Pursuit of Ultra Precision and Mechatronics®

Seibu

ISO 9001

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http://www.seibudenki.co.jp
Please use the contact form on our website for inquiries.

Register via the website to download a variety of technical data.

We offer a wide range of options not described in this catalog. Contact one of our offices or agents for additional information.

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Pursuit of Ultra Precision and Mechatronics®

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Ver.1

Valve Actuators

General Catalog

Electronic actuators
Semflex®-A
Semflex®-VM
Semflex®-VP

Mechanical actuators
LTRH／LTRM
LTKD／LTMD
LTKB
SRH
SRJ

Manual reducers
BRM

SEIBU ELECTRIC & MACHINERY CO., LTD.

Precise Flow Control

Water, electricity, gas, and petroleum: Vital elements that make our safe and comfortable lifestyle possible. And Seibu is working to ensure safe, accurate control worldwide.

Seibu began manufacturing valve actuators and gate drive mechanisms in 1954, recognizing their critical nature in bringing energy into our daily lives in the form of water, electricity, gas, and petroleum. We have pioneered a host of new industrial application fields and today we hold the top share of the Japanese market.
We will continue to meet the needs of an increasingly global world, applying unique technology and long experience in the field to provide customers with the optimal solutions.


Water purification plant


Sewage treatment plant


Power generation plant


Gas plant


Industrial equipment


Rivers

INDEX

High-reliability actuators, electronically controlled for safe, powerful system operation.

Delivering environmental resistance, operability, and maintainability: Perfect for mission-critical systems

1 Compact, lightweight, simple construction offers excellent environmental resistance

Semflex® valve actuators with electronic sensors offer compact, lightweight, simple construction. Designed to fit into even tight spaces, they come with IP68-rated waterproofing and double sealing on terminals for unsurpassed environmental resistance.

○Explosion-proof specification also available as an option.

Compliance standards

●JIS ●CE Marking ●UL Standards

2 Simple settings and remote operation for top-class operability in set-up and adjustment

Our all-in-one construction integrates the control unit, for immediate operation after you power up. It comes with a rich array of fluid control functions, and an intuitive control panel for quick and easy set-up and adjustment.

○Remote operation also available as an option.
For example, a single PC (master) can operate and monitor up to 125 actuators via PROFIBUS.

Standard features

●Electric value open/close ●LCD indicator
●Pushbutton limit switch and torque set (no need to open the cover)
●Manual/electric select switch (defaults to electric on auto-recover)

3 Fewer inspection items for faster maintenance and improved reliability

Semflex® is designed for fewer, simpler inspections and disassembly steps, slashing maintenance time and cost, and with the optional self-diagnosis function can predict required maintenance. Semflex is the best choice for valve actuators in mission-critical systems!

Seibu Electric & Machinary Flow-Flexible
"Semflex" is a registered trademark of Seibu Electric & Machinery Co. Ltd.
"Sem" standard for **Seibu Electric & Machinery.**
"Flex" stands for **Flow-Flexible.**

Semflex®-A series

Semflex-A50

Semflex-A50	Max. output torque:50Nm/Max. thrust:25kN Output speed min^{-1}(50/60Hz):1～100
Semflex-A100	Max. output torque:100Nm/Max. thrust:54kN Output speed min^{-1}(50/60Hz):1～100

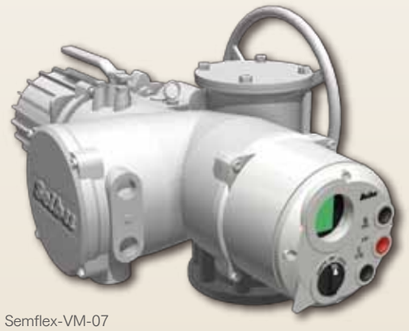
IP 55 | IP 67 | IP 68 | Limit switch | Torque switch | Interlock
Transmitter DC4～20mA output | Transmitter DC4～20mA I/O | Explosion-proof | PROFI BUS | Manual recovery | Automatic recovery

■ = Standard specification □ = Not available ▭ = Option

※Detail specifications available on request.

Semflex®-VM series

Semflex-VM-01



Semflex-VM-07

Semflex-VM-01	Max. output torque:150Nm/Max. thrust:70kN Output speed min^{-1}(50/60Hz) 11.3/13.5～75.9/91.1
Semflex-VM-04	Max. output torque:550Nm/Max. thrust:130kN Output speed min^{-1}(50/60Hz) 11.3/13.5～75.9/91.1
Semflex-VM-07	Max. output torque:850Nm/Max. thrust:160kN Output speed min^{-1}(50/60Hz) 11.3/13.5～75.9/91.1
Semflex-VM-1	Max. output torque:1800Nm/Max. thrust:270kN Output speed min^{-1}(50/60Hz) 11.3/13.5～75.9/91.1

IP 55 | IP 67 | IP 68 | Limit switch | Torque switch | Interlock
Transmitter DC4～20mA output | Transmitter DC4～20mA I/O | Explosion-proof | PROFI BUS | Manual recovery | Automatic recovery

■ = Standard specification □ = Not available ▭ = Option

※Detail specifications available on request.

Semflex®-VP series

Semflex-VP-010

Semflex-VP-010	Max. output torque:125Nm Open/close speed sec/90° (50/60Hz) 9/7.5·18/15
Semflex-VP-020	Max. output torque:250Nm Open/close speed sec/90° (50/60Hz) 18/15·36/30
Semflex-VP-060	Max. output torque:600Nm Open/close speed sec/90° (50/60Hz) 18/15·36/30
Semflex-VP-1	Max. output torque:1000Nm Open/close speed sec/90° (50/60Hz) 18/15·36/30
Semflex-VP-2	Max. output torque:2000Nm Open/close speed sec/90° (50/60Hz) 36/30·72/60

IP 55 | IP 67 | IP 68 | Limit switch | Torque switch | Interlock
Transmitter DC4～20mA output | Transmitter DC4～20mA I/O | Explosion-proof | PROFI BUS | Manual recovery | Automatic recovery

■ = Standard specification □ = Not available ▭ = Option

※Detail specifications available on request.

The world's smallest power actuator

Semflex®-A series actuators have on-board servomotors, delivering the same high-speed valve open/close performance as air actuators. The small, light design is perfect for installation in maintenance pits or other tight spaces.

Features

Small, lightweight design about the size of a sheet of paper.

A/B gears used in conventional designs have been eliminated, slashing operating noise to no more than 50 db.

Smaller actuator simplifies pipe design, and helps downsize plants overall.

Servomotor speed control enables variable sleeve speed of 1～100min^{-1}.

SURFDRIVE (minimal motor shaft vibration) function increases internal gear efficiency.

Valve interface complies with ISO5211.

Applications

Valves | Gate valves | Gates (flow control)

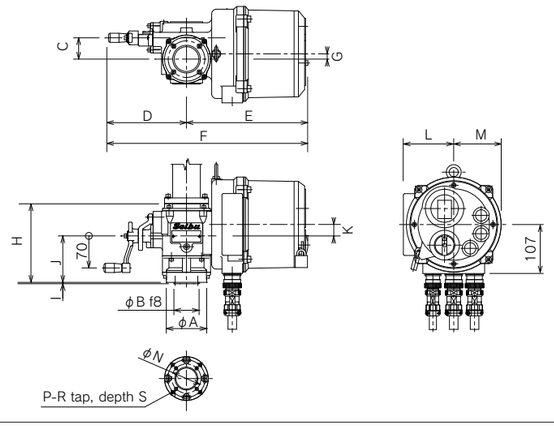
■Controller specifications

Function	Specification
Actuator type	Intelligent (internal motor drive)
Main power supply	AC 200V/400V class
Manual handle	Handle directly linked to motor shaft (manual power loss reduction)
Manual switch	Depress handle (manual operation recovery, interlocked)
Position indicator	LCD display (international icons)
Power control	Pushbutton switches (contactless)
Settings	Set from control panel (non-intrusive)
Position detection	Resolver encoder (maximized reliability)
Torque detection	Intelligent detection (improved accuracy)
External interface	Plug-in connector (reduced volume) Terminal strip type (option)
Standards compliance	CE、UL、JIS、NK

■Specifications

Model	Max. output torque (Nm)	Max. thrust (kN)	Flange size	Max. shaft dia. (mm)		Output speed min^{-1} (50/60 Hz)	Motor		Mass (kg)
				Rod	Screw		Power supply	Output kW	
Semflex-A-50	50	25	F07	28	30	1～100	Three-phase 200V class Three-phase 400V class	0.4	15
Semflex-A-100	100	54	F10	38	40			0.75	16

■Dimension drawings



■Dimensions

Model	ϕA	ϕB	C	D	E	F	G	H	I	J	K	L	M	ϕN	P	R	S
Semflex-A-50	90	55	47	181	265	446	12	220	3	102	15	110	104	70	4	M8	12
Semflex-A-100	125	70	50	185	270	455	14	216	3	97	16	110	104	102	4	M10	16

※Please inquire for special installation or environmental requirements. (Vibration: Mechanism 1G max., electrical components exceeding 0.5G, noise, etc).

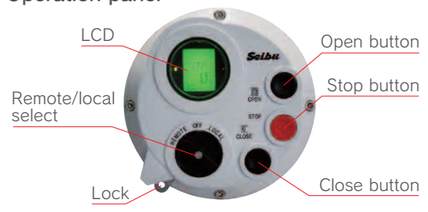
A series

Butterfly valve implementation

Model: Semflex®-A-50 ／ BRM-3F

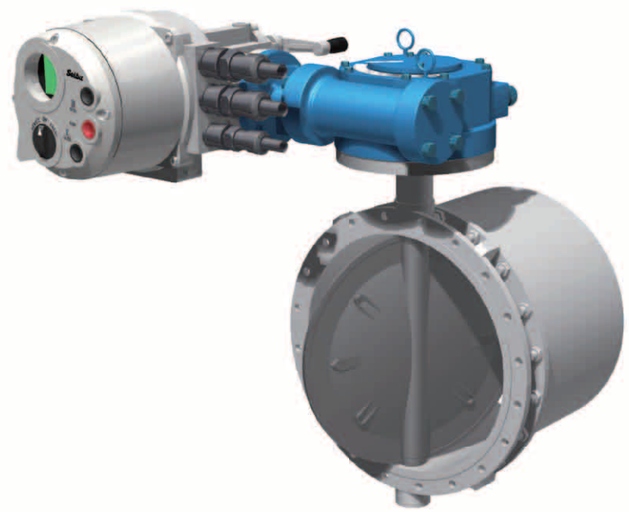
1. Motor operation
   Via the actuator panel (standard equipment)
2. Setting open/close limits and torque
   Settable with pushbutton switches.
3. Actuator status check
   Position, torque alarm and other status information can be checked on the LCD.

Operation panel



■List of models by pipe diameter (reference values)

Model	Applicable butterfly valves (mm)	Applicable gate valves (mm)
A-50	50～350	50～100
A-100	250～400	100～150



Note:We do not manufacture or sell valves.

Sample Semflex®-A ／ BRM installation

Description

Installed as power actuator for an emergency cut-off on the wastewater path for a pharmaceuticals firm.

User requirements

Previously an air actuator was used to open and close this emergency cut-off valve, but the user wanted a rapid-action power valve that could be installed in a narrow pit.

Solution proposal

The Semflex®-A series of power valve actuators with inboard servomotors was proposed, offering the same high-speed open/close action as air actuators. The power valve actuator is the smallest in the world, facilitating installation in a narrow pit.

Computerized actuators for even large-diameter pipes

Semflex®-VM actuators, available with optional on-board inverter function, can handle variable open/close speeds, as well as offering a valve purge function, and water-hammer prevention design.

Features

Small, lightweight design (about half the mass of our prior model).

IP68-rated waterproofing and double sealing on terminals to minimize faults caused by liquid penetration.

Valve operation possible immediately after supplying power.

Supports wide range of operation
(water-hammer prevention, valve purge, torque retry, etc.).

On-board inverter (option) to adjust open/close speed.

2-wire PROFIBUS communication network (option) can be easily added.

Supports a variety of remote functions. Wireless communication means operation from anywhere, with simple status monitoring.

Explosion-proof ExdII BT4 construction (option).

Valve interface complies with ISO5211.

Applications

Valves | Gate valves | Gates (flow control)

■Controller specifications

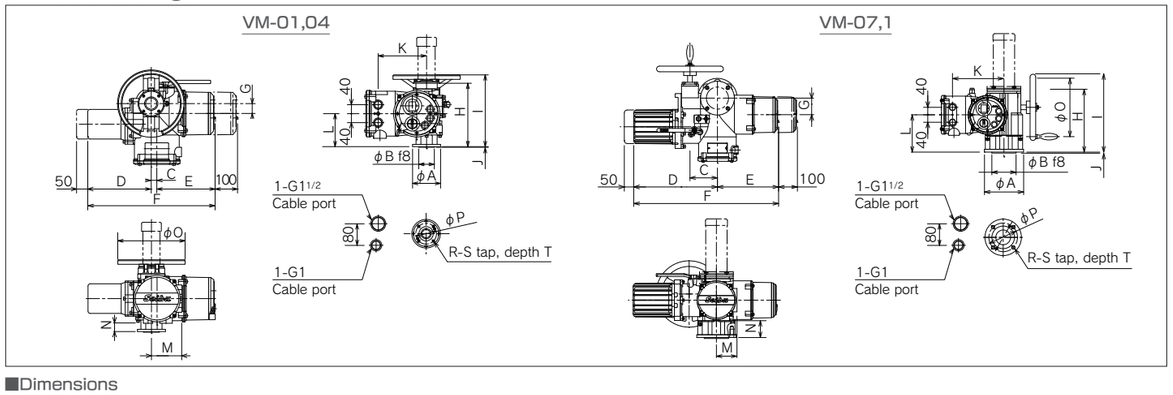
Function	Specification	Remarks
Main power supply	Three-phase AC 200V/400V class	Inquire for alternate power supplies
Control CPU	16-bit CPU with ADC and DAC, 16-MHz clock	
Position detection	Electronic absolute encoder, 16 pulse	
Torque detection	±5% precision	Worm motion sensing (contactless potentiometer)
LCD	Position (% open), fault icons, indicator, 3-character data	Displays with main power off
Basic operation	Open, stop, and close pushbuttons; Local/remote	
Adjustable open/close speed	Inverter (option)	
Position set	0%, 100%, and 4 intermediate user-defined points	User-definable within encoder count range
Torque set	User-adjustable between 30% and 100%	
Options	Inverter proportional control (stepless positioning), fieldbus support (PROFIBUS-DP), self-diagnosis	

■Specifications

Model	Max. output torque (Nm)	Max. thrust (kN)	Flange size	Max. shaft dia. (mm)		Output speed min^{-1} (50/60 Hz)	Motor	
				Rod	Screw		Power supply	Output kW
Semflex-VM-01	150	70	F10	34	40	11.3/13.5~75.9/91.1	Three-phase 200V class	0.2、0.4、0.75
Semflex-VM-04	550	130	F14	50	58			0.75、1.5、2.2
Semflex-VM-07	850	160	F16	60	72		Three-phase 400V class	1.5、2.2、3.7
Semflex-VM-1	1,800	270	F25	80	95			2.2、3.7

※Inquire for mass

■Dimension drawings



■Dimensions

Model	φA	φB	C	D	E	F	G	H	I	J	K	L	M	N	φO	φP	R	S	T
Semflex-VM-01	125	70	25	283	285	568	44	287.5	320	3	216	147	135	37	300	102	4	M10	30
Semflex-VM-04	175	100	22	298	310	608	48	340.5	370	4	260	170	132	90	450	140	4	M16	38
Semflex-VM-07	210	130	146	445	325	770	88	342	417.5	3	276	200	110	90	314	165	4	M20	45
Semflex-VM-1	300	200	173	479	375	854	115	365	468	5	305	225	113	100	400	254	8	M16	43

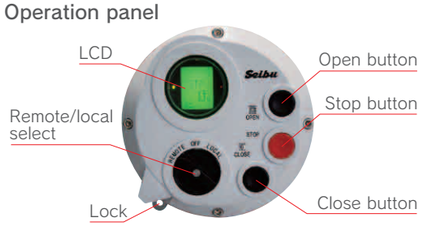
※Please inquire for special installation or environmental requirements. (Vibration: Mechanism 1G max., electrical components exceeding 0.5G, noise, etc).

VM series Butterfly valve implementation

Model: Semflex®-VM-01 ／ BRM-3F

1. Motor operation
   Via the actuator panel (standard equipment)
2. Setting open/close limits and torque
   Settable with pushbutton switches.
3. Actuator status check
   Position, torque alarm and other status information can be checked on the LCD.

Operation panel



■List of models by pipe diameter (reference values)

Model	Applicable butterfly valves (mm)	Applicable gate valves (mm)
VM-01	300~500	100~150
VM-04	600~900	200~500
VM-07	700~1000	300~700
VM-1	1000~1200	500~900

Note:We do not manufacture or sell valves.

Sample Semflex®-VM installation

Description

Insulator wash system installed to prevent insulation degradation due to salt spray at insulator port. Semflex®-VX was used to open and close the valve for wash water.

User requirements

The previous system had only on/off control, but the long pipe length resulted in abnormal pressure at close (water hammer). The customer required a slower valve closing speed to prevent water hammer issues.

Solution proposal

The Semflex®-VM series with inverter control reduces valve open/close speed when the valve is almost closed, eliminating water hammer issues and delivering valve closure at nominal water pressure.

Computerized actuators for small-diameter pipes

Small and lightweight with IP68-rated waterproofing and optional explosion-proof construction, perfect for installation in hazard areas.

Features

Small, lightweight design (about half the mass of our prior model).

IP68-rated waterproofing and double sealing on terminals to minimize faults caused by liquid penetration.

Valve operation possible immediately after supplying power.

Supports wide range of operation (water-hammer prevention, valve purge, torque retry, etc.).

On-board inverter (option) to adjust open/close speed.

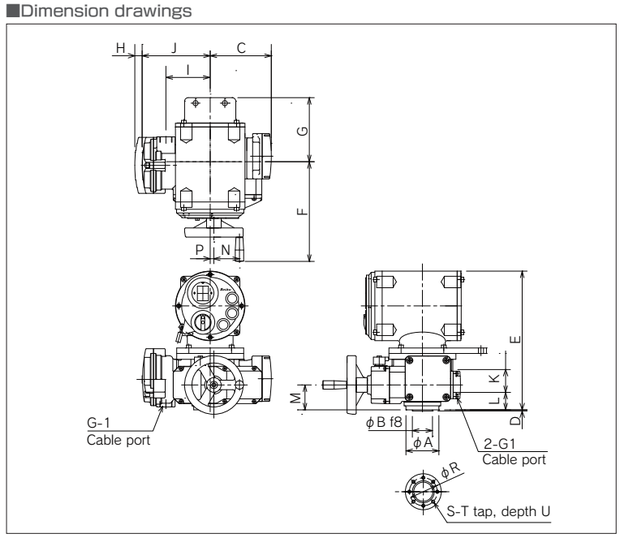
2-wire PROFIBUS communication network (option) can be easily added.

Valve interface complies with ISO5211.

Applications

Valves | Gate valves | Gates (flow control)

■Dimension drawings



■Controller specifications

Function	Specification	Remarks
Main power supply	Three-phase AC 200V/400V class	
Control CPU	16-bit CPU with ADC and DAC, 16-MHz clock	
Position detection	Contactless potentiometer	
Torque detection	±5% precision	Worm motion sensing (contactless potentiometer)
LCD	Position (% open), fault icons, indicator, 3-character data	Displays with main power off
Basic operation	Open, stop, and close pushbuttons; Local/remote	
Adjustable open/close speed	Inverter (option)	
Position set	0%, 100%, and 4 intermediate user-defined points	User-definable within encoder count range
Torque set	User-adjustable between 30% and 100%	
Options	Inverter proportional control (stepless positioning), fieldbus support (PROFIBUS-DP), self-diagnosis	

■Specifications

Model	Max. output torque (Nm)	Flange size	Max. shaft dia. (mm)	Valve speed sec/90° (50/60 Hz)	Motor		Mass (kg)
					Power supply	Output W	
Semflex-VP-010	125	F07	28	9/7.5~18/15	Three-phase 200V class Three-phase 400V class	40	25
Semflex-VP-020	250			18/15~36/30		40	
Semflex-VP-060	600	F10	42	18/15~36/30		100	30
Semflex-VP-1	1,000	F14	60	18/15~36/30		200	52
Semflex-VP-2	2,000			36/30~72/60		200	

■Dimensions

Model	φA	φB	C	D	E	F	G	H	I	J	K	L	M	N	P	φR	S	T	U
Semflex-VP-010	90	55	167	3	379	281	113	20	121	186	56	64	68	R70	10	70	8	M8	15
Semflex-VP-020																			
Semflex-VP-060	125	70	191	3	396	325	130	20	136	202	60	60	65	R110	8	102	8	M10	15
Semflex-VP-1	175	100	268	4	462	363	191	20	174	240	60	111	141	R110	70	140	8	M16	15
Semflex-VP-2																			

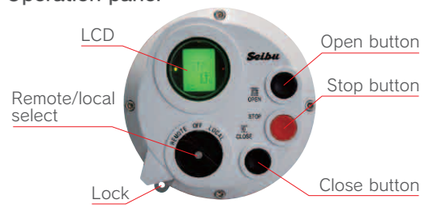
※Please inquire for special installation or environmental requirements. (Vibration: Mechanism 1G max., electrical components exceeding 0.5G, noise, etc).

VP series Butterfly valve implementation

Model: Semflex®-VP-010

1. Motor operation
   Via the actuator panel (standard equipment)
2. Setting open/close limits and torque
   Settable with pushbutton switches.
3. Actuator status check
   Position, torque alarm and other status information can be checked on the LCD.

Operation panel



■List of models by pipe diameter (reference values)

Model	Applicable butterfly valves (mm)
VP-010	50~100
VP-020	50~150
VP-060	150~300
VP-1	200~350
VP-2	250~400

Note:We do not manufacture or sell valves.

Sample Semflex®-VP installation

Description

A midsize coastal petroleum tanker installed power freight handling and ballast piping valves. As the trial vessel for the national Super Eco-Ship (SES) research project, it completed national evaluations and is now in commercial service.

User requirements

Hydraulic actuators have been commonly used in hazard areas of petroleum and gas tankers to prevent explosions, but the requirement was for electric valve actuators to reduce the needed hydraulic machinery and marine pollution. Construction for the control system and wiring also needed to be reduced to minimize cost.

Solution proposal

The Semflex®-VP and VM series of electric valve actuators were linked via the PROFIBUS field bus, significantly reducing control panel wiring. In addition, the system supports valve operational data monitoring and valve actuator preventive maintenance.

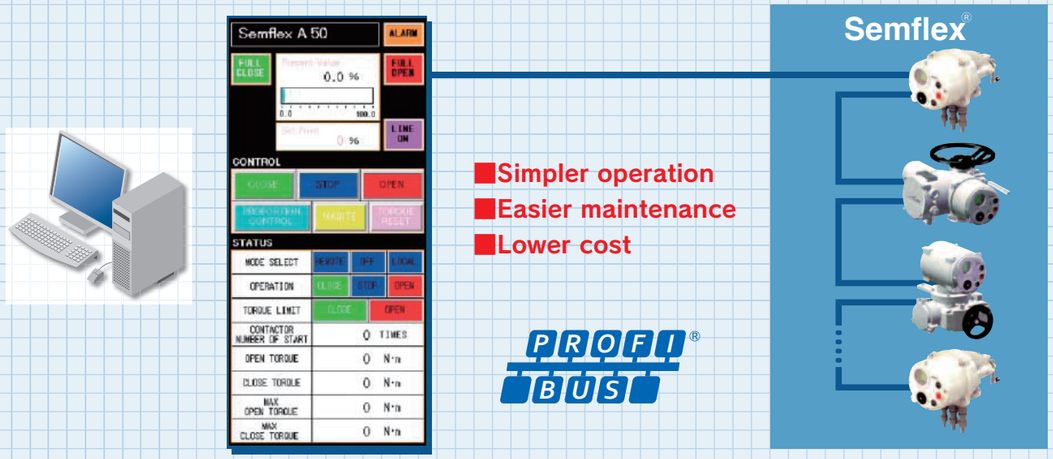
Optional function

PROFIBUS-DP Control System

Supports the Semflex® series
Inquire for information on use with other products

Package software

Connect up to 125 power valve actuators



- Simpler operation
- Easier maintenance
- Lower cost

Monitor many data items (torque, motor current, number of operations, etc.) to prolong service life of actuators and valves by status control, self-diagnosis, and preventative maintenance (failure prediction).

General PROFIBUS-SP communication specifications

Communication protocol	PROFIBUS-DP	
Interface	RS-485	
Baud rate / range	Baud rate (kbit/s)	Cable length (without repeater)
	9.6	1200m
	19.2	1200m
	93.75	1200m
	187.5	1000m
	500.0	400m
	1500.0	200m
	12000.0	100m
Wiring	Twist pair cable	
Station types	DP Master class 1 (PLC, PC, etc.)	
	DP Master class 2 (programing configuration tool)	
	DP Slave (other slave systems)	
Connected stations	32 stations without repeater	
	With repeater expandable up to 125	
Communication settings	Data: 8 bit	
	Parity: Odd	
	Stop bit: 1	
Encoding	Non Return to Zero (NRZ)	

PROFIBUS-DP•Semflex® interface

Electronic controls	Integral controls Seibu Semiflex series
Baud rate detection	Automatic
Control signals	OPEN
	STOP
	CLOSE
	Proportional control【Option】
Feedback signals	Limit switch OPEN/CLOSE
	Torque switch OPEN/CLOSE
	Opening/Closing signals
	Position REMOTE
	Valve position【Option】
	Self diagnosis data【Option】
Fault signals	1.Motor protection tripped
	2.Torque abnormal
	3.Other

Application examples

Steelmaking plant

Fast response, lower cost

The power valve actuator offers fast control response for accurate valve operation. Because it does not use conventional I/O contact control, installation wiring and labor costs are also reduced.

Simplified maintenance

Electronic sensors slash the component count, for a smaller, lighter, simpler construction, which simplifies maintenance and provides significant reductions in required personnel and man-hours.

Plant machinery

PROFIBUS-DB communication system

Semflex® series products can be automatically controlled via PROFIBUS communication, contributing to unmanned operation, and improving operational safety and transport quality.

Self-diagnosis function

Various data items (torque, motor current, number of operations, etc.) can be monitored at high speed via the communication path for simple actuator and valve status management. Ideal for preventing trouble and implementing planned maintenance.

Intelligent system merits

Digital communication between plant production equipment and the controlling PC enables a variety of control operations, while providing a host of advantages including improved communication accuracy and redundancy, and reduced wiring cost.

Reduced wiring cost

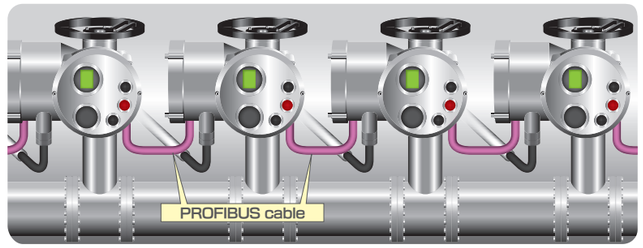
- Equipment operation possible as soon as power is supplied.
- PROFIBUS provides access to multiple data streams through a single cable.

Conventional wiring

Requires a control cable (CVV: 12C) and a transmitter cable (CVVS: 3C) (reference)

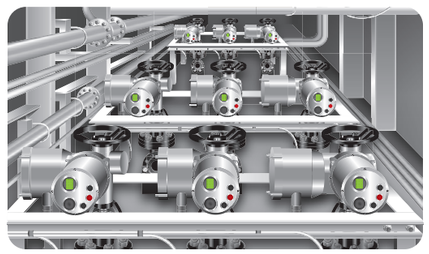
⇓

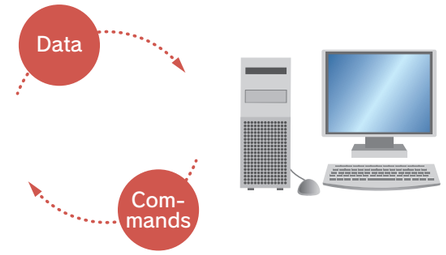
Communication is possible with the PROFIBUS cable alone



Fewer personnel needed for plant management

- Datacom-enabled self-diagnosis facilitates valve maintenance.
- Simple remote actuator operation to commands from central computer.

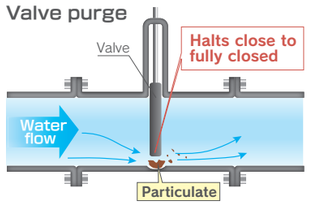




Diverse control and operation

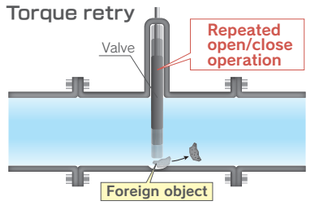
- Quick and easy support for valve purge, torque retry, variable speed (option) and more.

Valve purge



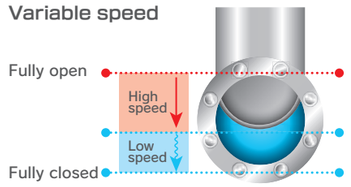
Valve halts close to fully closed, using flow to remove particles.

Torque retry



After over-torque detection, open/close is repeated several times.

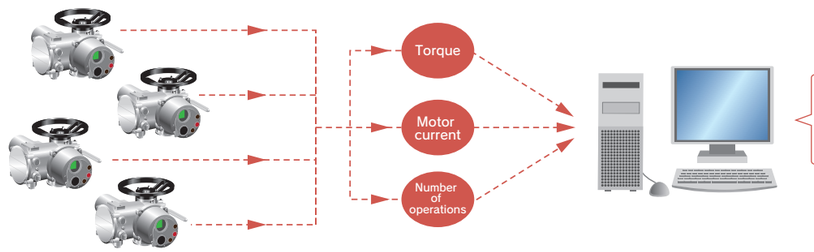
Variable speed



Speed is varied, with high-speed operation from fully open almost to fully closed, and then low-speed operation until fully closed.

Self-diagnosis

- Various data items (torque, motor current, number of operations, etc.) can be monitored at high speed, prolonging actuator and valve service life and facilitating status management.



Self-diagnosis based on actuator and valve status helps prevent trouble from occurring.

Field-Proven Safety, Reliability, and Durability: Seibu Valve Actuators Command the Top Share of the Japan Market

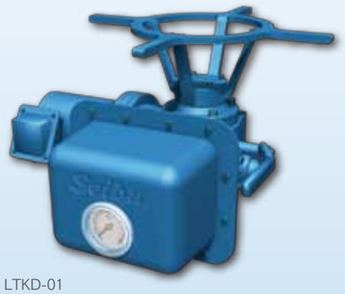
LTRH／LTRM

LTRH-01

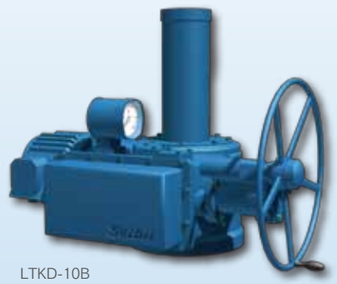
LTRH-01 LTRM-01	Allowable torque:120 Nm/Allowable thrust:38kN Sleeve speed min^{-1} (50/60Hz) 10.9/13.0～35.6/42.8

※Sleeve speeds are reference only.

LTKD／LTMD／LTKB series



LTKD-01



LTKD-10B

LTKD-5

LTKB (ballscrew specification)

LTKD-01 LTMD-01	Allowable torque:250 Nm/Allowable thrust:45kN Sleeve speed min^{-1} (50/60Hz) 10.6/12.6～71.3/85.5
LTKD-02 LTMD-02	Allowable torque:450 Nm/Allowable thrust:65kN Sleeve speed min^{-1} (50/60Hz) 10.5/12.7～66.0/79.2
LTKD-05 LTMD-05	Allowable torque:850 Nm/Allowable thrust:105kN Sleeve speed min^{-1} (50/60Hz) 14.8/17.8～71.3/85.5

※Sleeve speeds are reference only.

LTKD-1 LTMD-1	Allowable torque:1,750 Nm/Allowable thrust:200kN Sleeve speed min^{-1} (50/60Hz) 9.3/11.2～66.0/79.2
LTKD-3 LTMD-3	Allowable torque:4,000 Nm/Allowable thrust:320kN Sleeve speed min^{-1} (50/60Hz) 8.0/9.6～64.5/77.4
LTKD-5 LTMD-5	Allowable torque:6,500 Nm/Allowable thrust:500kN Sleeve speed min^{-1} (50/60Hz) 10.7/12.9～61.2/73.4
LTKD-10B LTMD-10B	Allowable torque:12,000 Nm/Allowable thrust:1,100kN Sleeve speed min^{-1} (50/60Hz) 10.6/12.8～63.1/75.7

※Sleeve speeds are reference only.

IP 55 | IP 67 | IP 68

Limit switch | Torque switch | Interlock | Explosion-proof | Synch transmitter

Transmitter DC4～20mA output | Transmitter DC4～20mA I/O | Manual recovery | Automatic recovery | Position data

■ = Standard specification □ = Not available ▒ = Option

※Detail specifications available on request.

IP 55 | IP 67 | IP 68

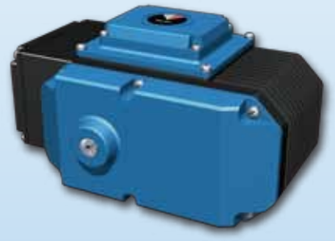
Limit switch | Torque switch | Interlock | Explosion-proof | Synch transmitter

Transmitter DC4～20mA output | Transmitter DC4～20mA I/O | Manual recovery | Automatic recovery | Position data

■ = Standard specification □ = Not available ▒ = Option

※Detail specifications available on request.

SRH series



SRH-060

SRH-007	Allowable torque:70 Nm Open/close time sec/90° (50/60Hz) 12/10･24/20
SRH-020	Allowable torque:200 Nm Open/close time sec/90° (50/60Hz) 12/10･24/20
SRH-060	Allowable torque:600 Nm Open/close time sec/90° (50/60Hz) 18/15･36/30

IP 55 | IP 67 | IP 68

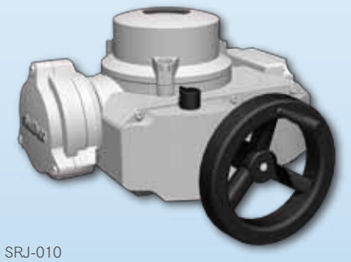
Limit switch | Torque switch | Interlock | Explosion-proof | Synch transmitter

Transmitter DC4～20mA output | Transmitter DC4～20mA I/O | Manual recovery | Automatic recovery | Position data

■ = Standard specification □ = Not available ▒ = Option

※Detail specifications available on request.

SRJ series



SRJ-010

SRJ-010	Allowable torque:125 Nm Open/close time sec/90° (50/60Hz) 9/7.5･18/15
SRJ-020	Allowable torque:250 Nm Open/close time sec/90° (50/60Hz) 18/15･36/30
SRJ-060	Allowable torque:600 Nm Open/close time sec/90° (50/60Hz) 18/15･36/30
SRJ-1	Allowable torque:1,000 Nm Open/close time sec/90° (50/60Hz) 18/15･36/30
SRJ-2	Allowable torque:2,000 Nm Open/close time sec/90° (50/60Hz) 36/30･72/60

IP 55 | IP 67 | IP 68

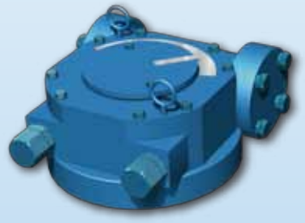
Limit switch | Torque switch | Interlock | Explosion-proof | Synch transmitter

Transmitter DC4～20mA output | Transmitter DC4～20mA I/O | Manual recovery | Automatic recovery | Position data

■ = Standard specification □ = Not available ▒ = Option

※Detail specifications available on request.

BRM series



BRM-3-H

BRM-0 Allowable torque:500 Nm	BRM-18 Allowable torque:18,000 Nm
BRM-1 Allowable torque:1,000 Nm	BRM-40 Allowable torque:40,000 Nm
BRM-2 Allowable torque:2,000 Nm	BRM-80 Allowable torque:80,000 Nm
BRM-3 Allowable torque:3,000 Nm	BRM-150 Allowable torque:150,000 Nm
BRM-4 Allowable torque:4,000 Nm	BRM-200 Allowable torque:200,000 Nm
BRM-5 Allowable torque:5,000 Nm	BRM-300 Allowable torque:300,000 Nm
BRM-10 Allowable torque:10,000Nm	

IP 55 | IP 67 | IP 68

Limit switch | Torque switch | Interlock | Explosion-proof | Synch transmitter

Transmitter DC4～20mA output | Transmitter DC4～20mA I/O | Manual recovery | Automatic recovery | Position data

■ = Standard specification □ = Not available ▒ = Option

※Detail specifications available on request.

Mechanical actuators LTRH-01 LTRM-01

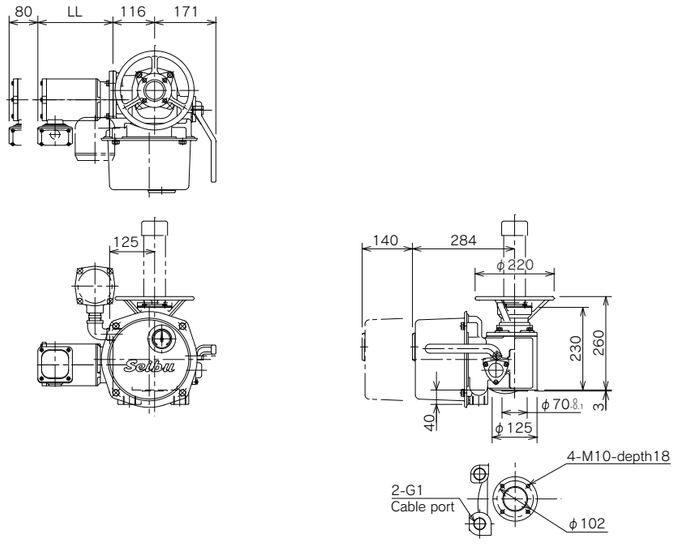
Features

Manual and automatic recovery

Safety mechanisms: limit switch, torque switch, interlock (LTRH only)

Compact and lightweight for easy installation into tight spaces

■Dimension drawings



■Specifications

Model	Allowable torque (Nm)	Allowable thrust (kN)	Allowable valve stem dia. (mm)		Sleeve speed min^{-1} (50/60 Hz)	Motor	
			Rising stem	Non-rising stem		Power supply	Output kW
LTRH-01 LTRM-01	120	38	28	30	10.9/13.1~35.6/42.8	Three-phase 200V class Three-phase 400V class (Please inquire for single-phase specifications)	0.1、0.2、0.4

※Inquire for mass.

Motor output (kW)		0.1	0.2	0.4
KD/LL	Without brake	G3/4 / 209	G3/4 / 209	G3/4 / 202
	With brake Without Loosen equipment in ( )	G3/4 / 195	G3/4 / 282 (259)	G3/4 / 285 (263)
Motor removal space X		80	80	80

※Please inquire for special installation or environmental requirements. (Vibration:Mechanism 1G max.,electrical components exceeding 0.5G, noise,etc).

Mechanical actuators LTKD-01/02 LTMD-01/02

Features

Manual and automatic recovery

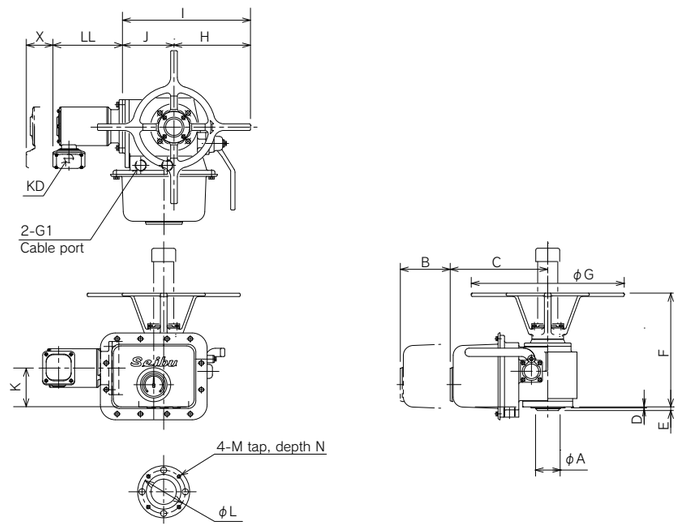
Safety mechanisms: limit switch, torque switch, interlock (LTKD only)

Uses motor appropriate for valve. Improved safety with independent wiring using dedicated terminal box.

One-touch auto/manual select

Available in submersible and explosion-proof specifications

■Dimension drawings for LTKD-01/02 and LTMD-01/02



■Specifications for LTKD-01/02 and LTMD-01/02

Model	Allowable torque (Nm)	Allowable thrust (kN)	Allowable valve stem dia. (mm)		Sleeve speed min^{-1} (50/60 Hz)	Motor	
			Rising stem	Non-rising stem		Power supply	Output kW
LTKD-01/LTMD-01	250	45	28	30	10.6/12.6~71.3/85.5	Three-phase 200V class Three-phase 400V class (Please inquire for single-phase or DC specifications)	0.2、0.4、0.75
LTKD-02/LTMD-02	450	65	40	42	10.5/12.7~66.0/79.2		0.4、0.75、1.5

※Inquire for mass.

■Dimensions for LTKD-01/02 and LTMD-01/02

Model	ϕA	B	C	D	E	F	ϕG	H	I	J	K	ϕL	M	N
LTKD-01/LTMD-01	73	150	293	3	11	342	460	230	385	155	117	125	M10	17
LTKD-02/LTMD-02	88	160	327	4	12	377	460	230	385	155	142	160	M12	22

Motor output (kW)		0.2	0.4	0.75	1.5
KD/LL	Without brake	G3/4 / 209	G3/4 / 202	G3/4 / 215	G3/4 / 243
	With brake Without Loosen equipment in ( )	G3/4 / 282 (259)	G3/4 / 285 (263)	G3/4 / 304	G3/4 / 334
Motor removal space X		80	80	80	80

※Please inquire for special installation or environmental requirements. (Vibration:Mechanism 1G max.,electrical components exceeding 0.5G, noise,etc).

Mechanical actuators LTKD-05/1/3/5

Features

Manual recovery

Safety mechanisms: limit switch, torque switch, interlock

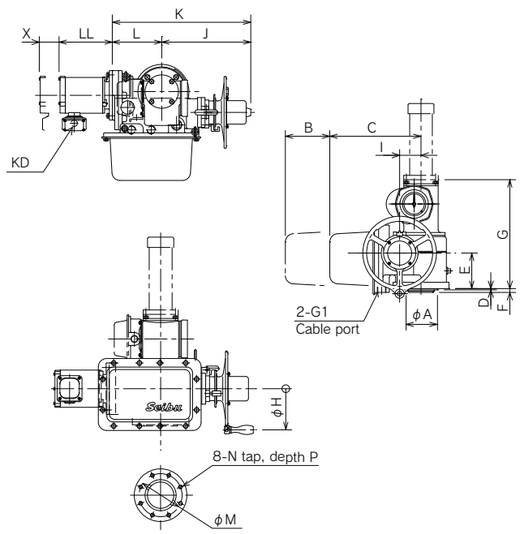
Uses motor appropriate for valve. Improved safety with independent wiring using dedicated terminal box.

Standard safety equipment prevents damage to valve and gate even if excess force applied in manual operation.

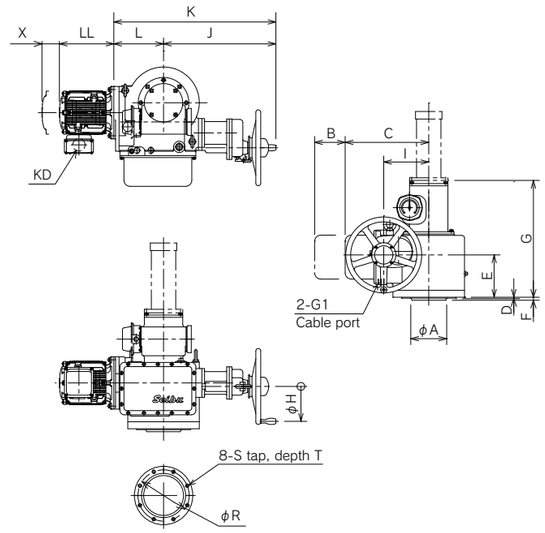
Available in submersible and explosion-proof specifications.

■Dimension drawings

LTKD-05/1/3



LTKD-5



■Specifications

Model	Allowable torque (Nm)	Allowable thrust (kN)	Allowable valve stem dia. (mm)		Sleeve speed min^{-1} (50/60 Hz)	Motor	
			Rising stem	Non-rising stem		Power supply	Output kW
LTKD-05	850	105	50	52	14.8/17.8~71.3/85.5	Three-phase 200V class Three-phase 400V class (Please inquire for single-phase or DC specifications)	0.4、0.75、1.5、2.2、3.7
LTKD-1	1,750	200	62	70	9.3/11.2~66.0/79.2		1.5、2.2、3.7、5.5
LTKD-3	4,000	320	80	90	8.0/9.6~64.5/77.4		3.7、5.5、7.5、11
LTKD-5	6,500	500	100	115	10.7/12.9~61.2/73.4		5.5、7.5、11、15

※Inquire for mass.

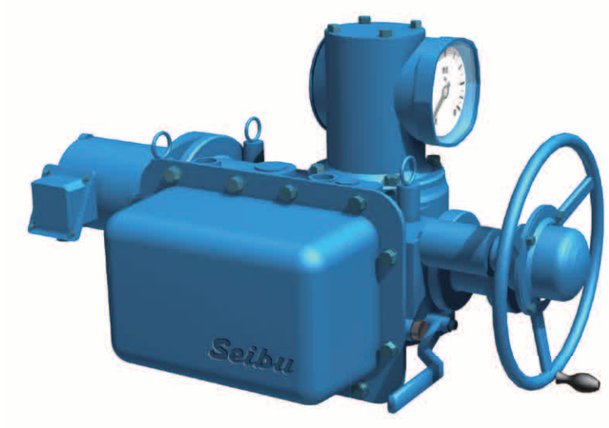
■Dimensions

Model	ϕA	B	C	D	E	F	G	ϕH	I	J	K	L	ϕM	N	P	ϕR	S	T
LTKD-05	103	175	359	5	140	15	429	160	84	360	575	200	180	M16	25	–	–	–
LTKD-1	132	175	400	5	175	17	490	160	110	425	685	260	250	M16	25	–	–	–
LTKD-3	168	170	411	5	200	20	545	200	151	470	740	270	300	M20	30	–	–	–
LTKD-5	206	175	479	5	243	18	665	200	258	644	929	285	–	–	–	360	M24	40

Motor output (kW)		0.4	0.75	1.5	2.2	3.7	5.5	7.5	11	15
KD/LL	Without brake	G3/4 / 202	G3/4 / 215	G3/4 / 243	G3/4 / 264	G3/4 / 278	G1 / 312	G1 / 350	G1 / 435	G1 / 435
	With brake Without Loosen equipment in ( )	G3/4 / 285 (263)	G3/4 / 304	G3/4 / 334	G3/4 / 358	G3/4 / 392	G1 / 424	G1 / 467	G1 / 594	G1 / 594
Motor removal space X		80	80	80	80	100	100	100	150	150

※Please inquire for special installation or environmental requirements. (Vibration:Mechanism 1G max.,electrical components exceeding 0.5G, noise,etc).

Mechanical actuators LTMD-05/1/3/5



Features

Manual recovery

Safety mechanisms: limit switch, torque switch, etc.

Uses motor appropriate for valve. Improved safety with independent wiring using dedicated terminal box.

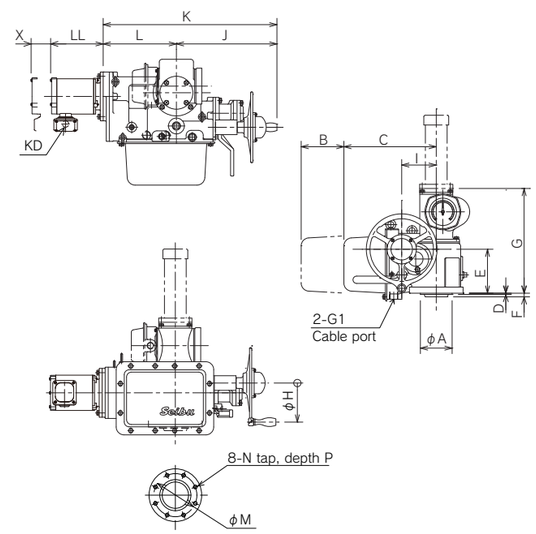
Standard safety equipment prevents damage to valve and gate even if excess force applied in manual operation.

Available in submersible and explosion-proof specifications.

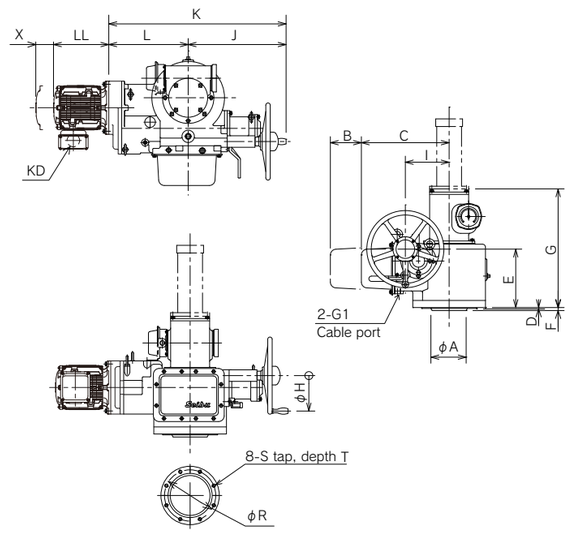
Note: Model also available with mechanical interlocks (LTMDG)

■Dimension drawings

LTMD-05/1/3



LTMD-5



■Specifications

Model	Allowable torque (Nm)	Allowable thrust (kN)	Allowable valve stem dia. (mm)		Sleeve speed min^{-1} (50/60 Hz)	Motor	
			Rising stem	Non-rising stem		Power supply	Output kW
LTMD-05	850	105	50	52	14.8/17.8~71.3/85.5	Three-phase 200V class Three-phase 400V class (Please inquire for single-phase or DC specifications)	0.4、0.75、1.5、2.2、3.7
LTMD-1	1,750	200	62	70	9.3/11.2~66.0/79.2		1.5、2.2、3.7、5.5
LTMD-3	4,000	320	80	90	8.0/9.6~64.5/77.4		3.7、5.5、7.5、11
LTMD-5	6,500	500	100	115	10.7/12.9~61.2/73.4		5.5、7.5、11、15

※Inquire for mass.

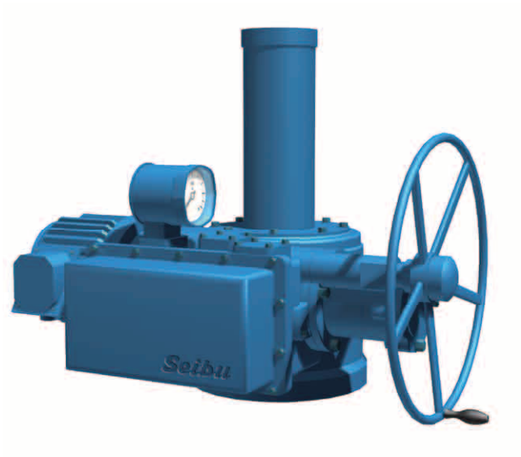
■Dimensions

Model	ϕA	B	C	D	E	F	G	ϕH	I	J	K	L	ϕM	N	P	ϕR	S	T
LTMD-05	103	175	360	5	140	16	429	160	84	375	575	200	180	M16	25	–	–	–
LTMD-1	132	175	400	5	175	17	490	160	110	425	685	260	250	M16	25	–	–	–
LTMD-3	168	170	411	5	200	20	545	200	151	470	740	270	300	M20	30	–	–	–
LTMD-5	206	175	477	5	242.5	18	665	200	258	645	929	285	–	–	–	360	M24	40

Motor output (kW)		0.4	0.75	1.5	2.2	3.7	5.5	7.5	11	15
KD/LL	Without brake	G3/4 / 202	G3/4 / 215	G3/4 / 243	G3/4 / 264	G3/4 / 278	G1 / 312	G1 / 350	G1 / 435	G1 / 435
	With brake Without Loosen equipment in ( )	G3/4 / 285 (263)	G3/4 / 304	G3/4 / 334	G3/4 / 358	G3/4 / 392	G1 / 424	G1 / 467	G1 / 594	G1 / 594
Motor removal space X		80	80	80	80	100	100	100	150	150

※Please inquire for special installation or environmental requirements. (Vibration:Mechanism 1G max.,electrical components exceeding 0.5G, noise,etc).

Mechanical actuators LTKD-10B LTMD-10B



Features

Manual recovery

Safety mechanisms: limit switch, torque switch, interlock (LTKD only)

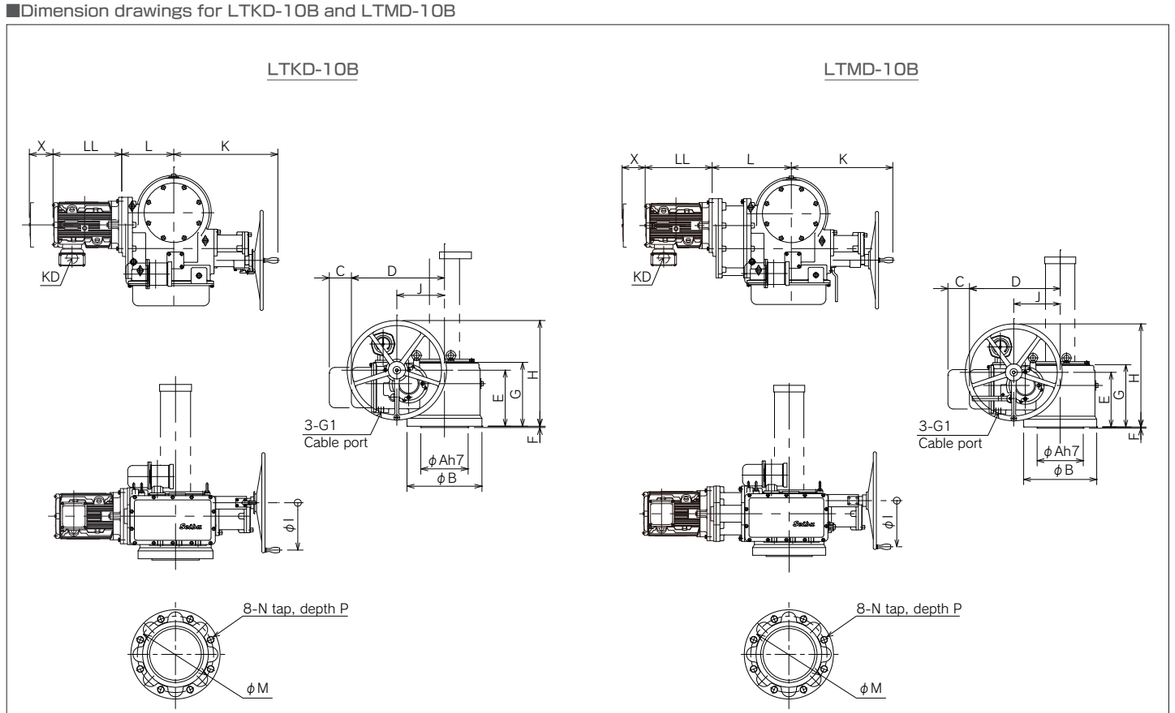
Uses motor appropriate for valve. Improved safety with independent wiring using dedicated terminal box.

Standard safety equipment prevents damage to valve and gate even if excess force applied in manual operation.

One-touch auto/manual select

Available in submersible and explosion-proof specifications.

■Dimension drawings for LTKD-10B and LTMD-10B



■Specifications for LTKD-10B and LTMD-10B

Model	Allowable torque (Nm)	Allowable thrust (kN)	Allowable valve stem dia. (mm)		Sleeve speed min⁻¹ (50/60 Hz)	Motor	
			Rising stem	Non-rising stem		Power supply	Output kW
LTKD-10B LTMD-10B	12000	1100	115	135	10.6/12.8~63.1/75.7	Three-phase 200V class Three-phase 400V class (Please inquire for DC specifications)	7.5、11、15、18.5、22

※Inquire for mass.

■Dimensions

Model	φA	φB	C	D	E	F	G	H	φI	J	K	L	φM	N	P
LTKD-10B	300	475	140	590	355	8	405	670	300	302	660	330	406	M36	70
LTMD-10B	300	475	140	590	355	8	405	670	300	302	660	515	406	M36	70

Motor output (kW)		7.5	11	15	18.5	22
KD/LL	Without brake	G1 / 350	G1 / 435	G1 / 435	G2 / 488	G2 / 488
	With brake	G1 / 467	G1 / 594	G1 / 594	G2 / 657	G2 / 657
Motor removal space X		100	150	150	150	150

※Please inquire for special installation or environmental requirements. (Vibration:Mechanism 1G max.,electrical components exceeding 0.5G, noise,etc).

Mechanical actuators LTKB-01A/02A/05A

Highly automated plants are running at faster speeds than ever, leading to rising demand for improvements in reliability and service life in output shafts of gate valves, globe valves and more.

The LTKB uses a ball screw instead of the conventional screw to significantly prolong service life and boost efficiency.

Features

Excellent screw efficiency makes possible smaller, lighter drives and motors.

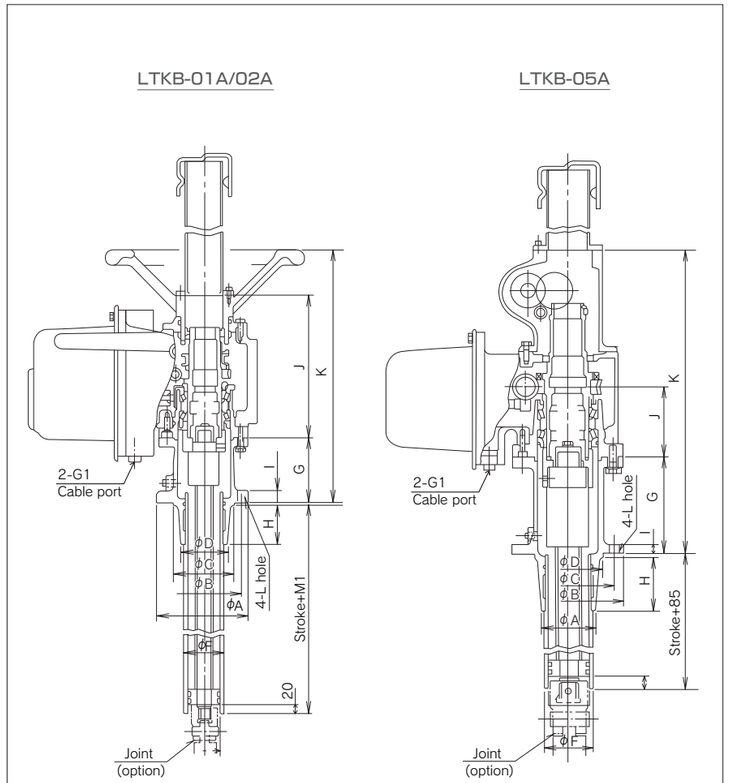
The protection cylinder completely encloses the ball screw section.

The valve stem screw remains in contact, achieving a transmission efficiency of 90% or higher.

Low thread wear and long service life even in high-frequency operation.

Note: Large-capacity designs for -1A, -3A and larger are also available. Inquire for details.

■Dimension drawings



■Specifications (Ball screw specifications require consultation. Inquire for details information.)

Model	Allowable torque (Nm)	Allowable thrust (kN)	Allowable valve stem dia. (mm)		Sleeve speed min⁻¹ (50/60 Hz)	Motor	
			Rising stem	Non-rising stem		Power supply	Output kW
LTKB-01A	250	45	–	30	10.0/12.0~67.5/81.0	Three-phase 200V class Three-phase 400V class (Please inquire for single-phase or DC specifications)	0.1、0.2、0.4
LTKB-02A	450	65	–	42	10.0/11.9~62.5/75.0		0.2、0.4、0.75
LTKB-05A	850	105	–	75	10.0/12.0~67.5/81.0		0.4、1.5、2.2

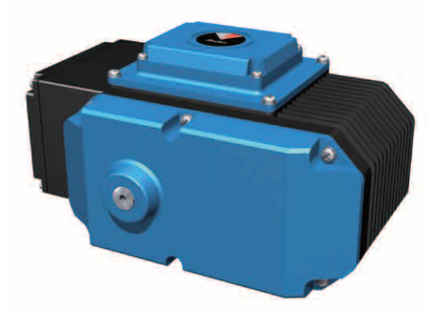
※Inquire for mass.

■Dimensions

Model	φA	φB	φC	φD	φF	G	H	I	J	K	L	M1
LTKB-01A	175	140	100h7	90	65	125	75	15	242	407	φ12	40
LTKB-02A	210	165	130h7	110	85	150	85	20	277	497	φ15	47
LTKB-05A	300	254	200h7	120	94	200	95	20	140	625	φ19	85

※Please inquire for special installation or environmental requirements. (Vibration:Mechanism 1G max.,electrical components exceeding 0.5G, noise,etc).

A small, lightweight, easy-to-handle actuator



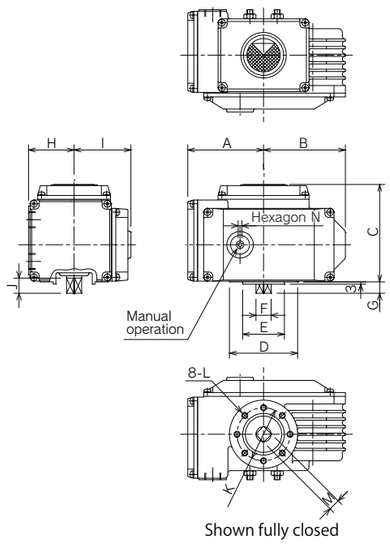
Features

The body is made of aluminum and the cover of engineering plastic.

Inside, a worm gear/spur gear combination minimizes volume.

Terminal chamber is separated from switch to assure ample wiring space.

■Dimension drawings



■Specifications

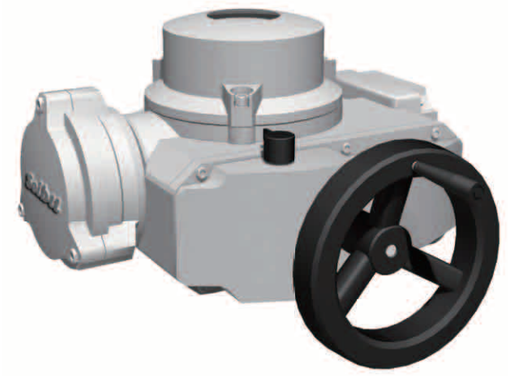
Model		SRH-007	SRH-020	SRH-060
Allowable output torque (Nm)		70	200	600
Open/close speed (sec/90°)50/60 Hz		12/10・24/20		18/15・36/30
Power supply (V)		Single-phase100、200		
Motor	Output(W)	10	40	100
	Insulation class	E		
	Thermal protector	Internal		
Space heater		8W		
Microswitch contact capacity		AC250V 5A		
Lead port		2-G1/2		
Ambient temperature		-10℃~50℃		
Protective construction		IP55/JPW55(outdoor-use waterproofing)		
Terminals		Screw M3.5×12P		
Mass(kg)		4	8	15

■Dimensions

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N
SRH-007	100	108	128	ϕ90	ϕ55f8	ϕ20	15	60	75	20	70	M8	□15 -0.05 -0.09	5
SRH-020	121	135	139	ϕ90	ϕ55f8	ϕ28	35	63	90	30	70	M8	□23 -0.06 -0.11	6
SRH-060	158	164	164	ϕ125	ϕ70f8	ϕ39	40	85	133	35	102	M10	□30 -0.05 -0.11	6

※Please inquire for special installation or environmental requirements.(Vibration:Mechanism 1G max.,electrical components exceeding 0.5G, noise,etc).

Completely waterproof compact actuator



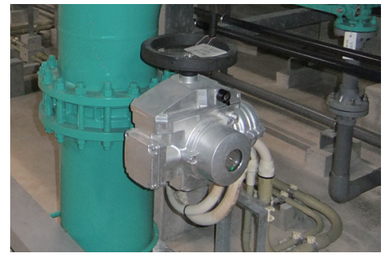
Features

Waterproof terminal chamber with submersible IP68 construction.

Rich range of options, including angle transmitter, RI converter, and proportional control.

ExdII BT4 explosion-proof construction available.

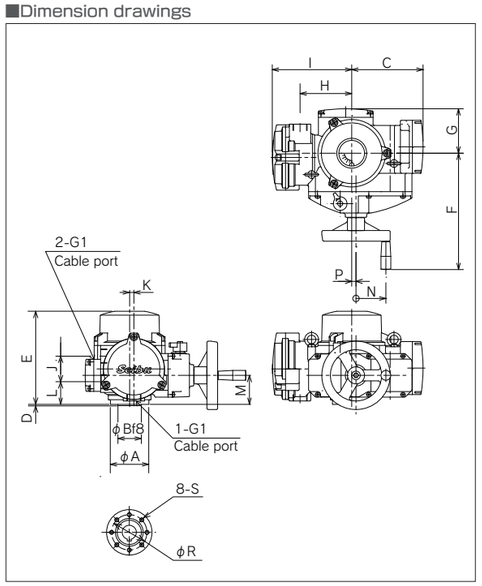
Valve interface complies with ISO5211.



■Specifications

Model		SRJ-010	SRJ-020	SRJ-060	SRJ-1	SRJ-2
Allowable output torque(Nm)		125	250	600	1,000	2,000
Open/close speed (sec/90°) 50/60 Hz		9/7.5 18/15	18/15 36/30	18/15 36/30	18/15 36/30	36/30 72/60
Max. shaft dia.(mm)		28	28	42	60	60
Motor	Output(W)	40	40	100	200	200
	Supply voltage(V)	Three-phase200、400 Single-phase100、200				
	Insulation class	Class B				
	Brake	Permanent, with brake				
	Thermal protector	Internal to motor				
Position limit switch		MicroswitchRLS(1a1b)、LLS(1a1b)				
Torque switch		MicroswitchRTS(1a1b)、LTS(1a1b)				
Manual operation		Automatic recovery, with handle				
Design life		10,000 cycles with valve load, 500,000 starts				
Terminals		Motor(M4-3P)、control(M4-32P)				
Lead port		3-G1				
Pressure-resistant, explosion-proof		Exd II BT4(option)				
Color		Standard paint(Munsell N8)				
Ambient temperature		-10℃~50℃				
Space heater		Included(PTCthermistor)				
Protective construction		IP68				
Mass(kg)		13	13	18	40	40

■Dimension drawings



■Dimensions

Model	ϕA	ϕB	C	D	E	F	G	H	I	J	K	L	M	N	P	ϕR	S
SRJ-010	90	55	167	3	218	281	104	121	186	56	10	64	68	70	10	70	M8
SRJ-020																	
SRJ-060	125	70	191	3	235	325	130	136	202	60	0	60	65	110	8	102	M10
SRJ-1	175	100	267	4	296	363	191	174	240			111	141		70	140	M16
SRJ-2																	

※Please inquire for special installation or environmental requirements.(Vibration:Mechanism 1G max.,electrical components exceeding 0.5G, noise,etc).

Worm reducers also usable as motorized actuators

Features

Compact, lightweight design.

At least 30% smaller and 20% lighter than our previous design.

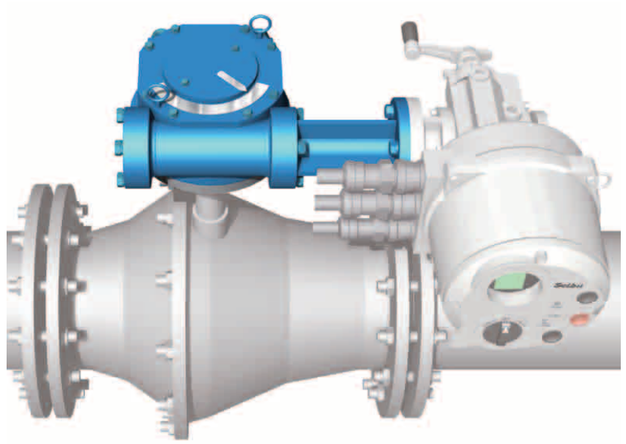
Outstanding resistance to corrosion and environmental deterioration.

More variations than ever for the optimal specifications.

Valve interface complies with ISO5211.

The gear case is made of tough ductile casting, the worm gear of heat-treated structural-use carbon steel, and the worm wheel of wear-resistant aluminum-brass alloy. It is packed with multi-purpose lithium-soap-based grease for long-term, maintenance-free operation.

■ Motorized type



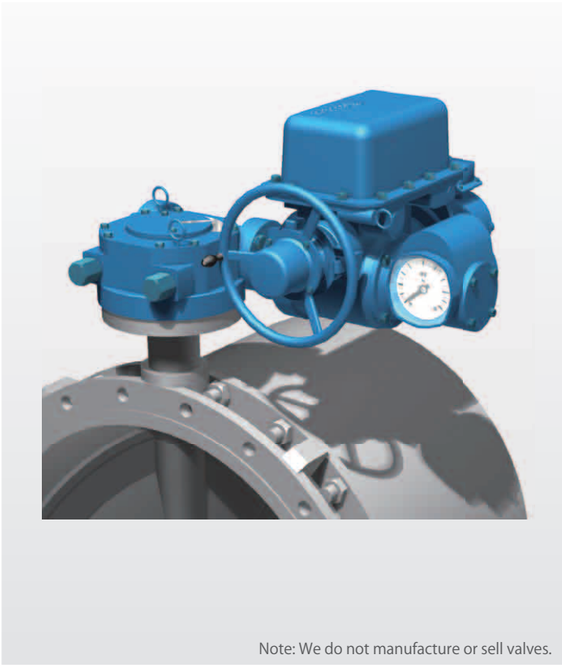
■ Manual type

BRM series Butterfly valve application example

Model:Semflex-VM-01／BRM-3F

Note: We do not manufacture or sell valves.

Model:LTKD-05／BRM-10F



Note: We do not manufacture or sell valves.

■BRM series basic specifications

Model		BRM-0	BRM-1			BRM-2			BRM-3			BRM-4			BRM-5			BRM-10					BRM-18					BRM-40						BRM-80						BRM-150						BRM-200						BRM-300					
			Stan dard	-1S	-1B	Stan dard	-1S	-1B	Stan dard	-1S	-1B	Stan dard	-1S	-1B	Stan dard	-1S	-1B	Stan dard	-1S	-1B	-2S	-2B	Stan dard	-1S	-1B	-2S	-2B	Stan dard	-1S	-1B	-2S	-2B	-3B	Stan dard	-1S	-1B	-2S	-2B	-3B	Stan dard	-1S	-1B	-2S	-2B	-3B	Stan dard	-1S	-1B	-2S	-2B	-3B	Stan dard	-1S	-1B	-2S	-2B	-3B
Input type	Motorized:F	×	○	×	○	○	×	○	○	×	○	○	×	○	○	○	○	○	○	○	×	×	○	○	○	×	×	○	○	○	×	×	×	○	○	○	×	×	×	○	○	○	×	×	×	○	○	○	○	×	×	○	○	○	○	○	×
	Manual:H	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	×	×	○	○	○	○	×	○	○	○	○	×	×	×	○	○	○	×	×	×	○	○	○	×	×	×	○	○	○	×	×	×	×	×	×	×	×	×	×	×	×	×
Output specifi-cations	Allowable torque (Nm)	500	1,000			2,000			3,000			4,000			5,000			10,000					18,000					40,000						80,000						150,000						200,000						300,000					
	Gear ratio	1/40	1/40	1/80	1/80	1/60	1/150	1/150	1/60	1/150	1/150	1/60	1/150	1/150	1/60	1/150	1/150	1/60	1/180	1/180	1/540	1/450	1/60	1/180	1/180	1/540	1/540	1/60	1/240	1/240	1/960	1/720	1/2,400	1/65	1/260	1/260	1/1,040	1/780	1/3,120	1/65	1/325	1/325	1/1,625	1/1,300	1/4,875	1/65	1/325	1/325	1/1,625	1/1,300	1/4,875	1/65	1/325	1/325	1/1,625	1/1,300	1/4,875
	Output flange bolt size Bolt tightening torque	F10、M10 16Nm	F12、M12、32Nm			F14、M16、76Nm			F16、M20、121Nm			F16、M20、162Nm			F20、M16、65Nm			F20、M16、65Nm					F30、M20、201Nm					F35、M30、562Nm						F40、M36、1,182Nm						F48、M36、1,242Nm						F60、M36、796Nm						F60、M36、1,194Nm					
	Allowable valve rod dia. (mm)	28	38			50			60			75			75			100(95)					115(110)					150(145)						180						220						280						320					
Mechanical advantage (reduction ratio x efficiency)		12	12	23.3	23.3	18	43.7	43.7	18	43.7	43.7	18	43.7	43.7	18	43.7	43.7	18	52.4	52.4	152.4	127	18	52.4	52.4	152.4	127	18	69.8	69.8	271	203.2	657.1	19.5	75.7	75.7	293.6	220.2	854.3	19.5	94.6	94.6	458.7	367	1,335	19.5	94.6	94.6	458.7	367	1,335	19.5	94.6	94.6	458.7	367	1,335
Input shaft	Torque (Nm)	41.7	83.3	42.9		111.1	45.8	45.8	166.7	68.7	68.7	222.2	91.6	91.6	277.8	114.5	114.5	555.6	190.9	190.9	65.6	78.7	1,000	343.6	343.6	118.1	141.7	2,222	572.7	572.7	147.6	196.8	60.9	4,103	1,057	1,057	272.5	363.4	93.6	7,692	1,586	1,586	327	408.8	112.4	10,256	2,114	2,114	436	545	150	15,385	3,171	3,171	645	817	225
	Speed (Rev)	10	10	20		15	37.5	37.5	15	37.5	37.5	15	37.5	37.5	15	37.5	37.5	15	45	45	135	112.5	15	45	45	135	112.5	15	60	60	240	180	600	16.3	65	65	260	195	780	16.3	81.3	81.3	406.3	325	1,218.8	16.3	81.3	81.3	406.3	325	1,218.8	16.3	81.3	81.3	406.3	325	1,218.8
Mass (kg)		7.5	13	17.5		19.5	25	24	22	27.5	26.5	34.5	42.5	45.5	37.5	45.5	48.5	66.5	85	95.5	98	96	116	137	145	153	148	202	232	247	255	261	266	397	443	489	480	472	510	867	989	1,060	1,090	1,034	1,120	1,010	1,170	1,260	1,250	1,210	1,280	1,370	1,670	1,720	1,820	1,760	1,860

1 The valve drive torque should be set within the allowable BRM torque.
2 Use 1 or 2 keys to connect to the valve stem as appropriate.Values in parentheses are for old-style JIS key.
3 Input types marked “X” are also available. Inquire for details.
4 Mechanical advantage is the ratio between input-shaft torque and output-shaft torque (for efficiency, worm gear: 0.3, spur/bevel gear: 0.97).
5 Input-shaft torque shown for an output-shaft torque within the allowable torque.
6 Before attaching the BRM to a valve, please ensure that the strength class of the bolts is at least 10.9, and the length of engagement sufficient. Torque value shown in the minimum.

Note: The above values are subject to change without notice.

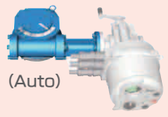
※Please inquire for special installation or environmental requirements.(Vibration:Mechanism 1G max.,electrical components exceeding 0.5G, noise,etc).

Product line-up

Electronic actuators

		Manual recovery	Automatic recovery	Max. torque Nm	Max. thrust kN	Max. shaft dia. mm Rod	Max. shaft dia. mm Screw	Transmitter specifications: Synchro	Resistance (potentiometer)	DC4~20mA output	DC4~20mA I/O	Network (PROFIBUS)	Inverter (variable speed)	Waterproofing: IP55	IP67	IP68
Semflex®-A 	Multi-turn motorized	A-50	A-50FJ	50	25	28	30	–	–	○	○	○	○	–	–	○
		A-100	A-100FJ	100	54	38	40	–	–	○	○	○	○	–	–	○
Semflex®-VM 		VM-01		150	70	34	40	–	–	○	○	○	○	–	–	○
		VM-04		550	130	50	58	–	–	○	○	○	○	–	–	○
		VM-07		850	160	60	72	–	–	○	○	○	○	–	–	○
		VM-1		1,800	270	80	95	–	–	○	○	○	○	–	–	○
Semflex®-VP 	Partial-turn motorized	–	VP-010	125	–	28	–	–	–	○	○	○	○	–	–	○
		–	VP-020	250	–	28	–	–	–	○	○	○	○	–	–	○
		–	VP-060	600	–	42	–	–	–	○	○	○	○	–	–	○
		–	VP-1	1,000	–	60	–	–	–	○	○	○	○	–	–	○
		–	VP-2	2,000	–	60	–	–	–	○	○	○	○	–	–	○

Mechanical actuators

		Manual recovery	Automatic recovery	Allowable torque Nm	Allowable thrust kN	Allowable valve stem dia. mm Rod	Allowable valve stem dia. mm Screw	Transmitter specifications: Synchro	Resistance (potentiometer)	DC4~20mA output	DC4~20mA I/O	Network (PROFIBUS) ※2	Inverter (variable speed) ※2	Waterproofing: IP55	IP67	IP68
LTRH LTRM 	Multi-turn motorized	LTRH-01	LTRM-01	120	38	28	30	○	○	○	–	–	–	○	○	–
LTKD/LTMD series 		LTKD-01	LTMD-01	250	45	28	30	○	○	○	○	–	–	○	○	○
		LTKD-02	LTMD-02	450	65	40	42	○	○	○	○	–	–	○	○	○
		LTKD-05	LTMD-05	850	105	50	52	○	○	○	○	–	–	○	○	△(KD not available)
		LTKD-1	LTMD-1	1,750	200	62	70	○	○	○	○	–	–	○	○	△(KD not available)
		LTKD-3	LTMD-3	4,000	320	80	90	○	○	○	○	–	–	○	○	△(KD not available)
		LTKD-5	LTMD-5	6,500	500	100	115	○	○	○	○	–	–	○	○	△(KD not available)
		LTKD-10B	LTMD-10B	12,000	1,100	115	135	○	○	○	○	–	–	○	○	△(KD not available)
LTKB series 		LTKB-01A	LTMB-01A	250	–	–	30	○	○	○	○	–	–	○	○	–
		LTKB-02A	LTMB-02A	450	–	–	42	○	○	○	○	–	–	○	○	–
		LTKB-05A	LTMB-05A	850	–	–	75	○	○	○	○	–	–	○	○	–
SRH series 	Partial-turn motorized	—	SRH-007	70	–	□15 -0.05 -0.09		–	○	○	○	–	–	○	–	–
		—	SRH-020	200	–	□23 -0.06 -0.11		–	○	○	○	–	–	○	–	–
		—	SRH-060	600	–	□30 -0.05 -0.11		–	○	○	○	–	–	○	–	–
SRJ series 		—	SRJ-010	125	–	28	–	–	○	○	○	–	–	–	–	○
		—	SRJ-020	250	–	28	–	–	○	○	○	–	–	–	–	○
		—	SRJ-060	600	–	42	–	–	○	○	○	–	–	–	–	○
		—	SRJ-1	1,000	–	60	–	–	○	○	○	–	–	–	–	○
		—	SRJ-2	2,000	–	60	–	–	○	○	○	–	–	–	–	○
BRM series  (Manual)  (Auto)	Partial turn auto/manual	BRM-0		500	–	28	–							–	○	○
		BRM-1		1,000	–	38	–							–	○	○
		BRM-2		2,000	–	50	–							–	○	○
		BRM-3		3,000	–	60	–							–	○	○
		BRM-4		4,000	–	75	–							–	○	○
		BRM-5		5,000	–	75	–							–	○	○
		BRM-10		10,000	–	100(95) ※1	–							–	○	○
		BRM-18		18,000	–	115(110) ※1	–							–	○	○
		BRM-40		40,000	–	150(145) ※1	–							–	○	○
		BRM-80		80,000	–	180	–							–	○	○
		BRM-150		150,000	–	220	–							–	○	○
		BRM-200		200,000	–	280	–							–	○	○
		BRM-300		300,000	–	320	–							–	○	○

※1 Values in parentheses are for old-style JIS key.　※2 Inquire for information on manual actuators equipped with network communication or inverters.

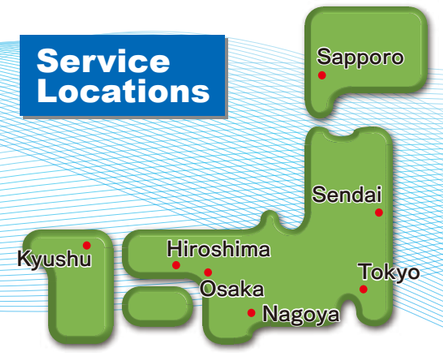
※Please inquire for special installation or environmental requirements.(Vibration:Mechanism 1G max.,electrical components exceeding 0.5G, noise,etc).

Support Stance

Reliable, trustworthy maintenance and support

Full support to keep your system running smoothly!

Actuators must be maintained to ensure that they function when they're needed, especially in emergency situations. Expert technology and long experience means that inspections are performed as dictated by the specifics of each installation, backed up by emergency repairs as required.



Warranty period

One year from product shipment

Any manufacturing defects will be handled free of charge during the warranty period.

Maintenance engineering (ME) to prevent trouble before it happens, for heightened reliability!

Eliminating mechanical breakdown promotes smooth operation and slashes cost.

Detecting and rectifying minor problems before they interfere with operation.

Class A inspection

1–5 years from product shipment

On-site inspection of external appearance, operating circuits, insulation, etc.

Electrical insulation measurement

Limit switch inspection

Class B inspection

5–7 years from product shipment

Class A inspection, plus inspections of control mechanisms and gears.

Grease removal

Internal gear check

Class C inspection

7–10 years from product shipment

Disassembly at our plant, with parts replacement and repairs as needed.

Disassembly and inspection

Reassembly and testing

Emergency response

Prompt investigation and repair as needed in emergency situations.

Emergency investigation

Motor replacement

A variety of deterioration occurs inside the mechanical system over time

For example,

Limit switch contacts deteriorate, making it impossible for the system to stop at the specified location.

Lubricant solidifies, eliminating all lubrication function.

Torque microswitch contacts fuse, making it impossible to stop the actuator in emergencies.

From receiving to product shipment

Seibu valve actuators are inspected with care, one at a time, before delivery.

Our actuators are utilized in a host of systems demanding precise, reliable control of water, electricity, gas, petroleum, and more, and because they are such critical components, actuators must deliver safe, accurate action. Every part purchased for use in a Seibu actuator, or manufactured in our own shops, is stringently tested, and each completed actuator assembly tested again before shipment.

Parts receiving

Processing and assembly

Inspection

Shipment

— Request for quote —

Number of sheets: ___

To: Seibu Electric & Machinery Co., Ltd.

(Date: / /)

FAX Tokyo Branch (03)5628-0023
Osaka Branch (06)4796-6707
Nagoya Sales Office (052)800-5030
Kyushu Sales Office (092)941-1522

FAX Hiroshima Sales Office (082)502-1653
Sapporo Sales Office (011)221-3392
Sendai Sales Office (022)797-6696

Company name:			
Dept.		Contact name:	
Tel:		Fax:	

1	Industry	☐ Waterworks/sewerage ☐ Electric power ☐ Steelmaking ☐ Petroleum, industrial chemicals ☐ Waterways ☐ Other
2	Place of delivery	
3	Valve type	☐ Butterfly ☐ Gate valve ☐ Gate ☐ Other
4	Specification dia.	
5	Specification objective	☐ On/off ☐ Flow control
		☐ Other ( )
6	Standards compliance	☐ Manufacturer standard ☐ Other ( )
7	Installation site	☐ Outdoors ☐ Indoors
8	Waterproofing	☐ IP55 ☐ IP67 ☐ IP68
9	Explosion-proofing, etc.	☐ Standard ☐ d2G4 ☐ Exd Ⅱ BT4
10	Supply power	Drive power ( ) Eg. Triple-phase 200V 50Hz
		Control power ☐ Single-phase 200V class ☐ Single-phase 100V class ☐ No supply
		☐ Other ( )
11	Actuator specification	☐ Manual recovery ☐ Automatic recovery
12	Required torque, load	
13	Open/close speed	☐ Manufacturer standard ☐ Other ( )
14	Paint specification	☐ Manufacturer standard ☐ Other ( )

Comments and questions