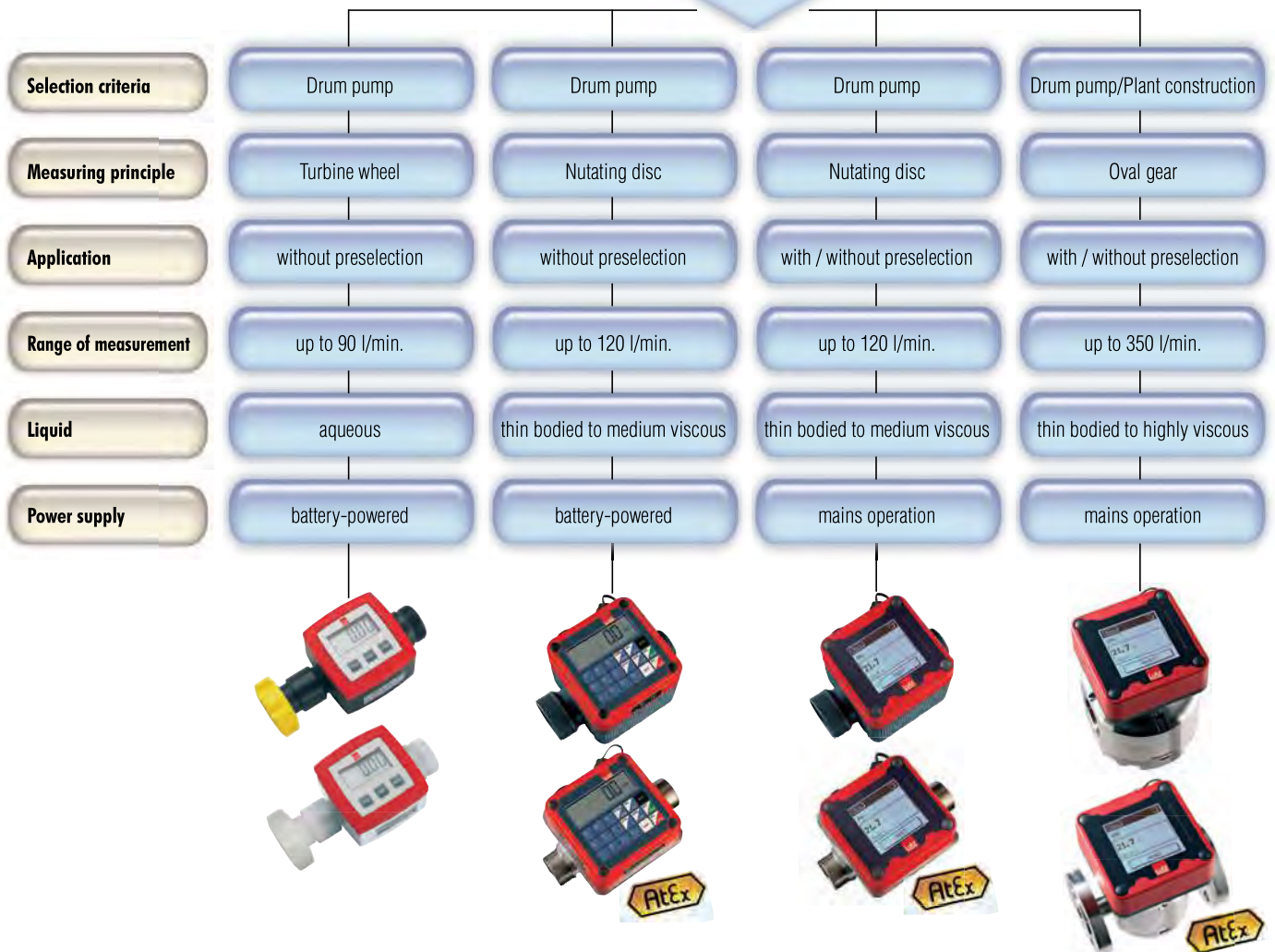


Selection Criteria



TR Series

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

(see pages 4-5)

TSB Series

- ✓ LCD display with numeric keypad
- ✓ Large 6-digit LCD
- ✓ Ideal for mobile use with a drum pump

(see pages 6-7)

TS Series

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

(see pages 10-19)

HDO Series

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

(see pages 20-27)

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	Type HC10
Range of use	Neutral liquids like water, mineral oils	Abrasive liquids like acids and alkalis	Many acids, alkalis and other liquids	Highly aggressive acids and acids
Flow volume l/min.	min. 10 – max. 100**	min. 10 – max. 100**	min. 10 – max. 100	min. 10 – max. 100
Temperature °C	60	60	80	80
Viscosity mPas	2,000	2,000	5,000	5,000
Operating pressure bar	4	4	10	10
Accuracy	± 1% standard < 1% with adjustment to application conditions	± 1% standard < 1% with adjustment to application conditions	± 1%	± 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	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	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)*	Hastelloy C (2.4610)
Measuring chamber	PPO/PPS	PPO/PPS	Stainless steel (1.4581/1.4571) ETFE / PTFE	Hastelloy C (2.4610) ETFE / PTFE
Seals	FPM	FPM	FEP	FEP
Magnet	BaFe / PA / Stainless steel 1.4401	PPS encapsulated	ETFE encapsulated	ETFE encapsulated
Protection class	IP 55	IP 55	IP 55	IP 55
Weight kg	1.1	1.1	3.7	4.0
Order No.	0231-000	0231-010	0231-049	0231-059

*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	V	220-240
Frequency	Hz	50-60
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	Type HC10 Ex
Range of use	Solvents and other easily inflammable liquids, keiten, 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.	Highly aggressive acids and alkalis. Easily inflammable liquids.
Flow volume l/min.	min. 10 – max. 100**	min. 10 – max. 100**	min. 10 – max. 100	min. 10 – max. 100
Temperature °C	60	60	60	60
Viscosity mPas	2,000	2,000	5,000	5,000
Operating pressure bar	4	4	10	10
Accuracy	± 1% standard < 1% with adjustment to application conditions	± 1% standard < 1% with adjustment to application conditions	± 1%	± 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	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	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	Hastelloy C (2.4610) Hastelloy C (2.4610) ETFE / PTFE
Seals Magnet	FEP BaFe / MS / Stainless steel 1.4401	FEP PPS encapsulated	FEP ETFE encapsulated	FEP ETFE encapsulated
Type of protection: Operating unit Basic flow meter	II 2 GEx IIB T4*** II 2 G T4	II 2 GEx IIB T4*** II 2 G T4	II 2 GEx IIB T4*** II 2 G T4	II 2 GEx IIB T4*** II 2 G T4
Protection class	IP 55	IP 55	IP 55	IP 55
Weight kg	1.1	1.1	3.7	4.0
Order No.	0231-020	0231-030	0231-040	0231-050

* 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 2 G Ex IIC T4 on request

Recommended Accessories: Power supply unit NG10****

Voltage V	220-240
Frequency Hz	50-60
Order No.	0230-230

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

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 l/min.	min. 10 – max. 100**	min. 10 – max. 100**	min. 10 – max. 100
Temperature °C	60	60	80
Viscosity mPas	2,000	2,000	5,000
Operating pressure bar	4	4	10
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	ETFE encapsulated
Protection class	IP 55	IP 55	IP 55
Weight kg	1.6	1.6	4.1
Relay module RM10			
Voltage V	220-240		
Frequency Hz	50-60		
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-RM10mK	Type UN10 / Ex-RM10mK	Type VA10 / Ex-RM10mK
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	l/min.	min. 10 – max. 100**	min. 10 – max. 100**	min. 10 – max. 100
Temperature	°C	40	40	40
Viscosity	mPas	2,000	2,000	5,000
Operating pressure	bar	4	4	10
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	ETFE encapsulated
Type of protection:				
Operating unit		II 2 GEx IIB T4***	II 2 GEx IIB T4***	II 2 GEx IIB T4***
Basic flow meter		II 2 G T4	II 2 G T4	II 2 G T4
Protection class		IP 55	IP 55	IP 55
Weight	kg	4.3	4.3	6.7
Relay module Ex-RM10m				
Voltage		V 220-240		
Frequency		Hz 50-60		
Switching outputs		2 NO (potentially bound)		
Output 1 (pump)		5 A, cos > 0.7		
Output 2 (valve)		0.5 A		
Type of protection		II 2 GEx me [ib] IIC T4		
Order No.		on request		

* 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 2 G Ex IIC T4 on request