

### APPLICATION

The U 5 K (S) is an extremely powerful and versatile centrifugal submersible pump for both stationary and portable use. The pump is suitable for faecal-free waste-water with solids up to 10 mm particle size. Thanks to the removable strainer base, it is possible to increase the free passage to 20 mm.

Stationary in a basement chamber or a collecting tank, with an automatic switch attached, the U 5 KS handles all dirty water arising from domestic drainage sources such as washing machines, dishwashers, washstands, etc. Deposit accumulation in the reservoirs and chambers is reduced to a minimum by means of a flushing device.

The guide rail system GR 32 offers all the advantages of fast and easy maintenance. If the sump or tank runs dry temporarily, the pump can be vented by providing a drill-hole in the spiral housing.

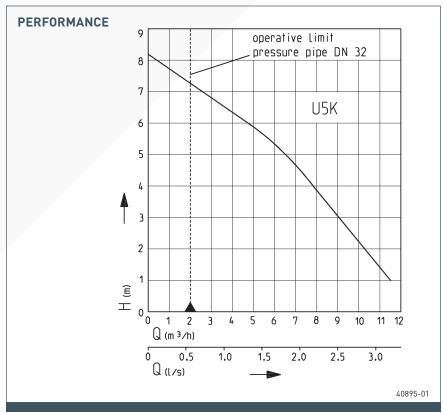
The U 5 K can be used as a portable unit for dealing with dirty water from garden ponds, flooded cellars or discharge chambers in laundry rooms or storage rooms. Thanks to its shallow, built-in suction system, it can reduce residual water level to no more than a few millimeters.

If submersible pumps are used outdoors, only a pump with 10 m cable without extension cable may be used in accordance with VDE Regulation 0100. For construction sites and garden ponds, a H07-type cable must be used. PolyPump Ltd Providing your pumping solutions sales@polypump.co.uk 01296 488 294

- Continuous operation
- Low level pumping
- Flushing device
- Built-in level control
- · Variable discharge branch
- Safe to run dry
- 10/20 mm free passage with EIP technology
- Swing-type check valve for portable use
- · Moisture sealed cable inlet



U 5 KS with built-in level control



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.

### **DRAINAGE PUMPS**

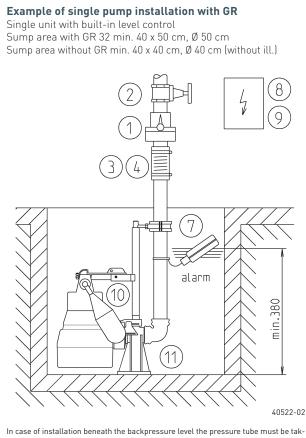
Туре		Maximum Height x Width x Depth	Discharge branch	Free passage	Cable quality	Cable length	Weight approx.	Code No.		
Pump without level control (not to be utilised on construction sites, as per VDE regulations)										
U5K	without bend with bend	280 x 168 x 190 mm 280 x 168 x 250 mm	11⁄4"	20 mm	H05RN-F-3G0.75	10 m	4.7 kg	JP09386		
Pumps with built-in level control										
U5KS (a outdoors)	acc. to VDE, not to be used	280 x 202 x 290 mm	11⁄4"	20 mm	H05RN-F-3G0.75	4 m	4.5 kg	JP09387		
U5KS		280 x 202 x 290 mm	11/4"	20 mm	H07RN-F-3G1.00	10 m	5.4 kg	JP09417		

### PERFORMANCE

Туре	Delivery head H [m]	1	2	3	4	5	6	7
U5K	Flow rate Q [m³/h]	11.5	10.5	9	7.5	6.5	4.5	2.5

### **ELECTRICAL DATA**

Туре	Type of	Voltage	Motor rating kW		RPM	Current	Motor	Plug
	current	Volt	P <sub>1</sub>	P <sub>2</sub>	min-1	Ampere	protection	
U5K	W-Current	1/N/PE~230	0.52	0.38	2716	2.3	integrated	Safety-

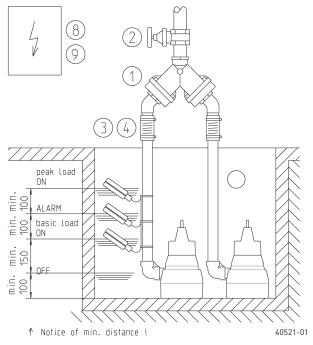


In case or installation beneath the backpressure level the pressure tube must be taken in a loop over the local backup level acc. to EN 12056. Besides, it must be secured with a EN 12050-4-proofed swing-type check valve. Besides, it must be secured with an EN 12050-4-proofed swing-type check valve. Additionally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

## Example of duplex pump installation

Duplex unit with control unit Sump area with GR 32 min. 50 x 50 cm, Ø 60 cm (without ill.) Sump area without GR min. 45 x 50 cm, Ø 55 cm

Suspend control unit in a dry room.



In accordance with DIN EN 12056-4 Abs. 5.1, it has a built-in automatic spare pump or a double attachment included, which ensures that sewage drainage is not interrupted.

## ACCESSORIES

Image: Description of the sector of the s	•
PN 4 for duplex pump station DIN EN 12050-4 $H$ $W$ $D$ $JP09155$ •         Image: Stop value       11/4" (DN 32), PN 16 $H$ $W$ $D$ $JP44785$ •         Image: Stop value       11/4" (DN 32), PN 16 $H$ $W$ $D$ $JP44785$ •         Image: Stop value       11/2 (DN 40), PN 16       125 max.60 11/2" $JP44786$ •         Image: Stop value       11/2 (DN 32), PN 3 $H$ $D$ $JP44773$ •         Image: Stop value       11/4" (DN 32), PN 3 $H$ $D$ $JP44773$ •         Image: Stop value $I1/4$ " (DN 32), PN 3 $H$ $D$ $JP44773$ •         Image: Stop value $I1/4$ " (DN 32), PN 3 $H$ $D$ $JP44773$ •         Image: Stop value $I1/4$ " (DN 32), PN 3 $H$ $D$ $JP44765$ •         Image: Stop value $I1/4$ " (DN 32), PN 3 $H$ $D$ $JP44765$ •	•
Image: Stop value       1¼" (DN 32), PN 16       H       W       D       JP44785       •         Image: Stop value       1¼" (DN 32), PN 16       125       max. 60       1¼"       JP44786       •         Image: Stop value       1½ (DN 40), PN 16       125       max. 60       1½"       JP44786       •         Image: Stop value       1½ (DN 40), PN 16       125       max. 60       1½"       JP44786       •         Image: Stop value       Image: Stop value       1¼" (DN 32), PN 3       Image: Stop value       JP44773       •         Image: Stop value       Image: Stop value       1¼" (DN 32), PN 3       Image: Stop value       JP44765       •	•
Image: Description of the second clamp 11/2 (DN 40), PN 16       125 max. 60 11/2"       JP44786       Image: JP44786       Image: JP44786       Image: JP44773       Image: JP44773       Image: JP44773       Image: JP44765	•
Image: Second section 11/4"         Image: Second section 11/4"         Image: Height second section 11/4"         Image: Height second secon	•
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Image: Mose coupling 1¼" (DN 32) brass, for portable use         JP00327	
Solid fire hose coupling 1 ¼", male thread         JP44780         •	•
Coupling wrench JP25708	•
Hose connection 1 ¼" - 38/32/25 JP44209 •	•
Image: Mose set, 15 m PVC hose c/w elbow     JP43550	•
Image: Provide state of the system of the	•
Alarm unit AG10 ditto, with 9.5 m cable JP44892	•
Alarm unit washing machine stop AW3 with submersible ball contact JP44895 •	•
<ul> <li>Separate level controls for single unit (see level controls for description)</li> <li>NE 1 with sub. ball contact switch 3.0 m JP16710 •</li> </ul>	
NE 2 with sub. ball contact switch 9.5 m JP16711 •	
NE 1A with sub. ball contact switch 3.0 m and alarm system JP16714 •	
NE 2A with sub. ball contact switch 9.5 m and alarm system JP16715 •	
Counterweight (1 piece)         JP44803           Duplex control unit (see section on level controls for description)	
BD 00E JP45735 •	
Subm. switch pack B with 3 subm. ball contact switches with 9.5 m ca- ble and fixing device • •	
Subm. switch pack BmG with 3 subm. ball contact switches with 9.5 m cable and counterweight	
Rechargeable battery for off the line operation of the alarm system JP44850	•
Special float assembly for low switching points (Switching height without GR ON 90 mm, OFF 40 mm)         JP44207	•
Special float assembly for narrow chambers (chamber min. 30x30 cm)         JP40856           Switching heigth without GR ON 265 mm, OFF 195 mm         JP40856	•
Flaot fixation for continuous pump operation         JP42175	•
Guide rail system GR 32 JP44000 •	•
Support for guide rail extension ex 2 m sump depth, per m 1 piece         JP28314         •	•
Connection kid DN 32 with telescopable pressure pipe JP44609 •	•

### **TECHNICAL DATA**

### Pump

Vertical, single-stage, submersible, 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 ¼" male radial pressure branch, EIP-technology hydraulics with open 5-blade impeller.

### Bearings

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

### Seal

A shaft seal, which is completely secure against running dry thanks to a three-fold radial shaft seal ring and intermediate oil chamber.

### 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 sewage resistant 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°, 1¼" female connection elbow, cable and safety 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.



