GREASE AND OIL ELECTRIC PUMPS
ILC-MAX

I.L.C. srl - Via Garibaldi, 149 - 21055 Gorla Minore (Va) - Italy
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HOW TO ORDER

40.2.24AC.FST.G

RESERVOIR
***2** = 2 Kg transparent*
***4** = 4 Kg transparent*
***8** = 8 Kg transparent*
***5** = 5 Kg metallic*
TENSION
***12DC** = 12 V DC*
***24DC** = 24 V DC*
***24AC** = 24 V AC*
***115V** = 115 V AC*
***230V** = 230 V AC*
PUMPING ELEMENT
***F** = fixed discharge*
***R** = adjustable discharge*
TIMER
***CT** = with timer*
***ST** = without timer*
LUBRICANT
***G** = grease*
***O** = oil*

*All the pumps are equipped with **lubricant low level switch** and grease pumps (not oil ones) with 2, 4 and 8 kg reservoir are equipped with **electrical control of motor rotation**.*
***Models with timer** are equipped with 7-poles TYCO connector and 4-poles M12x1 one; **models without timer** are equipped with only 7-poles TYCO connector.*

PUMP MOUNTING
Pumps must be secured in a vertical position by two bolts, nuts and washers through integrated mounting bracket of pump body

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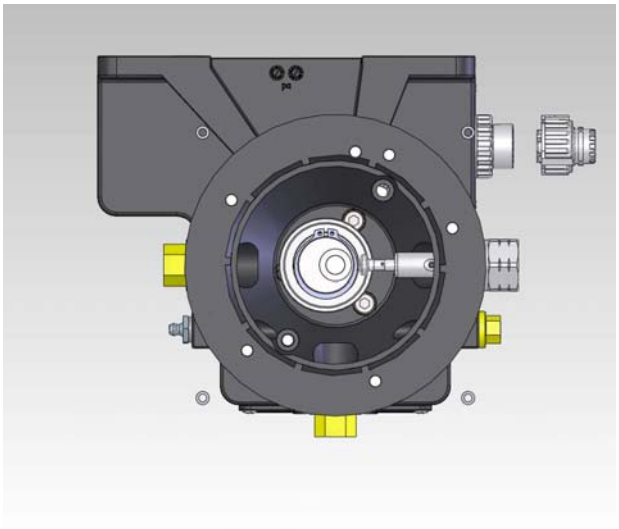
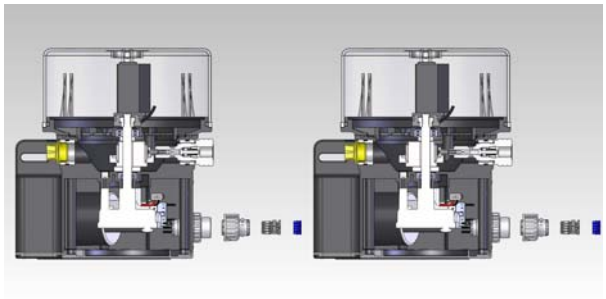
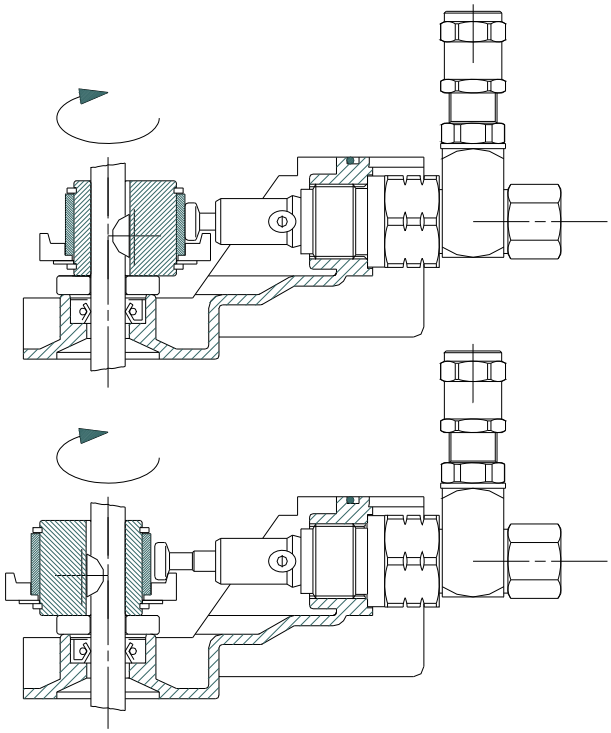
ELECTRIC PUMPS
GREASE (ILC-MAX-G)
OR OIL (ILC-MAX-O)

APPLICATIONS

Ideally suitable for the automatic grease lubrication of all types of industrial machines and as a chassis lubrication pump for trucks, trailers, buses, construction and mechanical handling vehicles.
In conjunction with ILC DPA, DPM or DPX progressive dividers, more than three hundred greasing points can be automatically centralized from just a single grease pump.







OPERATION

The pumps are designed for intermittent or continuous operation to provide regular pre-programmed lubrication cycles as required for the various applications.
A direct-mounted electric geared motor drives an internal rotating cam, which can actuate up to three externally mounted pump elements.

Every pumping element has a relief valve to protect the system against over-pressure.

To have a bigger discharge it is possible to collect the three outlets from the pumping elements together in a single tube.

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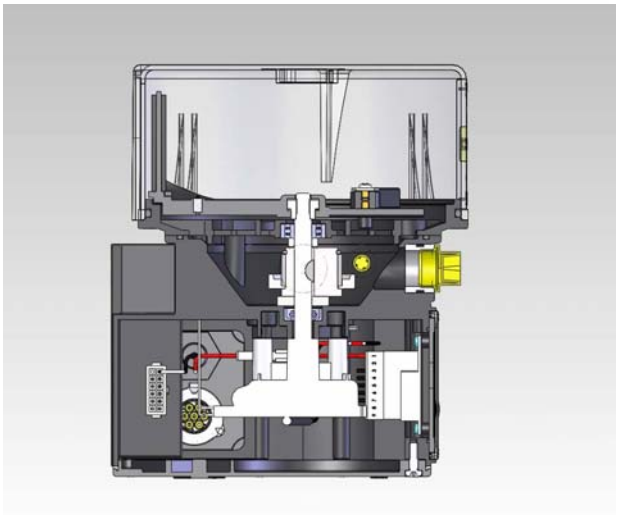
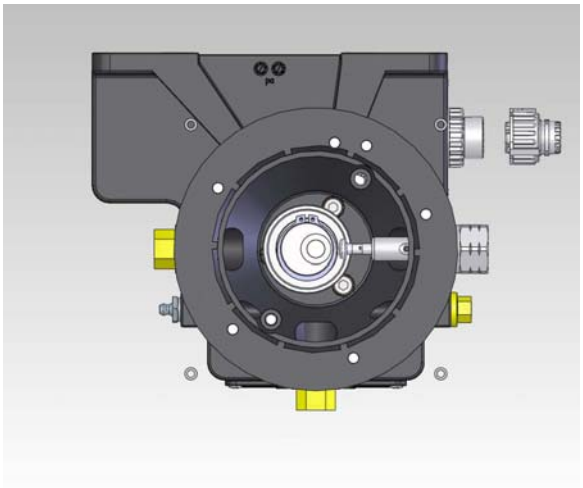
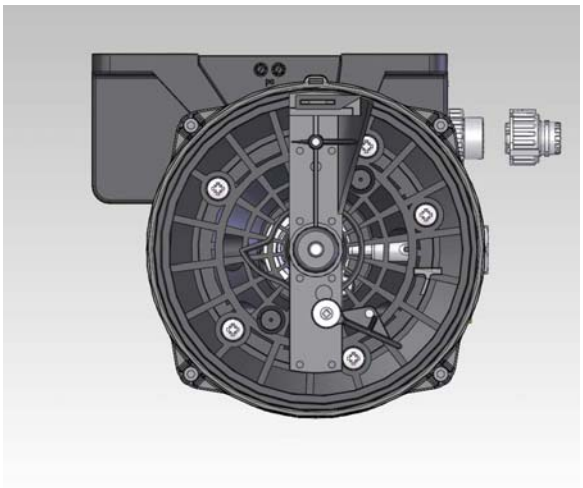
ELECTRIC PUMPS
GREASE (ILC-MAX-G)
OR OIL (ILC-MAX-O)



The transparent reservoir has 2 KG, 4 KG or 8 KG capacity and metallic reservoir has 5 KG.
The pumps cat attains a maximum recommended operating pressure of 250 bar per outlet and will delivery up to 2.88 cc/minute per outlet.
The internal drive shaft is coupled to a specially formed stirring paddle in the reservoir of the pump unit which ensures continuous priming of the pump element inlets, even with grease up to NLGI No. 2 consistency at ambient temperature down to -20 °C





The gear motor is protected by mean of an IP-56 protection degree covering (NYLON PA6 +30% FIBERGLASS). The seal is guarantee from well-mounted "o"-ring.
The pumps can have an integrated electronic control timer built into the covering. The timer can be pre programmed to automatically operate the pump with variable "working time" and "pause times".

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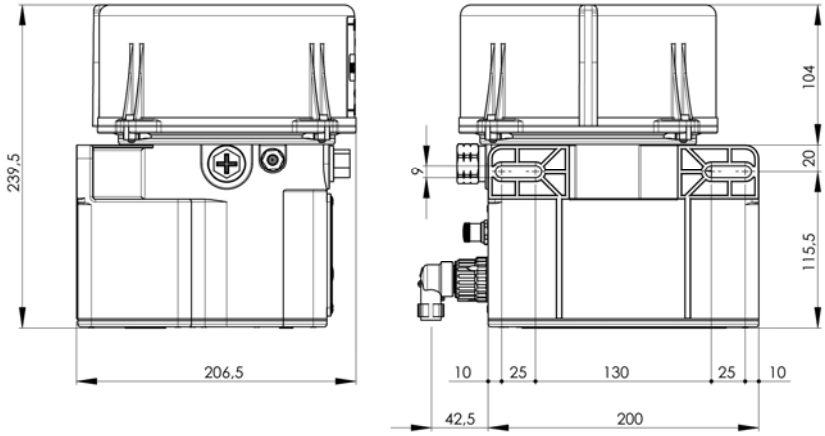
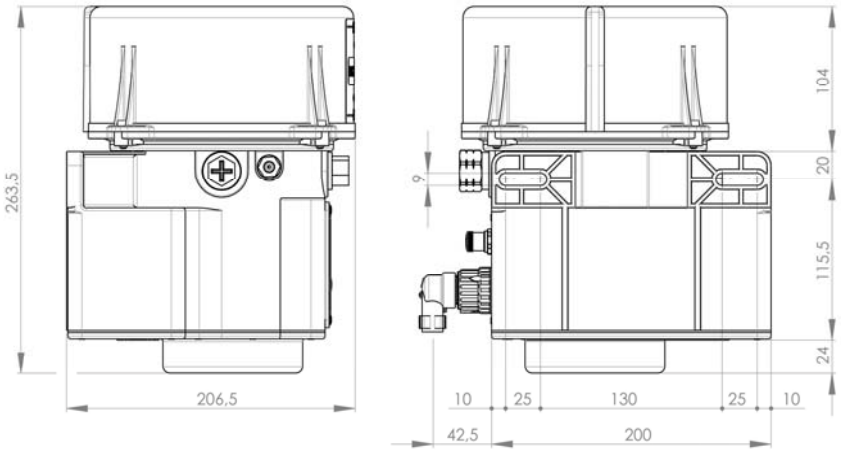
GREASE ELECTRIC PUMP ILC-MAX-G 2 (12/24 V DC – 24 V AC)



GREASE ELECTRIC PUMP ILC-MAX-G 2 (115/230 V AC)



TECHNICAL DATA

NUMBER OF OUTLETS	FROM 1TO 3
DISCHARGE/ROPE WITH FIXED PUMPING ELEMENT	0.16 CC
DISCHARGE/ROPE WITH ADJUSTABLE PUMPING ELEMENT	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/MIN WITH FIXED PUMPING ELEMENT	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/MIN WITH ADJUSTABLE PUMPING ELEMENT	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 NLGI NO. 2 CONSISTENCY
MAX. OPERATING PRESSURE	275 BAR (3993 PSI) ±10%
RESERVOIR CAPACITY	2 KG - PLASTIC
TEMPERATURE	FROM - 20 ºC TO + 80 ºC
OUTLET CONNECTION	1 / 4" G
LOW LEVEL SWITCH	1 A 140 V AC – 200 V DC 10 W NO A pulse from open to close is created at every revolution when reservoir is empty
RPM CONTROL	1 A 140 V AC – 200 V DC 10 W NO – Contact closes at every rotation

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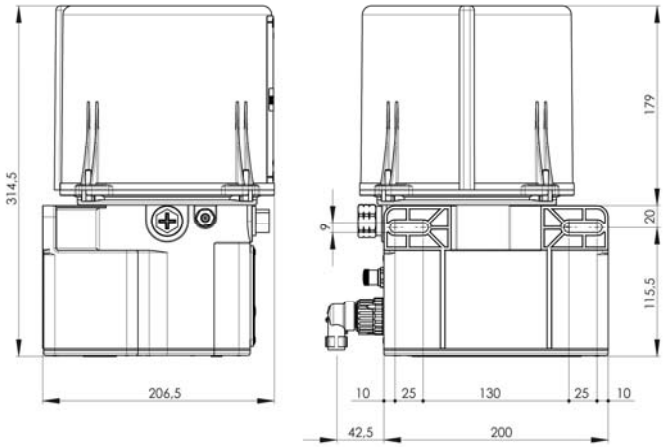
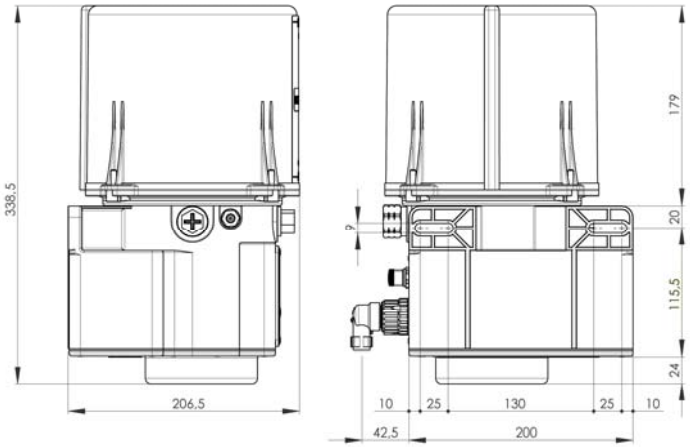
GREASE ELECTRIC PUMP ILC-MAX-G 4 (12/24 V DC – 24 V AC)



GREASE ELECTRIC PUMP ILC-MAX-G 4 (115/230 V AC)



TECHNICAL DATA

NUMBER OF OUTLETS	FROM 1TO 3
DISCHARGE/ROPE WITH FIXED PUMPING ELEMENT	0.16 CC
DISCHARGE/ROPE WITH ADJUSTABLE PUMPING ELEMENT	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/MIN WITH FIXED PUMPING ELEMENT	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/MIN WITH ADJUSTABLE PUMPING ELEMENT	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 NLGI NO. 2 CONSISTENCY
MAX. OPERATING PRESSURE	275 BAR (3993 PSI) ±10%
RESERVOIR CAPACITY	4 KG - PLASTIC
TEMPERATURE	FROM - 20 ºC TO + 80 ºC
OUTLET CONNECTION	1 / 4" G
LOW LEVEL SWITCH	1 A 140 V AC – 200 V DC 10 W NO A pulse from open to close is created at every revolution when reservoir is empty
RPM CONTROL	1 A 140 V AC – 200 V DC 10 W NO – Contact closes at every rotation

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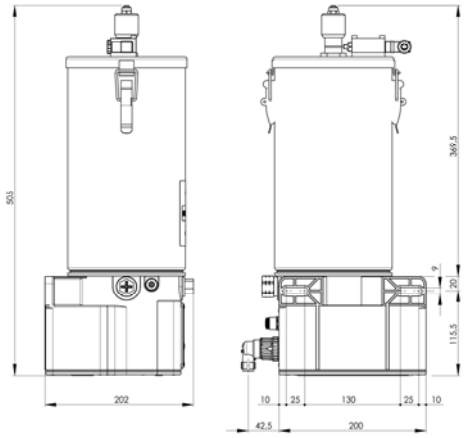
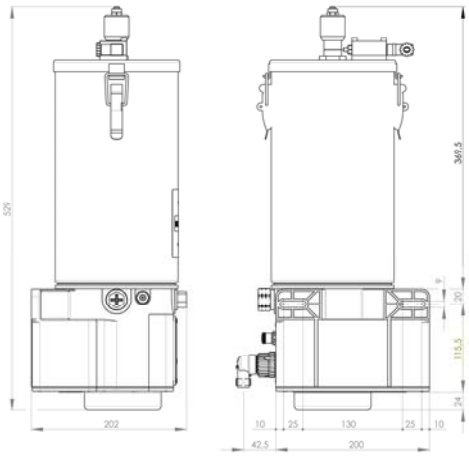
GREASE ELECTRIC PUMP ILC-MAX-G 5 (12/24 V DC – 24 V AC)



GREASE ELECTRIC PUMP ILC-MAX-G 5 (115/230 V AC)



TECHNICAL DATA

NUMBER OF OUTLETS	FROM 1TO 3
DISCHARGE/ROPE WITH FIXED PUMPING ELEMENT	0.16 CC
DISCHARGE/ROPE WITH ADJUSTABLE PUMPING ELEMENT	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/MIN WITH FIXED PUMPING ELEMENT	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/MIN WITH ADJUSTABLE PUMPING ELEMENT	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 NLGI NO. 2 CONSISTENCY
MAX. OPERATING PRESSURE	275 BAR (3993 PSI) ±10%
RESERVOIR CAPACITY	5 KG - METALLIC
TEMPERATURE	FROM - 20 ºC TO + 80 ºC
OUTLET CONNECTION	1 / 4" G
LOW LEVEL SWITCH	5A – 250 V AC / 0.4 A - 125 V DC – NC o NO contact

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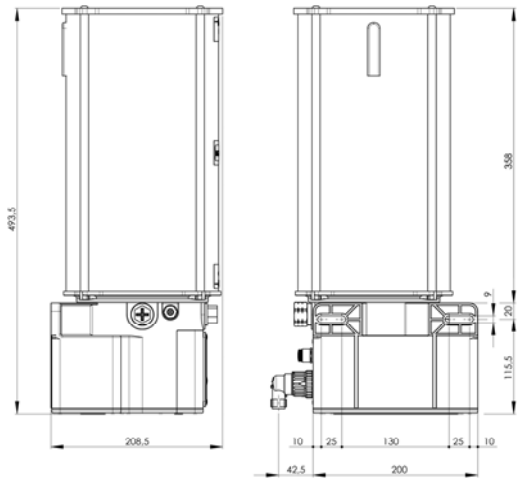
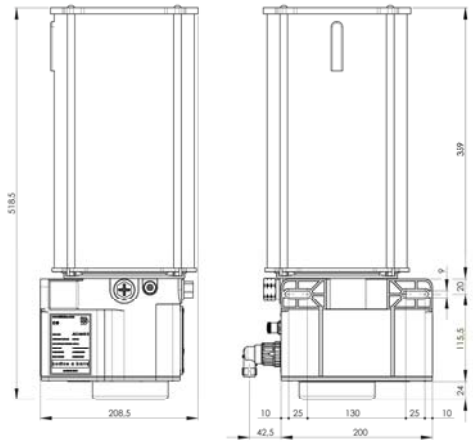
GREASE ELECTRIC PUMP ILC-MAX-G 8 (12/24 V DC – 24 V AC)



GREASE ELECTRIC PUMP ILC-MAX-G 8 (115/230 V AC)



TECHNICAL DATA

NUMBER OF OUTLETS	*FROM 1TO 3*
DISCHARGE/ROPE WITH FIXED PUMPING ELEMENT	*0.16 CC*
DISCHARGE/ROPE WITH ADJUSTABLE PUMPING ELEMENT	*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/MIN WITH FIXED PUMPING ELEMENT	*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/MIN WITH ADJUSTABLE PUMPING ELEMENT	*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 NLGI NO. 2 CONSISTENCY*
MAX. OPERATING PRESSURE	*275 BAR (3993 PSI) ±10%*
RESERVOIR CAPACITY	*8 KG - PLASTIC*
TEMPERATURE	*FROM - 20 ºC TO + 80 ºC*
OUTLET CONNECTION	*1 / 4" G*
LOW LEVEL SWITCH	*1 A 140 V AC – 200 V DC 10 W NO* *A pulse from open to close is created at every revolution when reservoir is empty*
RPM CONTROL	*1 A 140 V AC – 200 V DC 10 W NO – Contact closes at every rotation*

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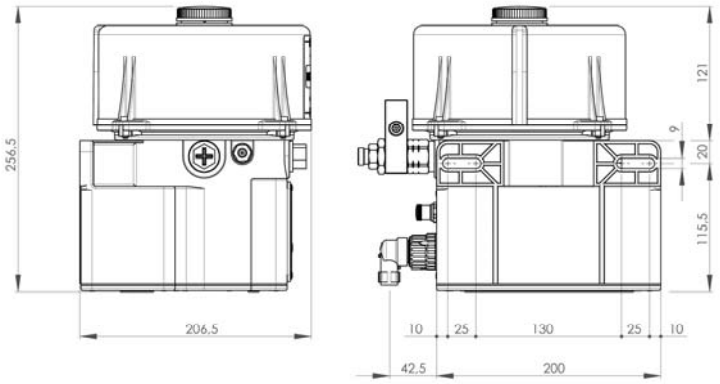
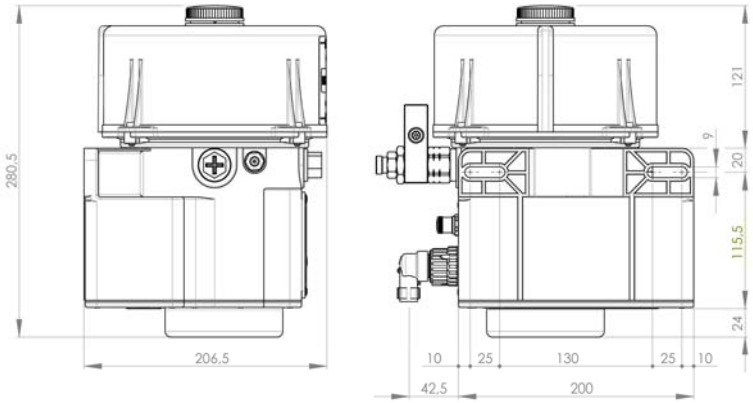
OIL ELECTRIC PUMP ILC-MAX-O 2 (12/24 V DC – 24 V AC)



OIL ELECTRIC PUMP ILC-MAX-O 2 (115/230 V AC)



TECHNICAL DATA

NUMBER OF OUTLETS	FROM 1TO 3
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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/MIN WITH ADJUSTABLE PUMPING ELEMENT	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
MAX. OPERATING PRESSURE	275 BAR (3993 PSI) ±10%
RESERVOIR CAPACITY	2 L - PLASTIC
TEMPERATURE	FROM - 20 ºC TO + 80 ºC
OUTLET CONNECTION	1 / 4" G
LOW LEVEL SWITCH	1 A 140 V AC – 200 V DC 10 W NO - Contact opens when reservoir is empty

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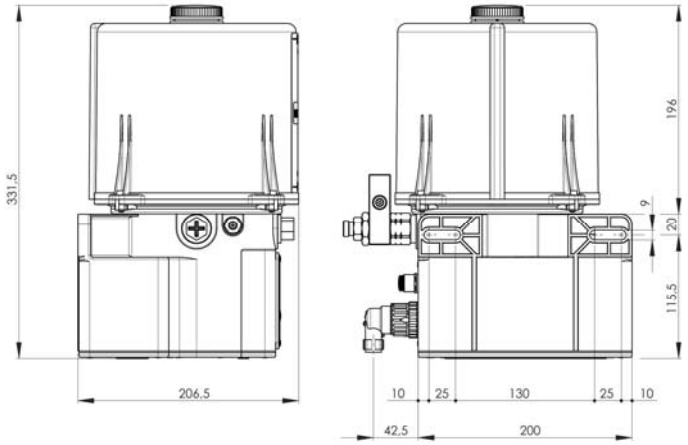
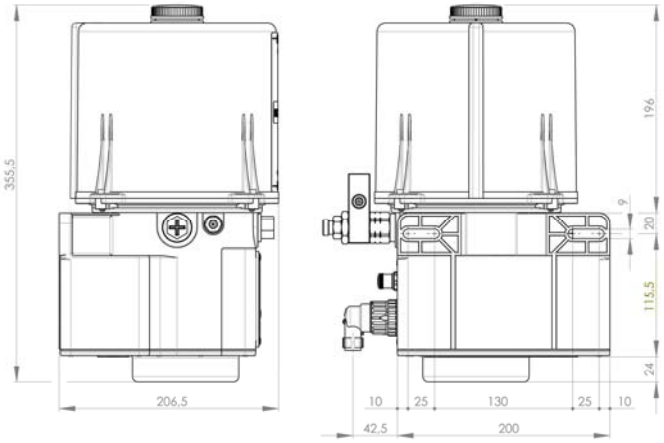
OIL ELECTRIC PUMP ILC-MAX-O 4 (12/24 V DC – 24 V AC)



OIL ELECTRIC PUMP ILC-MAX-O 4 (115/230 V AC)



TECHNICAL DATA

NUMBER OF OUTLETS	FROM 1TO 3
DISCHARGE/ROPE WITH FIXED PUMPING ELEMENT	0.16 CC
DISCHARGE/ROPE WITH ADJUSTABLE PUMPING ELEMENT	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/MIN WITH FIXED PUMPING ELEMENT	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/MIN WITH ADJUSTABLE PUMPING ELEMENT	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
MAX. OPERATING PRESSURE	275 BAR (3993 PSI) ±10%
RESERVOIR CAPACITY	4 L - PLASTIC
TEMPERATURE	FROM - 20 ºC TO + 80 ºC
OUTLET CONNECTION	1 / 4" G
LOW LEVEL SWITCH	1 A 140 V AC – 200 V DC 10 W NO - Contact opens when reservoir is empty

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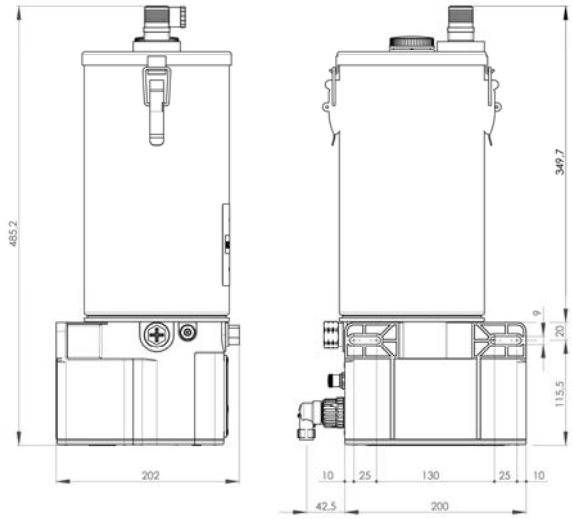
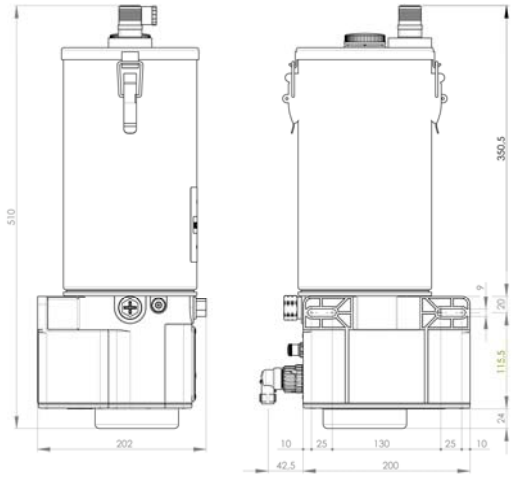
OIL ELECTRIC PUMP ILC-MAX-O 5 (12/24 V DC – 24 V AC)



OIL ELECTRIC PUMP ILC-MAX-O 5 (115/230 V AC)



TECHNICAL DATA

NUMBER OF OUTLETS	*FROM 1TO 3*
DISCHARGE/ROPE WITH FIXED PUMPING ELEMENT	*0.16 CC*
DISCHARGE/ROPE WITH ADJUSTABLE PUMPING ELEMENT	*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/MIN WITH FIXED PUMPING ELEMENT	*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/MIN WITH ADJUSTABLE PUMPING ELEMENT	*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	*MINERAL OILS 50-1500 cSt*
MAX. OPERATING PRESSURE	*275 BAR (3993 PSI) ±10%*
RESERVOIR CAPACITY	*5 L - METALLIC*
TEMPERATURE	*FROM - 20 ºC TO + 80 ºC*
OUTLET CONNECTION	*1 / 4" G*
LOW LEVEL SWITCH	*1.5 A 250 V AC – 200 V DC 50 W – NC o NO contact*

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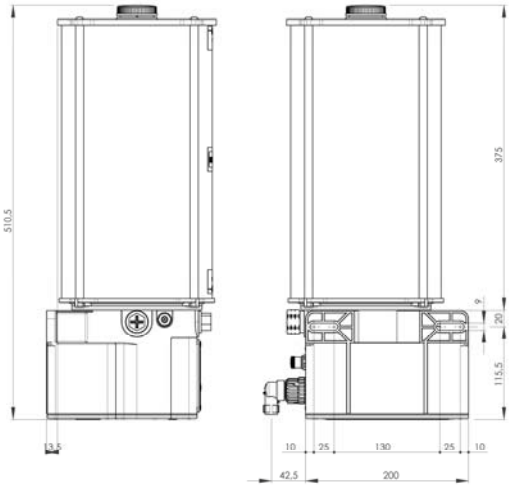
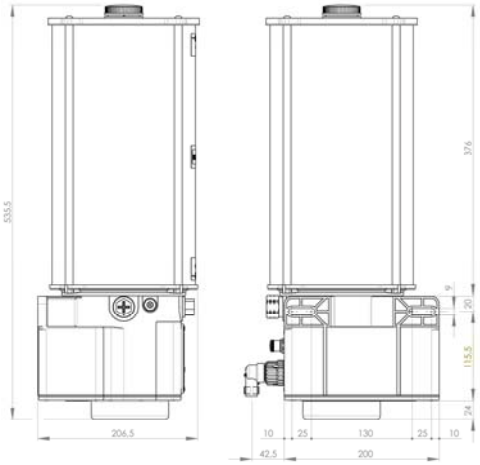
OIL ELECTRIC PUMP ILC-MAX-O 8 (12/24 V DC – 24 V AC)



OIL ELECTRIC PUMP ILC-MAX-O 8 (115/230 V AC)



TECHNICAL DATA

NUMBER OF OUTLETS	FROM 1TO 3
DISCHARGE/ROPE WITH FIXED PUMPING ELEMENT	0.16 CC
DISCHARGE/ROPE WITH ADJUSTABLE PUMPING ELEMENT	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/MIN WITH FIXED PUMPING ELEMENT	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)
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SUITABLE LUBRICANTS	MINERAL OILS 50-1500 cSt
MAX. OPERATING PRESSURE	275 BAR (3993 PSI) ±10%
RESERVOIR CAPACITY	8 L - PLASTIC
TEMPERATURE	FROM - 20 ºC TO + 80 ºC
OUTLET CONNECTION	1 / 4" G
LOW LEVEL SWITCH	1 A 140 V AC – 200 V DC 10 W NO - Contact opens when reservoir is empty

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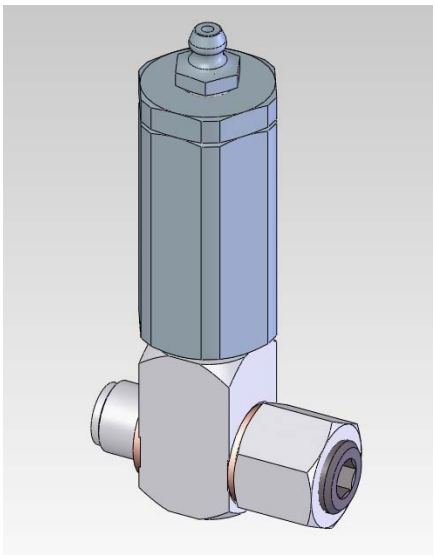
ACCESSORIES

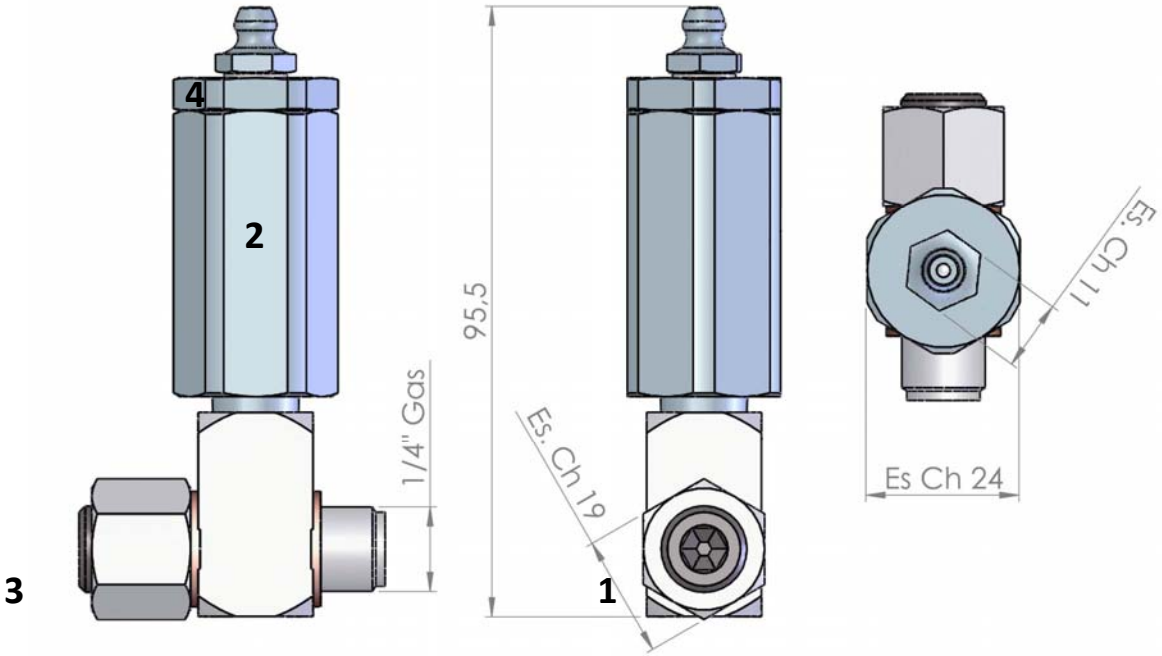
REFILL GRASE STRAINER

A70.093526

It is possible to install a strainer (300 micron) to prevent impurities during the refilling operation.
This strainer can be installed instead of the grease nipple supplied on the pump base.



	DESCRIPTION	*CODE*
1	***Banjo connectors***	A70.093186
2	*Filler strainer set*	07.270.0
3	*Plug 1/4" Gas*	A92.087057
4	*Grease nipple 1/8" Gas*	A70.078422



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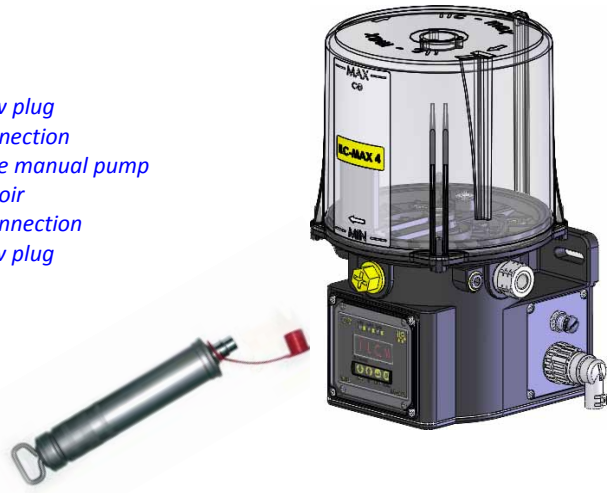
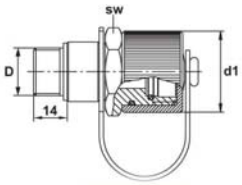
ACCESSORIES

PUMP MANUAL AND ADAPTOR TO FILL ILC-MAX PUMPS

Unscrew yellow plug
Install filling connection
Insert cartridge inside the manual pump
Refill reservoir
Unscrew filling connection
Reinstall yellow plug

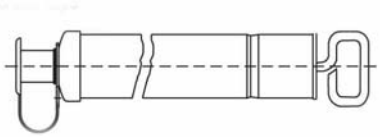


FILLING CONNECTION



CODE	*D*	*SW*
ZZZ100-208	*M22X1.5*	*32*

FILLING PUMP



CODE TO ORDER		*ZZZ100-201*

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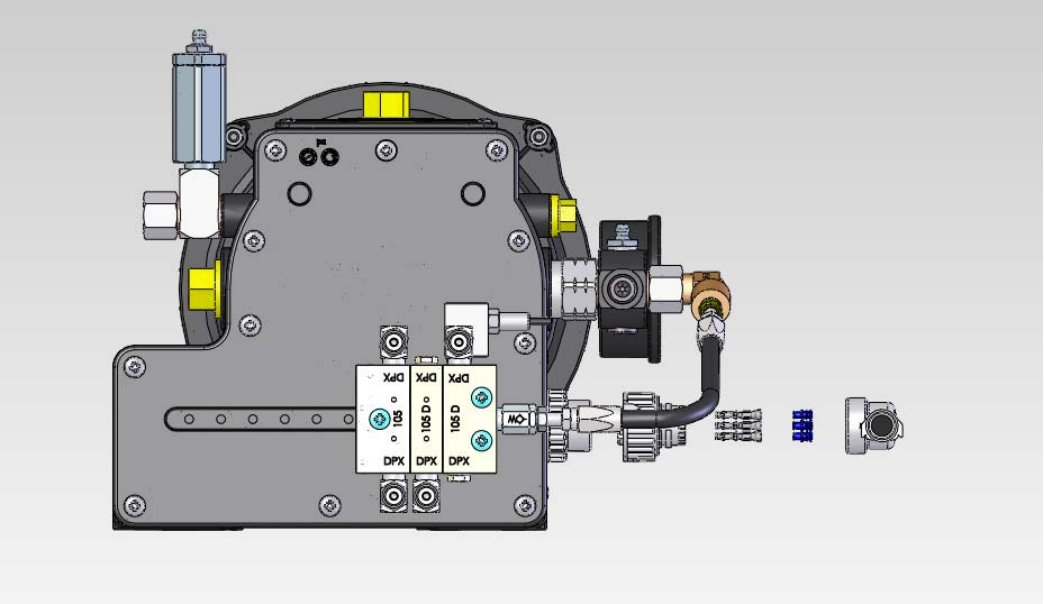
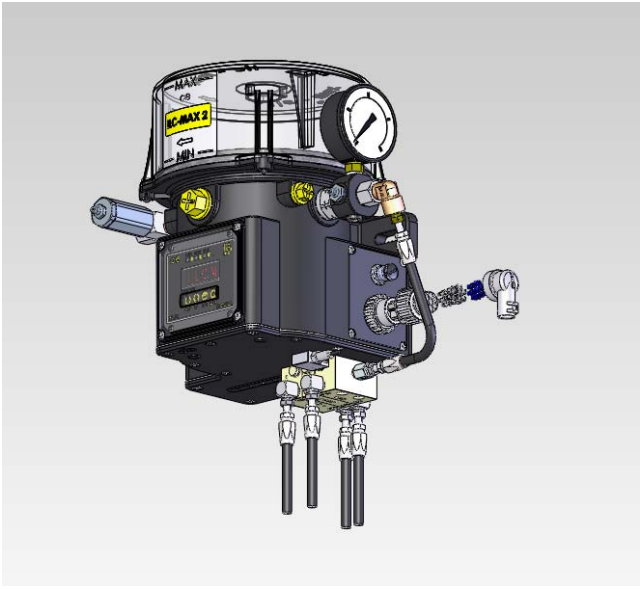
ACCESSORIES

DPX ASSEMBLED ON PUMP

ILC-MAX is set up to be assembled with a DPX from 3 to 9 elements mounted directly under the pump base.



40.KRT.001
Kit to assemble ILC-MAX with DPX



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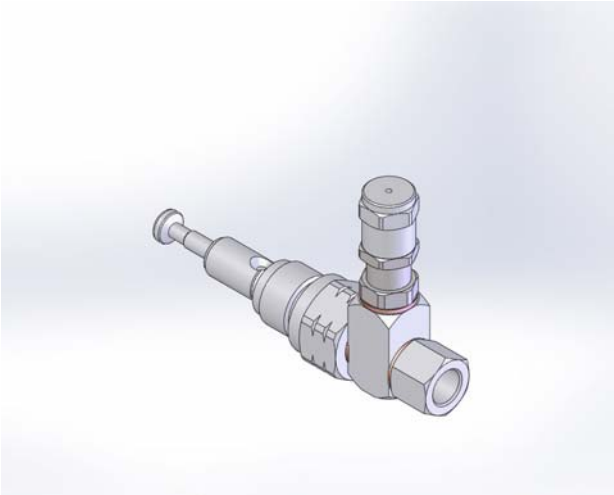
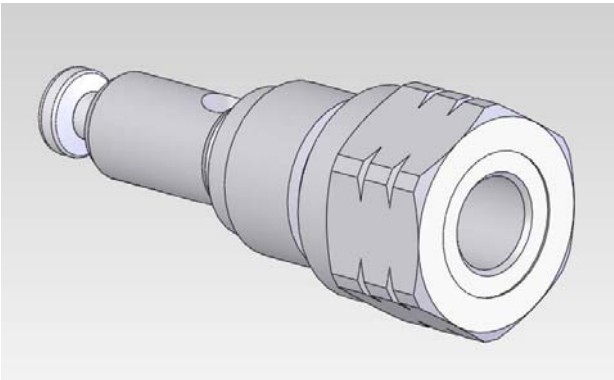
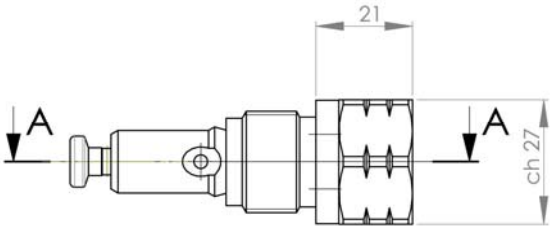
ACCESSORIES

FIXED PUMPING ELEMENT
90.900.0



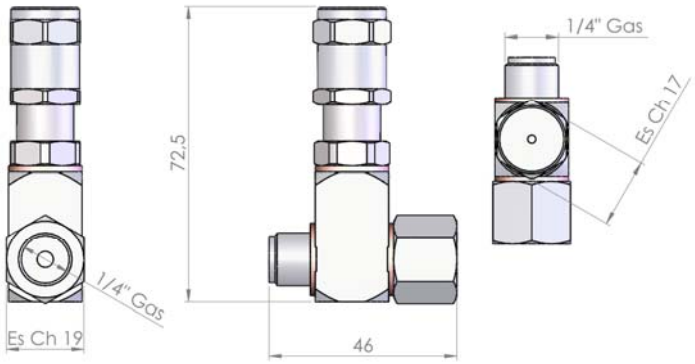
A70.093245





*To add an **external safety valve** it is possible to order:*

A70.093133



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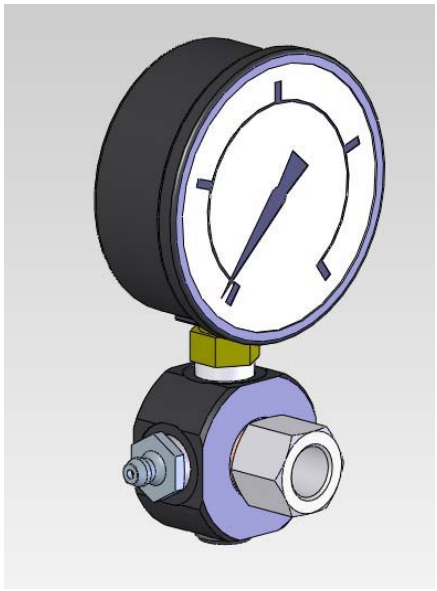
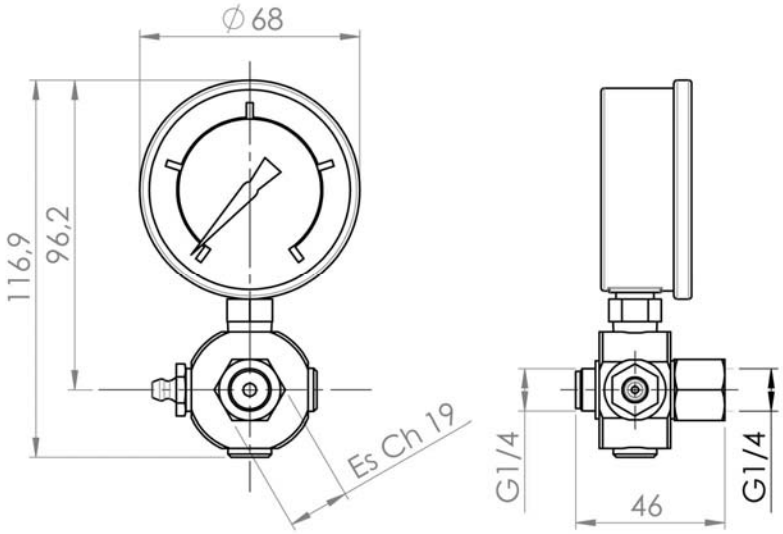
FIXED PUMPING ELEMENT ACCESSORIES

BLOCK COMPLETE OF PRESSURE GAUGE AND GREASE NIPPLE

40.BMI.01

This block can be directly mounted in the delivery and permits to check operation pressure by mean of the pressure gauge and to fill the system through the grease nipple with a manual or pneumatic pump.





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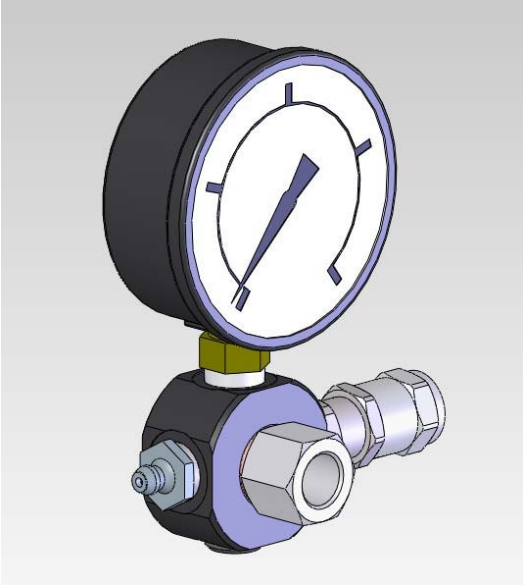
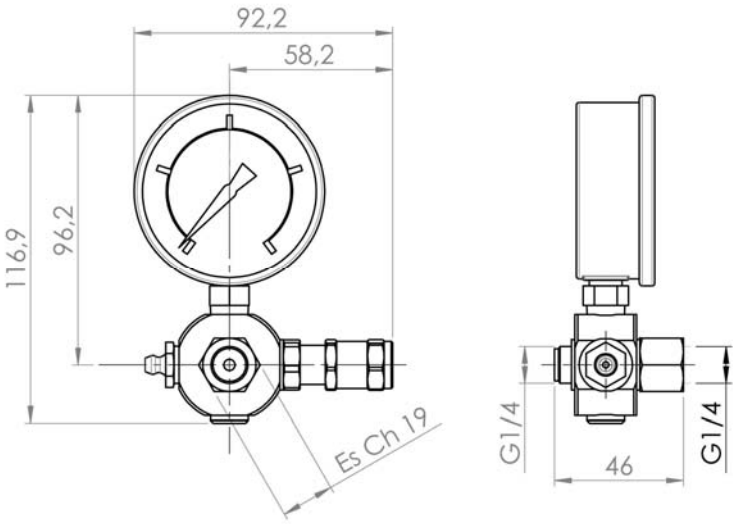
FIXED PUMPING ELEMENT ACCESSORIES

BLOCK COMPLETE OF PRESSURE GAUGE WITH SAFETY VALVE AND GREASE NIPPLE

40.BMI.02

This block can be directly mounted in the delivery and permits to check operation pressure by mean of the pressure gauge and to fill the system through the grease nipple with a manual or pneumatic pump.
It is equipped with a safety valve which protects system from overpressures.





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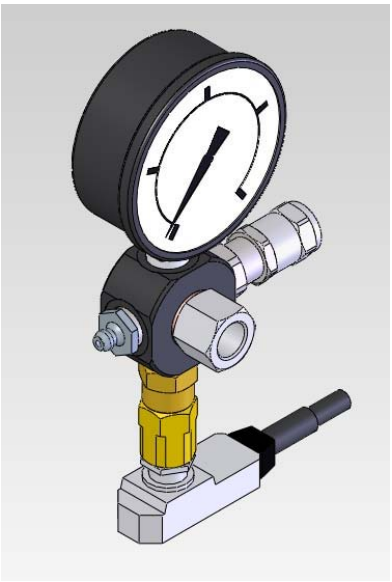
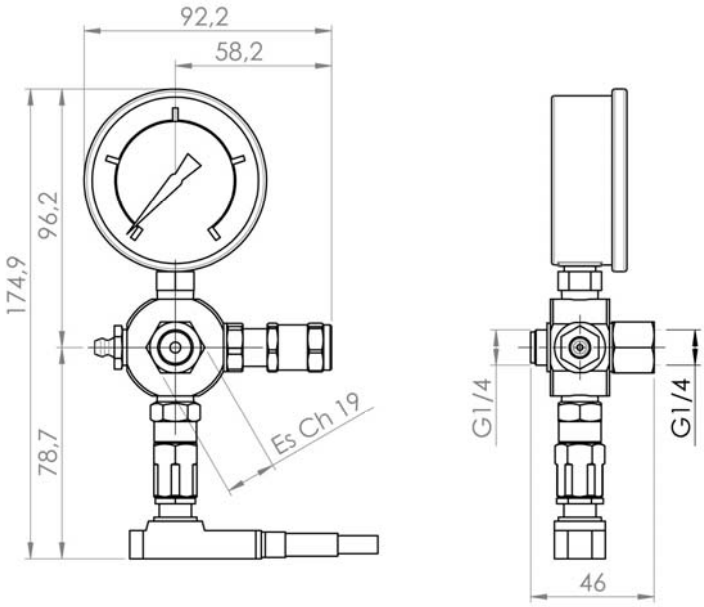
FIXED PUMPING ELEMENT ACCESSORIES

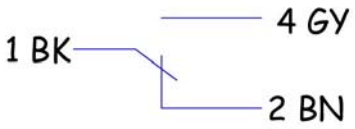
BLOCK COMPLETE OF PRESSURE GAUGE, ELECTROMECHANICAL SENSOR AND GREASE NIPPLE

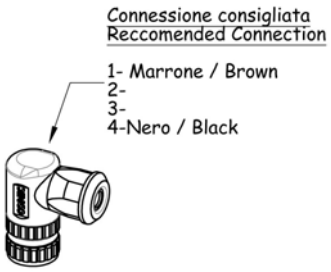
40.BMI.03

This block can be directly mounted in the delivery and permits to check operation pressure by mean of the pressure gauge and to fill the system through the grease nipple with a manual or pneumatic pump.
It is equipped with a safety valve which protects system from overpressures and an electromechanical sensor to check if there's high pressure in the main line.









1 A 230 V AC – 250 V DC 40 W

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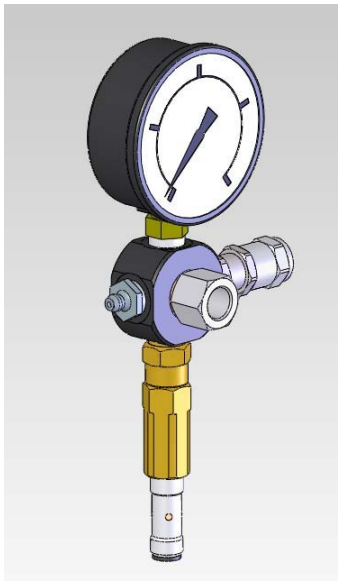
FIXED PUMPING ELEMENT ACCESSORIES

BLOCK COMPLETE OF PRESSURE GAUGE, INDUCTIVE SENSOR AND GREASE NIPPLE

40.BMI.04

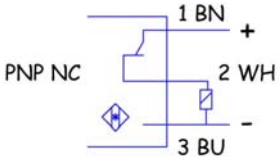
This block can be directly mounted in the delivery and permits to check operation pressure by mean of the pressure gauge and to fill the system through the grease nipple with a manual or pneumatic pump.
It is equipped with a safety valve which protects system from overpressures and an inductive sensor to check if there's high pressure in the main line.

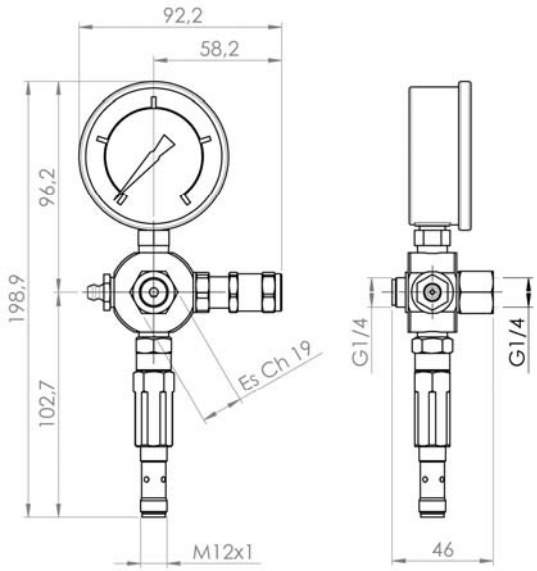


FEATURES

VOLTAGE	*6-30 V DC*
OUTLET CURRENT	*MAX 200 Ma*
CURRENT	*< 12 Ma*
TEMPERATURE RANGE	*- 25°C + 70°C*
PROTECTION	*IP 67*
CASING	*STAINLESS STEEL*
CABLE	*3x0.14 mm² PVC*

ELECTRICAL WIRING





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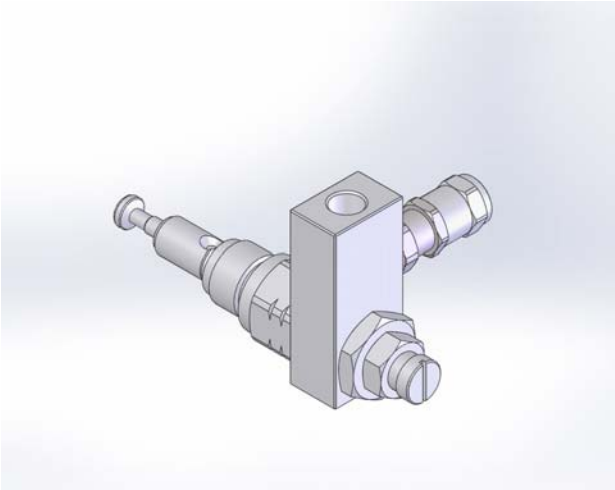
ACCESSORIES

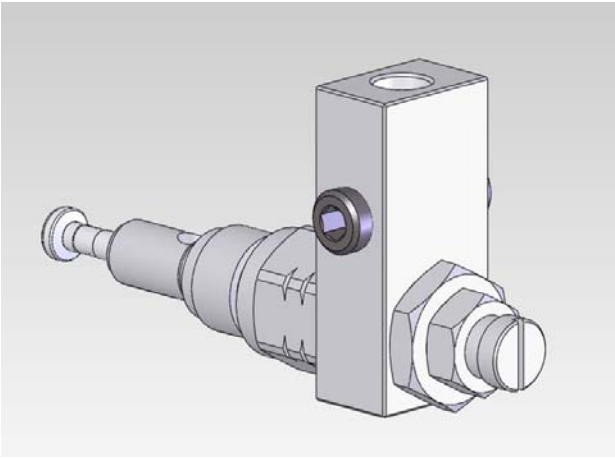
ADJUSTABLE PUMPING ELEMENT
90.900.3

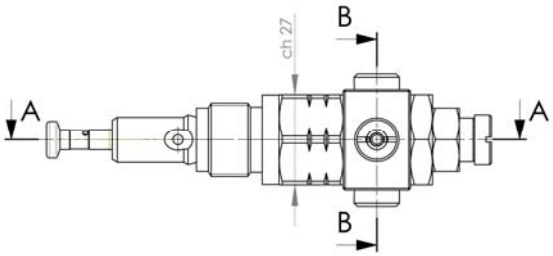


Pumping element has 2 adjunctive 1/4" G outlets that can be used to mount following accessories:

Safety valve / A68.075011
Pressure Gauge 0-400 / 46.600.0
Inductive sensor 250 Bar / 09.713.7
Electromechanical sensor 250 Bar / 09.713.7
Grease nipple / 39.000.3

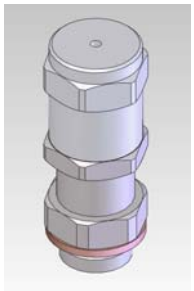
90.900.4

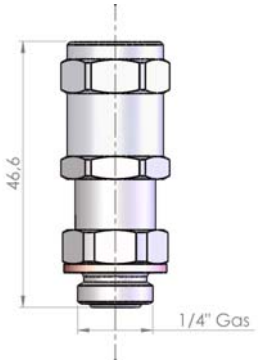




*To add an **external safety valve** it is possible to order:*

A68.075011





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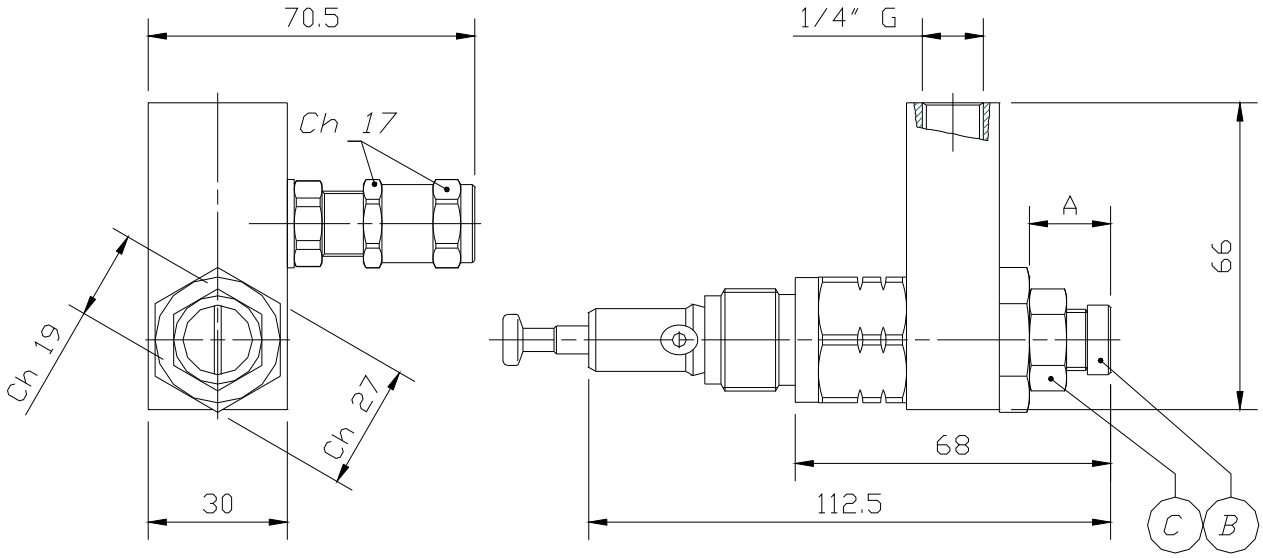
ACCESSORIES

PUMPING ELEMENT ADJUSTMENT



The nominal delivery rate of the pumping element can be adjusted by loosening the locking nut (pos. c) and rotating the adjustment screw (pos. b) clockwise to reduce delivery, or counter clockwise to increase delivery of the lubricant. The output adjustment table describes the equivalent outputs that can be obtained by varying the distance (a) of the adjustment screw (pos. b).

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 %*

IMPORTANT:
"A" HAVE NOT TO BE MORE THAT 23.6MM

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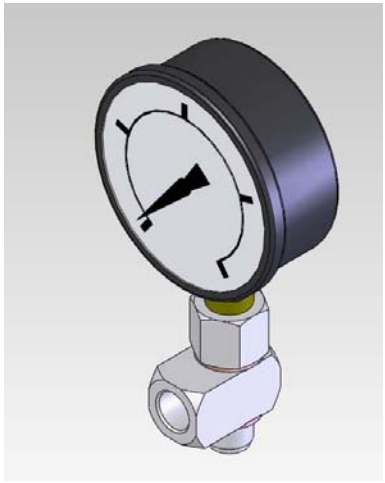
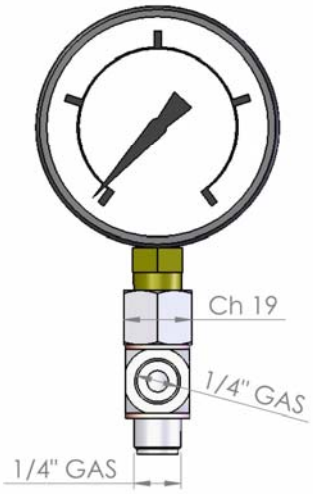
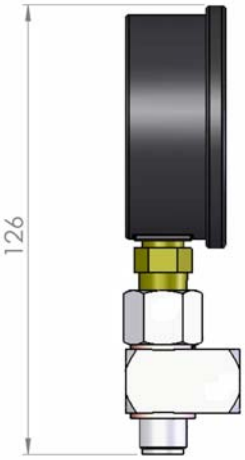
ADJUSTABLE PUMPING ELEMENT ACCESSORIES

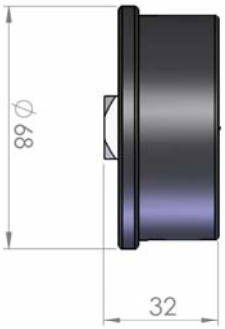
TWO WAYS BANJO CONNECTOR
WITH PRESSURE GAUGE
A70.093523

This block can be directly mounted in the delivery and permits to check operation pressure by mean of pressure gauge.









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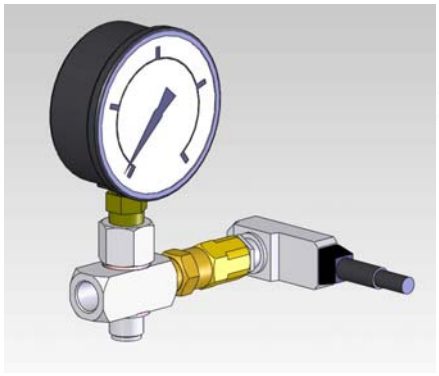
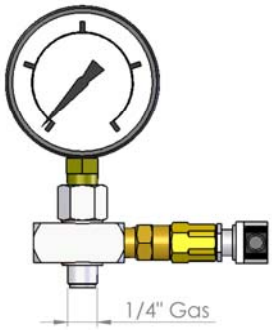
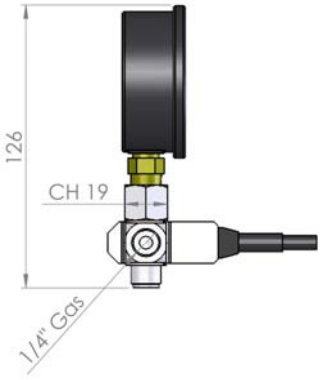
ADJUSTABLE PUMPING ELEMENT ACCESSORIES

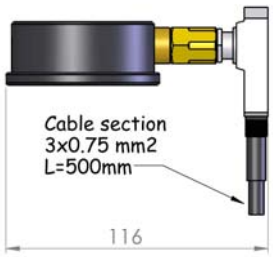
THREE WAYS BANJO CONNECTOR
WITH PRESSURE GAUGE
AND ELECTROMECHANICAL SENSOR
A70.093525

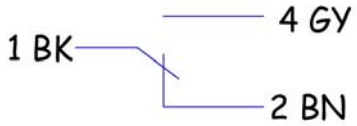
This block can be directly mounted in the delivery and permits to check operation pressure by mean of pressure gauge and it is also equipped of an electromechanical sensor to check if there's high pressure in the main line.



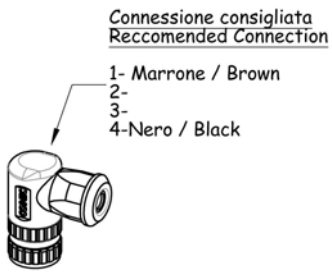








1 A 230 V AC – 250 V DC 40 W



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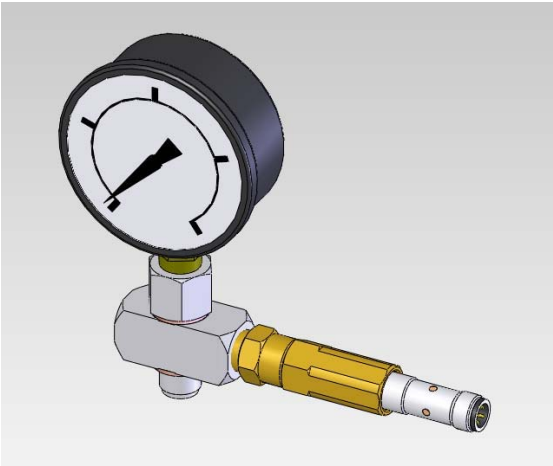
ADJUSTABLE PUMPING ELEMENT ACCESSORIES

THREE WAYS BANJO CONNECTOR WITH PRESSURE GAUGE AND INDUCTIVE SENSOR

A70.093524

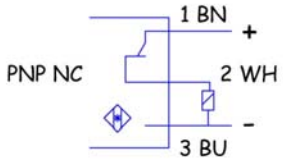
This block can be directly mounted in the delivery and permits to check operation pressure by mean of pressure gauge and it is also equipped of an inductive sensor to check if there's high pressure in the main line.

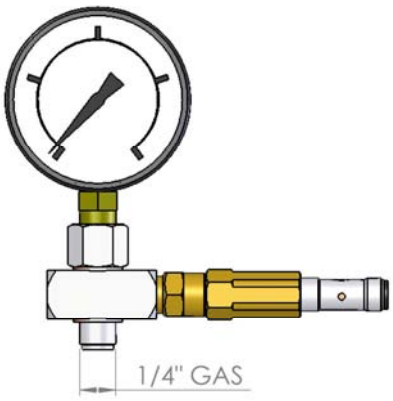


FEATURES

VOLTAGE	*6-30 V DC*
OUTLET CURRENT	*MAX 200 Ma*
CURRENT	*< 12 Ma*
TEMPERATURE RANGE	*-25°C +70°C*
PROTECTION	*IP 67*
CASING	*STAINLESS STEEL*
CABLE	*3x0.14 mm² PVC*

ELECTRICAL WIRING





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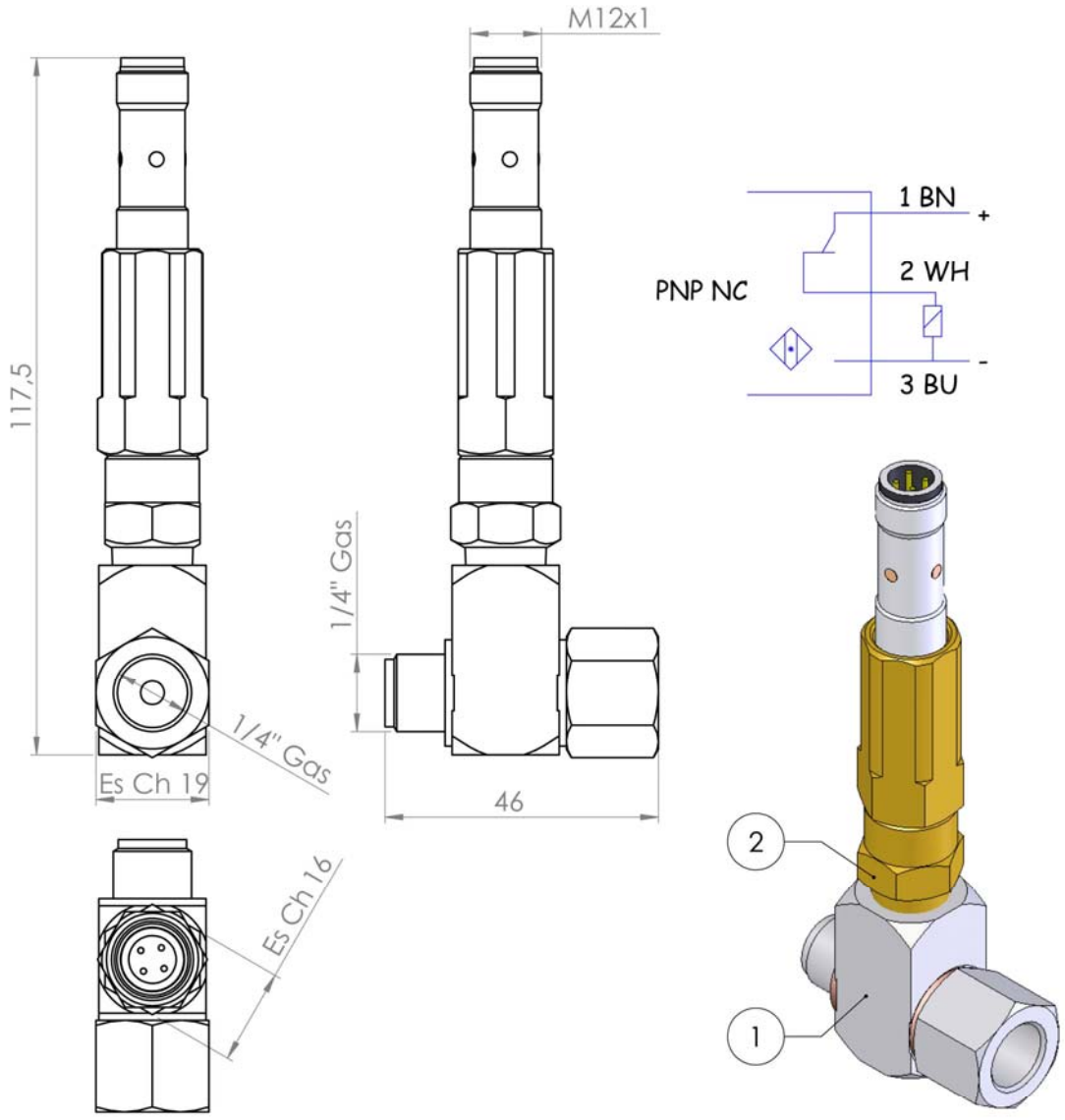
Pos.	Codice/Code	Descrizione / Description	Q.ty
1	A70093186	Snodo 1/4"Gas 2 vie senza valvola by-pass / Banjo connectors 1/4"Gas	1
2	09-712-7	Sensore di sovrapressione induttivo (250bar) / Inductive sensor switch (250 bar)	1



PROIEZIONE / PROJECTION	TOLLERANZE GENERALI /GENERAL TOLERANCE				DATA / DATE 13-09-12
	≤ 100	≥ 100 ≤ 300	≥ 300 ≤ 1000	FORI	
	± 0.20	± 0.30	± 0.40	H12	DISEGNATO / DRAWN BALLARATI
MATERIALE / MATERIAL	TOLLERANZE PARTI FUSE / SMELTING TOLERANCE				
	SPESSORI/THICKNESS ± 10% SPESSORI/THICKNESS ≤ 10 mm ± 1 mm				CONTROLLATO / CHECK -
TRATTAMENTO /TREATMENT	SEGNI DI LAVORAZIONE / WORKING TOLERANCE				
	LAVORAZIONI GENERALI GENERAL WORKING	ALTRE LAVORAZIONI WORKING			SCALA/SCALE 1:1
PESO / WEIGHT 180.40					

UFFICIO TECNICO
GORLA MINORE

DENOMINAZIONE / DESCRIPTION
Snodo 1/4"Gas 2 vie + Sensore sovrapress. induttivo 250 BAR
Banjo connectors + inductive sensor switch 250 BAR

CODICE N°/ CODE
A70093543

FOGLIO/FOGLI

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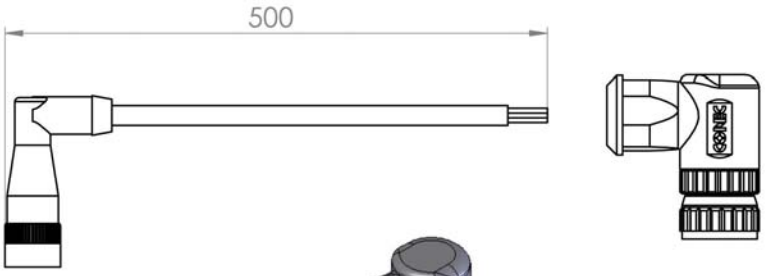
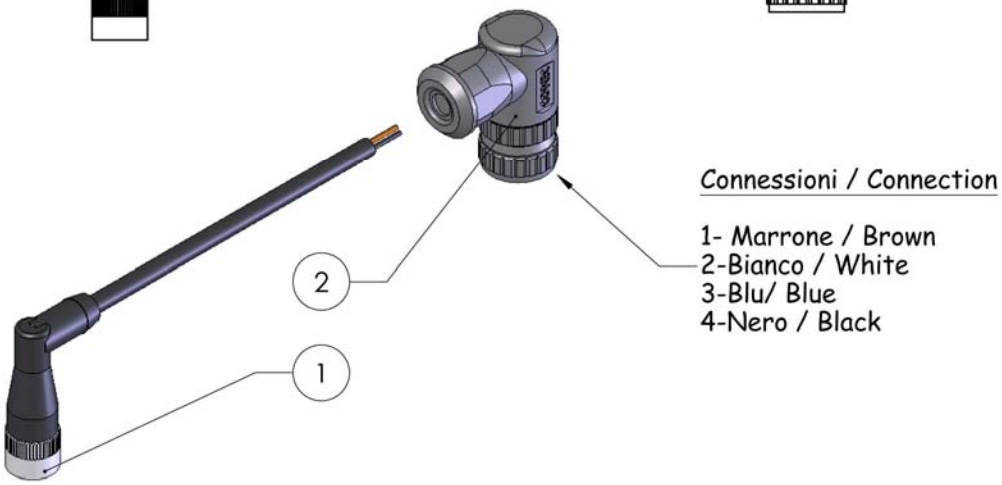
Pos	Codice /Code	Descrizione /Description	Qty
1	A91111353	Connettore M12x1 femmina 90° 4P PVC L=0.5 MT 90° female connection M12x1 4P PVC L=0.5 MT	1
2	A91111352	Connettore 90° M12x1 4P maschio XZCC12FCM40B 90° male connection M12x1 4P XZCC12FCM40B	1





Connessioni / Connection

1- Marrone / Brown
2-Bianco / White
3-Blu/ Blue
4-Nero / Black

PROIEZIONE / PROJECTION	TOLLERANZE GENERALI /GENERAL TOLERANCE				DATA / DATE 14-09-12
	≤ 100	≥ 100 ≤ 300	≥ 300 ≤ 1000	FORI	
	± 0.20	± 0.30	± 0.40	H12	DISEGNATO / DRAWN BALLARATI
MATERIALE / MATERIAL	TOLLERANZE PARTI FUSE / SMELTING TOLERANCE				
	SPESSORI/THICKNESS ± 10% SPESSORI/THICKNESS ≤ 10 mm ± 1 mm				CONTROLLATO / CHECK -
TRATTAMENTO /TREATMENT	SEGNI DI LAVORAZIONE / WORKING TOLERANCE				
	LAVORAZIONI GENERALI GENERAL WORKING	ALTRE LAVORAZIONI WORKING			SCALA/SCALE 1:1.5
PESO / WEIGHT 21.37					

UFFICIO TECNICO
GORLA MINORE

DENOMINAZIONE / DESCRIPTION

Connessione 4P per sovrapressione M12x1 90° femmina- 90° maschio L=0.5 MT

Connection over pressure 4p M12x1 90° male - 90° female L=0.5 MT

CODICE N°/ CODE

40-CPC-4-03

FOGLIO/FOGLIO

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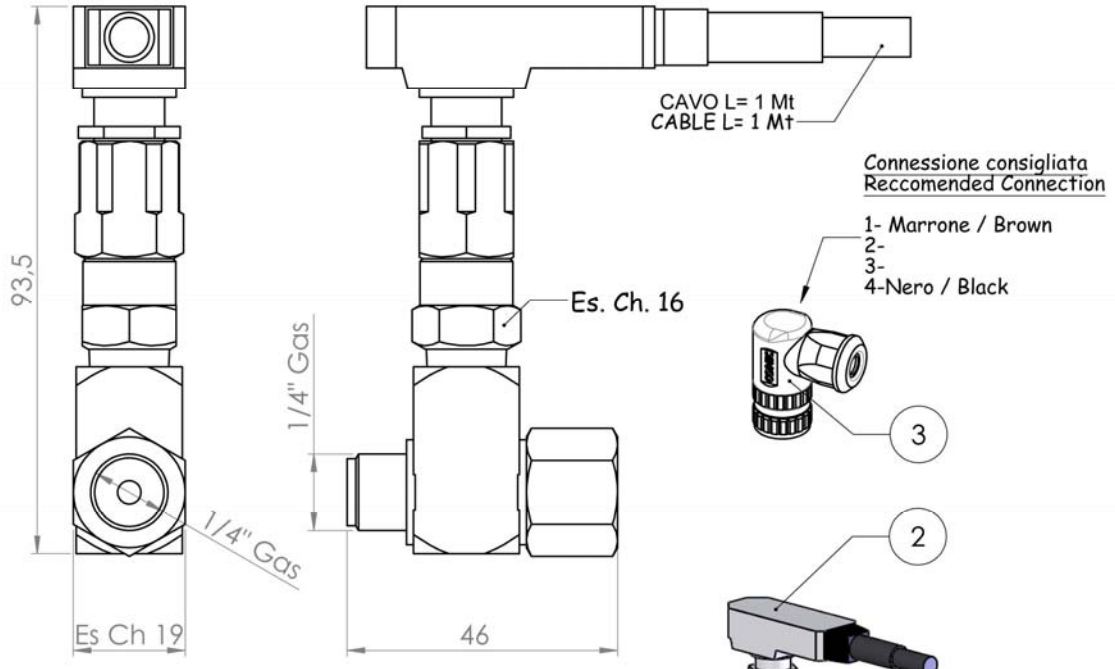
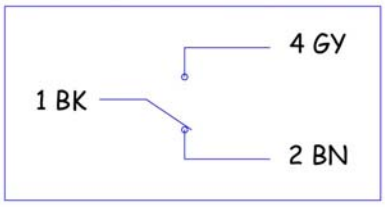
Pos.	Codice / Code	Descrizione / Description	Q.ty
1	A70093186	Snodo 1/4"Gas 2 vie senza valvola by-pass Banjo connectors 1/4" Gas	1
2	09-713-7	Sensore di sovrapressione elettromeccanico (250bar) Electromechanical sensor switch (250 Bar)	1
3	A91111352*	Connettore 90°M12x1 4 poli maschio XZCC12FCM40B 90° male connection M12X1 4 poles XZCC12FCM40B	1

* non cablato / not wired



Sensore (pos. 2) / sensor (pos. 2)



PROIEZIONE / PROJECTION	TOLLERANZE GENERALI /GENERAL TOLERANCE				DATA / DATE 13-09-12
	≤ 100	≥ 100 ≤ 300	≥ 300 ≤ 1000	FORI	
	± 0.20	± 0.30	± 0.40	H12	DISEGNATO / DRAWN BALLARATI
MATERIALE / MATERIAL	TOLLERANZE PARTI FUSE / SMELTING TOLERANCE				
	SPESSORI/THICKNESS ± 10% SPESSORI/THICKNESS ≤ 10 mm ± 1 mm				CONTROLLATO / CHECK -
TRATTAMENTO /TREATMENT	SEGNI DI LAVORAZIONE / WORKING TOLERANCE				
	LAVORAZIONI GENERALI GENERAL WORKING	ALTRE LAVORAZIONI WORKING			SCALA/SCALE 1:1
PESO / WEIGHT 180.42					

UFFICIO TECNICO
GORLA MINORE

DENOMINAZIONE / DESCRIPTION	CODICE N°/ CODE	FOGLIO/FOGLI
Snodo 1/4"Gas 2 vie + Sensore sovrapress. elettromeccanico 250 BAR Banjo connectors + electromechanical sensor switch 250 BAR	A70093544	

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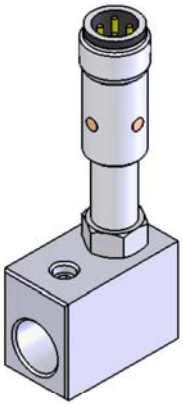
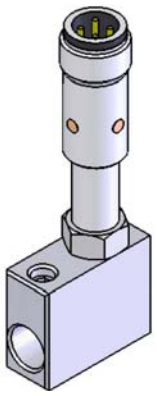


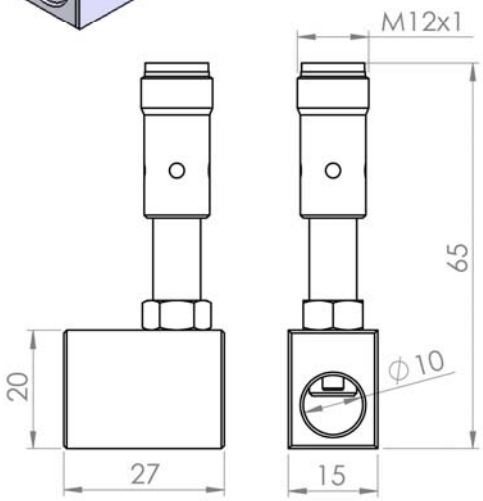
SENSORE INDUTTIVO
CONNETTORE M12x1
DPA-DPM PNP "NO"
COD.49.052.8

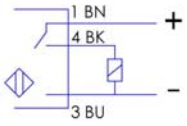
PROXIMITY SWITCH
M12X1 CONNECTOR
DPA-DPM PNP "NO"
CODE 49.052.8

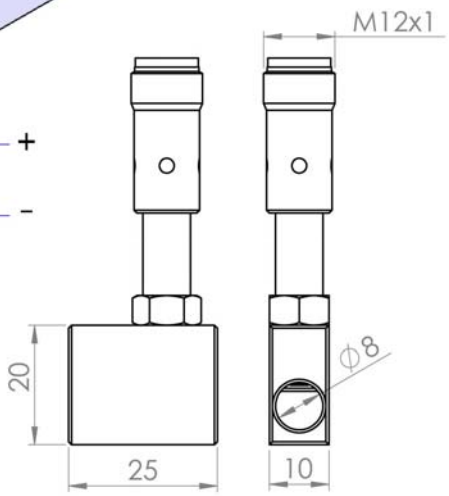


SENSORE INDUTTIVO
CONNETTORE M12x1
DPX PNP "NO"
COD.49.052.9

PROXIMITY SWITCH
M12X1 CONNECTOR
DPX PNP "NO"
CODE 49.052.9







CAVO ELETTRICO DA ORDINARE SEPARATAMENTE

ELECTRICAL CABLE TO BE ORDER SEPARATELY

40.CDC.4.05 L= 5 MT
40.CDC.4.10 L= 10 MT
40.CDC.4.15 L= 15 MT

Connessioni / Connection

1- Marrone / Brown
2-Bianco / White
3-Blu/ Blue
4-Nero / Black

PROIEZIONE / PROJECTION	TOLLERANZE GENERALI /GENERAL TOLERANCE				DATA / DATE 04/10/12
	≤ 100	≥ 100 ≤ 300	≥ 300 ≤ 1000	FORI	
	± 0.20	± 0.30	± 0.40	H12	DISEGNATO / DRAWN BALLARATI
MATERIALE / MATERIAL	TOLLERANZE PARTI FUSE / SMELTING TOLERANCE				
	SPESSORI/THICKNESS ± 10% SPESSORI/THICKNESS ≤ 10 mm ± 1 mm				CONTROLLATO / CHECK -
TRATTAMENTO /TREATMENT	SEGNI DI LAVORAZIONE / WORKING TOLERANCE				
	LAVORAZIONI GENERALI GENERAL WORKING	ALTRE LAVORAZIONI WORKING			SCALA/SCALE 1:1
PESO / WEIGHT 21.86					

UFFICIO TECNICO
GORLA MINORE

DENOMINAZIONE / DESCRIPTION	CODICE N°/ CODE
Controllo di fine ciclo con sensore induttivo PNP NO connettore M12x1 Proximity switch PNP NO connector M12x1	ConnettoriM12x1

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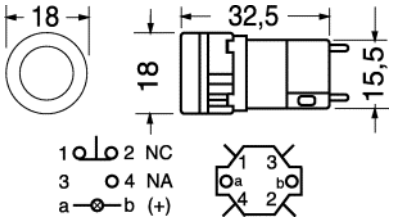
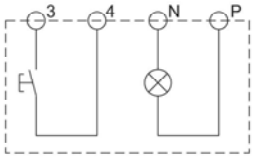
PUSH BUTTONS

PUSH BUTTON LIGHT

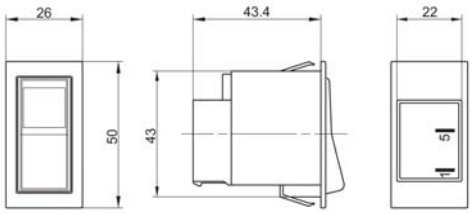
Volt	*Colour*	*Material*	*Code*
12	*Green*	*Plastic*	*40.PBG.12*
24	*Green*	*Plastic*	*40.PBG.24*

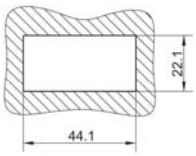


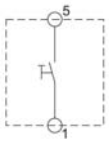


RESET BUTTON WITHOUT LAMP

40.PSB.00

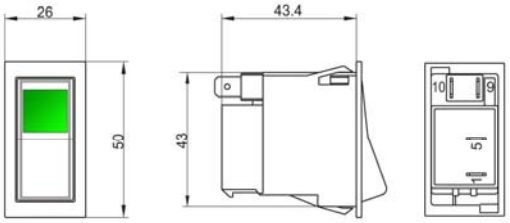


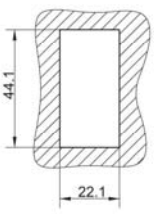


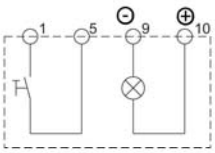


RESET BUTTON WITH LAMP

Volt	*Colour*	*Material*	*Code*
12	*Green*	*Plastic*	*40.PSG.12*
24	*Green*	*Plastic*	*40.PSG.24*
12	*Red*	*Plastic*	*40.PSR.12*
24	*Red*	*Plastic*	*40.PSR.24*







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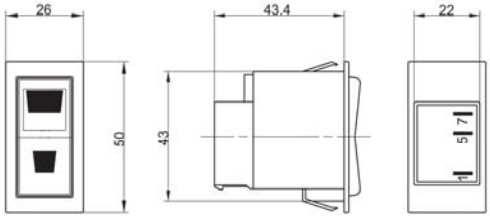
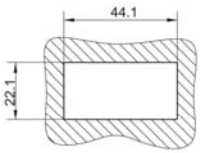
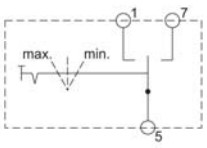
PUSH BUTTONS

SELECTIVE LUBE BUTTON — *40.COS.00*

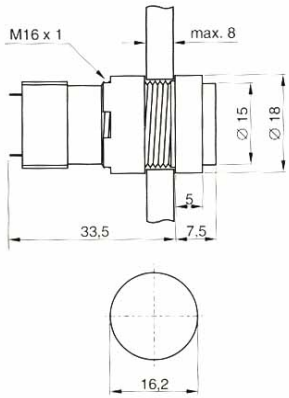


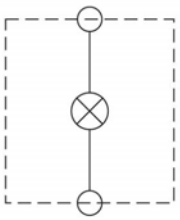




Volt	*Colour*	*Material*	*Code*
12	*Green*	*Plastic*	*40.SLG.12*
24	*Green*	*Plastic*	*40.SLG.24*
12	*Red*	*Plastic*	*40.SLR.12*
24	*Red*	*Plastic*	*40.SLR.24*

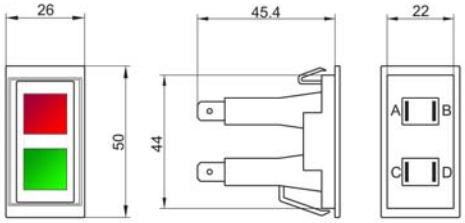
SIGNAL LAMP

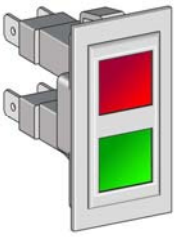


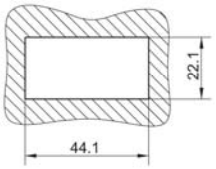


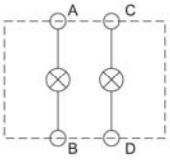
SIGNAL LAMP

Volt	*Material*	*Code*
12	*Plastic*	*40.COL.12*
24	*Plastic*	*40.COL.24*









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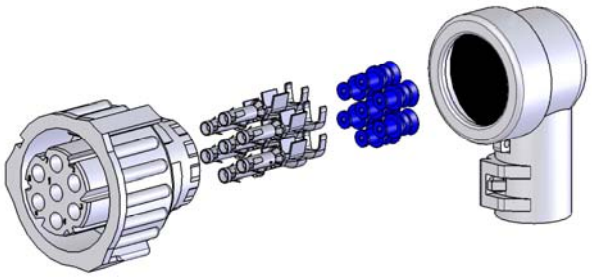
WIRES

ILC-MAX pump is supplied complete of 7-poles electrical connector.



A91.111327

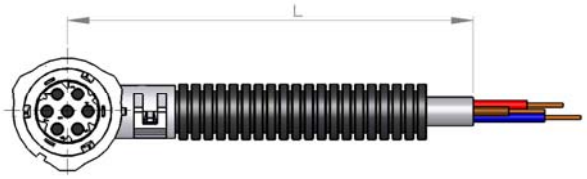
N.B. Included in the kit are 3 types of pads for different diameters and unused contacts.

n. 7 code A91.111315
wires from 1.2 to 2.1 mm²

n. 7 code A91.111314
wires from 2.2 to 3 mm²

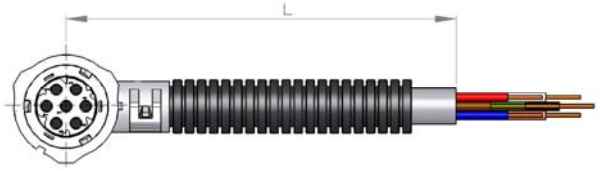
n. 7 code A91.111310
to plug the hole if a contact is not used

We can supply electrical connector complete of 3 wires (1 mm²) cable



code	*L*
40.CBL.3.05	*5 M*
40.CBL.3.10	*10 M*
40.CBL.3.15	*15 M*

As alternative, we can supply electrical connector complete of 7 wires (1 mm²) cable



code	*L*
40.CBL.7.05	*5 M*
40.CBL.7.10	*10 M*
40.CBL.7.15	*15 M*

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WIRES

General conditions of connection

	Nominal voltage	*Power absorption (load-dependent)*	*Power absorption (max.)*	*Pump starting current (max.)*	*Preconnected fuse (max.)*
Vehicles application	*24 V AC/DC* *12 V DC*	*1,25 A* [2)] *2,4 A* [2)]	*< 2,5 A* *< 5 A*	*4,5 A* *9 A*	*3 A* [3) 4)] *5 A* [3) 4)]
Industrial application	*24 V AC/DC* [1)] *12 V DC* [1)]	*1,25 A* [2)] *2,4 A* [2)]	*< 2,5 A* *< 5 A*	*4,5 A* *9 A*	*4 A* [4)] *6 A* [4)]
	115 V AC *230 V AC*	*0,25 A* [2)] *0,125 A* [2)]	*< 0,5 A* *< 0,25 A*	*1 A* *1 A*	*1 A* [4)] *1 A* [4)]

[1)] *Protective measures to applied for operation according to the intended purpose:*
Function-specific extra-low voltage with safe circuit-breaking
Protective Extra Low Voltage (PELV)

Standards: *EN602O4 part I: 1992/IEC204-1:1992, amended by DIN VDE 0100 part 410 / IEC 364-4-41:1992*

[2)] *Typical value for ambient temperature 25 °C and operating pressure 150 bar*
[3)] *Circuitbreaker acc. to DIN 72581 T.3*
[4)] *Conductor: cross-section 1,5 mm², lenght ≤ 12 M*

Type of IP enclosure
Pump IP5K6K
Connector bayonet – plug IP6K9K
M12x1 plug IP67

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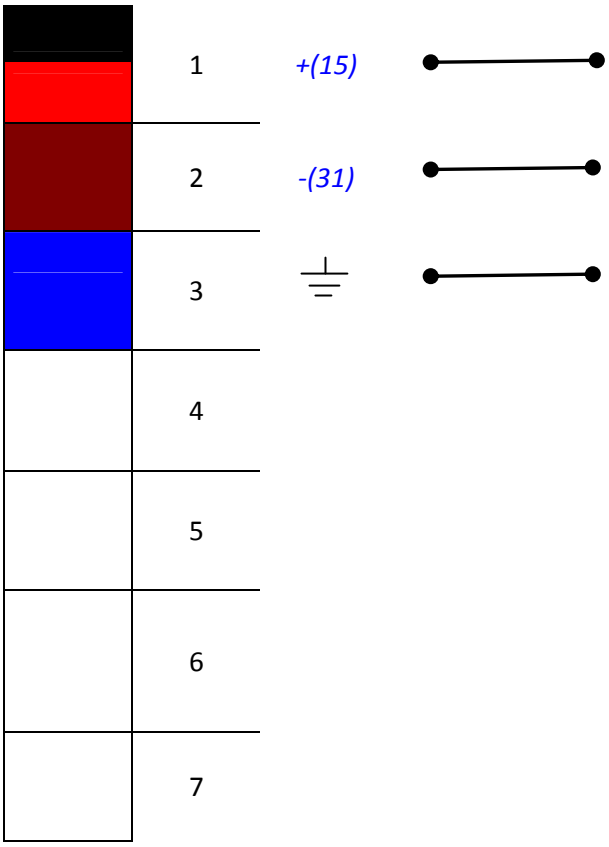
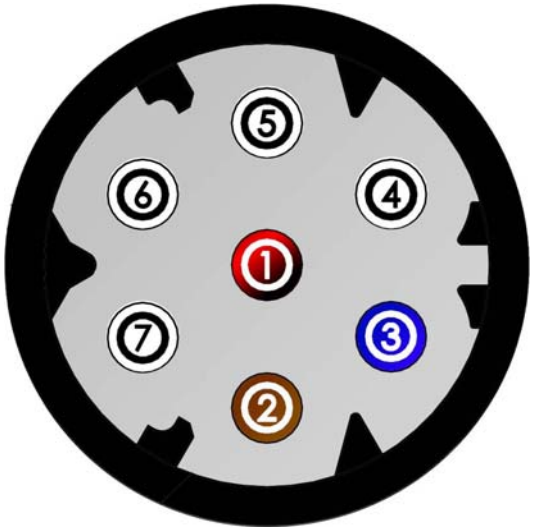
WIRES
12-24 V DC
WITHOUT TIMER
3-poles cable





1= red/black
2= brown
3= blue

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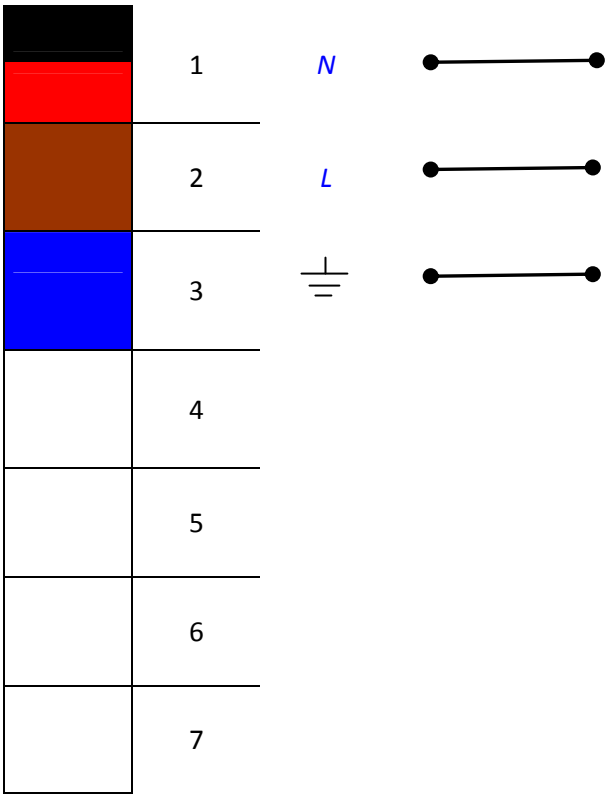
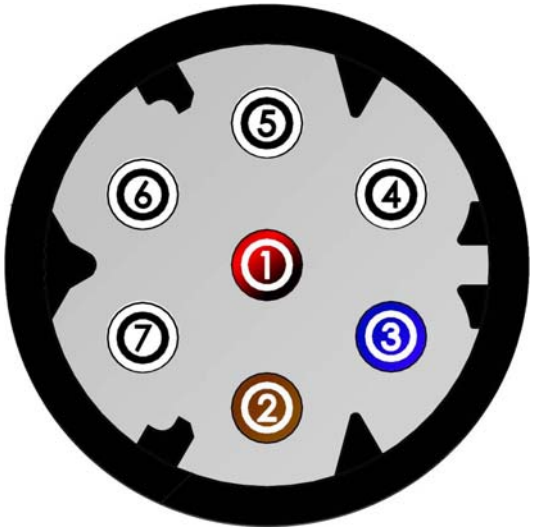
WIRES
24/115/230 V AC
WITHOUT TIMER
3-poles cable





1= red/black
2= brown
3= blue

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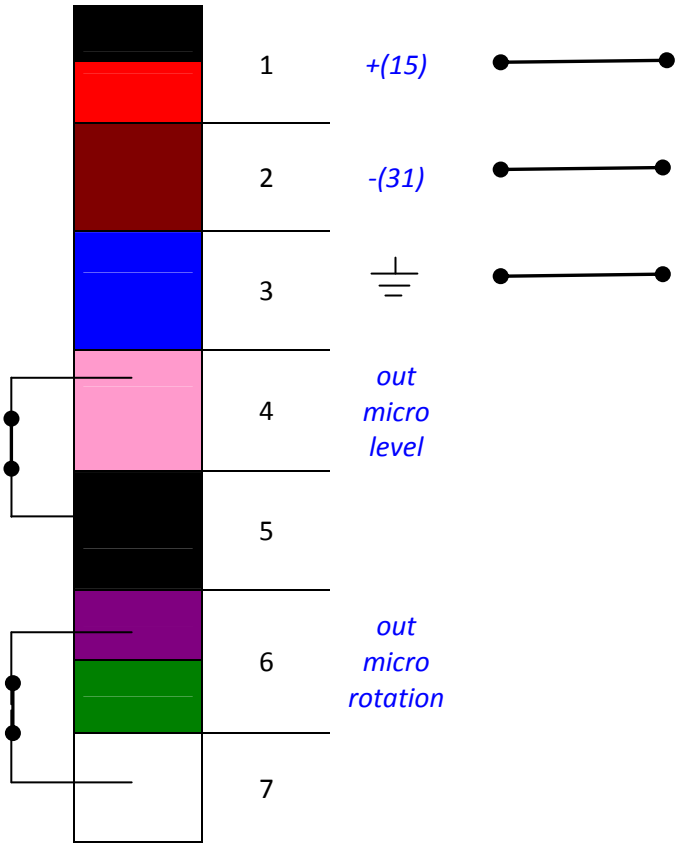
WIRES
12-24 V DC
WITHOUT TIMER
3-poles cable



1= red/black
2= brown
3= blue
4=pink
5=black
6=green/purple
7=white

Contact between 4 and 5 is closed; while reservoir is emptying from the lubricant, we will have a ***pulse at rope****, that can be controlled by an external PLC to report a* lubricant leakage alarm.
Contact between 6 and 7 opens at every rope.
When ***pulses stop*** *for more than 20", external PLC must report* rotation alarm.

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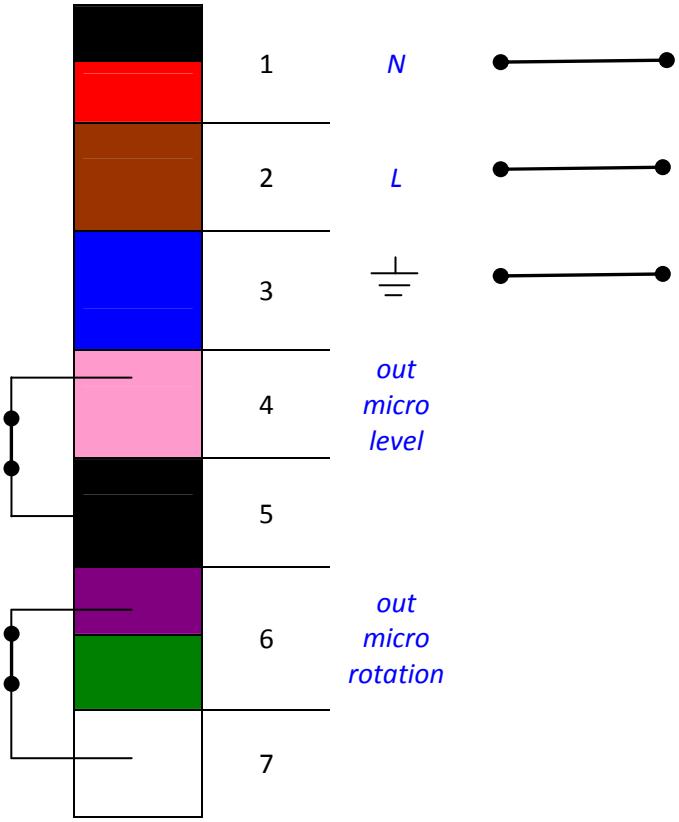
WIRES
24/115/230 V AC
WITHOUT TIMER
7-poles cable



1= red/black
2= brown
3= blue
4=pink
5=black
6=green/purple
7=white

Contact between 4 and 5 is closed; while reservoir is emptying from the lubricant, we will have a ***pulse at rope****, that can be controlled by an external PLC to report a* lubricant leakage alarm.
Contact between 6 and 7 opens at every rope.
When ***pulses stop*** *for more than 20", external PLC must report* rotation alarm.

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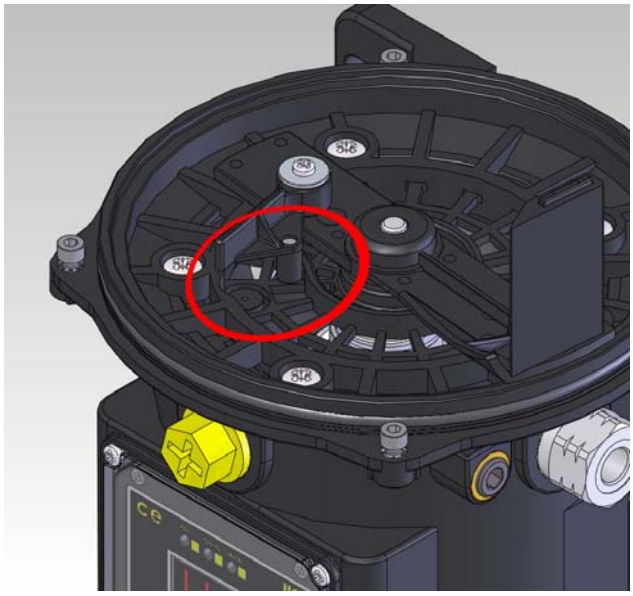
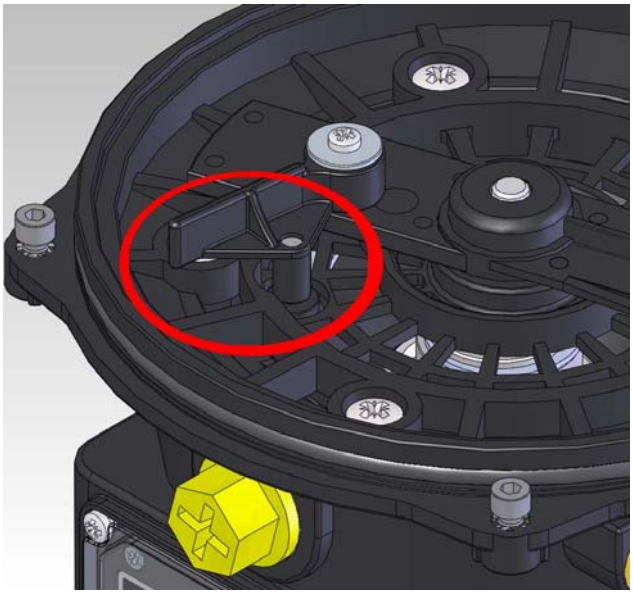
GREASE LOW LEVEL SWITCH WITHOUT TIMER



Low level switch sensor is integrated in the bottom of the reservoir. A floating magnet mounted on the spatulator is kept in the small internal circumference when the reservoir is full and the spatulator rotates (Pic. 1).

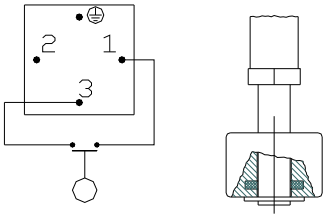


When there's no grease the magnet ropes in the external circumference, passing on the low level sensor. A pulse (from close to open) is created at every revolution (Pic. 2).

	Contact	*Signal*
Reservoir filled		
Reservoir empty		

OIL LOW LEVEL SWITCH WITHOUT TIMER

Contact opens when lubricant is missing.



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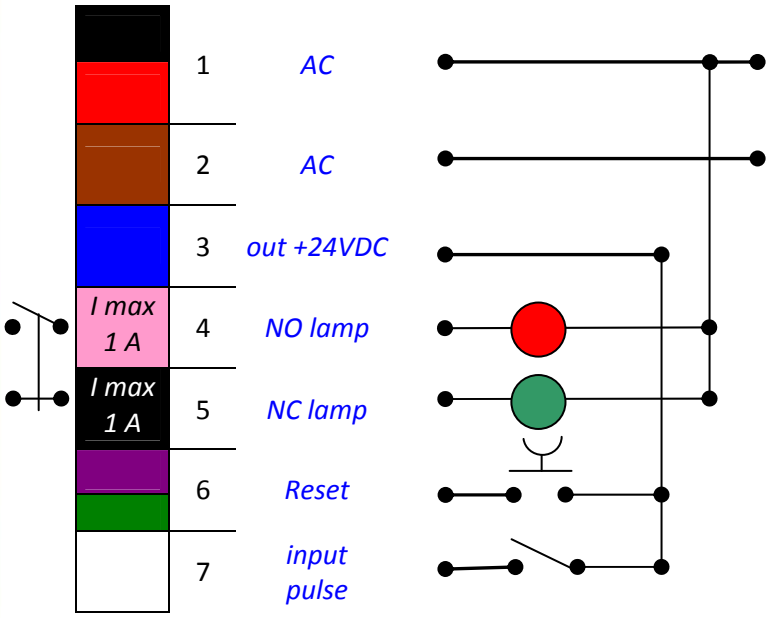
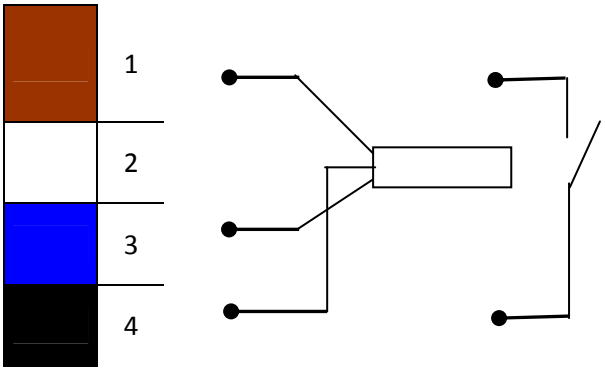
WIRES
24 V AC
WITH TIMER

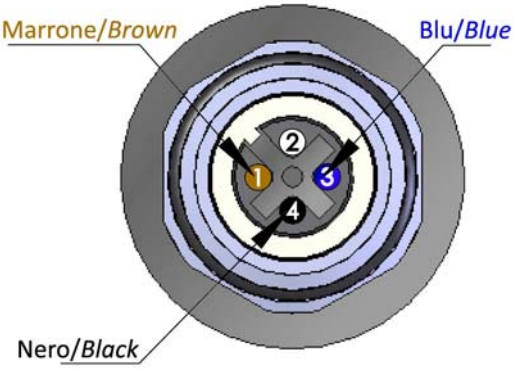


1= red/black
2= brown
3= blue
4=pink
5=black
6=green/purple
7=white

inductive sensor
PNP no

micro





Seguire questo schema per collegare un controllo posizionato sul distributore progressivo o all'uscita della pompa

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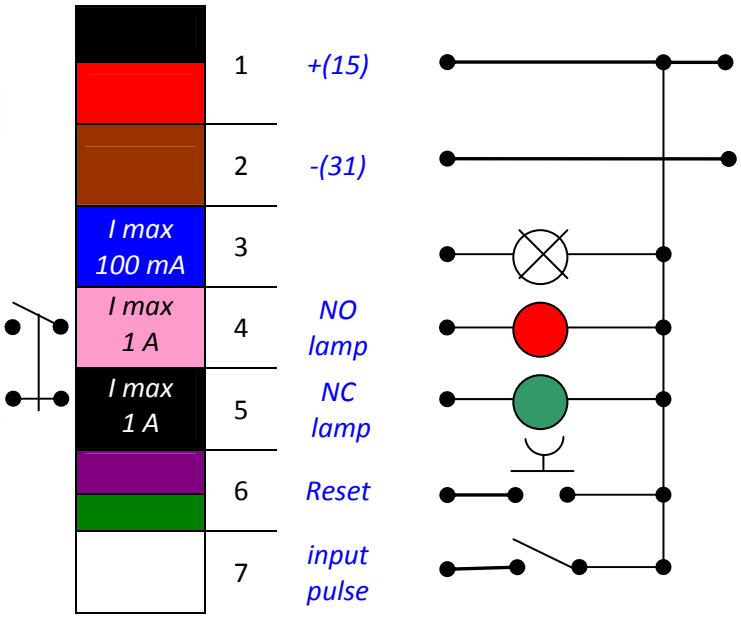
WIRES
12/24 V DC
WITH TIMER

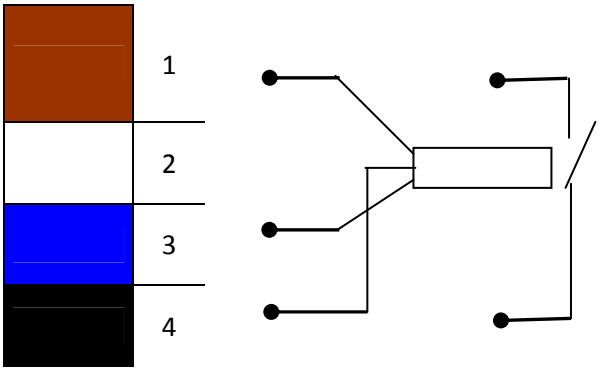


*Lamp linked to 3 contact is **fixed on** during working time or when reset button has been pushed and **lamps** when there's an alarm*

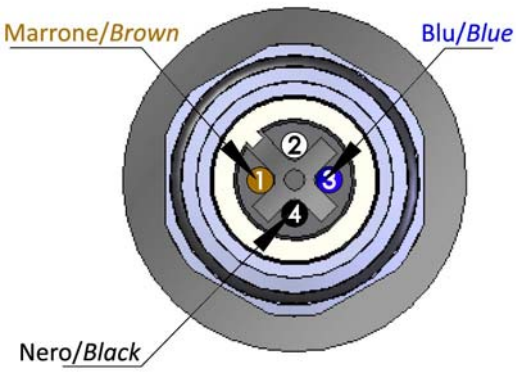
1= red/black
2= brown
3= blue
4=pink
5=black
6=green/purple
7=white

inductive sensor
PNP no

micro



Follow this scheme if a control is installed on the progressive divider or at the outlet of the pump



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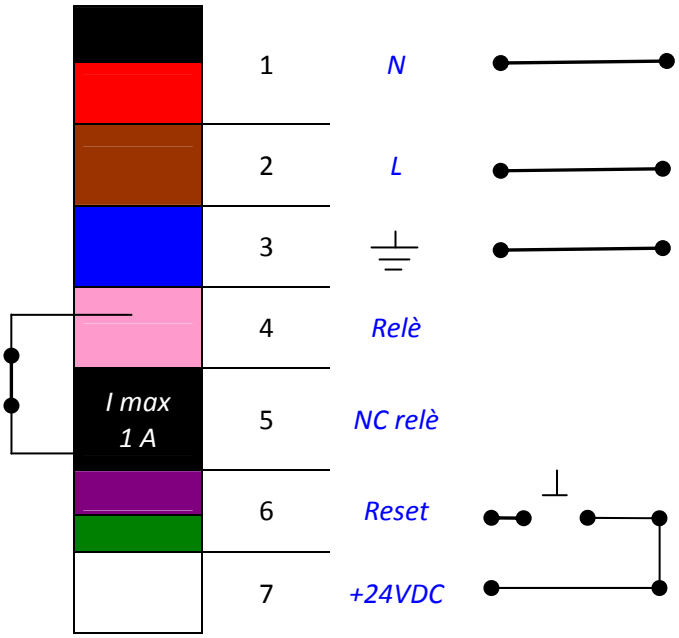
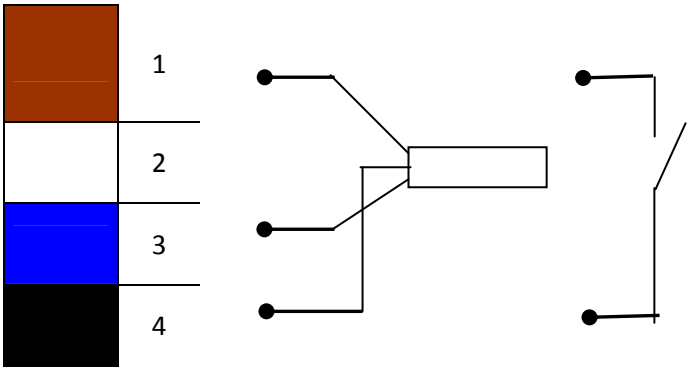
WIRES
115/230 V AC
WITH TIMER



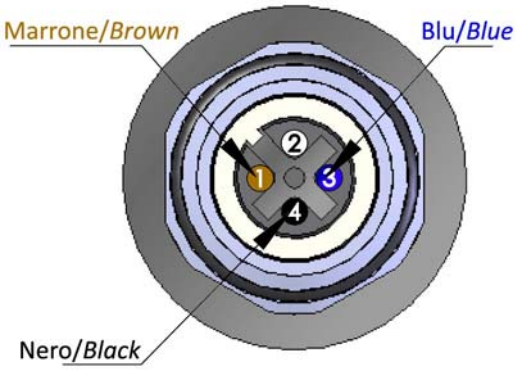
1= red/black
2= brown
3= blue
4=pink
5=black
6=green/purple
7=white

inductive sensor
PNP no

micro



Follow this scheme if a control is installed on the progressive divider or at the outlet of the pump



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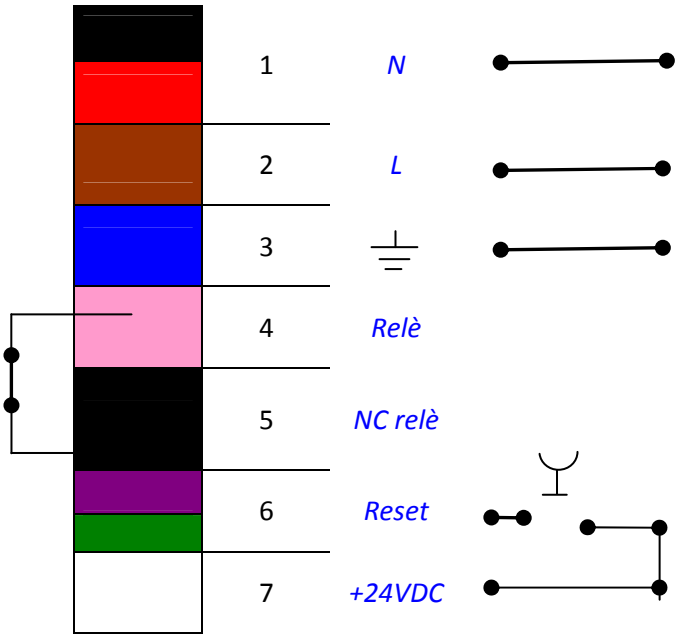
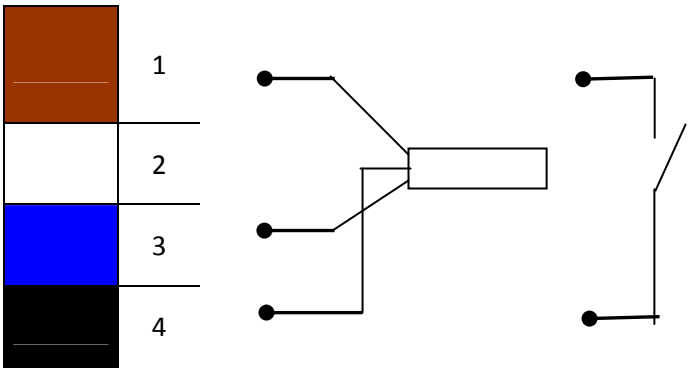
SPECIAL PUMPS WIRES
115/230 V AC
WITH TIMER
PULSES PAUSE TIME AND
CONTROL ON THE PROGRESSIVE DIVIDER

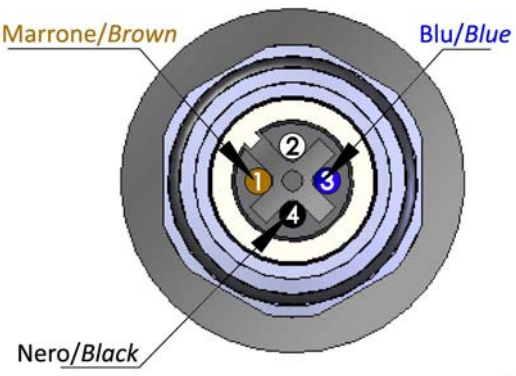


1= red/black
2= brown
3= blue
4=pink
5=black
6=green/purple
7=white

control from progressive divider CN1

inductive sensor
PNP no *micro*





Follow this scheme if a control is installed on the progressive divider or at the outlet of the pump

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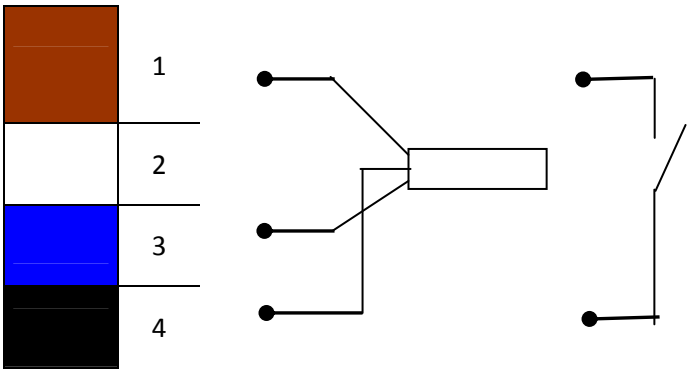
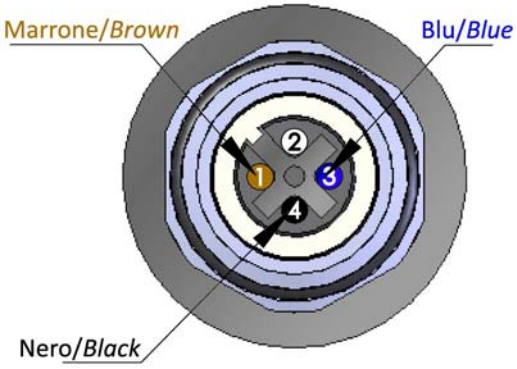
to send pulses CN2

inductive sensor
PNP no

micro



Follow this scheme if a control is installed on the progressive divider or at the outlet of the pump



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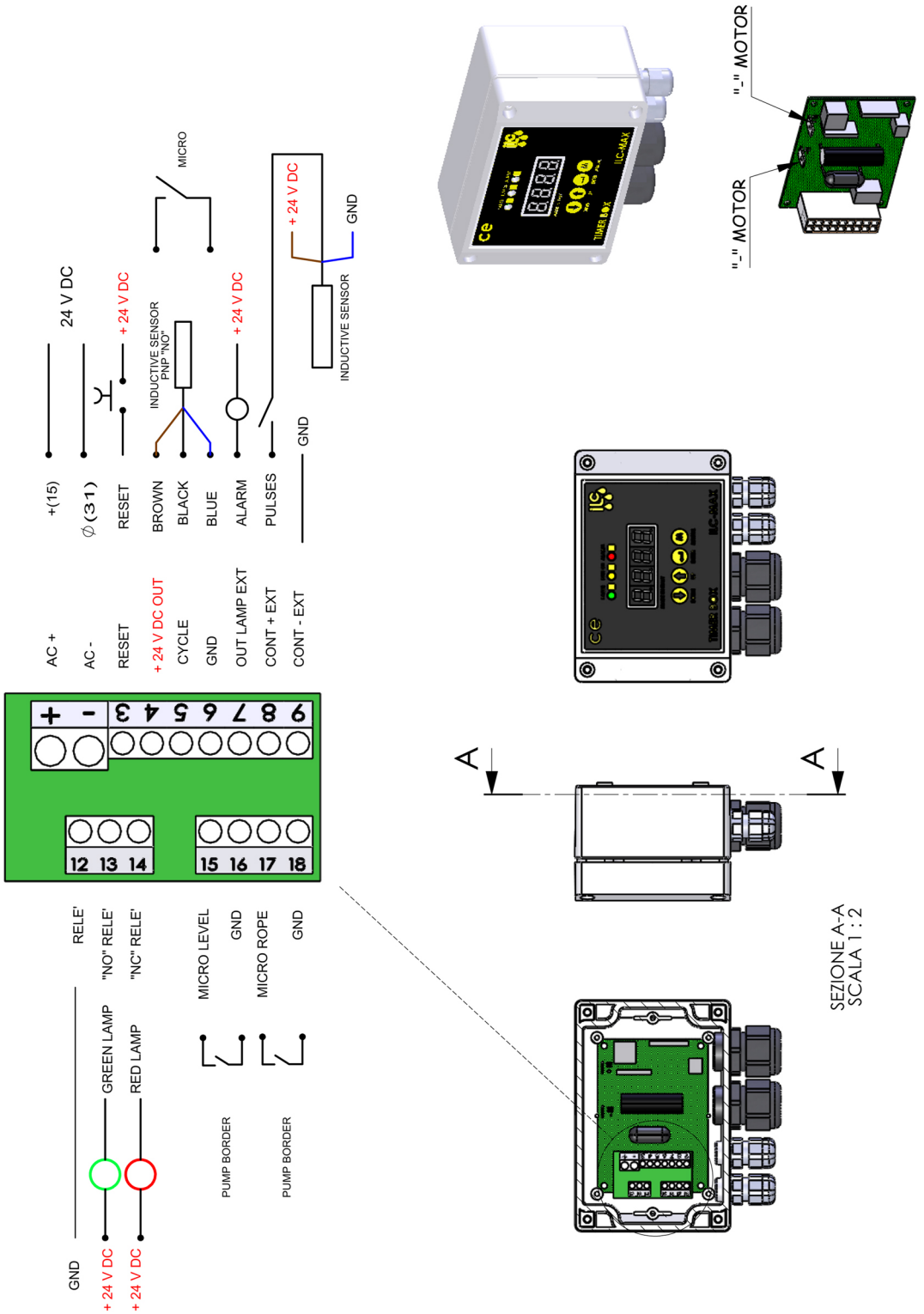

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ACCESSORIES

INTERNAL TIMER

40.CCT.AC.00 – 24 V AC
40.CCT.DC.00 – 12/24 V DC

TECNICAL FEATURES

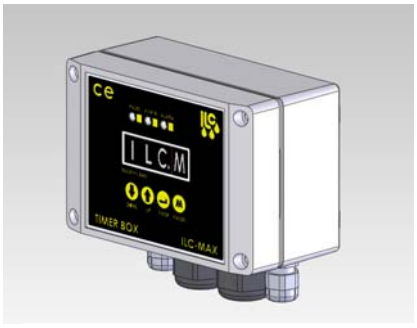
Tension: *9 – 30 V DC*

Absorption: *12 V DC 40 mA*
24 V DC 30 mA

Temperature: *from -20 to 80 °C*

EXTERNAL TIMER

40.BCT.BT.AC – 24 V AC
40.BCT.BT.DC – 12/24 V DC

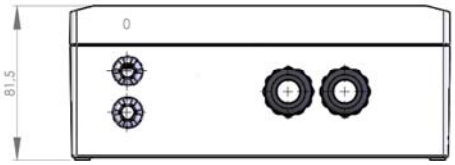


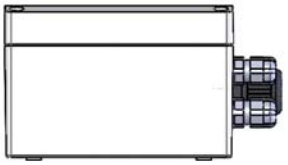
TECNICAL FEATURES

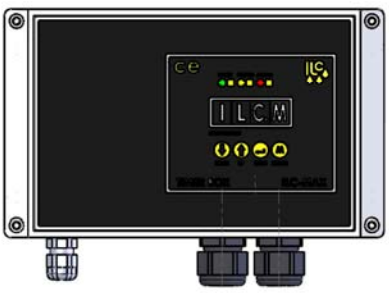
Tension: *9 – 30 V DC*

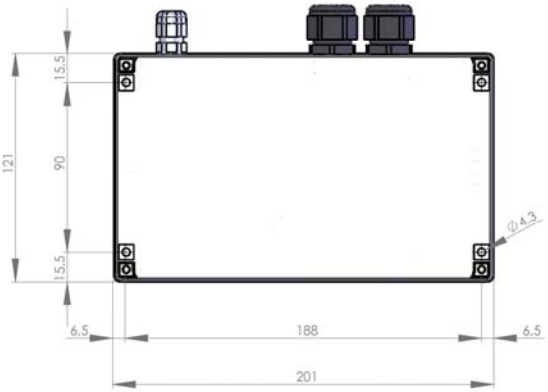
Absorption: *12 V DC 40 mA*
24 V DC 30 mA

Temperature: *from -20 to 80 °C*









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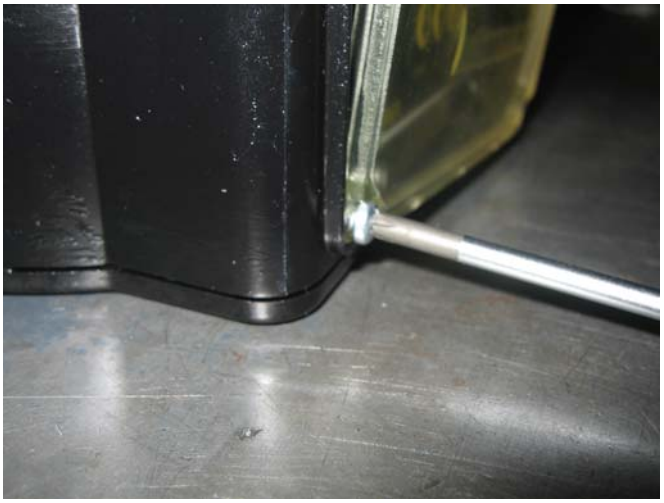
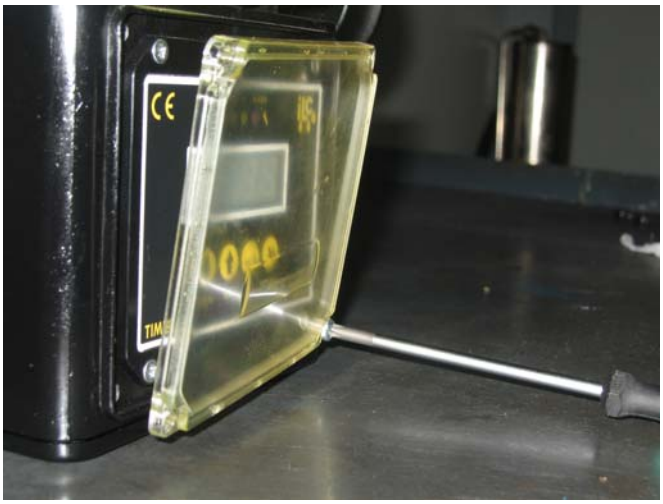
TIMER ADJUSTEMENT

Remove transparent cover unscrewing 4 screws to access timer as shown in the following pictures.





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TIMER ADJUSTEMENT

Basic settings

When powered, timer runs a lamp test *while displays [8.8.8.8]. Then is displayed installed software version [ex. 03.10] and, after shown model [ILC.M] and about 1 second of pause [----], timer runs PAUSE-WORK* ***run mode*** *(you can have either one of the two phases, depending on stop during the testing); other functions will be off (0).* *Default settings: Pause 2 minutes, Work 30 seconds.* *These are minimum setting for PAUSE-WORK cycle.*	
To set Pause and Work, press ↵ for at least 3 seconds. In this way, you will run ***edit mode*** *and will be displayed [E-CM]. Press 1 time ↑ to position [E-FU] to select functioning mode:* ***PL -> P****ause-****W****ork [PL-P e PL-L]* ***IL -> P****ulse-****W****ork [IL-P e IL-L]* ***PC -> P****ause-****R****otations [PC-P e PC-L]* ***IC -> P****ulse-****R****otations [IC-P e IC-L]* *If, for example, has been chosen [F-PL], press 1 time ↑ to position [E-PM] and press M. To set Pause time (minutes) use arrows ↓ and ↑. Once Pause minutes are regulated, press M to come back to the previous menu.*	
In the menu, by pressing ↑ will be displayed [E-PH], setting of Pause time (hours). Press M and set Pause time (hours) by using arrows ↓ and ↑. Once Pause hours are regulated, press M to come back to the previous menu. *To set Working time (seconds), press ↑. Will be displayed [E-LS]. Press M and set Working time (seconds) by using arrows ↓ and ↑. Once Working seconds are regulated, press M to come back to the previous menu.*	
By pressing ↑ will be displayed Working time (minutes) [E-LM]. Press M and set Working time (minutes) by using arrows ↓ and ↑. Once Working minutes are regulated, press M to come back to the previous menu. *In this moment timer is setted following your own needs. Press ↵ for at least 3 seconds to go out* ***edit mode*** *and come back to* ***run mode****. Time is operating, and will be displayed PAUSE-WORK cycle.*	

If timer doesn't receive input for 2 minutes, the display will shut off to save energy. To light the display on again press ↵

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TIMER ADJUSTEMENT
Advanced settings

When powered, timer runs a lamp test *while displays [8.8.8.8]. Then is displayed installed software version [ex. 03.10] and, after shown model [ILC.M] and about 1 second of pause [----], timer runs PAUSE-WORK* ***run mode*** *(you can have either one of the two phases, depending on stop during the testing); other functions will be off (0).*
Default settings: Pause 2 minutes, Work 30 seconds.
These are minimum setting for PAUSE-WORK cycle.

*- **RUN MODE** -*

Timer two different mode: ***run mode*** *and* ***edit mode****. In* ***RUN MODE*** *timer has 4 functioning modes:*
PL -> P*ause-****W****ork [PL-P e PL-L]*
IL -> P*ulse-****W****ork [IL-P e IL-L]*
PC -> P*ause-****R****otations [PC-P e PC-L]*
IC -> P*ulse-****R****otations [IC-P e IC-L]*

FUN.	*PAUSE RANGE*	*WORKING RANGE*
PL	*002M-999M minutes* *000H-999H hours* *Minimum pause time: 2 min* *Total time will be the sum of hours and minutes*	*030S-999S seconds* *000M-999M minutes* *Minimum working time: 30 sec* *Total time will be the sum of minutes and seconds*
IL	*2-9999 pulses*	*030S-999S seconds* *000M-999M minutes* *Minimum working time: 30 sec* *Total time will be the sum of minutes and seconds*
PC	*002M-999M minutes* *000H-999H hours* *Minimum pause time: 2 min* *Total time will be the sum of hours and minutes*	*9-999 ropes*
IC	*2-9999 pulses*	*9-999 ropes*

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*Scrolling the **main menu** with ⬆ will be displayed:* *[025.0] operating state (ex. remain 25 sec of work)* *[P24.0] timer tension supply (ex. 24V)* *[H35.0] internal timer temperature (ex. 35°C)* *[PL-L] functioning mode (ex. working in pause-work)* *[F-00] allarm (ex. no alarm)*	
OPERATING STATE	
[042M] in PL-L mode it is remaining working time in minutes (ex. 42 min). Without M letter number states remaining seconds (during the last minute will be displayed 052.0 = 52 sec *[035H] in PL-P mode it is remaining pause time in hours (ex. 35 hours). During last hour will be displayed minutes and during last minute will be displayed seconds* *[054M] in IL-L mode it is remaining working time in minutes. during the last minute will be displayed seconds* *[1234] in IL-P mode it is number of remaining external pulses to switch to work (ex. 1234 pulses)* *[-036] in PC-L mode it is number of remaining ropes (ex. 36 ropes)* *[041H] in PC-P mode it is remaining pause time in hours.. During last hour will be displayed minutes and during last minute will be displayed seconds* *[-011] in IC-L mode it is number of remaining ropes* *[1234] in IC-P mode it is number of remaining external pulses to switch to work*	
ALARMS	
[F-00] no alarm *[1.1AC] cycle alarm* *[1.1AP] overpressure alarm* *[1.1AL] low level alarm* *[1.1AM] rotation alarm* *[1.1AH] high temperature alarm* *[1.1AU] low tension alarm* *[1.1AS] status driver alarm*	

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- EDIT MODE -

Edit mode *allows to modify control parameters. In run mode press* ↵ *for at least 3 seconds to switch to edit mode (run mode will be stopped). To scroll in the main menu use* ↑.

[E-CM] Menu Version (timer is default supplied in base mode)
[E-FU] Functioning mode
*[E-PM] Pause time in min **
*[E-PH] Pause time in hours **
*[E-LM] Working time in min **
*[E-LS] Working time in sec **
*[E-IP] Number of pause pulses **
*[E-CL] Number of ropes **
[E-AE] Reset or Extra cycle
[E-PL] Pre Lube
[E-AC] Cycle Alarm
[E-AP] Overpressure Alarm
[E-AL] Low level Alarm
[E-AM] Rotation Alarm
[E-AH] Temperature Alarm
[E-AU] Low tension Alarm
[E-AS] Status driver Alarm

*** Parameters with asterisk are not all in the Main Menu. They will be displayed depending on Functioning Mode (default FUPL)*

Ex.:
[E-PM] Pause time in min
[E-PH] Pause time in hours
[E-LM] Working time in min
[E-LS] Working time in sec

Timer is default supplied with all functions [0 = disabled]. To modify a parameter select it, press M *and use* ↓ *and* ↑. *Once the parameter is modified, press* M *to come back to the Main Menu.*
When in ***edit mode****, if no button is pushed for 2 minutes, timer will come back to run mode without saving changes.*
To save changes and come back to ***run mode*** *push button* ↵ *for 3 seconds.*

Green led fixed: pump is on ***pause***

Yellow led fixes: pump is on ***work***

Red led blinking: timer is on ***alarm***

Green and Yellow led blinking: timer is on ***edit mode***

Green, Yellow and Red led blinking: pump is ***blocked****.*

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*To enter Complete Menu select **(E-CM),** press (M) and use (↓) or (↑) to select (CM-F). Press (M) to confirm.* *CM-B –Base Menu: it will be possible to choose only the Functioning Mode and regulate parameters (pause– work)* *CM-F -Complete Menu: it will be possible to activate all timer functions, with alarms e prelube*	***[E-CM] Menu Version*** *[E-FU] Functioning mode* *[E-PM] Pause in min* *[E-PH] Pause in hours* *[E-LM] Work in min* *[E-LS] Work in sec* *[E-IP] Pause pulses* *[E-CL] Ropes of work* *[E-AE] Reset* *[E-PL] Pre Lube* *[E-AC] Cycle Alarm* *[E-AP] Overpressure Alarm* *[E-AL] Level Alarm* *[E-AM] Rope Alarm* *[E-AH] Temperature Alarm* *[E-AU] Low tension Alarm* *[E-AS] Driver Alarm*	
*To enter in **functioning mode** select **E-FU**, press (M) and use (↓) or (↑)* *FU.PL –pause and working time intervals* *FU.IL –work is a time interval, pause is an external pulses counting* *FU.PC –working time is number of ropes, pause is a time interval* *FU.IC – working time is number of ropes, pause is an external pulses counting* *When functioning mode is selected, press (M) to confirm.*	*[E-CM] Menu Version* ***[E-FU] Functioning mode*** *[E-PM] Pause in min* *[E-PH] Pause in hours* *[E-LM] Work in min* *[E-LS] Work in sec* *[E-IP] Pause pulses* *[E-CL] Ropes of work* *[E-AE] Reset* *[E-PL] Pre Lube* *[E-AC] Cycle Alarm* *[E-AP] Overpressure Alarm* *[E-AL] Level Alarm* *[E-AM] Rope Alarm* *[E-AH] Temperature Alarm* *[E-AU] Low tension Alarm* *[E-AS] Driver Alarm*	
Functioning mode FU.PL ***E-PM** PAUSE TIME IN MIN* ***E-PH** PAUSE TIME IN ORE* *Changing these parameters will change pause time. Select voice to modify, press (M) and use (↓) or (↑) to decrease or increase the displayed value. At the end, confirm by pressing (M)* *Repeat these operations for:* ***E-LS** WORKIN TIME IN SEC* ***E-LM** WORKING TIME IN MIN* *Changing these parameters will change working time.*	*[E-CM] Menu Version* *[E-FU] Functioning mode* ***[E-PM] Pause in min*** ***[E-PH] Pause in hours*** ***[E-LM] Work in min*** ***[E-LS] Work in sec*** *[E-AE] Reset* *[E-PL] Pre Lube* *[E-AC] Cycle Alarm* *[E-AP] Overpressure Alarm* *[E-AL] Level Alarm* *[E-AM] Rope Alarm* *[E-AH] Temperature Alarm* *[E-AU] Low tension Alarm* *[E-AS] Driver Alarm*	

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Functioning mode FU.IL ***E-LS*** *WORKIN TIME IN SEC* ***E-LM*** *WORKING TIME IN MIN* *Changing these parameters will change working time. Select voice to modify, press M and use ↓ or ↑ to decrease or increase the displayed value. At the end, confirm by pressing M* *Repeat these operations for:* ***E-IP*** *NUMBER OF PAUSE PULSES* *Changing these parameters will change pump pause.*	*[E-CM] Menu Version* *[E-FU] Functioning mode* ***[E-LM] Work in min*** ***[E-LS] Work in sec*** ***[E-IP] Pause pulses*** *[E-AE] Reset* *[E-PL] Pre Lube* *[E-AC] Cycle Alarm* *[E-AP] Overpressure Alarm* *[E-AL] Level Alarm* *[E-AM] Rope Alarm* *[E-AH] Temperature Alarm* *[E-AU] Low tension Alarm* *[E-AS] Driver Alarm*	
Functioning mode FU.PC ***E-PM*** *PAUSE TIME IN MIN* ***E-PH*** *PAUSE TIME IN ORE* *Changing these parameters will change pause time. Select voice to modify, press M and use ↓ or ↑ to decrease or increase the displayed value. At the end, confirm by pressing M* *Repeat these operations for:* ***E-CL*** *NUMBER OF ROPES* *Changing these parameters will change pump work.*	*[E-CM] Menu Version* *[E-FU] Functioning mode* ***[E-PM] Pause in min*** ***[E-PH] Pause in hours*** ***[E-CL] Ropes of work*** *[E-AE] Reset* *[E-PL] Pre Lube* *[E-AC] Cycle Alarm* *[E-AP] Overpressure Alarm* *[E-AL] Level Alarm* *[E-AM] Rope Alarm* *[E-AH] Temperature Alarm* *[E-AU] Low tension Alarm* *[E-AS] Driver Alarm*	
Functioning mode FU.IC ***E-IP*** *NUMBER OF PAUSE PULSES* *Changing these parameters will change pump pause. Select voice to modify, press M and use ↓ or ↑ to decrease or increase the displayed value. At the end, confirm by pressing M* *Repeat these operations for:* ***E-CL*** *NUMBER OF ROPES* *Changing these parameters will change pump work.*	*[E-CM] Menu Version* *[E-FU] Functioning mode* ***[E-IP] Pause pulses*** ***[E-CL] Ropes of work*** *[E-AE] Reset* *[E-PL] Pre Lube* *[E-AC] Cycle Alarm* *[E-AP] Overpressure Alarm* *[E-AL] Level Alarm* *[E-AM] Rope Alarm* *[E-AH] Temperature Alarm* *[E-AU] Low tension Alarm* *[E-AS] Driver Alarm*	

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*Enable or disable RESET/EXTRA CYCLE function selecting **E-AE**, pressing (M) and use (↓) or (↑). At the end, confirm by pressing (M)* ***(AE-0)** = Off* ***(AE-1)** = On* *Timer has connections to remote push button/reset function made by button (M) in run mode. When enabled (AE-1) every time you push the button you will reset alarm signals and restart the work. If there's a button short circuit will be displayed alarm [1.1AE] without consequences.*	*[E-CM] Menu Version* *[E-FU] Functioning mode* *[E-PM] Pause in min* *[E-PH] Pause in hours* *[E-LM] Work in min* *[E-LS] Work in sec* *[E-IP] Pause pulses* *[E-CL] Ropes of work* ***[E-AE] Reset*** *[E-PL] Pre Lube* *[E-AC] Cycle Alarm* *[E-AP] Overpressure Alarm* *[E-AL] Level Alarm* *[E-AM] Rope Alarm* *[E-AH] Temperature Alarm* *[E-AU] Low tension Alarm* *[E-AS] Driver Alarm*	
*Enable PRELUBE or MEMORY selecting **E-PL**, pressing (M) and use (↓) or (↑). At the end, confirm by pressing (M)* ***(PL-0)** = Memory* ***(PL-1)** = Prelube* *(PL-I): at powering the pump will start with a lubrication cycle (working time).* *(PL-0: at powering the pump will start from the point it has stopped (memory).*	*[E-CM] Menu Version* *[E-FU] Functioning mode* *[E-PM] Pause in min* *[E-PH] Pause in hours* *[E-LM] Work in min* *[E-LS] Work in sec* *[E-IP] Pause pulses* *[E-CL] Ropes of work* *[E-AE] Reset* ***[E-PL] Pre Lube*** *[E-AC] Cycle Alarm* *[E-AP] Overpressure Alarm* *[E-AL] Level Alarm* *[E-AM] Rope Alarm* *[E-AH] Temperature Alarm* *[E-AU] Low tension Alarm* *[E-AS] Driver Alarm*	
*Enable or disable CYCLE ALARM selecting **E-AC**, pressing (M) and use (↓) or (↑). At the end, confirm by pressing (M)* ***(AC-0)** = Off* ***(AC-1)** = On* *When enabled (AC-I), you can check the work of a progressive system linked to the pump and complete of micro switch. If there's an alarm, you will see red led (ALARM) lamping and displayed:[1.1AC] pumps will do 3 immediate and consecutive cycles of work. After the third cycle, if alarm persists, pump will stop working.*	*[E-CM] Menu Version* *[E-FU] Functioning mode* *[E-PM] Pause in min* *[E-PH] Pause in hours* *[E-LM] Work in min* *[E-LS] Work in sec* *[E-IP] Pause pulses* *[E-CL] Ropes of work* *[E-AE] Reset* *[E-PL] Pre Lube* ***[E-AC] Cycle Alarm*** *[E-AP] Overpressure Alarm* *[E-AL] Level Alarm* *[E-AM] Rope Alarm* *[E-AH] Temperature Alarm* *[E-AU] Low tension Alarm* *[E-AS] Driver Alarm*	 *CYCLE ALARM CANNOT BE ENABLED TOGETHER WITH OVERPRESSURE ALARM: THEY WILL EXCLUDE EACH OTHER.*

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*Enable or disable OVERPRESSURE ALARM selecting **E-AP**, pressing (M) and use (↓) or (↑). At the end, confirm by pressing (M)* ***(AP-0)** = Off* ***(AP-1)** = On* *When enabled (AP-I), you can check maximum pressure of the pump. If the pressure is over the established value will be displayed: [1.1AP] and pump will stop working.*	*[E-CM] Menu Version* *[E-FU] Functioning mode* *[E-PM] Pause in min* *[E-PH] Pause in hours* *[E-LM] Work in min* *[E-LS] Work in sec* *[E-IP] Pause pulses* *[E-CL] Ropes of work* *[E-AE] Reset* *[E-PL] Pre Lube* *[E-AC] Cycle Alarm* ***[E-AP] Overpress. Alarm*** *[E-AL] Level Alarm* *[E-AM] Rope Alarm* *[E-AH] Temperature Alarm* *[E-AU] Low tension Alarm* *[E-AS] Driver Alarm*	 ⚠ CYCLE ALARM CANNOT BE ENABLED TOGETHER WITH OVERPRESSURE ALARM: THEY WILL EXCLUDE EACH OTHER.
*Enable or disable LOW LEVEL ALARM selecting **E-AL**, pressing (M) and use (↓) or (↑). At the end, confirm by pressing (M)* ***(AL-0)** = Off* ***(AL-1)** = On* *When enabled (AL-I), if sensor send a low level lubricant signal, timer will display: [1.1AL] while red led (ALARM) will lamp. This alarm doesn't stop the pump.*	*[E-CM] Menu Version* *[E-FU] Functioning mode* *[E-PM] Pause in min* *[E-PH] Pause in hours* *[E-LM] Work in min* *[E-LS] Work in sec* *[E-IP] Pause pulses* *[E-CL] Ropes of work* *[E-AE] Reset* *[E-PL] Pre Lube* *[E-AC] Cycle Alarm* *[E-AP] Overpressure Alarm* ***[E-AL] Level Alarm*** *[E-AM] Rope Alarm* *[E-AH] Temperature Alarm* *[E-AU] Low tension Alarm* *[E-AS] Driver Alarm*	
*Enable or disable ROPES ALARM selecting **E-AM**, pressing (M) and use (↓) or (↑). At the end, confirm by pressing (M)* ***(AM-0)** = Off* ***(AM-1)** = On* *When enabled (AM-I), if rpm are inferior to 9, timer will display: [1.1AM] and pump will block..*	*[E-CM] Menu Version* *[E-FU] Functioning mode* *[E-PM] Pause in min* *[E-PH] Pause in hours* *[E-LM] Work in min* *[E-LS] Work in sec* *[E-IP] Pause pulses* *[E-CL] Ropes of work* *[E-AE] Reset* *[E-PL] Pre Lube* *[E-AC] Cycle Alarm* *[E-AP] Overpressure Alarm* *[E-AL] Level Alarm* ***[E-AM] Rope Alarm*** *[E-AH] Temperature Alarm* *[E-AU] Low tension Alarm* *[E-AS] Driver Alarm*	

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*Enable or disable TEMPERATURE ALARM selecting **E-AH**, pressing (M) and use (↓) or (↑). At the end, confirm by pressing (M)* ***(AH-0)** = Off* ***(AH-1)** = On* *When enabled (AH-I), if timer reaches 80°C, will be displayed:[1.1AH] you will see red led (ALARM) lamping and pump will stop working until timer will be under 70°C*	*[E-CM] Menu Version* *[E-FU] Functioning mode* *[E-PM] Pause in min* *[E-PH] Pause in hours* *[E-LM] Work in min* *[E-LS] Work in sec* *[E-IP] Pause pulses* *[E-CL] Ropes of work* *[E-AE] Reset* *[E-PL] Pre Lube* *[E-AC] Cycle Alarm* *[E-AP] Overpressure Alarm* *[E-AL] Level Alarm* *[E-AM] Rope Alarm* ***[E-AH] Temperat. Alarm*** *[E-AU] Low tension Alarm* *[E-AS] Driver Alarm*	
*Enable or disable LOW TENSION ALARM selecting **E-AU**, pressing (M) and use (↓) or (↑). At the end, confirm by pressing (M)* ***(AU-0)** = Off* ***(AU-1)** = On* *When enabled (AU-I), if tension goes under 9V, timer will be in alarm and will be displayed: [1.1AU], and red led (ALARM) will lamp. If tension go down more pump will power off.*	*[E-CM] Menu Version* *[E-FU] Functioning mode* *[E-PM] Pause in min* *[E-PH] Pause in hours* *[E-LM] Work in min* *[E-LS] Work in sec* *[E-IP] Pause pulses* *[E-CL] Ropes of work* *[E-AE] Reset* *[E-PL] Pre Lube* *[E-AC] Cycle Alarm* *[E-AP] Overpressure Alarm* *[E-AL] Level Alarm* *[E-AM] Rope Alarm* *[E-AH] Temperature Alarm* ***[E-AU] Low tension Alarm*** *[E-AS] Driver Alarm*	
*Enable or disable STATUS DRIVER ALARM selecting **E-AS**, pressing (M) and use (↓) or (↑). At the end, confirm by pressing (M)* ***(AS-0)** = Off* ***(AS-1)** = On* *When enabled (AS-I), if a communication problem between motor and timer happens, timer will have an alarm and will display: [1.1AS], pump will keep on working and red led (ALARM) will lamp.*	*[E-CM] Menu Version* *[E-FU] Functioning mode* *[E-PM] Pause in min* *[E-PH] Pause in hours* *[E-LM] Work in min* *[E-LS] Work in sec* *[E-IP] Pause pulses* *[E-CL] Ropes of work* *[E-AE] Reset* *[E-PL] Pre Lube* *[E-AC] Cycle Alarm* *[E-AP] Overpressure Alarm* *[E-AL] Level Alarm* *[E-AM] Rope Alarm* *[E-AH] Temperature Alarm* *[E-AU] Low tension Alarm* ***[E-AS] Driver Alarm***	

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If there will be more alarms, will be displayed how many and pressing you can check which are the alarms.. *In the example [1.2AC] first is the number of the alarm displayed, second is how many alarms, last two are the code of the alarm. To display the second alarm use*	*In run mode:* *[025.0] operat. state* *[P24.0] timer tension* *[H35.0] timer tempera.* *[PL-L] function. mode* ***[1.2AC] alarm***	

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TROUBLESHOOTING

Basically, the only maintenance required is to refill reservoir in good time using a pump. However, check regularly that lubricant is actually reaching all lubrication points. Similarly, check the main and feed lines for eventual damages. If necessary, repair them.
Add these inspections together with other regular checks of the vehicle.

FAULT: PUMP MOTOR DOES NOT RUN

CAUSE:
VOLTAGE SUPPLY INTERRUPTED
REMEDY:
CHECK VOLTAGE SUPPLY OR FUSES. IF NECESSARY, RECTIFY THE FAULT AND REPLACE FUSES

CAUSE:
VOLTAGE SUPPLY TO PRINTED-CIRCUIT BOARD INTERRUPTED
REMEDY:
CHECK THE LINE LEADING FROM THE FUSES TO THE CONTROL UNIT AND PUMP PLUG

CAUSE:
PRINTED-CIRCUIT BOARD DEFECTIVE
REMEDY:
REPLACE PRINTED-CIRCUIT BOARD

CAUSE:
GEARMOTOR DEFECTIVE
REMEDY:
REPLACE GEARMOTOR

FAULT: PUMP DOES NOT DELIVERY THE LUBRICANT

CAUSE:
RESERVOIR EMPTY
REMEDY:
REFILL RESERVOIR WITH CLEAN GREASE AND MAKE PUMP RUN UNTIL LUBRICANT EMERGES FREE OF AIR FROM ALL LUBRICATION POINTS.

CAUSE:
AIR BUBBLES IN LUBRICANT
REMEDY:
REFILL THE PUMP AND REMOVE THE OUTLET FITTING ON PUMP ELEMENT. GREASE MUST EMERGE WITHOUT AIR BUBBLES. RESTORE CHECK VALVE.

CAUSE:
UNSUITABLE LUBRICANT HAS BEEN USED
REMEDY:
RENEW THE LUBRICANT SEEING SECTION "RECOMMENDED LUBRICANTS", ON PAGE 62

CAUSE:
PUMP PISTON WORN
REMEDY:
REPLACE PUMP ELEMENT.

CAUSE:
CHECK VALVE IN PUMP ELEMENT DEFECTIVE
REMEDY:
REPLACE CHECK VALVE

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FAULT: BLOCKAGE OF DOWNSTREAM PROGRESSIVE SYSTEM

(please refer to page 59 scheme)

CAUSE:

BEARING, LINES OR METERING DEVICE CLOGGED.

If not already installed, assemble a pressure gauge (H) and a safety valve (I) calibrated at 200 Bar

CLEAN OR CHANGE PUMPING ELEMENT

Low pressure

Disconnect main line (B) from the pump (A), plug the pump (A) and drive it on.

High pressure:
grease comes out from
safety valve (I)

CLEAN OR CHANGE MAIN DIVIDER (C) following procedure illustrated in the following page.

High pressure:
grease comes out
from
safety valve (I)

Reconnect the pump (A) to the main divider (C), disconnect secondary lines (E1, E2, E3, etc…) from the main divider (C) and drive pump on (A)

Low pressure:
grease comes out free of air
from the main divider (C)

CLEAN OR CHANGE SECONDARY DIVIDER (D1) following procedure illustrated in the following page.

High pressure:
grease comes out
from
safety valve (I)

We found the line with blockage out. Disconnect secondary line (F) from secondary divider (D1) and drive pump on (A).

High pressure:
grease comes out
from
safety valve (I)

Reconnect secondary line (E1) to the main divider (C) and drive pump on (A)

Low pressure:
grease comes out free of air
from the secondary divider
(D1)

Low pressure

RECONNECT ONE SECONDARY LINE (F) AT TIME, UNTIL THE BLOCKED LUBRICATION POINT HASN'T BEEN FOUND OUT. WHEN FOUND, UNBLOCK WITH A MANUAL PUMP.

Repeat operation for the other secondary lines (E2, E3, etc…) until the blockage line hasn't been found out.

TO AVOID PROGRESSIVE DIVIDER TO HAVE AN HYDRAULIC BLOCKAGE, DO NOT ASSEMBLE PLUG IN THE OUTLETS WITHOUT CONTACT US! PLEASE FOLLOW THESE PROCEDURES ALSO IN CASE OF LONGE STOP OF THE MACHINE.

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REMEDY:

REPLACE METERING DEVICE OR CLEAN IT IN ACCORDANCE WITH THE FOLLOWING PROCEDURE:
REMOVE ALL TUBE FITTINGS
UNSCREW THE PISTON CLOSURE PLUGS
IF POSSIBLE, TRY TO EJECT THE PISTON USING A SMOOTH DRIFT (DIA SMALLER THAN 6 MM)
THE PISTONS ARE PRECISION FITTED INTO THE HOLES. MARK THE PISTONS WITH REGARD TO THEIR INSTALLATION POSITION AND DIRECTION AFTER THEY HAVE BEEN REMOVED.
THEY MUST NOT BE EXCHANGED!
THOROUGHLY CLEAN METERING DEVICE BODY IN FAT-DISSOLVING WASHING AGENT, BLOW THROUGH WITH COMPRESSED AIR.
PRESS FREE THE SLANT DUCTS (DIA 1.5 MM) AT THE THREAD ENDS OF THE PISTON HOLES USING A PIN.
CLEAN THE METERING DEVICES AGAIN AND BLOW THEM THROUGH.
REASSEMBLE THE METERING DEVICE.
REPLACE COPPER WASHERS.
BEFORE THE TUBE FITTINGS ARE REASSEMBLED, THE METERING DEVICES SHOULD BE PUMPED SEVERAL CYCLES BY MEAN OF A MANUAL PUMP. CHECK THAT THE PRESSURE IN THE METERING DEVICE DOES NOT EXCEED 25 BAR (362.8 PSI). IF THE PRESSURE IS HIGHER, REPLACE THE METERING DEVICE.

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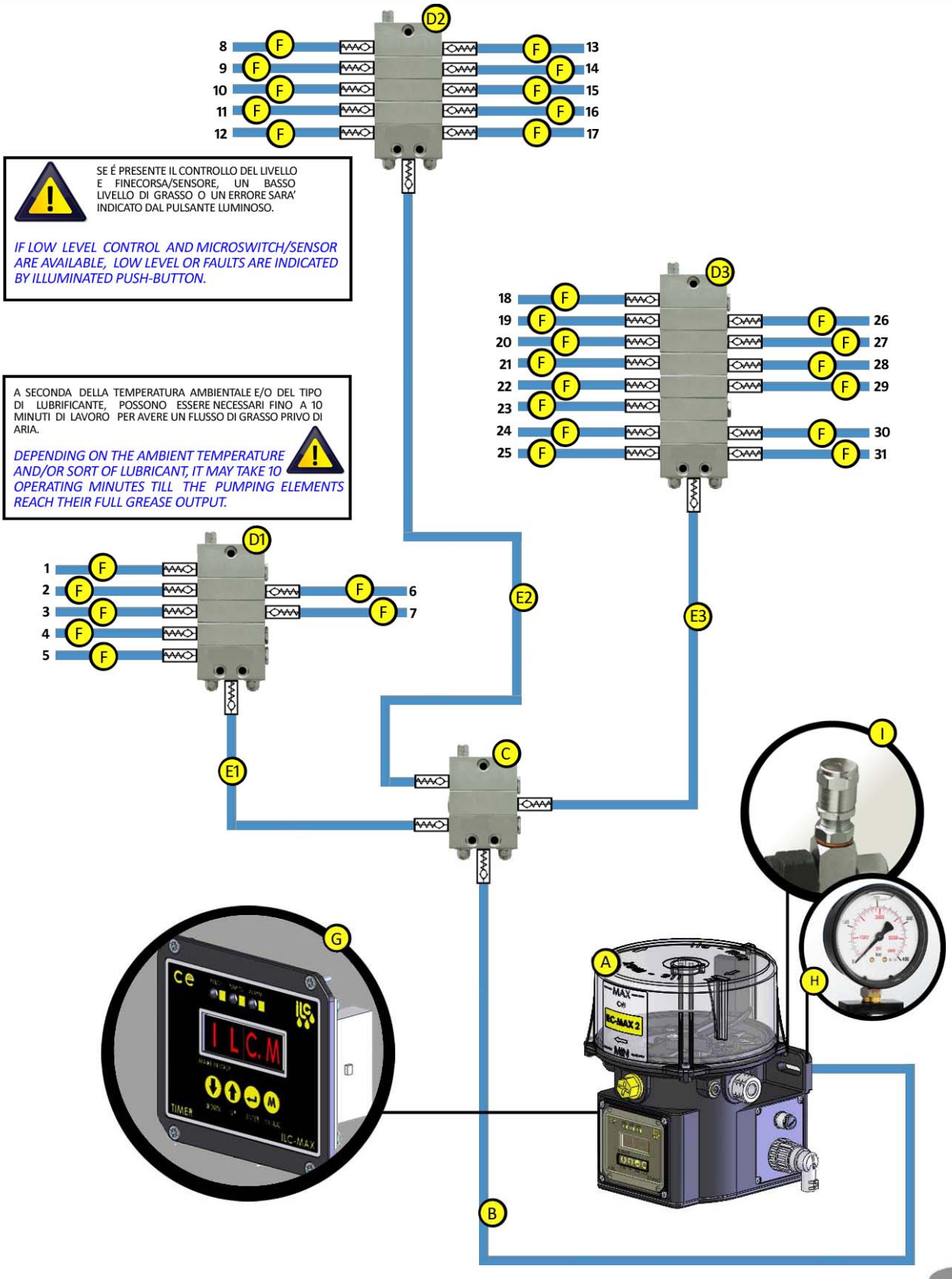

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	*RESET ALARM*	
	PROBLEM *Reset button is in short circuit* *(alarm let the pump working correctly)*	*REMEDY* *Change reset button*
	*CYCLE ALARM*	
	PROBLEM *Blockage of downstream progressive system*	*REMEDY* *See page 56*
	*OVERPRESSURE ALARM*	
	PROBLEM *Blockage of downstream progressive system*	*REMEDY* *See page 56*
	*LOW LEVEL ALARM*	
	PROBLEM *Reservoir is empty*	*REMEDY* *Fill the reservoir*

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	*PUMP ROPES ALARM*	
	PROBLEM *Pump motor doesn't start*	*REMEDY* *See page 56*
	*TEMPERATURE ALARM*	
	PROBLEM *Timer is over 80°C*	*REMEDY* *Remove the heat source near to the timer (pump will work again when temperature will be under 70°C)*
	*TENSION ALARM*	
	PROBLEM *Timer is charged with a less than 9 V tension*	*REMEDY* *Check charging line and restore the correct tension (min 9 V)*
	*STATUS DRIVER ALARM*	
	PROBLEM *Motore and timer are not communicating*	*REMEDY* *Change timer or motor*

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RECOMMENDED LUBRICANTS

IMPORTANT!
Absolute cleanliness is essential when handling lubricants. Impurities will remain suspended in grease and this will block system or cause bearings damages!

MANUFACTURER	DESIGNATION	BASE SOAP
AGIP	F1 GREASE 24	Ca
ARAL	MULTI-PURPOSE GREASE	Ca/Li
AUTOL	TOP 2000	Ca
BP	GREASE	Ca
BP	C1 - GREASE	Ca
CASTROL	CL - GREASE	Ca
ESSO	CAZAR K2	Ca
ESSO	HIGH-PRESSURE GREASE	Ca
FIAT LUBRICANTI	COMAR 2	Li
FUCHS	FN 745	Ca
FUCHS	LZR 2	Li
FUCHS	PLANTOGEL S2	Ca
FUCHS	RENOCAL FN3	Ca
FUCHS	RENOLIT HLT 2	Li
MOBIL	MOBILGREASE	Li
MOLYKOTE	TTF 52	ORD. THICKNER
OPTIMOL	LONGTIME PD 2	Li
OPTIMOL	OLIT CLS	Li/Ca
SHELL	RETINAX C	Ca
ZELLER GMELIN	ZG 450	Li
ZELLER GMELIN	ZG 736	Li

BIO-DEGRADABLE GREASE

ARAL	BAB EP 2	Li/Ca
AVIA	BIOGREASE 1	Li
DEA	DOLON E 2	Li

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Pos.	Codice / code	Descrizione / Description	Q.ty
1	A70093501-24	Sottogruppo Corpo Pompa ILC-MAX per grasso 24V DC/AC ILC-MAX Body pump for grease 24V DC/AC	1
	A70093501-12	Sottogruppo Corpo Pompa ILC-MAX per grasso 12V DC/AC ILC-MAX Body pump for grease 12V DC/AC	1
3	A70093531	Gruppo coperchio inferiore ILC-MAX 12/24V DC/AC ILC-MAX bottom cover 12/24V DC/AC	1
4	A70093532-115	Gruppo coperchio inferiore ILC-MAX 115V AC ILC-MAX bottom cover 115V AC	1
	A70093532-230	Gruppo coperchio inferiore ILC-MAX 230V AC ILC-MAX bottom cover 230V AC	1
6	A70093534	Sottogruppo serbatoio per grasso 2kg ILC-MAX Grease reservoir 2kg ILC-MAX	1
7	A70093536	Sottogruppo serbatoio per grasso 4kg ILC-MAX Grease reservoir 4kg ILC-MAX	1
8	A70093538	Sottogruppo serbatoio per grasso 5kg ILC-MAX Grease reservoir 5kg	1
9	A70093540	Sottogruppo serbatoio per grasso 8kg ILC-MAX Grease reservoir 8kg ILC-MAX	1
10	40-CCT-DC-00	Scheda interna ILC-MAX con TIMER DC Electronic card with TIMER DC — 12V DC 24V DC	1
	40-CCT-AC-00	Scheda interna ILC-MAX con TIMER AC Electonic card with TIMER AC — 24V AC 115V AC 230V AC	1
	40-CST-DC-00	Scheda interna ILC-MAX senza TIMER DC Card without TIMER DC — 12V DC 24V DC	1
	40-CST-AC-00	Scheda interna ILC-MAX senza TIMER AC Card without TIMER AC — 24V AC 115V AC 230V AC	1
14	40-PWR-74-BT-DC	Connessione elettrica 7+4 poli BT-DC Elecrtic power connection 7+4 poles BT-DC — TIMER 12V DC - 24V DC	1
	40-PWR-74-BT-AC	Connessione elettrica 7+4 poli BT-AC Electic power connection 7+4 poles BT-AC — TIMER 24V AC	1
	40-PWR-74-AT-AC	Connessione elettrica 7+4 poli AT-AC Electic power connection 7+4 poles AT-AC — TIMER 115V AC - 230V AC	1
	40-PWR-70	Connessione elettrica 7+0 poli senza TIMER Electic power connection 7+0 poles without TIMER — Tutte le Tensioni all voltages	1
18	40-CPT-00	Coperchio protezione TIMER Protection cover for TIMER	1
19	90-900-0	Pompante a portata fissa per elettropompa PEG-N Fixed pumping element	1
20	90-900-3	Gruppo pompante regolabile elettropompe PEG-N Adjustable pumping element	1

DISEGNATO / DRAWN	DATA / DATE
BARONI	11/07/2012
CONTROLLATO / CHECK	SCALA / SCALE
-	1:2.5
CODICE CLIENTE / CLIENT CODE	

UFFICIO TECNICO
GORLA MINORE

DENOMINAZIONE / DESCRIPTION
TABELLA RICAMBI PER ILC-MAX ELETTROPOMPA PER GRASSO
SPARE PARTS FOR ILC-MAX ELECTRIC GREASE PUMP

CODICE N° / CODE
ILC-MAX GRASSO

TOOLID-FOGLIO

A2

DISEGNO CAD

Pos.	Codice/code	Descrizione/Description	Q.ty
1	A70093502-24	Sottogruppo Corpo Pompa ILC-MAX per olio 24V DC/AC ILC-MAX Body pump for oil 24V DC/AC	1
	A70093502-12	Sottogruppo Corpo Pompa ILC-MAX per olio 12V DC/AC ILC-MAX Body pump for oil 12V DC/AC	1
2	A70093531	Gruppo coperchio inferiore ILC-MAX 12/24V DC/AC ILC-MAX bottom cover 12/24V DC/AC	1
3	A70093532-115	Gruppo coperchio inferiore ILC-MAX 115V AC ILC-MAX bottom cover 115V AC	1
	A70093532-230	Gruppo coperchio inferiore ILC-MAX 230V AC ILC-MAX bottom cover 230V AC	1
6	40-CCT-DC-00	Scheda interna ILC-MAX con TIMER DC Electronic card with TIMER DC — 12V DC 24V DC	1
	40-CCT-AC-00	Scheda interna ILC-MAX con TIMER AC Electonic card with TIMER AC — 24V AC 115V AC 230V AC	1
	40-CST-DC-00	Scheda interna ILC-MAX senza TIMER DC Card without TIMER DC — 12V DC 24V DC	1
	40-CST-AC-00	Scheda interna ILC-MAX senza TIMER AC Card without TIMER AC — 24V AC 115V AC 230V AC	1
7	40-PWR-74-BT-DC	Connessione elettrica 7+4 poli BT-DC Elecrtic power connection 7+4 polesBT-DC — TIMER 12V DC - 24V DC	1
	40-PWR-74-BT-AC	Connessione elettrica 7+4 poli BT-AC Electic power connection 7+4 poles BT-AC — TIMER 24V AC	1
	40-PWR-74-AT-AC	Connessione elettrica 7+4 poli AT-AC Electic power connection 7+4 poles AT-AC — TIMER 115V AC - 230V AC	1
	40-PWR-70	Connessione elettrica 7+0 poli senza TIMER Electic power connection 7+0 poles without TIMER — Tutte le Tensioni all voltages	1
8	40-CPT-00	Coperchio protezione TIMER Protection cover for TIMER	1
9	A70093533	Sottogruppo serbatoio per olio 2l ILC-MAX Oil reservoir 2l ILC-MAX	1
10	A70093535	Sottogruppo serbatoio per olio 4l ILC-MAX Oil reservoir 4l ILC-MAX	1
11	A70093537	Sottogruppo serbatoio per olio 5l ILC-MAX Oil reservoir 5l ILC-MAX	1
12	A70093539	Sottogruppo serbatoio per olio 8l ILC-MAX Oil reservoir 8l ILC-MAX	1
20	90-900-0	Pompante a portata fissa per elettropompa PEG-N Fixed pumping element	1
21	90-900-3	Gruppo pompante regolabile elettropompe PEG-N Adjustable pumping element	1

DISEGNATO / DRAWN: BARONI
DATA / DATE: 11/07/2012
CONTROLLATO / CHECK: -
SCALA / SCALE: 1:2.5
CODICE CLIENTE / CLIENT CODE

UFFICIO TECNICO
GORLA MINORE

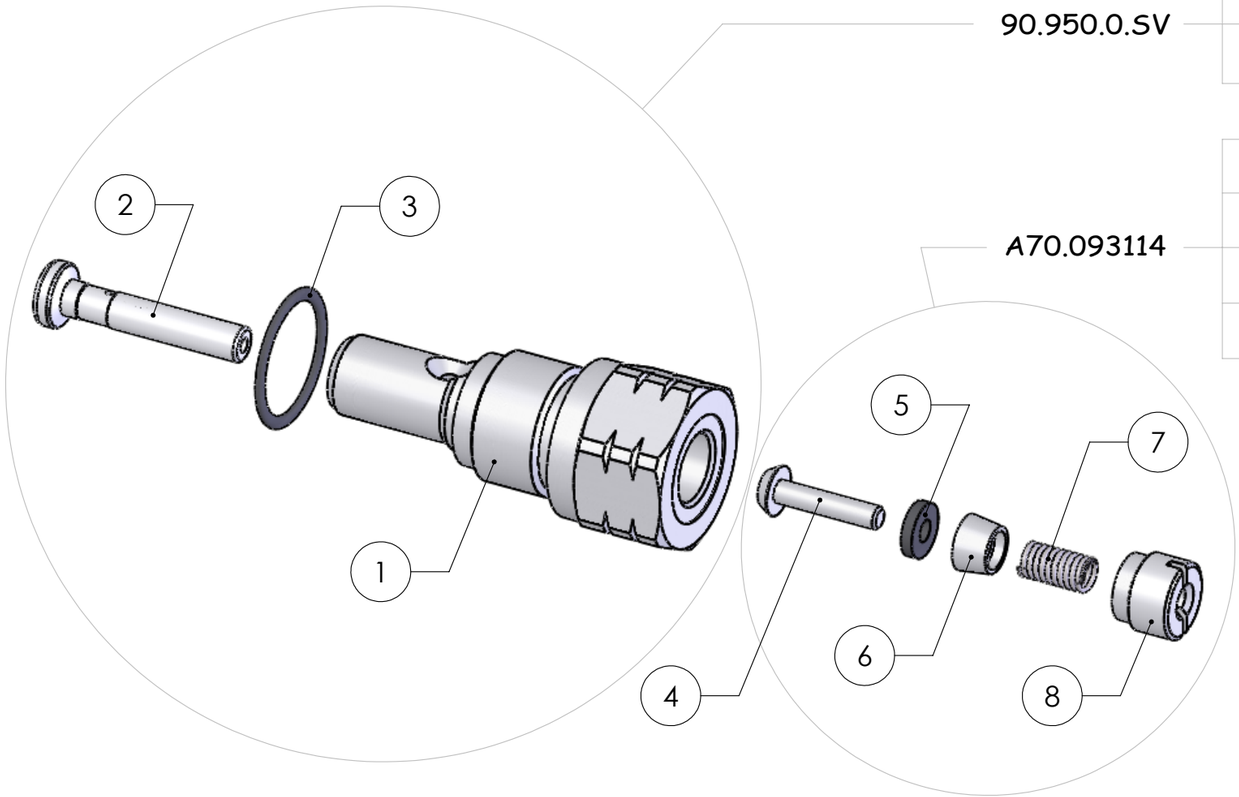
DENOMINAZIONE / DESCRIPTION
TABELLA RICAMBI PER ILC-MAX ELETTROPOMPA PER OLIO
SPARE PARTS FOR ILC-MAX ELECTRIC OIL PUMP

CODICE N° / CODE
ILC-MAX OLIO

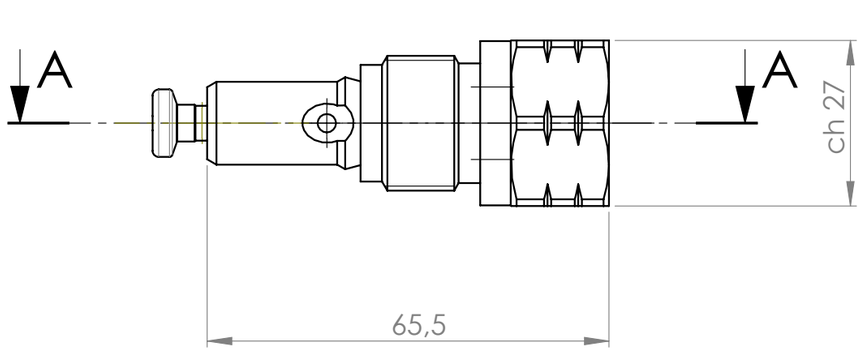
TOOLID-TOOLID

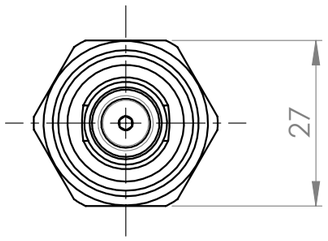
A2

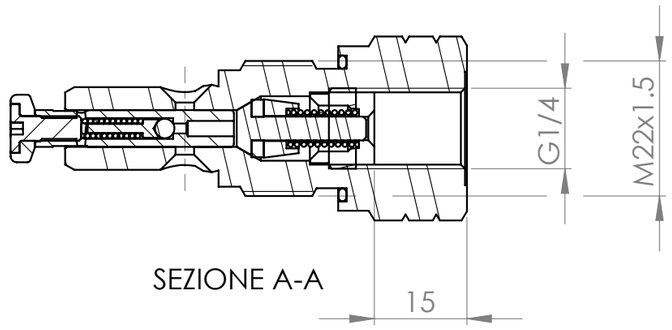
DISEGNO CAD



Pos.	Codice / code	Descrizione / Description	Q.ty
1	A51125028.N	Corpo pompante Body pumping element	1
2	A70093503	Pistone con by-pass interno 275bar Piston with internal by-bass 275bar	1
3	A92127137	O-Ring 2081	1
4	A51122018	Pistoncino per valvola di mandata Piston	1
5	A77130048	Guarnizione di tenuta per pistoncino pompante Gasket	1
6	A51088039	Guidamolla per valvola di mandata Spring guide	1
7	A86126085	Molla cilindrica a compressione per valvola di mandata Spring	1
8	A51096021	Tappo per valvola di mandata pompante Plug for check valve	1





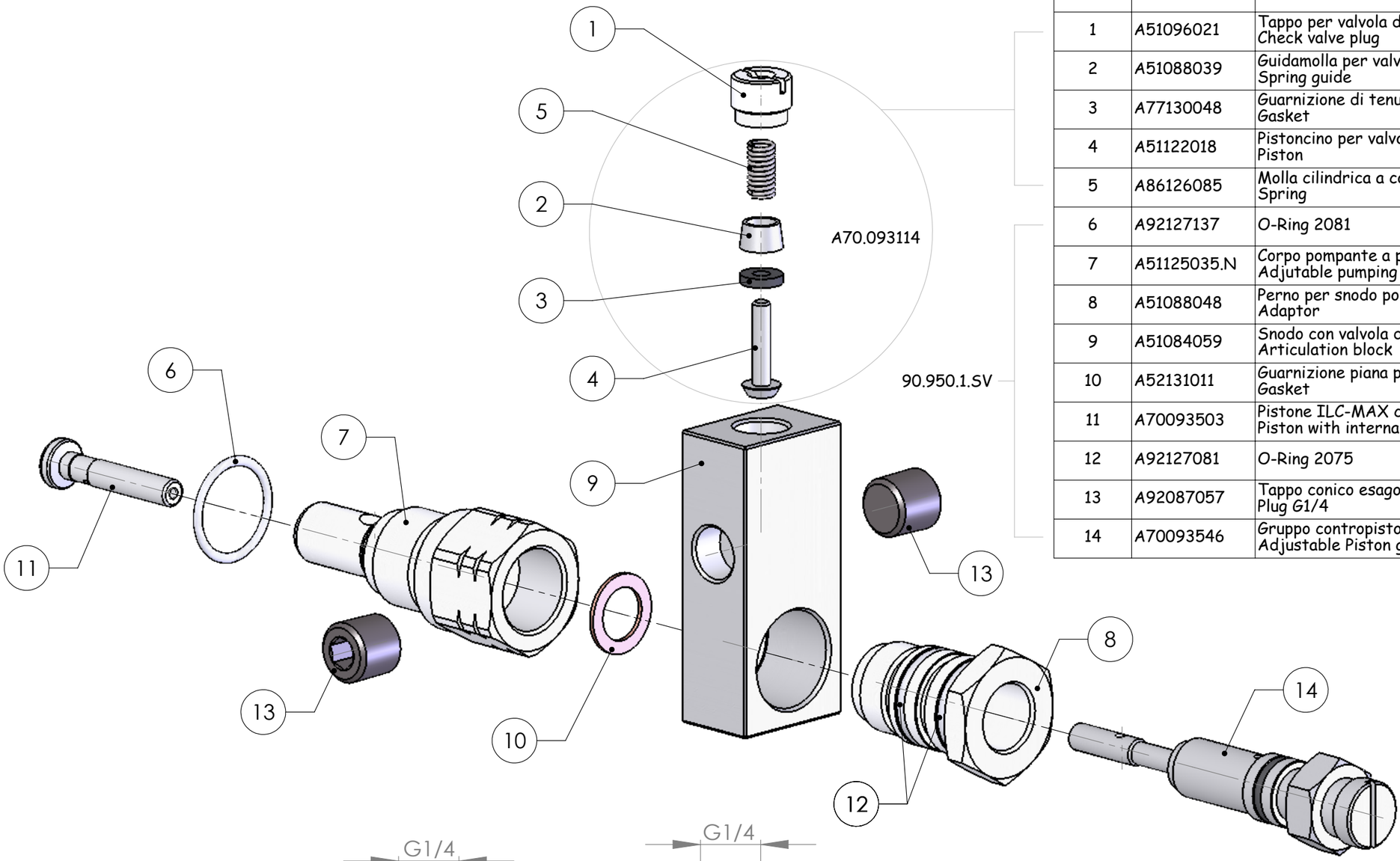


SEZIONE A-A

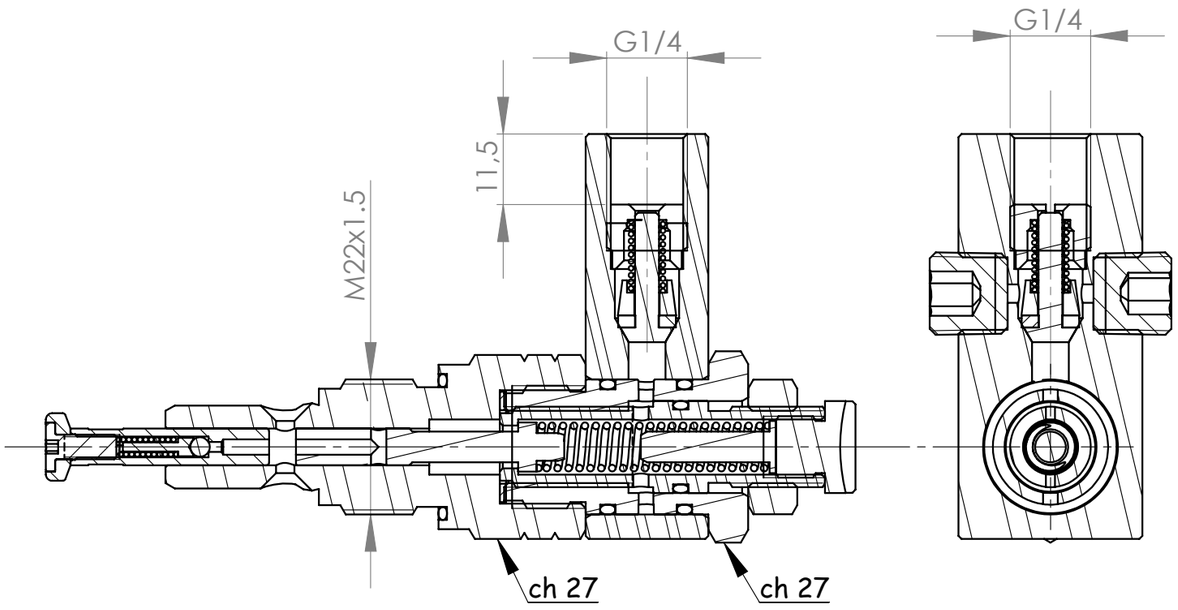
CLIENTE / CLIENT: ilc s.r.l.	DATA /DATE: 28/06/11	QUESTO DISEGNO E' DI PROPRIETA' ESCLUSIVA DELLA -ILC- IMPIANTI DI LUBRIFICAZIONE CENTALIZZATA S.R.L. A TERMINI DI LEGGE ESSA VIETA DI RIPRODURLO O COMUNICARLO A DITTE CONCORRENTI O AD ALTRI SENZA LA SUA ESPLICITA AUTORIZZAZIONE
SISTEMA / SYSTEM: Progressivo	DISEGNATO / DRAWN: BARONI	
LUBRIFICANTE / LUBRICANT: olio da 32cSt fino grassi NLGI 2	CONTROLLATO / CHECK: -	UFFICIO TECNICO GORLA MINORE
PUNTI / POINT: 1 / CODICE CLIENTE /CLIENT CODE	SCALA / SCALE: 1:1	
DENOMINAZIONE / DESCRIPTION: Gruppo pompante fisso ILC-MAX con by-pass 275bar Fixed pumping element ILC-MAX with by-pass 275bar	CODICE N° / CODE: 90-950-0	FOGLIO/FOGLIO

A3

DISEGNO CAD



Pos.	Codice / Code	Descrizione / Description	Q.ty
1	A51096021	Tappo per valvola di mandata pompante Check valve plug	1
2	A51088039	Guidamolla per valvola di mandata elettropompa Spring guide	1
3	A77130048	Guarnizione di tenuta per pistoncino pompante Gasket	1
4	A51122018	Pistoncino per valvola di mandata Piston	1
5	A86126085	Molla cilindrica a compressione per valvola di mandata Spring	1
6	A92127137	O-Ring 2081	1
7	A51125035.N	Corpo pompante a portata regolabile Adjutable pumping element body	1
8	A51088048	Perno per snodo pompante regolabile Adaptor	1
9	A51084059	Snodo con valvola di mandata per pompante regolabile Articulation block	1
10	A52131011	Guarnizione piana per pompante regolabile Gasket	1
11	A70093503	Pistone ILC-MAX con by-pass interno 275bar Piston with internal by-pass 275bar	1
12	A92127081	O-Ring 2075	2
13	A92087057	Tappo conico esagono incassato 1/4"GasMk Plug G1/4	2
14	A70093546	Gruppo contropistone pompante regolabile Adjustable Piston group	1



CLIENTE / CLIENT

SISTEMA / SYSTEM

LUBRIFICANTE / LUBRICANT

PUNTI / POINT

CODICE CLIENTE /CLIENT CODE

DATA /DATE 30/10/06

DISEGNATO / DRAWN Lamperti

CONTROLLATO / CHECK -

SCALA / SCALE 1:1

UFFICIO TECNICO
GORLA MINORE

DENOMINAZIONE / DESCRIPTION

Gruppo pompante regolabile ILC-MAX con by-pass 275 bar

Adjustable pumping element ILC-MAX with by-pass 275 bar

CODICE N° / CODE

90-950-1

FOGLIO/FOGLIO

A3

DISEGNO CAD