

CHARACTERISTICS

- Modüler istiflenebilir rezervuarlar & **Standart olarak minimum seviye**
- **VOLTAJ:**
12V AC/DC
24V AC/DC
110V/230V 50/60 Hz, as standard.
- **DEBİ** :2,8cm³/min
0,4 ÷ 2,8 cm³/min 5,2cm³/min
- **DEPOLAR:**
2, 5, 8 litre
- **ENTEGRİ EDİLEBİLİR:**
for SMP and SMPM dağıtıcıları
- **ÇOKLU YAĞLAMA DÖNGÜSÜ:** çoklu sensör sayısı ve seçilebilir ön yağlama işlevi
- **ÇİFT ERİŞİM PORTLARI:** uygun yeniden doldurma ve gres dönüş hattı için
- **ÇOKLU KONNEKTÖR SİSTEMİ:** çeşitli OEM ve son kullanıcı gereksinimlerine uyacak şekilde standart ürüne birçok elektrik konnektör tipinin uygulanmasına izin verir
- **2.8cm³/dk STANDART DEBİ**

APPLICATIONS

- **MOBILE PLANT AND VEHICLE LUBRICATION**
- **MACHINE TOOLS:** like glass working machines or wood-working machines.
- **HEAVY VEHICLES:** like earth moving machines, harvesters and other uses for special machines or vehicles.
- **HEAVY INDUSTRIES:** like mining or construction.
- **CHAIN & GEAR LUBRICATION.**

THE SMALL PUMP PACKAGE WITH BIG FEATURES THE HEAVY DUTY PUMP FOR INDUSTRY AND VEHICLES

DESIGN AND ADVANCED SOLUTIONS

The **BRAVO** electric pump is a piston pump predisposed to operate with a maximum of three pumping units, with or without internal by-pass. Designed to work with progressive systems, it can feed several independent lines and, combining the outlets of two/three pumping units, the flow can be doubled or tripled.

The pump is available in two versions:

MANUAL: can be managed by an external PLC. Since it does not come with an internal control unit, this is the most economic solution for lubricating your systems.

AUTOMATIC: with electronic board built-in and local manual start-up. Thanks to the remote button, you can manually start the lubrication cycle on request. Low level sensor and one pumping are included as standard equipment.



- *Sturdy and heavy duty design*
- *Designed for industrial lubrication systems, heavy equipment and farm equipment;*
- *For progressive systems with many lubrication points;*
- *Alternative to manual lubrication*
- *Multiple pumping units*
- *VARIO-DRIVE control, the pump motor management system that protects and electronically adjusts the pumping system (automatic version).*
- *Multi-connector system: allows application of many types of standard connectors for the electrical connection. An OEM connection can also be created on request.*

TECHNICAL INFORMATION

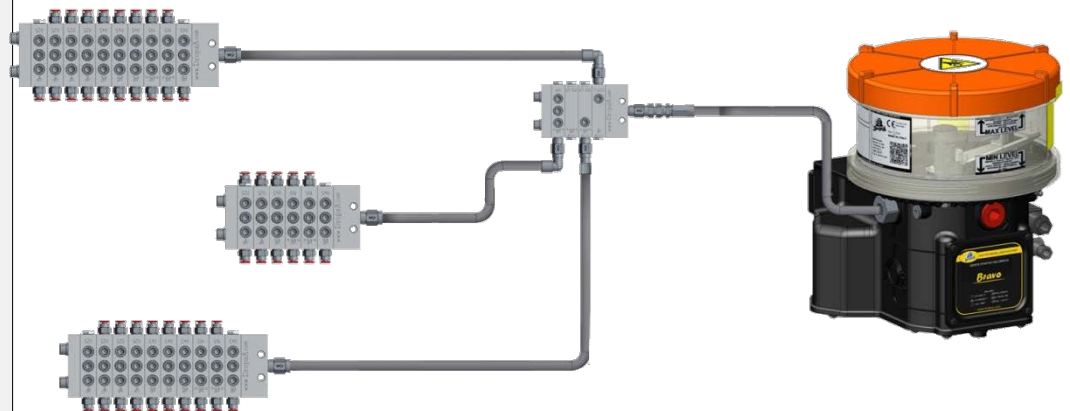
TECHNICAL CHARACTERISTICS

Number of outlets / pumping elements	1 (3 max.)
Outlet thread	1/4" BSP
Nominal output per pump element (20 RMP) *	2,8 cm ³ /min (0.17 in ³ /min) 5,2 cm ³ /min (0.31 in ³ /min) 0,4 ÷ 2,8 cm ³ /min (0.02 ÷ 0.17 in ³ /min) - Adjustable
Working pressure	280 bar (4061 psi)
Integrated By-pass pressure (if present)	320 bar ±30 bar (4641 psi ±435 psi)
Reservoir Capacity	2 – 5 – 8 litres (0.53 – 1.32 – 2.11 gallons)
Max Grease capability	Grease NLGI 2
Operating temperature	-25°C ÷ +80°C
Storage temperature	-30°C ÷ +90°C
Protection grade	IP65 (IP 69K with special equipment)

BRAVO - THE EXTENTION OF THE PROGRESSIVE SYSTEM

BENEFITS OF PROGRESSIVE SYSTEM DROPSA

- Modular progressive system for excellent lubrication
- Ability to expand the system
- High accuracy
- Stainless steel
- Different progressive distributor for all needs
- SMX - nP - nPr+ - SMP (Ref. DropsA documents progressive system SMX C2104PI - nP C2213PI - nPr+ C2220PI - SMP C2071PI)



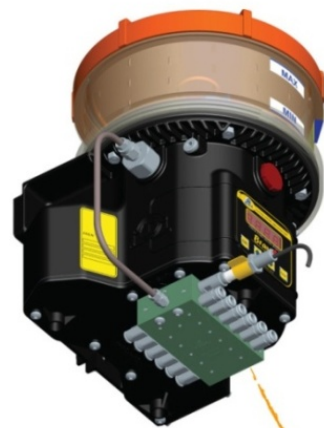
ESEMPIO DI IMPIANTO DI LUBRIFICAZIONE SU VEICOLI

Bravo is the cost effective solution for many type of vehicles like: heavy equipment, farm equipment and other special vehicles.

The complete lubrication system typically comprises:

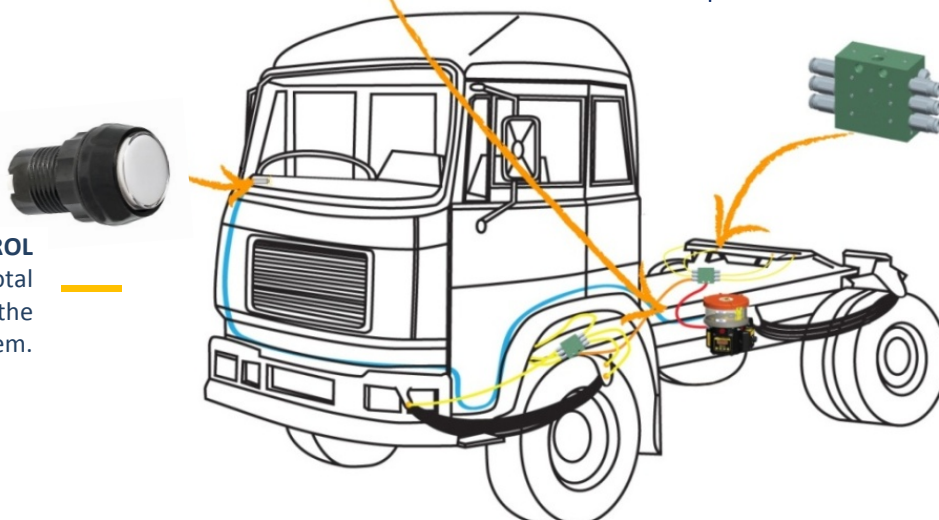
1. Bravo pump
2. Dividers
3. Remote status lamp with button

With just a status lamp & button placed in the vehicle cabin, the driver always knows the status of the lubrication system. Whenever needed an extra lubrication cycle, is just a push of a button.



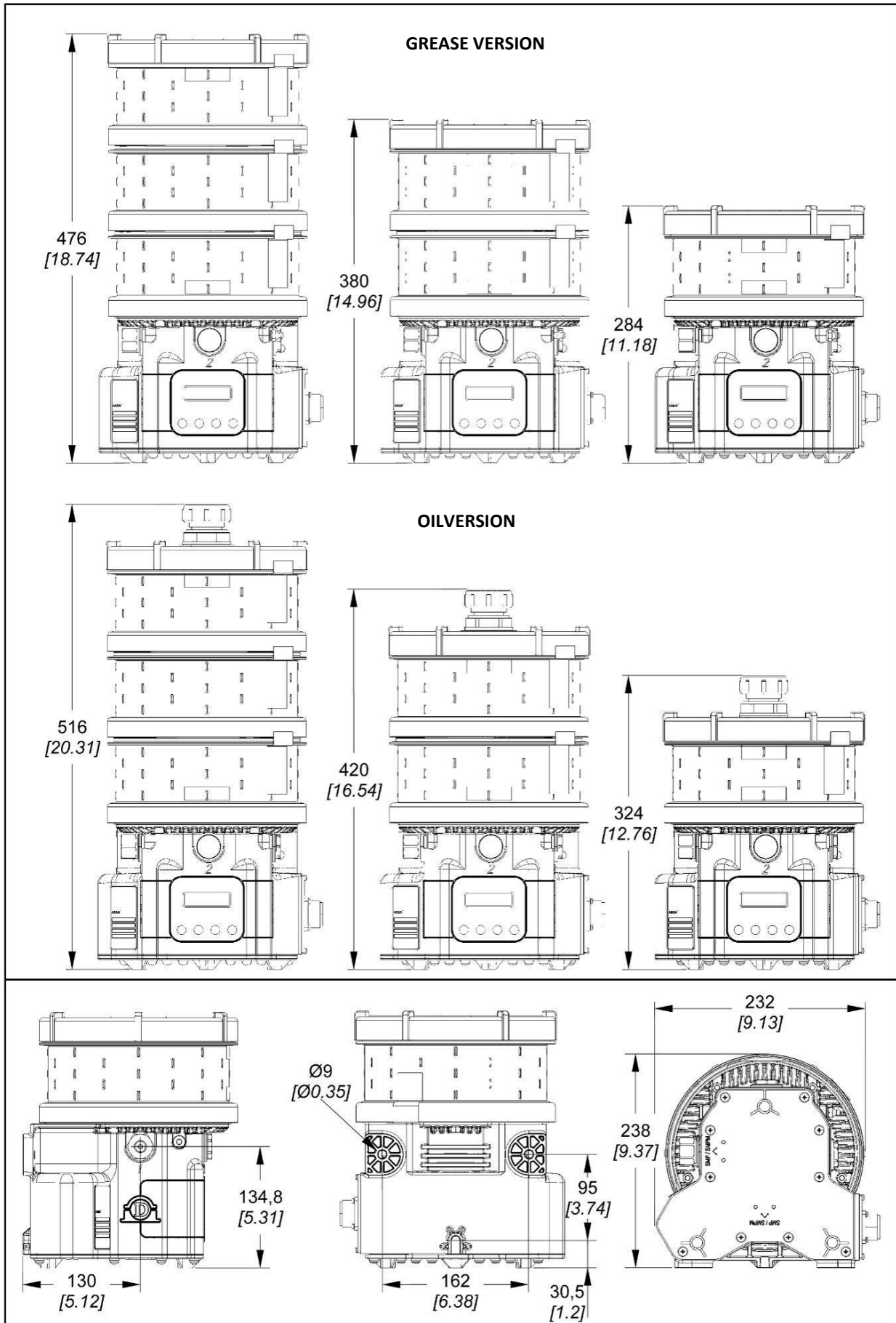
Bravo is outfitted with a fixing point for integration SMP – SMPM distributors directly under the pump.

SMP – SMPM distributors can also be mounted on crucial point of the chassis in order to easily reach the lubrication pints.



REMOTE CONTROL SYSTEM - To have total control over the lubrication system.

DIMENSIONS (NOT TO SCALE)





Dimensions in mm [in]



ORDERING INFORMATION

VERSION	LUBRICANT	VOLTAGE	RESERVOIR	Part. No.	
AUTOMATIC VERSION	GREASE	110V/230V	2l	0888400	
			5l	0888401	
			8l	0888402	
			12V/24V	2l	0888403
				5l	0888404
				8l	0888405
	OIL	110V/230V	2l	0888415	
			5l	0888416	
			8l	0888417	
		12V/24V	2l	0888418	
			5l	0888419	
			8l	0888420	
MANUAL VERSION	GREASE	110V/230V	2l	0888406	
			5l	0888407	
			8l	0888408	
			12V	2l	0888409
				5l	0888410
				8l	0888411
			24V	2l	0888412
				5l	0888413
				8l	0888414
OIL	110V/230V	2l	0888421		
		5l	0888422		
		8l	0888423		
		12V	2l	0888424	
			5l	0888425	
			8l	0888426	
		24V	2l	0888427	
			5l	0888428	
			8l	0888429	

PUMPING ELEMENTS

	DESCRIPTION	PART No.
	Ø6 mm pumping element with integrated by-pass (included)	0888058C
	Pumping element with fixing flow rate (5,2 cm ³ /min - without by-pass)	0888391
	Pumping element with fixing flow rate (2,8 cm ³ /min - without by-pass)	0888156
	Pumping element with adjustable flow rate (0,4 ÷ 2,8 cm ³ /min - without by-pass)	0888555

ACCESSORIES

DESCRIPTION	PART No.
Remote control switch and lamp 12V	0039433
Remote control switch and lamp 24V	0039434
Grease cartridge filling kit	0888038
400 cc Grease cartridge (NLGI 2)	1524952
P69K protection plug connector	0038966
Screws for SMP-SMPM base installation	0010509
IP69K Protection kit	0888470



CONNECTORS

12V/24V AUTOMATIC VERSION							
CONNECTION		push-pull FEMALE CONNECTOR		AVAILABLE CONNECTIONS			
PART NUMBER	DESCRIPTION	PART NUMBER	DESCRIPTION	Power Supply	Alarm contact	Cycle sensor	External button
0888102	"Amph" Connector	0039828	"Amph" Connector	•	•	•	•
0888059	4 "MPM" connectors	0039976	"MPM" connector	•	•	•	•
0888141	2 "MPM" connectors	0039976	"MPM" connector	•	•		
0888139	1 "MPM" connector 3 "M12" connectors	0039976 0039999	"MPM" connector "M12" connector	•	•	•	•
0888142	1 "MPM" connector 1 "M12" connectors	0039976 0039999	"MPM" connector "M12" connector	•	•		
0888437	IP69K – 12V/24V	0038963 0039835	3 pin IP69K Connector 4 pin IP69K Connector	•	•	•	•

110V/230V AUTOMATIC VERSION							
CONNECTION		push-pull FEMALE CONNECTOR		AVAILABLE CONNECTIONS			
PART NUMBER	DESCRIPTION	PART NUMBER	DESCRIPTION	Power Supply	Alarm contact	Cycle sensor	External button
0888134	4 "MPM" connectors	0039976	"MPM" connector	•	•	•	•
0888138	2 "MPM" connectors	0039976	"MPM" connector	•	•		
0888136	1 "MPM" connectors 3 "M12" connectors	0039976 0039999	"MPM" connector "M12" connector	•	•	•	•
0888137	1 "MPM" connectors 1 "M12" connectors	0039976 0039999	"MPM" connector "M12" connector	•	•		
0888472	IP69K – 110V	0038963 0039835	3 pin IP69K Connector 4 pin IP69K Connector	•	•	•	•
0888474	IP69K – 230V	0038963 0039835	3 pin IP69K Connector 4 pin IP69K Connector	•	•	•	•

12V/24V MANUAL VERSION							
CONNECTION		push-pull FEMALE CONNECTOR		AVAILABLE CONNECTIONS			
PART NUMBER	DESCRIPTION	PART NUMBER	DESCRIPTION	Power Supply	Alarm contact	Cycle sensor	External button
0888141	2 "MPM" connectors	0039976	"MPM" connector	•	•		
0888142	1 "MPM" connectors 1 "M12" connectors	0039976 0039999	"MPM" connector "M12" connector	•	•		

110V/230V MANUAL VERSION							
CONNECTION		push-pull FEMALE CONNECTOR		AVAILABLE CONNECTIONS			
PART NUMBER	DESCRIPTION	PART NUMBER	DESCRIPTION	Power Supply	Alarm contact	Cycle sensor	External button
0888138	2 "MPM" connectors	0039976	"MPM" connector	•	•		
0888137	1 "MPM" connectors 1 "M12" connectors	0039976 0039999	"MPM" connector "M12" connector	•	•		

Distributor Info: