



Top 13 Selection Tips For Valve Positioner



NO.	Parameter Classification	Option	Description
1	Used for what type of pneumatic actuators?	<ol style="list-style-type: none">1) Quarter-turn rotary type pneumatic actuator(single-acting, or double-acting);2) Linear type pneumatic actuator(single-acting, or double-acting);3) Special type pneumatic actuator (single-acting, or double-acting).	The type of pneumatic actuator must be clearly described. Actuator manufacturers have different mounting brackets for single and double-acting cylinders. Special types of pneumatic actuator may require special forms of mounting brackets.
2	Are there any brand specifications?	<ol style="list-style-type: none">1) Fisher; Flowserve; Masoneilan; Samson2) Metso; Siemens; ABB; Yamatake; Azbil; Rotork YTC3) Other or domestic brands4) No specified brand, choose according to customer requirements?	Before selecting a positioner, be sure to read the tender document and the technical and brand requirements of the owner's side for the positioner, then decide which brand and series of positioners to choose.



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3	Working stroke range	<ol style="list-style-type: none">1) Quarter-turn rotary type(30~100°);2) Linear type(10~100mm);3) Special types (larger working stroke range).	Choose based on the actual working stroke of the pneumatic actuator and installation method. Different manufacturers' positioners have different stroke ranges, and larger working strokes may involve special customization.
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4	Explosion-proof rating	1) Non-explosive, only waterproof and dustproof IP66; 2) Intrinsic safety (Ex ia IIC T4/T6) +IP66; 3) Flameproof (Ex d IIC T6 Gb) +IP66; 4) Other types of explosion-proof (non-sparking, dust explosion-proof, etc.).	<p>The explosion-proof rating is chosen based on the presence and duration of explosive gases on-site, divided into zones 0, 1, 2 (Zone 0 where hazardous gases are present for more than 1000 hours/year, Zone 1 where they are intermittently present for 10-1000 hours/year, Zone 2 where they are present under accident conditions for 0.1-10 hours/year). Intrinsic safety explosion-proof can be used in Zone 0 and below (must be paired with a safety barrier), flameproof can be used in Zone 1 and below, non-sparking explosion-proof only satisfies Zone 2. The highest surface temperature of the positioner is also divided into groups T1-T6, along with common explosive gases for each temperature group (T1 450°C level lowest, includes hydrogen, acrylonitrile among 46 types of explosive gases, T2 300°C acetylene, ethylene among 47 types, T3 200°C gasoline, butyraldehyde among 36 types, T4 135°C acetaldehyde, tetrafluoroethylene among 6 types, T5 100°C carbon disulfide, T6 85°C level highest ethyl nitrate and ethyl nitrite, etc.). Generally, choose from the first three options listed.</p> <p>Note: Different countries' explosion-proof standards may vary slightly.</p>
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5	Feedback signal	<ol style="list-style-type: none">1) No feedback signal;2) 4-20mA feedback signal;3) 3-15 PSI feedback signal;3) Other feedback signals.	Choose based on actual requirements; generally, choose one of the first three options listed.
6	Communication protocol	<ol style="list-style-type: none">1) HART communication;2) PROFIBUS PA;3) FOUNDATION Fieldbus;4) Other communication protocols.	Generally, choose one of the first three options listed.
7	Air Interface	<ol style="list-style-type: none">1) G1/4 female thread;2) 1/4-18 NPT;3) Other interfaces.	Choose based on actual requirements; different manufacturers support different interfaces.
8	Electrical Interface	<ol style="list-style-type: none">1) M20×1.5;2) 1/2-14 NPT;3) Other electrical interfaces.	Choose based on actual requirements; different manufacturers support different interfaces.



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9	Does it come with a pressure gauge assembly?	1) Single-action pressure gauge; 2) Double-action pressure gauge.	Choose based on actual requirements, used for on-site working gas source diagnostics.
10	"Safe" position	1) Three-way reset; 2) Three-way hold.	Choose based on actual operating conditions, used for the safe working position of the actuator in case of control signal, power, and gas source failure, where the positioner can actuate the actuator as required (empty for "reset"; hold for "hold").
11	Operating ambient temperature	1) Non-explosive: -20°C ~ 70°C; 2) Explosive T4 environment: maximum explosive temperature -20°C ~ 60°C; Explosive T6 environment: maximum explosive temperature -20°C ~ 40°C 3) Low temperature version: -40°C ~ 70°C	Choose based on actual operating requirements, clarifying the required explosion-proof grade and environment. T4 and T6 explosion-proof gas group requirements differ. Different manufacturers have different operating temperature ranges.



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12	Enclosure material	1) Aluminum enclosure; 2) Stainless steel enclosure; 3) Other types of enclosures	Choose based on actual operating conditions to prevent damage to the enclosure in corrosive environments. Generally, an aluminum enclosure is sufficient.
13	Are there any other requirements?		