

AVM 124: Valve drive

For controllers with switched output (three-point control). For operating through valves or three-way valves of the VXN, BXN series.

Housing of fire-retardant plastic, with stepping motor, electronic control unit, LED indicator and gears; body of gears and fixing bracket (for fitting the valve) are of cast zinc; transparent cover of fire-retardant plastic; electronic force-dependent cut-out by means of stops either in the drive or on the valve; coding switch for changing the running time; external manual adjustment (motor switches off); electrical connection (max. 1,5 mm²) by screw terminals; cable inlet M20x1,5; can be fitted in any position between vertical (upright) and horizontal.



T09865



Y07551

Type	Running time s	Stroke mm	Pushing force N	Power	Weight kg
AVM 124 F130	30 / 60 / 120	8	800	230 V~	2,1
Power supply	230 V~ ± 15%, 50...60 Hz		Degree of protection ¹⁾	IP 54 as per EN 60529	
Power consumption	3,4 W	4,4 VA	Protection class	II as per IEC 60730	
max. operating temperature	100 °C at valve		Min. response time	200 ms	
Permissible ambient temp.	5...60 °C		Wiring diagram	A09855	
Ambient humidity	< 95 %rh without condensation		Dimension drawing	M07430	
			Fitting instructions	MV 505809	
			Declaration of materials	MD 51.365	

Accessories

0370880 001	Mechanical stroke indicator; MV 505517
0370881 001*	Auxiliary change-over contacts ²⁾ , simple; MV 505517
0370882 001*	Auxiliary change-over contacts ²⁾ , simple, with pot. 2000 Ω, 1 W; 24 V; MV 505517
0370882 006*	Auxiliary change-over contacts ²⁾ , simple, with pot. 1000 Ω, 1 W; 24 V; MV 505517
0370883 001*	Potentiometer 2000 Ω, 1 W; 24 V; MV 505517
0370883 006*	Potentiometer 1000 Ω, 1 W; 24 V; MV 505517
0372249 001*	Intermediate piece required for media temperature >100 °C for BXN / VXN (recommended for temperature < 10 °C); MV 505932
0372460 001	Cable screw fitting (plastic M20x1,5) incl. locking nut and gasket, max. 2 pcs.

^{*)} Dimension drawing or wiring diagram are available under the same number

¹⁾ Degree of protection IP 54 only with cable screw fitting

²⁾ Infinitely variable; max. load 2 (1) A, 12 ...250 V~, min. load 250 mA, 12 V~

Operation

By applying power to terminals 1-2a (or 1-2b), the final control element can be moved to any desired position by means of the coupling rod. This extends (or the valve opens) if power is applied to the drive at terminals 1 and 2a, but retracts if applied to terminals 1 and 2b.

In both end positions (on hitting a stop in the valve or reaching the maximum stroke), or in the event of an overload, the electronic motor cut-off is activated (no end switches).

The stroke direction can be changed by transposing the connections.

The green LED lights up whenever a command is at terminal 2a or 2b. When the stops have been reached and the command is still present, the LED flashes at intervals of about 2,5 seconds. In the case of pulse-modulated control signals (e.g. a 3-point PI controller), the LED always flashes at the same rate as the control signal.

When use is made of the external manual adjustment facility, the motor cuts out when the lever is folded out.

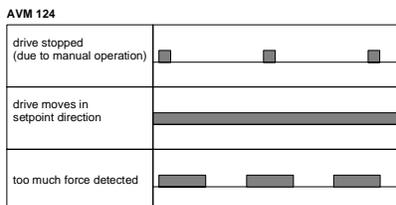
Coding switches

	S1	S2	S3	S4
120 s	off	on	unused	
120 s	on	on		
60 s	on	off		
30 s	off	off		
	on	on		

LED



grün
vert
green
verde
grön
groen



B09863

Engineering and fitting notes

The ingress of condensate, drops of water etc. along the valve spindle and into the drive should be prevented.

The drive and valve are fitted together by hand, then the screws are tightened; no further adjustment is necessary. The drive is delivered ex works in the middle position.

The concept of a stepping motor combined with electronics ensures parallel operation of more than one valve drive (of the same type).

The maximum number of accessories is a stroke indicator plus one other piece – auxiliary contacts, potentiometer or a combination thereof.

Fitting outdoors. If the devices are fitted outdoors, we recommend that additional measures be taken to protect them against the effects of the weather.

Additional technical information

Transparent cover with lever for manual adjustment. The black housing holds the stepping motor, the electronic control unit and the transformer. Underneath is the maintenance-free gear unit. By breaking out a pre-scored circle in the housing, it is possible to create an aperture to fit a second M20 cable screw fitting.

Auxiliary change-over contacts

Switch rating: max. 230 V a.c.; min. current 20 mA at 20 V

Switch rating: max. 4...30 V d.c.; min. current 1...100 mA

Power consumption:

Type	Running time s	Condition	active power P	apparent power S
			W	VA
AVM 124 F130	30	Operating	3,4	4,4
		Standstill	1,5	3,0

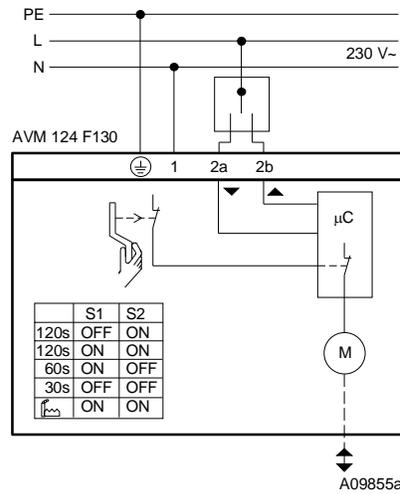
CE conformity

EMC directive 2004/108/EC
EN 61000-6-1
EN 61000-6-2
EN 61000-6-3
EN 61000-6-4

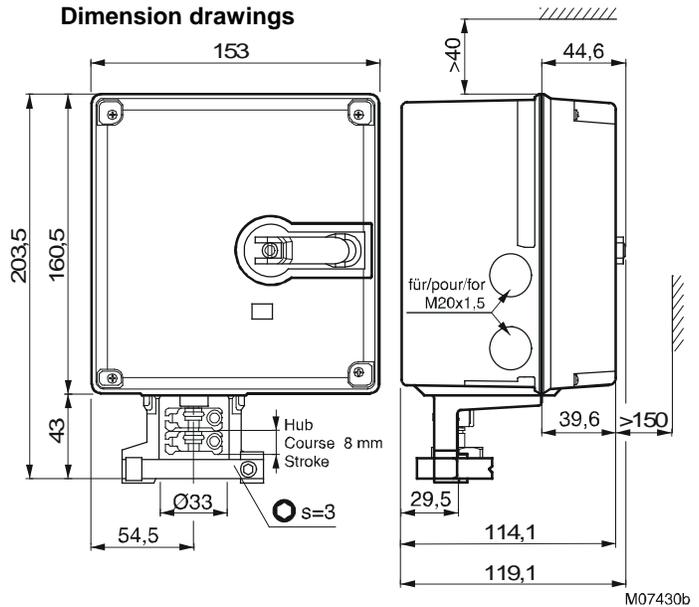
Machine directive 98/37/EEC (II B)
EN 1050

Low-voltage directive 2006/95/EC
EN 60730 1
EN 60730-2-14
Over-voltage category III
Degree of pollution III

Wiring diagram

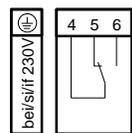


Dimension drawings

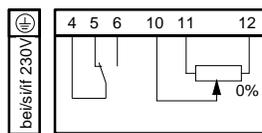


Accessories

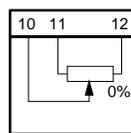
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