VALVE ACTUATORS

Beaver Compact Quarter-Turn Electric Valve Actuator

A compact electric actuator used to automate quarter-turn valves.

T41

BEAVER

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Beaver T41 Electric Actuator

Beaver T41 Compact Quarter-Turn Electric Valve Actuator

The Beaver T41 Quarter-Turn Electric Actuator is designed to provide high operating torque with full load at any position.

This small and lightweight electric actuator has an encapsulated control servo unit which provides protection from heat, moisture, and dust.

This electric actuator is available with a visual position indicator, torque switch, handwheel, local control unit, or junction box.

KEY FEATURES

- Heat-treated steel alloy gear driving unit is durable and resists wear and long-term load impact.
- Stainless steel cam mechanism allows stroke adjustments of from 0° to 90°.
- Detachable crank handle helps keep the actuator compact.
- Integrally built worm-gear and drive shaft ensure dependability with high output torque.
- Position indicator is enclosed in tempered glass for temperature resistance.

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Talk to an expert →

T41
Compact Quarter-Turn Electric Valve Actuator

Tables 1–2. T41 Specifications

Technical Specifications	
Brand	Beaver
Model	T41 (Compact)
Output torque	30–6000Nm
Duty cycle (on/off)	S2:35%, 10–30min
Duty cycle (modulating)	S4:30–50%, 300~1200 start/hour
Temperature range	-23°C to +80°C
Power supply	1 phase: 110/220VAC ±10% @ 50/60Hz 3 phase: 380/440VAC ±10% @ 50/60Hz 12 VDC.24VDC/VAC
Stall protection	Standard accessory, built-in, auto-reset type
Anti-vibration	XYZ 10 g, 0.2–34 Hz, 10 minutes
Ambient humidity	90% RH Max (non-condensing)
Ambient temperature	-30°C to +60°C
Enclosure rating	IP67 (standard), IP68 (option)
Mounting direction	All directions
Electrical conduit	M20 x 1.5 with cable gland (standard type) 2 - M20 x 1.5 with cable gland (modulating type)
Manual operation	Detachable crank allen key
Stopper	In operation: limit switches at full and closed position Manual operation: mechanical stopper
Options	Type A standard Type B additional limit switches (2xSPST) Type B1 additional limit switches (2xSPDT) Type C potentiometer unit (1KΩ or 5KΩ) Type D potentiometer unit (1KΩ or 5KΩ) with additional limit switches (2xSPST) Type E modulating controller (input signal: 4–20mA or 1–5VDC. Output signal: 4–20mA) Type F current position transmitter (Output signal: 4–20mA) Type H space heater Torque switches (2 units) Various mounting brackets

Material Specifications	
Top cover	ADC12
Body	ADC12
Handle lever hole	4 mm
Worm-wheel shaft	303
Cable	0.3x7 cable 1 m
Cable entry	45#
Name plate	Stainless steel
Hex socket screw	M5x18
Indicator	0–90°
Mechanical limit screw	M5x25
Mechanical stopper	Alloy

Diagram 1. T41 Parts

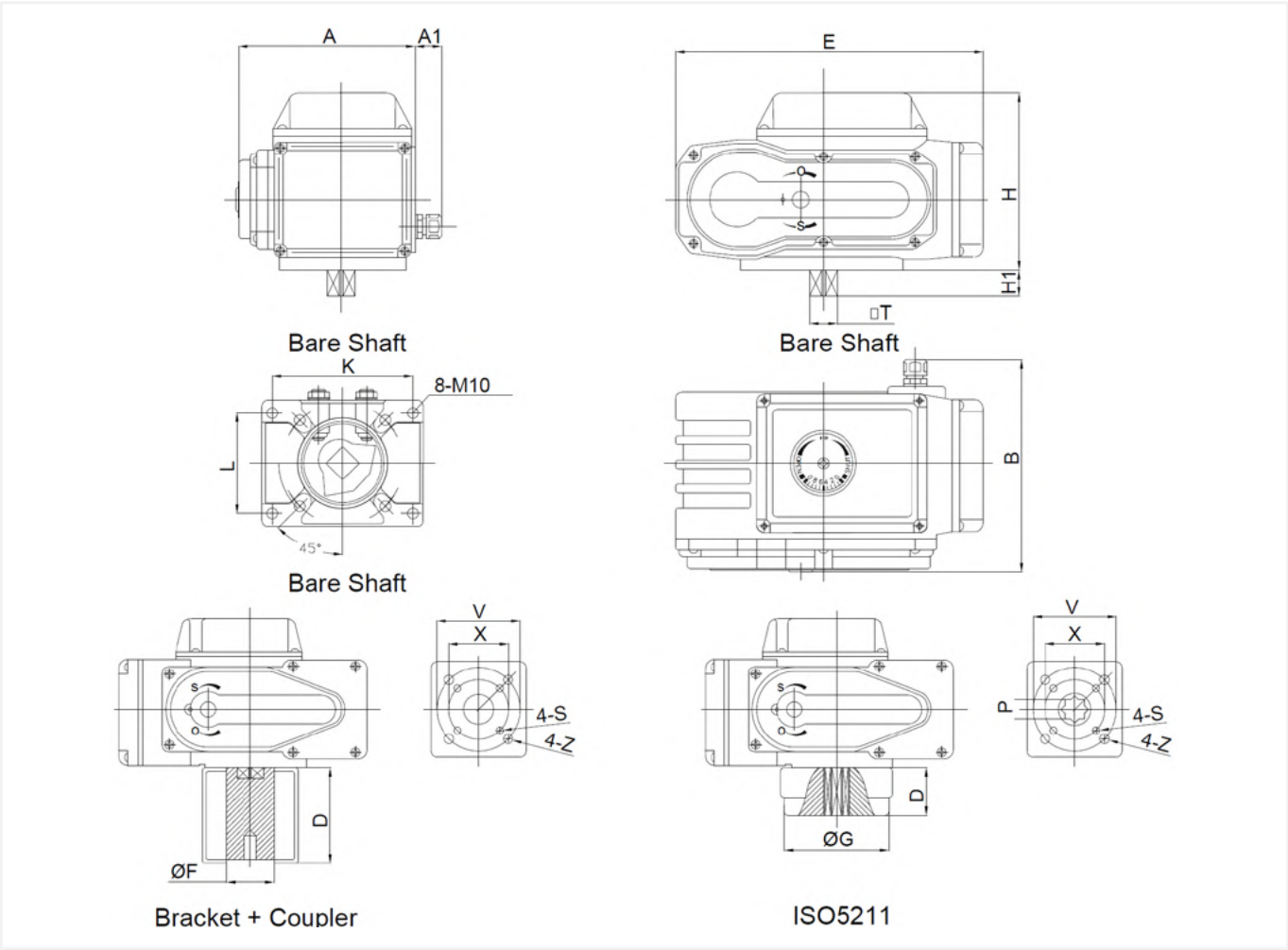
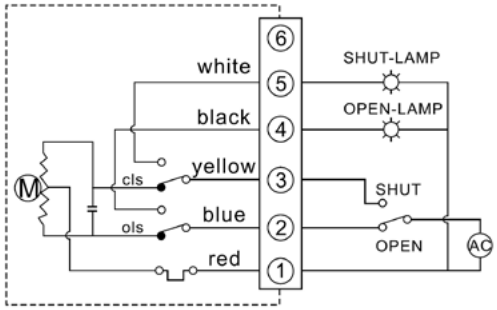


Table 3. T41 Dimensions

Product Dimensions (mm)																
Model	**A**	**A1**	**E**	**H**	**H1**	**T**	**K**	**L**	**B**	**X**	**V**	**P**	**S**	**Z**	**G**	**F**
T41-03	115	22	160	103	12	12*12	68	60	138	36	50	9/11/14	4-M5	4-M6	70	28
T41-05	115	22	160	103	12	12*12	68	60	138	36	50	9/11/14	4-M5	4-M6	70	28
T41-10	123	22	208	124	19	15*15	82	70	105	50	70	9/11/14	4-M6	4-M8	90	35
T41-20	148	22	258	148	22	23*23	118	84	178	70	102	14/17	4-M8	4-M10	125	48
T41-40	148	22	258	148	22	23*23	118	84	178	70	102	17/22	4-M8	4-M10	125	48
T41-60	148	22	258	148	22	23*23	118	84	178	70	102	17/22	4-M8	4-M10	125	48
T41-100	156	27.5	280	159	25	30*30	148	84	187	102	125	22/27		4-M10	135	65
T41-160	156	27.5	280	159	25	30*30	148	84	187	102	125	22/27		4-M10	135	65
T41-200	156	27.5	280	159	25	30*30	148	84	487	140	165	36		4-M16	175	65
T41-400	266		439	179	48	52*52	180	180	266	159	254	52		4-M18		
T41-600	266		439	179	48	52*52	180	180	266	159	254	52		4-M18		

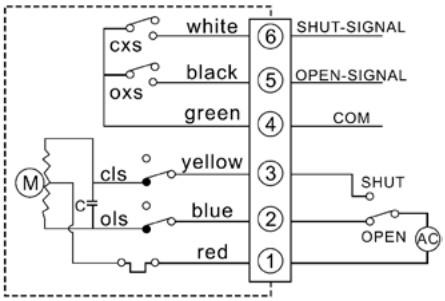
Diagram 2. T41 Control Functions

Type A: Standard type



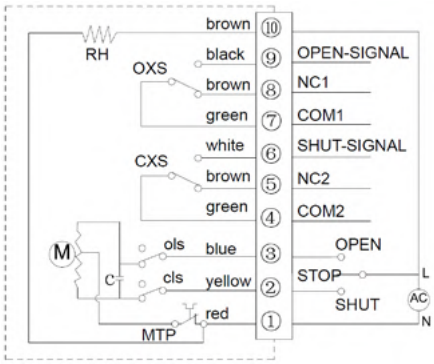
Output signal: 2 x SPST (NO) with line power switch

Type B: 2 x SPST (NO)



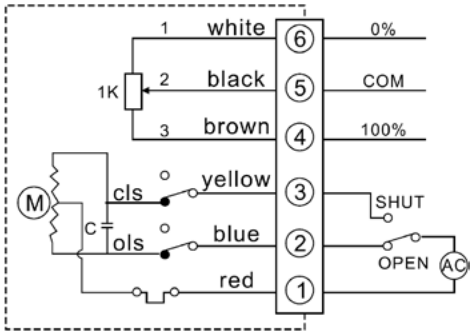
Input signal: 4–20mDC or 0–5VDC
Output signal: 4–20mADC

Type B1: 2 x SPDT (NO/NC)



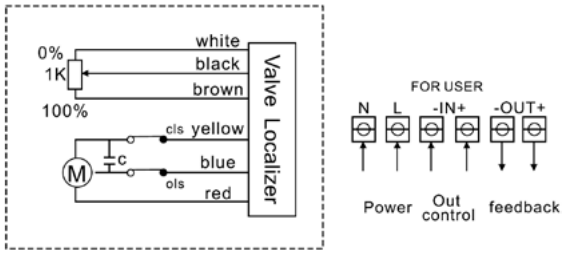
Output signal: 1 x SPST (NO) micro-switch each at open and close position

Type C: Potentiometer



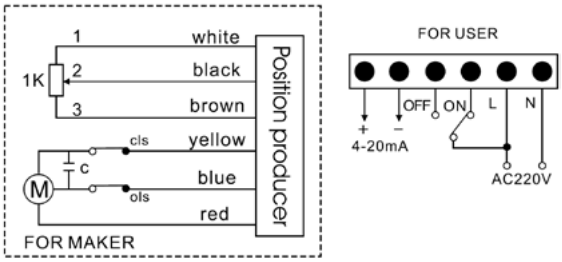
Output signal: 4–20mADC

Type E: Modulating control



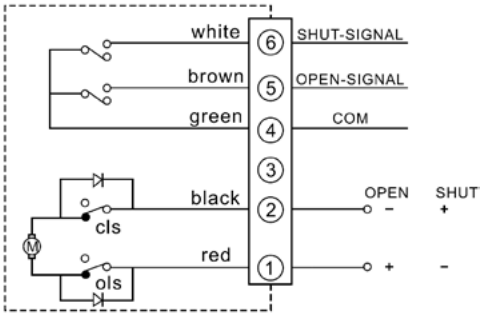
Output signal: 1 x SPDT (NC/NO) micro-switch each at open and close position

Type F: R/I converter



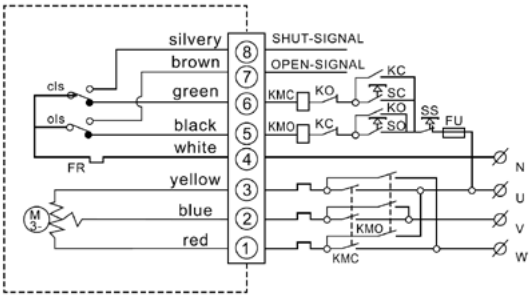
Output signal: 1 x SPST (NO) micro-switch each at open and close position

DC motor with 2 x SPST (NO)



Output signal: 0–500Ω or 0–1000Ω

3 Phase, 380/415/440VAC motor with 2 x SPST (NO)



Output signal: 1 x SPST (NO) micro-switch each at open and close position.

We’re here to help

We know it’s important for you to talk to someone who knows their stuff. So if you have technical questions or need help choosing the right products, talk to our team. We’ll walk you through our proven problem solving process.

1. Tell us what you need.

Tell us about your project. What do you want to achieve? What problems do you need to overcome? Let’s work back from there.

2. Choose the right solution.

Weigh up the options. We’ll do the analysis, discuss the options with you, and make a recommendation—the choice we’d make in your shoes.

3. Get the job done.

Complete your project, with the right products, on time and to spec. We’ve got your back all the way, with support during installation and commissioning.

Tap into our expertise and talk to our friendly, expert team.

Let’s get started →

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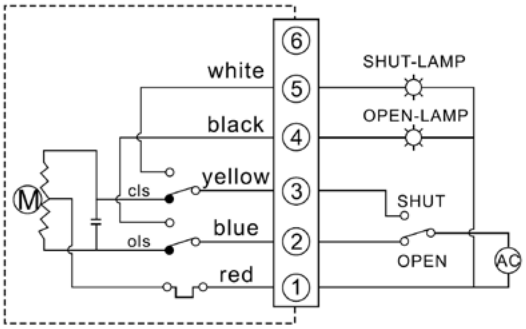
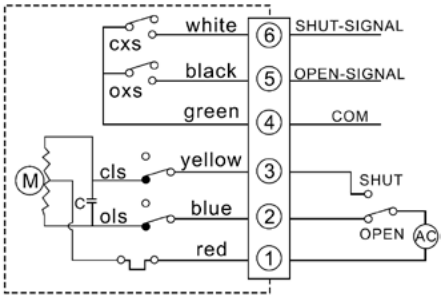
Diagram 2. T41 Control Functions

Type A: Standard type



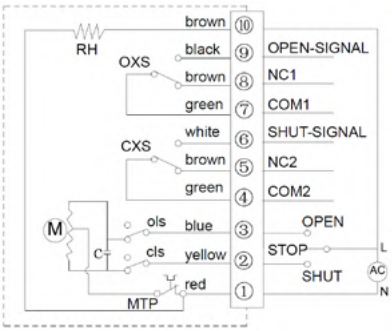
Output signal: 2 x SPST (NO) with line power switch

Type B: 2 x SPST (NO)



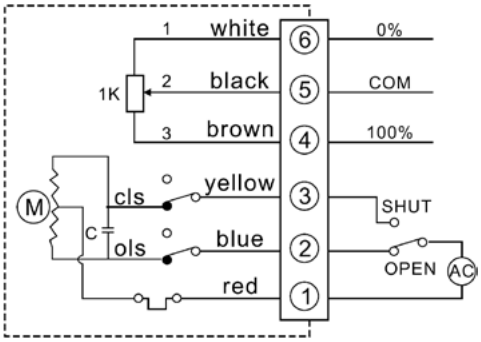
Output signal: 1 x SPST (NO) micro-switch each at open and close position

Type B1: 2 x SPDT (NO/NC)



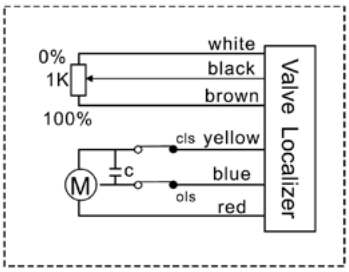
Output signal: 1 x SPDT (NC/NO) micro-switch each at open and close position

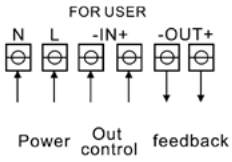
Type C: Potentiometer



Output signal: 0–500Ω or 0–1000Ω

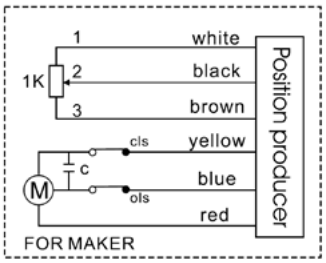
Type E: Modulating control

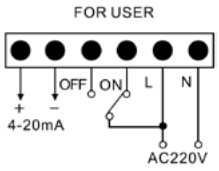




Input signal: 4–20mDC or 0–5VDC
Output signal: 4–20mADC

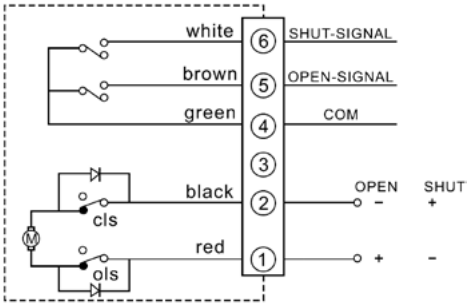
Type F: R/I converter





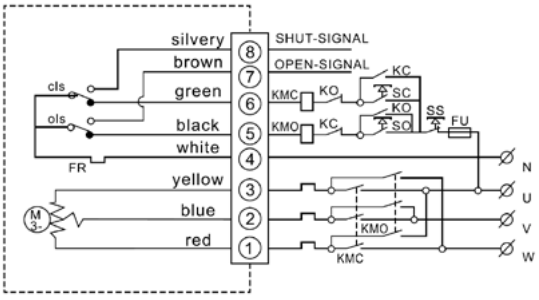
Output signal: 4–20mADC

DC motor with 2 x SPST (NO)



Output signal: 1 x SPST (NO) micro-switch each at open and close position

3 Phase, 380/415/440VAC motor with 2 x SPST (NO)



Output signal: 1 x SPST (NO) micro-switch each at open and close position.