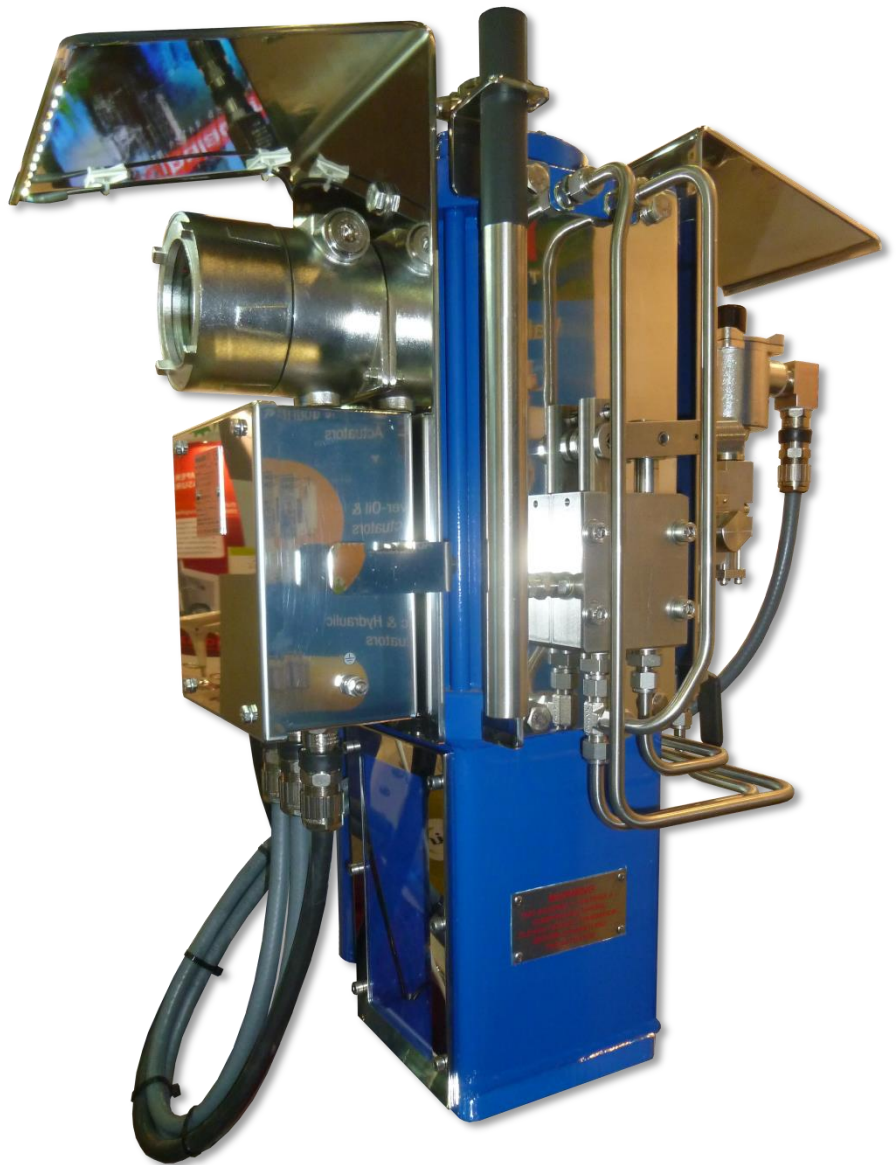


# POSITIONAL CONTROL SYSTEMS



## COMPANY



For over 30 years Paladon Systems has been supplying valve actuators and control systems on a global basis.



Since its inception in 1981, Paladon Systems has continuously developed its design, engineering, organisational, quality and management capabilities. Today Paladon Systems designs and manufactures many valve automation technologies that lead the industry in terms of cost efficiency, operational performance and environmental responsibility.



Paladon Systems' vast experience with supporting the Oil, Gas and Power industries with valve automation solutions for the most critical applications in extreme operating environments has resulted in product designs that offer unsurpassed quality and reliability across all industries and applications.

Holding ISO 9001 certification for over 20 years, today Paladon Systems hold accreditation and approvals from almost all major institutes, engineering companies and end users.

Headquartered in England, Paladon Systems has offices and facilities in Scotland, Italy, Malaysia, the Russian Federation and the United States. With a comprehensive suite of valve automation solutions backed by a dedicated team of field service engineers, Paladon Systems is **Total Valve Control**.





## INTRODUCTION

Paladon Systems Electro-Hydraulic Positional Control Systems are suitable for the accurate positioning of Choke, Control, Globe or Ball Valves; either for continual modulation or stepping functions.

Positional valve actuators can be piston linear or quarter-turn scotch-yoke types and are available in either double-acting or spring-return configurations.

The system's hydraulic supply pressure is normally provided from an existing ring main system; however, self-contained assemblies can be provided with their own motorised pump units.

Positional control is achieved by either pulsing solenoid valves directly from a suitable D.C.S. or by means of an integral positioner operating from a 4 - 20 mA command signal.

System communication is available via:

- Local control
- Infrared
- HART
- Foundation Fieldbus



## KEY FEATURES

### Hydraulic Control System

- Compact design
- Direct acting solenoid valve for accuracy and fast response
- Stay-Put, Open and Close failure modes available
- 316SS manifold construction to eliminate piping and increase system reliability
- Fully adjustable speed control valve
- 90 to 210 Barg hydraulic supply from ring main or self-contained system
- Zero leakage
- Rugged design suitable for offshore and tropical environments
- -20°C to +55°C ambient operating temperature
- Suitable for operation mineral oil or HWB fluid
- System cleanliness to NAS 1683 Class 6

### Positioner

- Infrared communication interface
- Large graphics LCD with comprehensive status and data display
- Three way galvanic isolation; command in, actual position out and power supply
- Selectable sinking or sourcing actual position 4 - 20mA output
- Local / remote configuration enable input and open drain status output
- Stepping mode with adjustable on and off times
- Low power consumption
- HART communication channel on re-transmitted actual position signal
- Foundation Fieldbus interface
- 3 analogue inputs for hydraulic system monitoring and condition monitoring
- Partial stroke valve testing with data logging





## SYSTEM OVERVIEW & OPTIONS

### Electronic Positioner

- 4 - 20mA Command
- 4 - 20mA Retransmission
- EExd
- EExia
- EExme

### Communication

- Infrared
- HART
- Foundation Fieldbus
- Loop Powered

### Valve Actuator

- Linear
- Quarter-Turn
- Double-Acting
- Spring-Return

### Valve

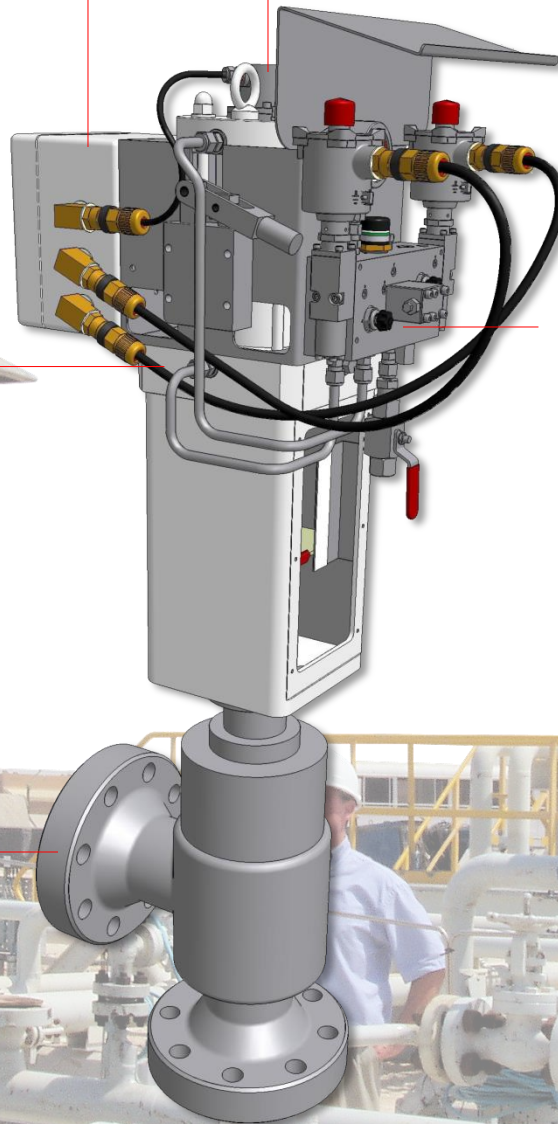
- Choke
- Control
- Globe
- Ball

### Feedback Device

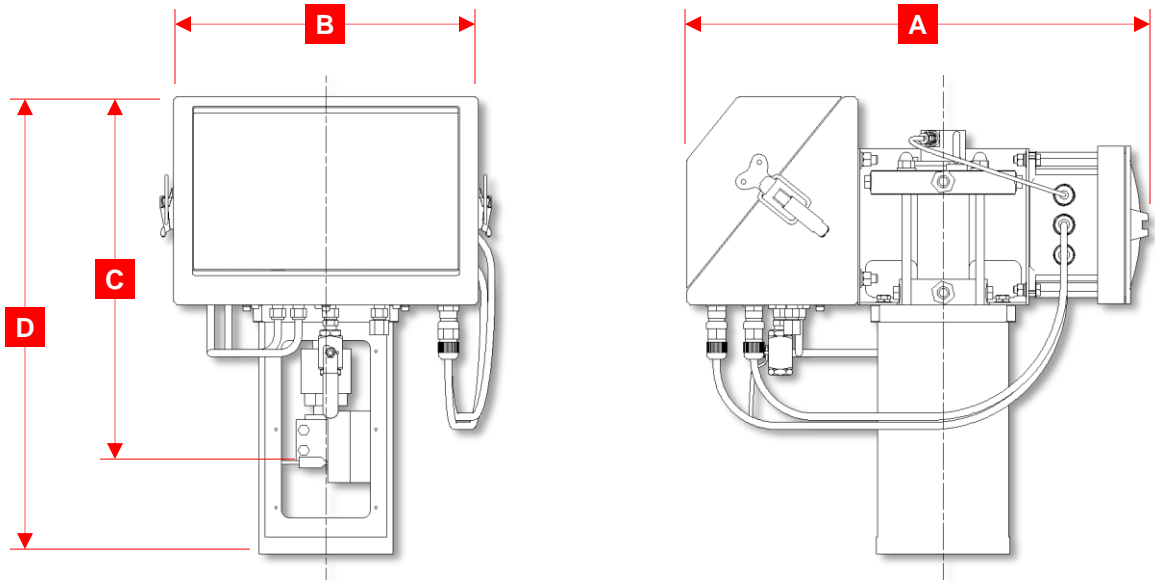
- EExd Transducer
- EExia Transducer
- Potentiometer

### Hydraulic Controls

- Speed Control
- Pressure Filter
- EExd Solenoid Valves
- EExia Solenoid Valves
- EExme Solenoid Valves
- Manual Override
- ESD



# THRUST OUTPUTS & DIMENSIONS



## Double-Acting Valve Actuator Systems

Actuator Model	Max Operating Thrust	Max Stroke Length	Dimensions (mm)			
			A	B	C	D
PS-40-DA	1,130 kg (2,500 lb)	90 mm (3½")	480	300	500	600
PS-50-DA	1,800 kg (4,000 lb)	90 mm (3½")	480	300	500	600
PS-63-DA	2,860 kg (6,300 lb)	100 mm (4")	520	300	530	700
PS-80-DA	4,090 kg (9,000 lb)	100 mm (4")	520	300	530	700
PS-100-DA	7,300 kg (16,000 lb)	150 mm (6")	550	300	600	800
PS-125-DA	11,800 kg (26,000 lb)	250 mm (10")	600	300	650	900

## Spring-Return Valve Actuator Systems

Actuator Model	Max Operating Thrust	Max Stroke Length	Dimensions (mm)			
			A	B	C	D
PS-50-SR	900 kg (2,000 lb)	50 mm (2")	550	300	700	800
PS-80-SR	2,730 kg (6,000 lb)	90 mm (3½")	600	300	730	900
PS-130-SR	6,820 kg (15,000 lb)	120 mm (4¾")	650	300	800	1,000

Output thrusts based on a nominal 180 Barg supply pressure



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