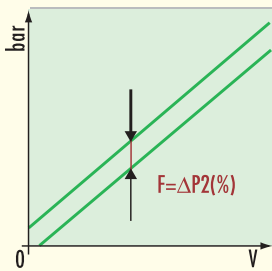


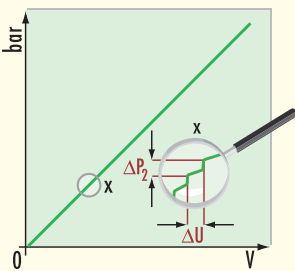
SYMBOLS AND TERMINOLOGY

HYSTERESIS



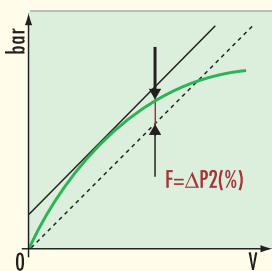
Hysteresis, or turnover voltage, arises from friction and an acute strain on elastic components. This results in different outlet pressures at a predetermined set-point depending on whether the previous value was larger or smaller.

SENSITIVITY



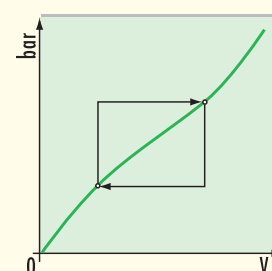
The minimum change in a set-point which leads to a change in the outlet pressure is called sensitivity. Expressed as a percentage of the maximum outlet pressure, this value is merely 0.5 % for ASCO/JOUCOMATIC's Sentronic valve, thus allowing for extremely sensitive adjustments of the outlet pressure.

LINEARITY



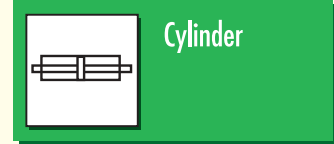
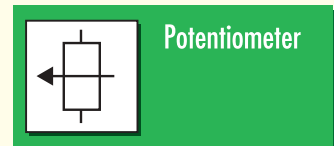
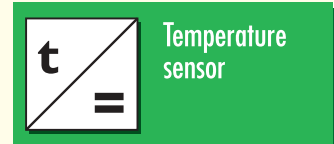
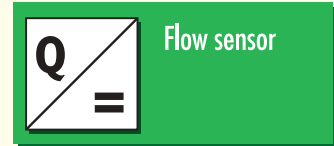
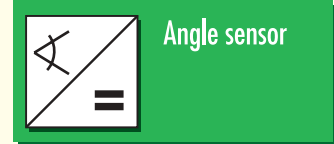
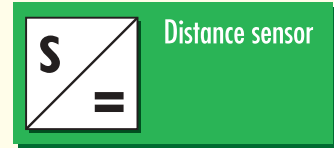
An outlet pressure shown in dependence on a set-point should result in an almost straight (linear) characteristic curve (dotted line) so that the pressure to be expected at a given set-point can be predicted as precisely as possible. The divergence is calculated from the maximum deviation from the ideal characteristic curve as related to the maximum outlet pressure.

REPEATABILITY



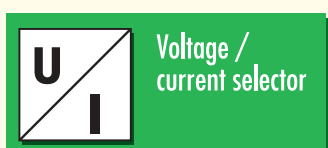
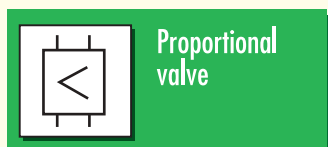
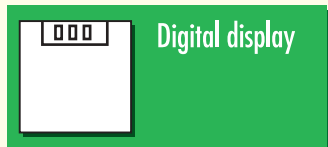
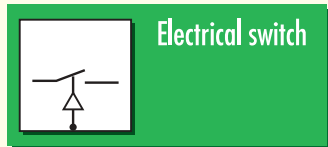
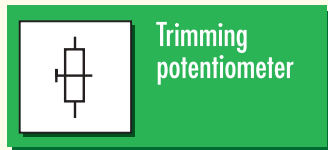
Control components are more precise in repeating a previously determined value than in adjusting to absolute values. The reason is that - under this aspect - the divergence from the linearity is of no importance. Moreover, the repeatability is positively influenced by a low hysteresis.

SYMBOLS

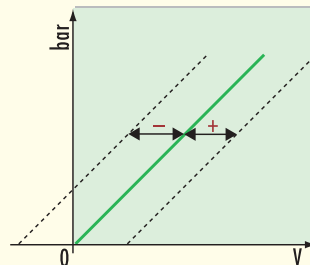


INTRODUCTION TO CONTROL TECHNOLOGY

SYMBOLS

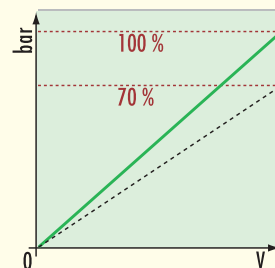


ZERO ADJUSTMENT



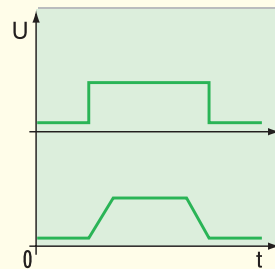
By way of zero adjustment, the proportional valve can be assigned to a predetermined starting point, and/or a definite pressure or flow can correspond to a previously established set-point.

SPAN ADJUSTMENT



If the user's operative range is only a part of the valve's total adjustment range, span adjustment can be used to assign the set-point range (0 - 10 V) to the user's operative range. This provides for the highest-possible resolution.

RAMP FUNCTION



The ramp function transforms a set-point step into an internal gradual increase of the set-point signal. This allows for slow opening and closing of proportional valves.

RIPPLE FREQUENCY

Modulation voltage to minimise friction (slip-stick) in a valve.

FEEDBACK VALUE

Actual electrical value of a physical variable.
(Pressure, force, temperature, flow etc.).

SET-POINT VALUE

Predetermined (desired) electrical value of the controlled variable which must effectively be reached and maintained.