

Fig. 1

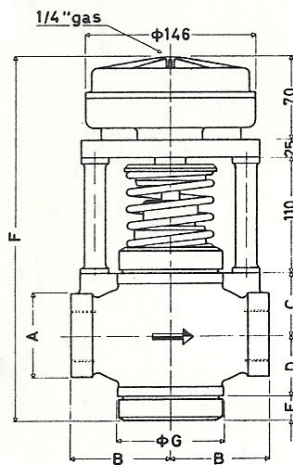


Fig. 2

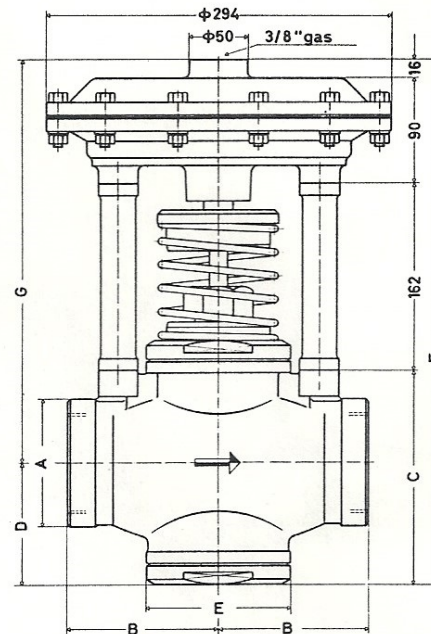


Fig. 3

Marrel

Model	Connection Threads	Net orifice Surface	KV	Operating Pressure Min. Kg/sq.cm. Max.	Fig.	Pe/Pc	Overall dimensions							
							A	B	C	D	E	F	G	
DP/2180	1/2" gas	180 sq.mm	50	2	8	1	5	38	50	35	35	22	250	54
DP/2300	3/4" gas	300 sq.mm	100	2	8	1	5	50	60	40	40	26	264	66
DP/2500	1" gas	500 sq.mm	150	2	8	1	5	50	60	40	40	26	264	66
DP/21400	1 1/2" gas	1400 sq.mm	310	2	10	2	5	70	85	52	56	20	317	91
DP/22000	2" gas	2000 sq.mm	600	2	10	2	4	86	95	63	67	20	339	100
DP/23000	2 1/2" gas	3000 sq.mm	1200	0,5	10	3	6	108	130	182	104	125	450	346
DP/24500	3" gas	4500 sq.mm	1600	0,5	10	3	6	108	130	182	104	125	450	346

Specifications

Perfect air-tightness through the use of soft gasket. Particularly rugged construction for heavy operating conditions. Wide internal passageway featuring a high load coefficient.

Use

Operating pressure up to 40 Kg/sq.cm. Operating temperature up to 180 degrees C with PTFE gasket, even in case of high-density, high-viscosity or corrosive fluids.

Actuators

Piston or single action diaphragm for lubricated or dry air. Other operating fluids can be used. The maximum ratio of operating pressure to control pressure is indicated under heading Pe/Pc in the above table for standard valve models. Oversized actuators are available for lower operating pressures.

Operation

Spindle travel is governed by the piston on the one end

and by a high-load spring on the other end. This arrangement ensures trouble-free operation even in the case of highly viscous fluids.

Valves are available in NC (normally closed, opened by air) or NA (normally open, closed by air) version.

Construction

Bronze or stainless steel body, stainless steel spindle. Floating gasket seat to compensate for axial misalignments. Nitril rubber, viton, PTFE gasket depending on cutoff fluid. The diaphragm of valves model DP/23000-24500 is in neoprene and hipalon-coated plaited fabric.

Optionals

For valves up to 1", a gradual closing block and a cutoff speed regulator can be provided to avoid water-hammer effects (DPR).

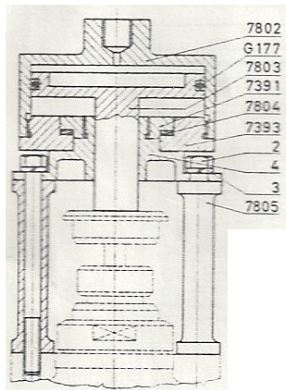
DPDT or SPDT limit switches to indicate valve open/close conditions. Socket welding and flange joints.

Possibility of direct coupling to actuating solenoid valves (see table 302 version B).

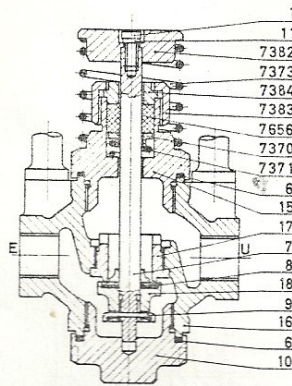
PNEUMATICALLY - OPERATED CUTOFF VALVES

Models DP/2180, 2300, 2500 NC-NA

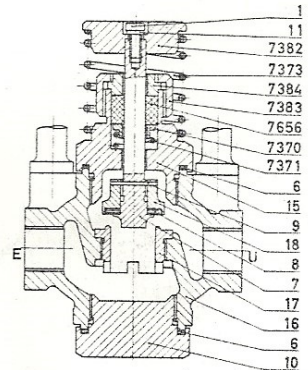
Table 7496



Actuator



NC (Normally Closed)



NA (Normally Open)

Morrel

Nomenclature

1	DIN912 5MA x 10 screw	7370	Spring guide
2	DIN931 8MA x 100 screw	7371	Spring
3	UNI1751 - M8 spring washer	7373	Spring
4	Actuator support	7382	Spring cup
6	Stopper gaskets	7383	Packing gland ring
7	Spindle	7384	Spindle guide
8	Gasket	7391	Ring
9	Blocking pin	7393	Cylinder support
10	Lower cover	7656	Packing gland
11	UNI1751 - M5 spring washer	7802	Cylinder
15	Upper cover	7803	Actuating piston
16	Valve body	7804	Cup spring
17	Valve seat	7805	Posts
18	Plug	G177	O-ring

Operation

The above illustrations show valves in their non-operating condition. Operating action is transmitted by piston 7803 directly to valve spindle 7, opposed by spring 7373 which creates the reaction necessary for the return movement. In valves version NC (normally closed) the fluid to be cutoff tends to close the valve, the opposite being true for NA (normally open) valves. PTFE packing gland 7656 reduces wear from spindle movement to a minimum.

Maintenance

The simple design and operation of these valves make periodic maintenance unnecessary. Proceed as follows in case you want to clean the valve interior or to replace a gasket.

Make sure that the valve is not too hot to avoid thread damage.

Remove the actuator unscrewing screws 2, disengage the spring by removing screw 1 (watch out for spring recoil). While doing the above, hold the spindle with an 8-mm spanner through two plates under cup 7382. Unscrew ring 7383 with a hook spanner to free packing gland 7656 if this needs replacement. Unscrew covers 10 and 15 with a spanner. At this point you may withdraw spindle 7. Remember to remove pin 9 before replacing gasket 8. Valve seat 17 can be removed and is the same for versions NC and NA.

If any component part needs replacement, contact Morrel S.r.l. making reference to table no. 7496, indicating the relevant component part number and the full valve model number.