

# FEMTOPUMP

MULTI-OUTPUT GREASE ELECTRIC PUMP

# DropsA



## FEMTOPUMP

FemtoPUMP is a compact and versatile multi-outlet grease pump, ideal for small to medium-sized lubrication systems.

It is made entirely of plastic, a feature which ensures that it is competitive in terms of cost.

It is suitable both for direct use (Multiline) and for use with progressive dispensers (Basic).

In 'Multiline' systems, it is designed for use with 8 pumping units, and provides direct lubrication to the relevant point.

In 'Basic' systems, it is designed for use with 2 pumping units, and provides the necessary amount of lubrication in combination with progressive dispensers.

The pump is available in a version with a stirring paddle (1-2-4 Kg), and in a version with a follower plate (1 kg).

- For all versions (with follower plate or stirring paddle) the pump is complete with a minimum level sensor.
- More specifically, the minimum level system on the stirring paddle, given its flag configuration, significantly increases the amount of grease which can be used in the tanks

### ADVANTAGES:

- It can be configured in multiple solutions and for different uses.
- There is the possibility of adapting the system depending on the application and at different times
- Easy installation thanks to the small dimensions



### CHARACTERISTICS

COMPACT AND VERSATILE

FLOW RATE:

MULTI-LINE: 0.005 - 0.01 - 0.015 - 0.025 - 0.05 CM<sup>3</sup>/REV

BASIC: 0.19 CM<sup>3</sup>/REV

10 PUMPING UNITS

LUBRICANT TYPES:  
GREASE NLGI 000 - 2

NO. OUTLETS:  
8 – MULTI-LINE  
2 – BASIC

RESERVOIR: 1-2-4 KG

### GENERAL TECHNICAL CHARACTERISTICS

Flow rate:	Multi-line	cm <sup>3</sup> /rev [in <sup>3</sup> /rev]	0.005 - 0.01 - 0.015 - 0.025 - 0.05 [0.0003 - 0.0006 - 0.0009 - 0.0015 - 0.003]
	Basic	cm <sup>3</sup> /rev [in <sup>3</sup> /min]	0.19 [0.011] 0.14 [0.0085]
	Basic Reg.		0.03 - 0.2 [0.0018 - 0.012] 0.02- 0.14 [0.0012 ÷ 0.0085]
Maximum operating pressure	Multi-line	bar [psi]	200 [2900]
	Basic		280 [4061]
Number of outputs (pumping units)	Multi-line	No.	8
	Basic		2
Discharge connection (pumping unit outlet)	Multi-line	Type	G1/8"
	Basic		G1/4"
Operating temperature		°C [°F]	-40 - +60 [-40 - +140]
Tank capacity	Follower plate	Kg [gal US]	1 [0.26]
	Stirring paddle		4 [1.04]
Lubricant		NLGI	Grease 000 - 2

Note: The use of Arctic grease is recommended when using the pump at temperatures below or equal to 0 °C.

# FEMTOPUMP – PUMPING UNITS

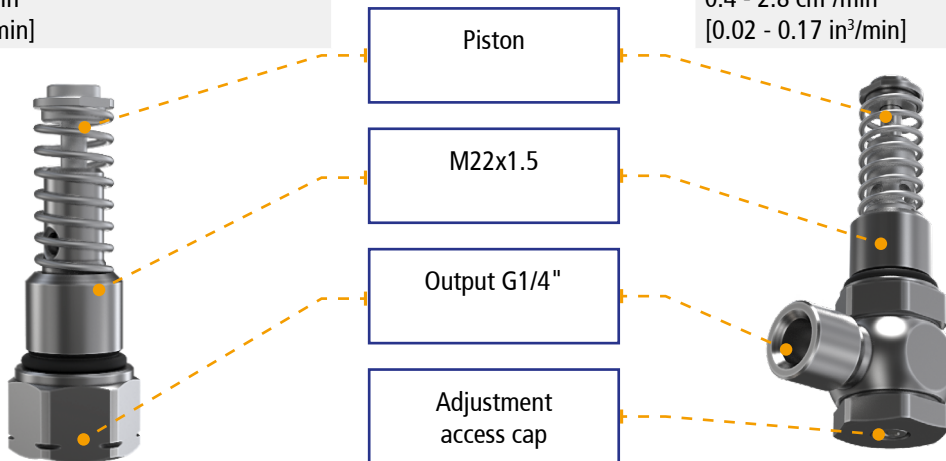


"Multi-line" "Basic"

## "BASIC" PUMPING UNITS

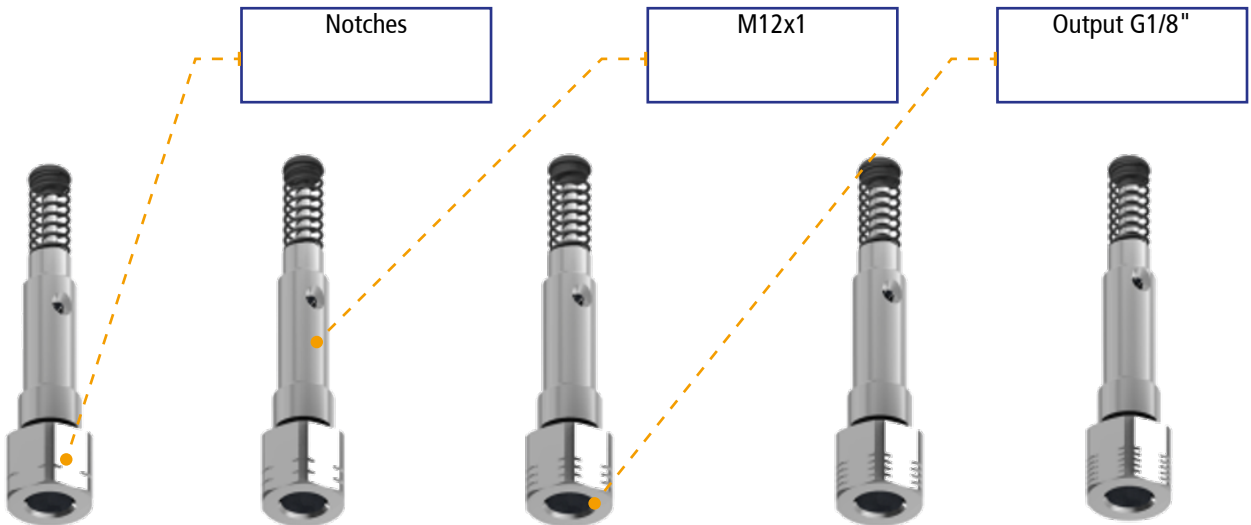
FIXED FLOW RATE
Piston Ø7 4 cm <sup>3</sup> /min [0.24 in <sup>3</sup> /min]
Piston Ø6 2.8 cm <sup>3</sup> /min [0.17 in <sup>3</sup> /min]

ADJUSTABLE FLOW RATE
Piston Ø7 0.6 - 4 cm <sup>3</sup> /min [0.037 - 0.24 in <sup>3</sup> /min]
Piston Ø6 0.4 - 2.8 cm <sup>3</sup> /min [0.02 - 0.17 in <sup>3</sup> /min]



- Piston
- M22x1.5
- Output G1/4"
- Adjustment access cap

## "MULTI-LINE" PUMPING UNITS



- Notches
- M12x1
- Output G1/8"

1 NOTCH
0.005 cm <sup>3</sup> /rev [0.0003 in <sup>3</sup> /rev]

2 NOTCHES
0.01 cm <sup>3</sup> /rev [0.0006 in <sup>3</sup> /rev]

3 NOTCHES
0.015 cm <sup>3</sup> /rev [0.0009 in <sup>3</sup> /rev]

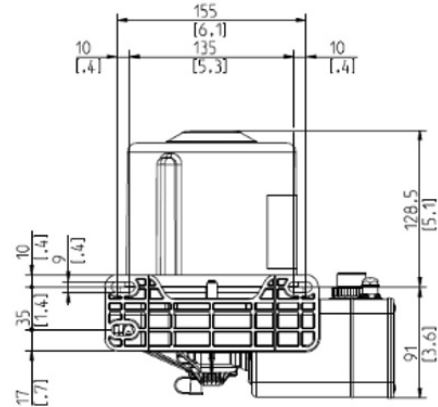
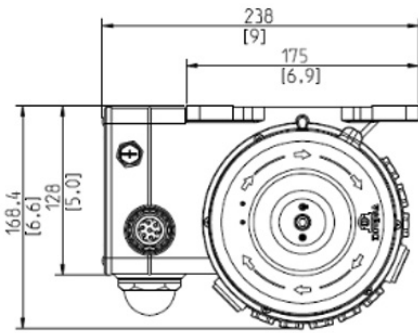
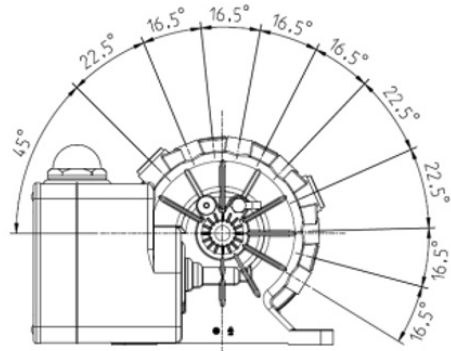
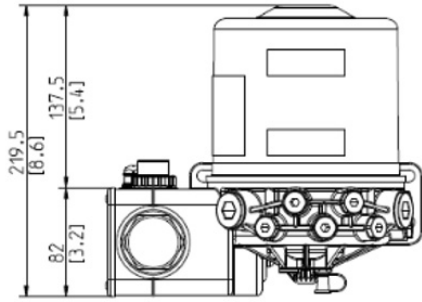
4 NOTCHES
0.025 cm <sup>3</sup> /rev [0.0015 in <sup>3</sup> /rev]

5 NOTCHES
0.05 cm <sup>3</sup> /rev [0.003 in <sup>3</sup> /rev]



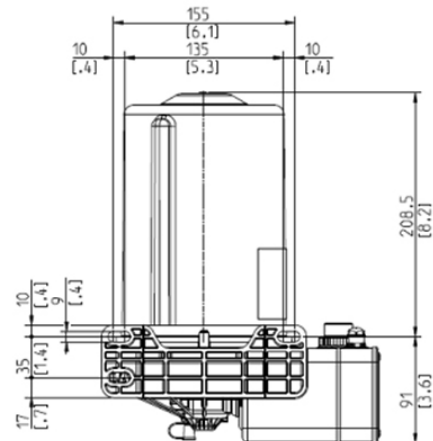
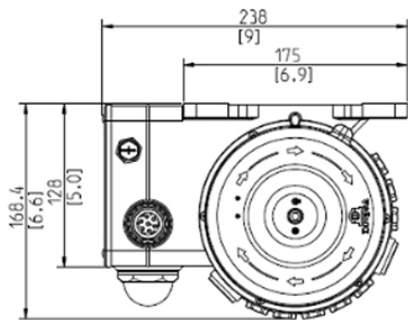
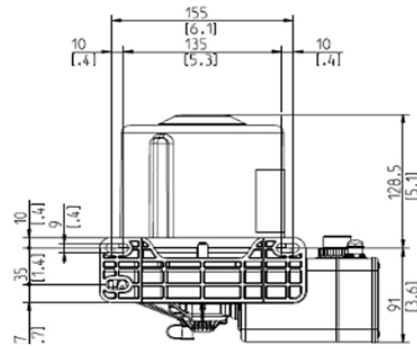
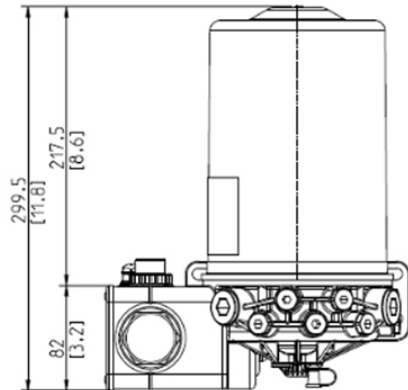
# OVERALL DIMENSIONS 1 KG ALL VERSIONS

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Dimensions in: mm [in]

# 2 KG ALL VERSIONS



Dimensions in: mm [in]

# ORDER CODES

TYPE	VOLTAGE	TANK	MANUAL VERSION (WITHOUT CONTROLLER)	AUTOMATIC VERSION (WITH INTEGRATED CONTROLLER)
Femto	12 VDC	1KG	0891111	0891131
		2KG	0891112	0891132
		4KG	0891114	0891134
		4LT	0891115	0891135
		1KG Version with follower plate disc	0891113	0891133
	24 VDC	1KG	0891121	0891141
		2KG	0891122	0891142
		4KG	0891124	0891144
		4LT	0891125	0891145
		1KG Version with follower plate disc	0891123	0891143

## BASIC/MULTI-LINE PUMPING UNIT CODES

CODE	TYPE	FLOW RATE	NOTES	ID
0880104	BASIC	4 cm <sup>3</sup> /min	Fixed	1
0888156		2.8 cm <sup>3</sup> /min	Fixed	2
0888555		0.4 - 2.8 cm <sup>3</sup> /min	Adjustable	3
0880060		0.6 - 4 cm <sup>3</sup> /min	Adjustable	4
0890034	MULTI-LINE	0.005 cm <sup>3</sup> /rev	1 notch	1
0890033		0.010 cm <sup>3</sup> /rev	2 notches	2
0890032		0.015 cm <sup>3</sup> /rev	3 notches	3
0890031		0.025 cm <sup>3</sup> /rev	4 notches	4
0890030		0.050 cm <sup>3</sup> /rev	5 notches	5

## SPARE PART KITS AND ACCESSORIES

SPARE PARTS	
CODE	DESCRIPTION
0890011	2Kg Tank kit + seals kit
0890012	1Kg Tank kit + seals kit
0888185	Pumping unit replacement plug (Multi-line)
3234300	Pumping unit replacement plug (Basic)
3235999	Inspection window
3236000	Blind Plug
1639281	LTC control card
0039086	Connector ring din 72585

OPTIONAL KITS AND ACCESSORIES	
CODE	DESCRIPTION
3133723	Cartridge-loading-kit
0890014	Maximum level sensor kit, only for versions with follower plate (optional)
0888572	External by-pass with pressure gauge
0888163	External by-pass without pressure gauge
0039137	M12 connector - 90° 5m cable
0039138	M12 connector - 90° 10m cable
0039139	M12 connector - 90° 15m cable
0039999	M12 connector - 90° without cable
0039169	M12 connector - dir. without cable
0888610	Connector wiring DIN 72585 5m
0888633	Connector wiring DIN 72585 10m
0888634	Connector wiring DIN 72585 15m
5717203	Nylon-Hose 6.6 6X4 L=130mm To be specified when ordering. (By-pass connection)
3084566	Push-in 90 g1/8 d6 (By-pass connection)
3084760	Push-in-dir 1/8 ø6 (By-pass connection)



# FACTORY-PRE-SET PUMPS

The above identification string has been split into the following five sections:

PRODUCT ID CODE	ORDER CODE	PUMPING UNITS/ FILLING KITS CONFIGURATION	BASIC PUMPING UNITS/ FILLING KITS POSITION A	BASIC PUMPING UNITS/ FILLING KITS POSITION B	MULTI-LINE SELECTION	MULTI-LINE POSITION	MAXIMUM LEVEL KIT	LTC CONFIGURATION
0 8 9 1	A B C	P	9	2	Q	0 1 2 3 4 5 0 0	MAX	DIP-01001-100000-010100

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FEMTO	1
12 V MANUAL	1
24 V MANUAL	2
12 V AUTOMATIC	3
24 V AUTOMATIC	4
1KG STIRRING PADDLE	1
2KG STIRRING PADDLE	2
1KG FOLLOWER PLATE	3
4KG STIRRING PADDLE	4
4LT OIL	5
NO PUMPING UNIT	
PUMPING UNIT/FILLING KIT	P
Without pumping unit	0
Basic 0.19 cm <sup>3</sup> /rev (0880104)	1
Basic 0.14 cm <sup>3</sup> /rev (0888156)	2
Basic 0.03 - 0.2 cm <sup>3</sup> /rev (0880060)	3
Basic 0.02 - 0.14 cm <sup>3</sup> /rev (0888555)	4
Filling kit	9

DEFAULT STATUS	START = LAST STATE PAUSE = 1 INPUT WORK = 10 SEC.
MAX	WITHOUT MAXIMUM LEVEL KIT WITH MAXIMUM LEVEL KIT
0	WITHOUT PUMPING UNIT
1	PUMPING UNIT 0.005 CM <sup>3</sup> /REV (0890034)
2	PUMPING UNIT 0.010 CM <sup>3</sup> /REV (0890033)
3	PUMPING UNIT 0.015 CM <sup>3</sup> (0890032)
4	PUMPING UNIT 0.025 CM <sup>3</sup> /REV (0890031)
5	PUMPING UNIT 0.050 CM <sup>3</sup> /REV (0890030)
Q	NO PUMPING UNIT MULTI-LINE

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- SECTION 1: Product ID Code + Order Code.  
7 digit string which identifies the series (0891) of the FEMTO pump and the "basic" order code
- SECTION 2: Basic Pumping Units.  
Up to 3 digit string that indicates whether or not the Basic pumping units and filling kit are included. Positions A and B indicate the type and position of the pumping units/ filling kits. The fields "Basic pumping units/filling kits position" are only activated when the letter "P" is entered in the cell "pumping units/filling kits configuration". Otherwise, go to section 3.
- SECTION 3: Multi-line Pumping Units.  
Up to 9 digit string that indicates whether or not the Multi-line pumping units are included and their position. The 'Multiline Position' fields are only activated when the letter 'Q' is entered in the 'Multi-line Selection' cell. Otherwise, go to section 4.
- SECTION 4: Maximum Level Kit.  
Up to 2 digit string that indicates whether or not the maximum level sensor kit is included.
- SECTION 5: LTC configuration.  
24-digit string indicating the standard setting of the LTC configuration (not considered in the configurator)  
See page 28 for examples