

ReliaMAX

Reliable Performance & Maximum Value

45 YEARS
1976-2021
LUBRICATION Technologies, Inc.

AN UNCOMMON TECHNICAL RESOURCE

www.LubeTechnologies.com

SERIES PROGRESSIVE ELECTRIC GREASE AND OIL PUMPS



2023 CATALOG

HOW TO ORDER

40.2.24AC.FST.G	
TANK 2 = 2 Kg transparent 4 = 4 Kg transparent 8 = 8 Kg transparent 5 = 5 Kg metal	
VOLTAGE Coil 12 V DC Coil 24 V DC Coil 24 V AC Coil 115 V AC Coil 230 V AC	
PUMPING F = fixed discharge R = adjustable discharge	
TIMER CT = with timer ST = without timer	
LUBRICANT G = grease O = oil	

All the pumps are supplied complete with **electric lubricant level control**. The 2, 4 and 8 kg grease pumps (not the oil pumps) are supplied complete with **electric motor rotation control**.

The **models with timer** include the TYCO 7-pole connector and M12x1 4-contact connector; **models without timer** include only the TYCO 7-pole connector.

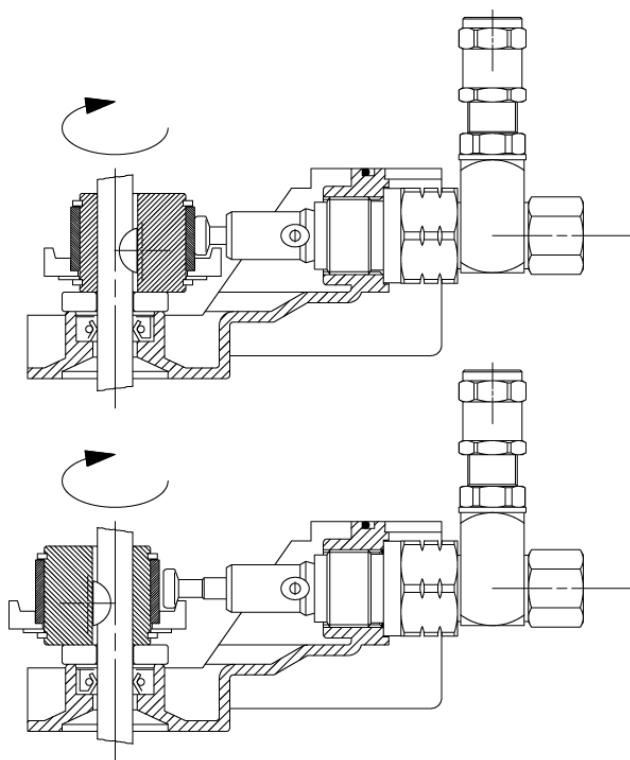
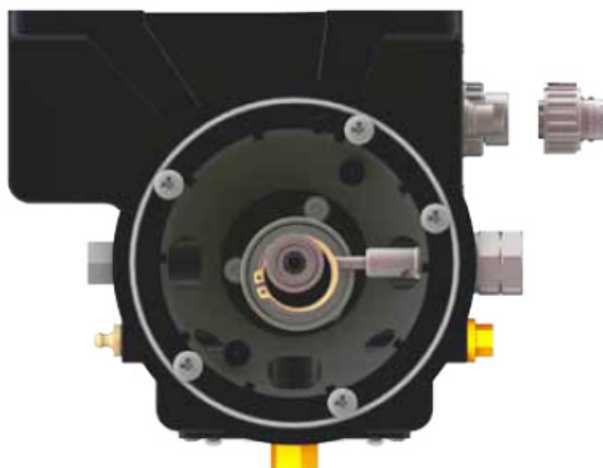
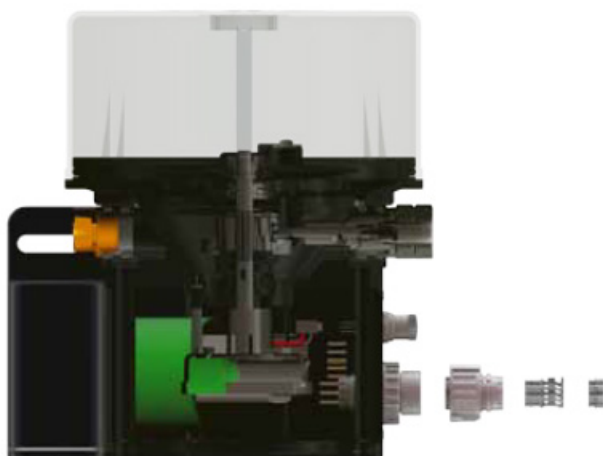
PUMP INSTALLATION

The Pumps must be mounted vertically by means of the fixing bracket integrated in the pump body.

APPLICATIONS

They are ideal for automatic grease lubrication of all types of industrial machines, as well as trucks, engines, buses, construction and earth moving vehicles.

Using DPM and DPX or DPL progressive dividers, they can lubricate over 300 points with a single pump.



OPERATION

The pumps have been designed for intermittent or continuous operation and provide pre-programmed lubrication cycles according to the application required.

A gearmotor controls an internal cam that operates up to 3 pumping elements mounted externally.

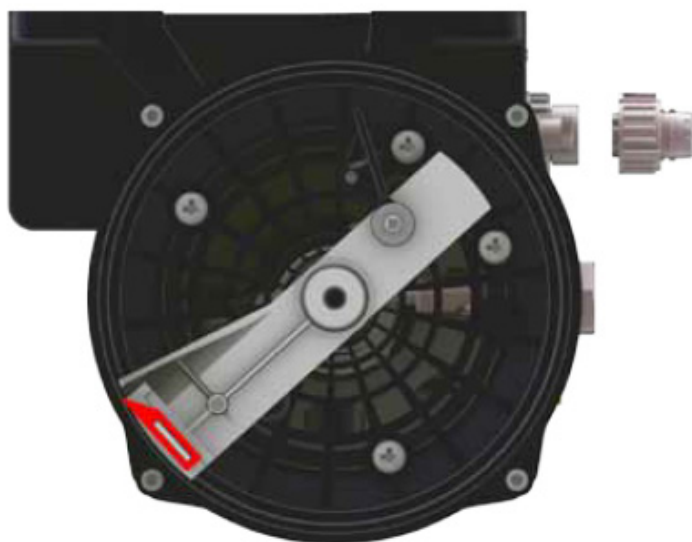
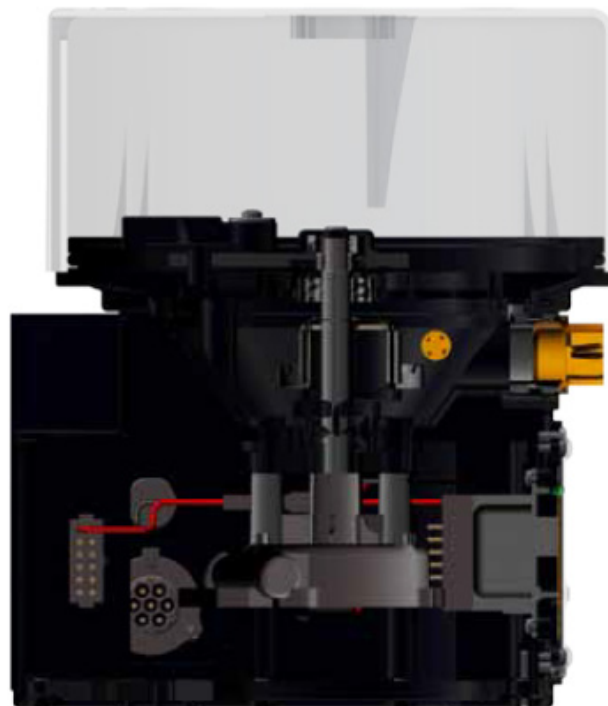
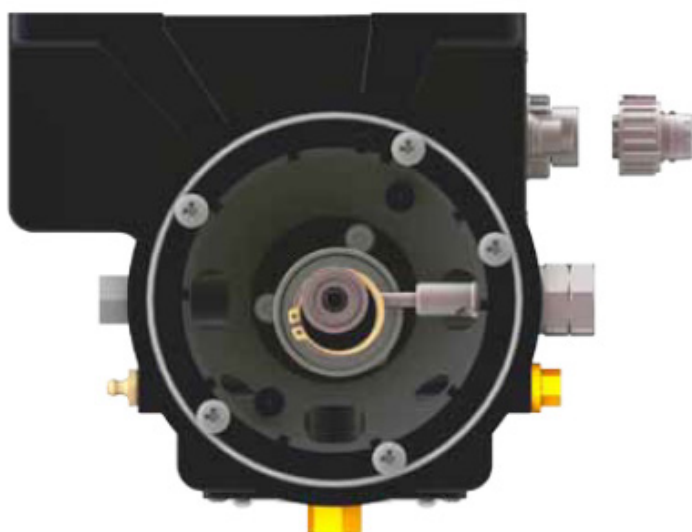
Each pumping element is equipped with a pressure relief valve capable of protecting the pump and the elements from overpressure.

It is possible to combine the flows of a second and third pumping element into a single outlet for a greater flow rate.

OPERATION

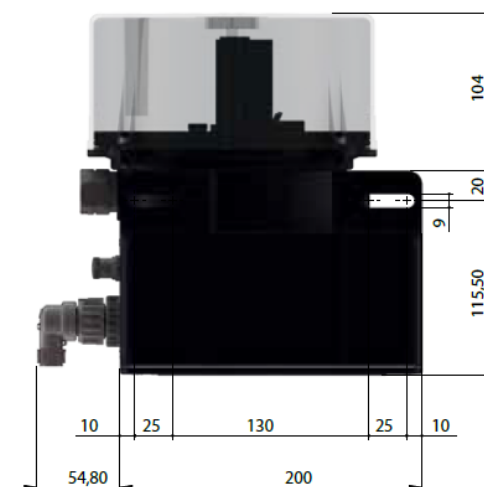
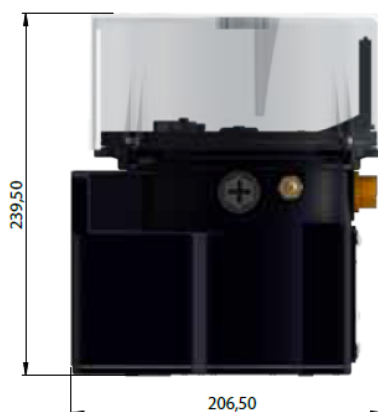
The gear motor is protected by a cover (NYLON PA6 +30% FIBREGLASS) with protection rating IP-66. They are sealed by appropriately housed "o"-rings.

The pumps can operate automatically using an optional timer integrated in the cover, which can be set with variable working and rest times.

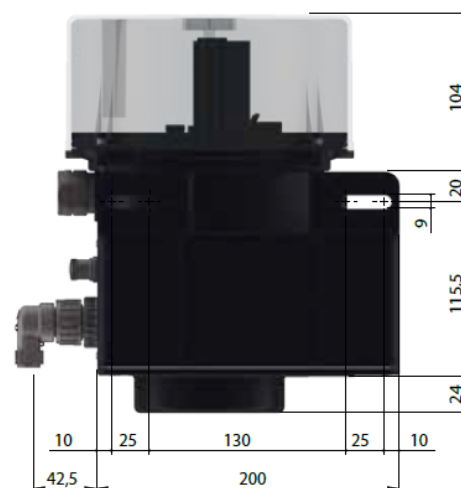
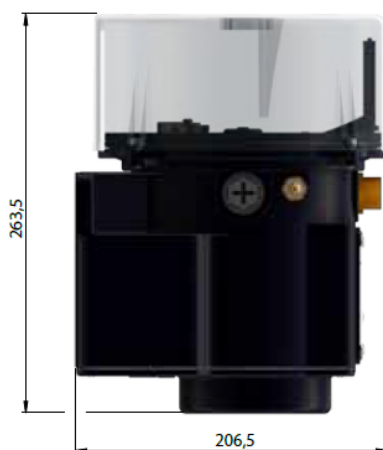


ReliaMAX™ 2 KG ELECTRIC GREASE PUMPS

ReliaMAX™ 2 KG (12/24 V DC-24 V AC) ELECTRIC GREASE PUMP



ReliaMAX™ 2 KG (115/230 V AC) ELECTRIC GREASE PUMP

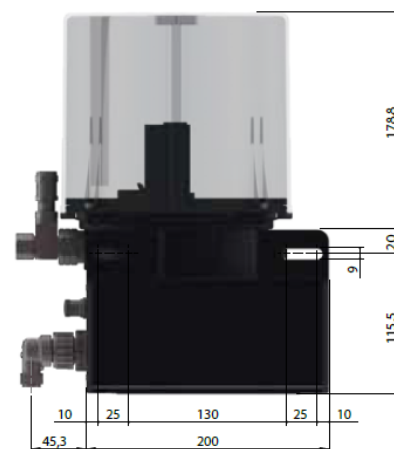


ReliaMAX™ 2 KG Electric Grease Pump Technical Features

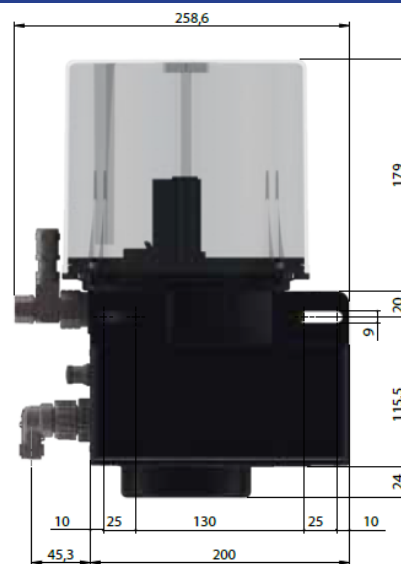
NUMBER OF PE OUTLETS	FROM 1 TO 3
DISCHARGE PER REV WITH FIXED PUMPING	0.16 CC
DISCHARGE PER REV WITH ADJUSTABLE PUMPING	0.01-0.16 CC
RPM	23 rpm (12 V DC) / 22 rpm (24 V DC) / 29 rpm (230 V AC) / 31 rpm (115 V AC)
DISCHARGE PER MINUTE WITH FIXED PUMPING	3.68 cm³ (12 V DC) / 3.52 cm³ (24 V DC) / 4.64 cm³ (230 V AC) / 4.96 cm³ (115 V AC)
DISCHARGE PER MINUTE WITH ADJUSTABLE PUMPING	0.23 - 3.68 cm³ (12 V DC) / 0.22 - 3.52 cm³ (24 V DC) / 0.29 - 4.64 cm³ (230 V AC) / 0.31 - 4.96 cm³ (115 V AC)
SUITABLE LUBRICANTS	GREASE UP TO A CONSISTENCY NLGI NO. 2
MAXIMUM OPERATING PRESSURE	275 bar (3993 PSI)
TANK CAPACITY	2 KG - TRANSPARENT
TEMPERATURE	FROM -20° C TO + 80° C
DELIVERY FITTING	1/4" G.
MINIMUM ELECTRIC LEVEL	1 A 140 V AC – 200 V DC 10 W NO When the tank is empty, a pulse from open to closed is created at each rotation
ROTATION CONTROL	1 A 140 V AC – 200 V DC 10 W NO –The contact closes at each rotation

ReliaMAX™ 4 KG ELECTRIC GREASE PUMPS

ReliaMAX™ 4 KG (12/24 V DC-24 V AC) ELECTRIC GREASE PUMP



ReliaMAX™ 4 KG (115/230 V AC) ELECTRIC GREASE PUMP

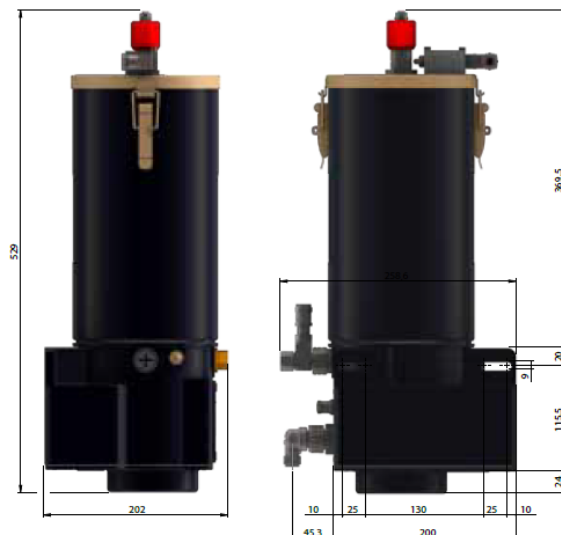


ReliaMAX™ 4 KG Electric Grease Pump Technical Features

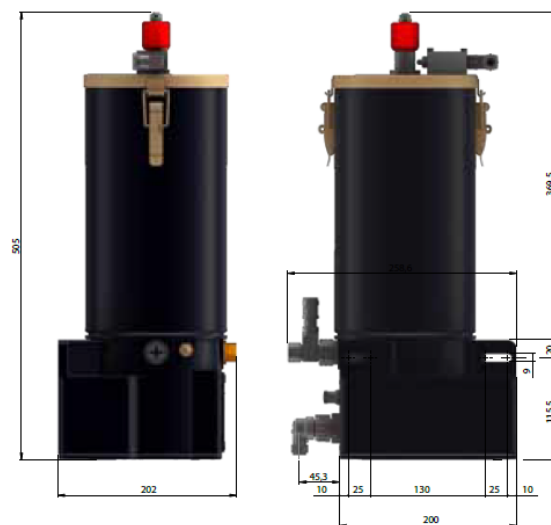
NUMBER OF OUTLETS	FROM 1 TO 3
DISCHARGE PER REV WITH FIXED PUMPING	0.16 CC
DISCHARGE PER REV WITH ADJUSTABLE PUMPING	0.01-0.16 CC
RPM	23 rpm (12 V DC) / 22 rpm (24 V DC) / 29 rpm (230 V AC) / 31 rpm (115 V AC)
DISCHARGE PER MINUTE WITH FIXED PUMPING	3.68 cm³ (12 V DC) / 3.52 cm³ (24 V DC) / 4.64 cm³ (230 V AC) / 4.96 cm³ (115 V AC)
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SUITABLE LUBRICANTS	GREASE UP TO A CONSISTENCY NLGI NO. 2
MAXIMUM OPERATING PRESSURE	275 bar (3993 PSI)
TANK CAPACITY	4 KG - TRANSPARENT
TEMPERATURE	FROM -20° C TO + 80° C
DELIVERY FITTING	1/4" G.
MINIMUM ELECTRIC LEVEL	1 A 140 V AC – 200 V DC 10 W NO When the tank is empty, a pulse from open to closed is created at each rotation
ROTATION CONTROL	1 A 140 V AC – 200 V DC 10 W NO –The contact closes at each rotation

ReliaMAX™ 5 KG ELECTRIC GREASE PUMPS

ReliaMAX™ 5 KG (12/24 V DC-24 V AC) ELECTRIC GREASE PUMP



ReliaMAX™ 5 KG (115/230 V AC) ELECTRIC GREASE PUMP

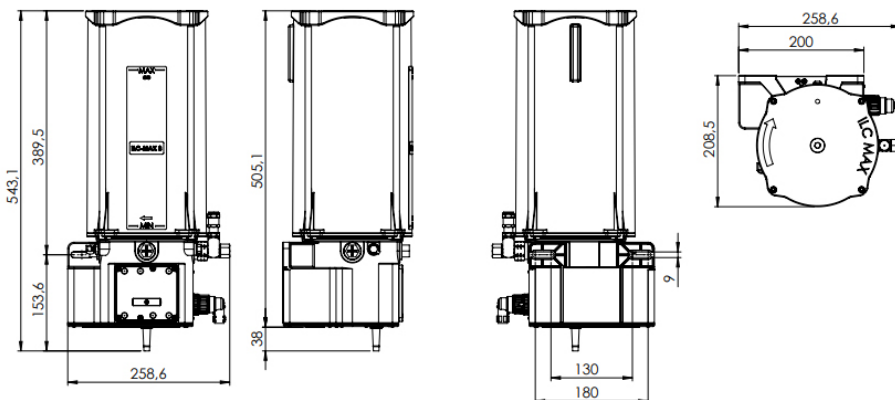


ReliaMAX™ 5 KG Electric Grease Pump Technical Features

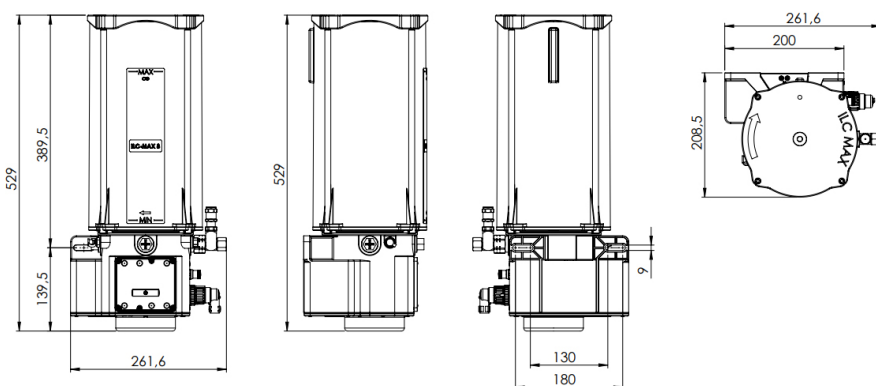
NUMBER OF OUTLETS	FROM 1 TO 3
DISCHARGE PER REV WITH FIXED PUMPING	0.16 CC
DISCHARGE PER REV WITH ADJUSTABLE PUMPING	0.01-0.16 CC
RPM	23 rpm (12 V DC) / 22 rpm (24 V DC) / 29 rpm (230 V AC) / 31 rpm (115 V AC)
DISCHARGE PER MINUTE WITH FIXED PUMPING	3.68 cm ³ (12 V DC) / 3.52 cm ³ (24 V DC) / 4.64 cm ³ (230 V AC) / 4.96 cm ³ (115 V AC)
DISCHARGE PER MINUTE WITH ADJUSTABLE PUMPING	0.23 - 3.68 cm ³ (12 V DC) / 0.22 - 3.52 cm ³ (24 V DC) / 0.29 - 4.64 cm ³ (230 V AC) / 0.31 - 4.96 cm ³ (115 V AC)
SUITABLE LUBRICANTS	GREASE UP TO A CONSISTENCY NLGI NO. 2
MAXIMUM OPERATING PRESSURE	275 bar (3993 PSI)
TANK CAPACITY	5 KG - METAL
TEMPERATURE	FROM -20° C TO + 80° C
DELIVERY FITTING	1/4" G.
MINIMUM ELECTRIC LEVEL	1 A 140 V AC – 200 V DC 10 W NO When the tank is empty, a pulse from open to closed is created at each rotation
ROTATION CONTROL	1 A 140 V AC – 200 V DC 10 W NO –The contact closes at each rotation

ReliaMAX™ 8 KG ELECTRIC GREASE PUMPS

ReliaMAX™ 8 KG (12/24 V DC-24 V AC) ELECTRIC GREASE PUMP



ReliaMAX™ 8 KG (115/230 V AC) ELECTRIC GREASE PUMP

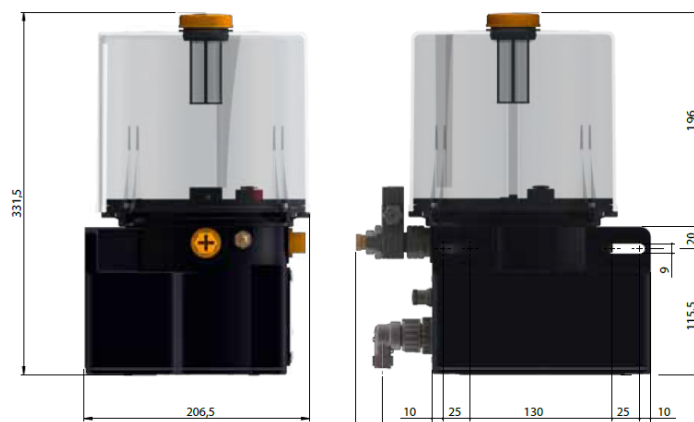


ReliaMAX™ 8 KG Electric Grease Pump Technical Features

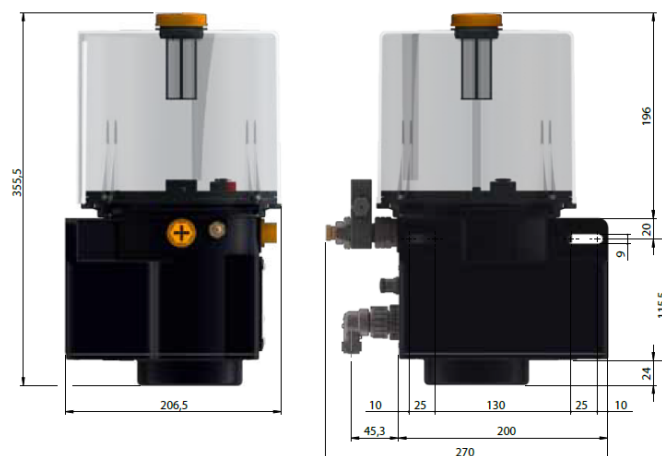
NUMBER OF OUTLETS	FROM 1 TO 3
DISCHARGE PER REV WITH FIXED PUMPING	0.16 CC
DISCHARGE PER REV WITH ADJUSTABLE PUMPING	0.01-0.16 CC
RPM	23 rpm (12 V DC) / 22 rpm (24 V DC) / 29 rpm (230 V AC) / 31 rpm (115 V AC)
DISCHARGE PER MINUTE WITH FIXED PUMPING	3.68 cm ³ (12 V DC) / 3.52 cm ³ (24 V DC) / 4.64 cm ³ (230 V AC) / 4.96 cm ³ (115 V AC)
DISCHARGE PER MINUTE WITH ADJUSTABLE PUMPING	0.23 - 3.68 cm ³ (12 V DC) / 0.22 - 3.52 cm ³ (24 V DC) / 0.29 - 4.64 cm ³ (230 V AC) / 0.31 - 4.96 cm ³ (115 V AC)
SUITABLE LUBRICANTS	GREASE UP TO A CONSISTENCY NLGI NO. 2
MAXIMUM OPERATING PRESSURE	275 bar (3993 PSI)
TANK CAPACITY	8KG - TRANSPARENT
TEMPERATURE	FROM -20° C TO + 80° C
DELIVERY FITTING	1/4" G.
MINIMUM ELECTRIC LEVEL	1 A 140 V AC – 200 V DC 10 W NO When the tank is empty, a pulse from open to closed is created at each rotation
ROTATION CONTROL	1 A 140 V AC – 200 V DC 10 W NO –The contact closes at each rotation

ReliaMAX™ 4 L ELECTRIC OIL PUMPS

ReliaMAX™ 4 L (12/24 V DC-24 V AC) ELECTRIC OIL PUMP



ReliaMAX™ 4 L (115/230 V AC) ELECTRIC OIL PUMP

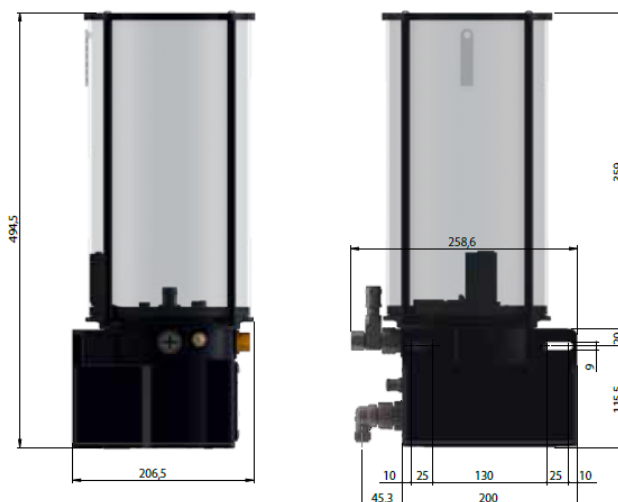


ReliaMAX™ 4 L Electric Oil Pump Technical Features

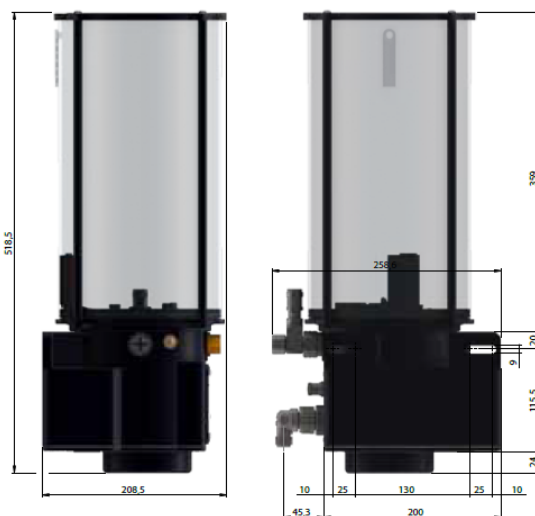
NUMBER OF OUTLETS	FROM 1 TO 3
DISCHARGE PER REV WITH FIXED PUMPING	0.16 CC
DISCHARGE PER REV WITH ADJUSTABLE PUMPING	0.01-0.16 CC
RPM	23 rpm (12 V DC) / 22 rpm (24 V DC) / 29 rpm (230 V AC) / 31 rpm (115 V AC)
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DISCHARGE PER MINUTE WITH ADJUSTABLE PUMPING	0.23 - 3.68 cm ³ (12 V DC) / 0.22 - 3.52 cm ³ (24 V DC) / 0.29 - 4.64 cm ³ (230 V AC) / 0.31 - 4.96 cm ³ (115 V AC)
SUITABLE LUBRICANTS	MINERAL OILS 50-1500 cSt
MAXIMUM OPERATING PRESSURE	275 bar (3993 PSI)
TANK CAPACITY	4 L - TRANSPARENT
TEMPERATURE	FROM -20° C TO + 80° C
DELIVERY FITTING	1/4" G.
MINIMUM ELECTRIC LEVEL	1 A 140 V AC – 200 V DC 10 W NO When the tank is empty, a pulse from open to closed is created at each rotation

ReliaMAX™ 8 L ELECTRIC OIL PUMPS

ReliaMAX™ 8 L (12/24 V DC-24 V AC) ELECTRIC OIL PUMP



ReliaMAX™ 8 L (115/230 V AC) ELECTRIC OIL PUMP

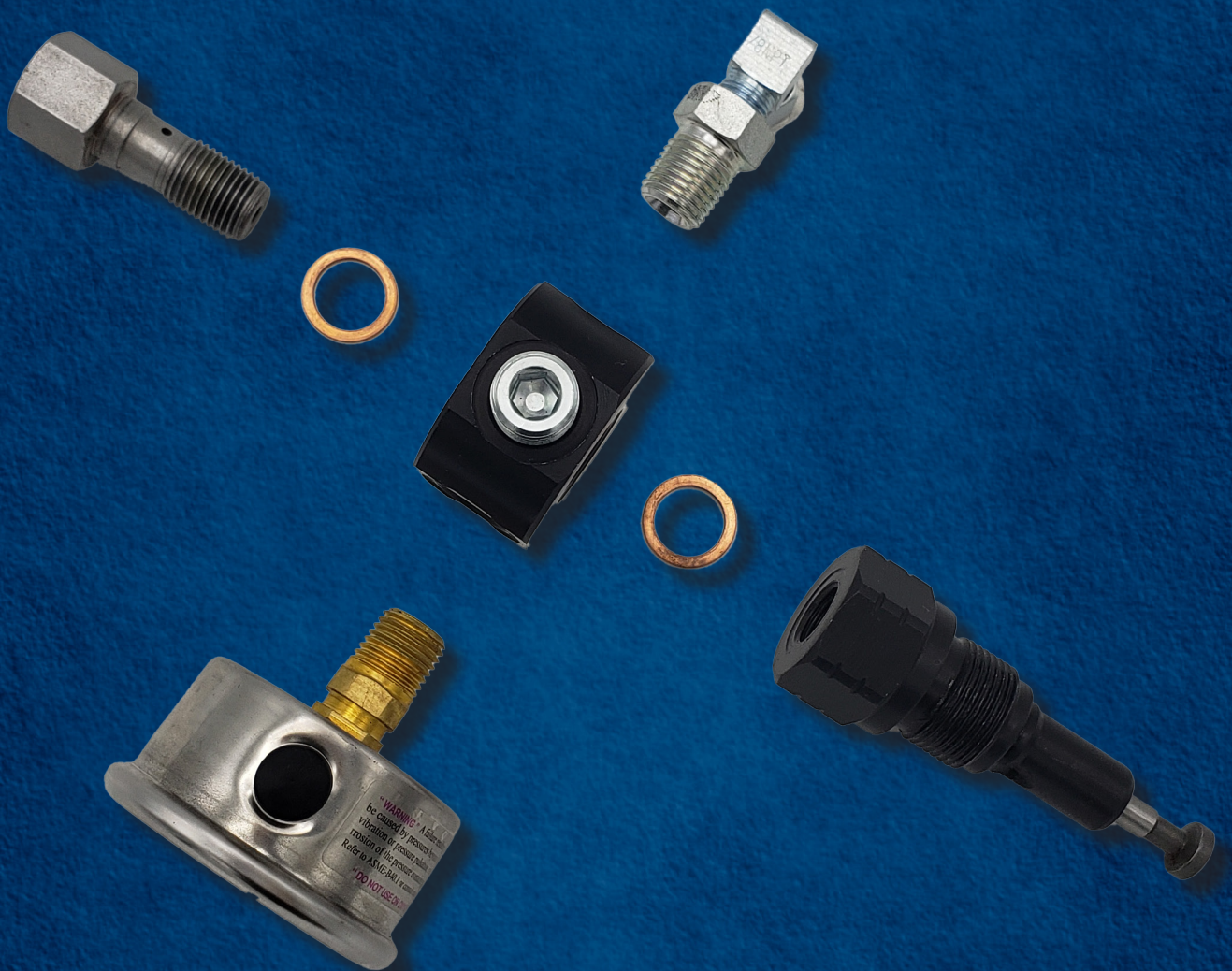


ReliaMAX™ 8 L Electric Oil Pump Technical Features

NUMBER OF OUTLETS	FROM 1 TO 3
DISCHARGE PER REV WITH FIXED PUMPING	0.16 CC
DISCHARGE PER REV WITH ADJUSTABLE PUMPING	0.01-0.16 CC
RPM	23 rpm (12 V DC) / 22 rpm (24 V DC) / 29 rpm (230 V AC) / 31 rpm (115 V AC)
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TANK CAPACITY	8 L - TRANSPARENT
TEMPERATURE	FROM -20° C TO + 80° C
DELIVERY FITTING	1/4" G.
MINIMUM ELECTRIC LEVEL	1 A 140 V AC – 200 V DC 10 W NO When the tank is empty, a pulse from open to closed is created at each rotation

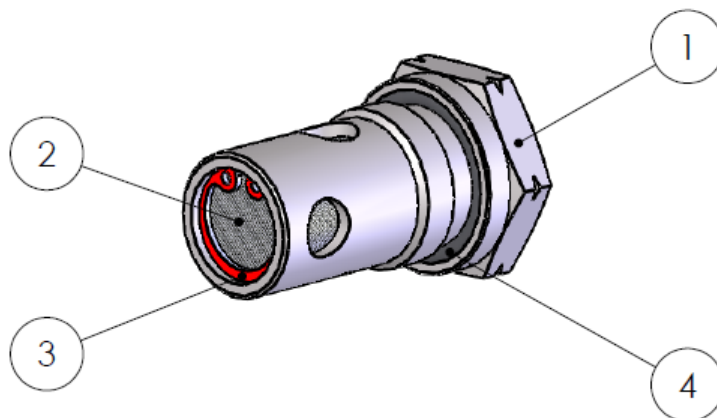
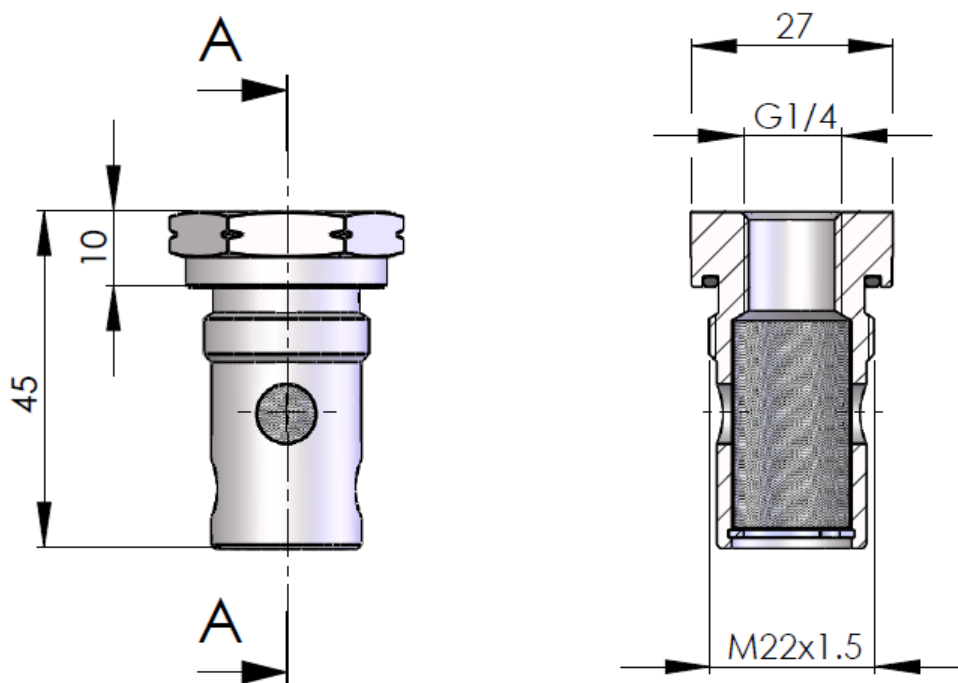
ACCESSORIES

ELECTRIC GREASE AND OIL PUMPS



INLET FILTER A70.093526

To prevent impurities from entering while the tank is being filled. We recommend applying an inlet filter directly on the pump body by unscrewing the needle grease nipple.

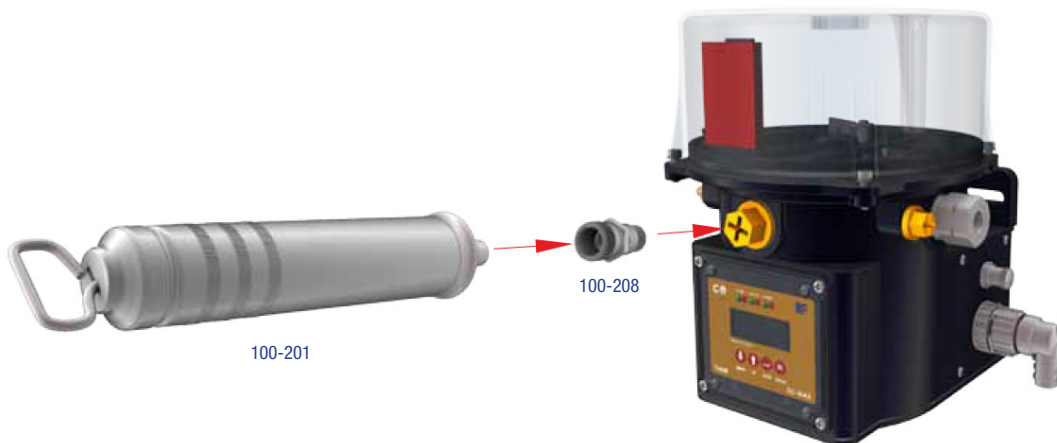


Ordering Codes

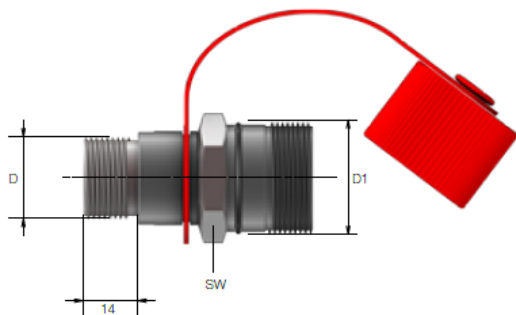
#	PART NUMBER	DESCRIPTION	QUANTITY
1	A51106645	M22x1.5 filter holder connection with G1/4 hole	1
2	A93086020	Grease cartridge 250µ	1
3	UNI7437-16	Retaining ring for series holes normal-Uni 7437-16	1
4	A92127137	O-Ring 2081	1

HAND PUMPS AND ADAPTOR FOR FILLING ReliaMAX™ PUMPS

Unscrew the yellow cap. Install the filling connection. Insert the cartridge in the hand pump, fill the tank. Remove the filling connection. Refit the yellow cap.



FILLING CONNECTION



PART NUMBER	D	SW
100-208	M22X1.5	32

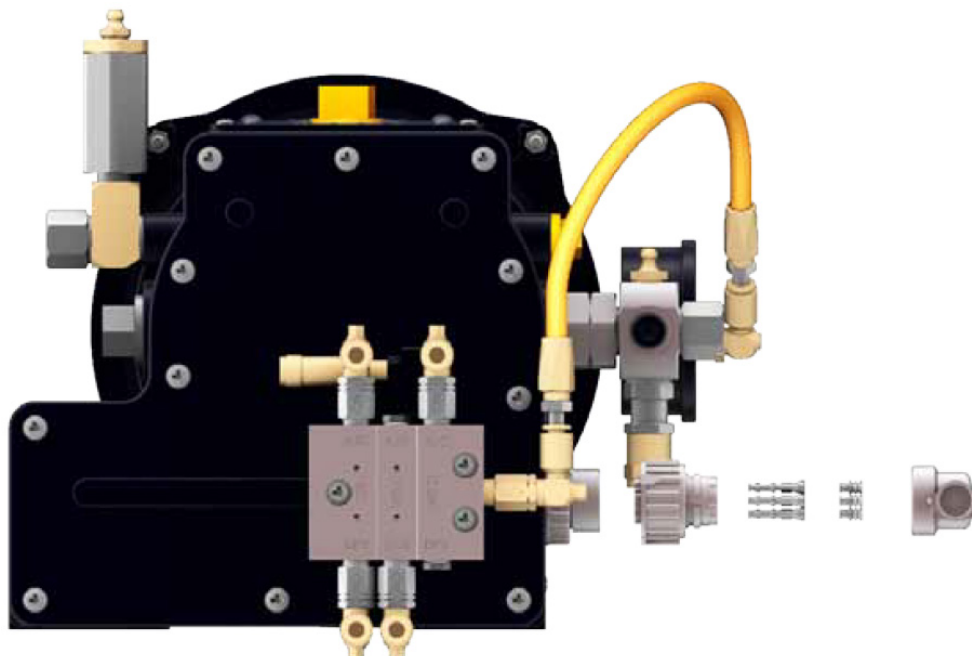
FILLING PUMP



PART NUMBER
100-201

DPX MOUNTED ON PUMP

ILC-MAX is set up to be assembled with a 3 to 9 element DPX divider valve mounted directly below the base of the pump.



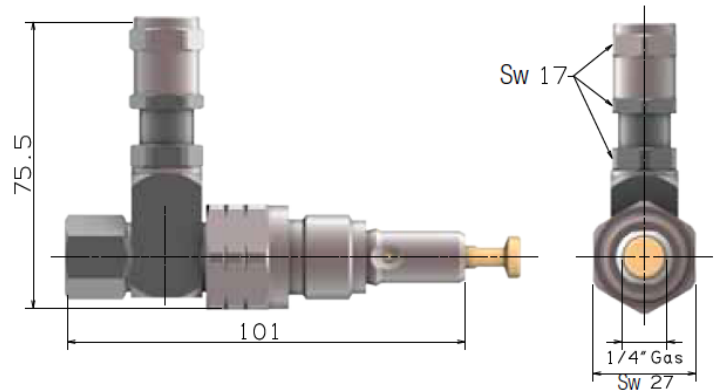
40.KTR.001
Connection Kit ReliaMAX™ / DPX



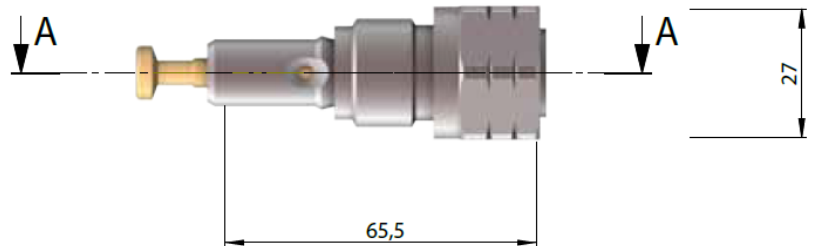
FIXED DISCHARGE PUMPING COMPLETE WITH SAFETY VALVE
90.900.0



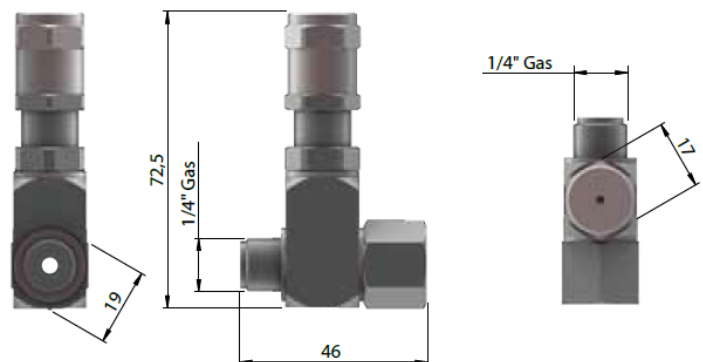
Overall Dimensions



FIXED DISCHARGE PUMPING WITHOUT SAFETY VALVE
A70.093245



EXTERNAL SAFETY VALVE
A70.093133



ReliaMAX™ ACCESSORIES

ADJUSTABLE DISCHARGE PUMPING COMPLETE WITH SAFETY VALVE 90.900.3



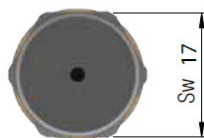
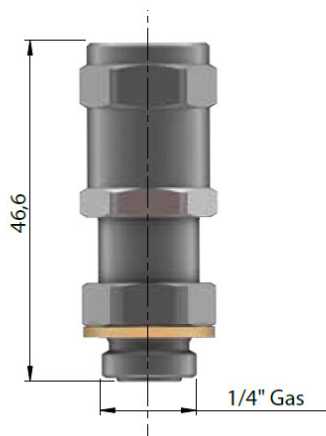
Pumping element is equipped with two supplementary 1/4" G outlets used to mount the following accessories:

- Safety Valve / A68.075011
- Pressure Gauge 0-400 / 46.600.0
- Proximity Sensor 250 bar / 09.712.7
- Electromechanical Sensor 250 bar / 09.713.7
- Grease Nipple / 39.000.3

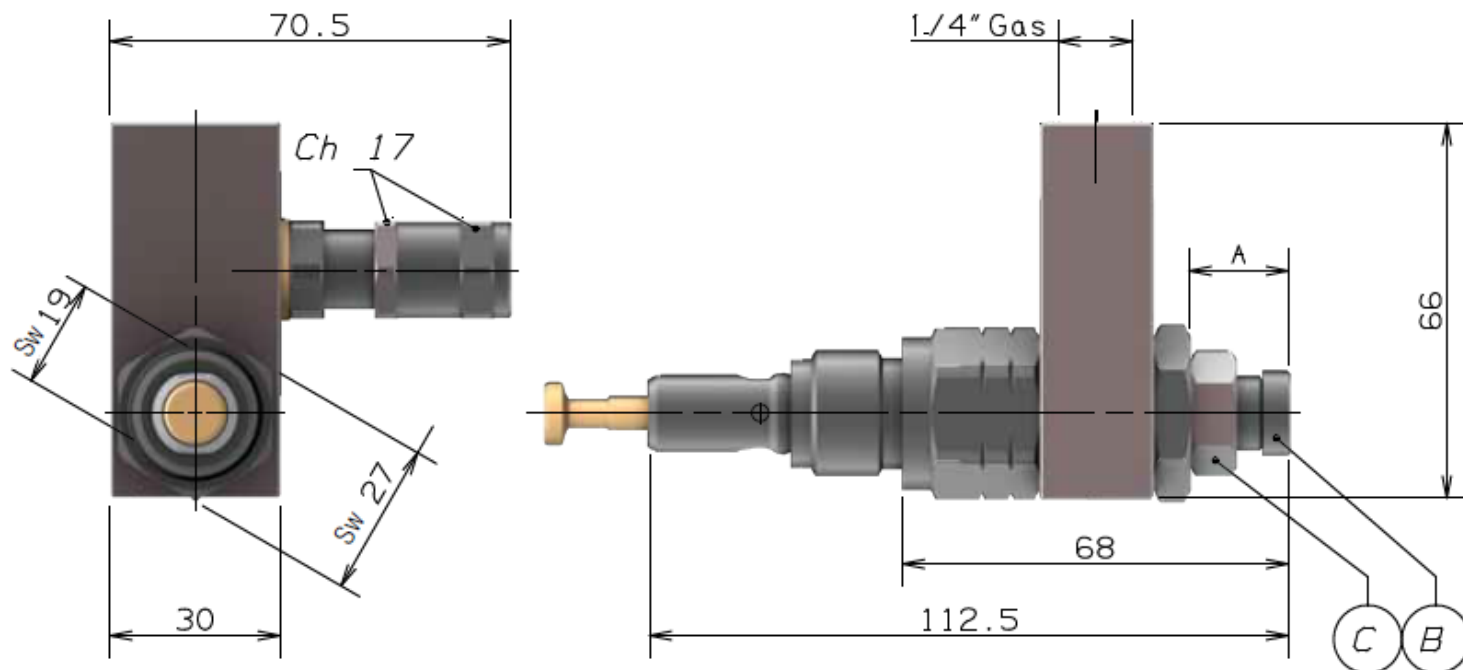
ADJUSTABLE DISCHARGE PUMPING WITHOUT SAFETY VALVE 90.900.4



EXTERNAL SAFETY VALVE A68.075011



PUMPING ADJUSTMENT



To change the nominal flow rate of the pump, the lock nut (Pos. c) must be loosened and the adjusting screw (Pos. b) turned clockwise to reduce the amount of lubricant or anticlockwise to increase it. When the desired value has been set, it is extremely important to secure the lock nut again (Pos. c).

IMPORTANT:
"A" MUST NOT BE GREATER
THAN 23.6 mm

Discharge Adjustment Table

A	DISCHARGE/CYCLE	PERCENTAGE
23.6	0.16 CC	100%
22.5	0.12 CC	75%
21	0.08 CC	50%
19.5	0.04 CC	25%
18.5	0.01 CC	6%
17.5	0.00 CC	0%

BUTTONS



VOLTS	COLOR	MATERIAL	PART NUMBER
12	green	plastic	40.PBG.12
24	green	plastic	40.PBG.24

ReliaMAX™ ACCESSORIES FOR FIXED PUMPING

ROUND MANIFOLD WITH PRESSURE GAUGE, SAFETY VALVE 40.BMI.02

The safety valve protects the system from overpressure.

Round manifold = gauge assembly, outlet fitting, and PRU



The ReliaMAX™ pump is supplied complete with 7-pole electric connector.

A91.111.327

N.B. the supply includes 3 types of rubbers for different diameters and for unused contacts.

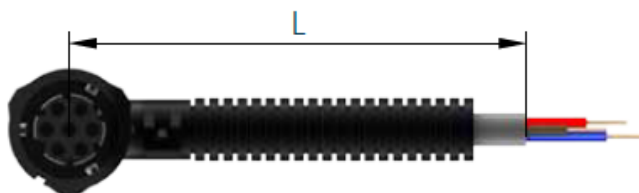
n. 7 Code A91.111315
1.2 to 2.1 mm² cables

n. 7 Code A91.111314
2.2 to 3 mm² cables

n. 7 Code A91.111310
to plug the hole of an unused contact



We can supply the connector complete with 2-wire cable (1mm²)



We can supply the connector complete with 7-wire cable (1 mm²)



EXTERNAL PUMP CONTROLLER



GREEN LIGHT ON:

Pump is in delay mode (PAUSE) - NO DISPLAY



YELLOW LIGHT FLASHING:

Pump paddles rotates, pump is metering grease and pressure gauge is moving (PUMP ON) - DISPLAY COUNTS DOWN



RED LIGHT ON:

Pump is in "FAULT", low level or (if equipped) no lube



GREEN, YELLOW, RED LIGHTS FLASHING:
 Pump **BLOCKED**



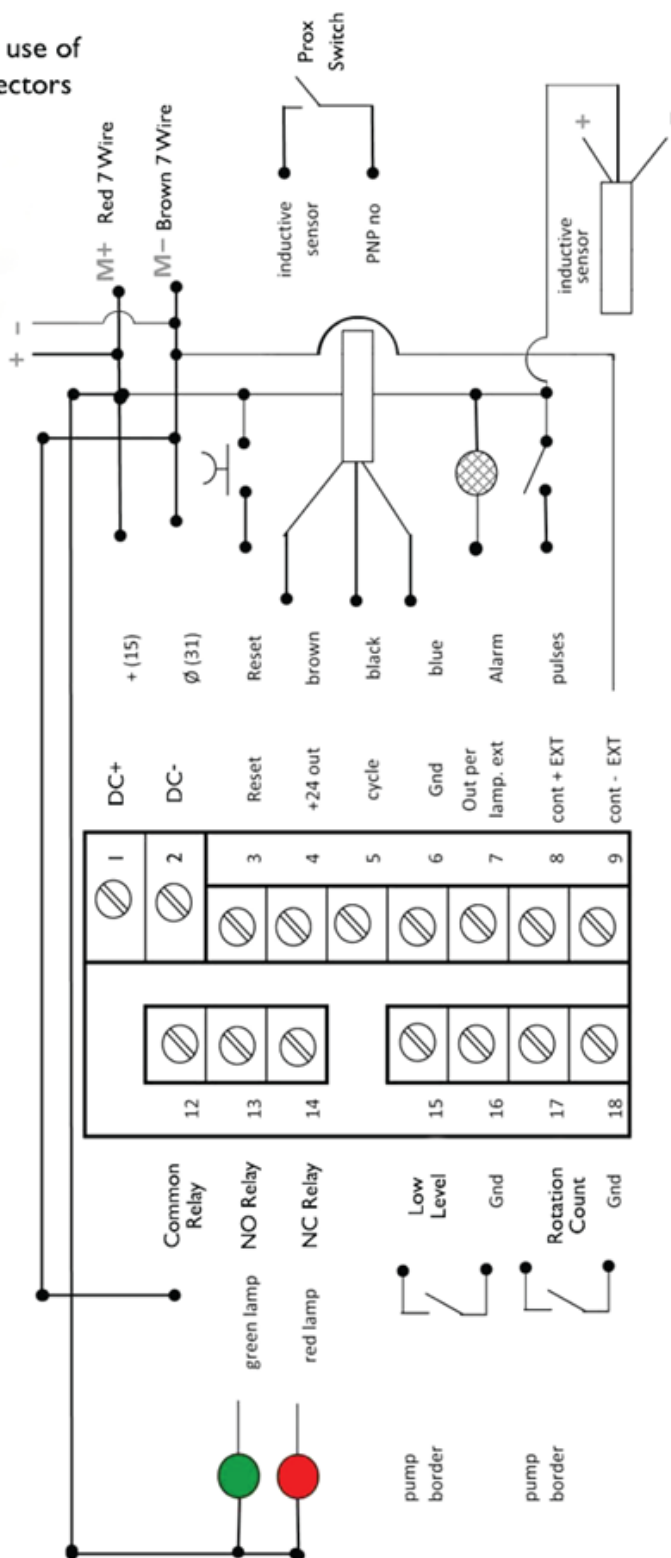
DISPLAY SHOWS FAULT CODE - Acoustic indicator is activated (ALARM if equipped)

EXTERNAL PUMP CONTROLLER

WIRES WITH EXTERNAL TIMER



Connections (2) require use of Female (F) Spade Connectors



These Use Screw Terminals for Connections

		2 Wire White	1	DC +
		2 Wire Black	2	DC -
Common Relay	12	24 VDC+ (pos)	3	Reset
NO relay	13	Brown Prox Wire	4	+24 out
NC relay	14	Blue 7 Wire	5	Cycle
		Black 7 Wire	6	Gnd
Low level	15	Blue Prox Wire	7	Out per lamp. ext
Gnd	16	White 7 Wire	8	cont + EXT
Rotation Count	17	Yellow 7 Wire	9	cont - EXT
Gnd	18	Green 7 Wire		