Submersible drainage pumps U 6 K



Application

The U $\,$ K range of pumps is suitable for stationary and portable use.

It can be used as a drainage pump for mildly contaminated waste and ground water, in sumps with rain water, drainage or seepage water, silage liquor and also liquid manure. The high quality mechanical seal also makes the pump suitable for extracting abrasive media.

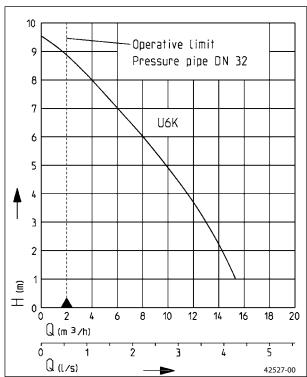
In stationary use the U 6 K ES/DS removes the waste water from domestic appliances such as dishwashers and washing machines (also high temperature). The guide rail system GR 32 offers all the advantages of fast and easy maintenance. Our ready-to-install collecting tanks extend the options for installation and use.

For supporting sewage water with heavy pollution we recommend our US series. Especially for the transportable use, in building site areas for example, our building pumps UB should be used.

If centrifugal submersible pumps are used outdoors, only a pump with 10 m cable without extension cable may be used in accordance with VDE Regulation 0100.



Performance



We reserve the right to change specifications without notice Pump performance is subject to ISO 9906 tolerances The minimum flow velocity in the pressure piping must be 0.7 m/s according to EN 12056 This data is represented in the performance curve as a limit of application.

- Continuous operation
- Flushing device
- Replaceable moisture sealed cable inlet
- Low level pumping by removing the strainer base
- SiC mechanical seal independent of rotation direction
- Safe to run dry
- 10/20 mm free passage with EIP technology



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Submersible drainage pumps

| Туре | Maximum Height x Width | Discharge branch | Free passage | Cable quality H07RN-F- | Cable length | Weight approx. | Code No. |
|--------------------------------------|--------------------------------|---------------------|-----------------|---------------------------|-----------------|----------------|----------|
| Pumps without level control | | | | | | | |
| U6KE | 335 x 175 mm | 11⁄4" | 20 mm | 3G1.0 | 10 m | 6.0 kg | JP 00226 |
| U6KD | 335 x 175 mm | 11⁄4" | 20 mm | 4G1.0 | 10 m | 6.5 kg | JP 00228 |
| Pumps with built-in level control (a | cc. to VDE, only to be used ou | tdoors with 10 m ca | ible) | | | | |
| U6KES | 335 x 210 mm | 11⁄4" | 20 mm | 3G1.0 | 3 m | 5.5 kg | JP 00227 |
| U 6 K DS | 335 x 210 mm | 11⁄4" | 20 mm | 4G1.0 | 3 m | 6.0 kg | JP 00229 |
| U6KES | 335 x 210 mm | 11⁄4" | 20 mm | 3G1.0 | 10 m | 6.0 kg | JP 09260 |
| U6KDS | 335 x 210 mm | 11⁄4" | 20 mm | 4G1.0 | 10 m | 7.0 kg | JP 09261 |

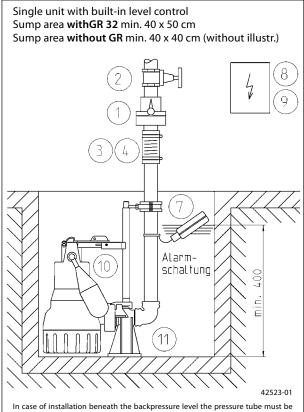
Performance

| Туре | Delivery head H [m] | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|-----------------|---------------------------------|------|------|------|------|-----|-----|-----|-----|-----|
| U 6 K E/ES/D/DS | Flow rate Q [m ³ /h] | 15.5 | 14.0 | 12.5 | 11.0 | 9.0 | 7.5 | 5.5 | 3.5 | 1.5 |

Electrical Data

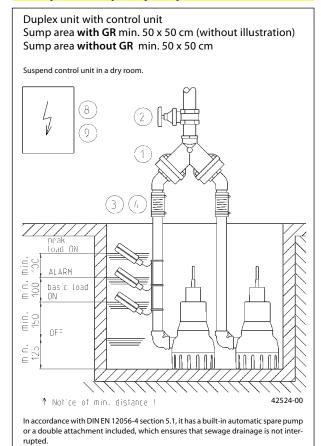
| Туре | Type of current | Voltage Volt | Motor r P ₁ | ating kW P ₂ | RPM min. ⁻¹ | Current Ampere | Motor protection | Plug |
|------------|-----------------|-----------------|---------------------------|----------------------------|---------------------------|-------------------|---------------------|---------|
| U 6 K E/ES | 1-phase | 1/N/PE~230 | 0.75 | 0.49 | 2645 | 3.3 | intograted | Safety- |
| U6K D/DS | 3-phase | 3/PE~400 | 0.75 | 0.55 | 2678 | 1.3 | integrated | CEE- |

Example of single pump installation with GR



In case of installation beneath the backpressure level the pressure tube must be taken in a loop over the local backup level acc. to EN 12056. Besides, it must be secured with an EN 12050-4-proofed swing-type check valve. Besides, it must be secured with an EN 12050-4-proofed swing-type check valve. Additionally we recommend an alarm system.

Example of duplex pump installation



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Accessories

| Accessories | | | | | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-------------------------------------------------------------------------------------------------------------------------------------|----------------------|------|------|----------|-----------|
| | | | Code | Пекг | HEKD | HEVES | II 6 K DC |
| D . | 1 | Cuite Aure de desches 11/II (DN 22) DN 4 DIN FN 42052 4 | NO. | UOKE | OOKD | U 6 K ES | OOKDS |
| | 1 | Swing-type check valve 1¼" (DN 32), PN 4 DIN EN 12050-4 H W D | JP 09739 | • | • | • | • |
| = , L | | 90 90 11/4" | | | | | |
| <u>.</u> В _ | | Duplex swing-type check valve 1½" (DN 40), PN 4 | | | | | |
| D. | | for duplex pump station, DIN EN 12050-4 | JP 09155 | • | • | | |
| - 5 V 5/1 | | H W D 200 280 11/2" | | | | | |
| TI | | Stop valve 11/4" (DN 32), PN 16 H W D | JP 11836 | • | _ | | |
| | 2 | 110 max. 60 1 1/4 | | | | • | • |
| D , | | 1½" (DN 40), PN 16 125 max. 60 1½" Elastic connection 1¼" (DN 32), PN 3 | JP 11837 | • | • | | |
| | 3 | H D | JP 14329 | • | • | • | • |
| | | 100 42 | | | | | |
| | 4 | Hose band clamp 1¼" | JP 03573 | • | • | • | • |
| · · (p1 | 5 | Hose coupling 1¼" (DN 32) brass, for portable use | JP 00327 | • | • | • | • |
| E E | | Solid fire hose coupling1 ¼", male thread | JP 41559 | • | • | • | • |
| | | Coupling wrench | JP 25708 | • | • | • | • |
| | | Hose connection 11/4" - 38/32/25 | JP 44209 | • | • | • | • |
| 1 X V | 6 | Flexible hose 1¼" (DN 32), PVC red, per m, for portable use | JP 00334 | • | • | • | • |
| | 7 | Alarm system with submersible ball contact switch, separate, | JP 16723 | | | • | |
| Ţ. | | mains-dependent, with potential-free contact and 3 m cable | | | | • | • |
| | | Alarm systemwith sub. ball contact switch ,ditto, 9.5 m cable | JP 24434 | | | • | • |
| | | Alarm system AW 3 for washing-machines with submersible ball contact switch with 3 m cable, separate, mains-dependent | JP 25090 | • | • | • | • |
| | | Alarm system AW 10 for washing-machines ditto, with 9.5 m cable | JP 25091 | • | • | • | • |
| 165-160-15 | 8 | Separate level controls for single unit (see level controls for descri | | | | | |
| | | NE 1 (1-phase) with sub. ball contact switch 3.0 m | JP 16710 | • | | | |
| <i>]</i> | | NE 2 (1-phase) with sub. ball contact switch 9.5 m ND 1 (3-phase) with sub. ball contact switch 3.0 m | JP 16711 JP 16712 | • | | | |
| | | ND 3 (3-phase) with sub. ball contact switch 9.5 m | JP 16713 | | | | |
| ~ ØA | | NE 1A (1-phase) with sub. ball contact switch 3.0 m and alarm | | • | | | |
| | | NE 2A (1-phase) with sub. ball contact switch 9.5 m and alarm | | • | | | |
|) N | | ND 1A (3-phase) with sub.ball contact switch 3.0 m a. alarm | JP 16716 | | • | | |
| # | | ND 3A (3-phase) with sub. ball contact switch 9.5 m and alarm | | | • | | |
| | | Counterweight (1 piece) | JP 17541 | • | • | | |
| | | Controls for duplex unit (see section on Level controls for descri | | | | | |
| | | BD 00E (1-phase) BD 00 (3-phase) | JP 00482 | • | | | |
| | | BD 00 (3-phase) Subm. switch pack B with 3 subm. ball contact switches with | JP 00299 | | • | | |
| | | 9.5 m cable and fixing device | JP 16725 | • | • | | |
| | | Subm. switch pack BmG with 3 subm. ball contact switches with 9.5 m cable and counterweight | JP 16726 | • | • | | |
| - 19 | 9 | Rechargeable battery for off the line operation of the alarm | JP 07562 | • | • | • | • |
| | 10 | Special float assembly for low switching points (Switching height without GR ON 130 mm, OFF 80 mm) | JP 44207 | | | • | • |
| | | Special float assembly for narrow chambers (min. 30 x 30 cm) | JP 40856 | | | • | |
| | | Switching height without GR ON 300 mm, OFF 230 mm | | | | | |
| <u> </u> | | Flaot fixation for continuous pump operation | JP 42175 | | | • | • |
| Tion of the state | 11 | Guide rail system GR 32 | JP 44000 | • | • | • | • |
| A.Z | | Support for guide rail extension ex 2 m sump depth,per m 1 peace | JP 28314 | • | • | • | • |

^{*} only for single units

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Technical data

Pump

Vertical, single-stage, submersible, with foot strainer with 10 mm free passage – detachable for activating low level pumping. With the pump base installed, free passage is 20 mm. Volute casing with 1 $\frac{1}{4}$ " male radial pressure branch, EIP-technology hydraulics with open 6-blade impeller.

Bearings

Common shaft for pump and motor, mounted in ball bearings and permanently grease lubricated.

Seal

Silicon carbide mechanical seal, intermediate oil chamber, shaft seal ring towards the motor section, safe to run dry.

Motor

Submersible motor, type of enclosure IP 68, insulation class B, motor thermostat for emergency switch-off on overheating with automatic switch-on after sufficient cooling, switched on via plug or automatic switching, moisture sealed cable inlet for protecting the pump in the event of damage to the cable, continuous operation when not submerged on account of its motor jacket cooling.

Material

Motor housing, shaft and screws in stainless steel, volute casing, impeller and control head in plastic (GRP), rubber insulated flexible cable.

Installation

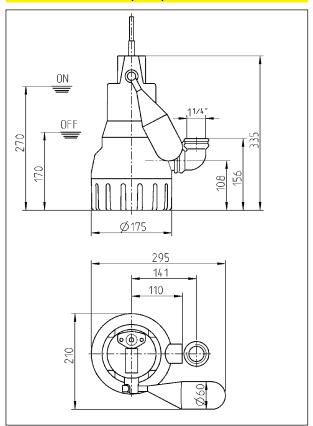
Install pump vertically (hose connection possible); if installed permanently, provide detachable connection, e.g. the uncomplicated and easy to maintain guide rail system GR 32.

Scope of supply

Pump ready for connection acc. to EN 12050 with 90°, 11/4" female connection elbow, cable and plug, S model with automatic level float switch.

The pump is delivered fitted with a strainer base which can be swapped for any of the accompanying pedestols in cases where a 20 mm clear passage is required.

Dimensions U 6 K (mm)



Dimensions GR 32 (mm)

