

### OFFER FOR APPLICATIONS IN POWER ENGINEERING, HEATING ENGINEERING, AIR CONDITIONING AND INSTALLATIONS OF VARIOUS FIELDS OF INDUSTRY

- Application for controlling and automatic control.
- Wide family of positioners and their equipment.
- Actuators of high forces / torques, guaranteeing permanent and reliable setting in the whole range of travel.
- Application of intelligent positioners enabling, among others, direct or remote communication of positioners with the user, accurate positioning of valve stem, possibility of manual control, transmitting of analogue position signal, archiving (filing) of parameters.
- Final control elements presenting the wide set of flow coefficients and characteristics regulation.
- High durability and operation reliability in result of applying the high-quality materials.
- Universal applications regarding the medium parameters.
- Regulation and checking of the completed set at the factory stand, guaranteeing its proper and reliable operation.
- Selecting of devices and completing of sets, according to the client's order, or on the basis of process parameters and requirements of the ordering party (vide the questionnaire).
- Upon the request of the ordering party assistance of CONTROLMATICA ZAP - PNEFAL Sp. z o. o. Company's service at the start-up of sets at site.
- Detailed information and technical data of positioners are found in catalogue data sheets on the internet website of our company.
- Detailed information and technical data of pneumatic actuators and control elements - according to catalogue data sheets of producers.
- Possibility of assembling the positioners with actuators of different producers' make, - according to the ordering party's requirements.

## I. PNEUMATIC POSITIONERS

No.	Positioner type	Parameters / equipment / producer				
		Travel	Input signal	Supply pressure	Communication	Co-operating pneumatic actuator
1.	A 703-...	20 ... 100 mm	20 ... 100 kPa	140 ... 600 kPa	none	Membrane-type, linear: 37-type POLNA S.A. 38-type POLNA S.A. P- and R-types manufacturer POLNA S.A. /On client's wish/  Piston-type, linear: acc. to ISO 6431, manufacturer PREMA Kielce, FESTO /On client's wish/
2.	A 705-...	80 ... 600 mm		250 ... 1000 kPa		

## II. ELECTROPNEUMATIC POSITIONER

No.	Positioner type	Parameters / equipment / producer					
		Travel	Input signal	Supply pressure	Communication + analogue signal of valve position	Co-operating pneumatic actuator	
1.	A 781-... II 2G EEx ia IIC T6/T5/T4	10 ... 100 mm 0 ... 60° 0 ... 90°	4...20 mA 4...10 mA 10...20 mA 4...20 mA 4...12 mA 12...20 mA	140 ... 600 kPa	Communication -none position indicator-project available in the future	Manufacturer POLNA S.A. Types: 37, 38, P3, R3, P, R, P1, R1 with regulation valve and acc. to PN EN 60534-6-1:2001 type BR99 manufacturer POLNA S.A. 1-side working acc. To VDI/VDE 3845 (NAMUR) comp. ARA, PNEUMATIC, EBRO-ARMATUREN type P-S manufacturer ARWIMONT	
2.	A 707	0 ... 90°	4...20 mA				Communication RS232C or RS485 position indicator-yes
3.	A 708	80 ... 300 mm			Piston-type, linear: production PREMA - Kielce, FESTO /on client's wish/		
4.	A 785	10 ... 100 mm			Membrane-type, linear: 37, 38, P, R, P1, R1 manufacturer POLNA S.A.		
5.	A 787	10 ... 100 mm 0 ... 60° 0 ... 90°	4...20 mA		140 ... 600 kPa		Communication none-position indicator-yes

## ORDERING

The order should contain:

- data concerning the positioner: type, version, equipment acc. to ordering code,
- data concerning the actuator: type, version, equipment acc. to ordering code,
- data concerning the control element - DN, PN, Kvs, required pressured drop, material, tightness, etc.,
- information on the need of service personnel's assistance at starting up the set installed at site,
- enclosed filled-in below questionnaire.

QUESTIONNAIRE OF TECHNICAL DATA			
Ordering Party: Order No.:			Elaborated by: Date:
	1.	Nominal diameter of pipeline [mm]	
	2.	No. of pieces	
	3.	<b>Service assistance required at site start-up</b>	Yes - No
DRIVE	4.	<b>Pneumatic actuator type</b>	
	5.	Control signal [kPa]	
	6.	Control signal decay	
	7.	<b>Pneumatic positioner</b>	
	8.	<b>Electropneumatic (standard / explosionproof)</b>	
	9.	Pressure reducer with filter	
	10.	Three-way electromagnetic valve (standard/explosionproof)	
	11.	Cut-off block	
	12.	Limit switches (standard/explosionproof)	
	VALVE	13.	<b>Valve type</b>
14.		Nominal diameter of valve DN	
15.		Nominal diameter of seat passage [mm]	
16.		Flow characteristic	
17.		Nominal pressure [mm]	
18.		Connector type (flanged / welded)	
19.		Body material	
20.		Flow coefficient, calculated kvc	
21.		Flow coefficient, catalogue kvs	
22.		Plug type (standard, perforated, unloaded)	
23.		Stuffing box type	
24.		Tightness at the stuffing box (normal/high/total)	
25.		Closing tightness (class acc. IEC 534-4)	
PARAMETERS OF MEDIUM	26.	<b>Medium</b>	
	27.	Operating temperature min./max. [OC]	
	28.	Operating pressure min./max. [MPa]	
	29.	Min. / Max. flow Q [kg/h, Nm <sup>3</sup> /h, m <sup>3</sup> /h, l/h]	
	30.	Pressure drop $\Delta p$ at Qmin., Qmax. [MPa]	
	31.	Pressure drop $\Delta p$ at closed valve [MPa]	
	32.	Density of medium $\rho_n$ [kg/m <sup>3</sup> ]	
	32.	Special requirements	

### Remark:

- In case of replacing the valve into a new one, when the producer is known, one should read the valve type and parameters from the name plate.
- In case of replacing the actuator into a new unit, one should read its type and serial number from the name plate.