RT 390.04

Control valve, pneumatic, Kvs 1,0, linear

The illustration shows a similar unit

Description

- **industrial control valve with electro-pneumatic positioner**
- **used in the construction of level and flow rate control systems**

The electro-pneumatic control valve is used primarily as the actuator in a level or flow rate control loop.

The control valve is installed and connected to the test stand for control valves, RT 390. An electrical signal input (identical to the controller output) is preconfigured and routed to the base module terminal array which is specific to the particular application.

The control valve is fitted with an electro-pneumatic positioner which requires a supply of compressed air. The valve rod is driven by a pneumatically operated membrane. The electro-pneumatic control valve is set to the safe "closed" position when no auxiliary power is applied.

Learning objectives/experiments

- functional range of an electro-pneumatically operated control valve
- recording of the flow rate characteristic during the experiment (flow rate dependent on degree of opening)
- standard current signals and correct electrical wiring and interconnection

Specification

[1] control valve as actuator in control loop
[2] electro-pneumatic positioner to actuate the pneumatic control valve drive by an electrical signal
[3] operating direction: rising
[4] safety position: closed

Technical data

Control valve
- DN 20
- PN 16
- K_{vs} value: 1,0
- characteristic: linear

Actuator drive
- diaphragm area: 120cm^2
- stroke: max. 15mm
- nominal signal range: 0,2...1bar
- electro-pneumatic positioner
  - input signal: 4...20mA

LxWxH: 500x260x420mm
Weight: approx. 10kg

Required for operation

Supply via RT 390

Scope of delivery

1 control valve with electro-pneumatic positioner
1 set of hoses with quick-release couplings für water connection
1 connecting cable for compressed air

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Required accessories

RT 390	Test stand for control valves