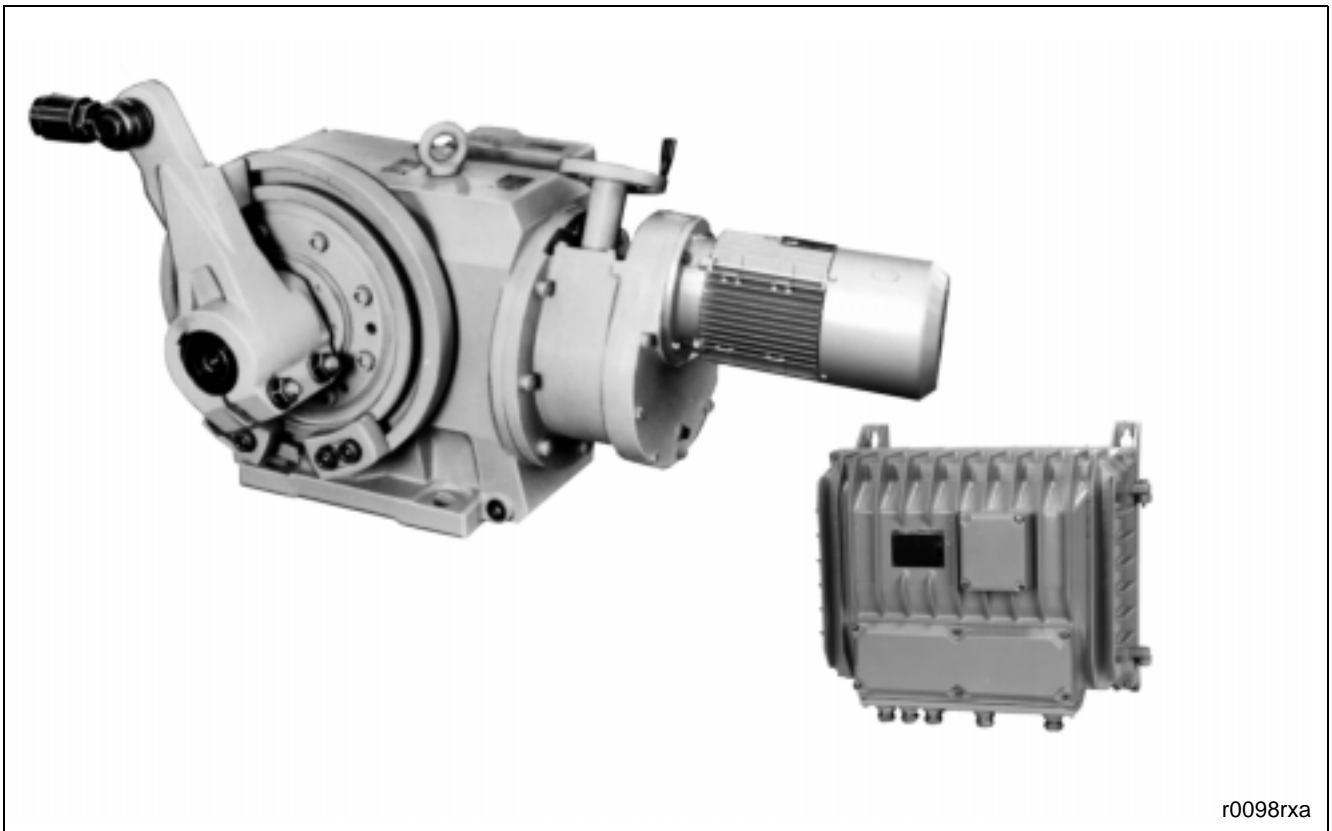


Contrac Part Turn Actuator RHB 16000

With Separate Electronic Unit EBN 861

Rated Torque 16000 Nm



r0098rxa

- Electrical actuator for continuous positioning or 3-step control
- Stallproof without the need for position- or torque dependent switch off
- Robust gearing with high mechanical efficiency
- Adjustable mechanical limit stops
- Handwheel for emergency operation
- Integrated sensors for position and temperature
- Micro processor controlled power electronic unit optionally in separate housing
- Voltage supply AC 115 V or AC 230 V
- Conventional signal interface (0/4 ... 20 mA / 24 V)
- Digital communication via RS 232 and FSK / HART® (Option)
- Additional functions, e. g. process controller, maintenance micro processor, programmable output characteristic

Application

Compact actuator for the operation of final control elements with preferably 90° swivelling movement, such as flaps, cocks etc. The force is transmitted with a lever drive or a direct coupling. The actuator is controlled with a continuous power electronic unit. This special power electronic unit is the interface between the actuator and the control system.

Positioning:

During continuous positioning the power electronic unit varies the motor torque until a force balance between actuator and final control element exists. High response sensitivity and positioning accuracy with short positioning times provide an excellent control quality and long life.

Technical Data

Actuator

| | |
|------------------------------|---|
| Type | RHB 16000-30 |
| Rated torque[Nm] | 16000 (adjustable to 0.5; 0.75 or 1x rated torque) |
| Starting torque | 1.2 x rated torque (rated torque for break away torque in end positions for a short time) |
| Rated pos. time for 90° | 30 ... 120 s |
| Rated pos. speed; adjustable | 3 ... 0.75°/s |
| Operating angle | typically 90 ° (35° ... 120°, without lever: max. 330°) |
| Weight incl. lever | approx. 1030 kg |
| Electronic unit | EBN 861 |
| Motor | MC 112 MBR |

Electronic Unit

| | |
|--------------------------------------|---|
| Voltage supply | EBN 861: AC 230 V (190 V ... 260 V); 47.5 ... 63 Hz; 1Ph |
| Power input Positioning: max.: | upon request |
| External fuse | EBN 861: 20 A; slow |
| Analogue input | 0 / 4 ... 20 mA |
| Analogue output | 0 / 4 ... 20 mA, galvanically isolated |
| Digital input, BE | digital 0: -3V ... + 5 V or open, galvanically isolated digital 1: +12 V ... + 35 V, galvanically isolated |
| Digital output, BA | Relay contact potential free, max. 60 V, 150 mA |
| Digital communication | RS 232 for commissioning and service, optionally FSK / HART® |
| Standard adjustment | Behaviour in 0/100 % end position: keeping tight with rated torque Set point: linear, set point = positioning value Set point input: 4 ... 20 mA Function selection: positioner, parameter: set point Output actual value: 4 ... 20 mA Digital input: BE 1 M/A swith-over; BE 2 / BE 3 manual intervention +/- Digital output: BA 1 ready for operation; BA 2/3 end position signalling 0/100 % |
| Individual adjustment | see data sheet 68-2.40 or upon request |

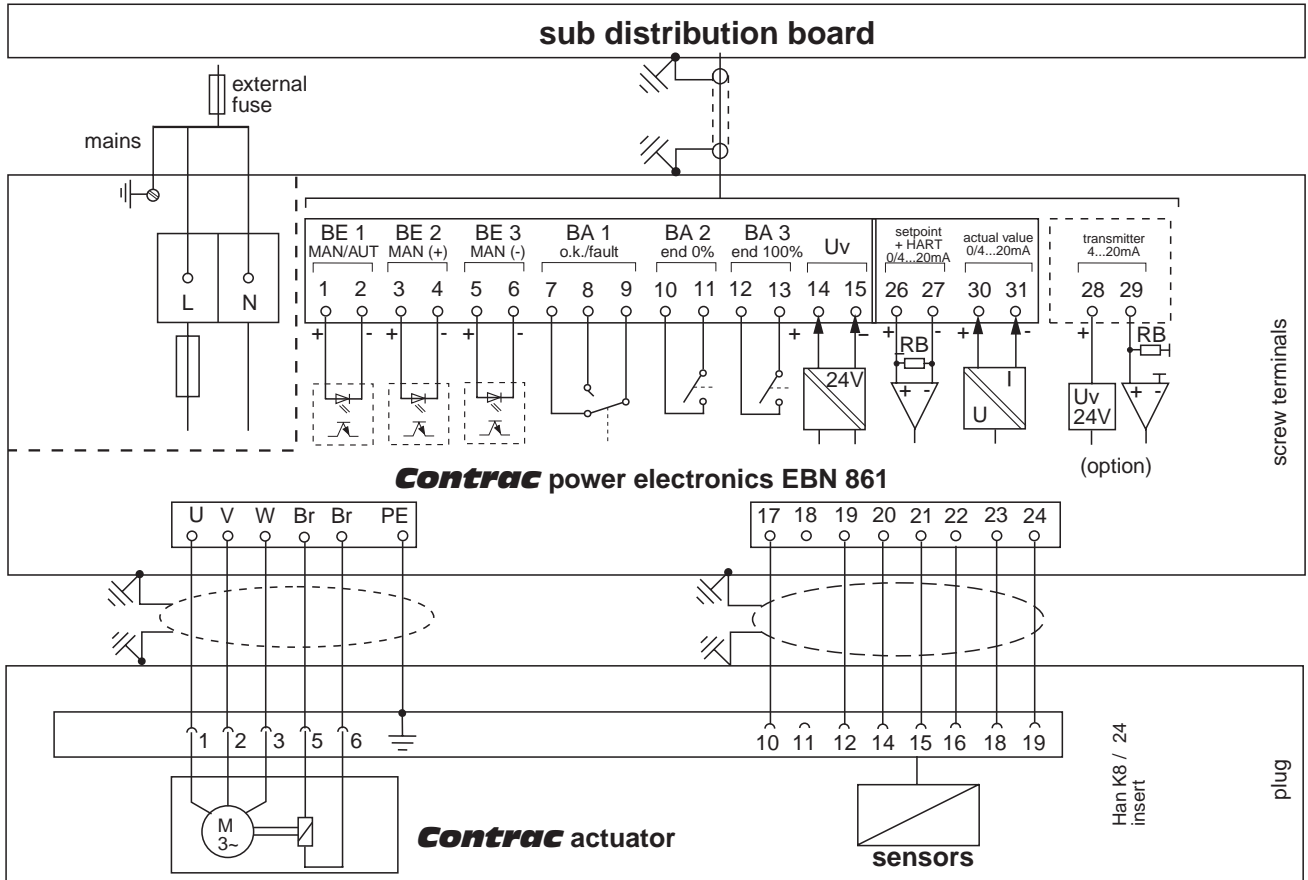
General Data

| | RHB 16000 | EBN 861 (Electronic Unit) |
|----------------------------------|--|--|
| Degree of protection | IP 66 | |
| Humidity | ≤ 95 % average; (condensation permitted) | |
| Ambient temperature | -10° C ... +65° C or -30° C ... +50° C | -25° C ... +55° C |
| Mounting position | beliebig; vorzugsweise IMB 3 nach IEC 34 | on vertical support, cable glands downward |
| Coating | 2 component epoxy (RAL 7032, grey) | |
| Anti condensation heater | optionally | --- |
| Cable actuator - electronic unit | optionally 2 m ... 20 m | |
| Weight | see above | approx. 40 kg |

Electrical Connection

Electrical Connection RHB 16000

The electrical connection is done with a combined plug at the actuator and with terminals at the electronic unit.



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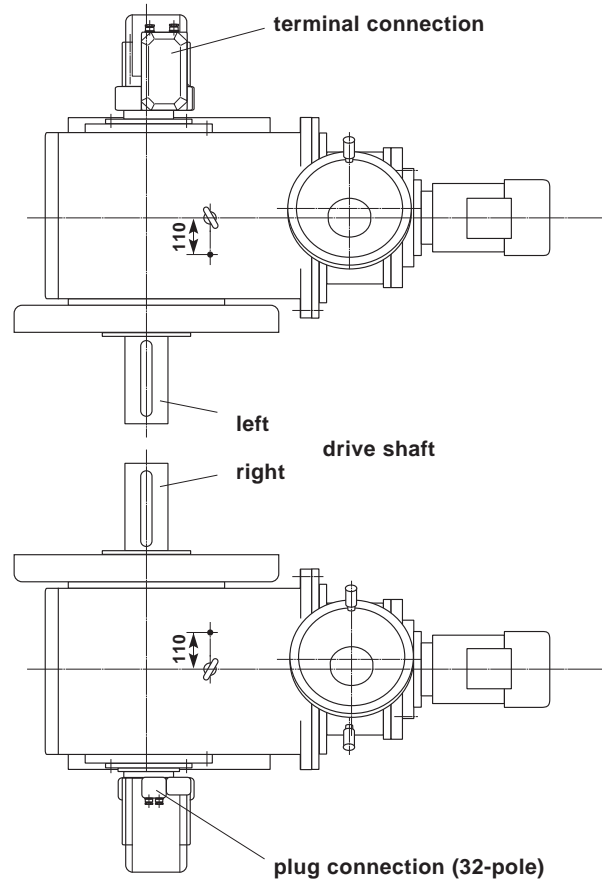
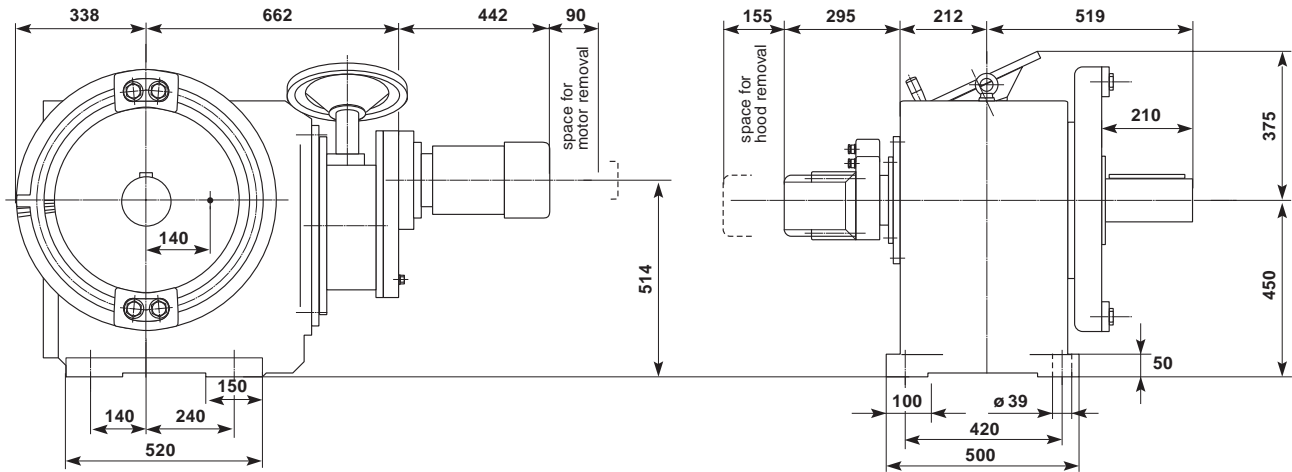
Ordering Data

| | | | | | |
|--|-----------------------|----------------|-------|-----------------|---|
| Part Turn Actuator RHB 16000 | | Order No. | | | |
| RHB 16000 | rated torque 16000 Nm | V68393A | - 2 - | | |
| Rated time: 30s / 90°; rated speed 3.0 %/s | | | | 0098 | / |
| Special Features of Actuator (selection of at least one feature per group required) | | | | Code Nr. | |
| Shaft with key | | | | 370 | |
| Lever drive (consists of lever, 2 ball and socket joints and 2 welding bushings) | | | | 451 | |
| Ambient temperature -10° C ... +65° C | | | | 344 | |
| -30° C ... +50° C | | | | 615 | |
| Additional Special Features (selection not absolutely required) | | | | | |
| Drive shaft right hand side | | | | 577 | |
| Anti condensation heater | | | | 360 | |
| Identification (alphanumerical; max. 32 characters) | | | | 294 | |
| Accessories protective cover for plug | | | | 273 | |
| plug holder | | | | 274 | |
| Certificate 2.1 acc. to EN 10204 | | | | 291 | |
| Certificate B for final check acc. to EN 10204 | | | | 292 | |
| Special Features of Electronics (selection of at least one feature per group required) | | | | | |
| Voltage supply AC 230 V | | | | 380 | |
| Frequency 50 Hz | | | | 382 | |
| 60 Hz | | | | 383 | |
| Digital communication RS 232 | | | | 384 | |
| RS 232 + HART® | | | | 385 | |
| Electrical connection to actuator without cable (plug at actuator) | | | | 335 | |
| with cable ¹⁾ with plug (protective cover at actuator) | | | | 336 | |
| cable length..... m (price per m) | | | | 339 | |
| Identification (alphanumerical; max. 32 characters) | | | | 295 | |
| Standard version of electronics (see technical data) | | | | 390 | |
| Customer specific adjustment of electronics (adjustment see data sheet 10/68-2.40 EN) | | | | 391 | |
| Documentation (order total quantity) | | | | | |
| German (no special remark for 1 copy) (_____ copies) | | | | Z2D | |
| English (code no. always required) (_____ copies) | | | | Z2E | |

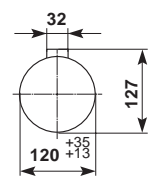
¹⁾ give cable length with code no. 339

Dimensions

Part Turn Actuator RHB 16000



drive shaft



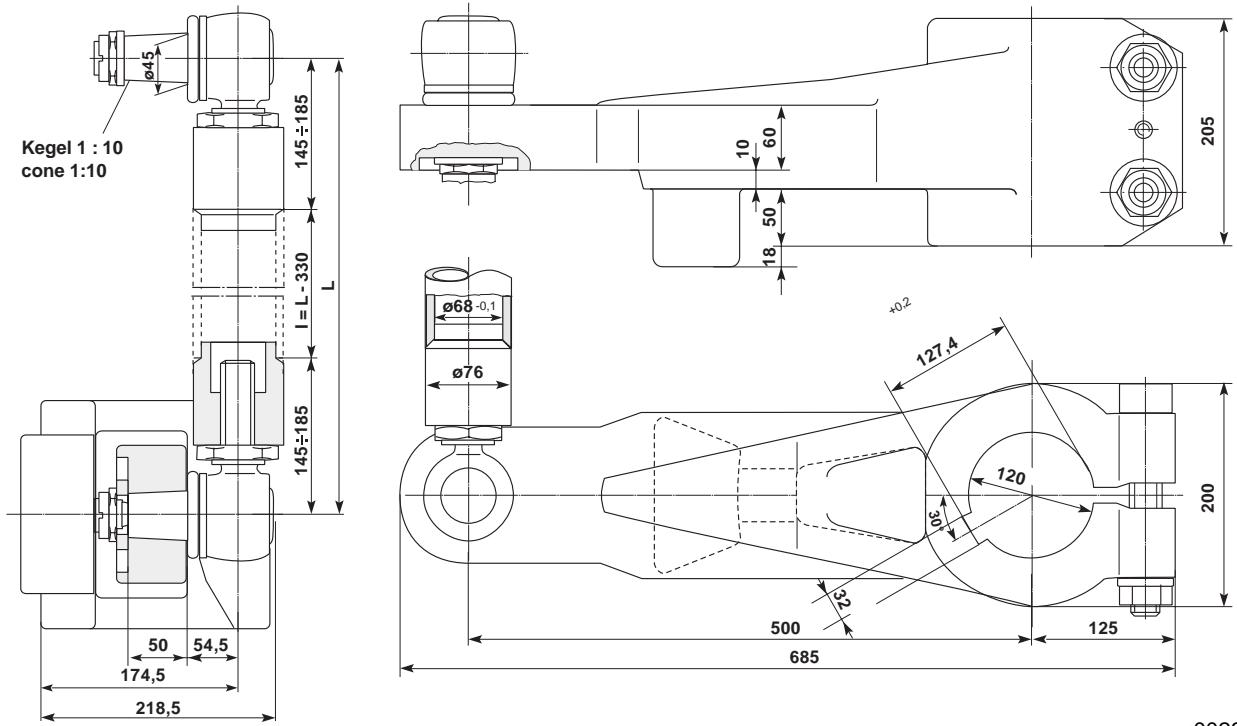
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Cable Diameter - Wire Cross Section

| RHB 16000 | | |
|--------------|--------------|-----------------------|
| | Plug | |
| | Cable Ø [mm] | Wire Cross Section |
| Motor Cable | 8 ... 12 | max. 1.5 ² |
| Sensor Cable | 6 ... 10 | max. 0.5 ² |

Dimensions

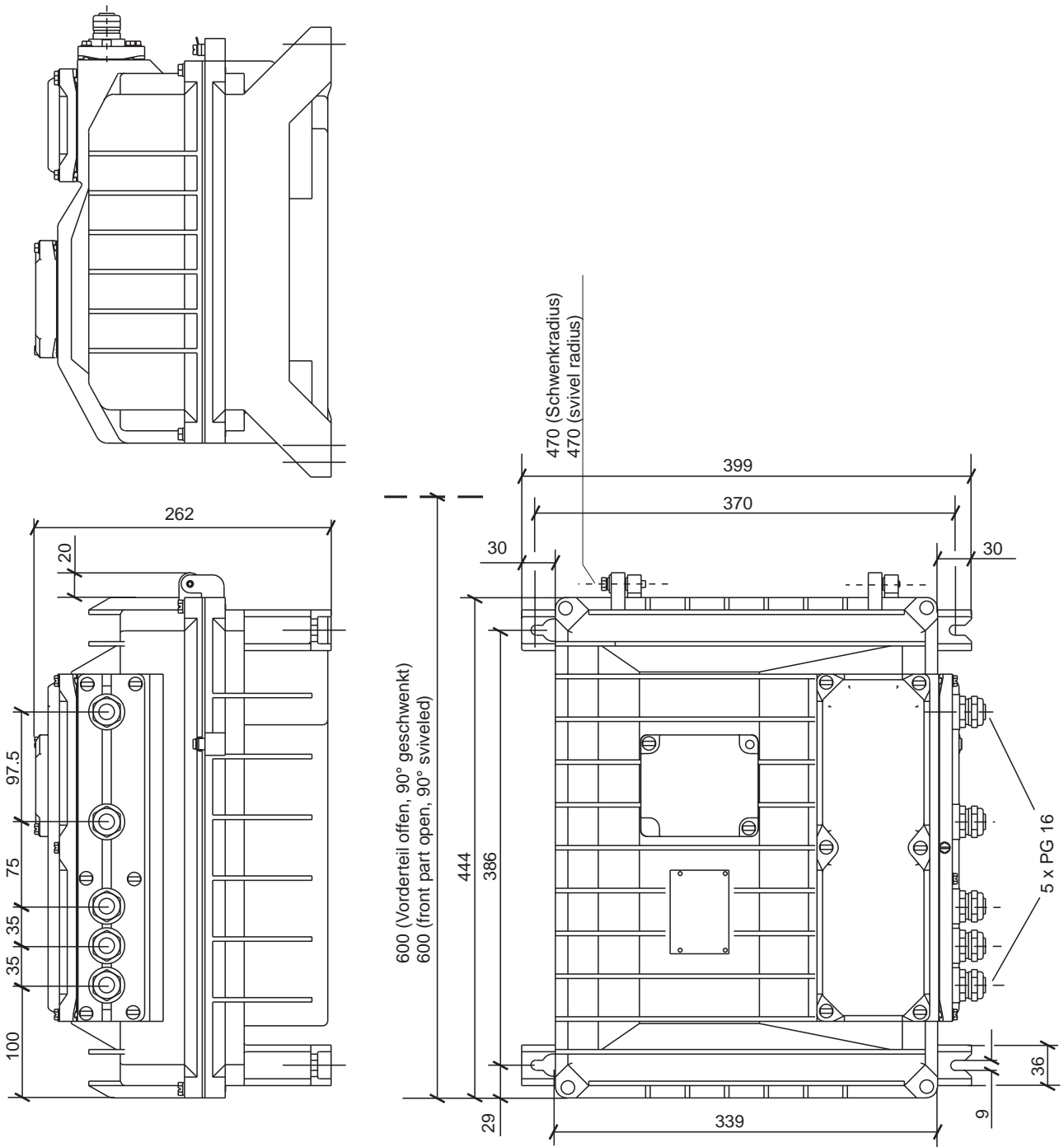
Lever (compl.)



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Dimensions

Electronic Unit EBN 861



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| EBN 861 | | |
|-------------------------------|---------------------|-----------------------|
| | Terminal Connection | |
| | Cable Ø [mm] | Wire Cross Section |
| Mains Cable | 9 ... 13 | max. 4 ² |
| Signal Cable (Control System) | 14 ... 17 | max. 1.5 ² |
| Meßumformer | upon request | max. 0.5 ² |
| Motor Cable | 12 ... 15 | max. 4 ² |
| Sensor Cable | 14 ... 17 | max. 1.5 ² |

Notes