



## Program summary

# DRIVE TECHNOLOGY

### Electro-mechanical linear actuators

voltage 12 or 24 VDC

max. lifting force from 300 to 6,000 N

strokes from 100 to 600 mm

### Hydro-mechanical linear actuators



operation with foot pedal or hand lever

max. lifting force from 4,500 to 12,500 N

strokes from 80 to 250 mm




## Electro-mechanical linear actuators

Line	RA 600	RA 60 K
		
<b>Data sheet</b>	<b>L 1.101</b>	<b>L 4.202</b>
<b>Supply and control voltage</b>	24 VDC	12 VDC
<b>Max. push force</b>	1,000   2,000   4,000   6,000 N	300   600 N
<b>Max. pull force</b>	80% of the max. push force	100% of the max. push force
<b>Static retention force</b>	125% of the max. push force	200   600 N
<b>Strokes</b>	100   150   200   300   400   500   600 mm	100   150   200 mm
<b>Speed</b>	37 ... 8.5 mm/s (idle running) 29 ... 5 mm/s (loaded)	28 ... 16 mm/s (idle running) 18 ... 7 mm/s (loaded)
<b>Current consumption</b>	5   5.5   6   7 A	3.5   4 A
<b>Installation length (retracted)</b>	310 ... 850 mm	270 ... 370 mm
<b>Mounting position</b>	any	any
<b>Admissible ambient temperature [°C]</b>	-20° to +70 °C	-20° to +70 °C
<b>Resistant to</b>	corrosion, cleaning agents and disinfectants	corrosion, diesel, oil, cleaning agents, fertilizers and salts
<b>Fixation</b>	2 fork eyes Ø 12 mm (Ø 10 mm with accessory bearing sleeve)	2 fork eyes Ø 10 mm
<b>Drive</b>	DC motor with worm gearbox and spindle drive	DC motor with planetary gear and spindle drive
<b>Versions</b>	with limit switches or with incremental stroke measuring system	with limit switches or with absolute stroke measuring system
<b>Control</b>	with accessory control module or via external 24 VDC control	via external 12 VDC control or via bus interface (option)
<b>Electric connection</b>	3.0 m cable with plug-type connector	1.5 m cable with wire end
<b>Code class</b>	IP66 or IP69K	IP69K
<b>Max. duty cycle:</b>	15% [max. 1.5 min. ON]	15% [max. 1.5 min. ON]
<b>Material</b>		
<b>Housing</b>	polyamide, black, glass fibre reinforced	polyamide, black, glass fibre reinforced
<b>Guiding tube</b>	anodized aluminium	aluminium, anodized and powder coated
<b>Pushing rod</b>	stainless steel	stainless steel
<b>Accessories</b>		
<b>Control modules</b>	for 1, 2, 3 or 4 linear actuators	no
<b>Foot switch or hand panel</b>	yes	no
<b>Electric connection</b>	plug	plug-type connector set
<b>Bearing sleeve</b>	inner Ø 10 mm	no
<b>Versions on request</b>		
<b>Supply and control voltage</b>	12 VDC version	24 VDC version
<b>Bus systems</b>	LIN or CAN bus	LIN or CAN bus
<b>Absolute stroke measuring system (up to 200 mm stroke)</b>	on request	standard
<b>Reinforcement for high vibration load</b>	on request	-
<b>Especially protected against corrosion</b>	on request	standard

**Synchronization:** RA linear actuators can also be operated with synchronization control. For this purpose, they must be equipped with a stroke measuring system.



## Hydro-mechanical linear actuators

Line	RH 1250
	
<b>Data sheet</b>	<b>L 7.101</b>
<b>Operation (extend and retract)</b>	manually with a foot pedal or hand lever
<b>Max. push force</b>	4,500   6,500   9,500   12,500 N
<b>Max. pull force</b>	pull forces cannot be generated
<b>Strokes</b>	80   140   200   250 mm
<b>Pump strokes to extend per 100 mm stroke</b>	7 ... 22
<b>Maximum torque for pumping</b>	160 ... 120 Nm
<b>Force required to retract</b>	at least 100 N
<b>Descent speed</b>	4.5 ±1 s / 100 mm stroke
<b>Installation length (retracted)</b>	192 ... 431 mm
<b>Mounting positions</b>	2 (dependent on the operating direction of the lever)
<b>Admissible ambient temperature [°C]</b>	+ 10° to + 40 °C
<b>Resistant to</b>	corrosion, cleaning agents and disinfectants up to +70 °C
<b>Valve technology</b>	with speed control and pressure relief valve
<b>Mounting variants</b>	centring pivot at the housing Ø 38 mm fork or flange mounting Ø 12.1 mm (up to a lifting force of 6.500 N)
<b>Fixation on the plunger</b>	bore hole Ø 12.1 mm
<b>Operating shaft</b>	self-resetting Ø 18 f8 mm with bore hole Ø 6 H12 mm perpendicular or parallel to the plunger or undrilled
<b>Material</b>	
<b>Housing</b>	aluminium
<b>Plunger</b>	steel, corrosion resistant, chromium plated
<b>Operating shaft</b>	stainless steel
<b>Lacquering</b>	unlacquered or lacquered in traffic white   white aluminium   black   light gray   agate gray
<b>Accessories</b>	
<b>Foot pedal or hand lever</b>	with bore hole Ø 18 mm F7 or undrilled
<b>Bearing block</b>	for centring pivot Ø 38 mm
<b>Pedal cover (black)</b>	for user-specific lever or as spare part
<b>Versions on request</b>	
<b>Strokes</b>	in increments of 50 mm up to 600 mm (up to lifting force of 6,500 N)
<b>Plunger</b>	with thread M8 at the front face
<b>Lacquering colour</b>	as per customer specification
<b>Descent actuation</b>	descent actuation by pushing or turning
<b>Descent speeds</b>	as per customer specification
<b>Versions for MRI applications</b>	with low residual magnetism
<b>Customer-specific linear actuators</b>	as per customer specification



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Römheld GmbH  
Friedrichshütte  
Römheldstraße 1-5  
35321 Laubach, Germany  
Tel.: +49 (0) 6405 / 89-0  
Fax: +49 (0) 6405 / 89-211  
E-mail: [info@roemheld.de](mailto:info@roemheld.de)  
[www.roemheld.com](http://www.roemheld.com)