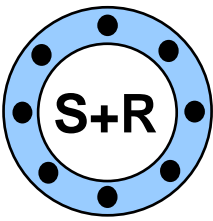


# Compact Series

## SR 3 WT

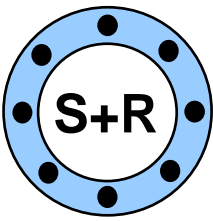


Quiet, Strong and Compact



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## Features and Benefits

### Exceptionally quiet

Compact Series SR 3 WT linear actuators boast a low sound level of less than 45 dBA, about the same as an average library. This quiet, consistent low sound level is conducive to personal mobility applications and provides unobtrusive linear motion in an elegant package.

### Permanent sealing for environmental protection

The actuator is able to operate in harsh conditions where it is exposed to washdown, rain, dust, or other particulate without the use of any additional cover. The Compact Series SR 3 WT linear actuator is rated for protection class IP67.

### Compact and compatible

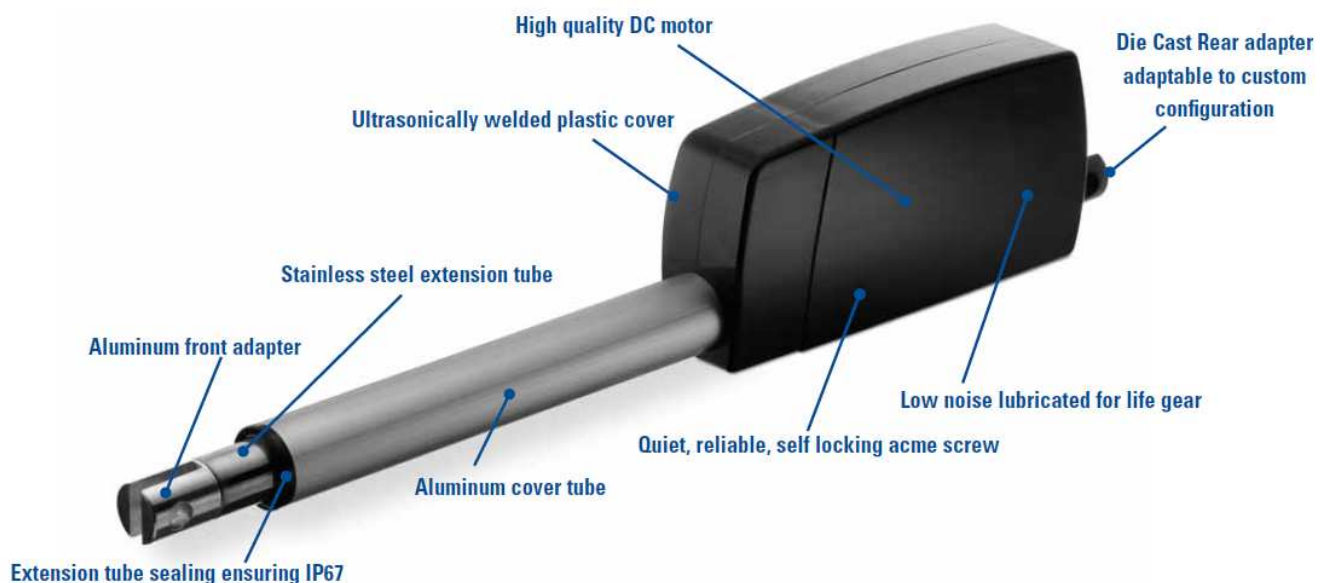
The Compact Series SR 3 WT linear actuator is one of the most compact actuators on the market and pin to pin compatible with virtually all competitor actuators in this segment. This allows you to easily replace an existing actuator with the Compact Series SR 3 WT linear actuator and gain the space saving benefits while reducing weight.

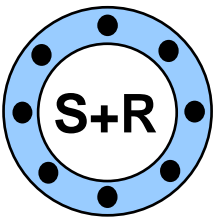
### Maintenance free

Our new actuator is unique in that it requires zero maintenance throughout the entire life of the actuator. The average life is 10,000 cycles (one full stroke back and forth) at the maximum load. Once properly installed, the Compact Series SR 3 WT linear actuator will provide troublefree operation with zero maintenance, thereby reducing the total cost of ownership.

### Unique options

The Compact Series SR 3 WT linear actuator is unique in that it offers a compact machine footprint and robust features that are unavailable anywhere else. The electronic limit switches (ELS) and anti-rotation options are available off the shelf and fit within the compact envelope of the standard model. Mounting options include standard as pictured or rotated 90 degrees.





## Applications

The Compact Series SR 3 WT electric linear actuator offers incredible flexibility. Any application which requires a small footprint or quiet operation would benefit from it. Specifically, personal mobility, rehab, medical equipment, office and domestic machines, are well suited as a result of its compact envelope and unique operating features such as quiet operation and one piece housing.

### Rehab and handicap equipment

Personal mobility is a growing area for linear actuators. Equipment designed to offer mobility or rehabilitation to disabled, elderly, or injured people can include wheel chairs, patient lifts, handicapped accessible cars/trucks, and other rehabilitation equipment.

### Medical/hospital equipment

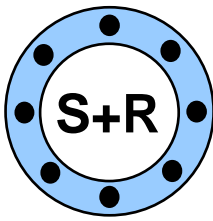
Patient beds, x-ray machines and examination chairs are just a few examples where linear actuators are used. In fact, every place where a simple, reliable and electrified movement is needed a linear actuator is likely the answer.

### Furniture

The quiet operation and small footprint of the the Compact Series SR 3 WT linear actuator make it ideal for home or office furniture requirements where silent operation is an issue. Adjustable desks, beds, reclining chairs, and the positioning of heavy TV screens benefit from the quiet, precise actuation of the the Compact Series SR 3 WT linear actuator.

### Samples:





## Specifications

Specifications are subject to change without notice. It is the responsibility of the product user to determine the suitability of this product for a specific application.

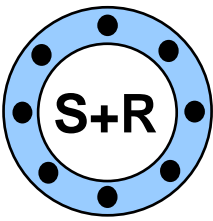
Technical Specification		
Maximum load	2000 N	
Input voltage	12 VDC	24 VDC
Static load, maximum	2000 N	
Dynamic load, maximum	2000 N	
Stroke lengths, standard	100, 200, 300, 400 , 500 mm	
Current consumption, rated load	4,5 A	2,2 A
Current consumption, stall/in-rush	14,0 A	8,0 A
Speed, no load	5,8 mm/s	
Speed, rated load	4,0 mm/s	
Operating temperature limits	-25 °C bis +40 °C	
Duty cycle, maximum	10 %	
Life, average	10 000 cycles	
Sound level	< 45 dBa	
Lead screw type	Trapez	
Protection class	IP 67	
Certificates	CE EN 60601-1	
	UL EN 60601-1	

### Features

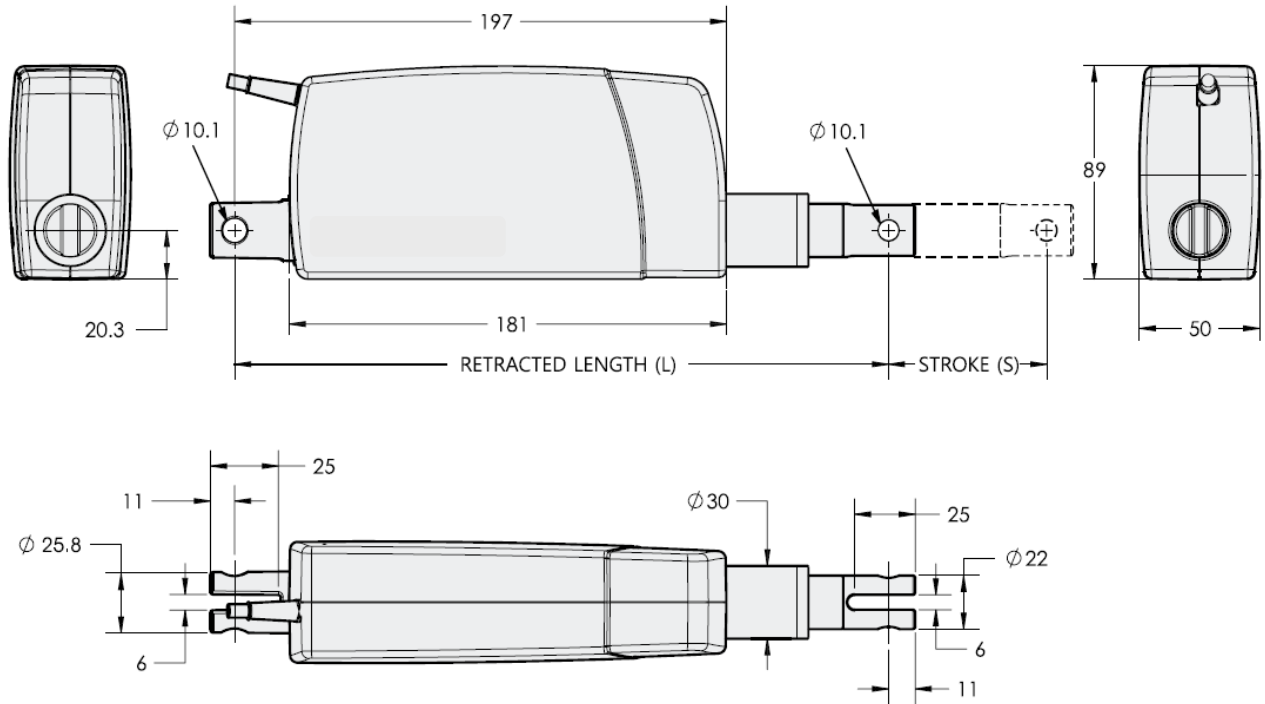
- Maintenance free
- Very high sealing degree due to ultrasonic welding of enclosure
- Washdown proof during operation
- Compact and light weight

### Options

- Electronic limit switches  
*(Shuts off power at the end of stroke and all along the stroke at overload conditions. ELS is normally set for 120% of the rated dynamic maximum load.)*
- Anti rotation mechanism  
*(Prevents the extension tube from rotating if it is not fixed in the end.)*
- Mounting adapters turned 90°

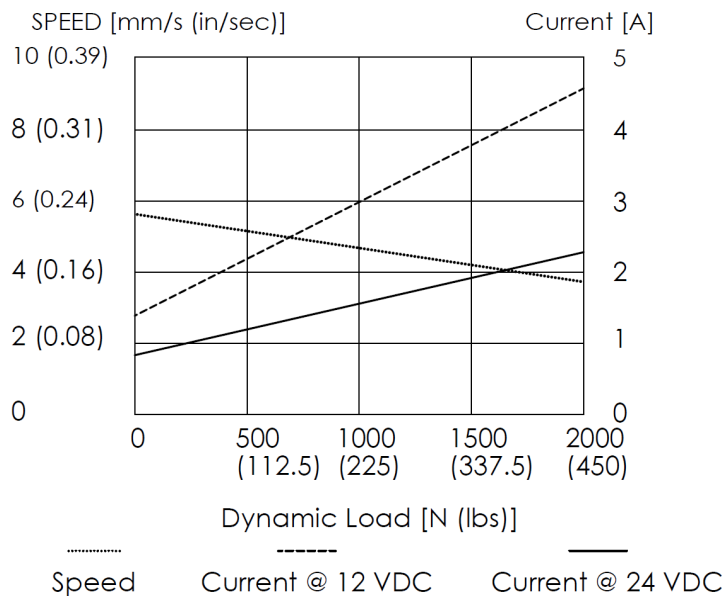


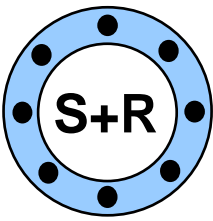
## Dimensions



Stroke "S"	[mm]	100	200	300	400	500
Retracted Length "L"	[mm]	238	338	438	589	689
Weight	[kg]	1,20	1,35	1,50	1,65	1,80

## Performance Diagram





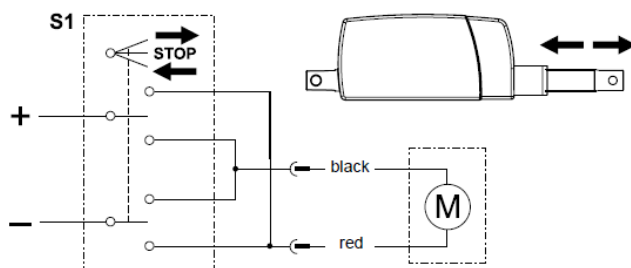
## Actuator Limit Switch and Feedback Options

### Electronic Limit Switches / Low Level Switching, ELS (Option E)

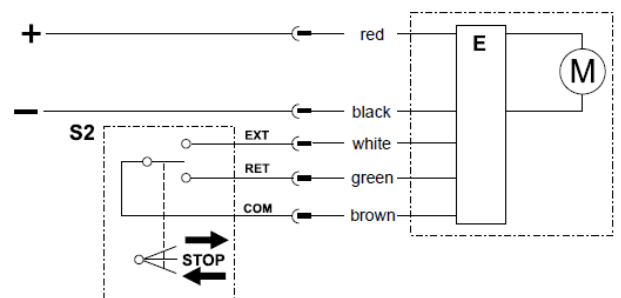
An optional Electric Limit Switch (ELS) can be integrated into Compact Series SR 3 WT electric linear actuators. This electronic control automatically turns off power to the motor when current exceeds a preset threshold either at ends of stroke or due to a mid-stroke overload condition. This current threshold is directly related to thrust and can be set at the factory during assembly to independently control extend and retract travel. The default setting is rated dynamic load plus 20% (2.4KN).

## Electrical Wiring Diagrams

**N - standard (no option) - for use with Thomson DCG Control**



**E - with ELS / Low Level Switching (optional)**



- M** Actuator motor
- S1** Double pole double throw (DPDT) switch

- S2** Single pole double throw (SPDT) switch
- E** Electronic limit switches

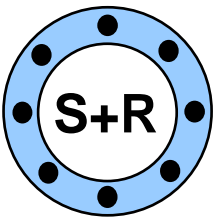
By switching the polarity of the voltage to the motor the extension tube will change direction (example N). When using the ELS option the direction of the extension tube travel is controlled by switching the COM (common) output to the EXT (extend) or RET (retract) inputs.

When switching the motor voltage directly (example N), make sure that the switch and the wiring can handle the maximum motor current.

Always protect the actuator and the wiring by using a fuse between the actuator and the power source.

**Actuators without ELS option (N version):** the actuator voltage must be switched off when reaching the ends of stroke or due to a mid-stroke overload to avoid causing damage to the actuator. If DCG Control is not used the application must be approved by factory.

**Actuator with ELS option (E version):** the actuator will automatically switch off when reaching the ends of stroke or a mid-stroke overload. E version for use where customer provides power supply, but requires Electronic load limiting, or low level switching.



## Ordering Key

1	2		3	4		5	6	7	8
W12	02	-	58A	10	-	N	S	1	B

**1. Input voltage:** W12 = 12 VDC  
 W24 = 24 VDC

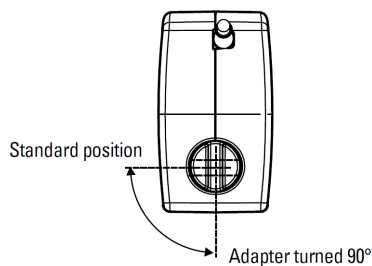
**2. Maximum dynamic force:** 02 = 2000 N

**3. Lead screw diameter, and type:** 58A = acme,  $\varnothing 0,456''$

**4. Maximum stroke length:**  
 10 = 100 mm  
 20 = 200 mm  
 30 = 300 mm  
 40 = 400 mm  
 50 = 500 mm

**5. Limit switch and feedback options:** N = N = no option - for use with DCG Control  
 E = electronic limit switches / low level switching (ELS)

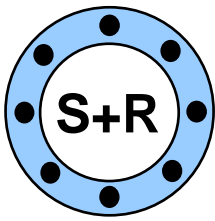
**6. Adapter position and anti-rotation mechanism options:**  
 S = standard mounting adapter position, no anti rotation  
 3 = mounting adapters turned 90°, no anti rotation  
 A = standard mounting adapter position with anti-rotation  
 M = mounting adapters turned 90° with anti-rotation



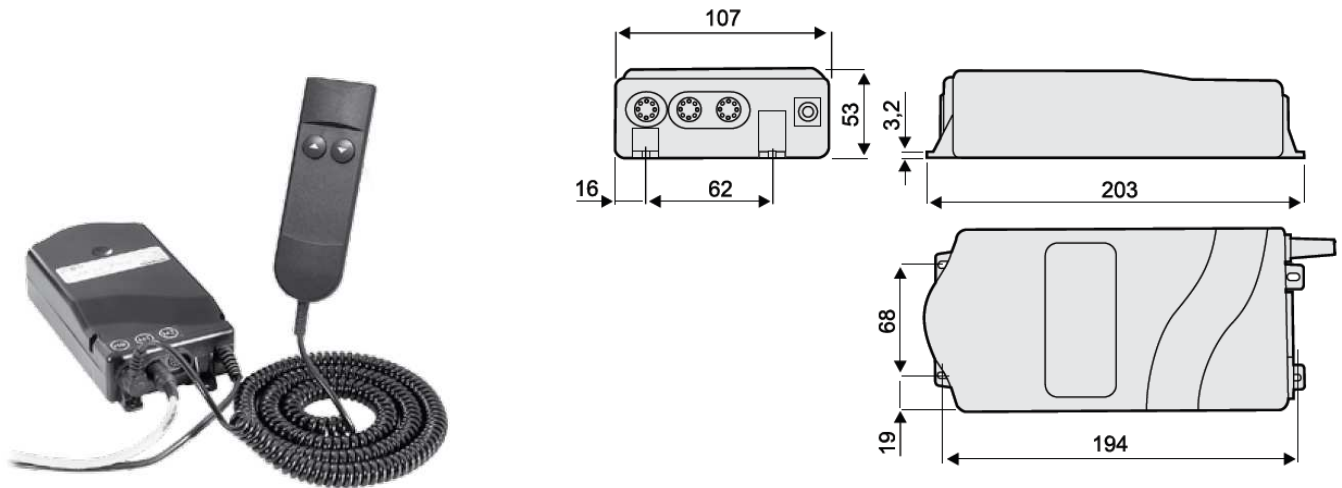
**7. Cable and Connector Options:**  
 1 = 1 meter long cable with flying leads  
 (for customer supplied connectors)  
 2 = 1 meter long cable with phono type connector,  $\varnothing 6.3$  mm  
 3 = 2 meter long cable with DIN type connector  
 (used with DCG Control)  
 4 = 1 meter long cable with Pac Con type connector  
 5 = 1 meter long cable with Pac Con type connector for the actuator  
 motor and flying leads for limit switch and feedback options

**8. Enclosure color:**  
 B = black  
 W = white





## Control DCG



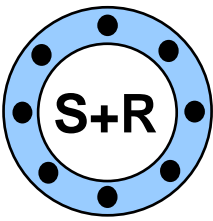
- Small and light weight control operated via a control pendant which is ordered separately.
- Built in Electronic Limit Switches (ELS) stop the actuator automatically at end of stroke or mid stroke stall.
- Use of this control limits the duty cycle to the actuator to 10%.

### Specifications Control DCG

<b>Compatible with actuator</b>		W2402-58A•-N•3•	
<b>Input voltage</b>	[VAC]	1x 230 ± 6 %	1x 115 ± 6 %
<b>Input frequency</b>	[Hz]	50	60
<b>Output voltage</b>	[VDC]	24	
<b>Output current, max.</b>	[A]	2,4	
<b>Operating temperature limits</b>	[°C]	+5 bis +45	
<b>Max. duty cycle</b>	[%]	10	
<b>Maximum on time</b>	[s]	180	
<b>Weight of control</b>	[kg]	1,9	
<b>Protection class</b>		double insulated	
<b>Electronic limit switches</b>		yes	
<b>Included control pendant</b>		no	
<b>Certificates</b>		CE	
<b>Part number</b>		DCG24-1M-0152	DCG24-1U-0152

These controls are current limited. Review the current/load curves for the actuator you selected to make sure the control will provide enough current for the thrust you need.

Control will shut off if duty cycle is exceeded and automatically reset when cooled off.



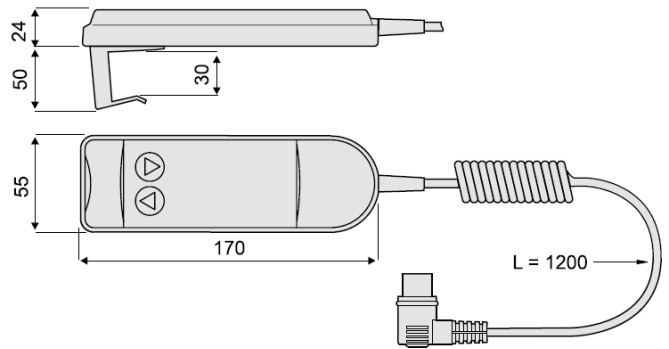
## Control Accessories

### DCG Control Pendant

Handy and light weight control pendant with spiral cord cable which connects to the DCG to control one or synchronous Compact Series SR 3 WT linear actuators via momentary push buttons.

#### Specifications

<b>Weight</b>	<b>[kg]</b>	0,4
<b>Cable length</b>	<b>[mm]</b>	1200
<b>Certificates</b>		CE
<b>Part number</b>		DCG14-1H



### Control to Control Cable for DCG

This cable connects with its plug to the control pendant input on DCG in order to connect the control to another device than the DCG control pendant.

<b>Lead cross section</b>	<b>[mm<sup>2</sup>]</b>	7 x 0,14
<b>Cable length</b>	<b>[mm]</b>	2450
<b>Part number</b>		D620 095

