

CHARACTERISTICS

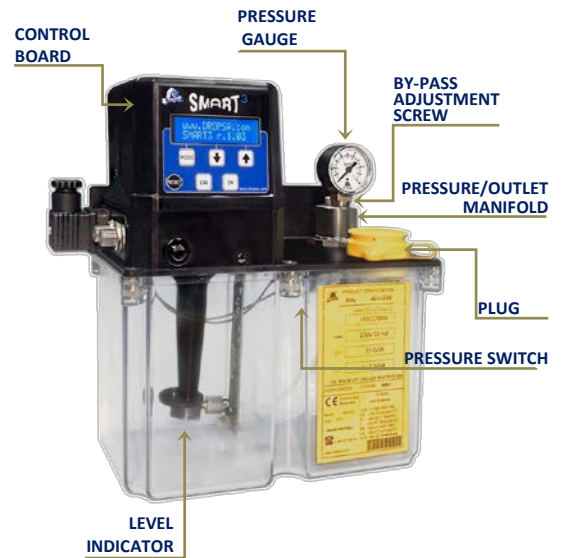
- 2 VERSIONS:
 - MANUAL
 - AUTOMATIC
- OIL AND FLUID GREASE
- 2 RESERVOIRS:
 - 2 LITERS / 0.440 GAL.
 - 3 LITERS / 0.660 GAL.
- PROGRAMMABLE ELECTRONIC BOARD
- MULTIPLE CONNECTOR OPTIONS
- 2 LEVEL SYSTEMS:
 - FLOAT SWITCH OIL
 - DROPSA OPTILEV OPTICAL FLUID GREASE AND OIL LEVEL SENSOR

THE ECONOMIC SOLUTION FOR OIL AND FLUID GREASE LUBRICATION

SMART3 is a compact and versatile pump, the perfect solution for oil and fluid grease lubrication.

Thanks to two complementary versions, the lubrication cycle can be managed by an external PLC (**MANUAL VERSION**) or with an integrated controller board (**AUTOMATIC VERSION**).

SMART3 is ideal for application in Single Line, typically 33V injector systems.



AUTOMATIC VERSION

ON BOARD management of cycle time, alarms and controls

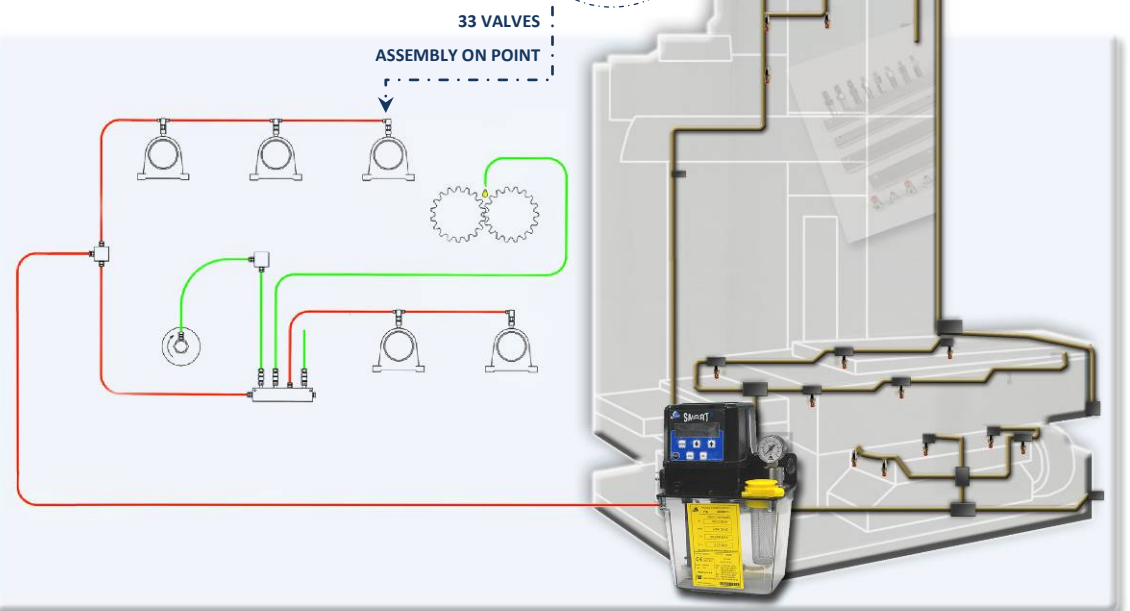


MANUAL VERSION

Lubrication cycles managed by host machine

APPLICATION EXAMPLE WITH 33V VALVE

Using 33 Valve with SMART3 pump, you will get a lubrication system that provides quality with high performance.



APPLICATIONS

- MACHINE TOOLS
- CONVEYOR OILING SYSTEMS
- EXTERNAL SYSTEMS
- ANY SMALL AND MEDIUM OIL OR FLUID GREASE SYSTEM

LUBRICATION CYCLE WITH NEW GENERATION CONTROLLER

It allows numerous ways to trigger and monitor the lubrication event in a system:

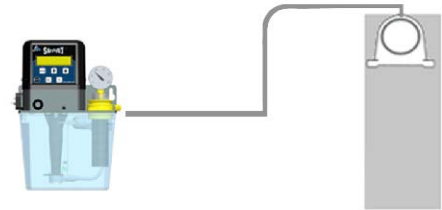
- 1. CYCLE MODE:** allows pause to be determined by timer or a number of external impulses. These can be in any combination.
- 2. PULSE MODE:** pause and lubrication cycles are determined by external impulses. Additionally, during the lubrication cycles, the cycle sensor can be monitored to ensure correct operation of the system. The pump can suspend the lubrication cycle if external impulses not detected.
- 3. STANDBY:** During this phase the lubrication system is inactive until the next lubrication cycle.

OTHER FEATURES:

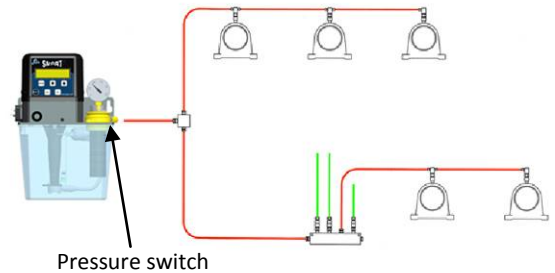
- **MULTICYCLE:**
Thanks to MULTICYCLE function it is possible to manage lubrication thoroughly, obtaining the proper oil quantity in a single cycle.
- **SUSPEND FUNCTION:**
During this mode the PULSE input can be used to suspend the lubrication cycle. This is useful for example when you change a tool. This function puts the system into stand-by when the pulses are no longer received. In a time system, the stand-by function may be a remote control to suspend counters.
- **REMOTE ALARM OPTIONS, INCLUDING CODED OUTPUT:**
As well as having a NO and NC relay contact for a remote alarm connection and the ability to use it in a normal or inverted conditions it has the ability to send a coded signal. When coded alarm signal is selected it pulses the alarm contact with the Alarm error code that is shown on the display. The remote PLC can count the pulses and interpret what kind of alarm is being given rather than a generic alarm as on other systems.

POSSIBLE IMPLEMENTATIONS WITH ADVANCED MENU SETTINGS "CYCLE END" AND "LUBE TYPE"

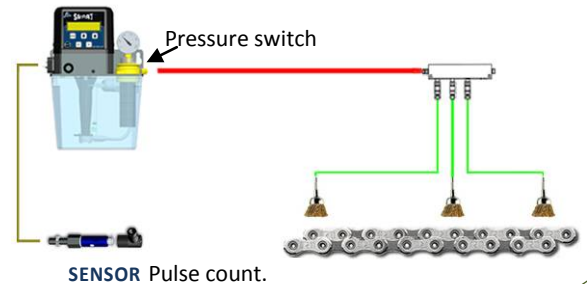
TIMER MODE



CYCLE WITH PRESSURE SWITCH MONITORING (INSIDE)



LUBRICATION WITH EXTERNAL IMPULSES AND PRESSURE SWITCH CONTROLLER (INSIDE)

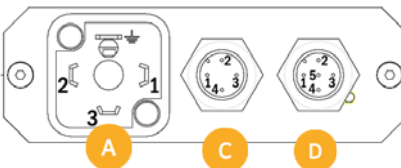


ELECTRICAL CONNECTIONS

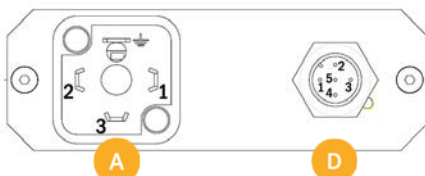
TYPE 1



TYPE 2



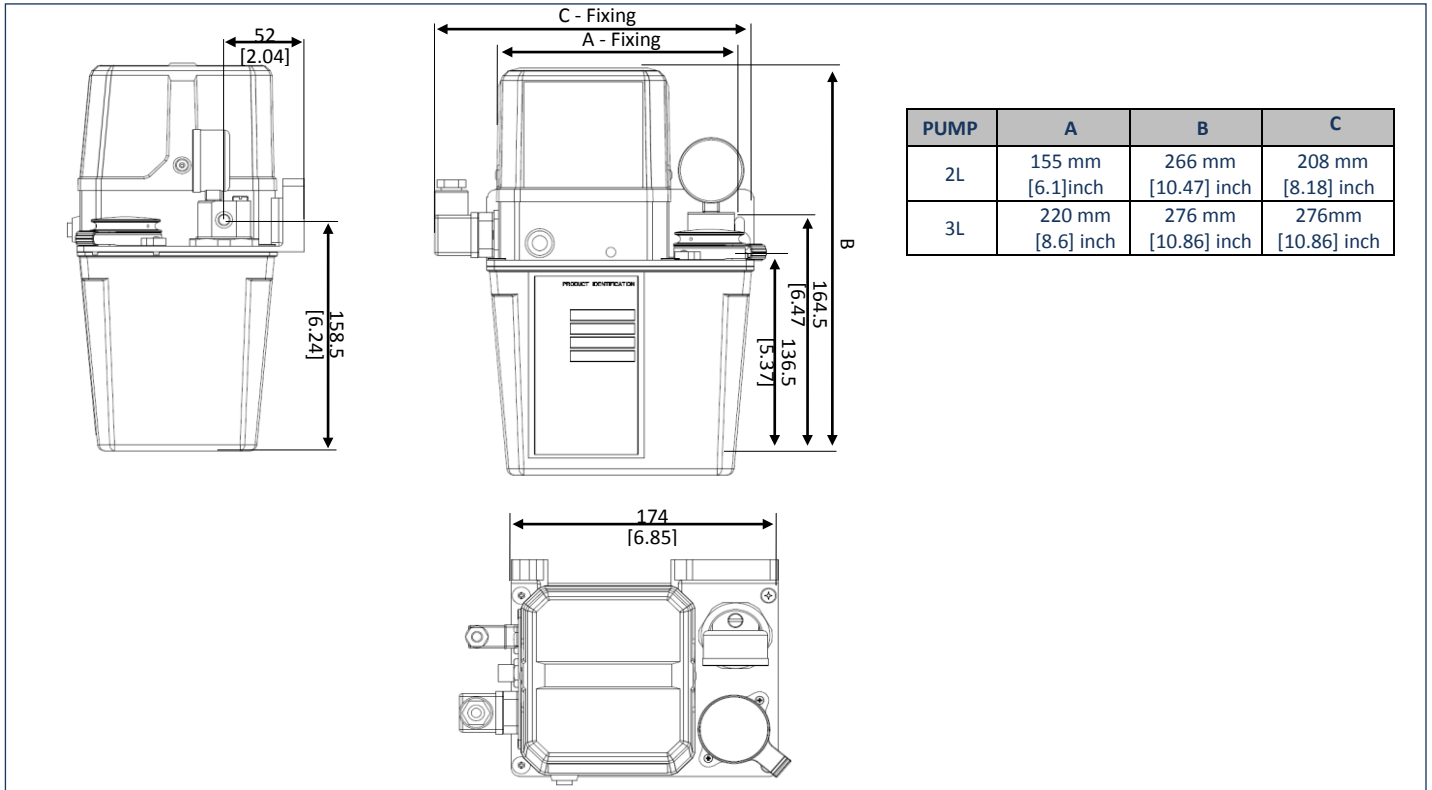
TYPE 3



- A *DIN 43650*
- B *DIN 40050*
- C *M12X1-PIN 4*
- D *M12X1-PIN 5*

**SIMPLE
INSTALLATION
THANKS TO
MANY
CONNECTOR
OPTIONS**

DIMENSIONS (NOT TO SCALE)



TECHNICAL CHARACTERISTICS

Motors	110V AC – 2p– 50/60 Hz 140/175W- (2800/3500 rpm) 230V AC – 2p– 50 Hz 135 W - (2800 rpm) 230V AC – 2p– 60 Hz 170 W - (3500 rpm) 24 V DC – 55 W - (2800 rpm)
Degree of motor protection	IP 55
Pumping System	Gear pump
Flow Rate	180 cc/min @ 2800 rpm 220 cc/min @ 3500 rpm
Maximum Working Pressure	30 bar
Outlet Connection	G1/8" BSP
Min Level Floating Switch Indicator	With NC contact in case of liquid
Min Level Optical Sensor Indicator	NPN/PNP protect for short circuit, off in case of low level
Filter	1000 μ
By-Pass	Adjustable 0÷30 bar – preset to 25 bar
Pressure Switch	10÷20bar - Preset to 18 bar
Working temperature	+ 5 ÷ + 60 °C
Operating Humidity	90 % humidity rel.
Permitted Lubricants	Oil 32 cSt-320 cSt ; max Grease NLGI000;
Storage Temperature	-20 ÷ +80 °C
Continuous Sound Pressure Level	< 70 dB(A)
Max Working Time Continuous Of The Pump	1 min
Minimum Stand-By Time	5 times T-on

ORDERING INFORMATION

SMART3 - AUTOMATIC VERSION-ON BOARD CONTROLLER

LEVEL	ALARM	CONNECTOR PLATES	PART NO CONNECTOR PLATES	VOLTAGE	PART NUMBER	
					RESERVOIR 2L	RESERVOIR 3L
Magnetic for oil	Contact NO/NC	Type 3	3133807	24V dc	4011018	4011318
				110V ac-50/60Hz	4011118	4011418
				230V ac-50Hz	4011218	4011518
				230V ac-60Hz	4011618	4011718
Optical for oil and fluid grease	Contact NO/NC	Type 2	3133806	24V dc	4011019	4011319
				110V ac-50/60Hz	4011119	4011419
				230V ac-50Hz	4011219	4011519
				230V ac-60Hz	4011619	4011719



SMART³

SMART3 - MANUAL VERSION - NO CONTROLLER

LEVEL	ALARM	CONNECTOR PLATES	PART NO CONNECTOR PLATES	VOLTAGE	PART NUMBER	
					RESERVOIR 2L	RESERVOIR 3L
Magnetic for oil	Contact level open without oil in series pressure switch open on pressure	Type 1	3133800	24V dc	4010000	4010300
				110V ac-50/60Hz	4010100	4010400
				230V ac-50Hz	4010200	4010500
				230V ac-60Hz	4010600	4010700
	Contact level open without oil in series and pressure switch contact open on pressure	Type 3	3133801	24V dc	4010001	4010301
				110V ac-50/60Hz	4010101	4010401
				230V ac-50Hz	4010201	4010501
				230V ac-60Hz	4010601	4010701
	Contact level open without oil series pressure switch contact close on pressure	Type 1	3133800	24V dc	4010020	4010320
				110V ac-50/60Hz	4010120	4010420
				230V ac-50Hz	4010220	4010520
				230V ac-60Hz	4010620	4010720
	Contact level open without oil in parallel pressure switch contact close on pressure	Type 3	3133801	24V dc	4010021	4010321
				110V ac-50/60Hz	4010121	4010421
				230V ac-50Hz	4010221	4010521
				230V ac-60Hz	4010621	4010721
Optical for oil and fluid grease	Level N signal in series pressure switch contact open under pressure	Type 3	3133802	24V dc	4010012	4010312
				110V ac-50/60Hz	4010112	4010412
				230V ac-50Hz	4010212	4010512
				230V ac-60Hz	4010612	4010712
	Level N signal and pressure switch contact open under pressure	Type 2	3133803	24V dc	4010013	4010313
				110V ac-50/60Hz	4010113	4010413
				230V ac-50Hz	4010213	4010513
				230V ac-60Hz	4010613	4010713
	P Level signal in series pressure switch contact open under pressure	Type 3	3133804	24V dc	4010014	4010314
				110V ac-50/60Hz	4010114	4010414
				230V ac-50Hz	4010214	4010514
				230V ac-60Hz	4010614	4010714
	P Level signal and parallel pressure switch contact open under pressure	Type 2	3133805	24V dc	4010015	4010315
				110V ac-50/60Hz	4010115	4010415
				230V ac-50Hz	4010215	4010515
				230V ac-60Hz	4010615	4010715

ACCESSORIES

ITEM	DESCRIPTION	PART NUMBER
C CONNECTOR M12 X 1	4 poles plug connector -female	0039169
D CONNECTOR M12 X 1	5 poles plug connector -female	0039170
A DIN 43650 CONNECTOR	3 poles /heart connector –PG9 output cables	0039976
B DIN 40050 CONNECTOR	3 poles / heart -female- miniaturized connector	0039841

SPARE PARTS

ITEM	DESCRIPTION	PART NO	ITEM	DESCRIPTION	PART NO
PUMP	180 DC flow rate	3099166	RESERVOIR	2 l	6770102
MOTOR	110Vac 50/60Hz single-phase - 140/175W 2P	3301565		RESERVOIR	3 l
	230Vac 50Hz single-phase - 135W 2P	3301567	PRESSURE GAUGE	0 -100 bar	0020564
	230Vac 60Hz single-phase - 170W 2P	3301600	PRESSURE SWITCH	NA 10÷20 bar set.18bar	3291048
	24Vdc - 55W	3301582		NC 10÷20 bar set.18bar	3291035
SENSOR LEVEL	Magnetic	1655763	CONTROL PCB	110Vac	1639225
	Optical	1639201		230Vac	1639224
FILTER	1000µ grade	3130466		24Vdc	1639226

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