SINGLE STAGE SOLENOID SAFETY GAS VALVES – REGADA SP0 (3)

WITH MODULATING FUNCTION

	Name of the parameter Also as steel version available	Pressure range, bar	Nominal Diameter DN	Thread Diameter, inch	Distance spacing on centers of the tapings/ diameter of the tapings, mm	Max. switching frequency, 1/h	Max. rated power consumption, W, (of each solenoid)	Max. weight, kg	Max. dimensions lenght/ width/ height, mm	Number of solenoids, pcs	Operating environment temperature, °C	Service term, switchings, min	Pipework position	Resistance factor	Actuator
FLANGE/THREAD	PHA40(F)AM1 (3)	0-1	40	1½	100/12,5	40	25	7,5	175/125/370	1	-30 to +70	1×10^6 (10^4)	horizontal, vertical	11,1	Power drive SP0 (Regada, Slovak Republic)
	PHA40(F)AM2 (3)	0-2					25	8,1	175/125/370						
	PHA40(F)AM3 (3)	0-3					35	8,2	175/125/370						
FLANGE/THREAD	PHA50(F)AM1 (3)	0-1	50	2	110/12,5	40	25	7,5	175/130/370	1	-30 to +70	1×10^6 (10^4)	horizontal, vertical	14,8	Power drive SP0 (Regada, Slovak Republic)
	PHA50(F)AM2 (3)	0-2					25	8,1	175/130/370						
	PHA50(F)AM3 (3)	0-3					35	8,2	175/130/370						
FLANGE	PHA65AM05 (3)	0-0,5	65	–	130/14	40	40	11,4	235/145/440	1	-30 to +70	5×10^5 (10^4)	horizontal ± 15°	15,0	Power drive SP0 (Regada, Slovak Republic)
	PHA65AM1 (3)	0-1					55	11,8	235/145/455						
	PHA65AM3 (3)	0-3					65	12,3	235/145/470						
FLANGE	PHA80AM05 (3)	0-0,5	80	–	150/18	40	55	13,0	260/165/465	1	-30 to +70	5×10^5 (10^4)	horizontal ± 15°	15,4	Power drive SP0 (Regada, Slovak Republic)
	PHA80AM1 (3)	0-1					65	13,4	260/165/480						
	PHA80AM3 (3)	0-3					90	15,7	260/165/485						
FLANGE	PHA100AM05 (3)	0-0,5	100	–	170/18	40	55	15,0	280/185/490	1	-30 to +70	5×10^5 (10^4)	horizontal ± 15°	17,7	Power drive SP0 (Regada, Slovak Republic)
	PHA100AM1 (3)	0-1					65	15,4	280/185/505						
	PHA100AM3 (3)	0-3					90	17,7	280/185/510						

SINGLE STAGE SOLENOID SAFETY GAS VALVES WITH MODULATING FUNCTION (GENERAL INFORMATION)

OPERATION MODE OF SOLENOID SAFETY GAS VALVE WITH ELECTRIC POWER DRIVE DEPENDS ON THE TYPE OF AN ELECTRIC POWER DRIVE APPLIED.

1. For valves with proportional regulation the ollowing power drives can be applied as actuators: PO (Regada, Slovak Republic), LM24A-8R (Belimo, Switzerland).

a) When SPO- type electric power drive is applied, operating voltage is supplied to the electric motor and it opens/closes the flapper to the position, which is limited by the S3 and S4 over limit travel switches. The rotor of electric motor is connected through a step down gear with the 83 and 84 switches and with the position indicator's axis of the Bl (resistive) type and B3 (electronic) type. Resistance of resistive type position indicator can be 2000 Ohm or 100 Ohm (to be specified at order step). Electric current change range for the electronic position indicator (B3 type) is 4...20 mA.
For resistive transmitter equipped with two dditional position switches scheme (85 and 86), see igure 14; for electronic transmitter scheme, see igure 15.

Fig. 14

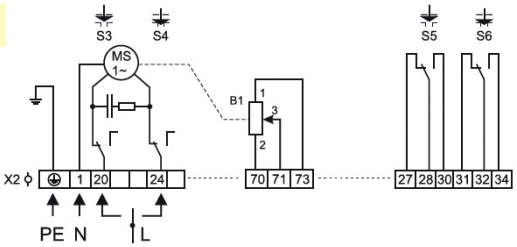
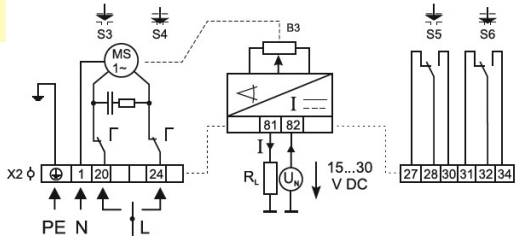


Fig. 15

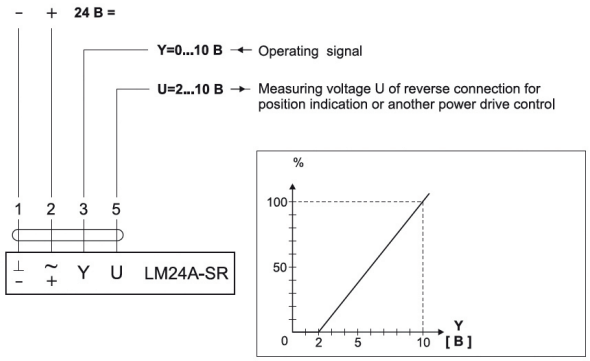


Schematic marking:

B1 – resistive transmitter
B3 – electronic position transmitter
MS – 1-phase electric motor
R_L – load resistance
S3, S4 – position switch
S5, S6 – additional position switch
X2 – terminal board

b) LM24A-SR type electric power drive is controlled by means of a standard con-1rol signal DC 0...10 V. It opens/closes to the position dictated by the signal. The measuring voltage U allows the flapper position (0...100 %) to be electrically in-dicated and serves as a follow-up control signal for other actuators. For electrical connection scheme see fi.gure 19.

Fig. 19



2. For solenoid safety gas valves with positioning action regulation, LF230-S type electric power drive (Belimo, Switzerland) can be applied as actuator.

Power drive moves the flapper of the valve to a normal operating position. At the same time it stretches the return spring. In case of shutdown, energy stored in the spring retracts the flapper to the initial state... For electrical connection scheme see figure 23.
The valve with LF230-S type (Belimo) electric power drive allows slow opening and fast closing functioning. For the operation diagram see figure 24.
Mechani-cal limit stops of the power drive shall be at the end point.
During valve's opening time initial discharge capacity runs about 10% of the max. discharge. During power drive's operating time gas flow increases up to 100 %. After the valve's closure, the spring retracts valve to the initial discharge statewithin 20 s. After the period of 20 s a new opening of the valve is possible.

Fig. 23

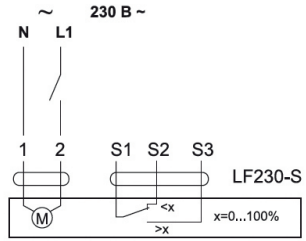


Fig. 24