

Electrical, explosionproof spring return actuator for hazardous areas zone 1, 2, 21, 22 – torque 50 Nm, spring return ~3 sec – tested acc. to ATEX List 2.3 EX-TURN

APPLICATION

EXT-50...-F3/BLM Spring return damper actuator with direct coupling shaft connection. Explosionproofed in acc. with "flameproof enclosure" and dust ignition proof, PTB-tested. Installation in hazardous areas zone 1, 2, 21, 22. The actuator will stop on overload. On loss of power, the actuator returns the damper to its safety position within 3 seconds. Squared shaft connection 14 x 14 mm. Application: For **industrial plant**. For **offshore** applications we recommend the special types **EXT-50...-F3/CT** and **EXT-50...-F3/VA**.

TECHNICAL DATA

| Type | EXT-50230-F3/BLM | EXT-5024-F3/BLM |
|--------------------------|---|---------------------------|
| Supply voltage (±10%) | 230 VAC 50...60 Hz | 24 VAC 50...60 Hz/ 24 VDC |
| PowerRUNNING MAX | ~90 VA | ~90 VA |
| PowerOPEN MAX | ~15 VA | ~15 VA |
| PowerHEATER | ~27 VA | ~27 VA |
| Load type | inductive | capacitive |
| Motor torque | 50 Nm | 50 Nm |
| Running time motor | < 30 sec / 90° | < 30 sec / 90° |
| Spring torque | ~50 Nm | ~50 Nm |
| Running time spring | ~3 sec / 90° | ~3 sec / 90° |
| Control mode | on-off | on-off |
| Angle of rotation | 90° | 90° |
| Pretension | ~3° | ~3° |
| Safety operations | 10.000, however depending on damper-design and operating conditions | |
| Shaft connection | squared 14 x 14 mm | |
| Endswitches | no endswitches, actuator is overload protected | |
| Ambient temperature | 0... 40 °C, non condensing; -20°C... 40°C with optional heater | |
| Housing material | Aluminium baked varnish | |
| Weight | Aluminium ~20 kg | Stainless Steel ~30 kg |
| Indication | CE Nr. 0158 | |
| Permission | PTB-tested acc. to directive 94/9/EG (ATEX) | |
| Certificate | PTB 99 ATEX 1103 | |
| Explosionproof | Ⓜ II2G EEx d IIC T6, CENELEC EN 50014/ EN 50018 Ⓜ II2D IP65 T95°C, CENELEC EN50281-1-1 | |
| Control operation | max. 20 open - close cycles per hour | |
| External PE-connector | Connectable lines: 4 mm ² multiple-wire, 6 mm ² single-wire | |
| Protection | IP 65 | |
| Included | Actuator with 1 m cable | |
| Installation area | hazardous areas zone 1, 2, 21, 22 | |

Off-shore and industrial plant

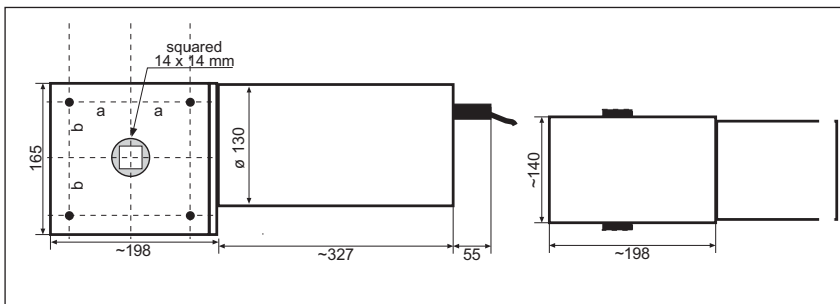
Ⓜ II2G EEx d IIC T6
Zone 1, 2
Ⓜ II2D IP65 T95°C
Zone 21, 22



ACCESSORIES

| | |
|---------------------|---|
| /K | Heater for outdoor applications, operating temperatures < 0 °C and/or at high humidity for reducing water condensation. |
| /CT | All housing parts aluminium with Amercoat varnish, block-parts in Stainless Steel AISI 316 for Offshore application. |
| /VA | All housing parts in stainless steel AISI 316 for Offshore application. |
| /2EE | 2 integral, potential free aux. switches, switching at ~5° and ~85°. |
| EXC-K DS1/VA | Different EEx e terminal boxes available Trigger, temp. sensor for safety function, with glass bulb, housing in stainless steel. |
| R14-12 | Reducing sleeve for squared shaft 12 mm. |

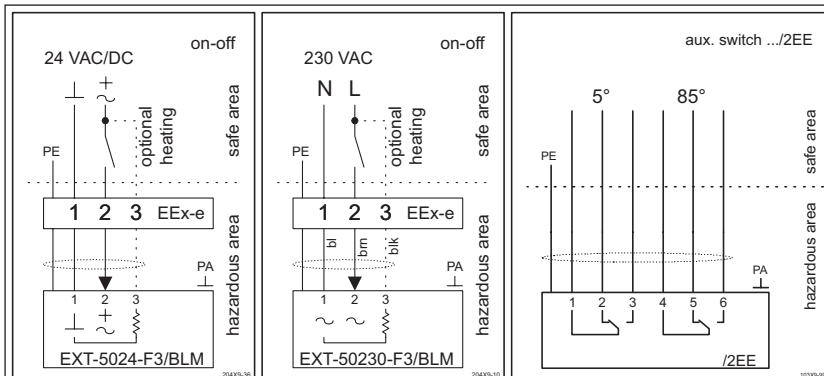
DIMENSIONS



ATTENTION

- **Do not run the actuator without load. The minimum load on spring return should be > 10 Nm!**
- **The actuators must not be opened by the customer.**
- **Make sure the spring return force will not damage the damper.**
- **Not more than 1 actuator per shaft is allowed.**
- The cable of the actuator must be installed in a fixed position and protected against mechanical damage.
- For installation, use and maintenance the official standards and rules must be applied.
- For outdoor installations the internal heater must be used. A protective housing against rain, snow and sun should be applied to the actuator.
- After installation all components must fulfil the protection class IP65 acc. EN60529.

ELECTRICAL CONNECTION



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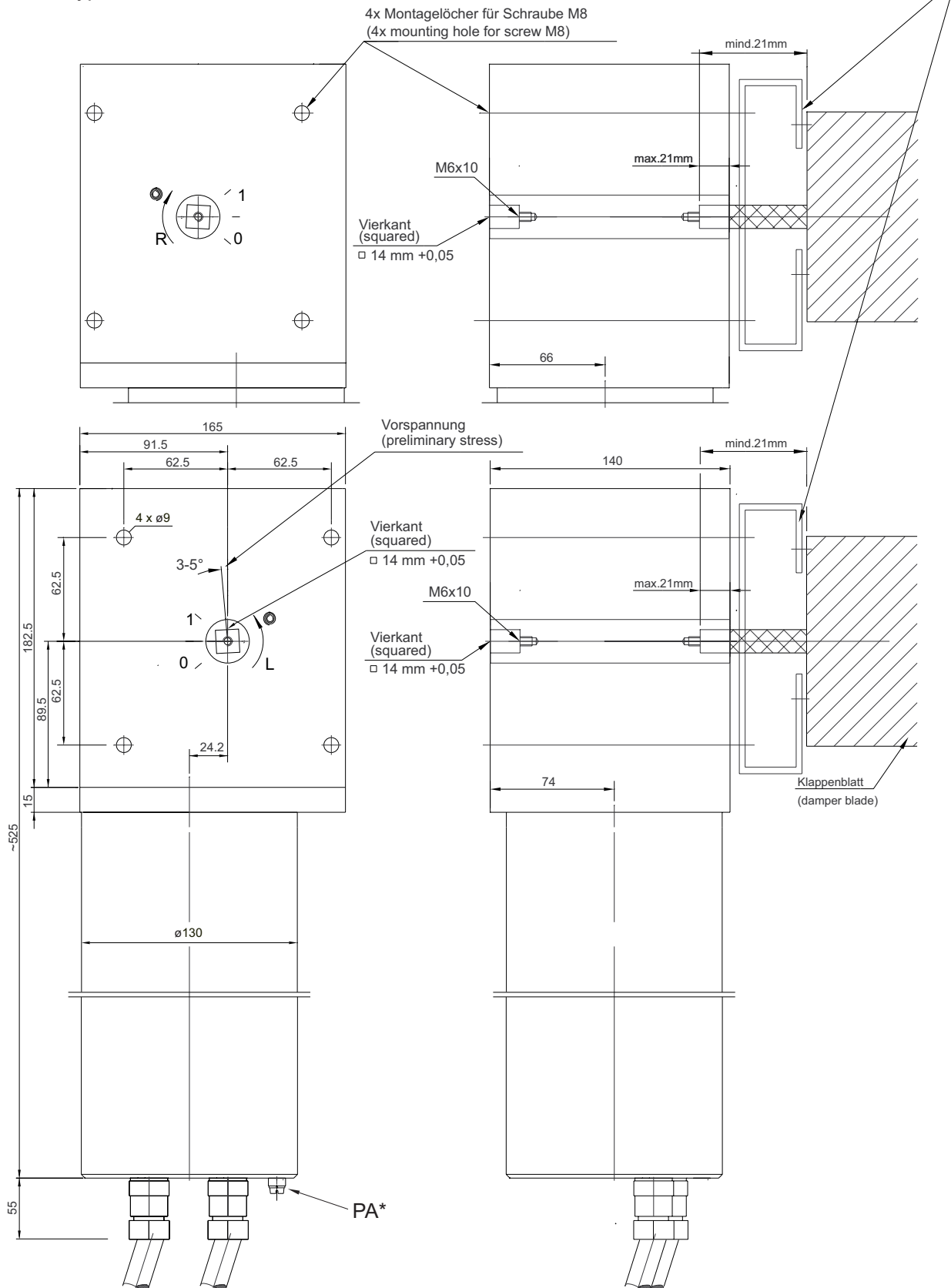
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Steckmotore für direkte Montage auf Klappenachse.
(Actuator for direct mounting on damper shaft).

Type: EXT 50...-F3/BLM

Montagekonsole (Montagebeispiel)
mounting bracket (mounting example)



* Potentialausgleich
potential equalization