

Application

The U 3 K (S) NIRO is an extremely versatile submersible pump for stationary and portable use. EIP technology for safer operation, integrated flushing device for reducing deposits and integrated low level pumping for preventing flooding are only a few of the innovative features that set this pump apart.

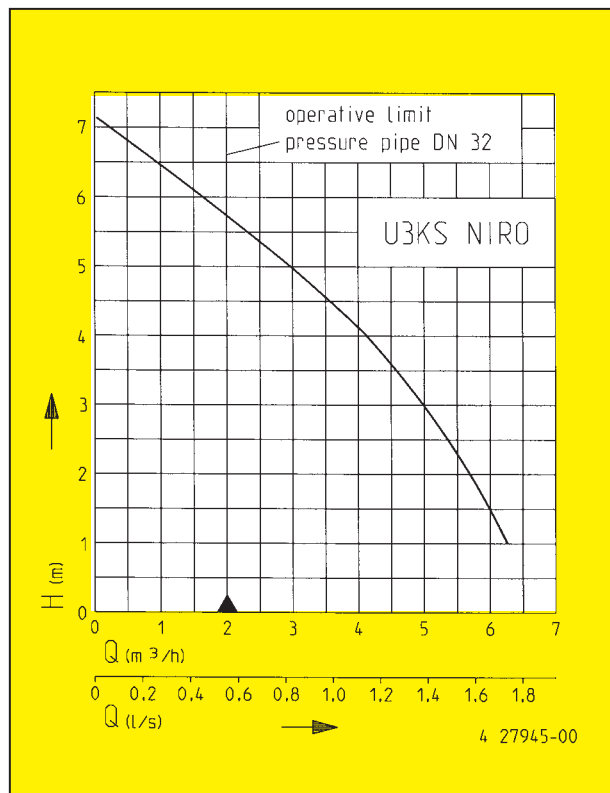
The pump removes rain water, lightly polluted water and domestic waste water from household dishwashers and washing machines (also high temperature), but not urinal or lavatory effluent.

In stationary use the U 3 KS with automatic switching removes the water from drains in cellars, laundries or storerooms and serves as a flood protection. The guide rail system GR 32 offers all the advantages of fast and easy maintenance. Our ready-to-install collecting tanks extend the range of uses.

For mildly aggressive media such as brackish water, condensate from condensing boilers, liquid manure etc the U 3 K spezial should be used. For heavily contaminated water we recommend the waste water pumps of the US-range.

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.

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.



- ▶ Built-in level control
- ▶ Variable discharge branch
- ▶ Safe to run dry
- ▶ Continuous operation
- ▶ Low level pumping
- ▶ Flushing device
- ▶ EIP-Technology
- ▶ Swing-type check valve for portable use
- ▶ Moisture sealed cable inlet



We reserve the right to change specifications without notice. Pump performance is subject to ISO 9906 tolerances.

Submersible sump pumps

Type	Height x Width (max.)	Discharge branch	Free passage	Cable quality	Cable length	Weight	Code No.
Pump without level control							
U 3 K NIRO without bend	255 x 170 mm	1 1/4"	10 mm	H05RN-F-3G0,75	10 m	3,7 kg	00205
U 3 K NIRO with bend	255 x 225 mm						
Pump with built-in level control							
U 3 KS NIRO	255 x 275 mm	1 1/4"	10 mm	H05RN-F-3G0,75	3 m	3,4 kg	00206
U 3 KS NIRO	255 x 275 mm	1 1/4"	10 mm	H07RN-F-3G1,0	10 m	4,3 kg	09808

Performance

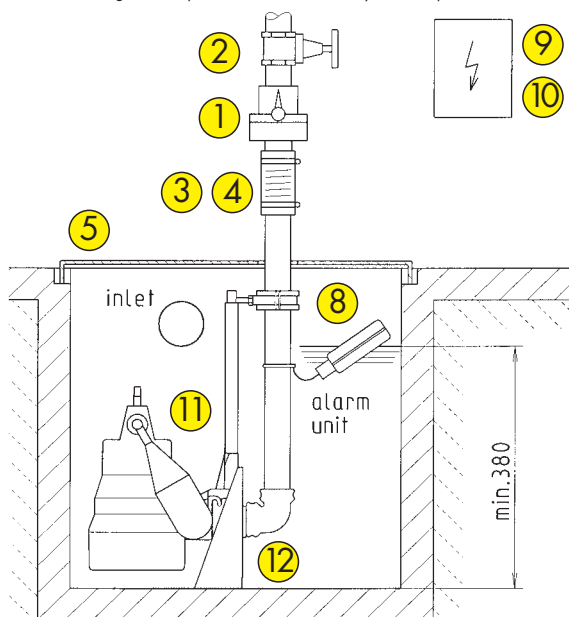
Type	Delivery head H [m]	1	2	3	4	5	6
U 3 K NIRO	Flow rate Q [m ³ /h]	6,5	5,5	5,0	4,0	3,0	1,5

Electrical data

Type	Type of current	Voltage Volt	Motor rating kW P ₁ P ₂	RPM min ⁻¹	F.L.C. Amp.	Motorprotection	Plug
U 3 K NIRO	1-phase	1/N/PE~230	0,32 0,20	2720	1,4	incorporated	safety-

Single pump installation with GR

Single unit with built-in level control
 Sump area **with GR 32** min. 40 x 50 cm
 Sump area **without GR** min. 40 x 40 cm (without illustration)
 When using a cover panel, a ventilation facility must be provided.

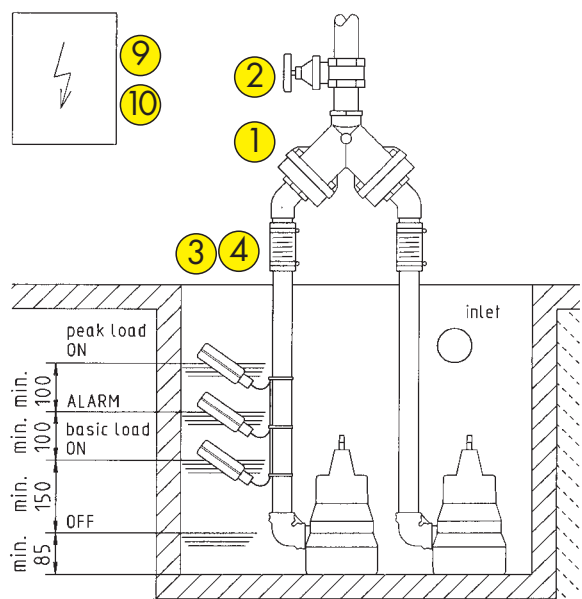


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In case of installation beneath the backpressure level the pressure tube must be taken in a loop over the local backup level acc. to EN 12056. Besides, it must be secured with a EN 12050-4-proofed swing-type check valve. Additionally we recommend an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

Duplex pump installation

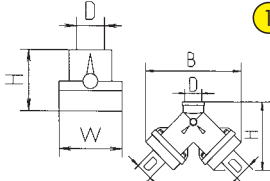
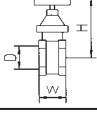


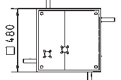
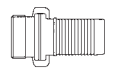

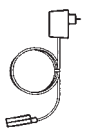
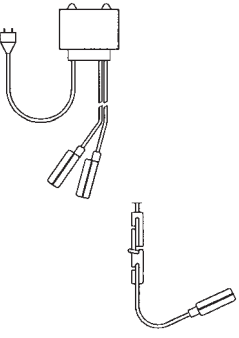
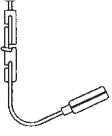

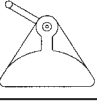

Duplex unit with control unit
 Sump area **with GR 32** min. 50 x 50 cm (without illustration)
 Sump area **without GR** min. 50 x 50 cm
 Suspend control unit in a dry room



↑ Notice of min. distance !

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Accessories

		Code No.	U 3 K NIRO	U 3 KS NIRO
	1 Swing-type check valve 1 1/4" (DN 32), PN 4 EN 12050-4	H B D 90 90 1 1/4"	●	●
	Double swing-type check valve 1 1/2" (DN 40), PN 4 for double pump station EN 12050-4	H B D 200 280 1 1/2"	●	●
	2 Stop valve 1 1/4" (DN 32), PN 16	H L D 110 max. 60 1 1/4"	●	●
	1 1/2" (DN 40), PN 16	125 max. 60 1 1/2"	●	●
	3 Elastic connection 1 1/4" (DN 32), PN 3	H D 100 42	●	●
	4 Hose band clamp 1 1/4"		●	●
	5 Cover plate* c/w frame, seal and pipe conduct LW 420		●	●
	Blind plate* c/w frame and seal LW 420		●	●
	6 Hose coupling 1 1/4" (DN 32), brass, for portable use		●	●
	7 Flexible hose 1 1/4" (DN 32), PVC, red, per m, for portable use		●	●
	8 Alarm system with submersible ball contact switch with 3 m cable, separate mainsdependent, with potential free contact		●	●
	Alarm system ditto. with 9,5 m cable		●	●
	Alarm system for washing-machines AW 3 with submersible ball contact switch with 3 m cable, seperate, mainsdependent		●	●
	Alarm system for washing-machines AW 10 ditto, with 9,5 m cable		●	●
	9 Separate level control for single unit		●	●
	NE 1 with subm. ball contact switch 3,0 m		●	●
	NE 2 with subm. ball contact switch 9,5 m		●	●
	NE 1A with subm. ball contact switch 3,0 m and alarm system		●	●
	NE 2A with subm. ball contact switch 9,5 m and alarm system		●	●
	Counterweight (1 piece)		●	●
	Duplex control unit		●	●
	BD 00E		●	●
	Subm. switch pack B with 3 subm. ball contact switches with 9,5 m cable and fixing devices		●	●
Subm. switch pack BmG with 3 subm. ball contact switches with 9,5 m cable and counterweight		●	●	
	10 Rechargeable battery for off the line operation of the alarm system		●	●
	11 Special float for low switching points (Switching hight without GR ON 105 mm, OFF 45 mm; switching hight with GR 32 ON 135 mm, OFF 75 mm)		●	●
	12 Guide rail system GR 32		●	●
	Support for guide rail extension ex 2 m sump depth, per m 1 piece		●	●

* only for single units

Technical data

Pump

Vertical, single-stage, submersible, foot strainer with 10 mm free passage – detachable for activating the low level pumping, volute casing with 1 1/4" (male) radial pressure branch, swing-type check valve, annular case with flushing device for drain cleaning, EIP technology hydraulics with open 5-blade impeller

Bearings

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

Seal

Shaft sealing (3-times) by means of shaft sealing rings and intermediate oil chamber, 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.

Materials

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. guide rail system GR 32

Scope of supply

Pump ready for connection acc. to EN 12050 with 90°, 1 1/4" female connection elbow, cable and plug, S model with automatic level float switch

