

Contrac LME 620 AI / AN

with integrated electronics (LME 620 AI)
for separate electronics (LME 620 AN)

Electrical Linear Actuator for Continuous Control Rated Force 4 kN

10/68-2.73 EN



d0042rxa

- **Electrical actuator for continuous positioning or step control**
- **Stallproof without the need of position or torque dependent switch-off**
- **Robust gearing with high mechanical efficiency**
- **Internal rotary - linear conversion**
- **Hand wheel for emergency operation**
- **Sensors for position and temperature integrated**
- **Signal and power input only via micro processor controlled power electronics**
- **Voltage supply AC 115 V or AC 230 V only via power electronics**

Application

Compact actuator for the operation of final control elements with preferably linear movement. The actuator thrust rod transfers the force directly to the final control element.

A special power electronics controls the actuator. It is the interface between actuator and control system.

Positioning:

During continuous positioning the power electronic unit varies the motor torque steplessly until the actuator force and the restoring process forces are balanced. High response sensitivity and high positioning accuracy with short positioning time ensure an excellent control quality and a long actuator life.

Technical Data

Actuator

Type	LME 620 AN; LME 620 AI	
Rated force[kN]	4 (adjustable to 0.5; 0.75 o.r 1x rated force)	
Starting force	1.2 x rated force (break-away force in end positions for a short time 2 x rated force)	
Rated speed	2 mm/s (adjustable to 0.5 mm/ s ... 2 mm/s)	
Stroke	min. 0 ... 12 mm / max. 0 ... 60 mm (max. stroke 190 mm for LME 620 AN upon request!	
Electronics ¹⁾	for field installation: EAN 823 for rack installation: EAS 822	(integrated)
Motor	24 V 3~ induction motor (at LME 620 AN controlled by EAN 820 or EAS 822)	
Sensors	Position transmitter and temperature sensor always available	

¹⁾ data sheet EAN 823: 10/68-8.26
data sheet EBS 852: 10/68-8.24

Electronics (only with LME 620 AI with integrated electronics)

Voltage supply	AC 115 V (94 V ... 130 V) or AC 230 V (190 V ... 260 V); 47,5 ... 63 Hz; 1Ph	
Current input (AC 115 V / AC 230 V)	max: 1.0 A / 0.5 A positioning.: approx. 40% ... 50% of max.	
External fuse	16 A; slow	
Analogue input*	0 / 4 ... 20 mA	
Analogue output*	0 / 4 ... 20 mA, galvanically isolated	
3x Digital input, BE1 ... BE3	digital 0: -3V ... + 5 V or open, galvanically isolated digital 1: +12 V ...+ 35 V, galvanically isolated	
3x Digital output, BA1 ... BA3	relay contact; potential free; max. 60 V; 150 mA	
Digital communication	RS 232 for commissioning and service, optionally FSK / HART® or Profibus DP	
Standard settings	behaviour in 0/100% endposition:keeping position with rated torque set point function: linear, set point= position value set point input: 4 ... 20 mA function selection: positioner, parameter: set point output for actual value: 4 ... 20 mA digital input: BE 1 M/A selection; BE 2 / BE 3 manual interaction +/- digital output: BA 1 ready for operation; BA 2/3 end position indication 0/100%	
Voltage output U _V	DC 24V; 15 mA; galvanically isolated; for contact scan or similar	
Transmitter (optionally)	supply for 2-wire transmitter with activated controller in Contrac	
Individual settings	see data sheet 68-2.40 EN or upon request	

Analogue/digital input/output not available with Profibus DP communication

Technical Data

General Data

	LME 620 AI	LME 620 AN
Operation mode	S9 - stall proof acc to DIN IEC 2/915/CDV	
Protection class	IP 66	
Humidity	≤ 95% average; (condensation not permitted)	
Ambient temperature	-10° C ... +55°C or -25° C ... +55° C	-10° C ... +65°C or -25° C ... +55° C
Mounting position	any position; preferably IMB 3 acc. to IEC 34	
Coating	2 component epoxy-resin paint (RAL 9005, black)	
Anti condensation heater	---	optionally (supply from electronic unit)
Voltage supply for motor and sensors	only with Contrac electronic unit (see data sheet of electronic unit)	
Cable actuator - electronics	---	optionally 5 m, 10 or 20 m
Weight	approx. 20 kg	approx. 24 kg

Plug, 24-pole, at actuator::

		Crimp contacts	Terminals (option)
LME 620 AN	cable gauge:	motor, heater: 1.5 mm ² signals: 0.5 mm ²	2.5 mm ²
	contact surface	vergoldet	motor, signals: gold plated Heizung: silver plated
LME 620 AI	cable gauge:	mains: 2.5 mm ² (terminals) signals: 0.5 mm ²	mains: 2.5 mm ² signals: 2.5 mm ²
	contact surface	gold plated	mains: silver plated signals: gold plated

Tapped holes for cable glands

tapped hole for cable	optional adapters *	
M20 x 1.5 (2x)	PG 16 (2x)	NPT 1/2" (2x)
M25 x 1.5 (1x)	PG 21 (1x)	NPT 3/4" (1x)

*Adapters for PG or NPT only available if additionally ordered

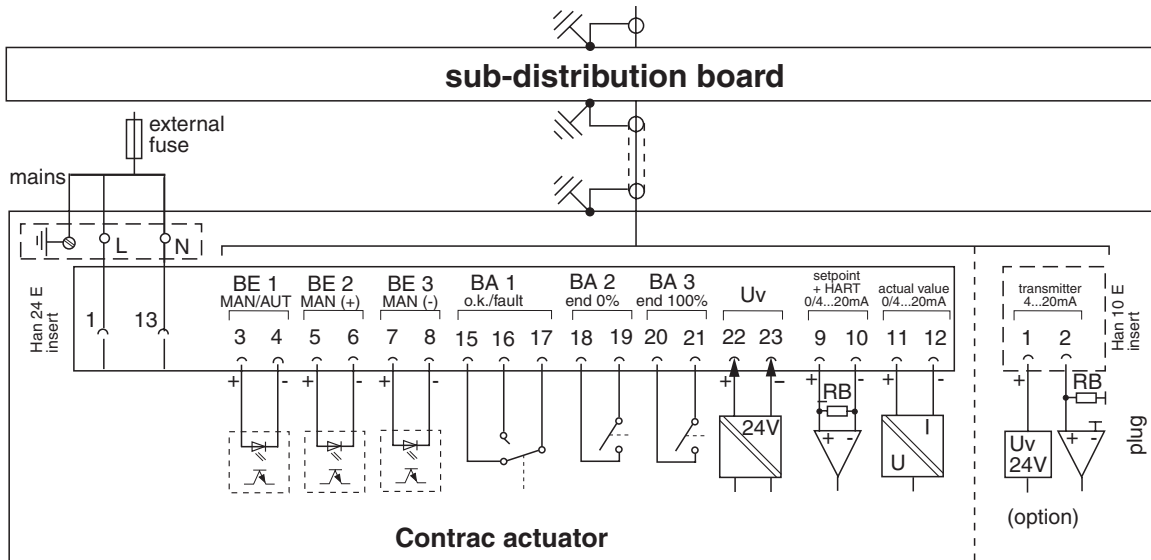
Technical Data

Electrical Connection LME 620 AI (integrated electronics)

The electrical connection is done via a plug at the actuator and via terminals at the electronics.

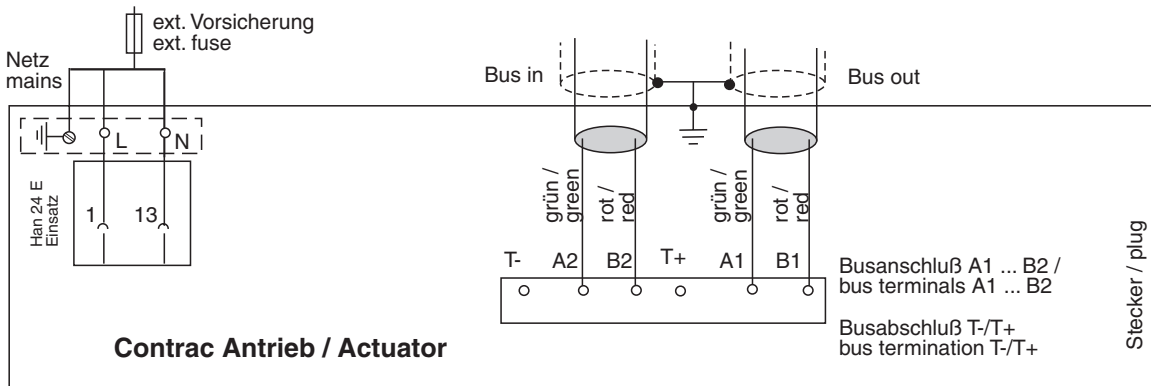
Electrical connection: standard; analogue / binary

one-sided screening
in following wiring possible



r00295e

Electrical connection: Option Profi bus DP



r00011x1

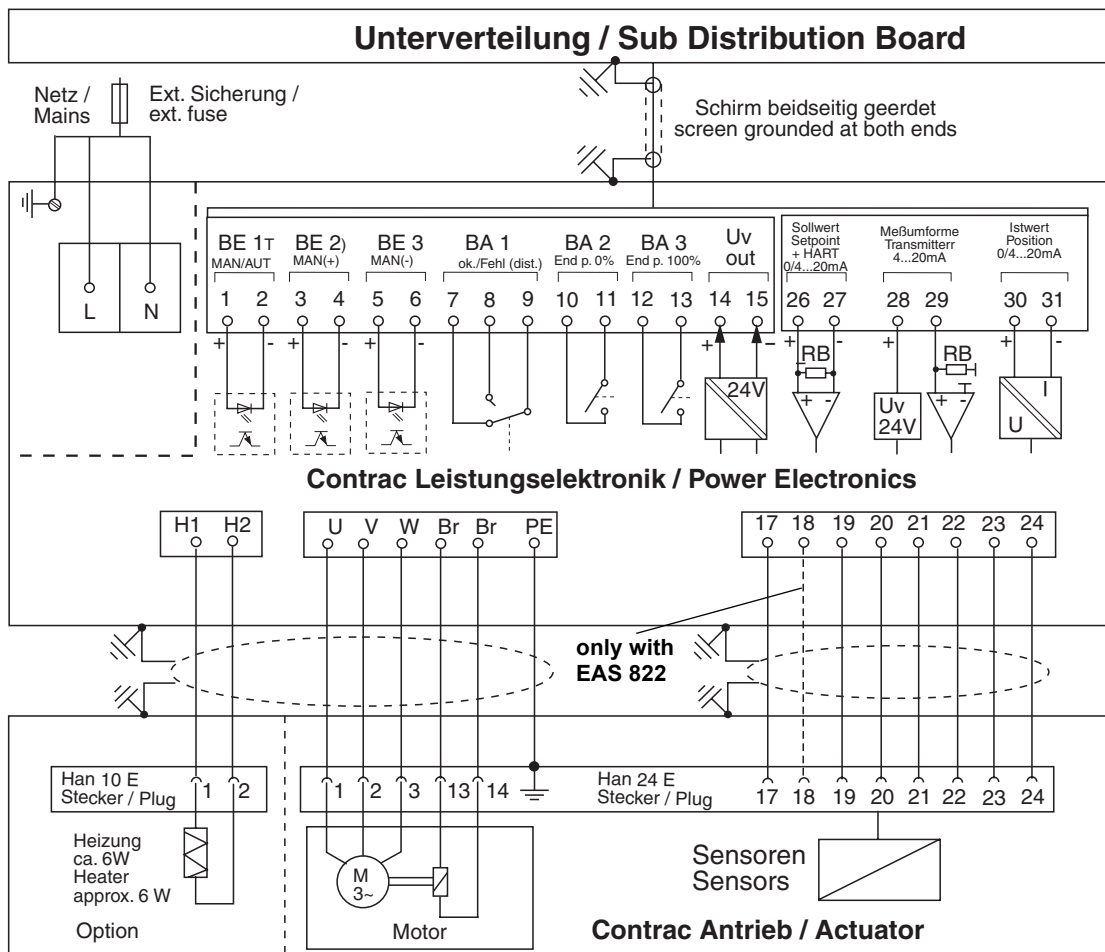
Technical Data

Electrical Connection LME 620 AN (separate electronics)

The electrical connection is done via a plug at the actuator and via terminals at the electronics.

Electrical connection: standard; analogue / binary

one-sided screening
in following wiring possible

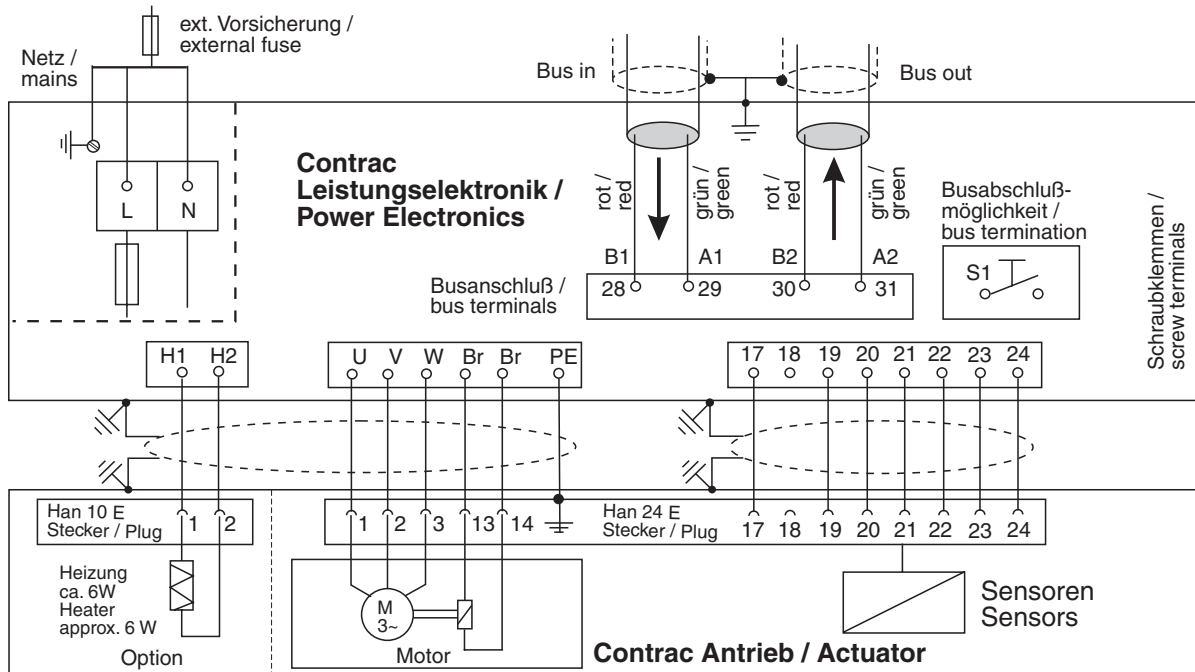


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See instruction 42-68-957 EN for further information.

Technical Data

Electrical connection: Option Profibus DP (not for electronics EAS 822)



r00010x1

Order Information

LME 620 AI		V68622A 0000			
Rated force 4 kN (adjustable to 50%/75%/100%)					
Rated speed 2.0 mm/s (adjustable to 2.0 ... 0.1 mm/s)					
Special actuator features				Code	
Select at least one feature					
adjusted to:	kN	mm/s	s/60 mm		
	4	2.0	30	310	
	4	1.0	60	311	
	4	0.5	120	312	
Electrical connection	plug (24-pole) compl.; crimped			277	
	plug (24-pole) compl., terminals			278	
Supply voltage	AC 230 V 1 Ph			380	
	AC 115 V 1 Ph			381	
Frequency	50 Hz			382	
	60 Hz			383	
Digital communication	RS 232			384	
	RS 232 + HART			385	
	Profibus DP			386	
Standard settings for electronic unit (see techn. data)				390	
Customer specific settings for electronic unit (see data sheet 10/68-2.40)				391	
Ambient temperature	-10°C ... +55°C			342	
	-25°C ... +55°C			343	
Additional actuator features (selection not necessarily required)					
Electrical connection thread	Set NPT adapter (junction metric / NPT thread)			680	
	Set PG adapter (junction metric / PG thread)			681	
Identification on data label	(alphanumeric; max. 32 characters)			294	
Accessories	cover for male plug (24 pole)			337	
Accessories	plug holder			338	
Factory certificate 2.1 acc. to EN 10204				291	
Certificate B acc. to EN 10202				292	
Assembly with valve at ABB	(order and piece no. of valve required)			480	
Manual (give total quantity)					
German (no remark for 1 copy)				Z2D	
English (code no. always required)				Z2E	

Max. stroke 190 mm for LME 620 AN upon request!

Order Information

		Catalog No.			
LME 620 AN		V68620A 0000			
Rated force 100 Nm (adjustable to 50%/75%/100%)					
Rated speed 2.0°/s (adjustable to 2.0 ... 0.1 mm/s)					
Special actuator features			Code		
Select at least one feature					
Electrical connection	plug (24-pole) compl., crimped		277		
	plug (24-pole) compl., terminals		278		
	plug bottom part; covered ¹⁾		279		
Connection to electronic unit	EAN 820; EAN 823 (supply voltage AC 230 V)		280		
	EAN 820; EAN 823 (supply voltage AC 115 V)		281		
	EAS 822 (supply voltage AC 230 V)		282		
	EAS 822 (supply voltage AC 115 V)		283		
Ambient temperature	-10°C ... +65°C		382		
	-25°C ... +55°C		383		
Additional actuator features					
(selection not necessarily required)					
Electrical connection thread	Set NPT adapter (joint metric / NPT thread)		680		
	Set PG adapter (joint metric / PG thread)		681		
Anti condensation heater			360		
Identification on data label	(alphanumeric; max. 32 characters)		294		
Accessories	cover for male plug (24 pole)		337		
Accessories	plug holder		338		
Factory certificate 2.1 acc. to EN 10204			291		
Certificate B acc. to EN 10202			292		
Assembly with valve at ABB	(order and piece no. of valve required)		480		
Manual (give total quantity)					
German (no remark for 1 copy)			Z2D		
English (code no. always required)			Z2E		

¹⁾ female plug with cables to be ordered with electronic unit

Attention!

Electronic unit to be ordered separately!

Max. stroke 190 mm for LME 620 AN upon request!



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