

# Clean results that you can rely on

Lutz vertical eccentric screw pumps are suitable for pumping media ranging from aqueous through to highly viscous Newtonian and non-Newtonian media. The pumps are suitable for abrasive media and media containing solids, but also for neutral, aggressive and easily combustible liquids under high pumping pressure.

- Variable flow rate
- Large pumping volume
- Self-priming
- Dynamic shaft seal
- Practically no shearing effect on the pump medium
- Gentle and practically pulsation-free pumping
- Variable drive concept





# Our expectation: To meet standards and set benchmarks

# **Function:** • The eccentric screw rotates in an elastomer or solids stator. • The rotation leads to chambers being formed in which the media are enclosed and carried forwards. • Gentle low-pulsation pumping principle with little shearing effect. • Thanks to the immersed vertical set-up in the container opening, the pump works in inlet operation and can be used immediately. • There is no suction line, meaning that you don't have to worry about having to evacuate it in advance, and no loss in suction pressure. Industries: The pumps are used for a multitude of purposes in the chemistry and petrochemistry, paint and lacquer, food and beverage, and pharmaceuticals and cosmetics industries.



# The Lutz Highlights

# A clear plus when it comes to profitability and saving time

For many years, Lutz Eccentric Screw Pumps of series B70V have established themselves in pumping a wide range of media in all industrial sectors. With innovative new products and a holistic application-oriented solution concept, Lutz has once again expanded its range of eccentric screw pumps for pumping viscous media in terms of performance, flexibility and reliability.

The Lutz highlights and new developments prove their worth particularly when it comes to specific customer requests and changing application conditions.



### Variable speed control

- Flow rate can be infinitely adjusted to the working conditions (viscosity, flowability)
- The pump and pumping line are easy to empty by reversing the rotating direction
- Custom parameterisation using free-of-charge PC software or a remote control
- The basic settings and presets can be set and selected conveniently (start/stop, pump or emptying mode)
- High flexibility for changing application conditions



■ Provided as standard on the B70V-D and B70V-D Sanitary series



# The Lutz Highlights

### New benchmarks when it comes to tank drainage





### The intelligent solution: B70V 75.1

- First eccentric screw drum pump with a up to flow rate of 75 l/min from a bunghole drum
- Special rotor/stator geometry with 50% greater flow rate while maintaining the same dimensions

### The new development: B70V 120.1

- For pumping highly viscous and pasty media, through to the flowability limit
- Safe product removal from bung-lid drums, IBC containers and stationary containers with a up to flow rate of 120 l/min
- Generously dimensioned pumping geometry enables low speed to protect the product
- Hollow rotor for improved smooth running while at the same time reducing weight



### Contact-free indirect measurement





- Flow measurement without direct contact with the medium ideal for highly viscous, solid-containing and shear-sensitive media
- Also for hygienic, care-intensive applications in the food-, pharmaceuticaland cosmetics industry
- Easy evaluation and control with Lutz operating unit BE 10 with touchscreen display and plain text menu navigation (evaluating units and external control provided by the customer possible)
- Automatic filling of pre-selected quantities (batch function) with Lutz relay module RM10
- All live-/data elements on the motor-lifting device unit, pump tube can be detached by a quick-action coupling

■ Pump tube without electronic parts — for a careful cleaning and disinfection, also by water jet or cleaning machine. 32.8 L

- ✓ High precision
- ✓ Contact-free
- ✓ Wear-free
- ✓ Hygienically designed
- ✓ Easy-to-clean
- ✓ Free from pressure loss
- ✓ Mobile and versatile



in PURE version

#### Lutz HD-E and B70V in PURE version

Pumps and flow meters in contact with food products are considered to be "food contact materials" and are thus subject to strict legal regulations.

The new Lutz B70V PURE series includes products which are in accordance with ATEX Directives as well as with FDA Regulation and European Regulation according to 1935/2004/EC.





- Gentle pumping of viscous and shear-sensitive media
- Physiologically safe type
- ✓ High surface quality
- **▼** Food-safe connections
- Quick to dismantle, easy to clean
- Also for alcoholic food products, cosmetics and pharmaceuticals and flammable cleaning products



The "food safe" sign or "glass and fork" symbol stands for suitability for foodstuffs. This symbol denotes products which were tested to determine their physical and chemical composition and have been found to be safe for contact with food in accordance with the requirements of Regulation (EC) 1935/2004.



The Food and Drug Administration in the USA certifies materials and substances and also defines limit values for extractable substances which must be complied with, as is the case with elastomers for aqueous or fatty food products (21 CFR 177.2600).



Lutz pumps from the PURE series are also available in an explosion-proof version in accordance with ATEX Directive 94/9/EC. They are well-suited for pumping highly flammable media in food and beverage production, such as alcohols, essential oils and flavourings, as well as cleaning products and disinfectants used for cleaning purposes.



The 3-A symbol serves to identify operating equipment which conforms to the 3-A sanitary standards in terms of design and production.

The 3-A guidelines apply to the design, production and cleaning options for the daily food accessories used in the handling, production and packaging of edible products with stringent hygiene requirements.







# **Lutz B70V Sanitary:**

# Designed according to the latest directives for the high requirements of the food, beverage, pharmaceutical, and cosmetics industry

State of the art: the Lutz B70V Sanitary is certified according to the "3-A Sanitary Standards for Centrifugal and Positive Rotary Pumps, Number 02-10".

The new design provides a high level of machining on all liquid contact surfaces and ensures reliability with low maintenance and full manual cleaning.

The entire design of the Lutz B70V Sanitary places practical use in the foreground: therefore, only manually detachable, thread-free connections have been used in the areas in contact with the medium. The Lutz B70V Sanitary is easy and fast to dismantle for thorough mechanical cleaning and to reassemble.

An open type spring loaded mechanical seal is available or optionally a closed version to avoid direct contact with the product.

All materials and the seal designs conform to 3-A Sanitary Standard.

Lutz pumps from the Sanitary series are tested and approved in accordance with ATEX Directive 94/9/EC for the use in explosion hazardous areas. They are well-suited for pumping highly flammable media in food and beverage production, such as alcohols, essential oils and flavourings, as well as cleaning products and disinfectants used for cleaning purposes.





Series B70V



A tactically clever development: The HD-E simply conveys the benefits of the drum pump for thinbodied fluids to the semi-viscous range – in fact even tailored to the specific requirements. Not only is this pump convincing in terms of power, it is also very easy to handle. The other benefits are quite obvious as well: The HD-E features an outer tube that is easy to detach, a bearing head with a mechanical seal and a freewheeling shaft with an eccentric screw gear acting as pumping element – all of which is easy to detach and to clean. The delivery rate amounts up to 20 l/min. with a delivery head of up to 4 bar. Drive: 230 V AC voltage.

This convenient and powerful pump will take you "through thick and thin". It covers an enormous range: The B70 V-SR is suitable for agueous to highly-viscous substances with or without fibrous or solid matters. The pump is either air operated or with 230 V AC voltage (different voltages and frequencies on request), which makes it the ideal partner, even in mobile applications. The delivery rate amounts up to 50 l/min. with a delivery head of up to 6 bar.

#### Robust and versatile: Lutz B70V-D

A powerful pump that is an ideal match for semiviscous or even highly viscous, tough substances right up to their flowability limits (to 100,000 mPas). Another benefit: The B70V-D has a capacity of up to 75 l/min with a delivery head of up to 10 bar. The power transmission from the motor to the eccentric screw gear is implemented through a torsion shaft or a universal joint shaft. You can choose between air operation or 400 V three-phase.

# Taking the right turn

### A strong team for demanding tasks

#### Strength in tranquillity

Lutz Eccentric Screw Pumps are absolute specialists when it comes to pumping media gently. They sustain low amounts of wear, are robust and operationally safe, and are easy to dismantle and clean.



### Gentle, reliable and hygienic: Lutz B70V Sanitary

Approved according to the 3-A Sanitary Standard, the pump has been designed according to the latest directives for the high demands in the food, pharmaceuticals and cosmetics industry. The new design provides a high level of machining on all liquid contact surfaces and ensures reliability with low maintenance and full manual cleaning. The pump can be dismantled simply; the drive motor can be separated from the pump tube instantly thanks to the new quick-action coupling. With a flow rate of 12 to 75 l/min. and an operating pressure of up to 10 bar, the Lutz B70V Sanitary is optimally suitable for pumping thin-bodied to highly viscous media gently.



### Up to the challenge: Lutz B70V-HD

Developed for special requirements, and suitable with viscous, tacky, crystallizing, contaminated or thermosetting fluids such as paints and lacquers. The constant rinse flow through the circulation/flushing connection prevents blockages and material deposits in the mechanical seal area. The pump can be cleaned simply and is Atex-approved. Driven by 3-phase/compressed air motors (B70V-HD-D, DA) or universal motors (B70V-HD-SR).



#### Our top performer: Lutz B70V 120.1

When you're in the thick of it: for pumping highly viscous and pasty media through to the flowability limit with a flow rate of 120 l/min. It is driven by speed-reduced 3-phase current motors. A robust, independent lantern mounted on roller bearings with torsionally flexible claw-type coupling ensures secure power transmission from the IEC drive motors to the pump hydraulics. The pump can also be easily dismantled thanks to tri-clamp connections.

#### Lutz HD-E



# The intelligent solution for the pumping of medium-viscosity liquids.

High efficiency, handy, low weight and easily disassembled for easy cleaning make the Lutz HD-E a practical drum pump system especially for medium-viscosity liquids.

It is suitable for pumping of acid and basic liquids, oils, used oil, waste disposal liquids, colours, foodstuffs, cosmetics and creams.

- Light and compact
- ✓ Simple and easily dismantled
- Easy to clean
- ✓ Suitable for continuous operation
- Practical Lutz-hand wheel for motor separation and to carry
- ✓ Smooth flow
- For thin and thick liquids
- ✓ Constant volumetric flow

Category 1 / 2 (acc. to ATEX)  Immersion tube diameter: up to mm  Temperature of medium: up to °C	no 41
	/11
Temperature of medium: up to °C	41
Tomporator or modition	100
· ·	steel (1.4571) PTFE
	9-32 1 1/4
Length: 1000 mm Order-No.	55-010

Choice of motors	Operating data	
Single phase motor  Output: 0.55 kW  Voltage: 230 V  Speed: 1500 1/min.  Protection class: IP 54  Order-No. 0155-032	Delivery rate up to I/min.  Delivery head up to bar  Viscosity mPas  Weight (kg) Motor + pump tube	20 4 500-4000 11.5

▲ PURE version Tri-Clamp DN 32

### for viscosities from 500 to 4000 mPas

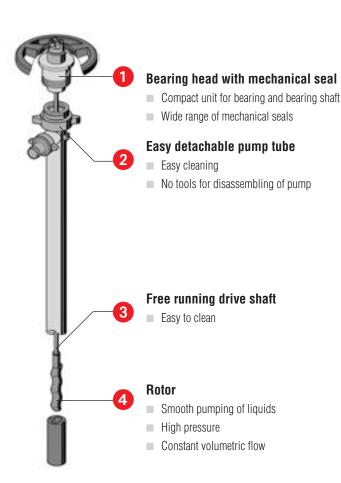
#### Materials (coming into contact with the pumped medium)

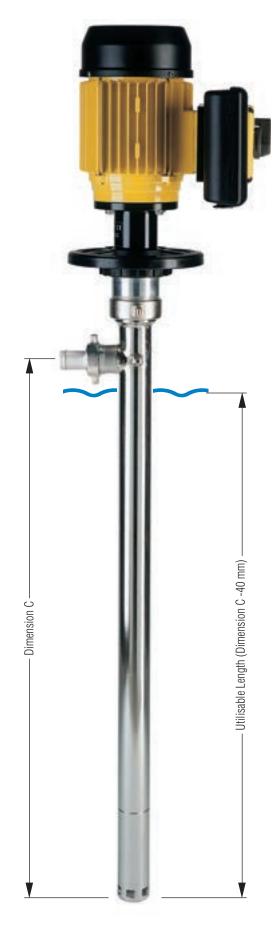
Version:	HD-E	HD-E PURE
Pump tube:	Stainless steel (1.4571)	Stainless steel (1.4571)
Stator:	PTFE	PTFE
Mechanical seal:	Carbon/CrMo-casting (Bellows constr.)	Stainless steel/Carbon/ EPDM-FDA
Secondary seal:	Viton®	EPDM
Drive shaft:	Stainless steel (1.4571)	Stainless steel (1.4571)

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Pump tube in PURE version also available with Tri-Clamp-connection. All materials coming into contact with the pumped medium are physiologically safe. The pump tubes are mainly used in the food-, cosmetics- and pharmaceutical industry.





### B70V-SR and B70V HD-SR 12.1 and 25.1

#### Productdetail



Pump tube	e B70V-SR						
Size		12.1	12.1	12.1	25.1	25.1	25.1
Seal Packing gland Mechanical seal	(St) (MS)	MS	MS	St	MS	MS	St
Drive shaft Torsion shaft Universal joint sl	(TS) naft (UJ)	TS	UJ	UJ	TS	UJ	UJ
Delivery rate*	up to I/min.	12	12	12	25	25	25
Delivery head*	up to bar	6	6	6	8	8	8
Temp. of medium**	up to °C	140	140	140	140	140	140
Material pump tube		1.4571	1.4571	1.4571	1.4571	1.4571	1.4571
Immersion tube diameter	mm	54	54	54	54	54	54
Pressure joint ▲	Outer thread	G 1 1/2					
Weight	kg	7	7	7	7	7	7
Length***	mm	1000	1000	1000	1000	1000	1000
Stator NBR light (T max. 80 °C)	Order-No.	-	-	-	0174-131	0174-141	0174-121
Stator Viton® (T max. 140 °C)	Order-No.	-	-	-	0174-132	0174-142	0174-122
Stator PTFE (T max. 140 °C)	Order-No.	0174-014	0174-024	0174-004	0174-134	0174-144	0174-124
B70V HD-SR Stator PTFE (T max. 100 °C	Order-No.		0174-026			0174-146	

- \* Determined with water at 20 °C, three-phase motor (900 rpm) and elastomer stator
- Combination of packing gland and torsion shaft on request
- \* with PTFE Stator (the medium temperature of explosion proof eccentric screw pumps B70 may not exceed 100°C)
- \*\*\* Special length 500 2000 mm on request (version with joint shaft only)



Explosion proof eccentric screw pump approved category 1 / 2 (acc. to ATEX)
 for pumping inflammable liquids of the explosion group IIA (B70V-SR) or IIB (B70V HD-SR) and temperature class T4

#### **Choice of motors**



Universal motors non-ex. proof	MI 4	MI 4-E	MAII3	MA II 5	MAII7
Type Protection class/Weight	500 W, 230 V IP 24 2.8 kg	500 W, 230 V IP 24 2.8 kg with speed contr.	460 W, 230 V IP 54 4.6 kg	575 W, 230 V IP 54 5.4 kg	795 W, 230 V IP 54 6.6 kg
Order-No. (without low-voltage release) Order-No. (with low-voltage release)	0030-000	0030-001	0060-000 0060-008	0060-001 0060-009	0060-002 0060-010



Universal motors explosion proof	ME II 3	ME II 5	ME II 7	ME II 8
Туре	460 W, 230 V	580 W, 230 V	795 W, 230 V	930 W, 230 V
Protection class/Weight	IP 54 5.5 kg	IP 54 6.3 kg	IP 54 7.5 kg	IP 54 8 kg
Order-No. (with low-voltage release)	0050-000	0050-001	0050-002	0050-042
Order-No. (without low-voltage release)	0050-016	0050-017	0050-018	0050-041



Compressed air motors	MD-1	MD-2	MD-3
Туре	400 W	400 W	400 W
Operating pressure:	6 bar	6 bar	6 bar
Weight	1.1 kg	1.5 kg	2.1 kg
Order-No.	0004-087	0004-088	0004-090

<sup>▲</sup> PURE version Tri-Clamp DN 50 Different voltages and frequencies on request

## B70V-SR and B70V HD-SR 12.1 and 25.1

### for viscosities from 1 - 30,000 mPas

#### Materials (coming into contact with the pumped medium):

Version:	B70V-SR 12.1/25.1	B70V HD-SR 12.1/25.1	B70V-SR PURE 12.1/25.1
Housing:	Stainless steel (1.4571)	Stainless steel (1.4571)	Stainless steel (1.4571)
Rotor:	Stainless steel (1.4571)	Stainless steel (1.4571)	Stainless steel (1.4571)
Seals:	FPM (Viton®)	FPM (Viton®)	FPM (Viton®) or EPDM
Mechanical seal:	Carbon/CrMo-casting, Viton®	WC/WC/EPDM	WC/SiC/FKM-FDA or EPDM-FDA
Packing gland:	PTFE Soft packing safe for use with foodstuffs	-	-
Drive shaft:	Stainless steel (1.4571)	Stainless steel (1.4571)	Stainless steel (1.4571)
Stator material:	NBR light, Viton®, PTFE	PTFE	PTFE

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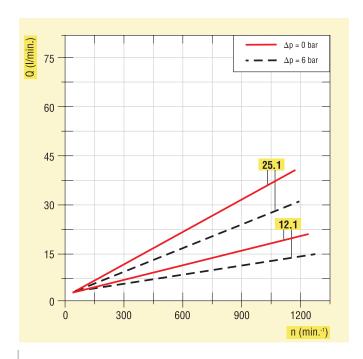
Pump tube with PTFE stator, also available in PURE version with Tri-Clamp-connection. The pump tubes are mainly used in the food-, cosmetics- and pharmaceutical industry.

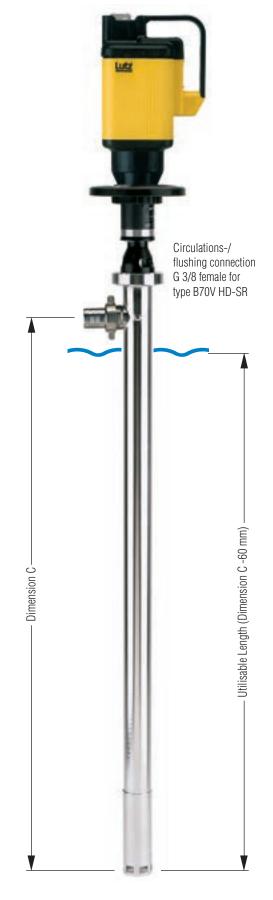
#### **Important Information!**

When pumping in "Zone O" areas or pumping flammable liquids only pumps with mechanical seal , universal joint shaft and PTFE stator are approved.

Viscosity range from aqueous to fluidity range.

Medium table with liquid examples see chemical resistance table.





### B70V-SR and B70V HD-SR 50.1

#### Productdetail

Pump tube			B70V-SR	
Size		50.1	50.1	50.1
Seal Packing gland Mechanical seal	(St) (MS)	MS	MS	St
Drive shaft Torsion shaft Universal joint s	(TS) haft (UJ)	TS	UJ	UJ
Delivery rate*	up to I/min.	50	50	50
Delivery head*	up to bar	8	8	8
Temp. of medium**	up to °C	140	140	140
Material pump tube		1.4571	1.4571	1.4571
Immersion tube diameter	mm	54	54	54
Pressure joint ▲	Outer thread	G 1 1/2	G 1 1/2	G 1 1/2
Weight	kg	7	7	7
Length***	mm	1100	1100	1100
Stator NBR light (T max. 80 °C)	Order-No.	0174-511	0174-521	0174-501
Stator Viton® (T max. 140 °C)	Order-No.	0174-512	0174-522	0174-502
Stator PTFE (T max. 140 °C)	Order-No.	0174-514	0174-524	0174-504
B70V HD-SR Stator PTFE (T max. 100 °C	Order-No.		0174-526	

- Combination of packing gland and torsion shaft on request.
- Determined with water at 20 °C, three-phase motor (900 rpm) and elastomer stator

  With PTFE Stator (the medium temperature of explosion proof eccentric screw pumps B70 may not exceed 100°C)

  Special length 500 2000 mm on request (version with joint shaft only)



Explosion proof eccentric screw pump approved category 1 / 2 (acc. to ATEX) for pumping inflammable liquids of the explosion group IIA (B70V-SR) or IIB (B70V HD-SR) and temperature class T4

#### **Choice of motors**



Universal motors non-ex. proof	MI 4	MI 4-E	MAII3	MA II 5	MA II 7
Туре	500 W, 230 V	500 W, 230 V	460 W, 230 V	575 W, 230 V	795 W, 230 V
Protection class/Weight	IP 24 2.8 kg	IP 24 2.8 kg	IP 54 4.6 kg	IP 54 5.4 kg	IP 54 6.6 kg
	-	with speed contr.			
Order-No. (without low-voltage release)	0030-000	0030-001	0060-000	0060-001	0060-002
Order-No. (with low-voltage release)	-	-	0060-008	0060-009	0060-010



Universal motors explosion proof	ME II 3	ME II 5	ME II 7	ME II 8
Туре	460 W, 230 V	580 W, 230 V	795 W, 230 V	930 W, 230 V
Protection class/Weight	IP 54 5.5 kg	IP 54 6.3 kg	IP 54 7.5 kg	IP 54 8 kg
Order-No. (with low-voltage release)	0050-000	0050-001	0050-002	0050-042
Order-No. (without low-voltage release)	0050-016	0050-017	0050-018	0050-041



Compressed air motors	MD-1	MD-2	MD-3
Туре	400 W	400 W	400 W
Operating pressure:	6 bar	6 bar	6 bar
Weight	1.1 kg	1.5 kg	2.1 kg
Order-No.	0004-087	0004-088	0004-090

<sup>▲</sup> PURE version Tri-Clamp DN 50 Different voltages and frequencies on request

## B70V-SR and B70V HD-SR 50.1

### for viscosities from 1 - 20,000 mPas

#### Materials (coming into contact with the pumped medium):

Version:	B70V-SR 50.1	B70V HD-SR 50.1	B70V-SR PURE 50.1
Housing:	Stainless steel (1.4571)	Stainless steel (1.4571)	Stainless steel (1.4571)
Rotor:	Stainless steel (1.4571)	Stainless steel (1.4571)	Stainless steel (1.4571)
Seals:	FPM (Viton®)	FPM (Viton®)	FPM (Viton®) or EPDM
Mechanical seal:	Carbon/CrMo-casting, Viton®	WC/WC/EPDM	WC/SiC/FKM-FDA or EPDM-FDA
Packing gland:	PTFE Soft packing safe for use with foodstuffs	-	-
Drive shaft:	Stainless steel (1.4571)	Stainless steel (1.4571)	Stainless steel (1.4571)
Stator material:	NBR light, Viton®, PTFE	PTFE	PTFE

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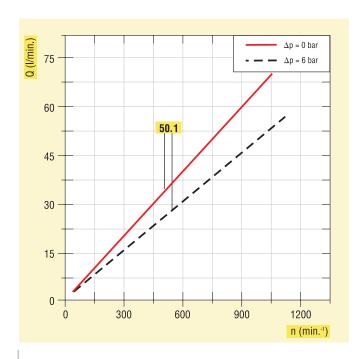


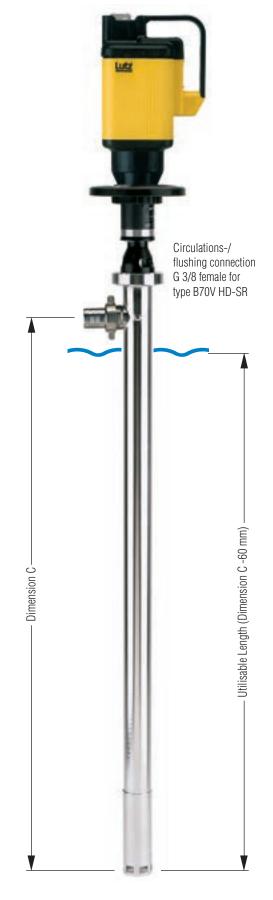
Pump tube with PTFE stator, also available in PURE version with Tri-Clamp-connection. The pump tubes are mainly used in the food-, cosmetics- and pharmaceutical industry.

#### **Important Information!**

When pumping in "Zone O" areas or pumping flammable liquids only pumps with mechanical seal , universal joint shaft and PTFE stator are approved.

Viscosity range from aqueous to fluidity range. Medium table with liquid examples see chemical resistance table.





### B70V 12.1 and 25.1

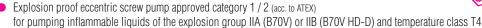
Productdetail	Pump tube					B70V			
787	Size		12.1	12.1	12.1	25.1	25.1	25.1	25.1 Steel
*	Seal Packing gland Mechanical s		MS	MS	St	MS	MS	St	MS
1	Drive shaft  Torsion shaft  Universal join	(TS) t shaft	TS (UJ)	UJ	UJ	TS	UJ	UJ	TS
	Delivery rate*	up to I/min.	12	12	12	25	25	25	25
	Delivery head*	up to bar	6	6	6	8	8	8	8
	Temp. of medium**	up to °C	140	140	140	140	140	140	80
	Material pump tube		1.4571	1.4571	1.4571	1.4571	1.4571	1.4571	Galv. Steel
	Immersion tube diameter	mm	54	54	54	54	54	54	54
	Pressure joint ▲	Outer thread	G 1 1/2	G 1 1/2	G 1 1/2	G 1 1/2	G 1 1/2	G 1 1/2	G 1 1/2
- 111	Weight	kg	7	7	7	7	7	7	7
10	Length***	mm	1000	1000	1000	1000	1000	1000	1000
	Stator NBR light (T max. 80 °C)	Order-No.	-	-	-	0172-121	0173-131	0173-121	0171-121
	Stator Viton® (T max. 140 °C)	Order-No.	-	-	-	0172-122	0173-132	0173-122	0171-122
	Stator PTFE (T max. 140 °C)	Order-No.	0172-004	0173-014	0173-004	0172-124	0173-134	0173-124	0171-124
	B70V HD-D Stator PTFE (T max. 140 °V * Determined with water at 20 °C,			0173-016		on of packing gland	0173-136		

with PTFE Stator (the medium temperature of explosion proof eccentric screw pumps B70 may not exceed 100°C)

\*\*\* Special length 500 - 2000 mm on request (version with joint shaft only)

**Choice of motors** 

Ex





Three-phase motor 230/400 V, 50 Hz Efficiency level IE 2 (≥ 0.75 kW) according to directive 2005/32/EC.

Special voltages, frequencies, protection classes as well as higher explosion proof protection classes on request.

	Motors with cable terminal box	For B70V - 12.1		For B70V - 25.1	
	Туре	0.37 kW, 700 1/min.	0.55 kW, 900 1/min.	0.55 kW, 700 1/min	0.75 kW, 900 1/min.
	Protection class/Weight	IP 55 15.7 kg	IP 55 11.3 kg	IP 55 15.7 kg	IP 55 17.3 kg
	Order-No.	0172+803	0172+806	0172+809	0172+812
	Motors with protection switch	For B70V - 12.1		For B70V - 25.1	
	Туре	0.37 kW, 700 1/min.	0.55 kW, 900 1/min.	0.55 kW, 700 1/min	n. 0.75 kW, 900 1/min.
	Protection class/Weight	IP 54 15.7 kg	IP 54 11.3 kg	IP 54 15.7 kg	IP 54 17.3 kg
	Order-No.	0172+802 0172+805		0172+808	0172+811
	Motors, explosion proof	For B70V - 12.1		For B70V - 25.1	
	Туре	0.37 kW, 700 1/min.	0.55 kW, 900 1/min.	0.55 kW, 700 1/min	o. 65 kW, 900 1/min.
	Protection class	II 2 G Ex e II T3	II 2 G Ex e II T3	II 2 G Ex e II T3	II 2 G Ex e II T3
	Protection class/Weight	IP 54 16.4 kg	IP 54 17.2 kg	IP 54 18 kg	IP 54 15.3 kg
	Order-No.	0172-801	0172-804	0172-807	0172-810
	Motors with frequency converter	For B70V - 12.1	For B70V - 2	25.1	
n	Туре	0,55 kW, 0-900 1/min.	0,55 kW, 0-90	0 1/min. 0,75	kW, 0-900 1/min.
	Protection class/Weight	IP 54 13.5 kg	IP 54 13.5	kg IP 5	4 15 kg
	Order-No	0172-769	0172-769	017	2-768



Compressed air motors	For B70V - 12.1	For B70V - 25.1
Type	4 DA, 0.45 kW, 900 1/min., Weight 5 kg,	6 DA, 1.0 kW, 900 1/min., Weight 10 kg,
	Operating pressure at 6 bar,	Operating pressure at 6 bar,
	Air consumption 55 Nm <sup>3</sup> /h, 87 dB (A)	Air consumption 80 Nm <sup>3</sup> /h, 87 dB (A)
Air supply thread	G 3/8	G 1/2
Order-No.	0172-821	0172-822

Compressed air motors with muffler up to an operation pressure at 7 bar, recommended speed (200 - 900 1/min).

<sup>▲</sup> PURE version Tri-Clamp DN 50

### for viscosities from 1 - 100,000 mPas

#### Materials (coming into contact with the pumped medium):

Version:	B70V 12.1/25.1	B70V 25.1 Steel	B70V HD 12.1/25.1	B70V PURE 12.1/25.1
Housing:	SS (1.4571)	galvanized steel	SS (1.4571)	SS (1.4571)
Rotor:	SS (1.4571)	soft-nitrided steel	SS (1.4571)	SS (1.4571)
Seals:	FPM (Viton®)	FPM (Viton®)	FPM (Viton®)	FPM (Viton®) or EPDM
Mechanical seal:	Carbon/CrMo-casting, Viton® (optional SiC/SiC, Viton®	Carbon/CrMo-casting, Viton® (optional SiC/SiC, Viton®	WC/WC/EPDM	WC/SiC/FKM-FDA or EPDM-FDA
Packing gland:	PTFE Soft packing safe for use with food-stuffs	-	-	-
Drive shaft:	SS (1.4571)	galvanized steel	SS (1.4571)	SS (1.4571)
Stator material:	NBR light, Viton®, PTFE	NBR light, Viton®, PTFE	PTFE	PTFE

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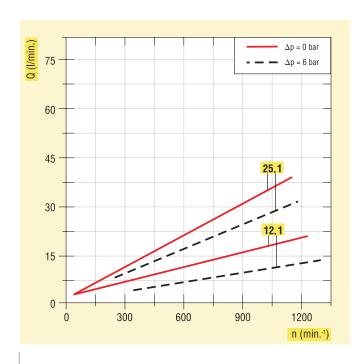
Pump tube with PTFE stator, also available in PURE version with Tri-Clamp-connection. The pump tubes are mainly used in the food-, cosmetics- and pharmaceutical industry.

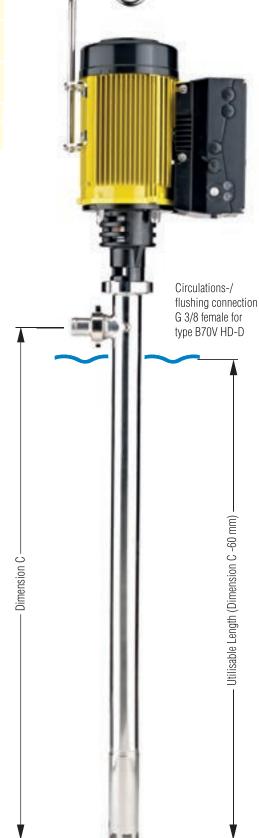
#### **Important Information!**

When pumping in "Zone O" areas or pumping flammable liquids only pumps with mechanical seal , universal joint shaft and PTFE stator are approved.

Viscosity range from aqueous to fluidity range.

Medium table with liquid examples see chemical resistance table.





### B70V 25.2 and 50.1

Productdetail	Pump tube				B7	70V		
	Size		25.2	25.2	25.2	50.1	50.1	50.1
*	Seal Packing gland Mechanical seal	(St) (MS)	MS	MS	St	MS	MS	St
	Drive shaft Torsion shaft Universal joint sha	(TS) ft (UJ)	TS	UJ	UJ	TS	UJ	UJ
	Delivery rate*	up to I/min.	25	25	25	50	50	50
	Delivery head*	up to bar	10	10	10	8	8	8
	Temp. of medium**	up to °C	140	140	140	140	140	140
	Material pump tube		1.4571	1.4571	1.4571	1.4571	1.4571	1.4571
	Immersion tube diameter	mm	54	54	54	54	54	54
	Pressure joint ▲	Outer thread	G 1 1/2					
- 111	Weight	kg	7	7	7	7	7	7
- 8	Length***	mm	1100	1100	1100	1100	1100	1100
	Stator NBR light (T max. 80 °C)	Order-No.	-	-	-	0172-501	0173-511	0173-501
	Stator Viton® (T max. 140 °C)	Order-No.	-	-	-	0172-502	0173-512	0173-502
	Stator PTFE (T max. 140 °C)	Order-No.	0172-254	0173-264	0173-254	0172-504	0173-514	0173-504
	B70V HD-D Stator PTFE (T max. 140 °C	Order-No.		0173-266			0173-516	

Combination of packing gland and torsion shaft on request

Determined with water at 20 °C, three-phase motor (900 rpm) and elastomer stator

Combination with PTFE Stator (the medium temperature of explosion proof eccentric screw pumps B70 may not exceed 100°C)

Special length 500 - 2000 mm on request (version with joint shaft only)



Explosion proof eccentric screw pump approved category 1 / 2 (acc. to ATEX) for pumping inflammable liquids of the explosion group IIA (B70V) or IIB (B70V HD-D) and temperature class T4

#### **Choice of motors**



Three-phase motor 230/400 V, 50 Hz Efficiency level IE 2 (≥ 0.75 kW) according to directive 2005/32/EC.

Special voltages, frequencies, protection classes as well as higher explosion proof protection classes on request.

Motors with cable terminal box	For B70V - 25.2 and B70V -	50.1	
Туре	0.75 kW, 700 1/min.	1.1 kW, 700 1/min.	1.1 kW, 900 1/min.
Protection class/Weight	IP 55 17.3 kg	IP 55 21 kg	IP 55 21.1 kg
Order-No.	0172+815	0172+826	0172+818
Motors with protection switch	For B70V - 25.2 und B70V -	50.1	
Туре	0.75 kW, 700 1/min.	1.1 kW, 700 1/min.	1.1 kW, 900 1/min.
Protection class/Weight	IP 54 17.3 kg	IP 54 21 kg	IP 54 21.1 kg
Order-No.	0172+814	0172+825	0172+817
Motors, explosion proof	For B70V - 25.2 und B70V -	50.1	
Туре	0.65 kW, 700 1/min.	1.0 kW, 900 1/min.	
Protection class	II 2 G Ex e II T3	II 2 G Ex e II T3	
Protection class/Weight	IP 54 20 kg	IP 54 20 kg	
Order-No.	0172-813	0172-816	
Motors with frequency converter	For B70V - 25.2 and B70V -	50.1	
Туре	0,75 kW, 0-900 1/min.	1,1 kW, 0-900 1/min.	
Protection class/Weight	IP 54 15 kg	IP 54 20 kg	
Order-No.	0172-768	0172-767	



Compressed air motors	For B70V - 25.2 / 50.1
Type	<b>8 DA,</b> 1.7 kW, 900 1/min., Weight 14 kg
	Operating pressure at 6 bar, Air consumption 130 Nm <sup>3</sup> /h, 102 db (A)
Air supply thread	G 1/2
Order-No.	0172-823

Compressed air motors with muffler up to an operation pressure at 7 bar, recommended speed (200 - 900 1/min).

<sup>▲</sup> PURE version Tri-Clamp DN 50

### for viscosities from 1 - 100,000 mPas

#### Materials (coming into contact with the pumped medium):

Version:	B70V 25.2/50.1	B70V HD-D 25.2/50.1	B70V PURE 25.2/50.1
Housing:	Stainless steel (1.4571)	Stainless steel (1.4571)	Stainless steel (1.4571)
Rotor:	Stainless steel (1.4571)	Stainless steel (1.4571)	Stainless steel (1.4571)
Seals:	FPM (Viton®)	FPM (Viton®)	FPM (Viton®) or EPDM
Mechanical seal:	Carbon/CrMo-casting, Viton®	WC/WC/EPDM	WC/SiC/FKM-FDA or EPDM-FDA
Packing gland:	PTFE Soft packing safe for use with foodstuffs	-	-
Drive shaft:	Stainless steel (1.4571)	Stainless steel (1.4571)	Stainless steel (1.4571)
Stator material:	NBR light, Viton®, PTFE	PTFE	PTFE

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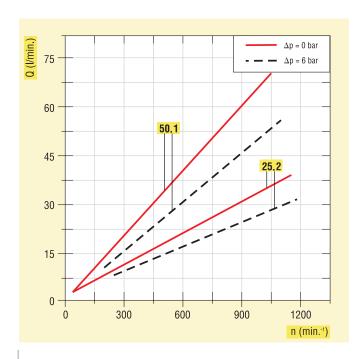
Pump tube with PTFE stator, also available in PURE version with Tri-Clamp-connection. The pump tubes are mainly used in the food-, cosmetics- and pharmaceutical industry.

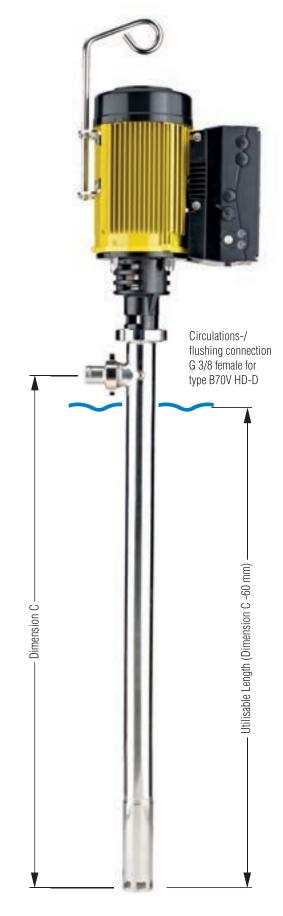
#### **Important Information!**

When pumping in "Zone O" areas or pumping flammable liquids only pumps with mechanical seal , universal joint shaft and PTFE stator are approved.

Viscosity range from aqueous to fluidity range.

Medium table with liquid examples see chemical resistance table.





#### B70V 75.1

Productdetail	Pump tube		B70V
787	Size		75.1
300	Seal Mechanical seal	(MS)	MS
200	Drive shaft Universal joint sh	aft (UJ)	UJ
	Delivery rate*	up to I/min.	75
	Delivery head*	up to bar	8
	Temp. of medium**	up to °C	140
	Material pump tube		1.4571
	Immersion tube diameter	mm	54
	Pressure joint ▲	Outer thread	G 1 1/2
	Weight	kg	7
	Length***	mm	1100
	Stator NBR light (T max. 80 °C)	Order-No.	0173-561
	Stator Viton (T max. 140 °C)	Order-No.	0173-562
	Stator PTFE (T max. 140 °C)	Order-No.	0173-564

- Determined with water at 20 °C, three-phase motor (900 rpm) and elastomer stator
- with PTFE Stator (the medium temperature of explosion proof eccentric screw pumps B70 may not exceed 100°C)
- \*\*\* Special length 500 2000 mm on request (version with joint shaft only)



#### **Choice of motors** Motors with cable terminal box For B70V - 75.1 1.5 kW, 700 1/min. 1.5 kW, 900 1/min. 1.1 kW, 700 1/min. IP 55 21 kg IP 55 33 kg Protection class/Weight IP 55 30 kg 0172+826 0172-761 0172+829 **Motors with protection switch** For B70V - 75.1 Type 1.1 kW, 700 1/min. 1.5 kW, 700 1/min. 1.5 kW, 900 1/min. Protection class/Weight IP 54 21 kg IP 54 33 kg IP 54 30 kg 0172-760 Order-No. 0172+825 0172+828 Motors with frequency converter For B70V - 75.1 Type 1.5 kW, 0-900 1/min. Protection class/Weight IP 54 34 kg 0172-766

Three-phase motor 230/400 V, 50 Hz,

Order-No.

efficiency level IE 2 (≥ 0.75 kW) according to directive 2005/32/EC.

Special voltages, frequencies, protection classes as well as higher explosion proof protection classes on request.



Compressed air motors	For B70V - 75.1
Type	<b>8 DA</b> , 1.7 kW, 900 1/min., Weight 14 kg
	Operating pressure at 6 bar, Air consumption 130 Nm³/h, 102 db (A)
Air supply thread	G 1/2
Order-No.	0172-823

Compressed air motors with muffler up to an operation pressure at 7 bar, recommended speed (200 - 900 1/min).

<sup>▲</sup> PURE version Tri-Clamp DN 50

### for viscosities from 1 - 100,000 mPas

#### Materials (coming into contact with the pumped medium):

Version:	B70V 75.1	<b>B70V PURE</b> 75.1
Housing:	Stainless steel (1.4571)	Stainless steel (1.4571)
Rotor:	Stainless steel (1.4571)	Stainless steel (1.4571)
Seals:	FPM (Viton®)	FPM (Viton®) or EPDM
Mechanical seal:	Carbon/CrMo-casting, Viton®	WC/SiC/FKM-FDA or EPDM-FDA
Drive shaft:	Stainless steel (1.4571)	Stainless steel (1.4571)
Stator material:	NBR light, Viton®, PTFE	PTFE

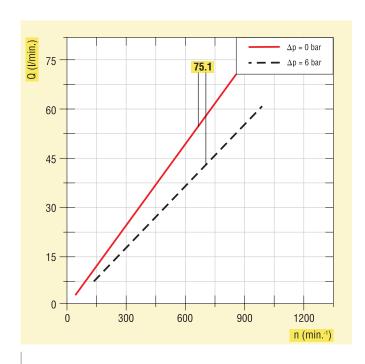
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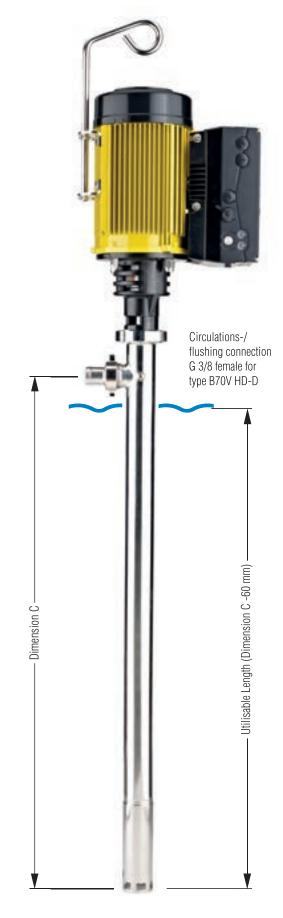


Pump tube with PTFE stator, also available in PURE version with Tri-Clamp-connection. The pump tubes are mainly used in the food-, cosmetics- and pharmaceutical industry.

#### **Important Information!**

Viscosity range from aqueous to fluidity range. Medium table with liquid examples see chemical resistance table.





### B70V 120.1

Productdetail	Pump tube		B70V
T	Size		120.1
	Category 1 / 2 (acc. to ATEX)	no	
TT.	Seal Mechanical seal	(MS)	MS
ET)	Drive shaft Universal joint shaft	(UJ)	UJ
	Delivery rate*	up to I/min.	120
	Delivery head*	up to bar	6
	Temp. of medium**	up to °C	140
	Material pump tube		1.4571
TIIT.	Immersion tube diameter***	up to mm	131
181	Pressure joint		Tri Clamp DN 50 (DIN 32676)
101	Weight	kg	15
625	Length****	mm	1100
	Stator NBR light (T max. 80 °C)	Order-No.	0175-201
	Stator PTFE (T max. 140 °C)	Order-No.	0175-204
	* Determined with water at 20 °C, th  ** with PTFE Stator  *** required bung hole Ø 133 mm  *** Special length 500 - 2500 mm on		00 rpm and 700 rpm) and elastomer stator

### **Choice of motors**



#### **Drive motors**

Three-phase motors 230/400 V, 50 Hz, efficiency level IE 2, protection class IP 55 with cable terminal box, protection switch or frequency converter.

Special voltages, frequencies, protection class on request.

#### **Connection dimensions**

according to IEC 34 part 7 form B14 type M100

### for viscosities from 1 - 120,000 mPas

#### Materials (coming into contact with the pumped medium):

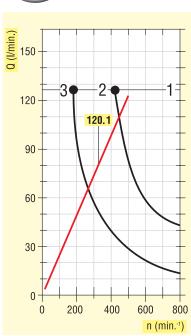
Version:	B70V 120.1	B70V PURE 120.1
Housing:	Stainless steel (1.4571)	Stainless steel (1.4571)
Rotor:	Stainless steel (1.4571)	Stainless steel (1.4571)
Seals:	FPM (Viton®)	FPM (Viton®)
Mechanical seal:*	WC/WC, Viton®	WC/WC, Viton®
Drive shaft:	Stainless steel (1.4571)	Stainless steel (1.4571)
Stator material:	NBR light, PTFE	PTFE

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<sup>\*</sup> Mechanical seal pairing on request.



Pump tube with PTFE stator, also available in PURE version with Tri-Clamp-connection. The pump tubes are mainly used in the food-, cosmetics- and pharmaceutical industry.



#### Range 1:

Thin-bodied and lubricating fluids such as wine, milk, oils etc.  $\eta < 7000 \; \text{mPas}$ 

#### Range 2:

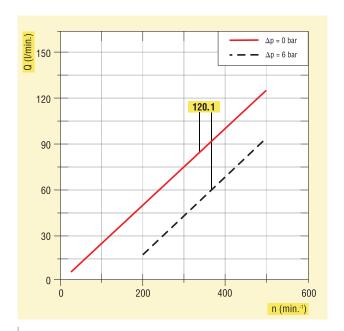
Abrasive and viscous fluids such as pulps, adhesives, paints, inks, etc.  $\eta <$  20,000 mPas

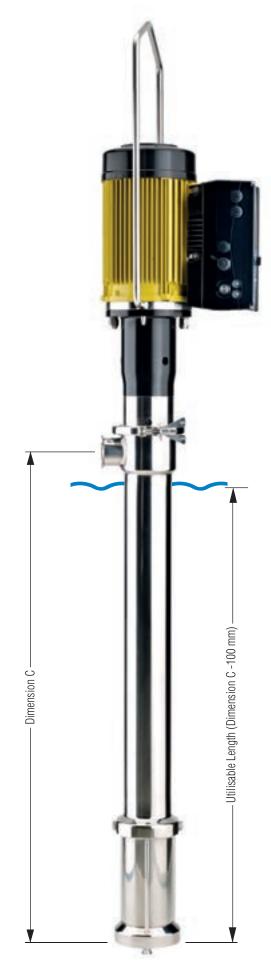
#### Range 3:

Very abrasive and highly viscous fluids such as honey, greases, syrups, etc.  $\eta >$  20,000 mPas

#### **Viscosity range:**

Up to limit of flowabilty





# B70V-H-SR Sanitary 12.1, 25.1 and 50.1

Productdetail	Pump tube			B70V-H-SR Sanitary	
-	Size		12.1	25.1	50.1
	Seal Mechanical sea	al (MS)	MS	MS	MS
*	Delivery rate*	up to I/min.	12	25	50
	Delivery head*	up to bar	6	6	8
	Temp. of medium	up to °C	100	100	100
	Material pump tube		1.4404	1.4404	1.4404
	Immersion tube diameter	mm	54	54	54
	Pressure joint	Tri-Clamp	DN 50	DN 50	DN 50
	Weight	kg	7	7	7
- 11	Length**	mm	1100	1100	1100
1	Stator EPDM	Order-No.	-	-	0174-516
- 10	Stator PTFE	Order-No.	0174-017	0174-137	0174-517

 $<sup>^\</sup>star$  Determined with water at 20 °C, three-phase motor (900 rpm)  $^{\star\star}$  Special length on request



Choice of motors					
Universal motors non-ex. proof	MI 4	MI 4-E	MA II 3	MA II 5	MA II 7
Type	500 W, 230 V	500 W, 230 V	460 W, 230 V	575 W, 230 V	795 W, 230 V
Protection class/Weight	IP 24 2.8 kg	IP 24 2.8 kg	IP 54 4.6 kg	IP 54 5.4 kg	IP 54 6.6 kg
	-	with speed contr.			
Order-No. (without low-voltage release)	0030-000	0030-001	0060-000	0060-001	0060-002
Order-No. (with low-voltage release)	-	-	0060-008	0060-009	0060-010



Compressed air motors	MD-1	MD-2	MD-3
Type	400 W	400 W	400 W
Operating pressure:	6 bar	6 bar	6 bar
Weight	1.1 kg	1.5 kg	2.1 kg
Order-No.	0004-087	0004-088	0004-090

# B70V-H-SR Sanitary 12.1, 25.1 and 50.1

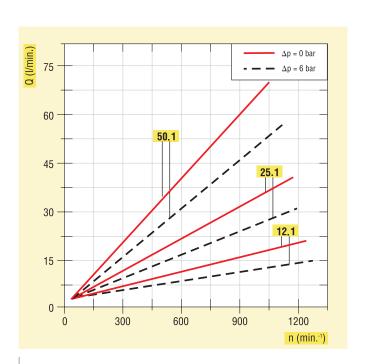
## for viscosities up to 30,000 mPas

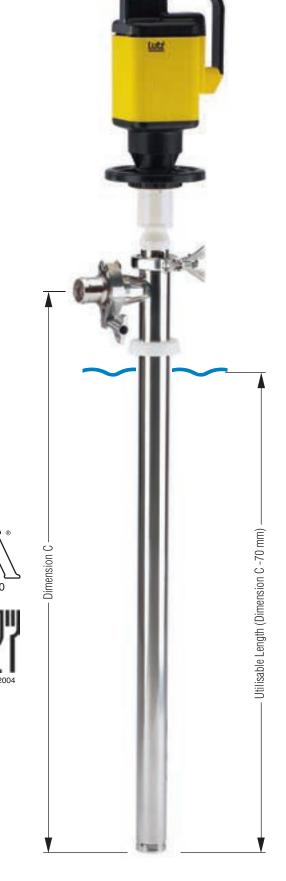
#### Materials (coming into contact with the pumped medium):

Version:	B70V-H-SR Sanitary 12.1/25.1/50.1
Housing:	Stainless steel (1.4404)
Rotor:	Stainless steel (1.4571)
Seals:	EPDM
Mechanical seal:	Carbon/SiC/EPDM (optional SiC/SiC/EPDM)
Drive shaft:	Stainless steel (1.4571)
Stator material:	PTFE, EPDM (Size 50.1)

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Accessories	Order No.
Hose connection DN 38 to Tri-Clamp DN 50	0172-746
Adapter fitting Tri-Clamp DN 50 for thread DIN 11851 Rd 78 x 1/6 (DIN 405)	0172-747
Fastener bracket Tri-Clamp DN 50 (DIN 32676) 1.4401 with seal EPDM	0172-745
Discharge spout Tri-Clamp DN 50	0172-748
Pump foot for drum inliner	0172-771





### B70V-H-D Sanitary 12.1, 25.1

Productdetail	Pump tube		B70V-H-D	Sanitary
100	Size		12.1	25.1
A.	Seal Mechanical se	al (MS)	MS	MS
	Delivery rate*	up to I/min.	12	25
	Delivery head*	up to bar	6	8
	Temp. of medium	up to °C	100	100
	Material pump tube		1.4404	1.4404
	Immersion tube diameter	mm	54	54
	Pressure joint	Tri-Clamp	DN 50	DN 50
	Weight	kg	7	7
	Length**	mm	1100	1100
	Stator PTFE	Order-No.	0172-007	0172-127

- $^{\star}$  Determined with water at 20 °C, three-phase motor (900 rpm)
- Explosion proof eccentric screw pump approved category 1 / 2 (acc. to ATEX) for pumping inflammable liquids of the explosion group IIA (B70V) and temperature class T4





# Choice of motors



Three-phase motor 230/400 V, 50 Hz,

Efficiency level IE 2  $(\geq 0.75 \text{ kW})$  according to directive 2005/32/EC.

RAL 9005,

Special voltages, frequencies, protection classes on request.

Office of filotors				
Motors with protection switch	For B70V-H-D Sani	For B70V-H-D Sanitary - 12.1		tary - 25.1
Туре	0,55 kW, 700 1/min.	0,55 kW, 900 1/min.	0,55 kW, 700 1/min.	0,75 kW, 900 1/min.
Protection class/Weight	IP 54 16,5 kg	IP 54 11 kg	IP 54 16,5 kg	IP 55 17 kg
Order-No.	0172+808	0172+805	0172+808	0172+811
Motors, explosion proof	For B70V-H-D San	itary - 12.1	For B70V-H-D San	itary - 25.1
Туре	0.37 kW, 700 1/min.	0.55 kW, 900 1/min.	0.55 kW, 700 1/min.	0.65 kW, 900 1/min.
Protection class	II 2 G Ex e II T3	II 2 G Ex e II T3	II 2 G Ex e II T3	II 2 G Ex e II T3
Protection class/Weight	IP 54 16.4 kg	IP 54 17.2 kg	IP 54 18 kg	IP 54 15.3 kg
Order-No.	0172-801	0172-804	0172-807	0172-810
Motors with frequency converter	For B70V-H-D Sanitary - 12.1		For B70V-H-D Sani	tary - 25.1
Type	0,55 kW, 0-900 1/min.		0,55 kW, 0-900 1/min.	0,75 kW, 0-900 1/min.

0

Motors with frequency converter	For B70V-H-D Sanitary - 12.1	For B70V-H-D Sani	tary - 25.1
Туре	0,55 kW, 0-900 1/min.	0,55 kW, 0-900 1/min.	0,75 kW, 0-900
Protection class/Weight	IP 54 13,5 kg	IP 54 13,5 kg	IP 54 15 kg
Order-No.	0172-769	0172-769	0172-768



Compressed air motors	For B70V - 12.1	For B70V - 25.1	For B70V - 25.2 / 50.1
Туре	<b>4 DA,</b> 0.45 kW, 900 1/min.,	<b>6 DA,</b> 1.0 kW, 900 1/min.,	<b>8 DA,</b> 1.7 kW, 900 1/min.,
	Weight 5 kg,	Weight 10 kg,	Weight 14 kg,
	operating pressure at 6 bar,	operating pressure at 6 bar,	operating pressure at 6 bar,
	air consumption 55 Nm <sup>3</sup> /h,	air consumption 80 Nm <sup>3</sup> /h,	air consumption 130 Nm <sup>3</sup> /h,
	87 dB (A)	87 dB (A)	102 dB (A)
Air supply thread	G 3/8	G 1/2	G 1/2
Order No.	0172-821	0172-822	0172-823

Compressed air motors with muffler up to an operation pressure at 7 bar, recommended speed (200 - 900 1/min).

# B70V-H-D Sanitary 12.1, 25.1

### for viscosities up to 100,000 mPas

#### Materials (coming into contact with the pumped medium):

Version:	B70V-H-D Sanitary 12.1/25.1
Housing:	Stainless steel (1.4404)
Rotor:	Stainless steel (1.4571)
Seals:	EPDM
Mechanical seal:	Carbon/SiC/EPDM (optional SiC/SiC/EPDM)
Drive shaft:	Stainless steel (1.4571)
Stator material:	PTFE, EPDM (Size 50.1)

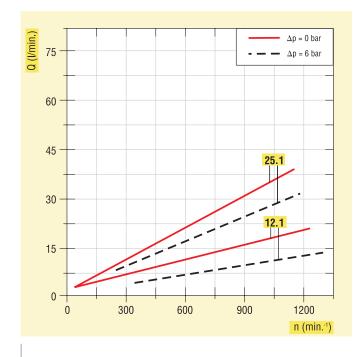
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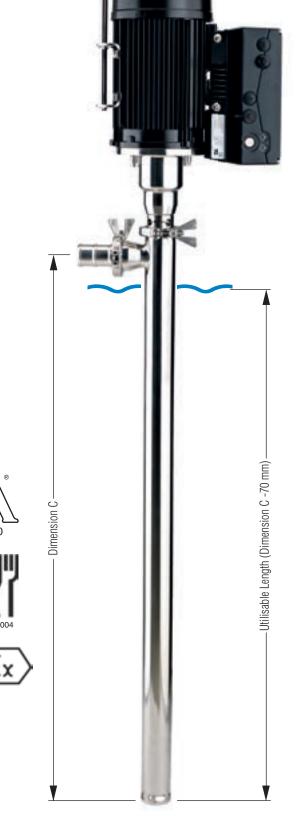
Accessories	Order No.
Hose connection DN 38 to Tri-Clamp DN 50	0172-746
Adapter fitting Tri-Clamp DN 50 for thread DIN 11851 Rd 78 x 1/6 (DIN 405)	0172-747
Fastener bracket Tri-Clamp DN 50 (DIN 32676) 1.4401 with seal EPDM	0172-745
Discharge spout Tri-Clamp DN 50	0172-748
Pump foot for drum inliner	0172-771





Equipped with mounting strap and motor quick coupling as standard.



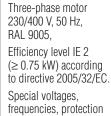


Protection class/Weight

### B70V-H-D Sanitary 25.2, 50.1, 75.1

roductdetail	Pump tube B70V-H-D Sanitary				
100	Size		25.2	50.1	75.1
J.	Seal Mechanical s	eal (MS)	MS	MS	MS
	Delivery rate*	up to I/min.	25	50	75
	Delivery head*	up to bar	10	8	6
	Temp. of medium	up to °C	100	100	100
	Material pump tube		1.4404	1.4404	1.4404
	Immersion tube diameter	mm	54	54	54
	Pressure joint	Tri-Clamp	DN 50	DN 50	DN 50
	Weight	kg	7	7	7
	Length**	mm	1100	1100	1100
100	Stator EPDM	Order-No.	-	0172-506	-
10	Stator PTFE	Order-No.	0172-257	0172-507	0172-557
	* Determined with water at 20 °C, three-phase motor (900 rpm) ** Special length on request				
	<ul> <li>Explosion proof eccentric screw pump approved category 1 / 2 (acc. to ATEX)</li> <li>for pumping inflammable liquids of the explosion group IIA (B70V) and temperature class T4</li> </ul>				
	Choice of motors				
	Motors with protection	n switch	For B70V-H-D Sanitary - 25	5.2 For B70V-H-D	Sanitary - 50.1
	Туре		0,75 kW, 700 1/min.	1,1 kW, 900 1/m	in.





classes on request.

	- 3		- 7- 3	
Order-No.	0172+814		0172+817	
Motors, explosion proof	For B70V-H-D Sanitary - 25.2 F		For B70V-H-D Sanitary - 50.1	
Туре	0.65 kW, 700 1/min.		1.0 kW, 900 1/min.	
Protection class	II 2 G Ex e II T3		II 2 G Ex e II T3	
Protection class/Weight	IP 54 20 kg		IP 54 20 kg	
Order-No.	0172-813		0172-816	
Motors with frequency converter	For B70V-H-D Sanitary - 25.2		For B70V-H-D Sanitary - 50.1	
Туре	0,75 kW, 0-900 1/min.	1,1 kW, 0-900 1/min.	1,1 kW, 0-900 1/min.	
Protection class/Weight	IP 54 15 kg	IP 54 20 kg	IP 54 20 kg	
Order-No.	0172-768	0172-767	0172-767	
Motors with cable terminal box	For B70V-H-D Sani	tary - 75.1		
Туре	1,5 kW, 700 1/min.	1,5 kW, 900 1/min.		
Protection class/Weight	IP 55 33 kg	IP 55 30 kg		
Order-No.	0172-761	0172+829		
Motors with protection switch	For B70V-H-D Sani	tary - 75 1		
Type	1,5 kW, 700 1/min.			
* '				
Protection class/Weight	IP 54 33 kg	IP 54 30 kg		
Order-No.	0172-760	0172+828		
Motors with frequency converter	For B70V-H-D Sanitary - 75.1			

1.5 kW, 0-900 1/min.

IP 54 34 kg **0172-766** 

IP 54 17 kg



Type

Protection class/Weight

Compressed air motors	For B70V - 75.1		
Type	<b>8 DA,</b> 1.7 kW, 900 1/min., Weight 14 kg		
	Operating pressure at 6 bar, Air consumption 130 Nm³/h, 102 db (A)		
Air supply thread	G 1/2		
Order-No. <b>0172-823</b>			
Compressed air motors with muffler u	up to an operation pressure at 7 bar, recommended speed (200 - 900 1/min).		

IP 54 21,5 kg

# B70V-H-D Sanitary 25.2, 50.1, 75.1

### for viscosities up to 100,000 mPas

#### Materials (coming into contact with the pumped medium):

Version:	B70V-H-D Sanitary 25.2/50.1/75.1
Housing:	Stainless steel (1.4404)
Rotor:	Stainless steel (1.4571)
Seals:	EPDM
Mechanical seal:	Carbon/SiC/EPDM (optional SiC/SiC/EPDM)
Drive shaft:	Stainless steel (1.4571)
Stator material:	PTFE, EPDM (Size 50.1)

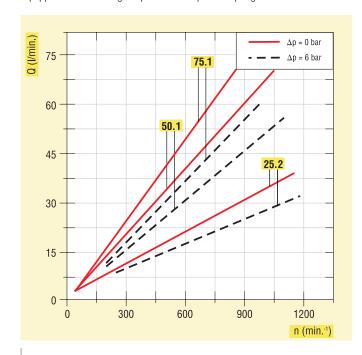
Viton® is a registered trademark of DuPont Performance Elastomers.

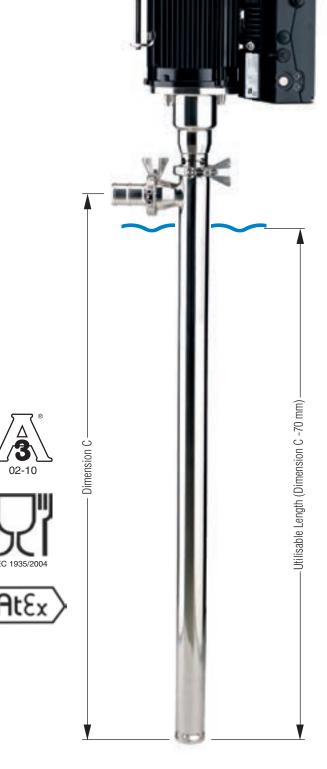
Accessories	Order No.
Hose connection DN 38 to Tri-Clamp DN 50	0172-746
Adapter fitting Tri-Clamp DN 50 for thread DIN 11851 Rd 78 x 1/6 (DIN 405)	0172-747
Fastener bracket Tri-Clamp DN 50 (DIN 32676) 1.4401 with seal EPDM	0172-745
Discharge spout Tri-Clamp DN 50	0172-748
Pump foot for drum inliner	0172-771





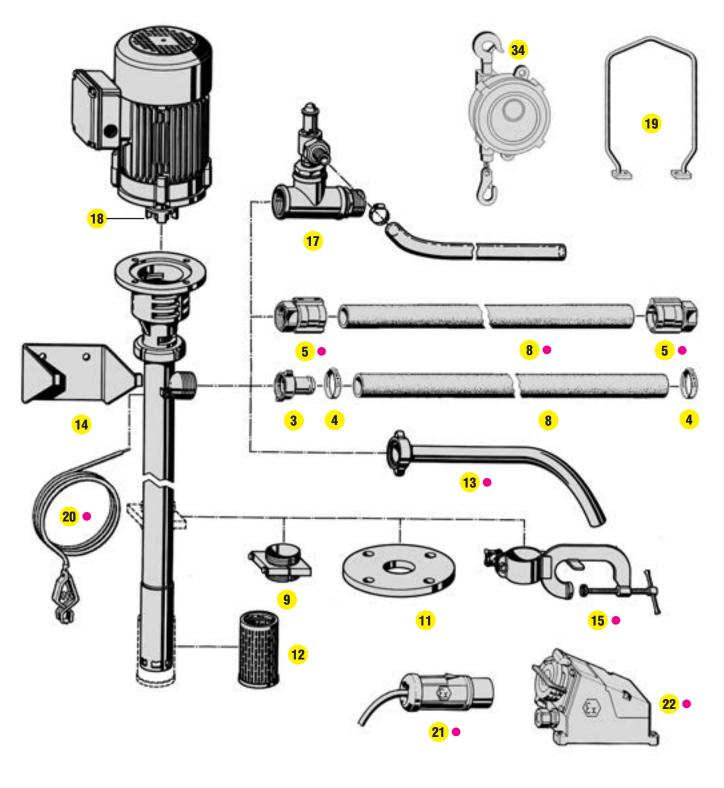
Equipped with mounting strap and motor quick coupling as standard.





# **Accessories**

### Accessories at a glance





4 Hose clamp

**5** • Hose connector

8 • Hose

9 Drum adapter

11 Installation flange

**12** Foot strainer

13 Discharge spout

14 Wall bracket

15 • Clamping device

17 Bypass valve

**18** Coupling part, motor side

19 Lifting device

**20** • Equipotential bonding cable

**21** • Ex-plug

**22** • Ex-socket

**34** Hoist

Suitable for transferring combustible and easy inflammable liquids (e.g. ethanol, petrol) or in explosive hazard area.

**Specification** Order-No. Productdetail 3 Hose connection For connecting the hoses to the pump tube B70V. Connection thread: G 1 1/2 Nominal diameter: Material: Stainless steel DN 25 (1") 0204-416 0204-417 Stainless steel DN 32 (1 1/4") 0204-418 Stainless steel DN 38 (1 1/2") Aluminium DN 32 (1 1/4") 0204-420 9 Drum adapter St 37 Separable drum adapter for pump tubes with enlarged pump foot. For fixing the pump in the drum opening. Prevents the eccentric screw pump falling over in the empty drum. Thread G 2 and M 64 x 4. for pump tube B70V ø 52 mm 0204-169 11 Installation flange According to DIN 2576 DN 80. PN 10 For fixing the pump B70V to a companion flange. The flange is welded onto the pump tube. in stainless steel (1.4571) 0170-310 12 Foot strainer Available in stainless steel, for mounting on the pump foot. Keeps impurities away from the rotating parts. in stainless steel (1.4571) 0204-802 13 Discharge spout Serving to transfer and fill liquids directly into other vessels. They are available in aluminium and stainless steel and are threaded onto the pump outlet connection. Material: Nominal diameter: Wing nut: DN 25 (1") G 1 1/2 0204-374 Alu SS DN 25 (1") G 1 1/2 0204-226

Suitable for transferring combustible and easy inflammable liquids (e.g. ethanol, petrol) or in explosive hazard area.

#### Productdetail

#### Specification

#### Order-No.



#### 14 Wall bracket

For storage of drum pumps.

B70V **0204-309** B70V-SR **0204-307** 



#### 15 Clamping device

To fasten the eccentric screw pump B70V in open-topped and thick-walled drums and containers.

in stainless steel **0205-052** •



#### 17 Bypass valve

When using a closing valve (nozzle, stop valve etc.) the application of a bypass valve is recommended. (Opening pressure: brass 2.5 bar, stainless steel 5 bar).

Connection thread: G 1 1/2
Material for pump tube
Brass B70V

 Brass
 B70V
 0172-640

 Stainless steel 1.4571)
 B70V
 0170-274

 Brass
 HD-E
 0155-600



#### 18 Coupling part, motor side

When sourcing your own motor please order the correct coupling to suit the relative shaft diameter.

 Shaft diameter:
 Ø 14 mm
 0302-028

 Ø 19 mm
 0302-027

 Ø 24 mm
 0302-026

 Ø 28 mm (only in combination with intermediate flange)
 0302-029

Intermediate flange for ø 28 mm **0172-850** 



#### 19 Lifting device

To simplify the process of lifting the pump in and out of drums or containers. When using an explosion proof driving motor the Ex-protective plug is mounted onto the lifting device.

for pump tube HD-E 0155-154 for B70V-SR with universal motor 0174-607

Suitable for transferring combustible and easy inflammable liquids (e.g. ethanol, petrol) or in explosive hazard area.

**Specification** Order-No. Productdetail

0371-013

0371-014

0371-015

0300-435 0300-440 0300-445 0300-450 0300-455 0300-460 0300-465 0300-470

0300-475

#### 34 Hoist

for eccentric screw pumps, with infinitely adjustable load balancer for easy lifting and moving of the pump.

Load bearing capacity: 18-22 kg Tackle: 2 m

Load bearing capacity: 22-25 kg Tackle: 2 m

Load bearing capacity:

Tackle: 2 m

25-30 kg



#### Electronical flow meter, HDO series

For metering thin bodied up to highly viscous media – also under high pressures and temperatures. For assembly onto an eccentric screw pump B70V or into a pipeline. Explosion proof flow meter types with Atex approval.

For more details see separate leaflet.



#### Stepless 1-ear hose clamp

1-ear hose clamp of stainless steel for the safe fixing of different hoses onto the hose connection. (Advices for selecting the suitable hose clamp - see hoses).

Size:	31.5 - 35.0 mm	
	32.8 - 36.0 mm	
	35.8 - 39.0 mm	
	39.8 - 43.0 mm	
	42.3 - 45.5 mm	
	43.8 - 47.0 mm	
	49.8 - 53.0 mm	
	00.0 00.5	

60.3 - 63.5 mm 64.8 - 68.0 mm

#### 5 Hose connector

The use of conductive hoses is obligatory in explosion hazard areas. The ohmic resistance between the armatures must be less than 10<sup>6</sup> ohm. The hose connection must ensure a highly conductive transition between hose and pump tube.

#### **Brass**

for hose DN 32 (1 1/4") inner thread G 1 1/2 (EN 12 115) 0302-090 for hose DN 38 (1 1/2") inner thread G 1 1/2 (EN 12 115) 0302-091 for hose DN 50 (2") inner thread G 2 (EN 12 115) 5000-100

#### Stainless steel (1.4571)

0302-096 for hose DN 32 (1 1/4") inner thread G 1 1/2 (EN 12 115) inner thread G 1 1/2 (EN 12 115) 0302-092 for hose DN 38 (1 1/2") for hose DN 50 (2") inner thread G 2 (EN 12 115) 5000-101



Suitable for transferring combustible and easy inflammable liquids (e.g. ethanol, petrol) or in explosive hazard area.

Productdetail

Specification Order-No.

0374-440



8 PVC-spiral hose

PVC hose, with steel helix for aggressive, non-flammable liquids.

Operating pressure: max. 10 bar Temperature of medium: -15 up to +65 °C

Nominal diameter: Weight: Suitable hose clamp:

DN 25 (1") 0.52 kg/m 0300-435



8 PVC hose, fabric reinforced

PVC hose for aggressive, non-flammable liquids.

Operating pressure: max. 6 bar Temperature of medium: 0 up to +60 °C

Nominal diameter: Weight: Suitable hose clamp:

DN 32 (1 1/4") 0.5 kg/m 0300-450 **0374-425** DN 38 (1 1/2") 0.6 kg/m 0300-460 **0374-431** 



8 Electrically conductive hoses

Caution: Electrical conductivity is assured through the assigned materials and their composition. If correctly installed, resistance during the entire life of the hoses will remain with type  $\Omega$  smaller 10° ohm and with type  $\Omega$  smaller 10° ohm (to EN 12115).

#### Mineral oil hose

Colour coding: "yellow".

Hose for mineral oil products of all kinds up to 50 % aromatics and methanol content.

Inner rubber NBR (antistatic) and outer rubber chloroprene (CR).

Type  $\Omega$  smaller 10<sup>6</sup> ohm (to EN 12115)

Operating pressure: max. 10 bar
Temperature of medium: -35 up to +60 °C

Nominal diameter: Weight: Suitable hose clamp:

DN 32 (1 1/4") 1.0 kg/m 0300-455 **0374-413 •**DN 38 (1 1/2") 1.2 kg/m 0300-465 **0374-414 •** 

Hose for mineral oil products of all kinds up to 50 % aromatics and methanol content.

Inner rubber NBR (antistatic) and outer rubber NBR.

Type  $\Omega$  smaller 10<sup>6</sup> ohm (to EN 12115)

Operating pressure: max. 10 bar
Temperature of medium: -30 up to +65 °C

Nominal diameter: Weight: Suitable hose clamp:

DN 25 (1") 0.8 kg/m 0300-440 **0374-462** 



#### 8 Solvent hose

Colour coding: "blue".

Hose suitable for a wide range of commercial solvents.

Inner rubber of special coating (not conductive) and outer rubber of chloroprene (CR).

Type  $\Omega$  smaller 10<sup>6</sup> ohm (to EN 12115)

Operating pressure: max. 10 bar Temperature of medium: -35 up to +60 °C

Nominal diameter: Weight: Suitable hose clamp:

DN 25 (1") 0.8 kg/m 0300-445 **0374-417** • DN 32 (1 1/4") 1.2 kg/m 0300-455 **0374-418** • DN 38 (1 1/2") 1.5 kg/m 0300-465 **0374-450** •

Specification Order-No. Productdetail

#### 8 Universal chemical hose

Colour coding: "blue/white/blue".

Suitable for 95% of all customary industrial chemicals such as almost all acids and alkalis,

mineral oil products and solvents of all kinds.

Internal finish: Smooth special lining of ultra high molecular polyethylene (U-PE)

and white intermediate safety layer.

External finish: Electrically conductive EPDM. Intermediate layers: Textile mesh in tinplated copper fibres and tin-plated steel wire filament. If correctly installed, resistance during the entire

life of the hose will remain under  $10^6$  ohm. Type  $\Omega$  smaller  $10^6$  Ohm (to EN 12115).

Operating pressure: up to 10 bar
Temperature of medium: -30 up to +100 °C

Nominal diameter: Weight: Suitable hose clamp:

DN 25 (1") 0.9 kg/m 0300-445 **0374-419** • DN 32 (1 1/4") 1.2 kg/m 0300-455 **0374-421** • DN 38 (1 1/2") 1.5 kg/m 0300-465 **0374-453** •



#### 8 Special chemical hose

Colour coding: "blau/white/red".

Suitable for all commonly used chemicals, ideal also for very pure media.

Internal finish: Teflon® FEP transparent, smooth, seamless, non-leaching, non-dyeing

(in conformity with FDA and USP Class VI demands).

Intermed. layer: EPDM conductive.

External finish: EPDM electrically conductive with OHM conductive stripes.

Type  $\Omega$  smaller than 10° Ohm (to EN 12115)

Operating pressure: up to 16 bar
Temperature of medium: -30 up to +100 °C

Nominal diameter: Weight: Suitable hose clamp:

0300-445 DN 25 (1") 0.9 kg/m0374-429 DN 32 (1 1/4") 1.1 kg/m 0300-455 0374-430 DN 38 (1 1/2") 1.5 kg/m 0300-465 0374-455 2.3 kg/m DN 50 (2") 0300-475 0374-456



#### 8 Food hose

Color coding: "white".

Materials according to FDA regulations, electrically not conductive.

Suitable for all food products, milk, dairy products

and fatty foodstuffs.

Internal finish: White special rubber, flavourless and odourless.

External finish: Synthetic caoutchouc, blue, abrasion- and ageing-resistant.

Operating pressure: up to 16 bar
Temperature of medium: -20 up to +90 °C

Nominal diameter: Weight: Suitable hose clamp:

 DN 25 (1")
 0.8 kg/m
 0300-445
 0374-463

 DN 32 (1 1/4")
 0.9 kg/m
 0300-455
 0374-464

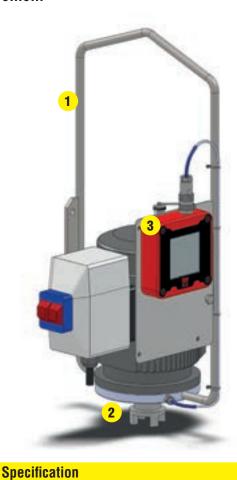
 DN 38 (1 1/2")
 1.3 kg/m
 0300-465
 0374-465



Suitable for transferring combustible and easy inflammable liquids (e.g. ethanol, petrol) or in explosive hazard area.

# **Accessories**

### Contact-free indirect measurement



#### Productdetail

#### <u>'</u>



1 Lifting device with integrated impulse sensor Comprises of:

Impulse sensor with connecting cable and 14-wire coupling plug, lifting device and flange plate. (Please order suitable impulse transmitter and control unit additionally)

Additional price\* for single phase motors up to 1.1 kW

Additional price\* for single phase motors up to 1.5 kW and explosion proof single phase motors Ex Complete set for retrofitting available pumps

Order-No.

0172-891

0172-892

0172-890

\*(Please indicate Ref. No. for additional price when ordering a pump)

#### 2 Impulse transmitter

Must be ordered additionally suitable for the shaft diameter of the motor

For shaft diameters: Ø 19 mm 0172-824
Ø 20 mm 0172-825
Ø 24 mm 0172-826
Ø 25 mm 0172-827
Ø 28 mm 0172-828
Ø 30 mm 0172-829

Suitable for transferring combustible and easy inflammable liquids (e.g. ethanol, petrol) or in explosive hazard area.

# Contact-free indirect measurement

Specification		Order-No.	Productdetai
<b>Control unit</b> with touch screen display and menu-navigated operation. Is intended for evaluation of impulses and display of flow battery-operated**			
Control unit BE10 Control unit Ex BE10B		0230-000 0230-010 •	
Power supply unit NG10 230 V			
for external power supply of the operating unit 220-240 V, 50-60 Hz, II (2) G [Ex ib] IIC		0230-230	
Accessories optional			
Relay module RM30			
For single phase motors up to 1.5 kW			
allows the filling with pre-selection (batch function), 400 V, 1.5 kW, 50 Hz, II (2) G [Ex ib] IIC		0230-220	
Power cable RM30 400V			
400 V, 50 Hz, 5-wire, 5 m long	For RM30	0211-388	
Connecting cable motor RM30 400V			
400 V, 50 Hz, 5-wire, 0.6 m long	For RM30	0211-386	
Relay module RM10			
For single phase motors with frequency converter			
allows the filling with pre-selection (batch function), 220-240 V, 50-60 Hz, II (2) G [Ex ib] IIC		0230-200	
Power cable RM10 230V			
230 V, 50 Hz, 5 m long	For RM10	0211-155	
Adapter cable motor RM-FU 230V/24V			- "
For single phase motors with frequency converter 230V AC/24V DC	For RM10	0230-232	

 $<sup>\</sup>ensuremath{^{\star\star}}$  Limited battery operation without power supply unit possible

Suitable for transferring combustible and easy inflammable liquids (e.g. ethanol, petrol) or in explosive hazard area.

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