

AV43...45 P: Pneumatic valve drive

For activating the valves of the V6, B6, VX and BX series in continuous or open/closed control systems. The valve drive is silicon-free and conforms with directive 97/23 EWG for pressure equipment.

Housing and fixing bracket of light alloy; rubber diaphragm with inlaid fabric; drive spindle of stainless steel with coupling piece and stroke indicator; direction of movement can be changed by fitting accordingly (factory setting: spindle normally retracted; fitting method E, valve closed); compressed-air connection Rp 1/8, female thread (AV45 P: Rp 1/4).



T03066



Y07550

Type	For valves with stroke of mm	Air consumption for 100% stroke I _n	Control span ¹⁾ bar	Effective drive area cm ²	Weight kg
AV43 P10 F001 ²⁾	14	0.9	0.32	250	4.6
AV43 P15 F001 ²⁾	14	1.2	0.6	250	5.2
AV43 P30 F001	40	2.2	0.6	250	4.9
AV44 P10 F001	14	1.5	0.21	500	11.3
AV44 P20 F001	40	4.2	0.6	500	11.4
AV45 P10 F001	40	8.0	0.35	1000	33.8
AV45 P15 F001	40	9.5	0.6	1000	38.6
Control pressure ³⁾	0...1.2 bar		Dimension drawing Fitting instructions Assembly Valve/drive	M274951 MV 40.136 MV 43190	
Max. pressure	1.5 bar				
Permissible ambient temp.	-15...50 °C				
Temperature at the diaphragm	max. 70 °C				

Accessories

- XSP 31 Positioner ⁴⁾ (see Section 79)
- XSP 31G Positioner ⁴⁾, in protective housing (see Section 79)
- XAP 1 Aux. contact unit ⁴⁾ (see Section 79)
- XAP 2 Potentiometer unit ⁴⁾ (see Section 79)
- XUEP Electro-pneumatic pulse converter with mini-compressor (see Section 79)
- XEP Electro-pneumatic converter ⁴⁾ for continuous signals (see Section 69)
- 0274521 000** Manual-adjustment facility ⁵⁾ for AV43 and AV44 P; weight 1.7 kg; [MV 505819](#)
- 0274522 000** Manual-adjustment facility ⁵⁾ for AV45 P; weight 5.2 kg; [MV 505819](#)

^{*)} Dimension drawing for accessory is available under the same number

Assembly material for valve series V6, B6 and VXD, VXE, BXD, BXE

Drive type	XSP 31	XSP 31 G	XAP	XEP
AV43 P10, AV43 P15, AV44 P10	0226506 002	0226532 002	0226513 003	0274700
AV43 P30, AV44 P20	0226508 002	0226532 002	0226513 003	0274700
AV45 P10, AV45 P15	0226510 002	0226534 002	0226514 003	0274701

1) Pressure–stroke curves: see valve data sheet, Section 78.

2) Only for valves with O-ring stuffing box.

3) Needed in order to attain the actuating power.

See Section 60 on regulations concerning the quality of supply air, especially at low ambient temperatures.

4) Of the accessories, only a positioner (XSP 31 or 31 G), a feedback unit (XAP) and an electro-pneumatic transducer (XEP) can be fitted. When fitting XSP 31 and XAP, the XEP must be screwed sideways onto the fixing bracket.

5) Can be used for minimum or maximum limitation of the stroke. Removable hand wheel.

Operation

Via a diaphragm, the control pressure acts against a pre-tensioned pressure spring. When the former force is greater than the latter, the spindle starts to move. The valve drive is reversible and can be fitted to the bracket in one of two ways:-

Function A: 'normally extended' (the spindle retracts as the control pressure rises).

Function E: 'normally retracted' (the spindle extends as the control pressure rises).

(The unit is set at function E at the factory.)

Used with the valves of the V6, B6 and VX . , BX . series (vertical plug), the following applies:-

Function A: (valve) 'normally open' (NO).

Function E: 'normally closed' (NC).

Engineering and fitting notes

The drive springs are pre-set for fitting to the valve (14 or 40 mm stroke). After fitting, the closing points should be checked as per [MV 40.136](#). If necessary, the spring pressure should be adjusted by turning the nut in the centre.

The unit can be fitted in any position except facing downwards and at temperatures (of the valve medium) of up to 240 °C.

Where the temperature of the medium exceeds 180 °C, the unit should be fitted horizontally.

This piece can also serve as an extension when the drive needs to extend beyond the pipe insulation.

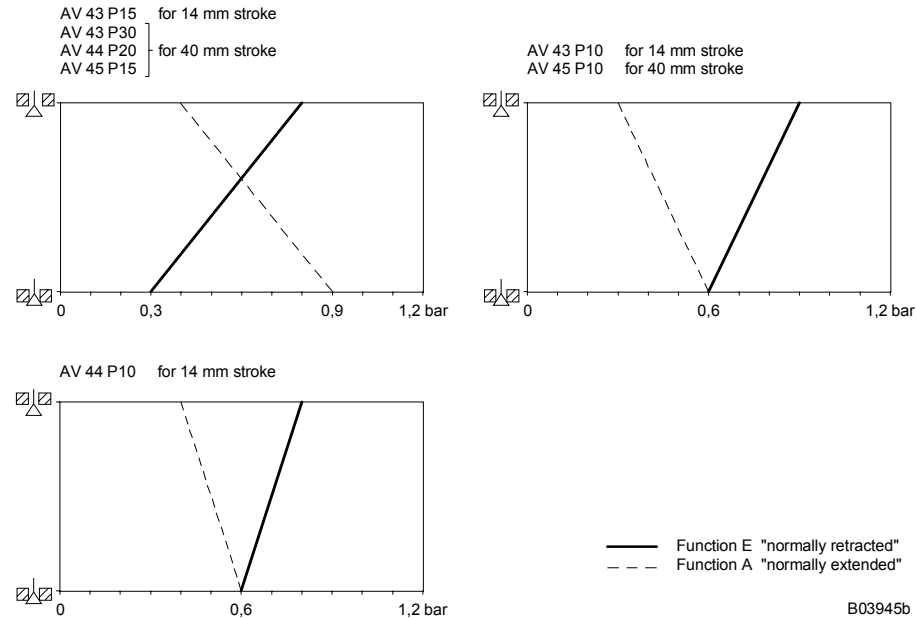
The ingress of condensate, dripping water etc., along the stem and into the drive should be prevented.

When fitting the drive to the valve, care must be taken not to turn the valve plug in the valve seat, thus damaging the seal.

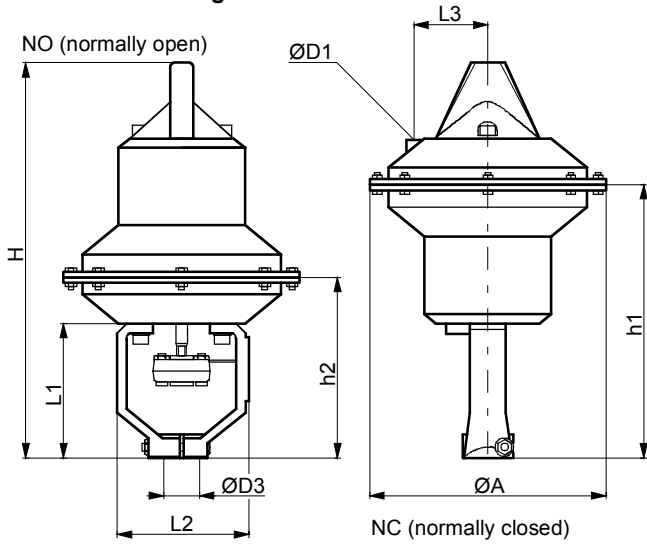
Pressure–stroke characteristics

Pre-set for through valves of 14 or 40 mm stroke (see table of types).

Pressure–stroke characteristics, pre-set for through valves.



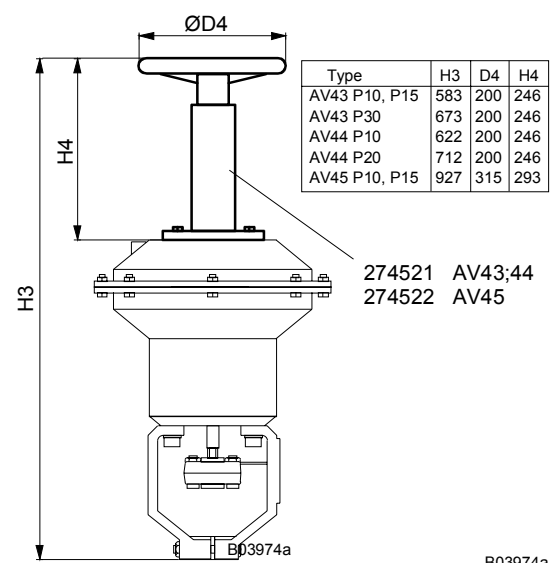
Dimension drawings



Type	A	D	D1	D3	H	h1	h2	L1	L2	L3
AV43 P10,P15	250	M10	Rp 1/8	38	417	288	191	142	139	70
AV43 P30	250	M16	Rp 1/8	60	507	378	281	232	139	70
AV44 P10	335	M10	Rp 1/8	38	466	326	192	142	139	105
AV44 P20	335	M16	Rp 1/8	60	556	416	282	232	139	105
AV45 P10 P15	465	M16	Rp 1/4	60	754	556	344	266	199	160

M274951b

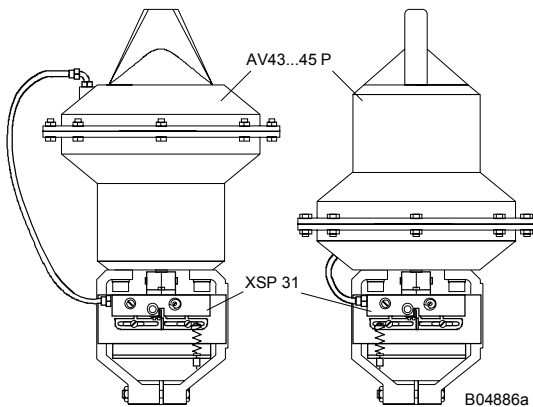
Manual adjustment



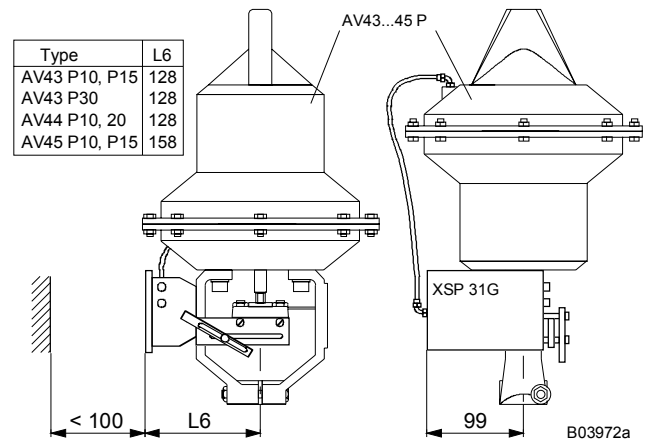
B03974a

Fitted with one ancillary

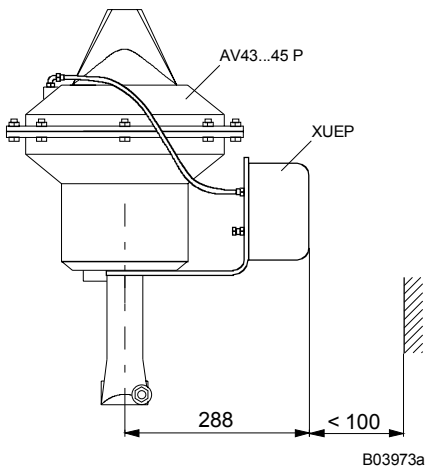
XSP 31



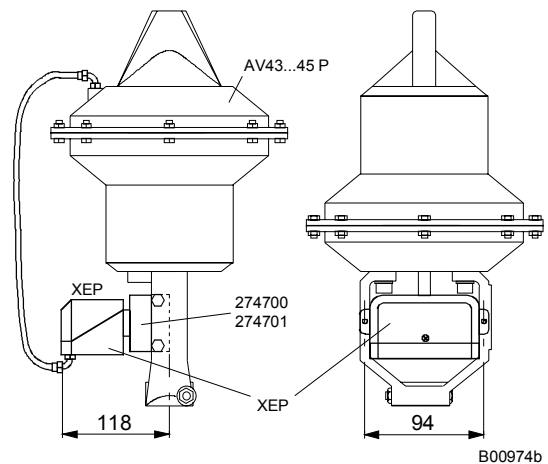
XSP 31 G



XUEP 1

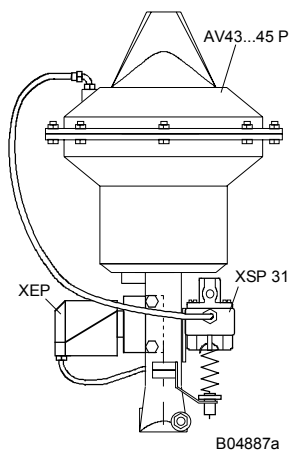


XEP

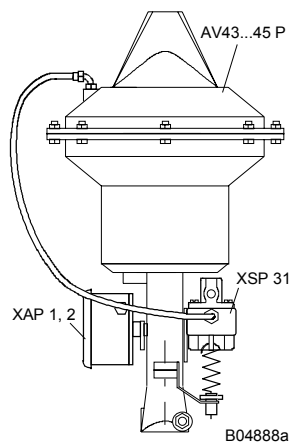


Fitted with two ancillaries

XEP + XSP 31



XAP + XSP 31



XEP + XAP

