

Submersible drainage pumps US 62-251 10 mm free passage

Application

The submersible drainage pumps US 62-251 can be used wherever sewage water with solids up to 10 mm particle size occurs, e.g. in collection sumps for ground water, or in permanent draining systems for clean water, or handling solids in suspension. They are also ideal for pumping the sewage water from collection sumps into which dishwashers or washing machines are discharging. For high temperature hot water in the commercial and industrial field we would recommend the use of our US 73 and 103 HE/HES.

This range of pumps is suitable for stationary and portable use. For easy removal of the pumps from deep sumps we recommend the use of our guide rail systems which provide ease of maintenance and inspection.

For automatic monitoring of the oil chamber a seal leak control can be connected.

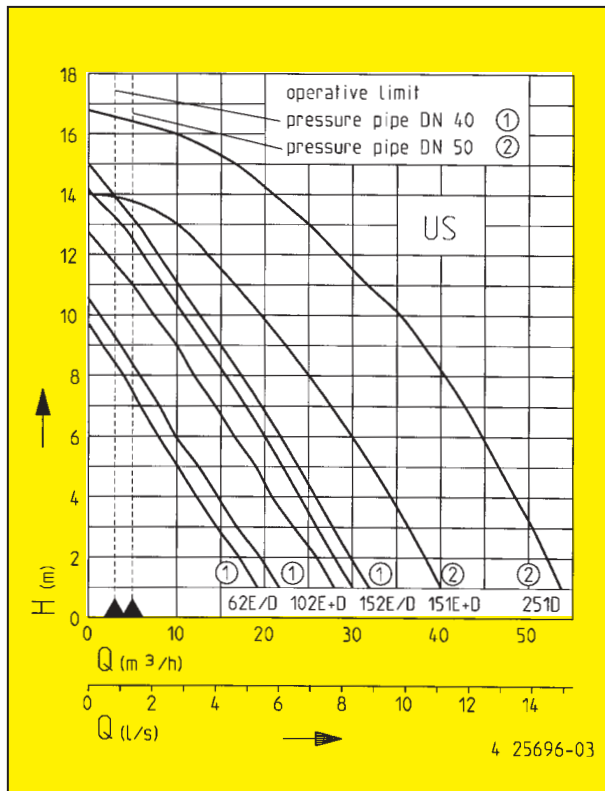
Cable length is 10 m. The 3-phase pumps with built-in level control (US 151, US 152 and US 251) have a CEE-plug with phase inverter.

The sump pumps are tested by the German Institute for Construction Engineering and correspond to the valid construction and test principles.

Pumps must not be used for pumping sewage from domestic toilets and urinals.



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.



- ▶ Safe to run dry
- ▶ Easy to maintain with guide rail system
- ▶ 10 mm free passage
- ▶ Controllable oil chamber
- ▶ SiC mechanical seal independent of rotation direction
- ▶ Moisture sealed cable inlet



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

Submersible drainage pumps US 62-251

Type	Height x Width x Depth	Discharge branch	Free passage	Cable quality HO7RN-F-	Cable with plug	Cable without plug	Weight	Code No
Pumps without level control								
US 62 E	380 x 190 x 210 mm	1 1/2"	10 mm	3G1,0	10 m		12,5 kg	09812
US 62 D	380 x 190 x 210 mm	1 1/2"	10 mm	4G1,0	10 m		13,0 kg	09813
US 102 E	410 x 190 x 210 mm	1 1/2"	10 mm	3G1,0	10 m		14,5 kg	09278
US 102 D	410 x 190 x 210 mm	1 1/2"	10 mm	4G1,0	10 m		15,0 kg	00214
US 152 E	435 x 190 x 210 mm	1 1/2"	10 mm	3G1,0		10 m	17,0 kg	09435
US 152 D	435 x 190 x 210 mm	1 1/2"	10 mm	4G1,0		10 m	18,0 kg	09437
Pumps with built-in level control								
US 62 ES	380 x 225 x 325 mm	1 1/2"	10 mm	3G1,0	10 m		12,5 kg	09814
US 62 DS	380 x 225 x 325 mm	1 1/2"	10 mm	4G1,0	10 m		13,0 kg	09815
US 102 ES	410 x 225 x 325 mm	1 1/2"	10 mm	3G1,0	10 m		14,5 kg	09279
US 102 DS	410 x 225 x 325 mm	1 1/2"	10 mm	4G1,0	10 m		15,0 kg	00218
US 152 ES	435 x 225 x 325 mm	1 1/2"	10 mm	3G1,0	10 m		17,0 kg	09436
US 152 DS	435 x 225 x 325 mm	1 1/2"	10 mm	4G1,0	10 m		18,0 kg	09438
Pumps without level control								
US 151 E	360 x 220 x 310 mm	2"	10 mm	4G1,0		10 m	27,0 kg	09310
US 151 D	360 x 220 x 310 mm	2"	10 mm	6G1,5		10 m	27,5 kg	09300
US 251 D	360 x 220 x 310 mm	2"	10 mm	6G1,5		10 m	27,5 kg	09301
Pumps with built-in level control								
US 151 ES	360 x 220 x 310 mm	2"	10 mm	4G1,0	10 m		29,0 kg	09241
US 151 DS*	360 x 220 x 310 mm	2"	10 mm	6G1,5	10 m		29,5 kg	09243
US 251 DS*	360 x 220 x 310 mm	2"	10 mm	6G1,5	10 m		29,5 kg	09245

* CEE-Motorprotection with phase inverter

Performance

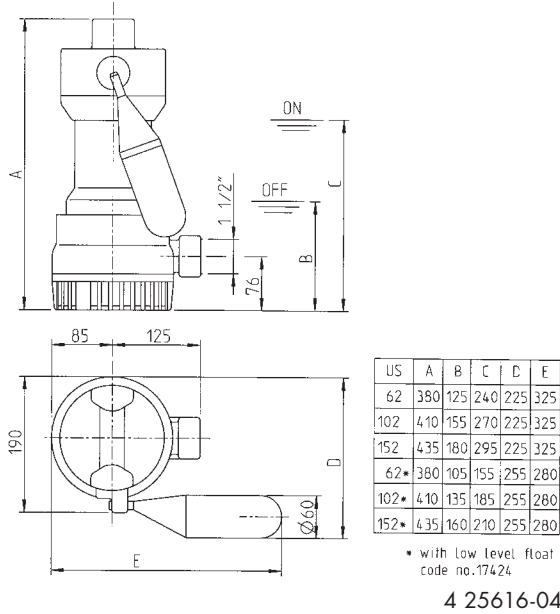
Type	Delivery head H [m]	1	2	3	4	5	6	7	8	9	10	11	12	14	16
US 62 E/ES		19	17	15	12	10	8	6	4	2					
US 62 D/DS		22	20	17	15	12	10	8	6	4					
US 102 E/ES/D/DS		28	26	23	21	19	17	15	12	10	8	5	2		
US 152 E/ES		30	29	27	24	22	20	18	15	13	11	8	6	3	1
US 152 D/DS		31	30	28	26	23	21	19	17	14	12	10	8	5	3
US 151 E/ES/D/DS		40	39	37	35	33	31	29	26	23	20	17	14		
US 251 D/DS		54	52	51	49	47	45	43	40	38	35	32	29	25	21

Electrical data

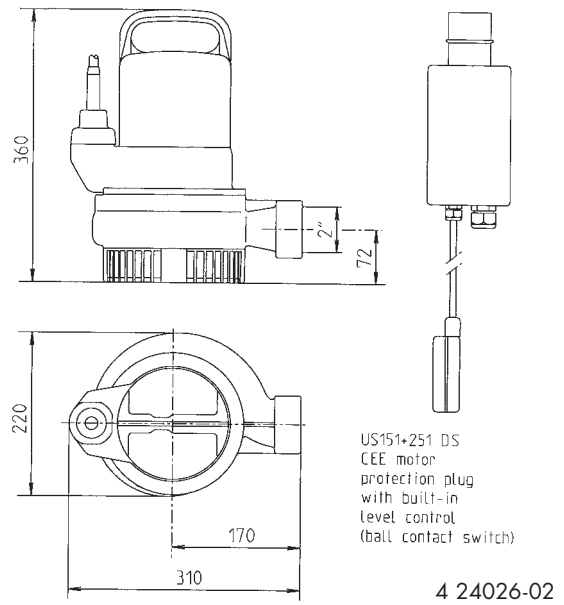
Type	Type of current	Voltage Volt	Motor rating kW P ₁	P ₂	RPM min ⁻¹	F.L.C. Amp.	Motorprotection	Plug
US 62 E/ES	1-phase	1/N/PE~230	0,83	0,50	2510	3,9	in motor	safety
US 62 D/DS	3-phase	3/PE~400	0,85	0,60	2800	1,4	in motor	CEE-
US 102 E/ES	1-phase	1/N/PE~230	1,37	0,98	2700	6,0	in motor	safety
US 102 D/DS	3-phase	3/PE~400	1,36	1,06	2740	2,4	in motor	CEE-
US 152 E	1-phase	1/N/PE~230	1,60	1,21	2814	7,5	in motor*	-
US 152 ES	1-phase	1/N/PE~230	1,60	1,21	2814	7,5	in motor and plug	safety
US 152 D	3-phase	3/PE~400	1,70	1,41	2815	3,1	in motor*	-
US 152 DS	3-phase	3/PE~400	1,70	1,41	2815	3,1	in motor and plug	CEE-
US 151 E	1-phase	1/N/PE~230	1,68	1,19	2812	7,6	external	-
US 151 ES	1-phase	1/N/PE~230	1,68	1,19	2812	7,6	integrated	safety
US 151 D	3-phase	3/N/PE~400	1,60	1,30	2925	3,0	external	-
US 151 DS	3-phase	3/N/PE~400	1,60	1,30	2925	3,0	integrated	CEE-
US 251 D	3-phase	3/N/PE~400	2,60	2,10	2860	4,4	external	-
US 251 DS	3-phase	3/N/PE~400	2,60	2,10	2860	4,4	integrated	CEE-

* Additional requirements, see technical data

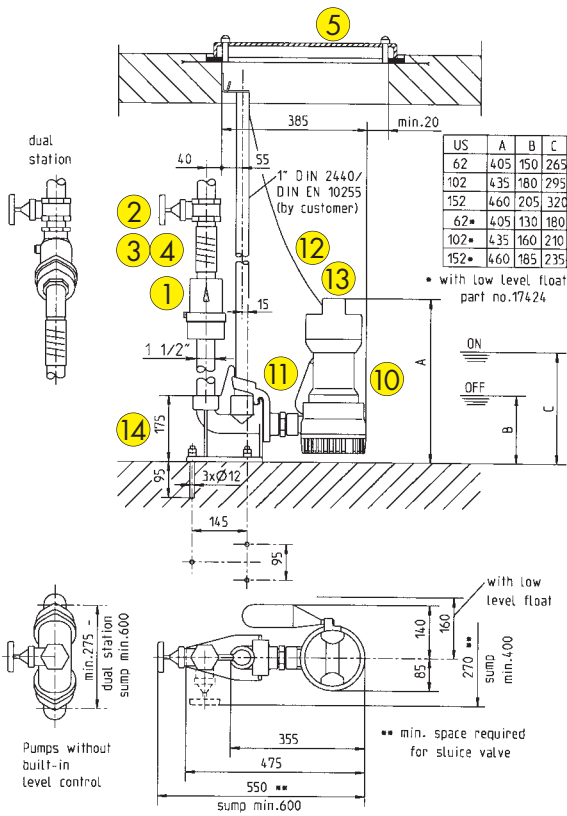
Dimensions (mm) US 62, US 102, US 152



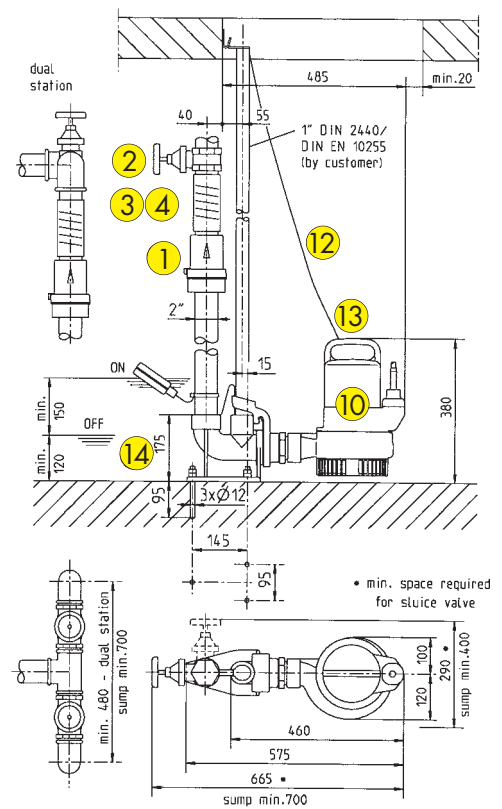
Dimensions (mm) US 151 and US 251



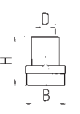
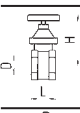





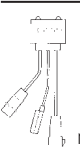






Dimensions (mm) US 62, US 102 and US 152 with GR 40



Dimensions (mm) US 151 and US 251 with GR 50



Accessories

					Code No.	62 E	62 ES	62 D	62 DS	102 E
	1 Swing-type check valve 1 1/2" (DN 40), PN 4	H	B	D	00317	•	•	•	•	•
	EN 12050-4				00326					
	Ball check valve 2" (DN 50), PN 4				09857					
	EN 12050-4									
	Elbow ball check valve 1 1/2" (DN 40), PN 6, DIN EN 12050-4				22442	•	•	•	•	•
Duplex swing-type check valve 1 1/2" (DN 40), PN 4 for double pump station, EN 12050-4				09155	•	•	•	•	•	
	2 Stop valve 1 1/2" (DN 40), PN 16	H	B	D	11837	•	•	•	•	•
	2" (DN 50), PN 16				11838					
	3 Elastic connection 1 1/2" (DN 40), PN 4	H	D		20368	•	•	•	•	•
	2" (DN 50), PN 4				17194					
	4 Hose band clamp 1 1/2"				03571	•	•	•	•	•
	2"				03572					
	5 Cover plate* c/w frame, seal and pipe conduct LW 420				01256	•	•	•	•	•
	Blind plate* c/w frame and seal LW 420				00322	•	•	•	•	•
	6 Elbow 90° 1 1/2"				17894	•	•	•	•	•
	Elbow 90° 2"				14230					
	7 Alarm system with submersible ball contact switch with 3 m cable, separate, mainsdependent, with potential free contact				16723		•		•	
	Alarm system ditto. with 9,5 m cable				24434		•		•	
	Alarm system for washing-machines AW 3 with submersible ball contact switch with 3 m cable, separate, mainsdependent				25090	•	•	•	•	•
	Alarm system for washing-machines AW 10 ditto, with 9,5 m cable				25091	•	•	•	•	•
	8 Separate level controls for single unit									
	NE 1 (1-phase) with sub. ball contact switch 3,0 m				16710	•				•
	NE 2 (1-phase) with sub. ball contact switch 9,5 m				16711	•				•
	ND 1 (3-phase) with sub. ball contact switch 3,0 m				16712			•		
	ND 3 (3-phase) with sub. ball contact switch 9,5 m				16713			•		
	NE 1A (1-phase) with sub. ball contact switch 3,0 m and alarm system				16714	•				•
	NE 2A (1-phase) with sub. ball contact switch 9,5 m and alarm system				16715	•				•
	ND 1A (3-phase) with sub. ball contact switch 3,0 m and alarm system				16716			•		
	ND 3A (3-phase) with sub. ball contact switch 9,5 m and alarm system				16717			•		
	Counterweight (1 piece)				17541	•		•		•
	Duplex control unit									
	BD 00 E (1-phase)				00482	•				•
	BD 00 EC (1-phase)				25709					
	BD 00 (3-phase)				00299			•		
BD 25 (3-phase)				00302						
BD 46 (3-phase)				14358						
Subm. switch pack B with 3 level switches, 9,5 m and fixing devices				16725	•		•		•	
Subm. switch pack BmG with 3 level switches, with 9,5 m and counterweight				16726	•		•		•	
Safety motor protection plug – 230V (without level control)				40264						
Motor protection plug – 8A, 230 (without level control)				40770						
Motor protection plug – 2,5-4A, 400 V (without level control)				40773						
CEE motor protection plug – 400V (without level control)										
2,6–3,7 A				12262						
3,7–5,5 A				12266						
	9 Rechargeable battery for off the line operation of the alarm system				07562	•	•	•	•	•
	10 Seal leak control DKG				00252	•	•	•	•	•
	11 Special float for low switching points				17424		•		•	
	Switching points US 62 ON/OFF									
	without GR 155/105 mm									
	with GR 180/130 mm									
	12 Chain with 2 rings DIN 766, 2,5 m, 320 kg				19189	•	•	•	•	•
	Chain stainless steel with 5 rings, 1 shackle NG 10, DIN 766, 2,5 m, 200 kg				23986	•	•	•	•	•
	13 Shackle A 0,6				13402	•	•	•	•	•
	14 Guide rail system GR 40				25592	•	•	•	•	•
	Guide rail system GR 50				25593	•	•	•	•	•

* only for single units only in connection with an additional motor protection plug

Technical data

Pump

Vertical, single-stage, submersible, open centrifugal impeller with 10 mm free passage.

US 62, US 102 and US 152: volute casing with horizontal discharge branch 1½" female thread.

US 151 and US 251: spiral housing with horizontal discharge branch 2" female thread.

Bearings

Common shaft for pump and motor, arranged in ball bearings, deep groove ball bearing with grease chamber, (US 151 and 251 angular inclined ball bearing).

Seal

Silicon carbide mechanical seal, oil chamber and duplex rotary shaft seal towards the motor section, safe to run dry, a seal leak control can be connected.

Motor

Submersible, motor type of enclosure IP 68, insulation class B or F (US 151 and US 251), winding thermostat protects the motor from overload, starting via plug, automatically via mounted circuit or submersible ball contact switches.

US 152

To protect the motor, a correct adjusted motor protecting switch has to be provided in the control unit at site by the customer.

Materials

Volute casing or spiral housing made of GG grey cast iron, power supply through rubber insulated flexible cable.

US 62, US 102 and US 152: terminal board lid, open centrifugal impeller, wear plate and foot strainer made of GRP, motor casing and shaft from stainless steel.

US 151 and US 251: motor casing, circular casing and cable inlet made of GG grey cast iron, open centrifugal impeller and foot strainer made of GRP, rubbercoated wear plate shaft made of C 45 steel encapsulated.

Installation

Pump can be installed free standing or in connection with guide rail system GR 40 or GR 50.

Supply

Pump acc. to EN 12050 ready for connection with 10 m cable. US 62 and US 102 with safety plug (1-phase) or CEE-Plug (3-phase).

US 151, US 152 and 251: Pumps without level control with free lead end. Pump with built-in level control with CEE-Plug and phase inverter (3-phase) or safety-plug (1-phase).