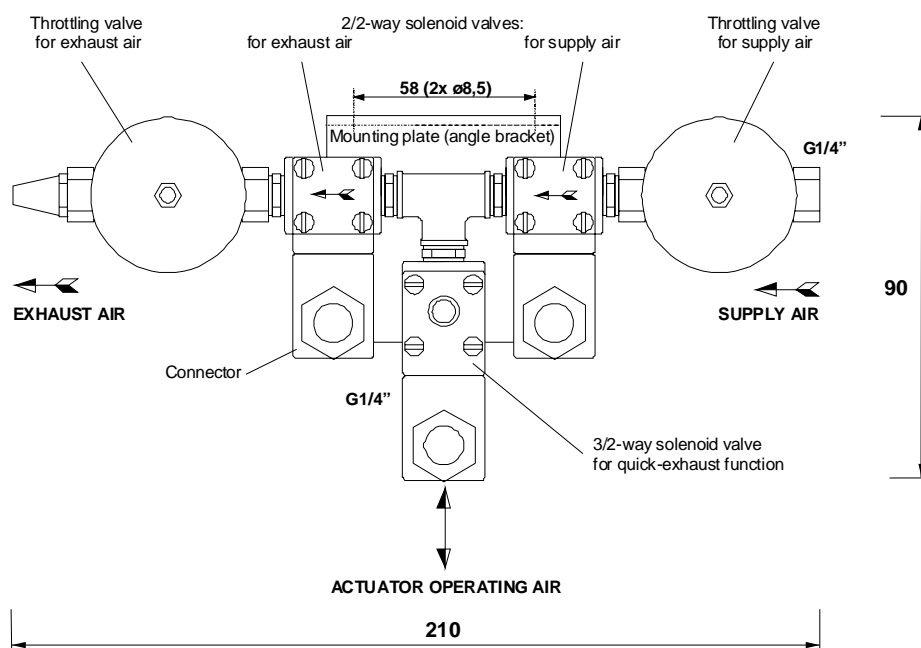
Types overview**:

		List- No.
230V / 50 Hz	without quick-exhaust function	390 360
24 V / 50 Hz	without quick-exhaust function	390 3602
24V DC	without quick-exhaust function	390 3608
230V / 50 Hz	with quick-exhaust function	390 365
24 V / 50 Hz	with quick-exhaust function	390 3652
24V DC	with quick-exhaust function	390 3658

** Ex-type of solenoid valves on request



Type 390360. without quick-exhaust function



Type 390365. with quick-exhaust function