

CHARACTERISTICS

- Compact and versatile
- 10 pumping elements
- Flow rate
Multiline: 0.005 – 0.01 – 0.015 – 0.025 – 0.05 cm³/cycle
Basic: 0,14 – 0,26 cm³/cycle
- Maximum operating pressure:
Multiline: 200 bar
Basic: 280 bar
- Operating temperature:
-40 ÷ +60°C
- N°. outputs:
8 – Multiline
2 – Basic
- Reservoir: 1-2 kg
- Lubricant:
Grease NLGI 000 ÷ 2

APPLICATIONS

- Earth-moving machines
- Machine tools
- Wind energy sector
- Small and medium lubrication systems

MULTI-OUTLET ELECTRIC GREASE PUMP



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

It's made **entirely of plastic**, which makes it cost-competitive.

The application is suitable for both **direct use (Multiline)** and for use with **progressive dividers (Basic)**.

In “**Multiline**” solutions are designed for use with **eight pumping elements** and provides lubrication directly to the end point.

The “**Basic**” systems are designed for use with **two pumping elements** and provides the proper amount of lubricant through the utilization of progressive dividers.

The pump is available in two versions, one utilizing a **stirring paddle (both for 1Kg and for 2Kg)** and the other incorporating a **follower plate (1Kg)**.

- All versions (with follower plate or stirring paddle) include a minimum level sensor.
- The minimum level sensor is placed on the stirring paddle, which also acts as a mechanism that significantly reduces the accumulation of grease on the bottom of the tank.

BENEFITS:

- It can be configured in a variety of ways for different uses.
- Possibility to adapt the unit according to the application.
- Easy installation due to the small size.

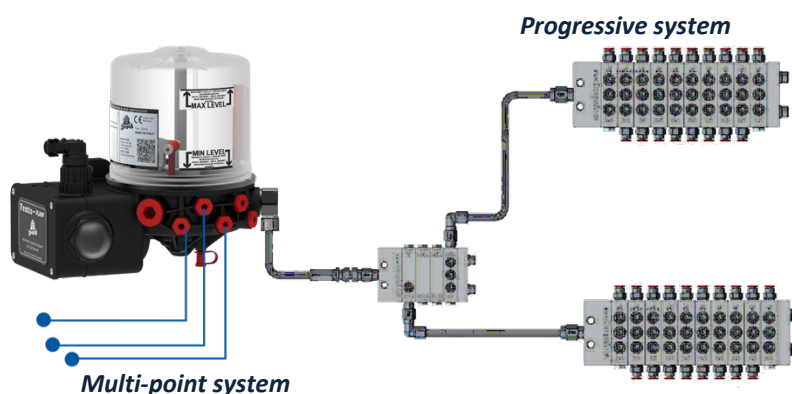
TECHNICAL CHARACTERISTICS

GENERAL TECHNICAL FEATURES			
Speed		RPM	17±4
Flow rate:	Multi-line	cm ³ /cycle [in ³ /rev]	0.005 – 0.01 – 0.015 – 0.025 – 0.05 [0.0003 - 0.0006 - 0.0009 - 0.0015 - 0.003]
	Basic	cm ³ /cycle	0,14- 0,26 [0.0085 - 0.016]
	Basic Reg.	[in ³ /min]	0,02÷ 0,14 [0.0012 ÷ 0.0085]
Maximum operating pressure	Multi-line	bar	200 [2900]
	Basic	[psi]	280 [4061]
Number of outputs (pumping elements)	Multi-line	No	8
	Basic		2
Supply connection (pumping output)	Multi-line	Type	G1/8"
	Basic		G1/4"
Operating temperature		°C [°F]	-40 ÷ +60 [-40 ÷ +140]
Reservoir capacity	Follower plate	Medical history	1 [0.26]
	Stirring paddle		2 [0.52]
	Stirring paddle	[gal US]	
Lubricant		NLGI	Grease 000 ÷ 2

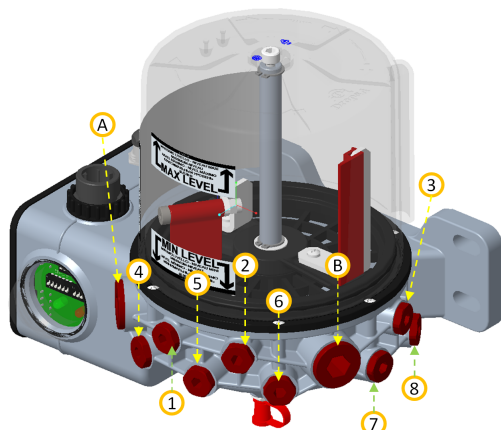
FEMTO – MULTILINE AND PROGRESSIVE (BASIC)

BENEFITS OF PROGRESSIVE SYSTEM DROPSA

- Modular progressive system for excellent lubrication
- Ability to expand the system
- High accuracy
- Stainless steel
- Different progressive distributor for all needs
- SMX - nP - nPr+ - SMP (Ref. DropsA documents progressive system SMX C2104PE - nP C2213PE - nPr+ C2220PE - SMP C2071PE)



PUMPING ELEMENTS POSITION BASIC/MULTILINE



Note:
The control unit can be supplied with or without pumping elements using the codes shown in the ordering information.

PUMPING ELEMENTS BASIC SYSTEM

Positions A/B

Fixed flow rate
2.8 cm³/min
with By-pass
0888058

Fixed flow rate
2.8 cm³/min
0888156

Fixed flow rate
5.2 cm³/min
0888391

Adjustable flow rate
0.4 – 2.8cm³/min
0888555



PUMPING ELEMENTS MULTILINE SYSTEM

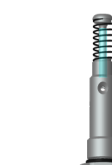
Position 1-2-3-4-5-6-7-8



1 notch
0.005cm³/cycle
with By-pass
0890034



2 notchit
0.01cm³/cycle
with By-pass
0890033



3 notches
0.015cm³/cycle
with By-pass
0890032



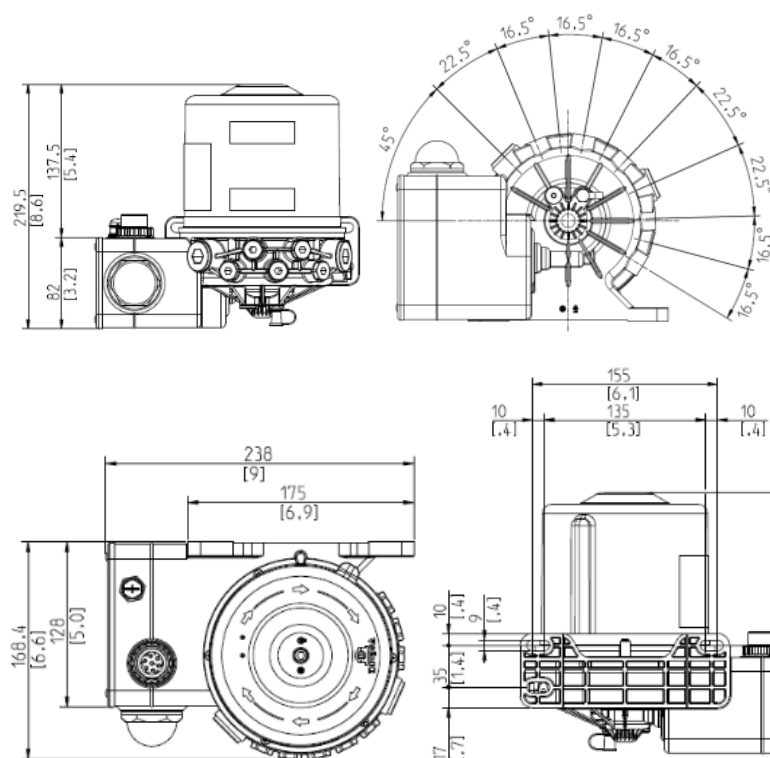
4 notches
0.025cm³/cycle
with By-pass
0890031



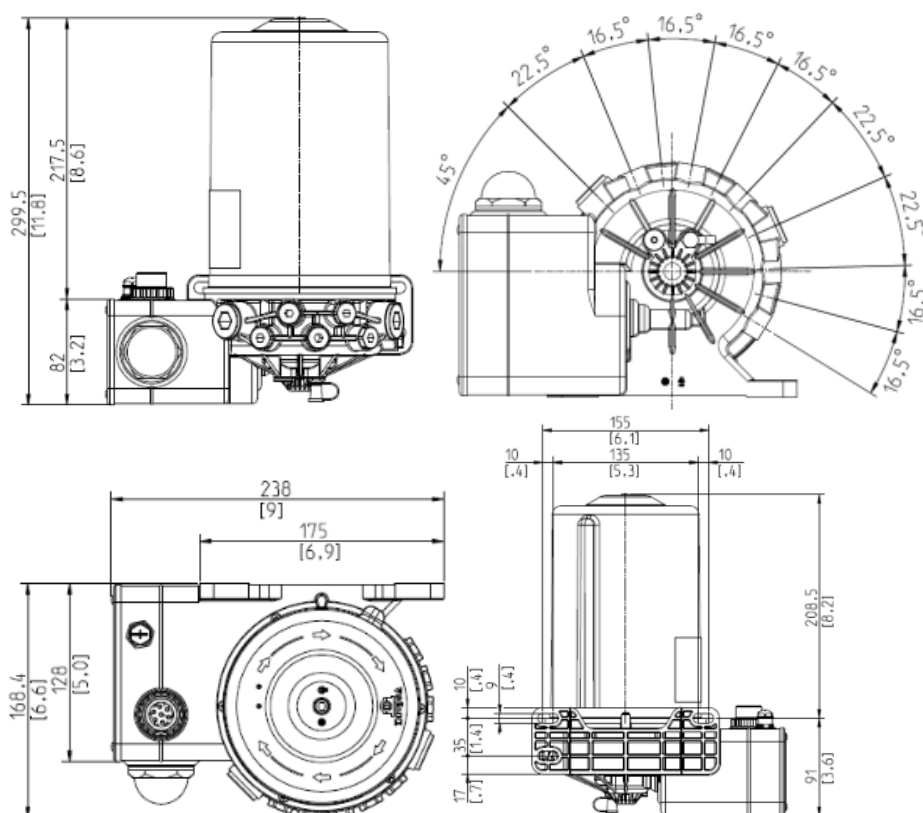
5 notches
0.05cm³/cycle
with By-pass
0890030

DIMENSIONS

Femto pump 1 Kg all versions



Femto pump 2 Kg all versions



ORDERING INFORMATION

STANDARD PUMP (WITHOUT PUMPING ELEMENTS)

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

PUMPING CODES

PUMPING UNITS				
CODE	TYPE	FLOW RATE	NOTES	ID
0888058C	BASIC	2.8cm ³ /min	Internal By-pass	1
0888156		2.8cm ³ /min	Without By-pass	2
0888391		5.2cm ³ /min		3
0888555		0.4 - 2.8cm ³ /min	Adjustable	4
0890034	MULTI-LINE	0.005 cm ³ /rev	1 notch	1
0890033		0.010 cm ³ /rev	2 notches	2
0890032		0.015 cm ³ /rev	3 notches	3
0890031		0.025 cm ³ /rev	4 notches	4
0890030		0.050 cm ³ /rev	5 notches	5

PRE-CONFIGURATED PUMP

SECTION 1				SECTION 2			SECTION 3								SECTION 4	SECTION 5				
Product ID Code		Order code		Pumping unit configuration	Position A basic pumping units	Position B basic pumping units	Multiline selection	Multiline position								Maximum level kit	LTC Configuration			
0	8	9	1	A	B	C	P	9	3	Q	1	2	3	4	5	6	7	8	MAX	DIP - 010011 - 100000 - 010100
											x	x	x	x	x	x	x	x		

Femto 1

12 V Manual 1
24 V Manual 2
12 V Auto 3
24 V Auto 4

1 Kg Stirring paddle 1
2 Kg Stirring paddle 2
1 Kg Follower plate 3
4 Kg Stirring paddle 4
4 l Oil 5

No pumping unit
Pumping unit/
Filling Kit P

Without pumping unit 0
Basic By-Pass 0.14 cm³/cycle (0888058C) 1
Basic 0.14 cm³/cycle (0888156) 2
Basic 0.26 cm³/cycle (0888391) 3
Basic 0.02÷ 0.14 cm³/cycle (0888555) 4
Filling kit 9

Default State Start-up= Last state
Pause = 1 pulse
Operating= 10 sec.

MAX Without maximum level kit
With maximum level kit

0 Without pumping unit
1 Pumping unit 0.005cm³/cycle (0890034)
2 Pumping unit 0.010cm³/cycle (0890033)
3 Pumping unit 0.015cm³/cycle (0890032)
4 Pumping unit 0.025cm³/cycle (0890031)
5 Pumping unit 0.050cm³/cycle (0890030)

No pumping unit
Q Multiline