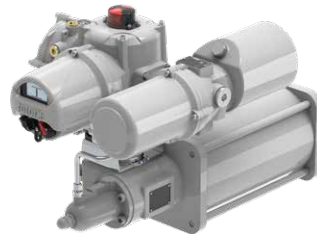




Keeping the World Flowing
for Future Generations



Skilmatic SI Range

Spring-return self-contained
electro-hydraulic actuators



Rotork's SI range of self-contained electro-hydraulic actuators combine the simplicity of electrical operation with the precision of hydraulic control and the reliability of mechanical spring-return or accumulator fail-safe action.

The SI range includes part-turn actuators with torque output from 75 to 200,000 Nm (55 to 147,500 lbf.ft) and linear actuators with thrust output up to 400 kN (90,000 lbf).

Designed to meet today's control and safety needs for both two-position and positioning control applications, the SI range is offered with a wide range of operating speeds, Emergency Shutdown (ESD) inputs, Partial Stroke Testing (PST), analogue, HART® and fieldbus communication capabilities to comply with all control configurations.

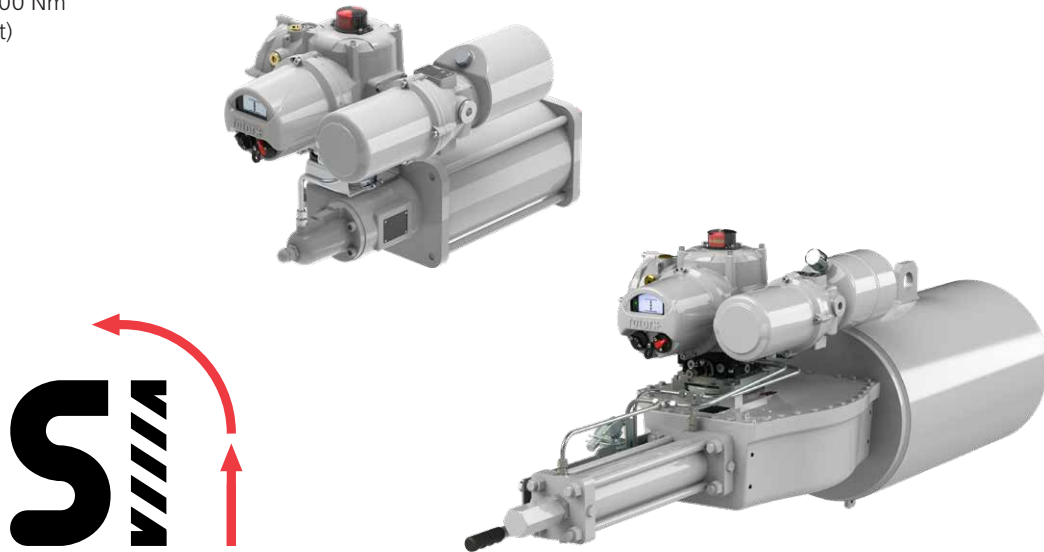
The SI range has been designed primarily for fail-safe applications where functional safety is paramount. They can be supplied as either fail-close or fail-open on loss of ESD signal and, when selected, on loss of power supply. The actuators are suitable for use in Safety Instrumented Systems (SIS).

The SI can be supplied to stayput on loss of power supply. Independent limit switches and position feedback are provided along with selectable status and alarm indication, with volt free relay outputs offered as standard.

- Fail-safe closed or open on loss of ESD signal and/or loss of power supply
- Stayput on loss of power supply (option)
- Only requires an electrical power supply for operation (1-phase, 3-phase or 24 VDC)
- Hazardous area certified
- Watertight up to IP66/68 (control module), IP66/67 (complete assembly)
- Data logger – capable of storing up to 3,000 events
- Advanced dual-stacked display presents valve and process data for asset management and data analysis
- Non-intrusive setting – no cover removal required using secure Bluetooth® wireless connection
- Operating temperatures: -50 to +70 °C
- Partial Stroke Testing (PST) based on time and position with pressure (torque) logged
- PST initiated via the Rotork Bluetooth® Setting Tool Pro, hardwired or remotely through network cards
- PST results displayed on the screen with the last 25 recorded in the data logger
- Configurable status and alarms with optional outputs
- 4-20 mA positioning control resolution to <0.25%
- Increased functionality over networks including Pakscan™, Profibus®, Foundation Fieldbus®, Modbus®, DeviceNet® and HART®

S13 Part-turn Actuators

Torque 75 to 36,000 Nm
(55 to 26,550 lbf.ft)



S13 actuators are compact and robust spring-return actuators designed for all types of ball, butterfly, plug valves and dampers. They consist of a self-contained electro-hydraulic control module with a spring-return scotch yoke or rack and pinion drive. The actuators are available as either fail-safe clockwise or anti-clockwise. They can also be configured to stayput on loss of power supply.

S13 actuators are certified for SIS with a Systematic Capability SC-3 and suitable for use in SIL 2 and SIL 3 system.

SI range actuators are specifically designed for safety critical applications and accept various input signals as standard, including ESD and PST.

Optional fieldbus communication can be provided for remote monitoring and control and can be used in conjunction with a hardwired ESD input to maintain the safety integrity of the system when used on ESD applications.

S13 actuators can accept an analogue input signal to accurately position a control valve. They can also provide a 4-20 mA output of valve position.

Linear S13 thrust output is available up to 235 kN (52,830 lbf). For thrust and operating times, please contact Rotork.

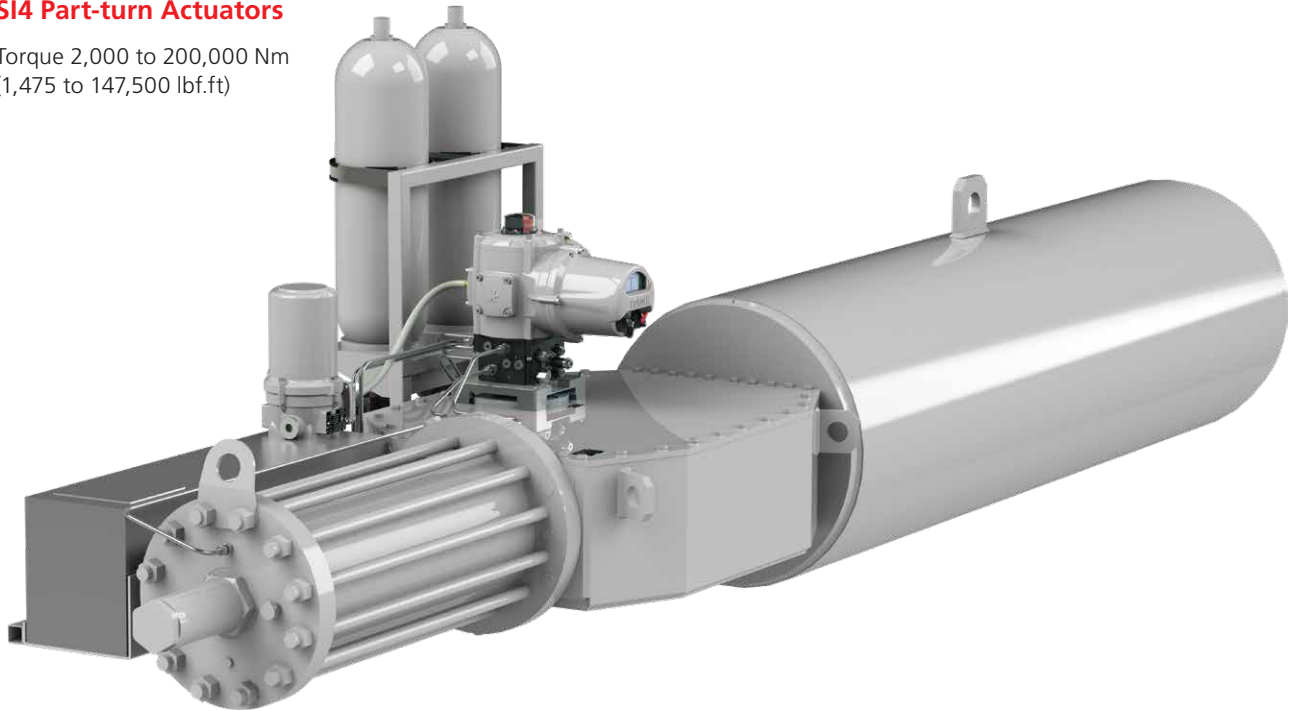
Model	Torque Nm (lbf.ft)		Operating Time (sec)			
			Hydraulic Direction		Spring Direction	
	From	To	From	To	From	To
S13	75 (55)	36,000 (26,550)	1.7	420	0.1	527

See product specification datasheet for full details.



SI4 Part-turn Actuators

Torque 2,000 to 200,000 Nm
(1,475 to 147,500 lbf.ft)



SI4 actuators offer the flexibility of customisation to suit specific applications and process conditions. They consist of a self-contained electro-hydraulic control module with a spring-return scotch yoke drive. This eliminates the high installation and maintenance costs associated with conventional electro-hydraulic systems which utilise central hydraulic power units.

Accumulators can be offered on the SI4 actuator range to provide multiple back-up strokes on loss of power supply, along with increasing the hydraulic stroke speed on these spring-return actuators.

SI4 actuators are certified for SIS with a Systematic Capability SC-3 and suitable for use in SIL 2 and SIL 3 systems.

Optional fieldbus communication can be provided for remote monitoring and control and can be used in conjunction with a hardwired ESD input to maintain the safety integrity of the system when used on ESD applications.

SI4 actuators can accept an analogue input signal to accurately position a control valve. They can also provide a 4-20 mA output of valve position.

Linear SI4 thrust output is available up to 400 kN (90,000 lbf). For thrust and operating times, please contact Rotork.

Model	Torque Nm (lbf.ft)		Operating Time (sec)			
			Hydraulic Direction		Spring Direction	
	From	To	From	To	From	To
SI4	2,000 (1,475)	200,000 (147,500)	5	400	0.1	500

See product specification datasheet for full details.



