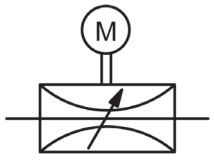
Motorised Proportional Flow Valve P8

Description	Motorised proportional flow valve with low power consumption and resistance to contamination. Throttle setting by wear-resistant control drives made of oxide ceramic. Throttling occurs with drip-tight zero shut-off but no gas tightness.
Media	compressed air, vacuum or liquids up to viscosity of 40 mm²/s Hysteresis ± 4%
Operation	DC, synchronous or stepping motor with standard voltage of 24 V DC or AC ±10% residual ripple and IP 54. All motors fulfil standards EN50.081-1, EN50.082-2 and 89/336/EEC.
DC motor (15 / 24)	Motor with feedback potentiometer for servo-amplifier. Resistor 1kΩ ± 20 %, control e.g. by servo-amplifier. Only part of potentiometer range is used. Voltage for potentiometer: 12 V, max. 10 mA.
DC motor (50 / 51)	With integrated position controller. Setpoint input using jumpers: 0...10 V, 0/4...20 mA. Input resistance: 200 kΩ at voltage signal, 500 Ω at current signal.
Stepper motor (38)	Bipolar, by means of SAA1042A (Motorola) with drop resistance of 44 Ω per phase at a driver (full-step) operating voltage of 24 V ± 5%. 2028 steps for 90° control disc turn, 200 Hz nominal step frequency.
Temperature range	10 °C to 90 °C / 14 °F to 194 °F **Protection class** IP 54
Material	Body: brass Control discs: oxide ceramic Elastomer: NBR/Buna-N, optionally FKM or EPDM



G½ up to G1
for compressed air or liquids

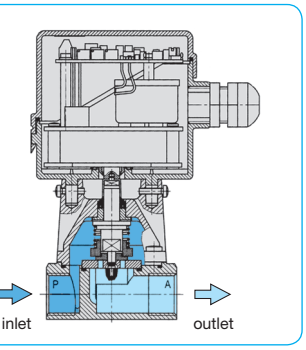
Dimensions A mm	B mm	C mm	Nominal size DN	K_v value (m^3/h)	Flow rate Water l/min*1	Air l/min*1	Supply max. bar	Connection thread G	Order number
Proportional flow valve					DC motor type 15, with potentiometer, 120 Ncm, 24 V DC, switching time 10...14 s*2				**P8**
55	147	13	15	1.1	0...20	0...1000	10	G½	**P822-15**
55	147	13	20	3.4	0...60	0...3000	6	G½	**P82A-15**
95	164	24	20	4.4	0...70	0...3500	6*3	G¾	**P823-15**
95	164	24	20	4.4	0...70	0...3500	6*3	G1	**P824-15**

P822-15

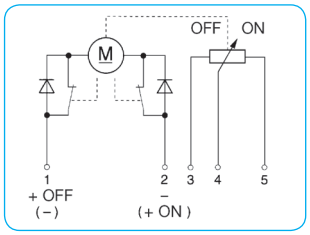
Special options, add the appropriate letter

cartridge installation instead of thread for DN 15 P825- . .

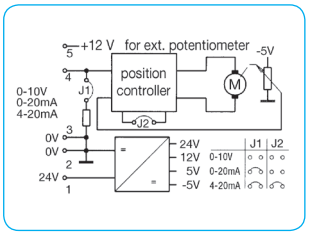
Description	Picture no.	Watt	P_1 max./Torque	Switching time*2	
DC motor w/ potentiometer, 120 Ncm	①	1.5 W	6 bar/120 Ncm	10...14 s	P82.-**15**
DC motor w/ potentiometer, 200 Ncm	①	2.0 W	10 bar/200 Ncm	13 s	P82.-**24**
DC motor w/ controller	②	1.5 W	6 bar/120 Ncm	10...16 s	P82.-**50**
DC motor w/ controller	②	2.5 W	10 bar/200 Ncm	13...16 s	P82.-**51**
AC motor 50 Hz	③	3.0 W	6 bar/120 Ncm	10 s	P82.-**36**
stepper motor	④	5.0 W	6 bar/120 Ncm	10 s	P82.-**38**
FKM elastomer					P82.-. .**V**
EPDM elastomer					P82.-. .**E**
free of grease and oil		specially cleaned, suitable for oxygen			P82.-. .**L**



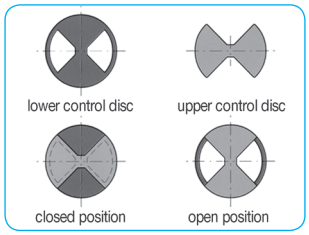
cross section



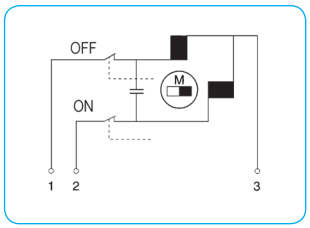
① **DC motor w/ potentiometer 15/24**



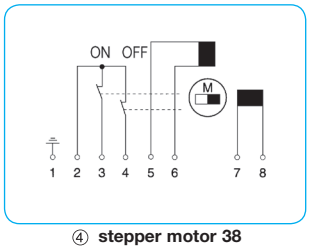
② **with position controller 50 and 51**



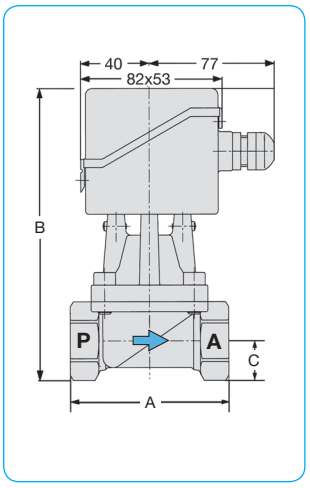
control disc



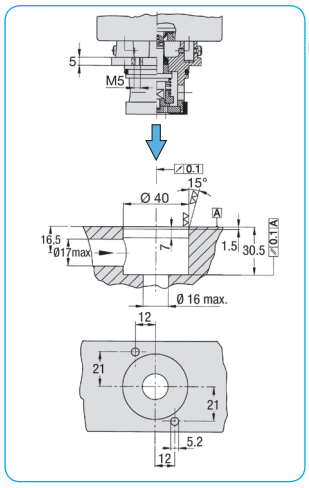
③ **synchronous motor 36**



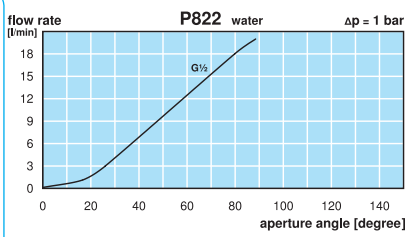
④ **stepper motor 38**

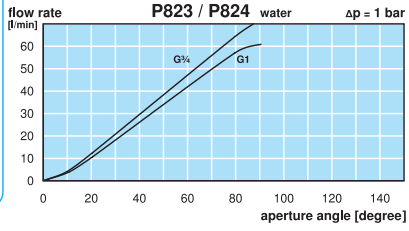


P8



cartridge connection P825





*1 at 6 bar supply pressure and Δp = 1 bar

*2 subject to supply pressure

*3 10 bar at motor for 200 Ncm

PDF CAD
www.aircom.net

Order example:
P822-15