

ACTUATORS & CONTROLS

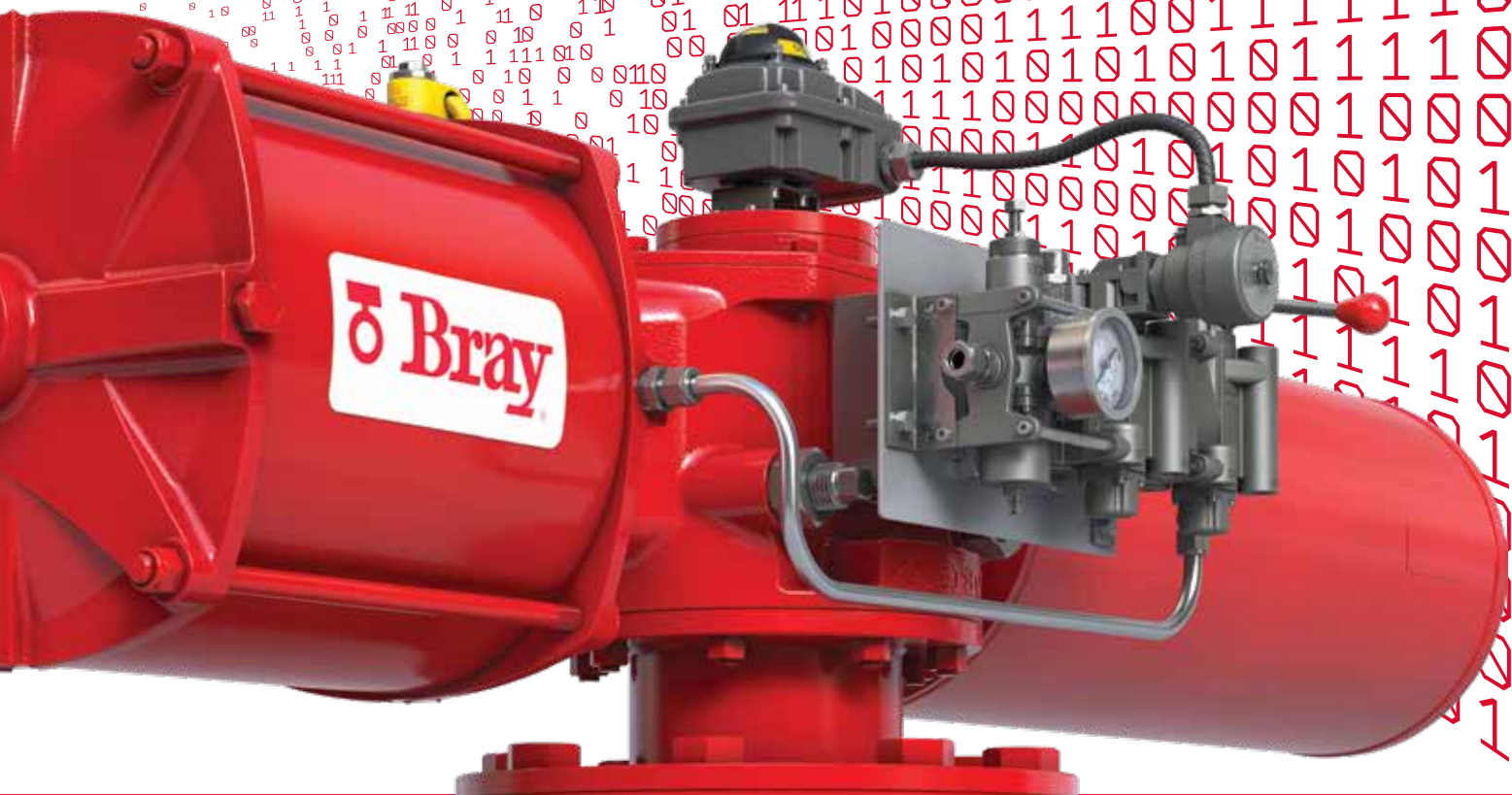
PRODUCT OVERVIEW

Actuators

Manual · Electric · Pneumatic · Scotch Yoke · Linear

Control Accessories:

Valve Status Monitors · Positioners · Solenoid Valves



 **Bray**[®]

BRAY.COM

THE HIGH PERFORMANCE COMPANY



At Bray our business is helping our customers with their flow control requirements. Our modular product line offers the best compatibility, economy and quality performance in the flow control industry.

Through years of field application experience, research and development, Bray has designed products that meet the stringent requirements of today's flow control industry. We have earned a reputation for excellence by creating products of superior value and quality, providing personalised customer service and emphasising on-time deliveries. Our success has always been the direct result of our fully integrated range of valve, actuator and control products. Rugged and reliable, our products are engineered to provide years of trouble free service.

Bray manufacturing facilities are certified to ISO 9001 quality standards, assuring product quality, precision manufacturing and internal process integrity.

Bray is committed to customer support. Our extensively trained staff is knowledgeable in all aspects of Bray's products and their applications and provide personal attention to every customer. To serve you locally, each region maintains a factory certified sales and service network for all Bray International products.

Bray recognises that "our customers make us successful" and they have a choice of many manufacturers when selecting valves, actuators and accessories for their applications. Since many manufacturers have access to the same materials of construction for these products, Bray believes that a customer's purchase decision is heavily influenced by the following key factors:

- > Trust in the Manufacturer
- > Confidence in the Quality Assurance and Integrity of the Manufacturer
- > Proven Industry Experience
- > Features and Benefits of the Product
- > Delivery
- > Customer Service
- > Cost of Ownership

"Bray is focused on and committed to meeting the expectations and needs of our customers while continually improving the effectiveness of our quality management."

MANUAL	VALVE TYPE	PAGE
Series 01 · Handle	Butterfly Valve	4
Series 04 · Gear	Butterfly Valve	5
Series 05 · Declutchable Gear	Butterfly Valve	6
SRH Series · Spring Return Handle	Ball Valve	7
FTG Series · Gear	Ball Valve	8

ELECTRIC	VALVE TYPE	PAGE
Series 70 · Electric Actuator	Butterfly Valve, Ball Valve	9

PNEUMATIC	VALVE TYPE	PAGE
Series 92/93 · Pneumatic Actuator	Butterfly Valve, Ball Valve	10
Series 98 · Scotch Yoke Actuator	Butterfly Valve, Ball Valve	11

CONTROLS		PAGE
Valve Status Monitors	Series 5A/B	12
Proximity Sensor	Series 54	13
Filter Regulator	Series 55	14
Positioners	Series 6A	15
Positioners	Series 6P P/P	16
Solenoids	Series 63	17

LINEAR	VALVE TYPE	PAGE
VAAS Series	Knife Gate Valve	18
VAAS Accessories	Knife Gate Valve	19



TECHNICAL SPECIFICATION

Type	Handle
Valve Type	Butterfly valves
Service	On/Off Throttling
Resilient Seated	DN25 - DN300 10 position notch plate, 180° notch plate, 90° infinite notch plate
Double Offset	DN50 - DN200 9 position notch plate
Coating	Epoxy coated
Certification	ABS

Bray offers two handles for on-off and throttling service, one for resilient seated and a high torque handle for high pressure valves. These quarter turn handles have a locking spring and a directional pointer for valve disc position indication. Various options are available.

PRODUCT FEATURES

- > Excellent corrosion, abrasion and impact resistance
- > Infinite position notch plate for throttling applications
- > Ability to attach accessories for systematic observation



OPTIONS

Part	Description
Padlock Kit	Allows the customer to lock the valve in the full open or closed position, tamper proofing the valve. By drilling a new hole in the top plate, the handle can be locked in mid travel.
Handle and 180° Notch Plate	Allows the operator to switch the handle to either side without removing the notch plate from the valve.
Infinite Position Notch Plate	Allows for very precise adjustments of valve disc positioning anywhere from 0° to 90°. For resilient seated valves only.
Memory Stop	Allows the operator to set the maximum amount the valve can open. When set, this limit will remain fixed until the stop is reset.
2" Square Nut	Used where the valve is buried under the surface. To rotate valve disc position, the nut is reached with a T-handle wrench.



TECHNICAL SPECIFICATION

Type	Gear operator
Valve Type	Butterfly valves
Service	On/Off Throttling
Valve Size	DN50 - DN1200
Torque	0200: 226 Nm 3500: 11298 Nm
Water Proof	NEMA 4, IP 66
Certification	ABS

Series 04 gear operator is self-lubricated for smooth, trouble-free operation and designed for heavy-duty on/off and throttling service. A self-locking worm and worm gear drive holds the valve in the desired position.

The Series 04 features a readily accessible handwheel, a valve-position indicator and mechanical travel stops which permit field adjustment of valve movement to specific degrees of rotation.

PRODUCT FEATURES

- > Heavy duty on/off service
- > Self-locking to hold any position
- > Field-adjustable travel stops
- > Ability to attach accessories for systematic observation



OPTIONS

Part	Description
Chain Wheel	For remote access to valve positioning when the handwheel is not accessible, such as valves positioned high out of reach.
Padlock Kit	Allows the customer to lock the valve in the full open or closed position.
2" Square Nut	Used where the valve is buried under the surface. To rotate valve disc position, the nut is reached with a T-handle wrench. (Option not shown.)
Stainless Steel	For sanitary and corrosive applications. Available for valve size DN25 - DN400.



TECHNICAL SPECIFICATION

Type	Declutchable gear operator
Valve Type	Butterfly valves
Service	On/Off Throttling
Valve Size	DN50 - DN900
Torque	0200: 226 Nm 0800: 2712 Nm
Water Proof	NEMA 4, 4x and IP 66
Certification	ABS

This operator is excellent for the safe handling of spring return actuators. During pneumatic operation, the worm of the gear unit is disengaged. Should the valve require opening or closing in the event of power loss, manual rotation of the declutch lever will provide a camming action and engage the worm to the segmented worm gear, allowing rotation of the valve using the handwheel.

PRODUCT FEATURES

- > Heavy duty on/off service
- > Self-locking to hold any position
- > Field-adjustable travel stops
- > Locking kits



OPTIONS

Part	Description
Chain Wheel	For remote access to valve positioning when the handwheel is not accessible, such as valves positioned high out of reach.
Padlock Kit	Allows the customer to lock the valve in the full open or closed position.
2" Square Nut	Used where the valve is buried under the surface. To rotate valve disc position, the nut is reached with a T-handle wrench. (Option not shown.)
Stainless Steel	For sanitary and corrosive applications. Available for valve size DN25 - DN400.



TECHNICAL SPECIFICATION

Type	Spring return handle
Valve Type	Ball valves
Service	On/Off
Valve Size	DN8 - DN50
Torque	Up to 58 Nm
Mounting	EN ISO 5211

Spring Return (Deadman) Handles are manufactured from heavy-duty stainless steel components to withstand frequent daily use in refueling, sampling, drains, and other OSHA applications that require positive closure of a manual valve. Each SRH handle has a locking device as standard to lock the valve in the preferred position.

PRODUCT FEATURES

- > Easily retro-fitted
- > Locking device
- > Three sizes available
- > Ability to attach accessories for systematic observation

SIZING MATRIX

DN	INCH	Series F15 F30* F15 EN	Series RF15 RF30	Series 7000/8000	TRIAD Series		Series 85
					Full Port	Reduced Port	
8	1/4	-	-	SRH 1	SRH 1	-	-
10	3/8	-	-	SRH 1	SRH 1	-	-
15	1/2	SRH 1	-	SRH 1	SRH 1	-	SRH 1
20	3/4	SRH 1	-	SRH 1	SRH 1	SRH 1	SRH 1
25	1	SRH 2	SRH 1	SRH 2	SRH 3	SRH 1	SRH 2
32	1 ¼	-	-	SRH 2	SRH 3	SRH 3	SRH 2
40	1 ½	SRH 3	SRH 2	SRH 3	SRH 3	SRH 3	SRH 3
50	2	SRH 3	SRH 3	SRH 3	SRH 3	SRH 3	SRH 3

*Handle mounted one side only (lock on the cap side).

MATERIALS

Part	Material
Housing	Ductile iron
Gear Segment	Aluminium bronze



TECHNICAL SPECIFICATION

Type	Gear operator
Valve Type	Ball valves
Service	On/Off Throttling
Torque	600 - 7900 Nm
Water Proof	NEMA 4, IP 66
Mounting	EN ISO 5211 (FO - F16)
Handwheel Ø Available	200mm - 762mm 8" - 30"
Drive	Square drive (parallel & diagonal) Keyed drive (optional)

FTG Series Manual Gear Operators were designed to handle the toughest applications and provide years of trouble free service and reliability. It features a one piece steel worm gear input shaft with tapered roller bearings on both ends.

PRODUCT FEATURES

- > Adjustable travel stops
- > Corrosion resistant, high visibility valve position indicator
- > Self-locking to hold any position
- > Ability to attach accessories for systematic observation

OPTIONS

- > Locking device
- > Chain wheels
- > Horizontal flag indicator
- > 2" square input drive nut
- > Grease fitting
- > Flow pattern indicators for multiport valves

MATERIALS

Part	Material
Housing	Ductile iron
Gear Segment	Aluminium bronze



TECHNICAL SPECIFICATION

Torque	34 - 2030 Nm
Temperature Range	-29°C to +65°C
Voltage	AC: 24, 120, 230 DC: 24
Rotation	90°
Mounting	EN ISO 5211
Water Proof	IP 65, IP 66, NEMA 4, 4X
Explosion Proof	NEMA 4, IP 66, 4X, 7 and 9
Duty Circle	25% for Intermittent 100% for Continuous

The Series 70 features on/off or modulating control and offers easy access to terminal block wiring, cam adjustments and switch installation. Therefore, the time required for field start-up and adjustment is greatly reduced, and maintenance can be performed with assured ease and safety.

APPROVALS & CERTIFICATES

- > MD (2006/42/EC)
- > LVD (2014/35/EU)
- > EMC (2014/30/EU)
- > ATEX
- > ABS
- > cULus Approval
- > Bureau Veritas
- > EAC

PRODUCT FEATURES

- > High visibility position indicator
- > Manual declutchable handwheel
- > Easy access for field wiring and adjustment
- > Captive cover bolts
- > Self locking output drive assembly
- > Mechanical travel stops
- > Travel limit SPDT switches
- > Digital interface available
- > Seacorr coating optional
- > Optional microprocessor based modulating control

OPTIONS

Part	Description
Control Station	Local-off-remote control switch, an open-stop-close switch, and two lights which locally indicate open and close valve position.
Battery Backup Unit (BBU)	Provides power to permit the actuator to reach its fail-open or fail-close position in the event of a main power failure.
Heater	Self-regulating temperature control to prevent condensation build-up.
Potentiometer	Provides continuous position feedback for a customer control system.
Auxiliary Switches	Up to four (voltage free) SPDT mechanical switches can be added to indicate travel position for remote customer control systems.
Torque Switch	Provide protection for the automated valve assembly in the event of an over-torque event.
Electrical Cable Connections	Pre-wired multi-pin weatherproof cable receptacles allow quick-connect field installation and prevent internal cabling errors which could occur during commissioning. Cord sets can be supplied with connection/flying leads or connection/connection on cord set ends to plug directly into the actuator receptacle.
Servo NXT	Precise modulating control of the valve position in response to an analogue input signal using an on-board micro controller.



TECHNICAL SPECIFICATION

Torque	Up to 4,986 Nm
Operating Pressure	Max. 10 bar
Temperature Range	Standard: -20°C to +93°C Low: -40°C to +80°C High: -18°C to +176°C Extreme: +18°C to +250°C
Double Acting Rotation	90°, 135°, 180°
Single Acting Rotation	90°
Travel Stop	90° +/- 5°
Mounting	EN ISO 5211, VDI/ VDE 3845 (NAMUR)

The Series 92/93 actuators are rack and pinion with reduced overall size requirements and economic savings. In addition, all Bray accessories are fully modular and directly mount to the actuator – providing flexibility and efficiency at reduced cost.

APPROVALS & CERTIFICATES

- > PED (2014/68/EU)
- > ATEX (2014/34/EC)
- > SIL 3
- > Bureau Veritas
- > ABS
- > EAC

PRODUCT FEATURES

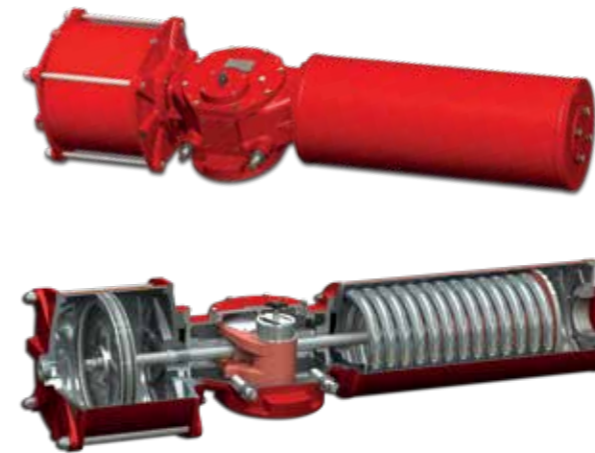
- > Completely enclosed and self-contained
- > Two independently adjustable travel stops
- > Integral porting
- > Permanently lubricated bearings and guides
- > NAMUR accessory compatible

OPTIONS

- > Declutchable gear operator (Series 05)
- > Stainless steel
- > Extended travel stops
- > Seacorr coating (for harsh environments) optional
- > Wide range of accessories to mount

MATERIALS

Part	Material	Option
Body	Extruded aluminium alloy, Hard anodized body exterior	Anodized 316 stainless steel, Polyester coated body exterior, Electroless nickel plated body exterior, Seacorr coated body exterior
End Caps	Die cast aluminium alloy with corrosion resistant polyester coating	316 stainless steel
Output Shaft/Pinion	Carbon steel, zinc plated	Stainless steel pinion
Pistons	Die cast aluminium alloy	



TECHNICAL SPECIFICATION

Torque	Double acting: max. 100,000 Nm Single acting: max. 50,306 Nm
Operating Pressure	2.8 - 10.3 bar
Temperature Range	Standard: -29°C to +93°C High: up to +149°C Low: down to -46°C
Yoke	Symmetric or canted
Travel Stop	90° up to +/- 5°
Mounting	EN ISO 5211, VDI/ VDE 3845
Enclosure	IP 66/IP67M (IEC 60529)
Media	Dry compressed air/inert gas

The Series 98 scotch-yoke actuator features a modular design with a wide range of modules to suit the required process application. The heart of the Series 98 is the yoke, available in symmetrically or canted, that converts linear motion into rotational motion.

APPROVALS & CERTIFICATES

- > PED (2014/68/EU)
- > EAC
- > SIL 3
- > ATEX
- > ABS

PRODUCT FEATURES

- > Compact, modular design for ease of maintenance
- > High torque to weight ratio
- > Easy field configuration
- > Premium epoxy/polyurethane coating
- > Seacorr coating (for harsh environments) optional
- > Wide range of modules
- > Integral travel stops
- > Replaceable self lubricating metal backed PTFE bearings for enhanced service life
- > Wide range of accessories to mount

MODULES & OPTIONS

Pressure Modules	Direct Acting Modules	Spring Modules
Pneumatic	Pneumatic	Standard
Hydraulic	Jackscrew direct drive override	Jackscrew direct drive override
	Extended travel stop	Extended travel stop
	Jackscrew gear driven override	Jackscrew gear driven override
	Hydraulic override	Hydraulic override
	Hydraulic damper	Hydraulic damper
	Mechanical PST/Lockout	Mechanical PST/Lockout



Series 5B

Series 5A

TECHNICAL SPECIFICATION

Electrical Connection	10 amps at 125 or 250 VAC
Waterproof	NEMA 4, 4x and IP 66/67
Mounting	VDI/VDE 3845
Connections	Two conduit entries Metric and imperial
Temperature Range	-25°C to +65°C

The Bray Series 5A and 5B Valve Status Monitors (VSM) provide visual and electrical indication of position on any VDI/VDE 3845 compliant quarter-turn rotary actuators. Our solutions enable end users to better monitor their process no matter the conditions. The VSMs can be installed in both perpendicular and parallel orientations without changing brackets.

APPROVALS & CERTIFICATES

- > CE
- > IP67
- > UL50E Salt Spray
- > cULus

PRODUCT FEATURES

- > High visibility shatter resistant dome
- > Secondary seal to prevent water ingress
- > No tool cam adjustment
- > Easy access terminals

MOUNTING OPTIONS

- > Fixed bracket
- > Adjustable bracket for NAMUR mounting pads

OPTIONS

Switch	Series 5A · Single Terminal Strip (max. Qty)	Series 5B · Two Terminal Strips (max. Qty)
SPDT Mechanical Switch	(2)	(6)
SPDT Mechanical Gold Plated Switch	(2)	(6)
PNP N.O. 3-wire Switch	(2)	(6)
PNP N.C. 3-wire Switch	(2)	(6)
NPN N.O. 3-wire Switch	(2)	(6)
NPN N.C. 3-wire Switch	(2)	(6)
140V 2-wire Switch	(2)	(6)
250V 2-wire Switch	(2)	(6)
SPDT Reed Switch	(-)	(2)
DPDT-DB Mechanical Switch	(-)	(2)



PRODUCT FEATURES

- > Two independent sensors for open and close valve position indication
- > Optimised for indoor and outdoor use
- > Rugged design resistant to shock, vibration, UV and corrosion
- > Hermetically sealed to protect against the ingress of liquids or solids
- > Maintenance free design
- > Non-contact sensor eliminates the effect of mechanical wear
- > Eliminates potential switch welding, arcing and sparking
- > Quick and easy installation
- > LED indication for sensor power, switch and solenoid status
- > AS-i sensor available for digital network solution for valve actuator interface
- > DC 2-wire sensor available for hazardous area process environments

This Series 54 provides position indication for quarter turn valves. The superior design offers reliable and durable valve monitoring and control solutions for efficient plant operation.

The compact Series 54 directly mounts to VDI/VDE 3845 compliant actuators resulting in a smaller actuator profile while saving on cost.

Various electrical output options allow integration of the Series 54 into all standard process control environments.

APPROVALS & CERTIFICATES

- > NEMA 4, IP 66/4X
- > CE
- > ATEX
- > IECEx
- > cULus

SPECIFICATION

	General Service	Industrial Service	Hazardous Location
Design	Extreme low profile	Compact	Non-sparking
Housing Material	Thermoplastic PBT	Thermoplastic PBT	Powder coated aluminium and polycarbonate (PC)
Mounting	30 x 80 mm 30 x 130 mm	30 x 80 mm 30 x 130 mm	30 x 80 mm 30 x 130 mm
Connectivity	Connector Cable gland	Connector Cable gland	Cable gland
Temperature Range	-25 to +70°C	-25 to +70°C	-40 to +75°C
Ingress Protection	IP 66/67	IP 66/67	IP 66/67/69K
Electrical Output	2-wire DC 3-wire DC PNP	3-wire DC PNP 3-wire DC PNP with output AS-i with output AC/DC	2-wire DC
Solenoid Outputs	None	One	One
Activator	Non adjustable	Standard adjustable High visibility adjustable	High visibility adjustable





TECHNICAL SPECIFICATION

Pressure Ports	1/4" NPT or G 1/4
Gauge Ports	G 1/8
Temperature Range	0°C - 80°C
Pressure Rating*	0 - 17,2 bar
Set Pressure	0.5 - 8.6 bar
Flow (SCFM)**	30
Housing	Metallic zinc Polycarbonate plastic
Filter Element	5 micron standard

* Do not attach to pressurized bottles.
 ** SCFM = Standard cubic feet per minute at 100 psig inlet, 90 psig no flow secondary setting and 10 psig pressure drop.

The Series 55 Filter Regulator is a 5 micron filter designed to provide nominal filtration removal of solids and liquids from the compressed air with accurate control to any pneumatic control device and are strongly recommended for use with the Bray Series 6A and 6P positioners.

PRODUCT FEATURES

- > Locking nob allows for downstream pressure adjustment and locks the pressure setting in place
- > Bowl quick release allows for easy removal of the bowl and guard for access to the filter element
- > Bowl provides easy view of liquid levels
- > Pushbutton drain allows easy removal of liquid from the bowl
- > Metal bowl guard provides steady breakage protection from external environmental forces

MATERIALS

Part	Material
Body	Zinc / non-removable rising knob
Bonnet	Plastic
Springs	Steel
Bowls (2 Ounce)	Transparent polycarbonate with metal guard Metal (Zinc) with sight gauge
Filter Element	5 micron standard - plastic



TECHNICAL SPECIFICATION

Supply Pressure	1.4 - 7 bar
Air Consumption	0.03 Nm³/h
Input Signal	4-20 mADC HART, Foundation Fieldbus, Profibus PA
Connections	1/4" NPT (G 1/4") Signal (2 conduit entries) 1/2" NPT (M20x1.5)
Temperature Range	-30°C to +80°C
Explosion Proof	NEMA 4, IP 66, 4x, 7 & 9
Waterproof	NEMA 4, IP 66, 4x
Mounting	VDI/VDE 3845

Precision digital control with proven reliability the Series 6A positioners were designed with ease of installation, simple calibration, efficiency and economy in mind. Units for rotary single acting and double acting actuators are offered as standard. Various housing options and intrinsically safe versions are also available.

APPROVALS & CERTIFICATES

- > ATEX
- > FM
- > TÜV
- > IECEx

PRODUCT FEATURES

- > Zero bleed design
- > On-line adaptive control
- > Corrective and preventative maintenance self-diagnostic checks
- > LCD monitor
- > Auto calibration
- > Friction clutch locking device
- > Non-contacting position sensor technology
- > Integral volume booster

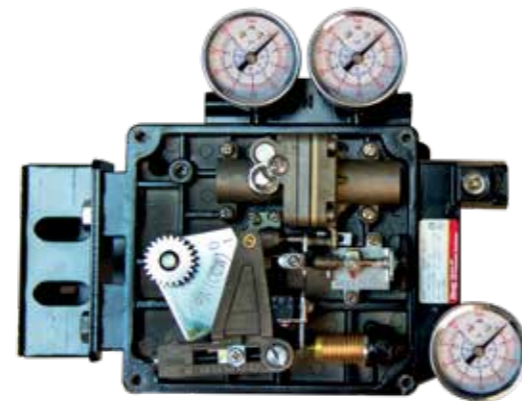
ACCESSORIES & OPTIONS

Part	Description
Gauge Manifold	An externally mounted gauge manifold is offered with up to three gauges to measure air supply and the actuator input and output pressures.
Volume Boosters	These modules increase air volume output and improves response time.
Retransmission Module (1Y)	This 4-20 mA DC output board indicates valve position to the control room.
Programmable Electronic Switches (Alarm)	Two semiconductor switch outputs and one alarm output may be programmed to activate at various travel positions. One digital input is also included.
Limit Switches	Mechanical switches or intrinsically safe inductive proximity switches (SIA).



TECHNICAL SPECIFICATION

Supply Pressure	1.4 - 7 bar
Action	Double and single acting, Direct and reverse
Input Signal	0.2 - 1.0 bar (3 - 15 psi)
Connections	Pneumatic 1/4" NPT
Temperature Range	-20°C to +70°C
Waterproof	NEMA 4, 4x and IP 66
Mounting	VDI/VDE 3845 (NAMUR)
Certification	CE



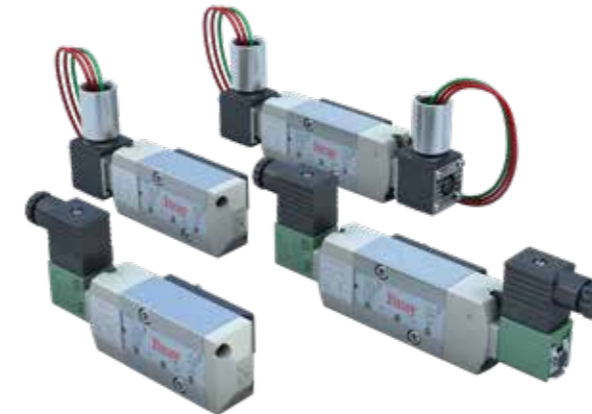
The Series 6P positioner provides outstanding control for a wide range of quarter-turn valves. This design provides fast, sensitive response characteristics to meet the most demanding control objectives using a 0.2 - 1.0 bar on split range pneumatic control signal. A high visibility dome position indicator and 3 gauges are provided as standard. The Series 6P is available with many options including position feedback limit switches.

PRODUCT FEATURES

- > Two-stage pilot relay
- > High visibility dome position indicator
- > Field upgradable
- > Vibration resistant
- > Split range
- > Minimal time for zero and span adjustment
- > Corrosion resistant materials
- > Gauge manifold
- > Adjustable NAMUR mounting bracket
- > Double or single acting

ACCESSORIES & OPTIONS

Part	Description
Special Cams	Special cams for non-standard ranges may be modified by the factory.
Air Filter (Series 55)	A coalescing air filter is recommended for all positioners to eliminate dust, moisture, and oil particles from contaminating the unit.
Mechanical Switches	2x SPDT mechanical switches.
Proximity Sensor	For non-contacting limit switch applications, 2 x DC-NPN are available to provide open and close valve indication.
Position Transmitter	A 4-20mA position transmitter provides continuous valve position indication from 0 - 90 degrees of travel.



TECHNICAL SPECIFICATION

Operation	4-way (5/2) to 3-way (3/2)
Pneumatic Connection	1/4" NPT
Electrical Connection	NEMA Housings: 1/2" NPT DIN Housing: Cable Gland PG9
Temperature Range	AC: -25°C to +60°C DC: -25°C to +25°C
Duty Cycle	Continuous
Media	Dry or lubricated air or inert gases
Mounting	VDI/VDE 3845
Explosion Proof	NEMA 7, 9
Water Proof	NEMA 4, IP 66, 4X
Operating Speed	10 cycles per minute - with more if needed

These units can be used with either spring return or double acting actuators where on/off electrical operation is required. Units have 1/4" NPT conduit connections and IP65 DIN units have cable gland PG9 connectors, also available with 1/2" NPT conduit adapters.

APPROVALS & CERTIFICATES

- > CE
- > CSA
- > ATEX
- > UL recognised
- > Bureau Veritas

PRODUCT FEATURES

- > Compact, modular design
- > Pilot operated
- > Spool control valve
- > Convertable from 3-way (3/2) or 4-way (5/2)
- > Double or single acting
- > Single or dual coil

OPTIONS

- > Stainless steel housing
- > DeviceNet and profibus-PA protocols
- > AS-i interface
- > Speed controls

MATERIALS

Part	Material
Body	Anodized aluminium
Spring	Phosphate treated black steel
Shading Coil	Copper
Seals	NBR + PUR
Core / Tube	Stainless / Brass
End Covers & Plate	6/6 glass filled polyamide (PA/FV)
Spool	Aluminium
Internal Parts	Zamak, Steel, Acetal



Direct Mounted Handwheel



Bevel Gear Actuator



Non-Rising Stem



Electric Actuator



Hydraulic Actuator



Double Acting Pneumatic Actuator



Deflection Cone



Gate Guard*



Gate Lock



Non Rising Stem



Lockout Open



Manual Override



Lever



Chain Wheel



Pneumatic Failsafe

Note:
Accessories illustrated in red.
*In Europe Gate Guards are standard on all actuated knife gate valves.



THE HIGH PERFORMANCE COMPANY



LOCAL

BRAY CONTROLS (UK) LIMITED • Subsidiary of Bray International, Inc.
16-18 Fountain Crescent • Inchinnan Business Park • Inchinnan • PA4 9RE • Scotland
T. +44 141 812 5199 • F. +44 141 812 6199 • bcuk.sales@bray.com • www.bray.com

**BRAY INTERNATIONAL
PRIMARY SALES AND SERVICE LOCATIONS**

AFRICA Johannesburg	CHINA Hangzhou, Zhejiang	MEXICO Zapopan, Jalisco	SOUTH KOREA Seoul
AUSTRALIA Melbourne	COLOMBIA Bogotá	MIDDLE EAST Dubai	SOUTHEAST ASIA Malaysia
BENELUX Heerhugowaard	FRANCE Voiron	PERU Lima	UNITED KINGDOM Glasgow
BRAZIL Paulinia, Sao Paulo	GERMANY Krefeld	POLAND Oświęcim	USA Houston, Texas
CANADA Montreal	INDIA Vadodara	RUSSIA Moscow	
CHILE Santiago	ITALY Milano	SINGAPORE Ubi Techpark	

FLOW-TEK	RITE CORPORATION	AMRESIST	KUGELHAHN MÜLLER
BRAZIL Paulinia, Sao Paulo	CANADA Montreal	USA Houston, Texas	GERMANY Krefeld
CHINA Hangzhou, Zhejiang	VALVTRONIC	BRAY/VAAS	
USA Houston, Texas	ARGENTINA Buenos Aires	INDIA Chennai	

All statements, technical information, and recommendations in this bulletin are for general use only. Please contact us for the specific requirements and material selection for your intended application. The right to change or modify product design or product without prior notice is reserved. Patents issued and applied for worldwide. Bray® is a registered trademark of Bray International, Inc. © 2018 Bray International. All rights reserved. B-BC-1100_Actuators&Controls_EU-EN_2018-10-25

HEADQUARTERS
BRAY INTERNATIONAL, INC.
13333 Westland East Blvd.
Houston, Texas 77041
T. +1 281.894.5454