

The Generation of Flow Meters In Touch with the Future

Turbine Wheel Meter TR Series
Nutating Disc Meter TS Series
Oval Gear Meter HDO Series



Safety is our Concern

You can count on Lutz.

Precise work counts more than ever in laboratories as well as in production and fluids handling. Flow measurement must therefore be efficient, economical and, above all, practical – in mobile application as well as in stationary operation.

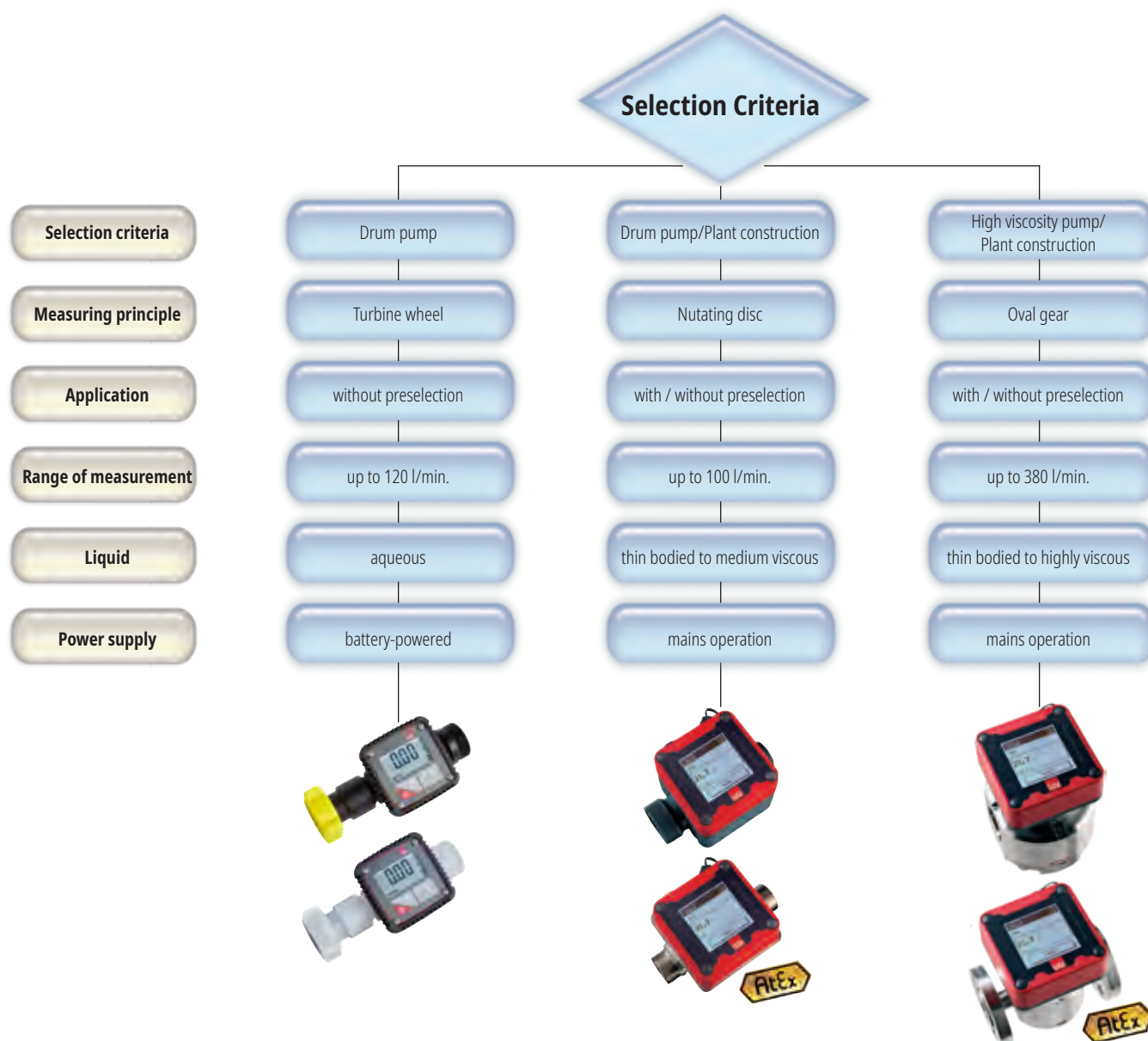
Precise capture of fluid data ensures quality work processes and economical handling of operating resources.

For nearly 20 years, experts have relied on tried-and-true Lutz flow meters – and the new generation of meters will inspire you.

- **TR turbine wheel meter**
- **TS nutating disc meter**
- **HDO oval gear meter**

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product video





TR Series

- ✓ Can be combined with all drum and container pumps
- ✓ Wide measuring range
- ✓ Also for small volume flow
- ✓ Subtotals can be reset

(see pages 4-5)

TS Series

- ✓ Touch screen display
- ✓ Multilingual menus
- ✓ Simple plain-text operation
- ✓ Plug & play modular design

(see pages 6-15)

HDO Series

- ✓ Touch screen display
- ✓ Multilingual menus
- ✓ Simple plain-text operation
- ✓ Plug & play modular design
- ✓ For high flowrates, temperatures and pressures

(see pages 16-23)

Lutz flow meter program

The Reasonable: Lutz flow meter TR

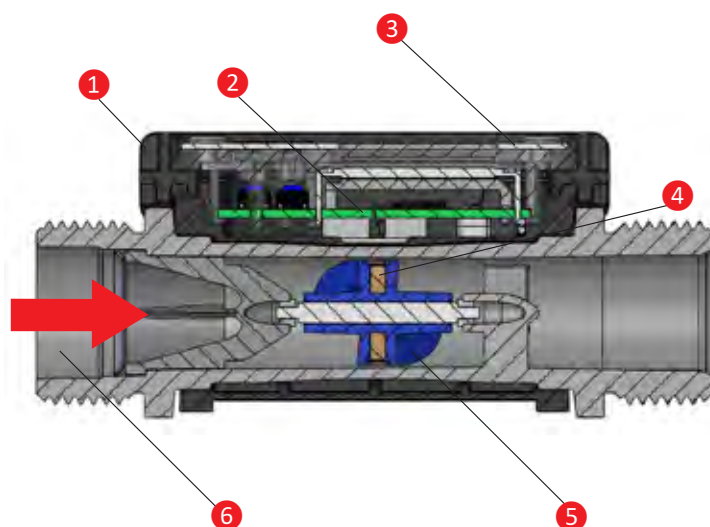


Easy to operate

Easy to operate, compact and quick to install on all drum and container pumps: The new Lutz flow meter TR3 in PP or PVDF. A flow meter, easy to handle, that you can „count on“ in any situation. The symmetrical measuring chamber can be used for all flow directions and measures low-viscosity, non-flammable substances precisely, quickly and above all efficiently.

With drive to the measurement result

The new TR3 with illuminated, digital display according to the measuring principle of a turbine wheel meter has a two-line LED display showing the current output and the total memory or the 8 partial quantity memories. The display can be mounted adapted to the viewing angle or moved when mounted. The measuring accuracy is better than $\pm 1\%$, the nominal operating pressure is 10 bar.



Benefits:

- Flexible installation
- Variable display alignment
- Larger volume flow range
- Easy change of battery

- 1 Housing top (PC) with shock protector (NBR)
- 2 PCB
- 3 Keypad foil
- 4 Magnet
- 5 Axial flow turbine (PP or PVDF)
- 6 Measuring chamber (PP or PVDF)

The economical liquid volume measurement

The choice is yours



PP for neutral and aggressive liquids

such as glycol, ferric (III) chloride, hydrochloric acid, phosphoric acid, etc.



PVDF for highly aggressive fluids

such as chlorine solution, nitric acid, sulphuric acid, etc.

Lutz offers complete pumping systems for the laboratory and research sector. The pump set Lutz B2 Vario can be optionally equipped with a flow meter TR3-PP (Order No. 0213-051).



Type		TR3-PP		TR3-PVDF	
Material	Housing top	PC		PC	
	Housing	POM		POM	
	Keypad	PES		PES	
	Shock protector	NBR		NBR	
Material (in contact with the medium)	Measuring chamber	PP		PVDF	
	Rotor	PP		PVDF	
	Shaft	Hastelloy C-22		Hastelloy C-22	
	Bearing ball	PTFE		PTFE	
	Seal	PTFE		PTFE	
Range of measurement		5-120 l/min.		5-120 l/min.	
Range of viscosity		0.8-40 mPas		0.8-40 mPas	
max. operating pressure		10 bar		10 bar	
Measuring accuracy (uncalibrated)		± 2%*		± 2%*	
Measuring accuracy (calibrated)		± 1%*		± 1%*	
Repeating accuracy		± 0,5%		± 0,5%	
Connection		G 1	G 1 1/4	G 1	G 1 1/4
Protection class		IP 65		IP 65	
Battery		Two 1.5 V batteries (AAA) replaceable		Two 1.5 V batteries (AAA) replaceable	
Range of temperature		-10 up to +50 °C		-10 up to +50 °C	
Dimensions		85 x 123 x 52 mm		85 x 123 x 52 mm	
Weight		0.22 kg		0.24 kg	
Order No.	Assembly at B1/B2 Battery/B2 Vario	0213-051	–	0213-061	–
Order No.	Assembly at drum pump	–	0213-050	–	0213-060
Order No.	Assembly at nozzle	–	0213-052	–	0213-062

* Test assembly: Medium: water/diesel, flow in the preferred direction, settling section of 0.2 m on inlet and outlet of the flow meter

Lutz flow meter program

TS Series: Nutating disc principle



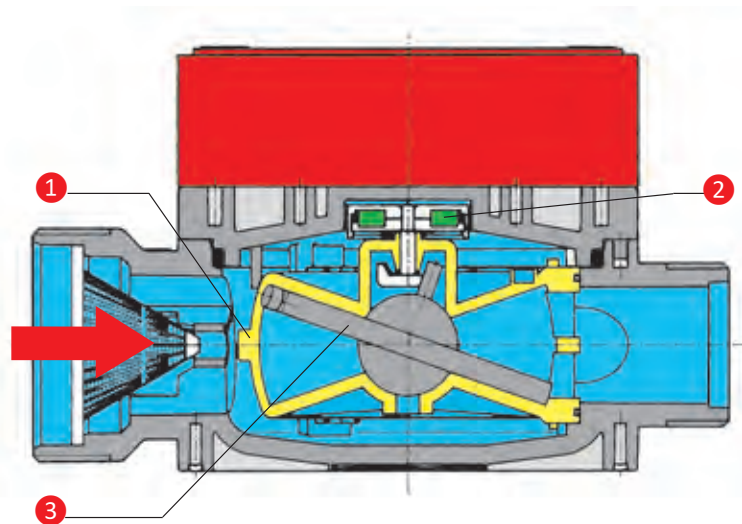
Product Features

The flow meters in plastic or metal version are nutating disc types and are suitable for the transfer of neutral, aggressive, inflammable and viscous liquids.

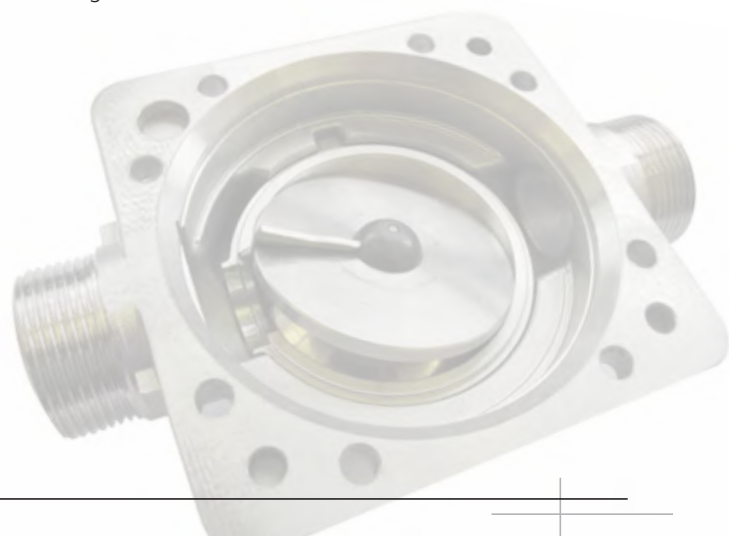
- Wide application range
- Optionally in PURE version

Take control: TS operates so

The liquid streaming causes a nutating disc to gyrate about its own axis. A multi-pole solenoid is made to rotate via a driver and switches a reed contact through the housing cover. The volume flowing through is determined from the number of pulses.



- ① Measuring chamber
- ② Magnet
- ③ Nutating disc



Lutz flow meter program

The innovative: Lutz flow meter TS

There are a lot of measuring devices for fluids.
But the advantages of the new Lutz flow meters stand out from them all.
Their precision, flexibility and user-friendliness will win you over.

Scan for
product video



Discover the pluses of innovative Lutz technology:

- + Touch screen display
- + Multilingual menus
- + Simple plain-text operation
- + Integrated help function
- + High precision through overrun correction
- + Safety and monitoring functions
- + Simple system connection
- + Plug & play modular design



Outstanding user-friendliness.

The first flow meter with a **touch screen display** and backlighting will convince you with its simple requirements-oriented display and usability, multilingual interface and compact design.

With plain-text instructions, system reports and help texts, as well as **monitoring functions**, its user controls practically eliminate errors. Manual operation is just as possible as external control.

■ **In Touch with the Future.**





Simply easy to use: Flow measurement with volume preselection.

The relay module – an intelligent cornerstone of Lutz meter innovation – helps you automate work processes and organize more efficiently.

The desired volume can simply be preselected and started with the touch of a button. Whether for mobile use with a drum pump or for controlling complex systems: With easy volume preselection, your processes will be simpler and safer. The pump, the system and/or the solenoid valve are turned on and off by the integrated electronics.

■ **Precise, safe and economical.**



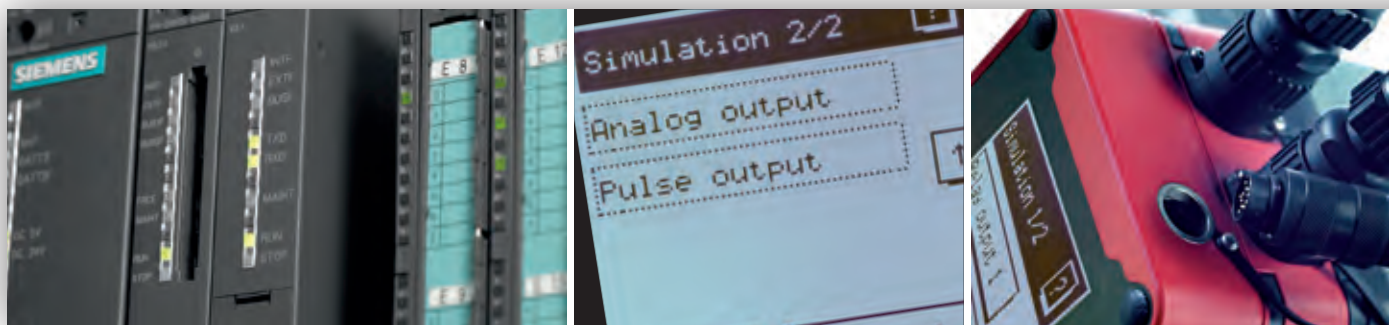
Combine to your needs. Easy to assemble.

The Lutz flow meter can be connected to your system quickly and with no wiring work, using socket connections that can't be confused. The new connection system is assembled like a modular design, allowing individual modules, such as the basic meter, control unit and relay module, to be combined with each other and installed.

Flexible to use. A wide array of possibilities:

- Food, gourmet and beverage industry
- Chemical industry
- Petrochemicals
- Chemicals and mineral oils
- Machine shops and metal working
- Automotive industry and suppliers
- Electroplating and surface treatment
- Paint and varnish industry
- Pharmaceuticals and cosmetics
- Plant and apparatus construction
- Engineering and design





The flexible meter system you can rely on.

- Simple installation and start-up
- External controls and data evaluation
through standard interfaces
- Modules can be installed separately by location
- Always the best technical and financial solution



Flow measurement without volume preselection - TS

for non inflammable liquids



Flow meters type VA10 in PURE-version are optionally available for the food-, cosmetics and pharmaceutical industry.

Technical data	Type ST10	Type SL10	Type VA10
Range of use	Neutral liquids like water, mineral oils.	Abrasive liquids like acids and alkalis.	Many acids, alkalis and other liquids.
Flow volume	min. 10 – max. 100** l/min.	min. 10 – max. 100** l/min.	min. 10 – max. 100 l/min.
Temperature	60 °C	60 °C	80 °C
Viscosity	2.000 mPas	2.000 mPas	5.000 mPas
Operating pressure	4 bar	4 bar	10 bar
Accuracy	± 1% standard < 1% with adjustment to application conditions	± 1% standard < 1% with adjustment to application conditions	± 1%
Inlet port	G 2 outer thread to fit connector with union nut	G 2 outer thread to fit connector with union nut	G 1 1/4 outer thread
Outlet port	G 1 1/4 outer thread	G 1 1/4 outer thread	G 1 1/4 outer thread
LCD display	Touch-Screen 63x63 mm, 128x128 pixels, Display sub-total and total volume can be reset		
Menu language	DE, GB, ES, FR, IT, NL, PT, RU		
Materials:			
Housing	PPO	PPO	Stainless steel (1.4581/ 1.4571)*
Measuring chamber	PPO/PPS	PPO/PPS	Stainless steel (1.4581/1.4571) ETFE / PTFE
Seals	FPM	FPM	FEP
Magnet	BaFe / PA / Stainless steel1.4401	PPS encapsulated	PTFE encapsulated
Protection class	IP 55	IP 55	IP 55
Weight	1,1 kg	1,1 kg	3,7 kg
Order No.	0231-000	0231-010	0231-049

* Special materials on request General information to the chemical resistance of the different flow meters you will find in our chemical resistance list.

**Short-time 120 l/min.

Recommended Accessories: Power supply unit NG10***

Voltage	220-230 V
Frequency	50-60 Hz
Order No.	0230-230

*** Limited battery operation without power supply unit possible.

Flow measurement without volume preselection - TS

for highly inflammable liquids



Flow meters type VA10 in PURE-version are optionally available for the food-, cosmetics and pharmaceutical industry.

Technical data	Type LM10 Ex	Type UN10 Ex	Type VA10 Ex
Range of use	Solvents and other easily inflammable liquids, oils and neutral liquids.	Solvents and easily inflammable liquids, most of acids and alkalis.	Nearly all solvents and easily inflammable liquids. Many acids, alkalis and other liquids.
Flow volume	min. 10 – max. 100** l/min.	min. 10 – max. 100** l/min.	min. 10 – max. 100 l/min.
Temperature	60 °C	60 °C	60 °C
Viscosity	2.000 mPas	2.000 mPas	5.000 mPas
Operating pressure	4 bar	4 bar	10 bar
Accuracy	± 1% standard < 1% with adjustment to application conditions	± 1% standard < 1% with adjustment to application conditions	± 1%
Inlet port	G 2 outer thread to fit connector with union nut	G 2 outer thread to fit connector with union nut	G 1 1/4 outer thread
Outlet port	G 1 1/4 outer thread	G 1 1/4 outer thread	G 1 1/4 outer thread
LCD display	Touch-Screen 63x63 mm, 128x128 pixels, Display sub-total and total volume can be reset		
Menu language	DE, GB, ES, FR, IT, NL, PT, RU		
Materials: Housing Measuring chamber	PPS LCP	PPS LCP	Stainless steel (1.4581/1.4571)* Stainless steel (1.4581/1.4571) ETFE/PTFE
Seals Magnet	FEP BaFe / MS / Stainless steel 1.4401	FEP PPS encapsulated	FEP PTFE encapsulated
Type of pretection: Operating unit Basic flow meter	II 2G Ex ib IIB T4 Gb*** II 2G T4 Gb	II 2G Ex ib IIB T4 Gb*** II 2G T4 Gb	II 2G Ex ib IIB T4 Gb*** II 2G T4 Gb
Protection class	IP 55	IP 55	IP 55
Weight	1,1 kg	1,1 kg	3,7 kg
Order No.	0231-020	0231-030	0231-040

* Special materials on request General information to the chemical resistance of the different flow meters you will find in our chemical resistance list. **Short-time 120 l/min. ***Protection class II 2G Ex ib IIC T4 Gb on request

Recommended Accessories: Power supply unit NG10***

Voltage	220-230 V
Frequency	50-60 Hz
Order No.	0230-230

*** Limited battery operation without power supply unit possible.

Flow measurement with volume preselection - TS

for non inflammable liquids



Flow meters type VA10 in PURE-version are optionally available for the food-, cosmetics and pharmaceutical industry.

Technical data	Type ST10 / RM10 230 V	Type SL10 / RM10 230 V	Type VA10 / RM10 230 V
Range of use	Neutral liquids like water, mineral oils.	Abrasive liquids like acids and alkalis.	Many acids, alkalis and other medias.
Flow volume	min. 10 – max. 100** l/min.	min. 10 – max. 100** l/min.	min. 10 – max. 100 l/min.
Temperature	60 °C	60 °C	80 °C
Viscosity	2.000 mPas	2.000 mPas	5.000 mPas
Operating pressure	4 bar	4 bar	10 bar
Accuracy	± 1% standard < 1% with adjustment to application conditions	± 1% standard < 1% with adjustment to application conditions	± 1%
Inlet port	G 2 outer thread to fit connector with union nut	G 2 outer thread to fit connector with union nut	G 1 1/4 outer thread
Outlet port	G 1 1/4 outer thread	G 1 1/4 outer thread	G 1 1/4 outer thread
LCD display	Touch-Screen 63x63 mm, 128x128 pixels, Display sub-total and total volume can be reset		
Menu language	DE, GB, ES, FR, IT, NL, PT, RU		
Materials:			
Housing	PPO	PPO	Stainless steel (1.4581/1.4571)*
Measuring chamber	PPO/PPS	PPO/PPS	Stainless steel (1.4581/1.4571) ETFE/PTFE
Seals	FPM	FPM	FEP
Magnet	BaFe / PA / Stainless steel 1.4401	PPS encapsulated	PTFE encapsulated
Protection class	IP 55	IP 55	IP 55
Weight	1,6 kg	1,6 kg	4,1 kg
Relay module RM10			
Voltage	220-230 V		
Frequency	50-60 Hz		
Switching outputs	2 NO (potentially bound)		
Output 1 (pump)	8 A, cos > 0,7		
Output 2 (valve)	0,5 A		
Order No.	0231-001	0231-011	0231-041

* Special materials on request General information to the chemical resistance of the different flow meters you will find in our chemical resistance list.

**Short-time 120 l/min.

Flow measurement with volume preselection - TS

for highly inflammable liquids



Flow meters type VA10 in PURE-version are optionally available for the food-, cosmetics and pharmaceutical industry.

Technical data	Type LM10 / Ex-RM10dK	Type UN10 / Ex-RM10dK	Type VA10 / Ex-RM10dK
Range of use	Solvents and many other easily inflammable liquids, oils and neutral liquids.	Solvents and easily inflammable liquids, most of acids and alkalis.	Nearly all solvents and easily inflammable liquids. Many acids, alkalis and other liquids.
Flow volume	min. 10 – max. 100** l/min.	min. 10 – max. 100** l/min.	min. 10 – max. 100 l/min.
Temperature	40 °C	40 °C	40 °C
Viscosity	2.000 mPas	2.000 mPas	5.000 mPas
Operating pressure	4 bar	4 bar	10 bar
Accuracy	± 1% standard < 1% with adjustment to application conditions	± 1% standard < 1% with adjustment to application conditions	± 1%
Inlet port	G 2 outer thread to fit connector with union nut	G 2 outer thread to fit connector with union nut	G 1 1/4 outer thread
Outlet port	G 1 1/4 outer thread	G 1 1/4 outer thread	G 1 1/4 outer thread
LCD display	Touch-Screen 63x63 mm, 128x128 pixels, Display sub-total and total volume can be reset		
Menu language	DE, GB, ES, FR, IT, NL, PT, RU		
Materials:			
Housing	PPS	PPS	Stainless steel (1.4581/1.4571)*
Measuring chamber	LCP	LCP	Stainless steel (1.4581/1.4571) ETFE/PTFE
Seals	FEP	FEP	FEP
Magnet	BaFe / MS / Stainless steel 1.4401	PPS encapsulated	PTFE encapsulated
Type of pretection:			
Operating unit	II 2G Ex ib IIB T4 Gb***	II 2G Ex ib IIB T4 Gb***	II 2G Ex ib IIB T4 Gb***
Basic flow meter	II 2G T4 Gb	II 2G T4 Gb	II 2G T4 Gb
Protection class	IP 55	IP 55	IP 55
Weight	4,3 kg	4,3 kg	6,7 kg
Relay module Ex-RM10dK			
Voltage	220-230 V		
Frequency	50-60 Hz		
Switching outputs	2 NO (potentially bound)		
Output 1 (pump)	8 A, cos > 0,7		
Output 2 (valve)	0,5 A		
Type of protection	II 2G Ex de [ib Gb] IIC T6 Gb		
Order No.	0231-020 + 0230-251	0231-030 + 0230-251	0231-040 + 0230-251

* Special materials on request General information to the chemical resistance of the different flow meters you will find in our chemical resistance list.

** Short-time 120 l/min.

*** Protection class II 2G Ex ib IIC T4 Gb on request

Lutz Flow Meter Program

HDO Series: Oval gear principle

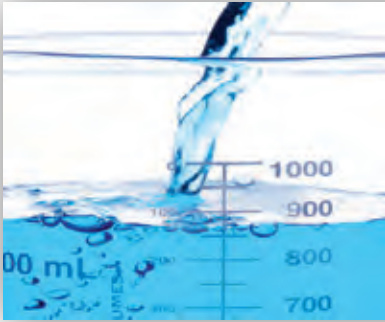


Product Features

The flow meters in plastic or metal version are oval gear types and are suitable for the transfer of thin bodied to highly viscous liquids.

- For high flow volumes, temperatures and pressures
- Few components and wearing parts
- Low pressure loss in the plant

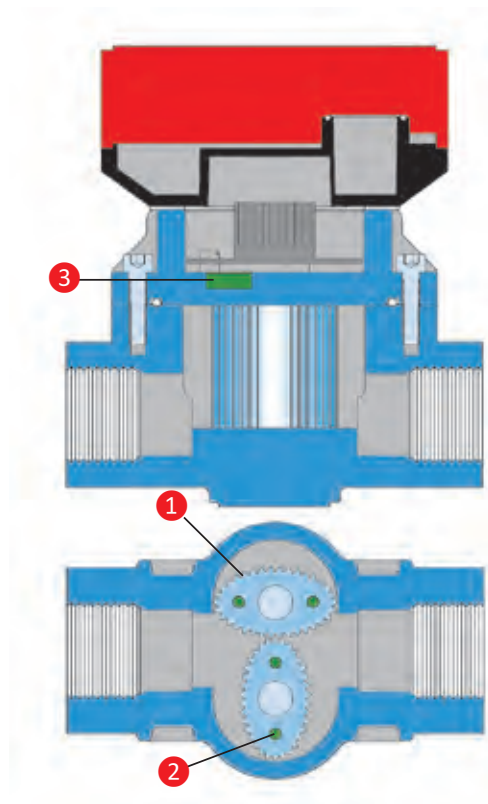




This is the way the HDO operates

Two oval gears interlocked and displaced by 90° in the meter housing are rotated by the flowing fluid. By means of the two oval gears a defined fluid volume „in portions“ is transported. The magnets placed on the rotors are also rotated.

A reed contact fitted outside of the measuring chamber records the magnetic impulses produced. The volume of the flowing fluid is determined by the number of impulses recorded.



- 1 Oval gears
- 2 Permanent magnets
- 3 Reed contact

Lutz Flow Meter HDO 080 with pulse output

for very small flow volumes

- ✓ Housing material metal
- ✓ For very small flow volumes up to 8,3 l/min
- ✓ Compact basic flow meter with 0.3 m connecting cable and plug for connection to external operating unit
- ✓ For neutral liquids, many acids and alkalis, mineral oils, easily inflammable hydrocarbons, solvents, paints and lacquers, etc.
- ✓ With thread connection



Technical data	Type HDO 080 SS/SS
Range of measurement: below 5 mPas above 5 mPas	0.44 l/min - 8.3 l/min 0.25 l/min - 8.3 l/min
Temperature	max. 80 °C
Viscosity max.	1.000 mPas
Operating pressure max.	16 bar
Accuracy	below 5 mPas $\pm 2.5\%$ of measured quantity above 5 mPas $\pm 1\%$ of measured quantity
Reproducibility	$\pm 0.03\%$
Nominal width	DN 8
Connections: thread/flange	G 1/4 IG
LCD display	Basic flow meter without operating unit (suitable operating unit: BE10/BE10 Ex see accessories)
Materials: Housing Rotors Shaft Seal	Stainless steel (1.4571) Stainless steel (1.4571) Stainless steel (1.4571) FPM (alt, FFPM, EPDM)*
Weight	0.7 kg
Type of protection: Basic flow meter	II 2G Ex h IIB T4 Gb
Order No.	Thread
up to 1.000 mPas	0230-600


Optional:

*Additional price seal FFPM Order No. 0230-316

Additional price Seal EPDM Order No. 0230-322

Lutz Flow Meter HDO 120

for non inflammable liquids and easily inflammable liquids

- ✓ Housing material metal
- ✓ For small flow volumes up to 30 l/min
- ✓ **Non Ex-Version:**
For neutral liquids, many acids and alkalis
mineral oil, paints and lacquers, etc.
- ✓ **Ex-Version:** 
For inflammable mineral oil products, easily
flammable hydrocarbons and other chemicals
in explosion hazardous area
- ✓ With thread connection



Technical data	Type HDO 120 Alu/LCP	Type HDO 120 SS/SS
Range of measurement: below 5 mPas above 5 mPas	2 l/min - 25 l/min 1 l/min - 30 l/min	2 l/min - 25 l/min 1 l/min - 30 l/min
Temperature	max. 80 °C (60 °C**)	max. 120 °C (60 °C**)
Viscosity max.	1.000 mPas	1.000 mPas
Operating pressure max.	16 bar	16 bar
Accuracy	below 5mPas ± 2% of measured quantity above 5mPas ± 0,5% of measured quantity	below 5mPas ± 2% of measured quantity above 5mPas ± 0,5% of measured quantity
Reproducibility	± 0.03%	± 0.03%
Nominal width	DN 12	DN 12
Connections: thread/flange	G 1/2 IG	G 1/2 IG
LCD display	Touch-Screen 63x63 mm, 128x128 pixels, Display sub-total and total volume can be reset	
Menu language	DE, GB, ES, FR, IT, NL, PT, RU	
Materials:		
Housing	Aluminium	Stainless steel (1.4404)
Rotors	LCP	Stainless steel (1.4404)
Shaft	Stainless steel (1.4404)	Stainless steel (1.4404)
Seal	FPM (alt. FFPM, EPDM)*	FPM (alt. FFPM, EPDM)*
Protection class	IP 55	IP 55
Weight	2.1 kg	4.5 kg
Order No.	Thread	Thread
up to 1.000 mPas	0231-101	0231-100

Technical data	Type HDO 120 Alu/LCP Ex	Type HDO 120 SS/SS Ex
Type of protection: Operating unit Basic flow meter	II 2G Ex ib IIB T4 Gb*** II 2G Ex h IIB T4 Gb 	II 2G Ex ib IIB T4 Gb*** II 2G Ex h IIB T4 Gb 
Order No.	Thread	Thread
up to 1.000 mPas	0231-103	0231-102


Optional: *Additional price seal FFPM Order No. 0230-315, Additional price seal EPDM Order No. 0230-321 **in Ex-Version *** Protection class II 2G Ex ib IIC T4 Gb on request.

Recommended Accessories: Power supply unit NG10***	
Voltage	220-230 V
Frequency	50-60 Hz
Order No.	0230-230



**** Limited battery operation without power supply unit possible. Installation of power supply unit outside of the explosion hazard area required..

Lutz Flow Meter HDO 200

for non inflammable liquids and easily inflammable liquids

- ✓ Housing material metal
- ✓ For small and medium flow volumes up to 60 l/min
- ✓ **Non Ex-Version:**
For neutrals liquids, many acids and alkalis
mineral oil, paints and lacquers, etc.
- ✓ **Ex-Version:** 
For inflammable mineral oil products, easily
flammable hydrocarbons and other chemicals
in explosion hazardous area
- ✓ With thread connection



Technical data	Type HDO 200 Alu/LCP	Type HDO 200 SS/SS
Range of measurement: below 5 mPas above 5 mPas	4.5 l/min - 53 l/min 2 l/min - 60 l/min	4.5 l/min - 53 l/min 2 l/min - 60 l/min
Temperature	max. 80 °C (60 °C**)	max. 120 °C (60 °C**)
Viscosity max.	1.000 mPas	1.000 mPas
Operating pressure max.	16 bar	16 bar
Accuracy	below 5 mPas ± 2% of measured quantity above 5 mPas ± 0,5% of measured quantity	below 5 mPas ± 2 % of measured quantity above 5 mPas ± 0,5% of measured quantity
Reproducibility	± 0.03%	± 0.03%
Nominal width	DN 20	DN 20
Connections: thread/flange	G 3/4 IG	G 3/4 IG
LCD display	Touch-Screen 63x63 mm, 128x128 pixels, Display sub-total and total volume can be reset	
Menu language	DE, GB, ES, FR, IT, NL, PT, RU	
Materials:		
Housing	Aluminium	Stainless steel (1.4404)
Rotors	LCP	Stainless steel (1.4404)
Shaft	Stainless steel (1.4404)	Stainless steel (1.4404)
Seal	FPM (alt. FFPM, EPDM)*	FPM (alt. FFPM, EPDM)*
Protection class	IP 55	IP 55
Weight	2.2 kg	4.8 kg
Order No.	Thread	Thread
up to 1.000 mPas	0231-105	0231-104
Technical data	Type HDO 200 Alu/LCP Ex	Type HDO 200 SS/SS Ex
Type of protection:		
Operating unit	II 2G Ex ib IIB T4 Gb***	II 2G Ex ib IIB T4 Gb***
Basic flow meter	II 2G Ex h IIB T4 Gb 	II 2G Ex h IIB T4 Gb 
Order No.	Thread	Thread
up to 1.000 mPas	0231-107	0231-106


Optional: *Additional price seal FFPM Order No. 0230-315, Additional price seal EPDM Order No. 0230-321 **in Ex-Version *** Protection class II 2G Ex ib IIC T4 Gb on request.

Recommended Accessories: Power supply unit NG10****	
Voltage	220-230 V
Frequency	50-60 Hz
Order No.	0230-230

**** Limited battery operation without power supply unit possible. Installation of power supply unit outside of the explosion hazard area required.




Lutz Flow Meter HDO 250

for non inflammable liquids and easily inflammable liquids

- ✓ Housing material plastic or metal
- ✓ For small and medium flow volumes up to 170 l/min
- ✓ **Non Ex-Version:**
For neutral liquids, many acids and alkalis mineral oil, paints and lacquers, etc.
- ✓ **Ex-Version:** 
For inflammable mineral oil products, easily flammable hydrocarbons and other chemicals in explosion hazardous area
- ✓ With thread- or flange connection



Technical data	Type HDO 250P	Type HDO 250 Alu/PPS		Type HDO 250 SS/PPS		Type HDO 250 SS/SS	
Range of measurement: below 5 mPas above 5 mPas	8 l/min - 70 l/min 3 l/min - 75 l/min	9,5 l/min - 150 l/min 6 l/min - 170 l/min		9,5 l/min - 150 l/min 6 l/min - 170 l/min		9,5 l/min - 150 l/min 6 l/min - 170 l/min	
Temperature	max. 80 °C	max. 80 °C (60 °C**)		max. 80 °C (60 °C**)		max. 120 °C (60 °C**)	
Viscosity max.	1.000 mPas	500.000 mPas		500.000 mPas		500.000 mPas	
Operating pressure max.	10 bar	16 bar		16 bar		16 bar	
Accuracy quantity	below 5 mPas ± 2 % of measured quantity above 5 mPas ± 0.5% of measured quantity	below 5 mPas ± 2% of measured quantity above 5 mPas ± 0.5% of measured quantity		below 5 mPas ± 2% of measured quantity above 5 mPas ± 0.5% of measured quantity		below 5 mPas ± 2% of measured quantity above 5 mPas ± 0.5% of measured quantity	
Reproducibility	0,03%	0,03%		0,03%		0,03%	
Nominal width	DN 25	DN 25		DN 25		DN 25	
Connections: thread/ flange	G 1 IG	G 1 IG	PN 16	G 1 IG	PN 16	G 1 IG	PN 16
LCD display	Touch-Screen 63x63 mm, 128x128 pixels, Display sub-total and total volume can be reset						
Menu language	DE, GB, ES, FR, IT, NL, PT, RU						
Materials:							
Housing	PPS	Aluminium		Stainless steel (1.4404)		Stainless steel (1.4404)	
Rotors	PPS	PPS		PPS		Stainless steel (1.4401)	
Shaft	Hastelloy C (2.4610)	Stainless steel (1.4404)		Stainless steel (1.4404)		Stainless steel (1.4404)	
Seal	FPM (alt. FEP, EPDM)*	FPM (alt. FFPM, EPDM)*		FPM (alt. FFPM, EPDM)*		FPM (alt. FFPM, EPDM)*	
Protection class	IP 55	IP 55		IP 55		IP 55	
Weight	1,3 kg	2,2 kg	3,0 kg	4,7 kg	5,9 kg	4,8 kg	6,0 kg
Order No.	Thread	Thread	Flange	Thread	Flange	Thread	Flange
up to 1.000 mPas	0231-200	0231-209	0231-210	0231-205	0231-206	0231-201	0231-202
up to 500.000 mPas	—	0231-211	0231-212	0231-207	0231-208	0231-203	0231-204

Technical data	Type HDO 250 Alu/PPS Ex		Type HDO 250 SS/PPS Ex		Type HDO 250 SS/SS Ex	
Type of protection: Operating unit Basic flow meter	II 2G Ex ib IIB T4 Gb*** II 2G Ex h IIB T4 Gb 		II 2G Ex ib IIB T4 Gb*** II 2G Ex h IIB T4 Gb 		II 2G Ex ib IIB T4 Gb*** II 2G Ex h IIB T4 Gb 	
Order No.	Thread	Flange	Thread	Flange	Thread	Flange
up to 1.000 mPas	0231-221	0231-222	0231-217	0231-218	0231-213	0231-214
up to 500.000 mPas	0231-223	0231-224	0231-219	0231-220	0231-215	0231-216


Optional: *Additional price HDO 250P: seal FEP Order No. 0211-350, additional price HDO 250P: seal EPDM Order No. 0211-353, additional price HDO 250: seal FFPM Order No. 0230-312 additional price HDO 250: seal EPDM Order No. 0230-318. Drum pump connection for B70 / HD-E pump – see page 34. **in Ex-Version *** Protection class II 2G Ex ib IIC T4 Gb on request.

Recommended Accessories: Power supply unit NG10***	
Voltage	220-230 V
Frequency	50-60 Hz
Order No.	0230-230


**** Limited battery operation without power supply unit possible. Installation of power supply unit outside of the explosion hazard area required.

Lutz Flow Meter HDO 400

for non inflammable liquids and easily inflammable liquids

- ✓ Housing material metal
- ✓ For medium flow volumes up to 246 l/min
- ✓ **Non Ex-Version:**
For neutral liquids, many acids and alkalis
mineral oil, paints and lacquers, etc.
- ✓ **Ex-Version:** 
For inflammable mineral oil products, easily
flammable hydrocarbons and other chemicals
in explosion hazardous areas
- ✓ With thread- or flange connection



Technical data	Type HDO 400 Alu/PPS		Type HDO 400 SS/PPS		Type HDO 400 SS/SS	
Range of measurement:	15 l/min - 227 l/min		15 l/min - 227 l/min		15 l/min - 227 l/min	
below 5 mPas	9,5 l/min - 246 l/min		9,5 l/min - 246 l/min		9,5 l/min - 246 l/min	
above 5 mPas	max. 80 °C (60 °C**)		max. 80 °C (60 °C**)		max. 120 °C (60 °C**)	
Temperature	500.000 mPas		500.000 mPas		500.000 mPas	
Viscosity max.	16 bar		16 bar		16 bar	
Operating pressure max.	below 5 mPas ± 1% of measured quantity		below 5 mPas ± 1% of measured quantity		below 5 mPas ± 1% of measured quantity	
Accuracy quantity	above 5 mPas ± 0.5% of measured quantity		above 5 mPas ± 0.5% of measured quantity		above 5 mPas ± 0.5% of measured quantity	
Reproducibility	0,03%		0,03%		0,03%	
Nominal width	DN 40		DN 40		DN 40	
Connections:						
thread/ flange	G 1 1/2 IG	PN 16	G 1 1/2 IG	PN 16	G 1 1/2 IG	PN 16
LCD display	Touch-Screen 63x63 mm, 128x128 pixels, Display sub-total and total volume can be reset					
Menu language	DE, GB, ES, FR, IT, NL, PT, RU					
Materials:						
Housing	Aluminium		Stainless steel (1.4404)		(1.4404)	
Rotors	PPS		PPS		Stainless steel (1.4401)	
Shaft	Stainless steel (1.4404)		Stainless steel (1.4404)		Stainless steel (1.4404)	
Seal	FPM (alt. FFPM, EPDM)*		FPM (alt. FFPM, EPDM)*		FPM (alt. FFPM, EPDM)*	
Protection class	IP 55		IP 55		IP 55	
Weight	4,5 kg	5,5 kg	10,4 kg	12,0 kg	10,5 kg	12,1 kg
Order No.	Thread	Flange	Thread	Flange	Thread	Flange
up to 1.000 mPas	0231-233	0231-234	0231-229	0231-230	0231-225	0231-226
up to 500.000 mPas	0231-235	0231-236	0231-231	0231-232	0231-227	0231-228
Technical data	Type HDO 400 Alu/PPS Ex		Type HDO 400 SS/PPS Ex		Type HDO 400 SS/SS Ex	
Type of protection:	II 2G Ex ib IIB T4 Gb*** 		II 2G Ex ib IIB T4 Gb*** 		II 2G Ex ib IIB T4 Gb*** 	
Operating unit	II 2G Ex h IIB T4 Gb		II 2G Ex h IIB T4 Gb		II 2G Ex h IIB T4 Gb	
Basic flow meter						
Order No.	Thread	Flange	Thread	Flange	Thread	Flange
up to 1.000 mPas	0231-245	0231-246	0231-241	0231-242	0231-237	0231-238
up to 500.000 mPas	0231-247	0231-248	0231-243	0231-244	0231-239	0231-240

Optional: *Additional price seal: FFPM Order No. 0230-313, Additional price seal: EPDM Order No. 0230-319. Drum pump connection for B70 / HD-E pump – see page 34.

** in Ex-Version *** Protection class II 2G Ex ib IIC T4 Gb on request.


Recommended Accessories: Power supply unit NG10****

Voltage	220-230 V
Frequency	50-60 Hz
Order No.	0230-230

**** Limited battery operation without power supply unit possible. Installation of power supply unit outside of the explosion hazard area required.




Lutz Flow Meter HDO 500

for non inflammable liquids and easily inflammable liquids

- ✓ Housing material metal
- ✓ For large flow volumes up to 380 l/min
- ✓ **Non Ex-Version:**
For neutral liquids, many acids and alkalis mineral oil, paints and lacquers, etc.
- ✓ **Ex-Version:** 
For inflammable mineral oil products, easily flammable hydrocarbons and other chemicals in explosion hazardous areas
- ✓ With flange connection



Technical data	Type HDO 500 Alu/PPS	Type HDO 500 SS/PPS	Type HDO 500 SS/SS
Range of measurement: below 5 mPas above 5 mPas	23 l/min - 380 l/min 15 l/min - 380 l/min	23 l/min - 380 l/min 15 l/min - 380 l/min	23 l/min - 380 l/min 15 l/min - 380 l/min
Temperature	max. 80 °C (60 °C**)	max. 80 °C (60 °C**)	max. 120 °C (60 °C**)
Viscosity max.	500.000 mPas	500.000 mPas	500.000 mPas
Operating pressure max.	16 bar	16 bar	16 bar
Accuracy quantity	below 5 mPas ± 1% of measured quantity above 5 mPas ± 0.5% of measured quantity	below 5 mPas ± 1% of measured quantity above 5 mPas ± 0.5% of measured quantity	below 5 mPas ± 1% of measured quantity above 5 mPas ± 0.5% of measured quantity
Reproducibility	± 0,03%	± 0,03%	± 0,03%
Nominal width	DN 50	DN 50	DN 50
Connections: thread/ flange	PN 16	PN 16	PN 16
LCD display	Touch-Screen 63x63 mm, 128x128 mm pixels, Display sub-total and total volume can be reset		
Menu language	DE, GB, ES, FR, IT, NL, PT, RU		
Materials:			
Housing	Aluminium	Stainless steel (1.4404)	Stainless steel (1.4404)
Rotors	PPS	PPS	Stainless steel (1.4401)
Shaft	Stainless steel (1.4404)	Stainless steel (1.4404)	Stainless steel (1.4404)
Seal	FPM (alt. FFPM, EPDM)*	FPM (alt. FFPM, EPDM)*	FPM (alt. FFPM, EPDM)*
Protection class	IP 55	IP 55	IP 55
Weight	6,6 kg	13,6 kg	13,8 kg
Order No.	Flange	Flange	Flange
up to 1.000 mPas	0231-253	0231-251	0231-249
up to 500.000 mPas	0231-254	0231-252	0231-250

Technical data	Type HDO 200 Alu/PPS Ex	Type HDO 200 SS/PPS Ex	Type HDO 500 SS/SS Ex
Type of protection: Operating unit Basic flow meter	II 2G Ex ib IIB T4 Gb***  II 2G Ex h IIB T4 Gb	II 2G Ex ib IIB T4 Gb***  II 2G Ex h IIB T4 Gb	II 2G Ex ib IIB T4 Gb***  II 2G Ex h IIB T4 Gb
Order No.	Flange	Flange	Flange
up to 1.000 mPas	0231-259	0231-257	0231-255
up to 500.000 mPas	0231-260	0231-258	0231-256

Optional: *Additional price seal: FFPM Order No. 0230-314, Additional price seal: EPDM Order No. 0230-320. ** in Ex-Version *** Protection class II 2G Ex ib IIC T4 Gb on request.

Recommended Accessories: Power supply unit NG10****	
Voltage	220-230 V
Frequency	50-60 Hz
Order No.	0230-230

**** Limited battery operation without power supply unit possible. Installation of power supply unit outside of the explosion hazard area required.

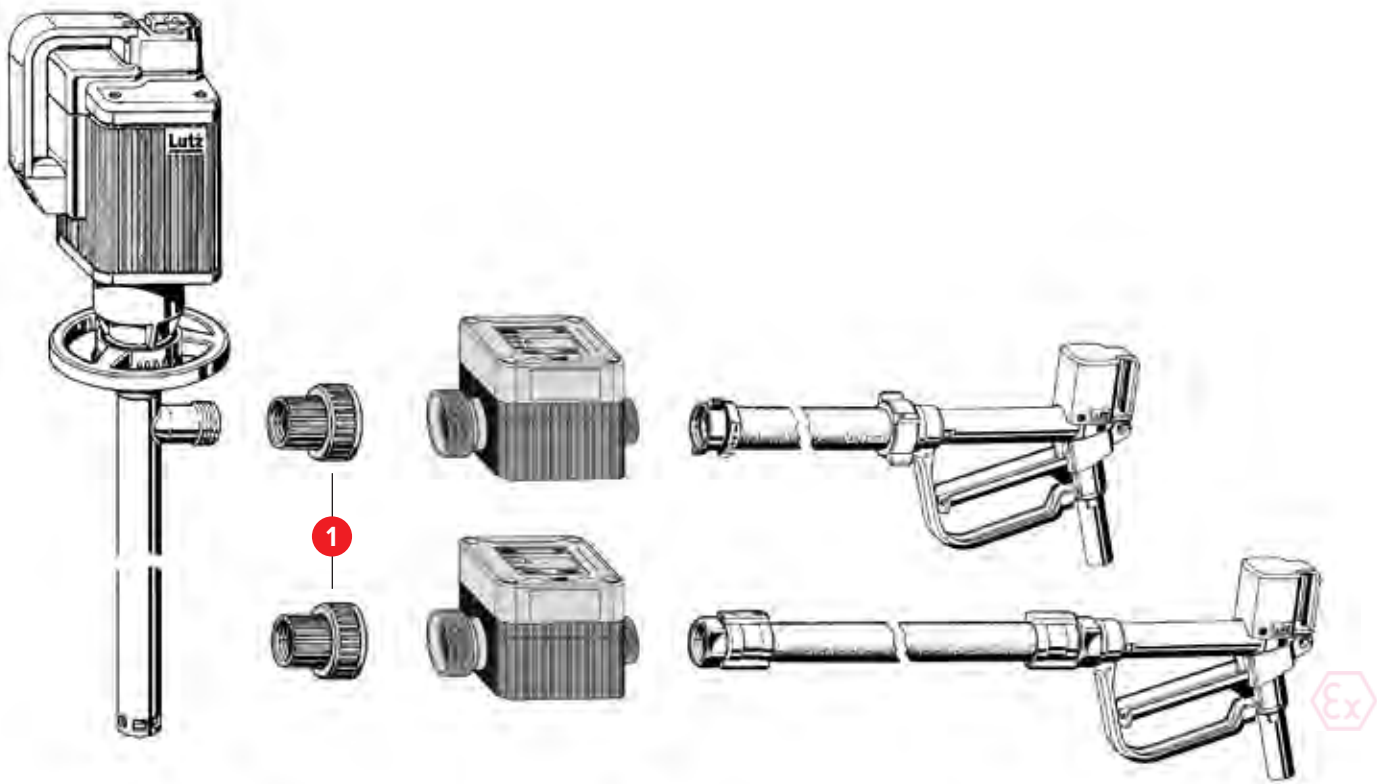
Accessories Lutz Flow Meter Program

for mobile and stationary applications



Take control

The comprehensive range of accessories makes it possible to install the flow meter onto a pump or into a pipe line. With appropriate connecting cables the system is immediately ready for use.

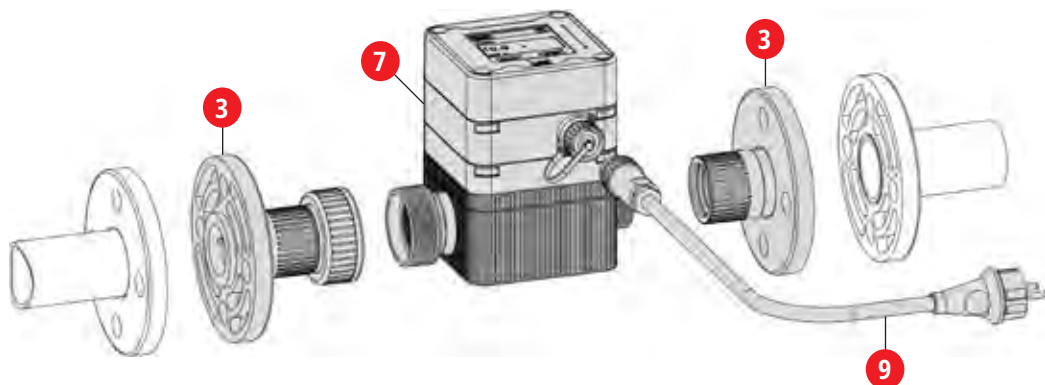


... Flange version

1 Drum pump connection

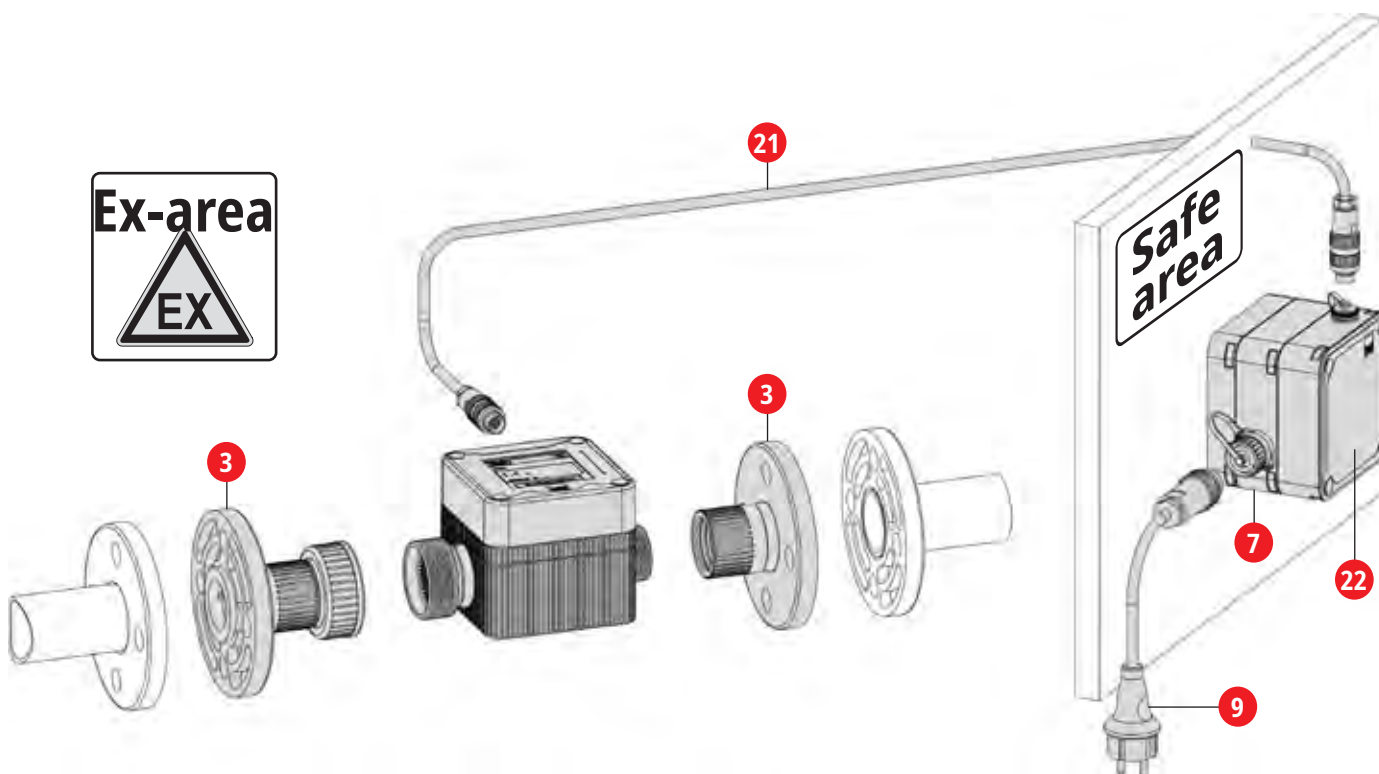
Accessories

Flow meter TS without volume preselection



... with power supply unit in plant engineering

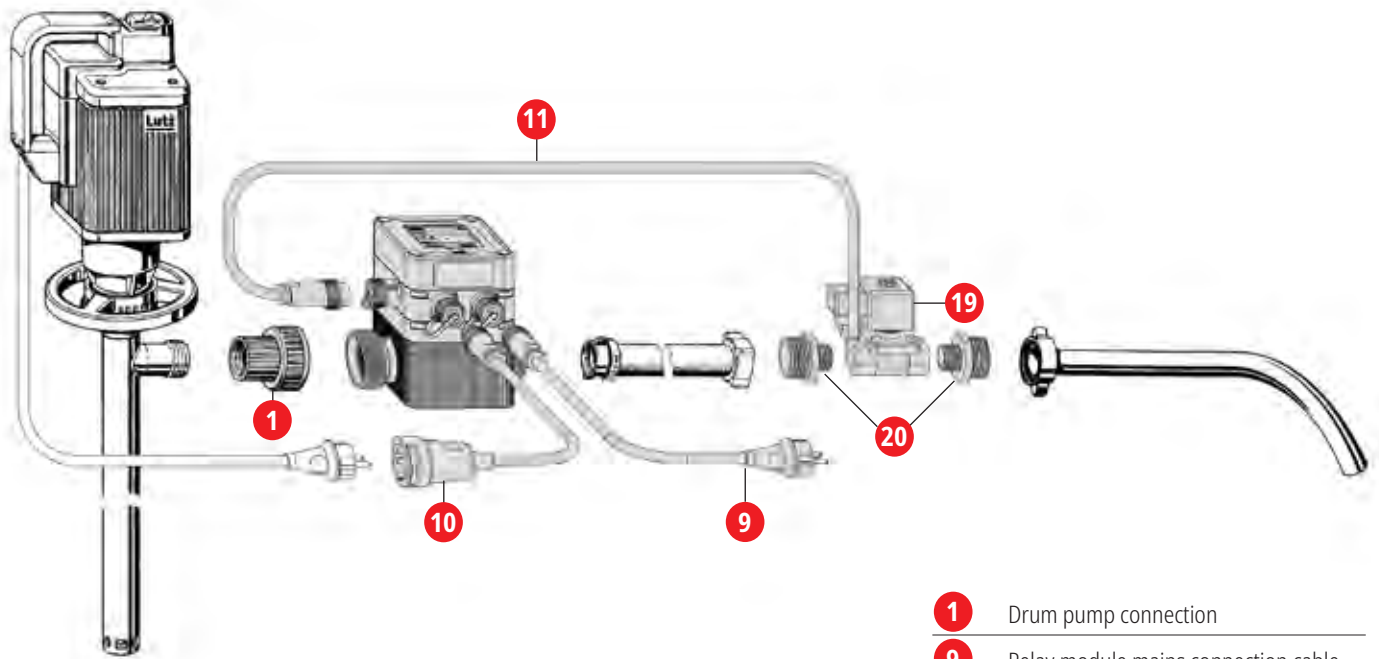
- 3** Flange connection
- 7** Power supply unit NG10
- 9** Mains connection cable



... with power supply unit in plant engineering (Ex)

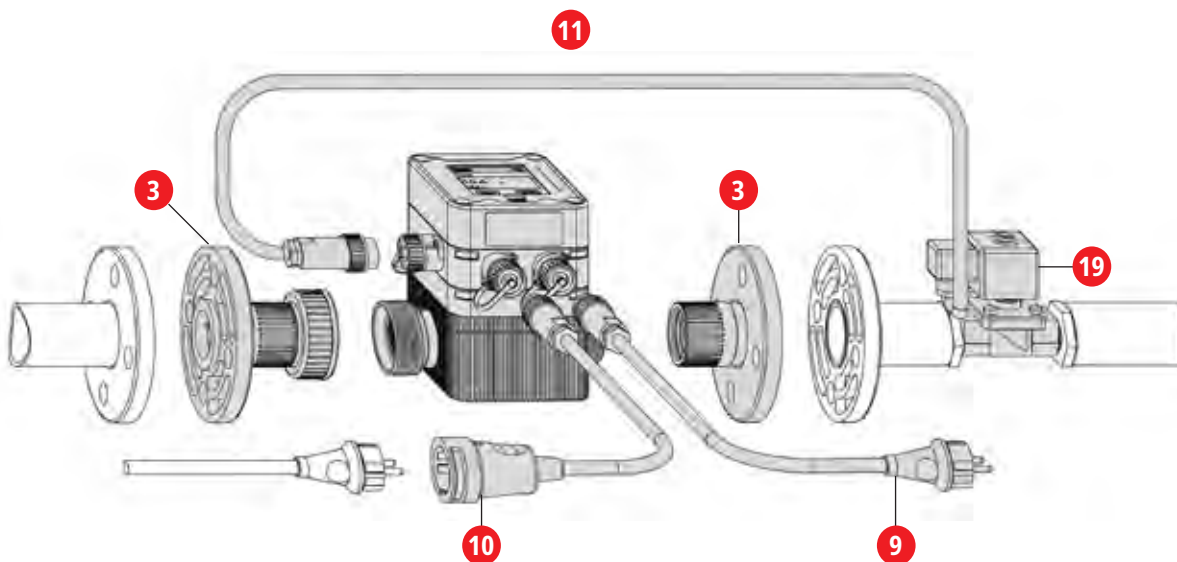
- 3** Flange connection
- 7** Power supply unit NG10
- 9** Mains connection cable
- 21** Data cable
- 22** Protection cover SH10

Flow measurement with volume preselection



... Thread version

- 1** Drum pump connection
- 9** Relay module mains connection cable
- 10** Motor/Slow connection cable, single
- 11** Main valve connection cable
- 19** Solenoid valve
- 20** Double nipple

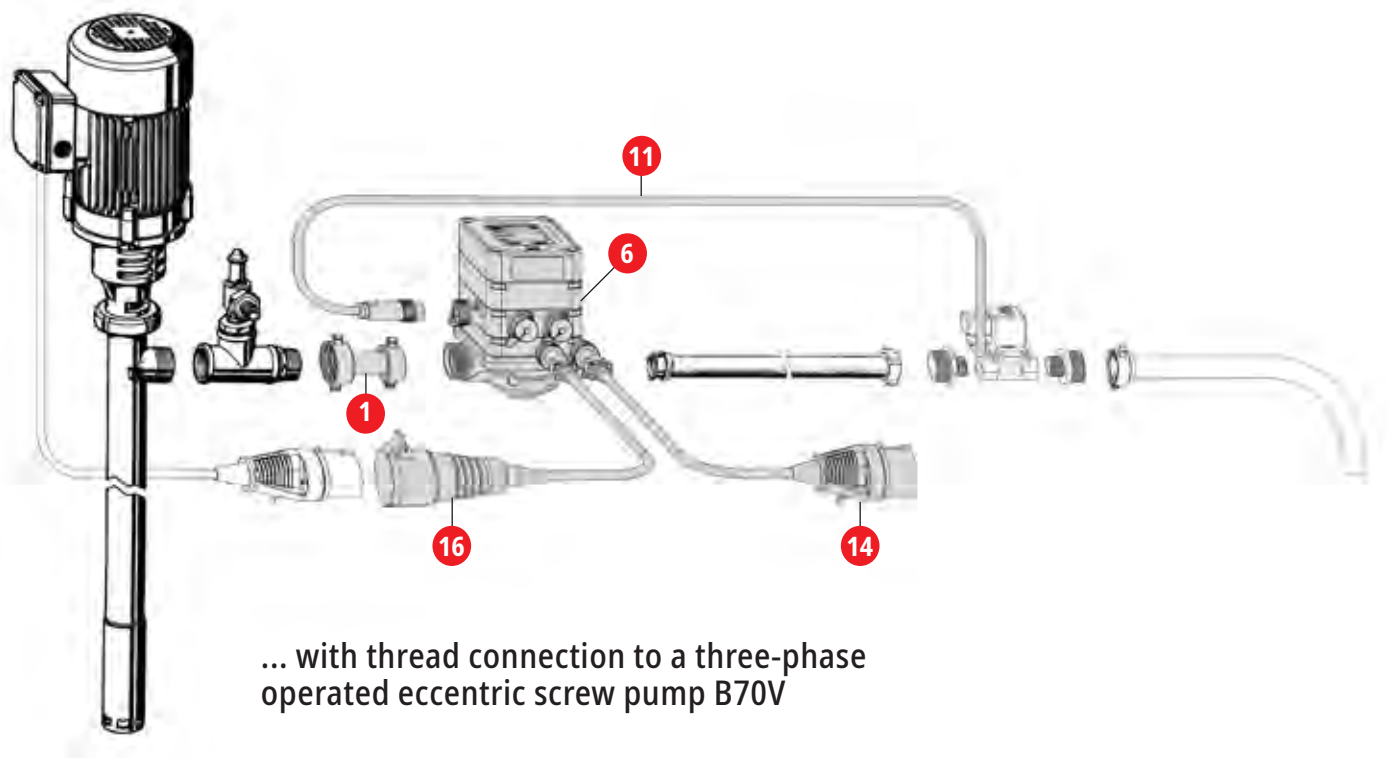


... Flange version

- 3** Flange connection
- 9** Relay module mains connection cable
- 10** Motor/Slow connection cable, single
- 11** Main valve connection cable
- 19** Solenoid valve

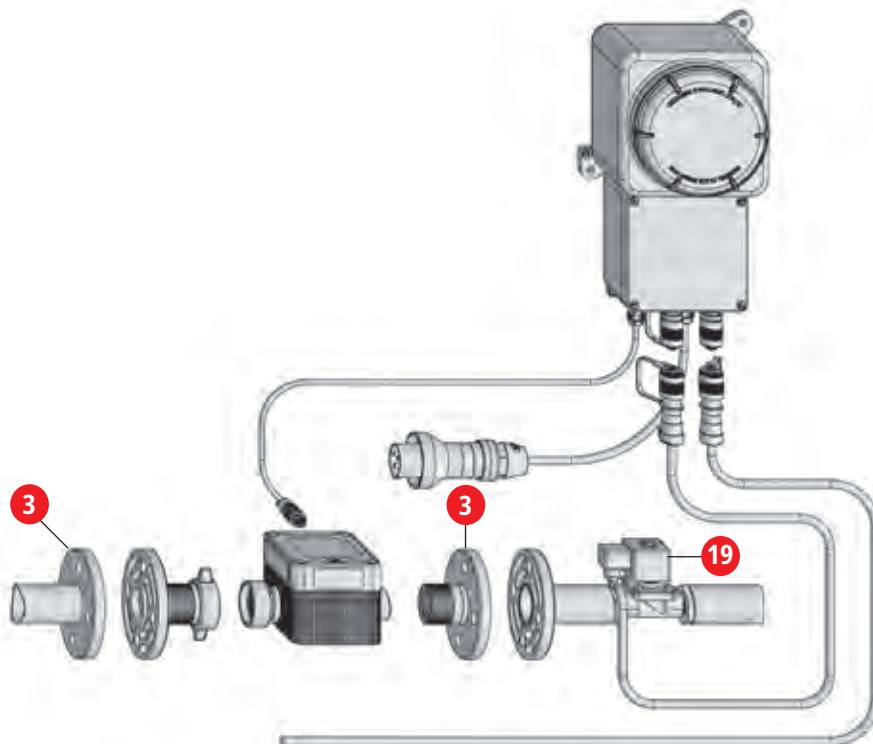
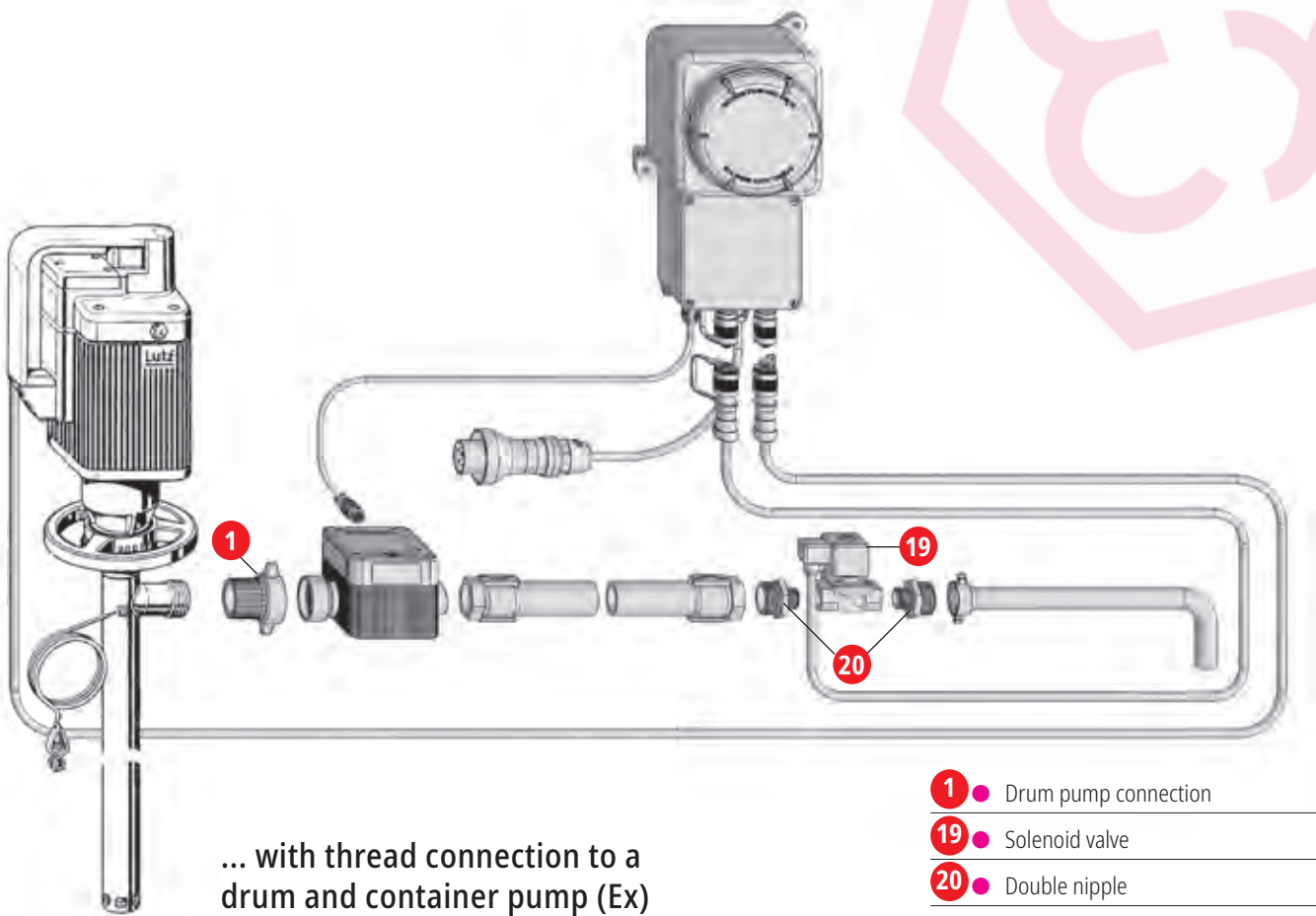
Accessories

Flow measurement with volume preselection ...









- | | |
|----|-----------------------------------|
| 1 | Drum pump connection |
| 6 | Relay module RM30 |
| 11 | Main valve connection cable |
| 14 | Mains connection cable RM30 400 V |
| 16 | Connection cable motor RM30 400 V |

Flow measurement with volume preselection ...



Accessories

Connection fittings

Product detail	Specification	Order-No.
	1 Drum pump connection Connects the flow meter to a drum and container pump. PPO/FPM G 1 1/4 inner tread for ST10, SL10 PPS/FPM-FEP G 1 1/4 inner tread for LM10, UN10 Stainless steel/PTFE G 1 1/4 - G 1 1/4 IT for VA10 Stainless steel/PTFE G 1 1/4 - G 1 1/2 IT for VA10	0211-130 0211-132 ● 0211-211 ● 0211-214 ●
	1 Drum pump connection Connects the flow meter to an eccentric screw pump B70-V or HD-E PP/PTFE G 1 OT x G 1 1/4 IT for HDO250 P Stainless steel/PTFE G 1 OT* x G 1 1/4 IT* for HDO250 Stainless steel/PTFE G 1 OT* x G 1 1/2 IT* for HDO250	0211-332 0211-330 ● 0211-331 ●
	2 Double nipple Connects the flow meter to a pipeline system PP G 1 OT x G 1 1/4 AG, for drum pump connection G 1 OT x G 1 1/4 IT Stainless steel G 1 OT x G 1 1/4 OT, for drum pump connection G 1 OT x G 1 1/4 IT Stainless steel G 1 OT x G 1 1/2 OT, for drum pump connection G 1 OT x G 1 1/2 IT <small>*Spacer ring 0231-545 is additionally required</small>	5000-070 5000-073* 0211-340*
	3 Flange connection Connects the flow meter to a pipeline system. PPO/FPM DN 32, PN 10, two-sided for ST10, SL10 PPS/FPM-FEP DN 32, PN 10, two-sided for LM10, UN10 Stainless steel DN 25, PN 6, one-sided for VA10 Stainless steel DN 32, PN 6, one-sided for VA10 Stainless steel DN 32, PN 10, one-sided for VA10 Stainless steel DN 40, PN 10, one-sided for VA10	0211-131 0211-133 ● 0208-620 ● 0208-621 ● 0208-622 ● 0208-623 ●
	4 Thread connection Connects the flow meter to screw-type flanges or threaded screw connections. PPO/FPM G 1 1/4 outer tread for ST10, SL10 PPS/FPM-FEP G 1 1/4 outer tread for LM10, UN10	0211-135 0211-136 ●
	Non-return valve Prevents flow back of the liquid in the hose system. PTFE/FPM for ST10, SL10 PTFE/FPM-FEP for LM10, UN10 Opening pressure: 0.05 bar	0211-140 0211-141 ●

FPM is a registered trademark of DuPont Performance Elastomers.





*OT = Outer Thread / *IT = Inner Thread








Specification	Order-No.	Product detail
<div>5</div> Relay module RM10 <p>Facilitates volume preselection in combination with the appropriate connection cables.</p> <p>220-230 V, 50-60 Hz, II (2) G [Ex ib] IIC</p> <p>for ST10, SL10, VA10 HDO080, HDO120, HDO200, HDO250, HDO400, HDO500</p> <p>0230-200</p>		
<div>5</div> Relay module Ex-RM10dK (complete version) <p>Facilitates the filling with volume preselection in Ex-areas. Ex-plug-type connections „mini CLIX®/eXLink-System®“ With 5 m connecting cable and 3-pole ex-plug (CEAG), incl. data line 5 m and coupling plug 14-pole.</p> <p>220-230 V, 50-60 Hz, II 2G Ex de [ib Gb] IIC T6 Gb</p> <p>for LM10, UN10, VA10 HDO080Ex, HDO120Ex, HDO200Ex, HDO250Ex, HDO400Ex, HDO500Ex</p> <p>0230-251 ●</p>		
<div>5</div> Relay module Ex-RM10dB (basic version) <p>Facilitates volume preselection in ex-areas. Without cables, accessories on request, incl. data line 5 m and coupling plug 14-pole.</p> <p>220-230 V, 50-60 Hz, II 2G Ex de [ib Gb] IIC T6 Gb</p> <p>for LM10, UN10, VA10 HDO080Ex, HDO120Ex, HDO200Ex, HDO250Ex, HDO400Ex, HDO500Ex</p> <p>0230-250 ●</p>		
<div>6</div> Relay module RM30 <p>Facilitates volume preselection in combination with the appropriate connection cables. For controlling rotary current and capacitor motors.</p> <p>400 V, 1.5 kW, 50 Hz resp. 230 V, 0.8 kW, 50 Hz II (2) G [Ex ib] IIC</p> <p>for ST10, SL10, VA10 HDO080, HDO120, HDO200, HDO250, HDO400, HDO500</p> <p>0230-220</p>		
<div>7</div> Power supply unit NG10 230V <p>Supplies the control unit with power (instead of batteries). This function is already included in relay modules.</p> <p>220-230 V, 50-60 Hz, II (2) G [Ex ib] IIC</p> <p>for ST10, SL10, VA10 HDO080, HDO120, HDO200, HDO250, HDO400, HDO500</p> <p>0230-230</p>		

eXLink-System® is a registered trademark of Cooper Crouse-Hinds GmbH

Accessories

for volume preselection




Product detail	Specification	Order-No.
	<p>Communication module allows the communication with external control systems, analog output (0-20mA, 4-20mA, 0-10 V), analog output, RS485 interface, alarm output, Digital input (external start/stop)</p> <p>8 Communication module KM10K (complete version) with cable protective covering for ST10, SL10, VA10, HDO080, HDO120, HDO200, HDO250, HDO400, HDO500</p>	0230-101
	<p>9 Power cable relay module 5 m long 230 V, 50 Hz</p> <p>for RM10, NG10</p>	0211-155
	<p>10 Connecting cable Motor/Slow 1-way 0.5 m long 230 V, 50 Hz</p> <p>for RM10</p>	0211-153
	<p>Connecting cable motor/slow 3-way 0.5 m long 230 V, 50 Hz</p> <p>for RM10</p>	0211-154

Specification	Order-No.	Product detail
11 Connecting cable main valve 5 m long 230 V, 50 Hz for RM10 and RM30	0211-150	
12 Connecting cable slow-valve 5 m long 230 V, 50 Hz for RM10	0211-151	
13 Extension cable 5 m long 230 V, 50 Hz for RM10	0211-152	
14 Power cable RM30 400 V 5 m long 400 V, 50 Hz, 5-wire for RM30	0211-388	
15 Connector relay module for individual wiring Plug for motor-/valve connection 230 V, 50 Hz, 4-pole 230 V, 50 Hz, „mini CLIX®/eXLink-System®“ Coupling for mains connection 230 V, 50 Hz, 4-pole	for RM10 for Ex-RM10mK for RM10	0336-095 0336-108* 0336-099
16 Connecting cable motor RM30 400 V 0.6 m long 400 V, 50 Hz, 5-pole for RM30	0211-386	
17 Power cable RM30 230 V 5 m long 230 V, 50 Hz for RM30	0211-387	
18 Connecting cable motor RM30 230 V 0.5 m long 230 V, 50 Hz for RM30	0211-385	

*special Crimp tool required for connection. eXLink-System® is a registered trademark of Cooper Crouse-Hinds GmbH

Accessories

for volume preselection

Product detail	Specification	Order-No.
	19 Solenoid valve brass FPM seal, connection G 3/4 inner thread 230 V, 50 Hz	for RM10 and RM30 0211-096
	19 Solenoid valve stainless steel FPM seal, connection G 3/4 inner thread 230 V, 50 Hz	for RM10 and RM30 0211-097
	19 Solenoid valve PVC* FPM seal, connection G 3/4 inner thread 230 V, 50 Hz	for RM10 and RM30 0211-098
	19 Solenoid valve brass, Ex PTFE seal, connection G 3/4 inner thread, incl. 5 m connecting cable and „mini CLIX®/eXLink®-plug“ 230 V, 50 Hz, II 2G Ex eb mb IIC T3 Gb	for Ex-RM10mK 0211-396 ●
	19 Solenoid valve stainless steel, Ex PTFE seal, connection G 3/4 inner thread, incl. 5 m connecting cable and „mini CLIX®/eXLink®-plug“ 230 V, 50 Hz, II 2G Ex eb mb IIC T3 Gb	for Ex-RM10mK 0211-395 ●
	20 Double nipple PP G 3/4 outer thread – G 1 1/4 outer thread	0211-606
	Double nipple brass G 3/4 outer thread – G 1 1/4 outer thread	0204-346 ●
	Double nipple stainless steel G 3/4 outer thread – G 1 1/4 outer thread	0204-347 ●

*Non-return valve (0211-140 or 0211-141) for full hose system needed.

● Suitable for the transfer of combustible and easily inflammable liquids (e.g. ethanol, petrol) and for pumping liquids in potentially explosive environments.

Specification	Order-No.	Product detail
<p>21 Data cable</p> <p>Connects the modules in the case of decentralised installation.</p> <p>14-pole, 5 m long for ST10, SL10, LM10, UN10, VA10, HDO080, HDO120, HDO200, HDO250, HDO400, HDO500 0230-306 ●</p> <p>14-pole, 10 m long for ST10, SL10, LM10, UN10, VA10, HDO080, HDO120, HDO200, HDO250, HDO400, HDO500 0230-309 ●</p> <p>Data cable SPS for the connection of a basic flow meter with protection cap onto a PLC. 14-pole, with a free cable end, 5 m long. 0230-317 ●</p>		
<p>22 Protection cover SH10 with 1 data socket</p> <p>Protects the modules in the case of decentralised installation. for ST10, SL10, LM10, UN10, VA10, HDO080, HDO120, HDO200, HDO250, HDO400, HDO500 0230-350 ●</p> <p>22 Protection cover SH20 with 2 data socket</p> <p>Protects the modules in the case of decentralised installation. for ST10, SL10, LM10, UN10, VA10, HDO080, HDO120, HDO200, HDO250, HDO400, HDO500 0230-351 ●</p>		
<p>Pulse converter</p> <p>for a signal amplification, must be mounted on the basic flow meter if the distance to the next module is more than 5 m</p> <p>23 Pulse converter IW10 with 1 data socket</p> <p>for ST10, SL10, VA10, HDO080, HDO120, HDO200, HDO250, HDO400, HDO500 0230-352</p> <p>23 Pulse converter IW20 with 2 data socket</p> <p>for ST10, SL10, VA10, HDO080, HDO120, HDO200, HDO250, HDO400, HDO500 0230-353</p>		
<p>24 All-purpose plate</p> <p>For wall-mounting or as a heat protection plate for ST10, SL10, LM10, UN10, VA10, HDO080, HDO120, HDO200, HDO250, HDO400, HDO500 0230-304 ●</p>		
<p>25 Wall bracket set</p> <p>Additional clamp fixing for DIN rails (TS 35) EN 50022 for ST10, SL10, LM10, UN10, VA10, HDO080, HDO120, HDO200, HDO250, HDO400, HDO500 0230-307 ●</p> <p>Installation together with all-purpose plate 0230-304. (all-purpose plate not included in wall bracket set)</p>		
<p>26 Hose bracket for control unit</p> <p>For decentralised installation of the modules on a hose line. for ST10, SL10, LM10, UN10, VA10, HDO080, HDO120, HDO200, HDO250, HDO400, HDO500 0230-303 ●</p>		

Accessories




Product detail	Specification	Order-No.
	27 Control unit BE10 for ST10, SL10, VA10, HDO080, HDO120, HDO200, HDO250, HDO400, HDO500	0230-000
	27 Control unit BE10V With compound-filled electronics for ST10, SL10, VA10, HDO080, HDO120, HDO200, HDO250, HDO400, HDO500	0230-001
	27 Control unit Ex-BE10B II 2G Ex ib IIB T4 Gb for LM10, UN10, VA10, HDO080Ex, HDO120Ex, HDO200Ex, HDO250Ex, HDO400Ex, HDO500Ex	0230-010 ●
	27 Control unit Ex-BE10BV With compound-filled electronics II 2G Ex ib IIB T4 Gb for LM10, UN10, VA10, HDO080Ex, HDO120Ex, HDO200Ex, HDO250Ex, HDO400Ex, HDO500Ex	0230-011 ●
	27 Control unit Ex-BE10C II 2G Ex ib IIC T4 Gb for LM10, UN10, VA10, HDO080Ex, HDO120Ex, HDO200Ex, HDO250Ex, HDO400Ex, HDO500Ex	0230-020 ●
	27 Control unit Ex-BE10CV With compound-filled electronics II 2G Ex ib IIC T4 Gb for LM10, UN10, VA10, HDO080Ex, HDO120Ex, HDO200Ex, HDO250Ex, HDO400Ex, HDO500Ex	0230-021 ●

Basic flow meter for decentralised assembly and external data evaluation

Given larger distances between the measuring and control point or installation locations difficult to access in the plant, the individual modules (basic flow meter, operating unit, relay module, etc.) can be installed in different locations. The data transfer between the components is

established by data cable, protective cover/ pulse converter and plug connection without awkward and complicated wiring.

For data transmission to an external signal processor (e.g. SPS), a communication module is necessary.

Specification	Order No.	Product detail
28 Basic flow meter ST10 (FPM) PPO/PPS/BaFe/FPM Basic flow meter SL10 (FPM) PPO/PPS/FPM Basic flow meter LM10 (FPM-FEP) PPS/LCP/BaFe/FPM-FEP II 2G T4 Gb Basic flow meter UN10 (FPM-FEP) PPS/LCP/FPM-FEP II 2G T4 Gb	0230-500 0230-510 0230-520 ● 0230-530 ●	
28 Basic flow meter VA10 (FPM-FEP) Stainless steel 1.4571/PTFE/FEP II 2G T4 Gb	0230-540 ●	
28 Basic flow meter HDO II 2G Ex h IIB T4 Gb (Stainless steel/Alu)	on request ●	

FPM is a registered trademark of DuPont Performance Elastomers.

Twice the **COMPETENCE...**



Professional Fluid Management

Drum pump sets

Drum and container pumps

Eccentric screw drum pumps

Flow meter systems

Air operated double diaphragm pumps

Vertical and horizontal centrifugal pumps



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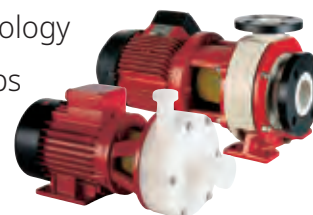
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