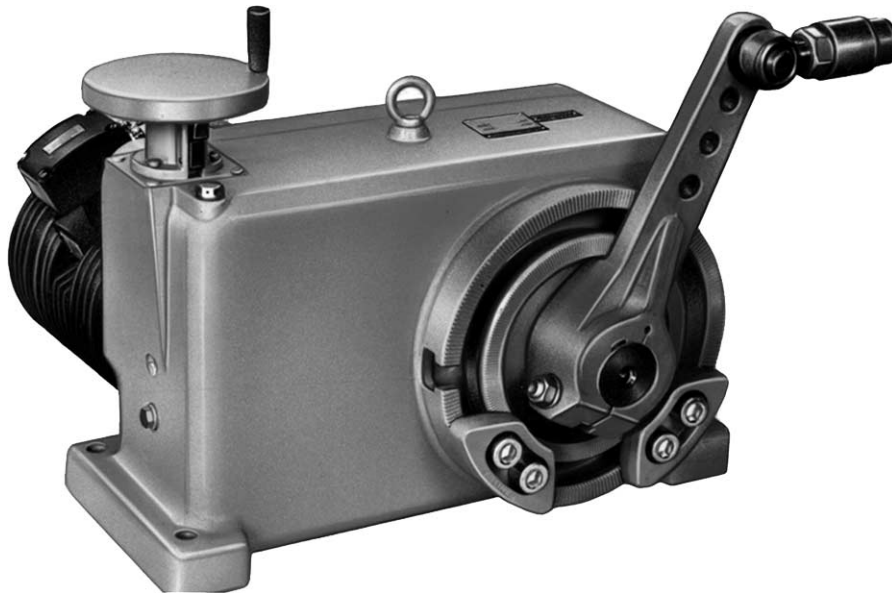


Contrac
RHD 1250 / RHD 2500

**Electrical Part Turn Actuators for
Continuous Control**
Rated Torque 1250 / 2500 Nm

10/68-1.57 EN



d0039rx

- **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**
- **Adjustable mechanical limit stops for defined operating range**
- **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 230 V only via power electronics**

Application

Compact actuator for the operation of final control elements with preferably 90° rotary movement such as flaps, cocks etc.

The torque is transferred via a lever / linkage bar assembly or the actuator is directly coupled to the cock flange.

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	RHD 1250-12	RHD 2500-10	RHD 2500-25
Rated torque [Nm]	1250	2500 (adjustable to 0,5; 0,75 or 1x rated torque)	
Starting torque	1.2 x rated torque (break-away torque in end positions for a short time 2 x rated torque)		
Rated time for 90°	12 ... 900 s	10 s ... 900 s	25 ... 900 s
Rated speed; adjustable	7.5 ... 0.1°/s	9 ... 0.1°/s	3.6 ... 0.1°/s
Operating angle	typically 90 ° (min. 35°; max. 300°); see instructions for imited operating angle if actuator is equipped with lever and limit stop		
Weight incl. lever	approx. 270 kg	approx. 250 kg	approx. 270 kg
Electronics for field installation for rack mounting	EBN 853 ¹⁾ EBS 852 ¹⁾	EBN 861 ¹⁾ EBS 862 ¹⁾	EBN 853 EBS 852
Motor	MCS 80 BA	MC 90 BA	MCS 80 BA
Sensors	Position transmitter and temperature sensor always available		

- 1) data sheet EBN 853: 10/68-8.27
- data sheet EBN 861: 10/68-8.22
- data sheet EBS 852: 10/68-8.24
- data sheet EBS 862: 10/68-8.25

General Data

	RHD 1250 / RHD 2500
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 IMB 3 acc. to DIN IEC 34
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)

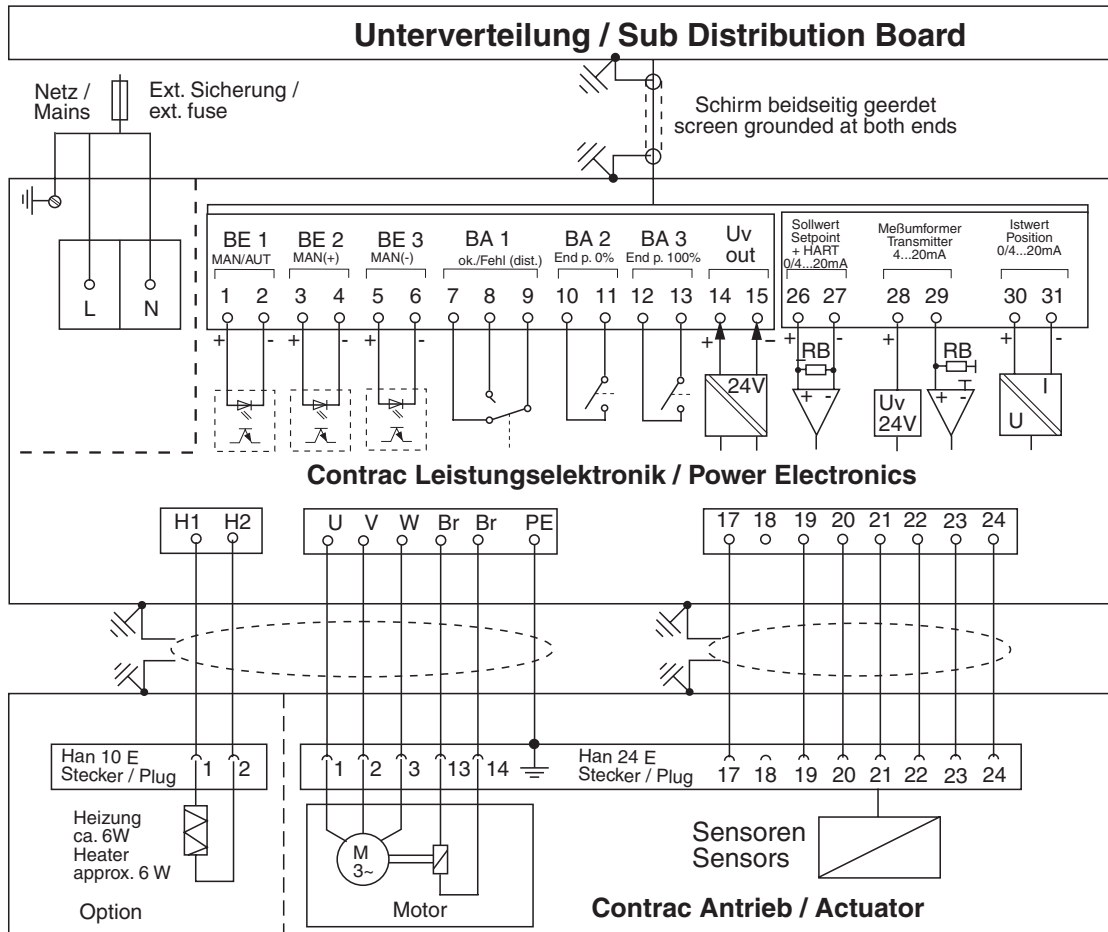
*Adapters for PG or NPT only available if additionally ordered.

Technical Data

Electrical Connection RHD 1250 / RHD 2500

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

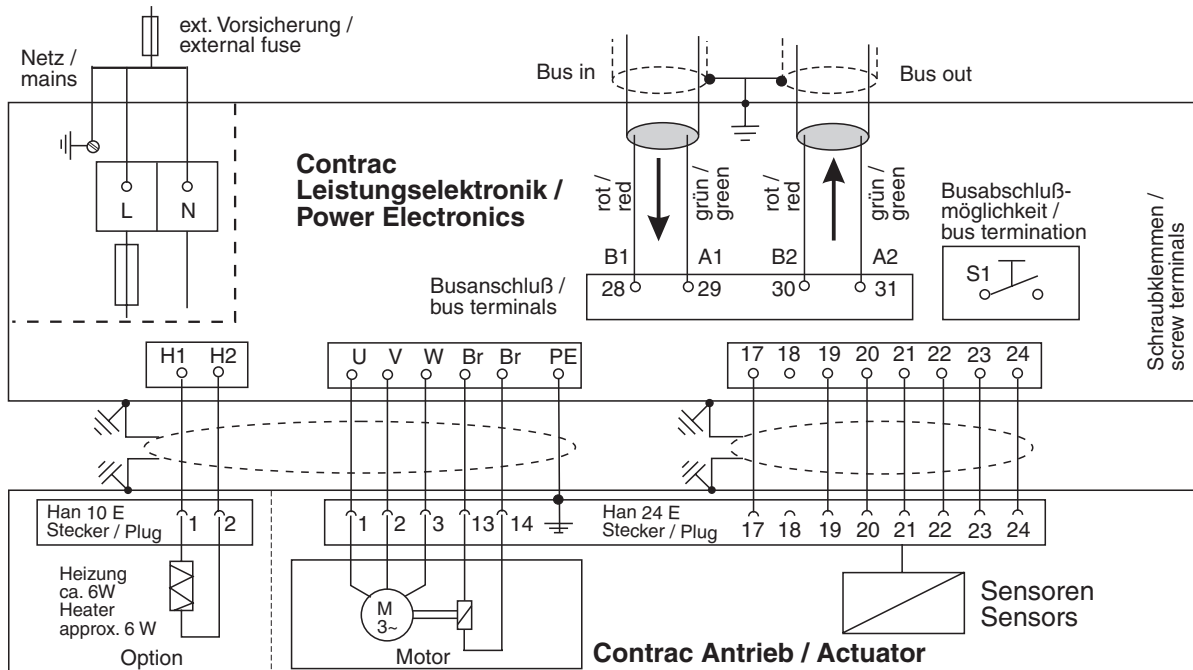
one-sided screening
 in following wiring possible



r00009x1

Technical Data

Electrical connection: Option Profibus DP (not for electronics EBS 852 / EBS 862)



r00010x1

Order Information

	Catalog No.			
RHD 1250-12 Rated torque 1250 Nm (adjustable to 50%/75%/100%) Rated pos. speed 7.5°/s (adjustable to 7.5 ... 0.1°/s)	V68174 0113			
RHD 2500-10 Rated torque 2500 Nm (adjustable to 50%/75%/100%) Rated pos. speed 9.0°/s (adjustable to 9.0 ... 0.1°/s)	V68175 0115			
RHD 2500-25 Rated torque 2500 Nm (adjustable to 50%/75%/100%) Rated pos. speed 3.6°/s (adjustable to 3.6 ... 0.1°/s)	V68175 0114			
Special actuator features Select at least one feature per group		Code		
Shaft with key		370		
Lever set; compl. (consists of lever, 2 ball-and-socket joints and 2 welding bushings)		496		
Electrical connection	plug (24-pole) complete, crimped	277		
	plug (24-pole) complete, terminals	278		
	plug bottom part; covered ¹⁾	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 (junction metric / NPT thread)	680		
	set PG adapter (junction metric / PG thread)	681		
Anti condensator 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)	481		
Manual (give total quantity)				
German (no remark for 1 copy)		Z2D		
English (code no. always required)		Z2E		

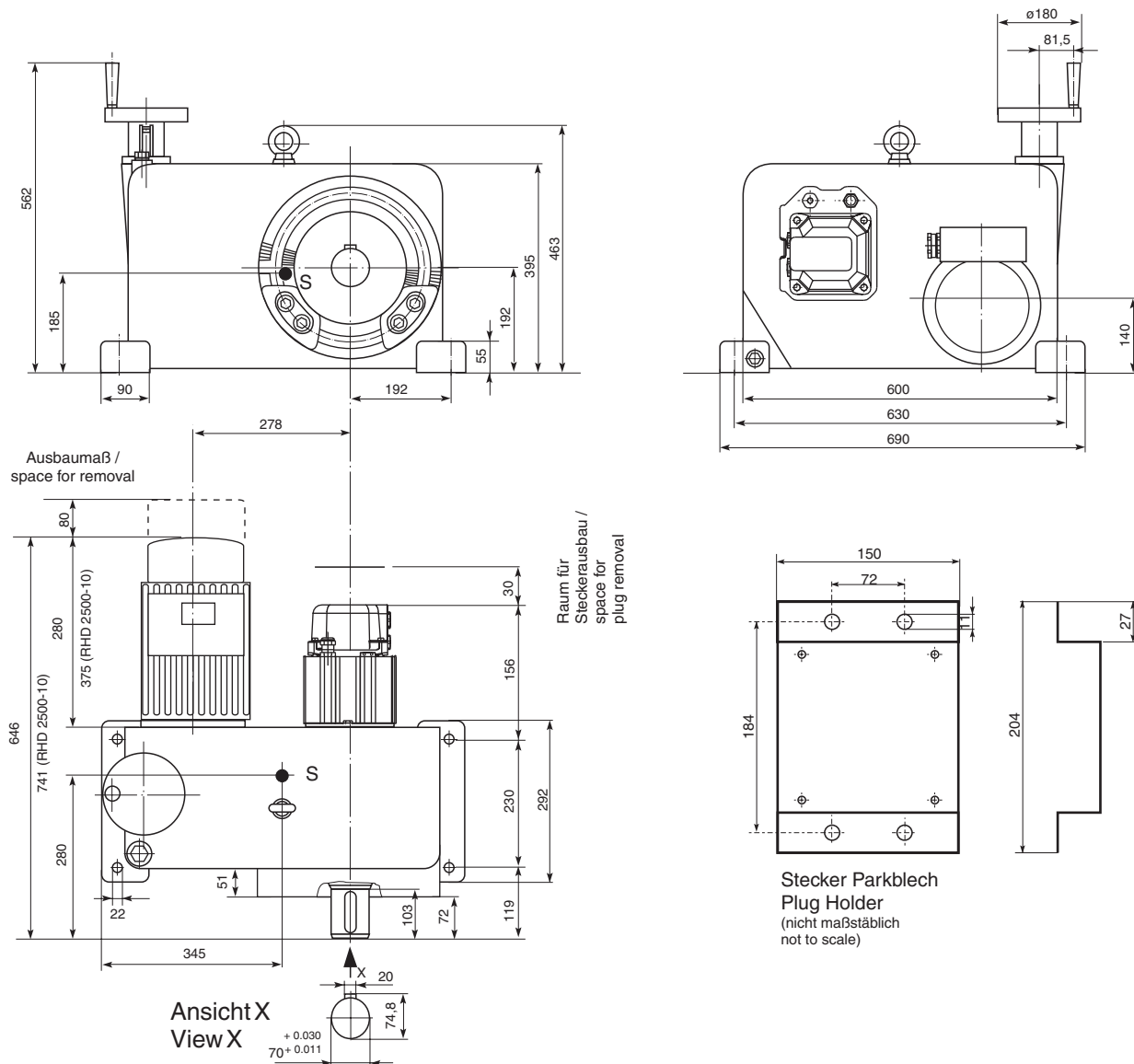
¹⁾ female plug with cables to be ordered with electronic unit

Attention!

Electronic unit to be ordered separately!

Technical Data

Part Turn Actuators RHD 1250 / RHD 2500

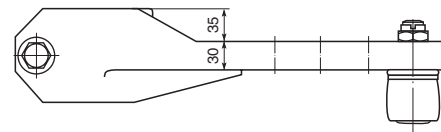
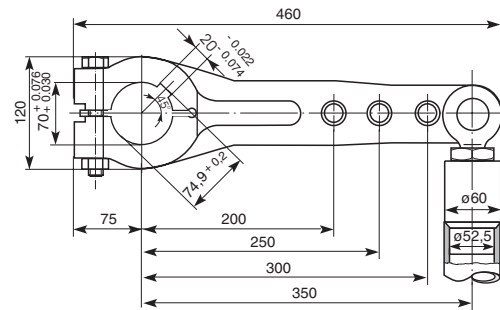
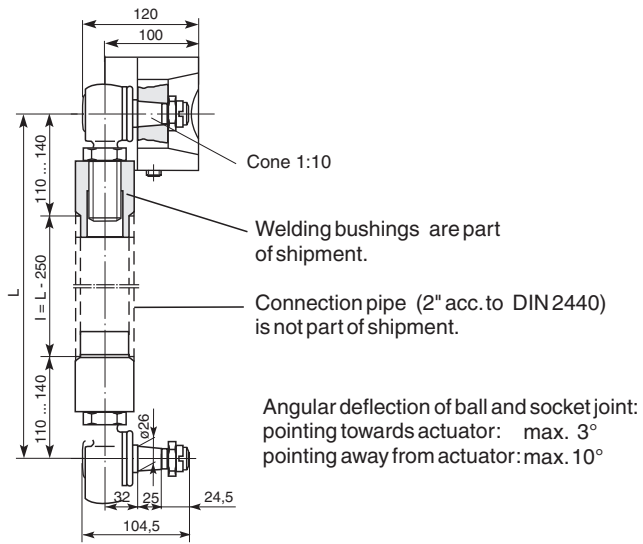


Stecker Parkblech
Plug Holder
(nicht maßstäblich
not to scale)

r00222xa

Technical Data

Lever



r00309e1



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