

10/68-2.77 EN



Slight deviations in photo are possible!

d0044rxa

- **Electrical actuator for continuous positioning or step control**
- **Stallproof without the need of position or torque dependent switch-off**
- **Three-phase induction motor**
- **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 separate micro processor controlled power electronics**
- **Voltage supply 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	RSD 50-3,0	RSD 50-10,0
Rated force	50 kN (adjustable to 0.5; 0.75 o.r 1 x 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 [mm/s]; adjustable	0.1 ... 3.0	0.1 ... 10.0
Stroke	min.: 0 ... 20 mm / max. 0 ... 120 mm or min. 0 ... 60 mm / max. 0 ... 300 mm	
Weight (120 mm stroke)	approx. 130 kg	approx. 146 kg
Weight (300 mm stroke)	approx. 155 kg	approx. 171 kg
Electronics	for field installation: type EBN 853 ¹⁾ for rack installation: type EBS 852 ¹⁾	for field installation: type EBN 861 ¹⁾ for rack installation: type EBS 862 ¹⁾
Motor	MC 90 BA	MC 100 BA
Sensors	position transmitter and temperature sensor always available	

- 1) data sheet EBN 853:10/68-8.26
- data sheet EBS 861:10/68-8.22
- data sheet EBN 852:10/68-8.24
- data sheet EBS 862:10/68-8.25

General Data

	RSD 50
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 ... +65° C or -30° C ... +50° C (optionally)
Mounting position	any position; preferably IMV 1; IMV 3; IMB 5 acc. to DIN DIN IEC 34; other positions on request
Coating	2 component epoxy-resin paint (RAL 9005, black)
Anti condensation heater (optionally)	motor: energy supply directly from Conrac electronic unit signal hood: separate heating resistor; energy supply from Conrac electronic unit
Electrical connection	plug with crimp snap-in contacts or terminals connecting cable electronics - actuator optionally (see ordering information of electronics)
Voltage supply for motor and sensors	only via special electronics (see data sheet of electronics)

Plug, 24-pole, at actuator:

	Crimp contacts	Terminals (Option)
cable gauge:	motor, heater: 1.5 mm ² signal: 0.5 mm ²	2.5 mm ²
contact surface	gold plated	motor, signal: gold plated heater: silver plated

Thread for cable gland

Tapped hole	Optional adapter*	
M20 x 1.5 (2x)	PG 16 (2x)	NPT 1/2" (2x)
M25 x 1.5 (1x)	PG 21 (1x)	NPT 3/4" (1x)

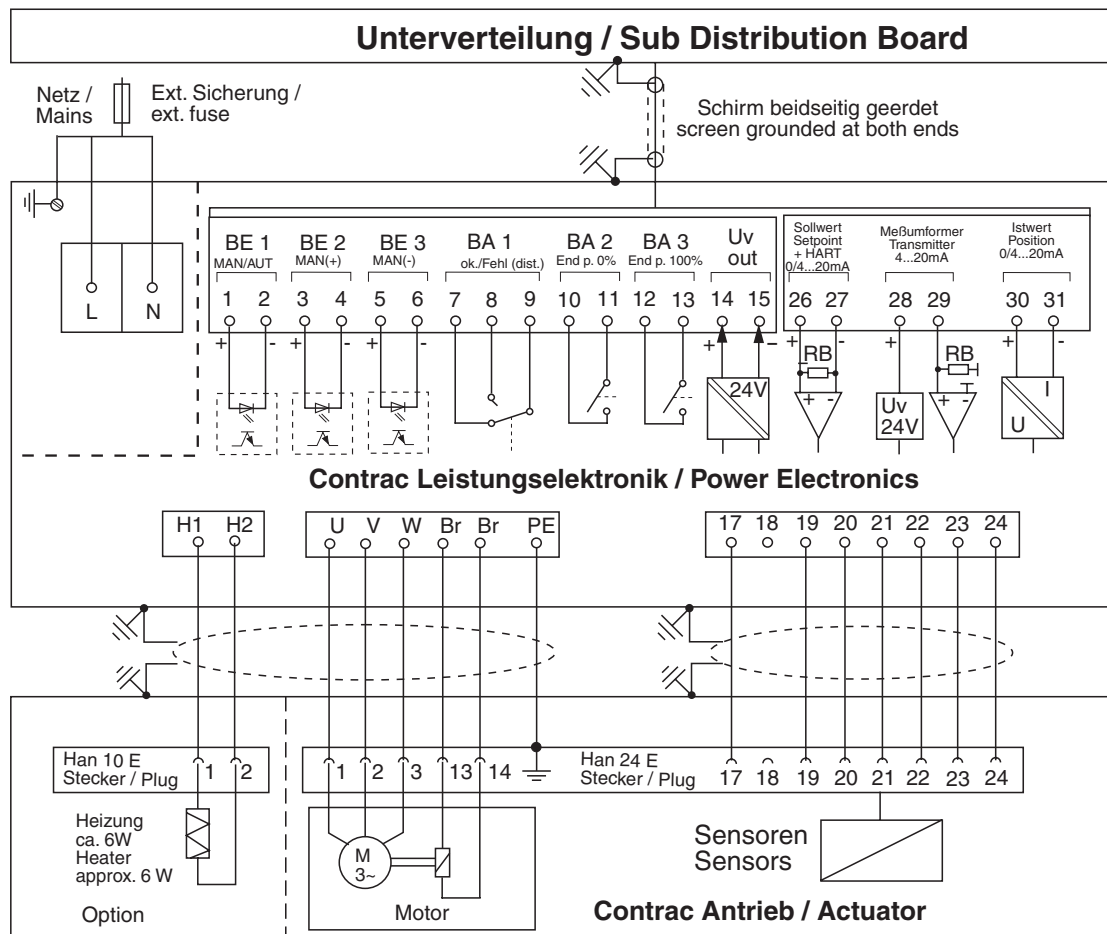
*Adapters for PG or NPT only available if additionally ordered.

Technical Data

Electrical connection RSD 50

The electrical connection is done via a plug at the actuator and via terminals at the electronics.
 Electrical connection; standard analogue / binary

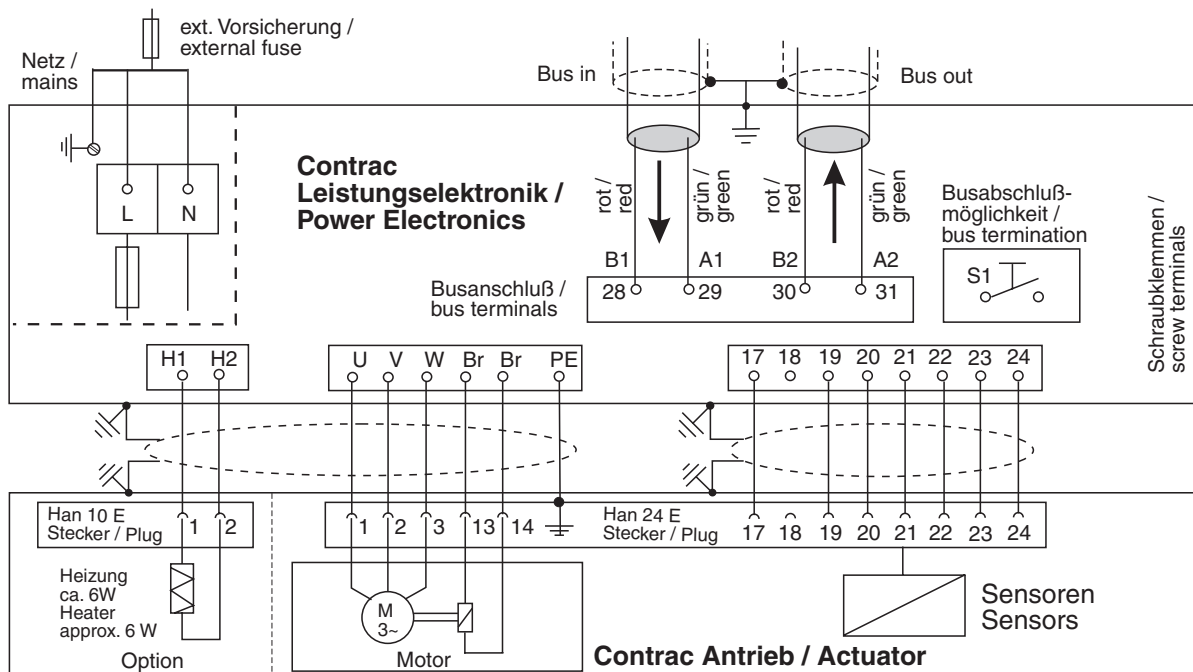
one-sided screening
 in following wiring possible



r00009x1

Technical Data

Electrical connection: Option Profibus DP (not for electronics EBS ...)



r00010x1

Order Information

		Catalog No.		
RSD 50-3,0		V68652	1314	
Rated stroke 120 mm			1614	
Rated stroke 300 mm				
Rated force 50 kN (adjustable to 50%/75%/100%)				
Rated speed 3.0 mm/s (adjustable to 3.0 ... 0.1 mm/s)				
RSD 50-10,0		V68652	1315	
Rated stroke 120 mm			1615	
Rated stroke 300 mm				
Rated force 50 kN (adjustable to 50%/75%/100%)				
Rated speed 10.0 mm/s (adjustable to 10.0 ... 0.1 mm/s)				
			Code	
Special actuator features				
Select at least one feature				
Electrical connection	plug (24-pole) compl., crimped		277	
	plug (24-pole) compl., terminals		278	
	plug bottom part; covered *)		279	
Ambient temperature	-10°C ... +65°C		344	
	-30°C ... +50°C		341	
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		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)		481	
Manual (give total quantity)				
	German (no remark for 1 copy)		Z2D	
	English (code no. always required)		Z2E	

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

Attention! Electronic unit to be ordered separately!

Dimensions

Linear Actuator RSD 50

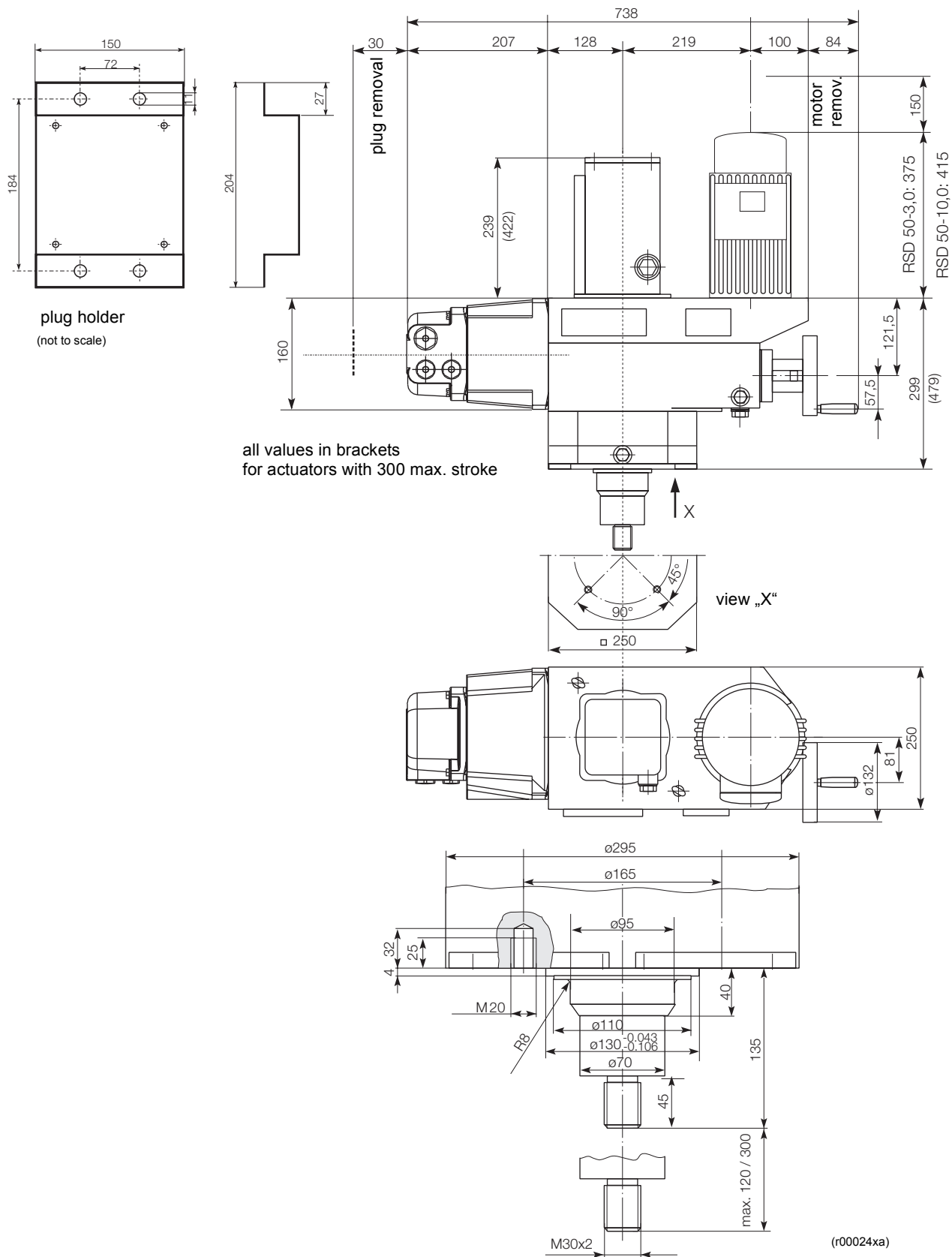




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