

## Dual-line automatic Lubrication systems



2025 V1.1  
DUAL-LINE AUTOMATIC  
LUBRICATION SYSTEMS



# System Description

UFSA dual-line systems can be used on large systems with dispersed lubrication points that require varying lubrication quantities. These systems utilize two main lines that are supplied alternately with lubricant from a high-pressure pump via a change-over valve at up to 400 bar (5 800 psi). Branch lines, along the main lines, are connected with dual-line metering devices to supply a large volume of lubricant to the lubrication points. Within large dual-line systems, end-of-line pressure switches are used to control and monitor the system. These flexible systems are simple to design and can be extended or reduced easily by installing additional metering devices or by removing them. A redesign of the system is not required. Dual-line metering devices can be combined with downstream progressive metering devices to increase the total number of lubrication points receiving small lubricant amounts. UFSA offers dual-line systems that can dispense a precise, metered amount of lubricant to up to 2 000 lubrication points over long distances up to 120m and more, depending on system requirements.

Even if one pair of outlets becomes blocked inside one metering device, UFSA dual-line systems provides sufficient lubrication for the rest of the system lubrication points. Lubricant volume can be metered individually for each pair of outlets and can be monitored visually or electrically.

The function principle of the dual-line systems consists of two half-cycles. In the first half-cycle, the lubricant is pumped into the main line (A) and the main line (B) is connected to the relief line. The lubricant, which is controlled by the change-over valve, is supplied to the metering devices. The pistons of the metering devices are moved into their adjusted end positions, thus dispensing an exact, metered quantity of grease. Once all metering devices have dispensed their lubricant to the bearing points, the system is hydraulically closed, which causes the pressure in main line (A) to rise until the preset pressure at the end-of-line pressure switch is reached. This pressure switch then signals an electric pulse to the control unit, which turns the pump off and signals the change-over valve to relieve main line (A), and the pause time starts. At this stage, half of the lubrication points in the system have been lubricated.

In the second half-cycle, main line (B) is pressurized and the cycle continues as before.

## Attention:

- Do not install or remove the metering devices when the system is under pressure or the pump in operation.
- Always protect the lubrication pump with a safety valve.
- Incorrect operation may lead to damage resulting from insufficient or excessive lubrication of bearings or lubrication points.
- Your own alterations or modifications of an installed system should only be carried out if approved with the manufacturer or a appointed dealer.

## Operation, Maintenance and Repair

1. Repairs should be carried out only by qualified persons who have been charged with the repair work and are familiarized with centralized lubrication systems.
2. Since the pistons in the metering devices are fitted with the smallest tolerances, the metering device must be replaced when the pistons are worn or damaged.
3. When synthetic lubricants are used, bear in mind that they must be compatible with the sealing material of the metering devices (FKM or NBR).
4. Use only lubricants which are appropriate for centralized lubrication systems. If in doubt, ask the supplier.

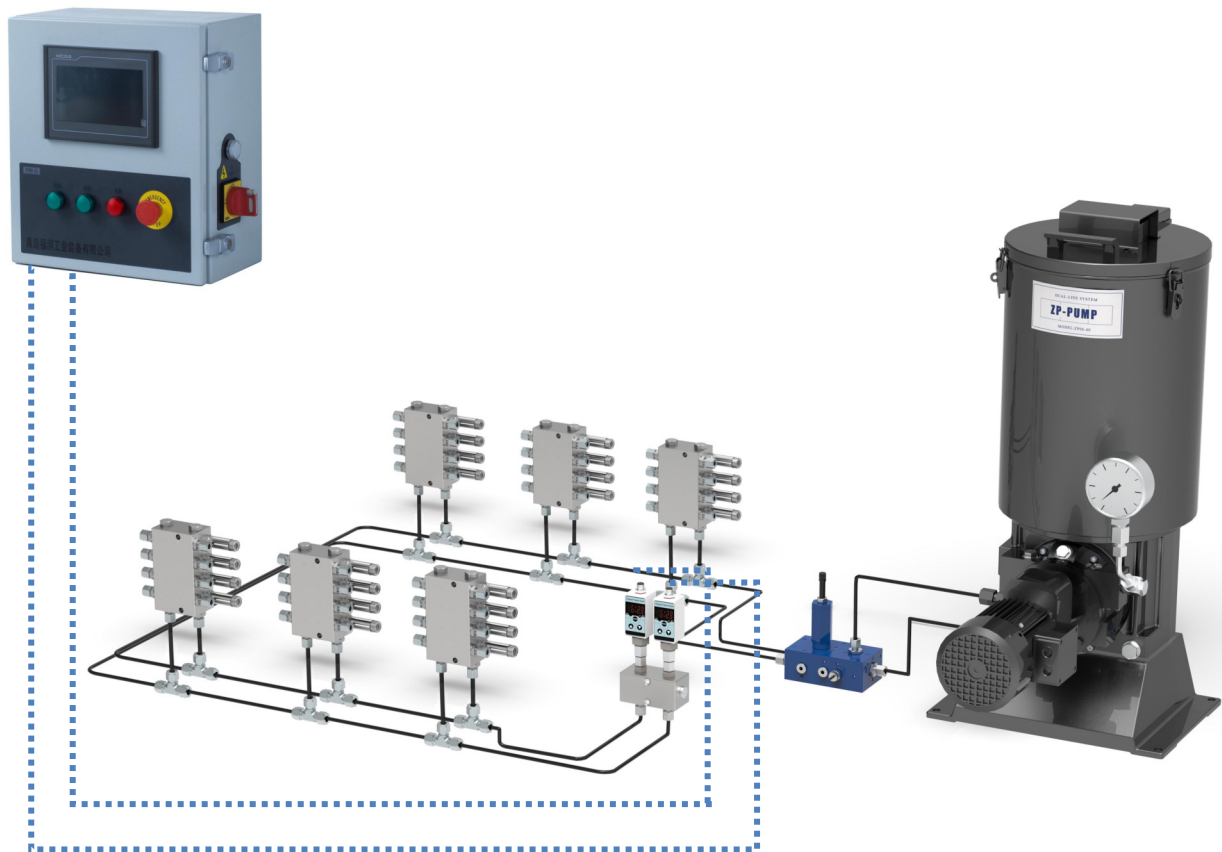


## Installation:

For all work at the metering device, observe extreme cleanliness.

- Attach the metering devices to even surfaces without tension.  
when base plates are used, first weld the base plates without the metering devices and then attach the metering devices onto them.
- Protect the metering devices from dust and influences of heat (observe the maximum admissible operating temperature).
- The metering devices must be easily accessible for . check and installation work.
- Before connecting the feed lines to the metering devices, fill them with lubricant.
- when connecting the main lines take care to always connect the same line (I or II) to the same metering device inlet.
- This makes it easier to check of the metering device because all indicator pins are either in or out after each cycle.

## Struture diagram:





# ZP08/14/24 Pump

The **ZP08/14/24** pumps are used primarily in dual-line systems or as supply pumps and have a maximum operating pressure of 400 bar (5 800 psi) Depending on the system layout, these electric pumps can supply lubricant at distances of up to 100 meters and more Available with a 40,60 or 100 L reservoir, the ZP08/14/24 pumps come standard with a pressure relief valve, check valve, filter and pressure gauge.

These robust units operate effectively at temperatures ranging from -40 to +80°C with integrated stirring device.



## Features and benefits

- Reliable
- Simple to service
- Three options for high lubricant output
- Can be equipped with ultrasonic low-level sensor
- Built-in lubricant filter

## Applications

- Cement plants
- Steel mills
- Power plants
- Mining
- Large machines

## Technical parameters

Type	ZP08	ZP14	ZP24
Rated flow	8000cc/h	14000cc/h	24000cc/h
Actuating speed	60rpm	90rpm	90rpm
Operating pressure	Max. 40Mpa		
Thread	Pressure line connection G3/4; Return line connection G3/4; Filling line connection G3/4		
Reservoir	40L	60L	100L
Filter	Filter fineness 180µm		
Lubricant	NLGI 0#-2#		
Safety valve	Fixed setting pressure is 410 bar		
Noise grade	<70 dB(A)		
Operating temperature	-40°C to 80°C		
Motor power	0.75KW		
Voltage	380~415V		

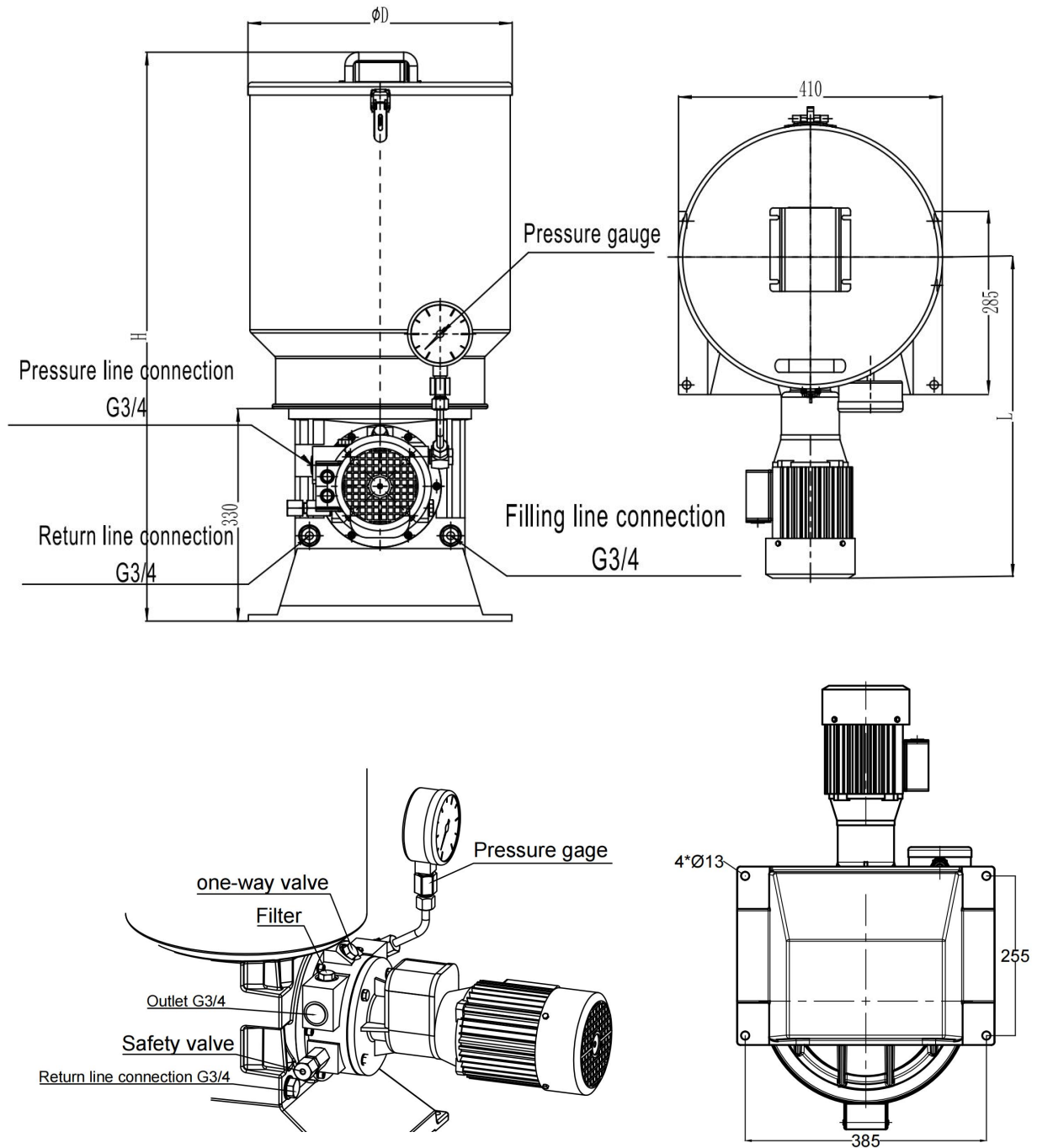




# ZP08/14/24 Pump

Dual-line automatic  
lubrication systems

Dimensions(mm):



Specification		$\phi D$	H	L
Reservoir	40L	325	760	510
	60L	410	890	530
	100L	510	1100	575



# ZP08/14/24 Pump

Dual-line automatic  
lubrication systems

Ordering information:

ZP -



**Metering quantity**

- 08 = 8 000cc/h
- 14 = 14 000cc/h
- 24 = 24 000cc/h

**Reservoir capacity**

- 40 = 40L
- 60 = 60L
- 100 = 100L

**Ultrasonic Rangefinder**

- 0 = Without
- 4 =24VDC
- 6 =220V

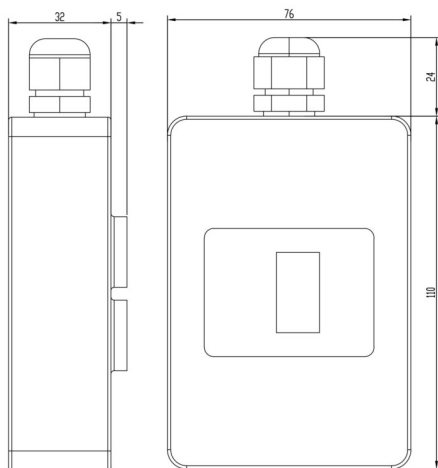


## Parts ordering information

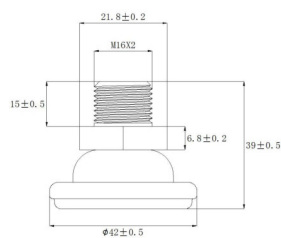
### Ultrasonic Low Level Sensor



PN	Voltage
UF-ZP01006	220V
UF-ZP01024	24V



### Vent cap



PN	Thread
UF-ZP01001	M16*2

### Pressure gauge



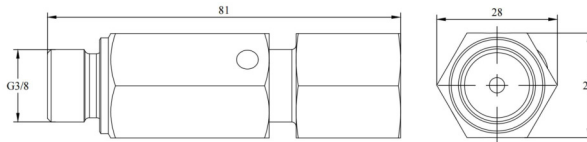
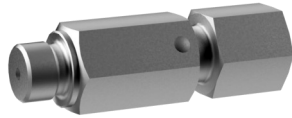
PN	Pressure range	Thread
UF-PG600	0~600bar	G1/2



# ZP08/14/24 Pump accessories

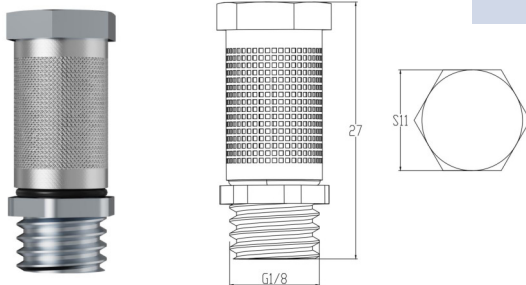
## Parts ordering information

### Safety valve



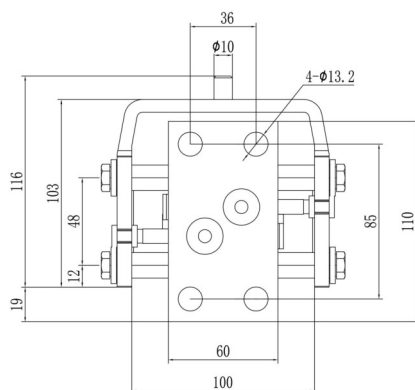
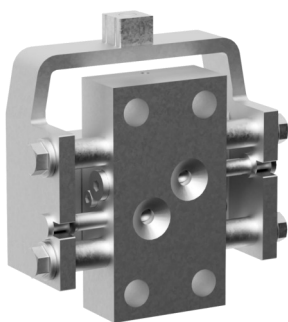
PN	Unloading pressure	Thread
UF-ZP01003	410Bar	G3/8

### Filter



PN	Filter fineness	Thread
UF-ZP01002	180µm	G1/8

### Piston assembly



PN	Rated flow
UF-ZP081001	8000ml/h
UF-ZP141001	14000ml/h
UF-ZP241001	24000ml/h

The durable, galvanized steel DSG metering devices are designed for dual-line systems with pressures of up to 400 bar (5 800 psi) These metering devices are available with up to eight outlets, and each pair of outlets is equipped with an indicator pin for visual monitoring. Additional features include rust-resistant material.



## Characteristics

- Easy cross-porting with external screw to combine
- Solid-block construction for durability and error-free exchange
- Operates effectively in a wide range of temperatures
- Easy to monitor

## Applications

- Steel plants
- Cement plants
- Mining excavators

Technical data	
Outlets	2-8
Operating temperature *	NBR: -40~100°C FKM: -20~180°C
Operating pressure	Max. 400bar, 5800psi
Discharge	0~2.2cc/Cyc adjustable) fixed output: 0.55,1.1,1.65,2.2cc/cyc
Lubricant	NLGI 0-3
inlet thread	G3/8
Outlet thread	G1/4
Materials	steel galvanized

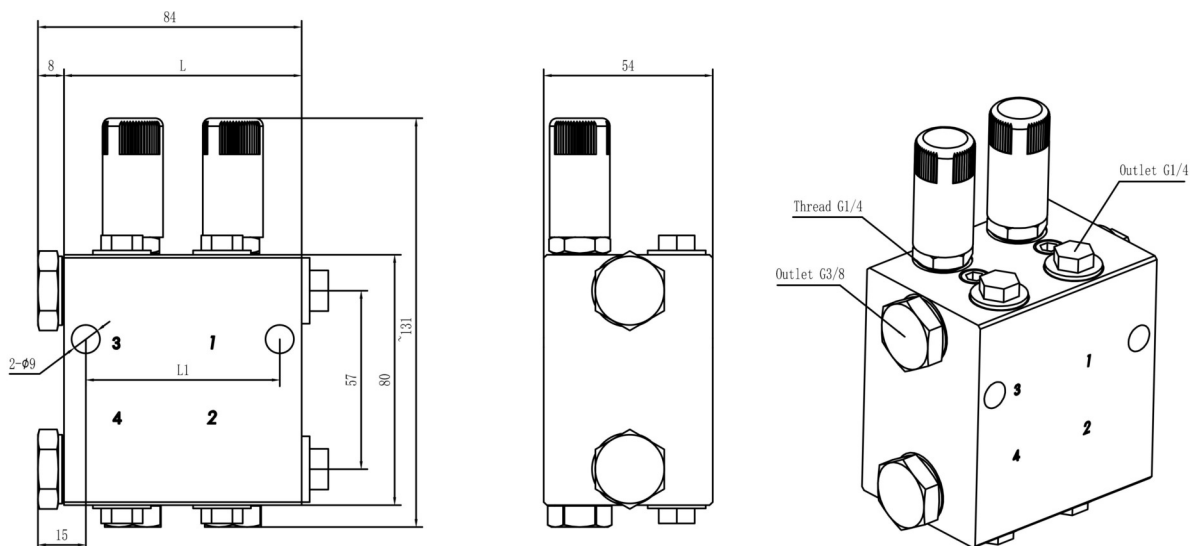
\* The conventional sealing material is NBR, if FKM material is required, please +F after the model.

For example: DSG-02AD2.2-F



# DSG Dual-line distributor

Dimensions(mm):

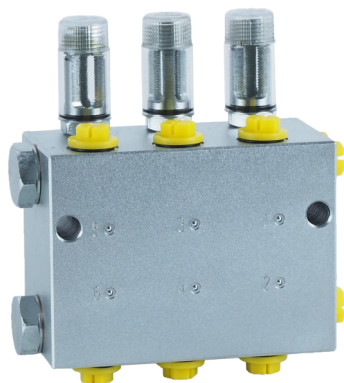


Outlet Number	L1	L
2	30	44
4	62	76
6	94	108
8	126	140





## Ordering information:



DSG -

### Outlet Number

02=2

04=4

06=6

08=8

### Inlet Connector shape

A=Without inlet and outlet fittings

D= Straight fitting assembly

H= Angle fitting assembly

### Inlet Connector

12=Ø12

16=Ø16

18=Ø18

20=Ø20

### Type

KR = With indicator pin and adjustment

NP = piston detector

D= with metering screw

0.55,1.1,1.65,2.2cc/Cyc

### Plug

XD=3-8

### Outlet Connector

D8=Ø8mm Straight fittings

D10=Ø10mm Straight fittings

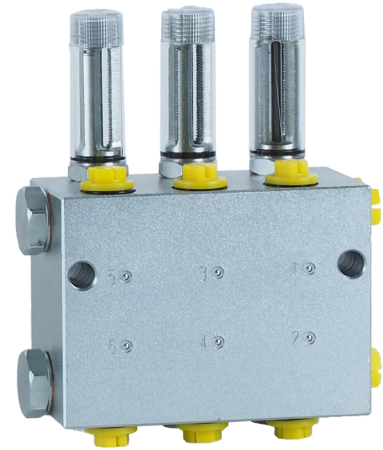
D12=Ø12mm Straight fittings

D16=Ø16mm Straight fittings



# DSL Dual-line distributor

The durable, galvanized steel DSL metering devices are designed for dual-line systems with pressures of up to 400 bar (5 800 psi). These metering devices are available with up to eight outlets, and each pair of outlets is equipped with an indicator pin for visual monitoring. Additional features include rust-resistant material.



## Characteristics

- Easy cross-porting with external screw to combine
- Solid-block construction for durability and error-free exchange
- Operates effectively in a wide range of temperatures
- Easy to monitor

## Applications

- Steel plants
- Cement plants
- Mining excavators

Technical data	
Outlets	2-8
Operating temperature *	NBR: -40~100°C FKM: -20~180°C
Operating pressure	Max. 400bar, 5800psi
Discharge	0~5cc/cyc (adjustable) fixed output: 1.25, 2.5, 3, 3.75, 5cc/cyc
Lubricant	NLGI 0 to 3
inlet thread	G3/8
Outlet thread	G1/4
Materials	steel galvanized

\* The conventional sealing material is NBR, if FKM material is required, please +F after the model.

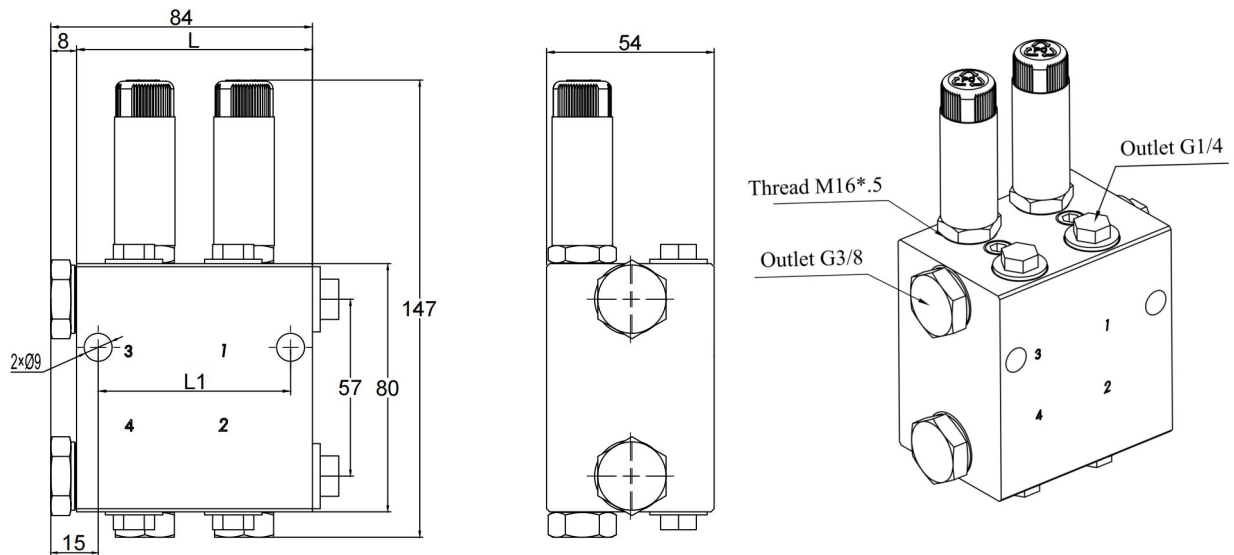
For example: DSL-02AD5-F



# DSL Dual-line distributor

Dual-line automatic  
lubrication systems

Dimensions(mm):



Outlet Number	L1	L
2	30	44
4	62	76
6	94	108
8	126	140



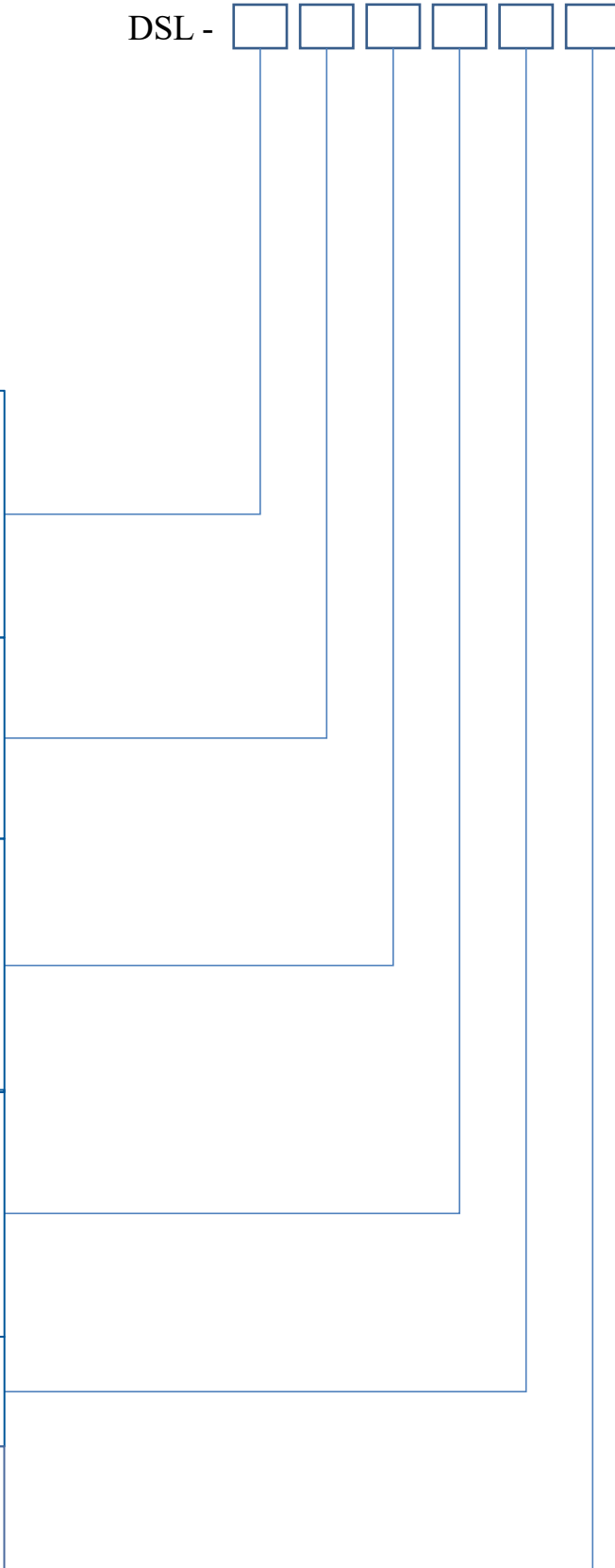


# DSL Dual-line distributor

Ordering information :



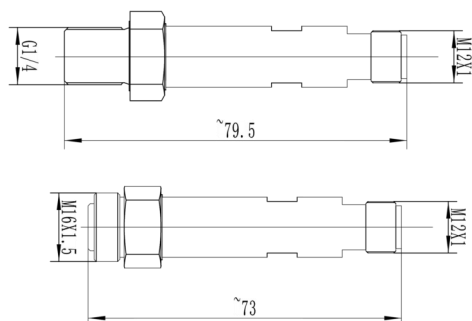
DSL - ☐ ☐ ☐ ☐ ☐ ☐

<b>Outlet Number</b> 02=2 04=4 06=6 08=8	
<b>Inlet Connector shape</b> A=Without inlet and outlet fittings D= Straight fitting assembly H= Angle fitting assembly	
<b>Inlet Connector</b> 12=Ø12 16=Ø16 18=Ø18 20=Ø20	
<b>Type</b> KR = With indicator pin and adjustment NP = piston detector D= with metering screw 1.25,2.5,3.3.75,5cc/cyc	
<b>Plug</b> XD=3-8	
<b>Outlet Connector</b> D8=Ø8mm Straight fittings D10=Ø10mm Straight fittings D12=Ø12mm Straight fittings D16=Ø16mm Straight fittings	



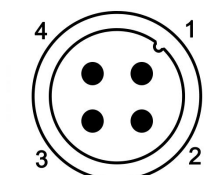
## Distributor parts ordering information

### Ultra sensor



PN	Thread	Connecting thread	Description
UF-125516	M16*1.5	M12*1, 4Core	PNP, for DSL
UF-125504	G1/4	M12*1, 4Core	PNP, for DSG

### Wiring



PNP

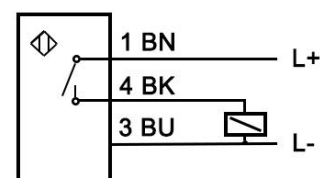
1: Brown

3: Blue

4: Black

PNP

N.O.



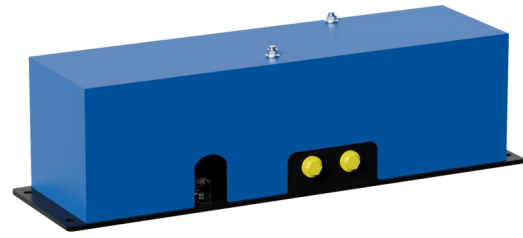
### Ultra sensor cable



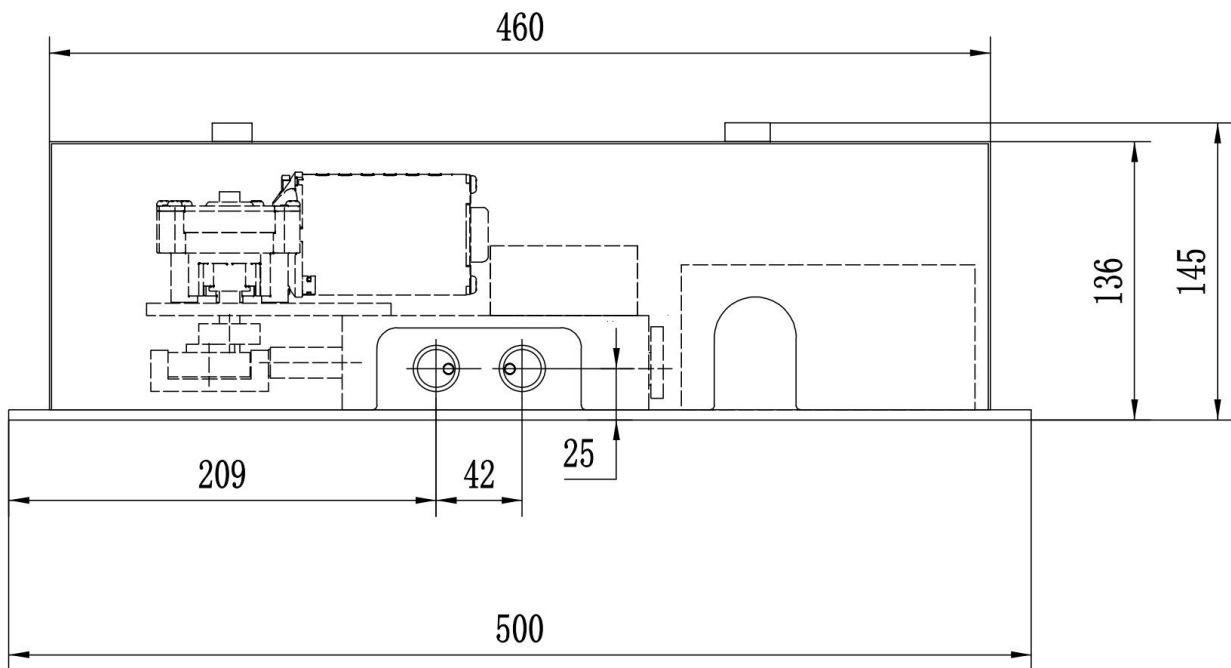
PN	Type	Description
UF-124582	Straight	2m
UF-124583	Elbow	2m

# Electric Change Over Valve

**WP-C** Electric change-over valve is an integrated detention control device which uses a large torque DC eceleration motor to drive the valve sliding core to move in order to open and close the oil supply pipeline or change the direction of oil supply. It is suitable for two position two-way, two position three-way and two position four-way directional valves in the main pipeline of lubrication system and hydraulic system with nominal pressure below 40Mpa.



## Dimensions:



Part number	Pressure	Voltage	Power	Reversing time	Weight
UF-24EJF46	40Mpa	AC220	40W	0.5s	13KG
UF-24EJF424		DC24			11KG





## Ordering information:

	<u>2</u>	<u>4</u>	<u>EJF</u>	<u>4</u>	<u>6</u>
Two-position					
<b>Number of access</b>					
4=four-way					
Transdirectional valve driven by the DC motor					
<b>Pressure grade code</b>					
4=40Mpa					
<b>Voltage</b>					
24=DC24V					
6=AC220					

## Action specification:

The valve is mainly composed of DC motor, limit switch, reversing valve body, rectifier transformer device and other parts installed in the same floor on the protective cover shell. The electric control box in the system sends a reversing signal (the differential pressure switch at the end of the system) causes the DC motor to rotate, and drives the sliding core through the eccentric wheel. When the sliding core reaches the required reversing position from one end to the other, the baffle at the end of the sliding core touches the limit switch, sends an electrical signal to the electric control box, and orders the DC motor to stop rotating and complete the reversing process.

## Direction for use :

1. The valve is installed at the front end of the main and branch lines of the system, and is located in the ventilated, dry parts for inspection and no interference of the surrounding motion mechanism.
2. When used as two channels, the oil outlet "B" and "R" oil outlet shall be blocked.
3. When used as two positions and three links, the oil outlet "B" must be blocked.
4. The pressure oil end of the controlled line must be connected to the "P" port of the valve.
5. If the electrical signal valve does not work, first check whether the fuse is burned out, and then check whether the pin solder is off or the wire is loose.



# Hydraulic Change Over Valve

**DU-C** are hydraulic change-over valves designed primarily for use in dual-line lubrication systems. These change-over valves alternately discharge lubricant, fed by the pump into one of the two main lines. The other line is connected to the return line connection of the pump. The switching pressure is adjustable.



## Features and benefits

- Reliable, even for hard grease
- Change-over process initiated automatically once preset pressure is reached
- Maximum operating pressure of 35 Mpa (5 076 psi)
- Various mounting positions
- Works effectively in temperatures ranging from -20 to +80 °C

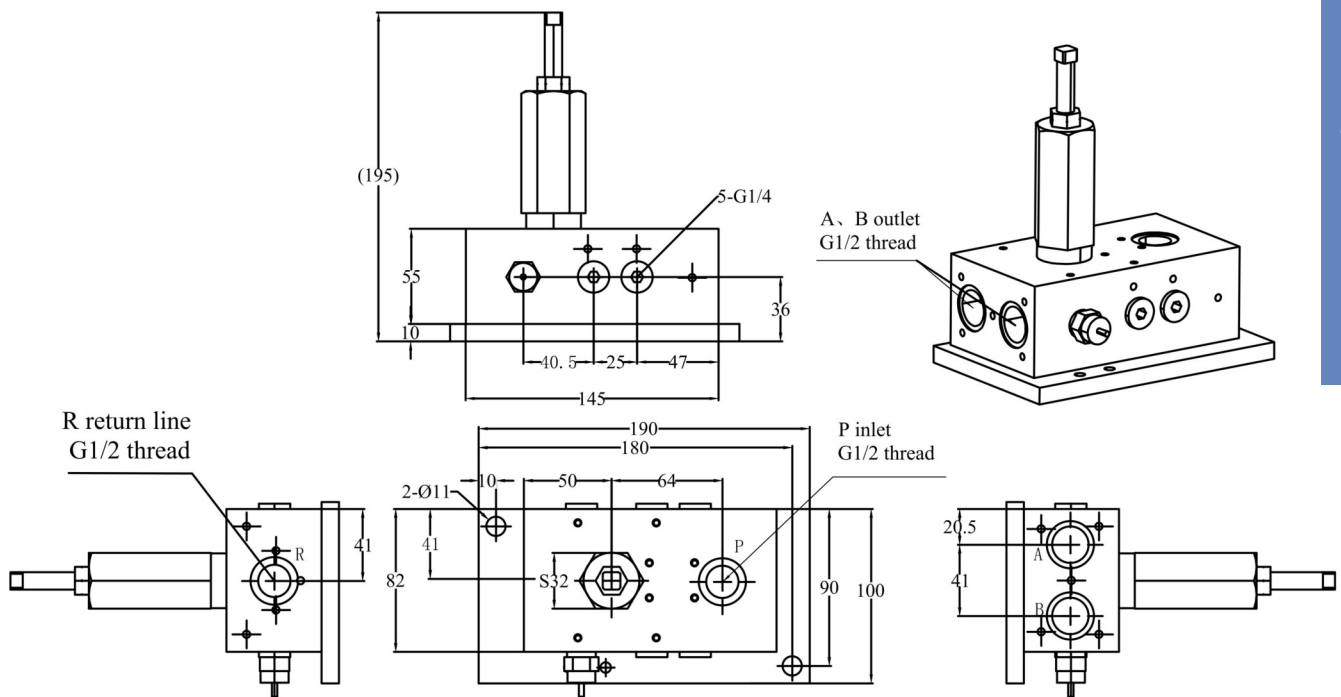
## Applications

- Ideal for small, electrically driven dual-line systems that requires minimal monitoring

Technical data	
Function principle	change-over valve, hydraulic
Operating temperature	-20 to +80 °C
Lubricant	grease up to NLGI 3, oil with a viscosity of min 20 mm <sup>2</sup> /s
Operating pressure	max 35 Mpa, 5 075 psi
Change-over pressure	min 14 Mpa, max 35 Mpa,
Output thread	G1/2
Oil return port thread	G1/2
Input thread	G1/2



## Dimensions(mm):



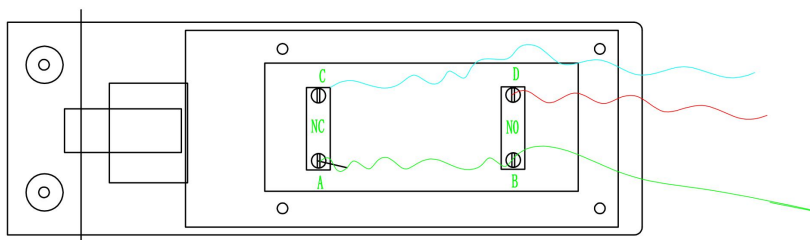
## Ordering information:

DU-C- ☐

C = with indicator pin

E = with Limit switch

## Limit switch wiring diagram



There are two sets of contacts, A, C for the normally closed point, B, D for the normally open point; wiring method: connect A, B points lead out as a common line, respectively, lead out C and D as a commutation signal line. Similarly, C and D can be combined as a common line, A and B respectively as a commutation line.



# MC-1 Controller

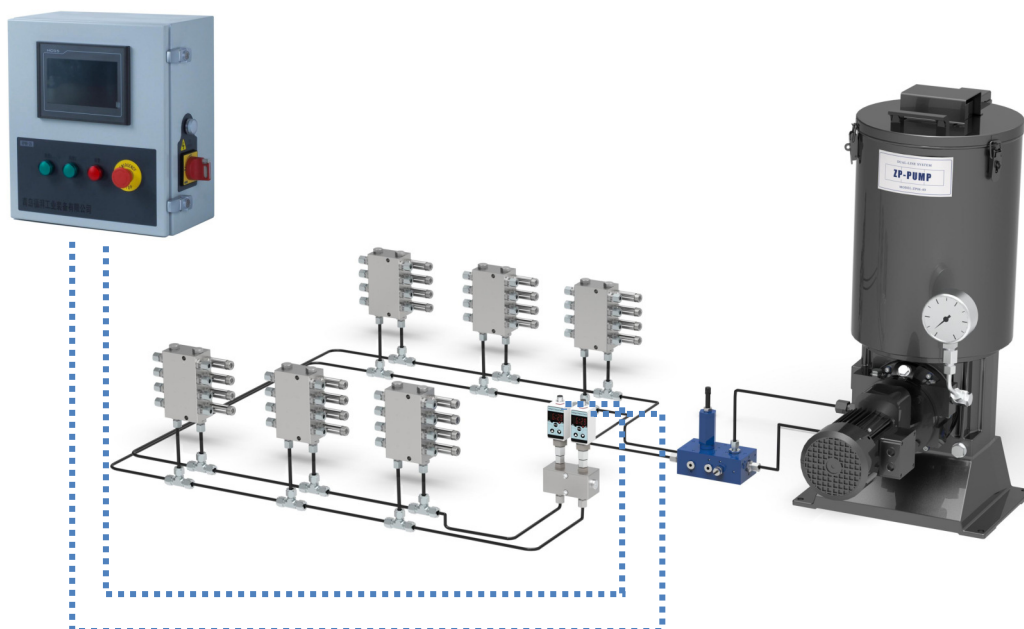
The **MC-I** control equipment is dedicated to the management and control of centralized lubrication system. The dedicated card installed inside controls the inlet and outlet signals of the whole system.

## Features and benefits

- Super large LED LCD screen, simplicity of operator
- Chinese and English operating system
- Strong case for harsh environment
- Ability to customize the lubrication intervals, pause and the cycle count



Technical data	
PN	MC-I
Input power	380VAC $\pm$ 10%
Operating temperature	-20°C - 60°C
Power	60W
Protection rating	IP55





**EPW** end-of-line pressure switches are key components in a dual-line lubrication system. Designed to monitor the system, these switches detect the pressure at the end of the respective main line and start the change-over procedure. If the pressure at the end of the line is not reached within a specific period of time, a fault signal will be generated at the electronic control unit.

## Features and benefits

- Controls proper functioning of the pump and change-over unit
- Monitors for leaks in the tube line system
- Available with limit switches or with electronic pressure switches with LED display
- Proven, rigid design for tough conditions

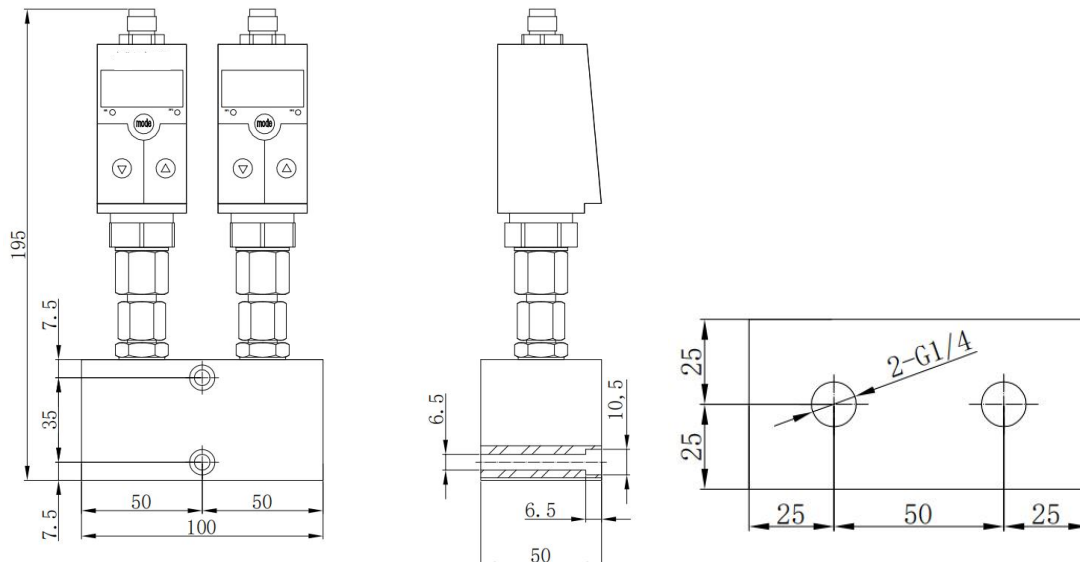
## Applications

- Large dual-line systems
- Steel mills
- Cement plants
- Minerals and mining

## Technical data

Function principle	Electronic pressure switch with
Operating temperature	-25 °C to +85 °C
Operating pressure	0-600 bar
Supply voltage	18-36 VDC
Accurate measurement	0.5%FS (default), 0.2%FS, 0.1%FS
Range	-100kpa~0~100mpa (Optional within the range)

## Dimensions(mm):



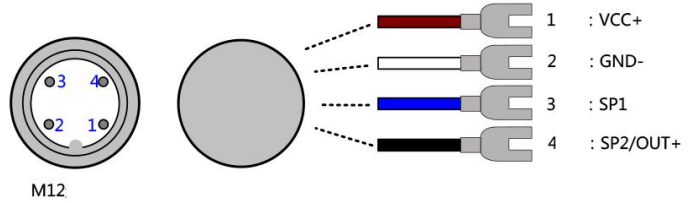
# Digital Pressure Switch

## Pressure switch kits

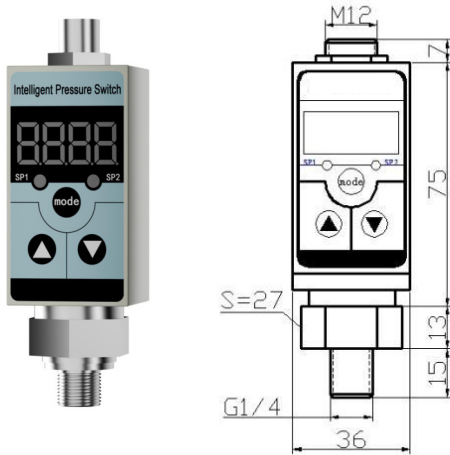


PN

UF-EPW



## Single pressure switch



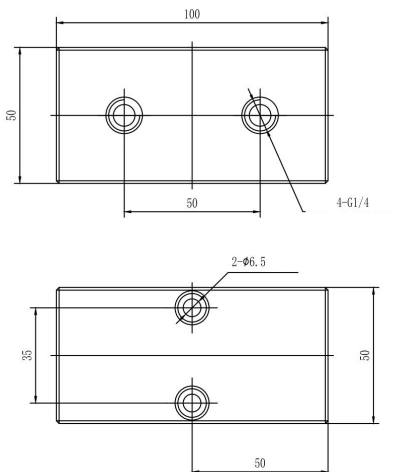
PN

Therad

UF-EPW-S1

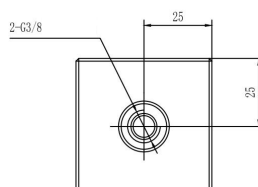
G1/4

## Manifold block



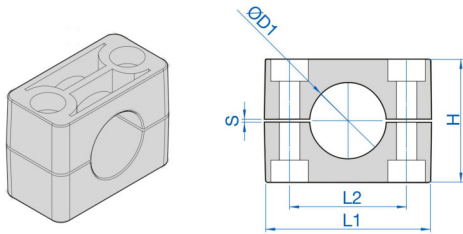
PN

UF-EPW0B



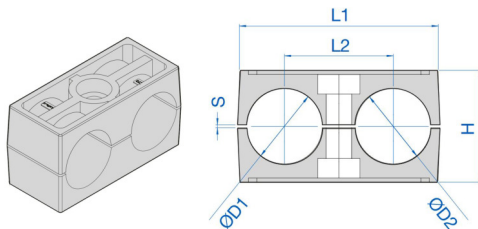


## Single pipe clamp



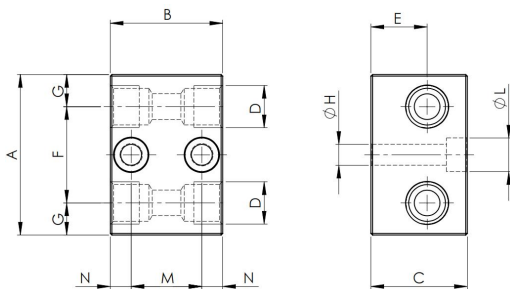
PN	ØD1	L1	H
UF-SC06	Ø6	37	27
UF-SC08	Ø8	37	27
UF-SC10	Ø10	37	27
UF-SC12	Ø12	37	27
UF-SC16	Ø16	42	33

## Twin pipe clamp



PN	ØD1	L1	L2	H
UF-TC1010	Ø10-Ø10	36	20	27
UF-TC1212	Ø12-Ø12	36	20	27
UF-TC1616	Ø16-Ø16	53	27	29
UF-TC2020	Ø20-Ø20	67	36	37
UF-TC2525	Ø25-Ø25	67	36	37
UF-TC3030	Ø30-Ø30	81	45	42

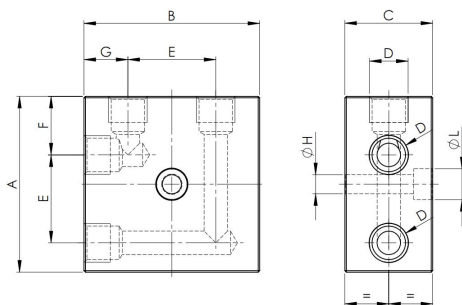
## Straight dual line Junction blocks



PN	D	A	B	C	E	F	G	H	L	M	N
UF-JDS04	G1/4"	50	35	30	17.5	30	10	6.5	10.5	22	6.5
UF-JDS06	G3/8"	80	40	32	27	33	15	6.5	10.5	28	11

The standard material is steel, if you need to order stainless steel, please add -SS after PN, EG.: JDS04-SS

## 90° dual line Junction blocks

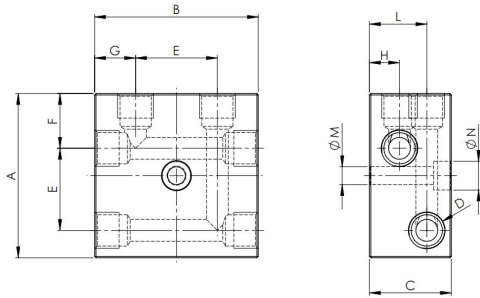


PN	D	A	B	C	E	F	G	H	L
UF-JDA04	G1/4"	60	60	30	30	20	15	6.5	10.5
UF-JDA06	G3/8"	80	96	50	50	19	23	8.5	13.5

The standard material is steel, if you need to order stainless steel, please add -SS after PN, EG.: JDA04-SS



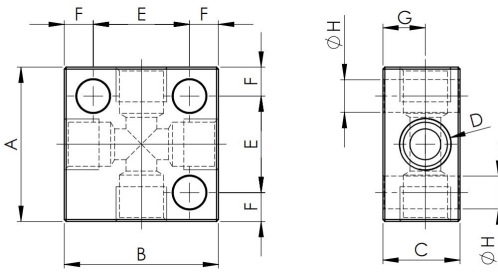
## T dual line Junction blocks



PN	D	A	B	C	E	F	G	H	L	M	N
UF-JDT04	G1/4"	60	60	30	30	20	15	11	21	6.5	10.5
UF-JDT06	G3/8"	80	96	50	50	19	23	21.5	33.5	8.5	13.5

The standard material is steel, if you need to order stainless steel, please add -SS after PN, EG.: JDT04-SS

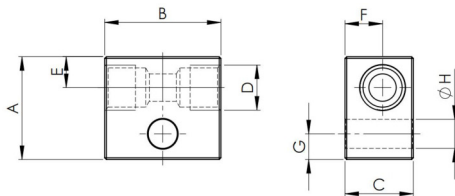
## X dual line Junction blocks



PN	D	A	B	C	E	F	G	H	L	M	N
UF-JDF04	G1/4"	60	70	30	30	15	20	11	21	6.5	10.5
UF-JDF06	G3/8"	100	96	50	50	25	23	21.5	33.5	8.5	13.5

The standard material is steel, if you need to order stainless steel, please add -SS after PN, EG.: JDF04-SS

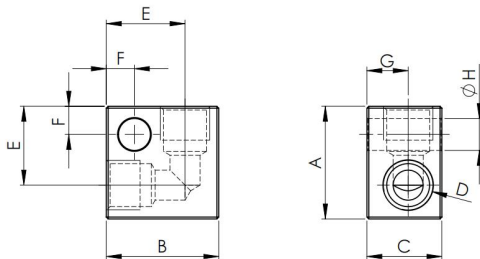
## Straight single line Junction blocks



PN	D	A	B	C	E	F	G	H
UF-JSS04	G1/4"	30	34	20	9	11	7.5	8.5
UF-JSS06	G3/8"	40	45	25	15	12.5	7.5	8.5

The standard material is steel, if you need to order stainless steel, please add -SS after PN, EG.: JSS04-SS

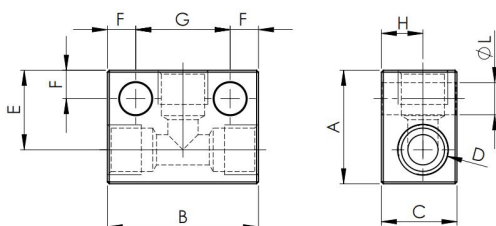
## 90° single line Junction blocks



PN	D	A	B	C	E	F	G	H
UF-JSA04	G1/4"	30	30	20	21	7.5	11	8.5
UF-JSA06	G3/8"	40	40	30	28	7.5	15	8.5

The standard material is steel, if you need to order stainless steel, please add -SS after PN, EG.: JSA04-SS

## T single line Junction blocks

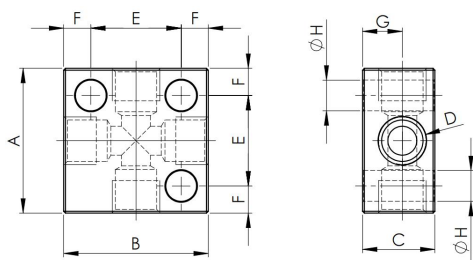


PN	D	A	B	C	E	F	G	H
UF-JST04	G1/4"	40	40	20	25	7.5	11	8.5
UF-JST06	G3/8"	50	50	30	35	7.5	15	8.5

The standard material is steel, if you need to order stainless steel, please add -SS after PN, EG.: JST04-SS



## X single line Junction blocks



PN	D	A	B	C	E	F	G	H	L
UF-JSF04	G1/4"	30	40	20	21	7.5	25	11	8.5
UF-JSF06	G3/8"	40	50	30	28	7.5	35	15	8.5

The standard material is steel, if you need to order stainless steel, please add -SS after PN, EG.: JSF04-SS

## Straight Connectors



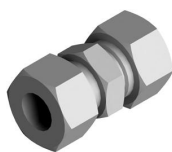
### Main line

PN	Tube OD	Thread	Material
UF-TW1206	Ø12	G3/8"	Carbon steel
UF-TW1606	Ø16	G3/8"	Carbon steel

### Outlet line

PN	Tube OD	Thread	Material
UF-TW0604	Ø6	G1/4"	Carbon steel
UF-TW0804	Ø8	G1/4"	Carbon steel
UF-TW1004	Ø10	G1/4"	Carbon steel

## Line Connectors

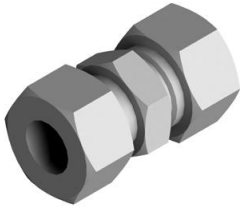


### Junction stright fitting

PN	Tube OD	Material
UF-5D0606	Ø6	Carbon steel
UF-5D0808	Ø8	Carbon steel
UF-5D1010	Ø10	Carbon steel
UF-5D1212	Ø12	Carbon steel
UF-5D1616	Ø16	Carbon steel
UF-5D2020	Ø20	Carbon steel
UF-5D2525	Ø25	Carbon steel
UF-5D3030	Ø30	Carbon steel



## Accessories



Reduction fitting

PN	Tube OD	Tube OD	Material
UF-5D1612	Ø16	Ø12	Carbon steel
UF-5D2012	Ø20	Ø12	Carbon steel
UF-5D2016	Ø20	Ø16	Carbon steel
UF-5D2516	Ø25	Ø16	Carbon steel
UF-5D2520	Ø25	Ø20	Carbon steel
UF-5D3020	Ø30	Ø20	Carbon steel
UF-5D3025	Ø30	Ø25	Carbon steel

T Junction fitting



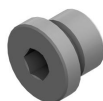
PN	Tube OD	Material
UF-TJ06	Ø6	Carbon steel
UF-TJ08	Ø8	Carbon steel
UF-TJ10	Ø10	Carbon steel
UF-TJ12	Ø12	Carbon steel
UF-TJ16	Ø16	Carbon steel
UF-TJ20	Ø20	Carbon steel
UF-TJ25	Ø25	Carbon steel
UF-TJ30	Ø30	Carbon steel



PN	Tube OD T	Tube OD C	Material
UF-TJ1612	Ø16	Ø12	Carbon steel
UF-TJ2012	Ø20	Ø12	Carbon steel
UF-TJ2016	Ø20	Ø16	Carbon steel
UF-TJ2516	Ø25	Ø16	Carbon steel
UF-TJ2520	Ø25	Ø20	Carbon steel



## Plug with seals



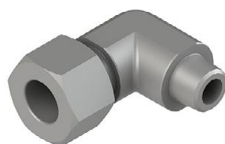
PN	Thread	Material
UF-5PG06	G3/8"	Carbon steel
UF-5PG04	G1/4"	Carbon steel

## Elbow Connector



PN	Tube OD	Material
UF-EJ06	Ø6	Carbon steel
UF-EJ08	Ø8	Carbon steel
UF-EJ10	Ø10	Carbon steel
UF-EJ12	Ø12	Carbon steel
UF-EJ16	Ø16	Carbon steel
UF-EJ20	Ø20	Carbon steel
UF-EJ25	Ø25	Carbon steel
UF-EJ30	Ø30	Carbon steel

## Lubrication Connectors



### Straight Connector

PN	Tube OD	Thread	Material
UF-TW0602	Ø6	G1/8"	Carbon steel
UF-TW0802	Ø8	G1/8"	Carbon steel

### Elbow Connector

PN	Tube OD	Thread	Material
UF-HW0602	Ø6	G1/8"	Carbon steel
UF-HW0802	Ø8	G1/8"	Carbon steel



## Accessories

### Steel tubing



PN	Outer diameter	Inside diameter
UF-T-CP06	Ø6	Ø4
UF-T-CP08	Ø8	Ø6
UF-T-CP10	Ø10	Ø8
UF-T-CP12	Ø12	Ø9
UF-T-CP16	Ø16	Ø12
UF-T-CP20	Ø20	Ø16
UF-T-CP25	Ø25	Ø20
UF-T-CP30	Ø30	Ø24

### PNP Ultra sensor



PN	Thread	Thread	Description
UF-125516	M16*1.5	M12*1	4Core, To DSL
UF-125504	G1/4	M12*1	4Core, To DSG







## ULTRA FLOW SA

Unit 15 Montague Park  
24 Stella Road Montague Gardens  
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Email: sales@ultra-flow.com  
URL: www.ultraflowsa.com

### AUTOLUBE:

The Autolube controller is a universal lubrication system controller capable of handling all common lubrication systems.

Innovative Algorithms also give new flexibility and greater control over traditional single line systems.

The built in Real Time Clock allows the unit to log a history of operations and fault conditions.

Serial communications allows the operation / history and setup to be modified / altered via THE ADS-2 Data Shuttle. Up to 100 uploads / machines can be recorded.

### AREAS OF USE:

Mining industries, Agriculture, Road Construction, Marine, Manufacturing industries, Beverage and food industries, Railways and Transport.



### AUTOLUBE SPECIFICATIONS

- VOLTAGE: 10 Vdc TO 30Vdc
- CURRENT DRAIN: 300mA Max (no load)
- PUMP OUTPUT: 7A RMS. Max
- LAMP OUTPUT: 3A Max
- SWITCHING: Solid State Circuit Protected
- FUSE: 8A Fast Blow
- CONNECTOR: 14 Way Molex Minifit - JR
- COMMUNICATIONS: RS232
- DIMENSIONS: 70mm X 145MM X 38mm
- WEIGHT: 300g
- IP RATING: IP54
- TEMP RANGE: -30° C TO 60° C
- ALTITUDE OF USE: <2000M
- POLLUTION DEGREE: PDII
- RoHS COMPLIANT: Lead free PCB
- DECAL: Lexan Membrane Keypad
- WET LOCATION USE: Not Recommended

### AUTOLUBE FEATURES

- Runs progressive, single line systems and Dual Line Systems
- Real time clock logs dates and times of faults (80) records
- RS232 serial port allows connection to ADS-2 Data Shuttle
- Timing intervals from 5 seconds to 24 hours
- Cycle counting
- 10Vdc to 30Vdc operation
- Short/open circuit detection with audible warning
- External fault lamp drive with both flash or steady output
- Low level monitoring
- 2 Proximity inputs
- Inputs can accept all industry standards NPN/PNP
- Visual and audible fault indication
- LED display
- Non volatile memory
- Blown fuse Indicator
- Reservoir level monitoring
- Simple Lube Logic setup procedure
- Test mode allows for testing prior to commissioning
- Practical attractive housing with mounting bracket



## ULTRA FLOW SA

Unit 15 Montague Park  
24 Stella Road Montague Gardens  
Cape Town South Africa, 7441

Tel: +27215517497  
Email: sales@ultra-flow.com  
URL: www.ultraflowsa.com

### ADS-3 DATA SHUTTLE:

The ADS-3 is a compact Data Module for collecting log files from Autolube controllers on site for later download to a PC for analysis. Up to 256 files are stored by serial number on a first in first out basis.

Pass through mode allows connection between both PC and autolube to Data Shuttle simultaneously to communicate directly with the autolube and to enable LIVE mode.

The Setup button is used to enter and exit Setup Mode without the need to power-cycle the Autolube controller.

The unit is powered via the USB or Autolube connections.

### AREAS OF USE:

Mining industries, Agriculture, Road Construction, Marine, Manufacturing industries, Beverage and food industries, Railways and Transport.



### ADS-3 SPECIFICATIONS

- VOLTAGE: 10 Vdc TO 30Vdc
- CONNECTOR: 4 way data port
- COMMUNICATIONS: RS232
- DIMENSIONS: 114mm X 36MM X 26mm
- WEIGHT: 50g
- IP RATING: IP54
- TEMP RANGE: -30° C TO 60° C
- ALTITUDE OF USE: <2000M
- POLLUTION DEGREE: PDII
- ROHS COMPLIANT: Lead free PCB
- DECAL: Lexan Membrane Keypad
- EU DECLARATION (CE): W25/02/26
- WET LOCATION USE: Not Recommended

### ADS-3 FEATURES

- Stores up to 256 files
- Setup mode button
- Setup mode lock and unlock buttons
- Dual colour LED for status feedback
- Micro USB
- Powered via Autolube or USB

7. Select a range of entries to see a summary in the blue summary bar.  
Fig 7.

⚠	22-Apr-19	9:47 PM	2% (~0 h 0 m)	P1
▶/	22-Apr-19	9:47 PM	100% (~0 h 0 m)	
⚠	22-Apr-19	8:56 PM	100% (~0 h 51 m)	P1
▶/	22-Apr-19	8:56 PM	100% (~0 h 0 m)	
⚠	22-Apr-19	8:43 PM	100% (~0 h 12 m)	P1
SELECTION :			22 Apr 2019 20:56 to 22 Apr 2019 21:47	(0 h 51 m)
POWER ON :			0 h 51 m	
FAULT :			0 h 51 m	

## Data Shuttle & Wiring harness

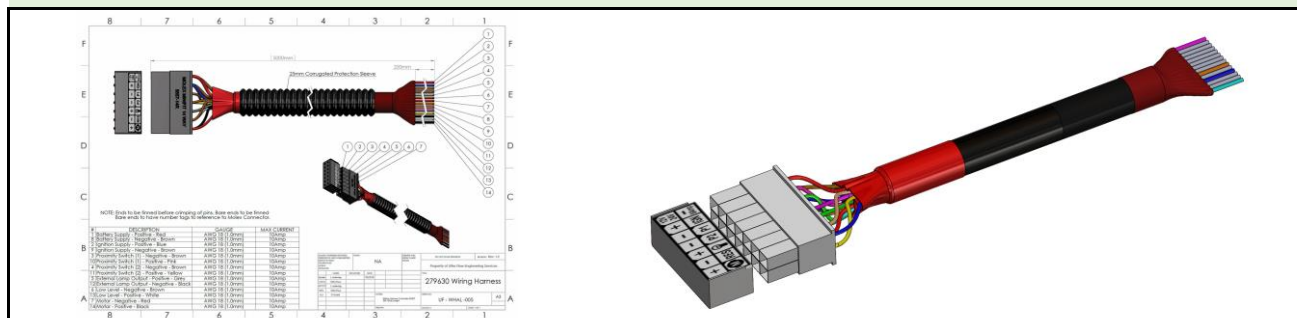
### SPECIFICATIONS

Storage for 256 files  
Setup Mode button  
Setup Mode Lock and Unlock buttons  
Dual colour LED for status feedback  
Micro USB Powered via Autolube or USB

The ADS-3 is a compact Data Module for collecting log files from Autolube controllers on site for later download to a PC for analysis. Up to 256 files are stored by serial number on a first in first out basis.



Item Code / UF Code	REFERENCE TO PART	Description	Dim Ref 1	Dim Ref 2	Manufacture	Minimum Qty Req			
<b>DATA SHUTTLE</b>	<b>Alternative Part Number</b>	<b>DATA SHUTTLE FOR AUTOLUBE RECORDS AND EVENTS</b>	<b>DIMENSION</b>	<b>DIMENSION</b>					
ADS-3	85307-DS	DATA SHUTTLE FOR AUTOLUBE CONTROLLER			YES				



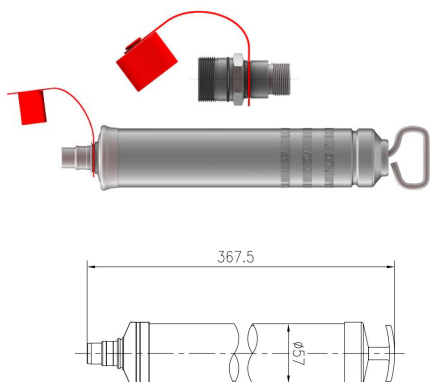
Item Code / UF Code	REFERENCE TO PART	Description	Dim Ref 1	Dim Ref 2	Manufacture				
<b>AUTOLUBE, G1, AND G2 PULSE HARNESS</b>		<b>CONTROLLER LOOMS (HARNESS)</b>	<b>WIRE GAUGE</b>	<b>CONNECTOR</b>					
UF-AL-5M-14WAY	279630	AUTOLUBE CONTROLLER LOOM 5M	AWG18	MOLEX MINIFIT 14	YES				
UF-AL-8M-14WAY	NA	AUTOLUBE CONTROLLER LOOM 8M	AWG18	MOLEX MINIFIT 14	YES				
UF-AL-10M-14WAY	NA	AUTOLUBE CONTROLLER LOOM 10M	AWG18	MOLEX MINIFIT 14	YES				
UF-AL1-5M-14WAY	NA	AUTOLUBE CONTROLLER LOOM 15M	AWG18	MOLEX MINIFIT 14	YES				
UF-G1-5M-10WAY	NA	G1 CONTROLLER LOOM 5M	AWG18	MOLEX MINIFIT 10	YES				
UF-G1-8M-10WAY	NA	G1 CONTROLLER LOOM 8M	AWG18	MOLEX MINIFIT 10	YES				
UF-G1-10M-10WAY	NA	G1 CONTROLLER LOOM 10M	AWG18	MOLEX MINIFIT 10	YES				
UF-G1-15M-10WAY	NA	G1 CONTROLLER LOOM 15M	AWG18	MOLEX MINIFIT 10	YES				
UF-G2-5M-12WAY	NA	G2 PULSE CONTROLLER LOOM 5M	AWG18	MOLEX MINIFIT 12	YES				
UF-G2-8M-12WAY	NA	G2 PULSE CONTROLLER LOOM 8M	AWG18	MOLEX MINIFIT 12	YES				
UF-G2-10M-12WAY	NA	G2 PULSE CONTROLLER LOOM 10M	AWG18	MOLEX MINIFIT 12	YES				
UF-G2-15M-12WAY	NA	G2 PULSE CONTROLLER LOOM 15M	AWG18	MOLEX MINIFIT 12	YES				



ENGINEERED SOLUTIONS  
FOR PRECISE LUBRICATION



## Follower plate and grease gun kits



Description	Part number	Grease fitting
Grease Gun	UF-MG500	-
Grease fitting	UF-MG500-A	Grease fitting without check valve
Grease fitting	UF-MG500-C	Grease fitting with check valve



Description	Part number	Oil drum
Follower Plate	UF-95660C	16KG

## Electric lubrication pump accessories

### Pump outlet assembly

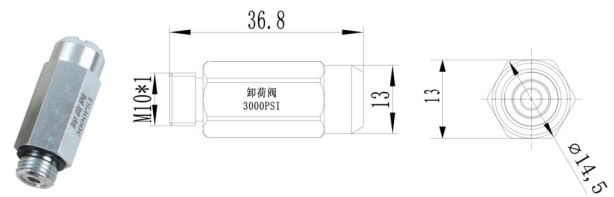


### Grease filling quick connector



Part number	Description	Pressure	OD	Part number	Description	Thread
UF-80533PG	With pressure gauge	40MPa	6mm	UF-80220	Male connector	G1/4
UF-80533PG-8			8mm	UF-80221	Female connector	G1/4
UF-80533	Without pressure gauge		6mm			
UF-80533-8			8mm			

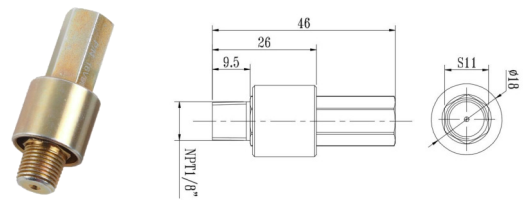
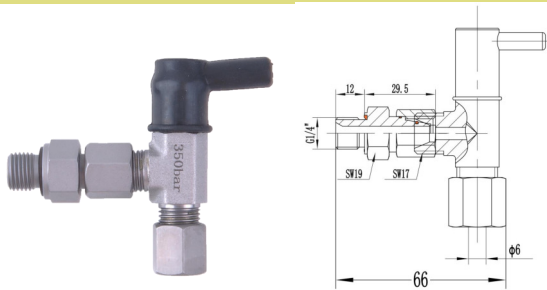
## Safety valve



Part number	OD	Rated flow
UF-80536	6mm	A6; 4ml/min
UF-80537	7mm	A7; 5ml/min

Part number	Pressure	Male thread
UF-5FI05	207bar/3000psi	M10*1

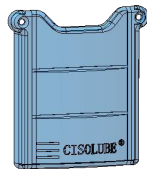
## Safety valve



Part number	OD	Male thread	Pressure
UF-5FJ01	φ6	G1/4	345bar/5000psi

Part number	Description	Male thread
UF-5FI07	275bar/4000psi	NPT1/8

## Mounting bracket



Description	Part number	Type
PC	UF-97116	GTS

Description	Part number	Type
Mounting bracket	UF-90236	GTS



## Button with green lamp



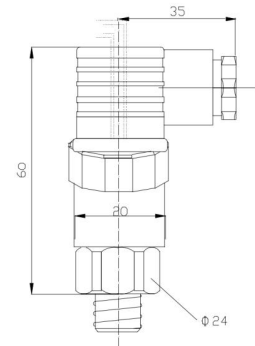
Description	Part number
12V	UF-90212
24V	UF-90224

## Cartridge



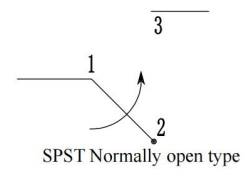
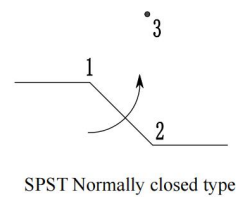
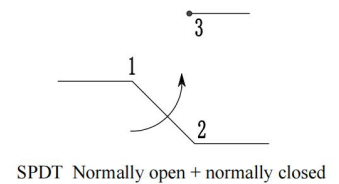
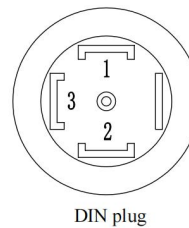
Description	Part number	Reservoir
Cartridge	UFCSL-J100	700CC
	UFCSL-C100	700CC

## Pressure switch

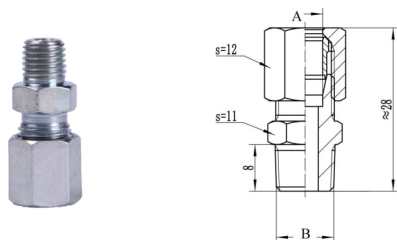


Description	Part number
Adjustable Type	UF-91346

## Wiring diagram

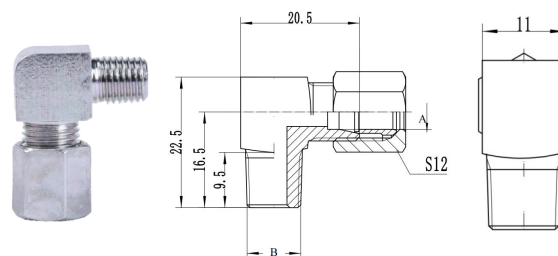


## Straight Connector LL series



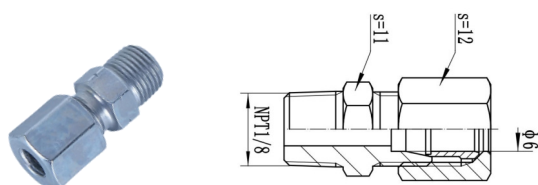
Part number	OD	A	Material
UF-106-004	Ø6	R1/8 Bspt	Carbon steel, galvanized nickel
UF-106-003	Ø6	ZM10*1	
UF-106-002	Ø6	ZM8*1	
UF-106-001	Ø6	ZM6*1	
UF-104-004	Ø4	R1/8 Bspt	
UF-104-003	Ø4	ZM10*1	
UF-104-002	Ø4	ZM8*1	
UF-104-001	Ø4	ZM6*1	

## Elbow Connector LL series



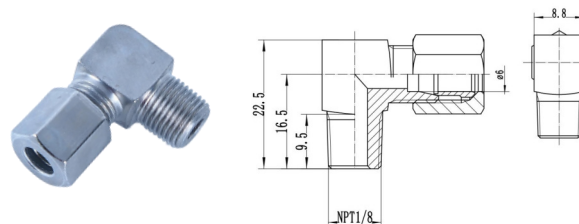
Part number	OD	Thread	Material
UF-106-104	Ø6	R1/8 Bspt	Carbon steel, galvanized nickel
UF-106-103	Ø6	M10*1	
UF-106-102	Ø6	M8*1	
UF-106-101	Ø6	M6*1	
UF-104-104	Ø4	R1/8 Bspt	
UF-104-103	Ø4	M10*1	
UF-104-102	Ø4	M8*1	
UF-104-101	Ø4	M6*1	

## Straight connector LL series NPT



Part number	OD	Thread	Material
UF-5PM0602	Ø6	NPT1/8	Carbon steel, galvanized nickel

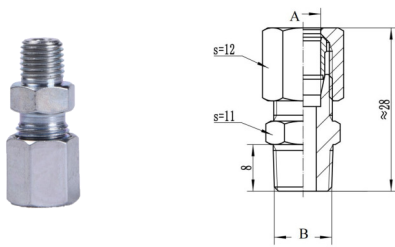
## Elbow connector LL series NPT



Part number	OD	Thread	Material
UF-5NM0602	Ø6	NPT1/8	Carbon steel, galvanized nickel

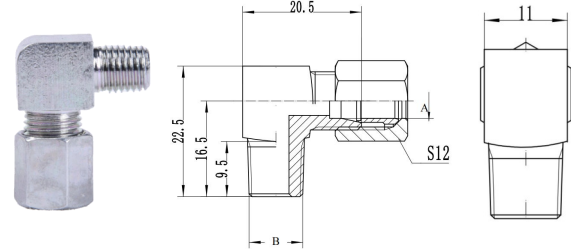
# Fittings & Accessories

## Straight Connector LL series SS



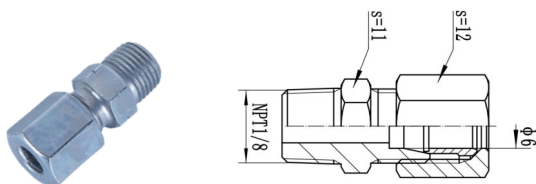
Part number	OD	A	Material
UF-106-004-VA	Ø6	R1/8 Bspt	Stainless Steel
UF-106-003-VA	Ø6	ZM10*1	
UF-106-002-VA	Ø6	ZM8*1	
UF-106-001-VA	Ø6	ZM6*1	
UF-104-004-VA	Ø4	R1/8 Bspt	
UF-104-003-VA	Ø4	ZM10*1	
UF-104-002-VA	Ø4	ZM8*1	
UF-104-001-VA	Ø4	ZM6*1	

## Elbow Connector LL series SS



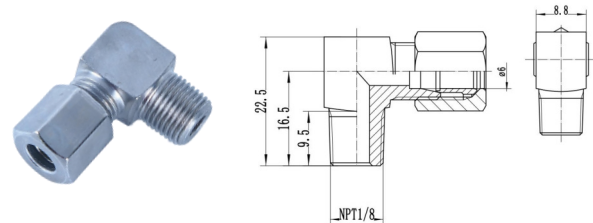
Part number	OD	Thread	Material
UFL-106-104-VA	Ø6	R1/8 Bspt	Stainless Steel
UFL-106-103-VA	Ø6	M10*1	
UFL-106-102-VA	Ø6	M8*1	
UFL-106-101-VA	Ø6	M6*1	
UFL-104-104-VA	Ø4	R1/8 Bspt	
UFL-104-103-VA	Ø4	M10*1	
UFL-104-102-VA	Ø4	M8*1	
UFL-104-101-VA	Ø4	M6*1	

## Straight connector LL series NPT - SS



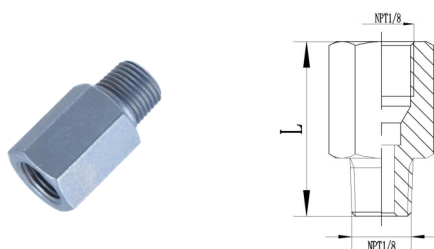
Part number	OD	Thread	Material
UF-5PM0602-VA	Ø6	NPT1/8	Stainless Steel

## Elbow connector LL series NPT - SS



Part number	OD	Thread	Material
UF-5NM0602-VA	Ø6	NPT1/8	Stainless Steel

## Straight extensions NPT



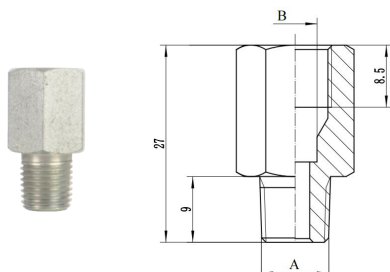
Part number	Thread	Thread	Material	L
UF-5GN02	NPT1/8	NPT1/8	Carbon steel, galvanized nickel	27
UF-5G0202	NPT1/8	NPT1/8		19

## Straight GE adaptor



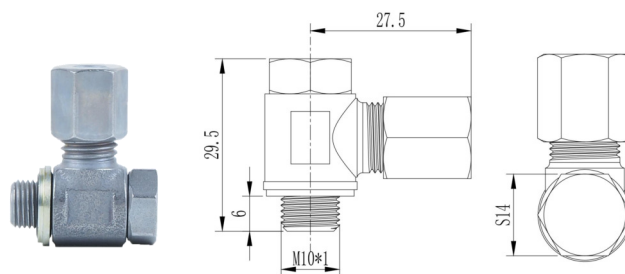
Part number	OD	Thread F	Material
UF-5SF0610	Ø6	M10*1	Carbon steel, galvanized nickel

## Straight extensions



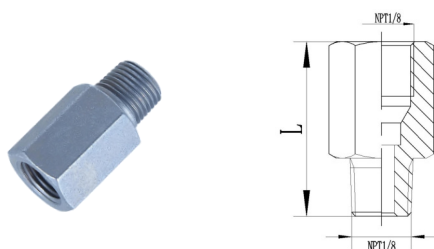
Part number	Thread M	Thread F	Material
UF-5G0210	R1/8 Bspt	M10*1	Carbon steel, galvanized nickel
UF-5G0808	M8*1	M8*1	
UF-5G0404	R1/4 Bspt	R1/4 Bspt	
UF-100-142	M10*1	M10*1	

## Banjo connector



Part number	OD	Thread M
UF-106-123	Ø6	M10*1

## Straight extensions NPT - SS



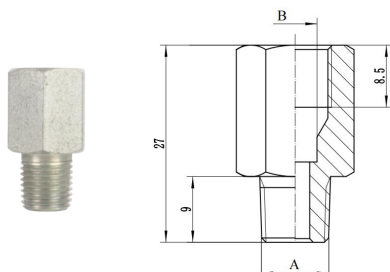
Part number	Thread	Thread	Material	L
UF-5GN02-VA	NPT1/8	NPT1/8	Stainless Steel	27
UF-5G0202-VA	NPT1/8	NPT1/8		19

## Straight GE adaptor - SS



Part number	OD	Thread F	Material
UF-5SF0610-VA	Ø6	M10*1	Stainless Steel

## Straight extensions - SS



Part number	Thread M	Thread F	Material
UF-5G0210-VA	R1/8 Bspt	M10*1	Stainless Steel
UF-5G0808-VA	M8*1	M8*1	
UF-5G0404-VA	R1/4 Bspt	R1/4 Bspt	
UF-5G1010-VA	M10*1	M10*1	

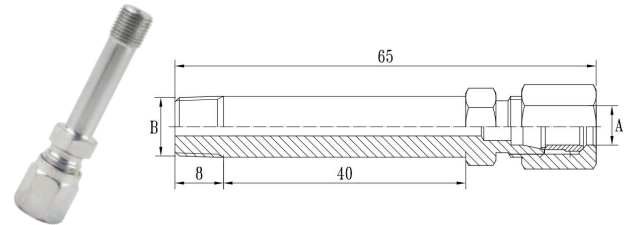
# Fittings & Accessories



## BANJO Extension

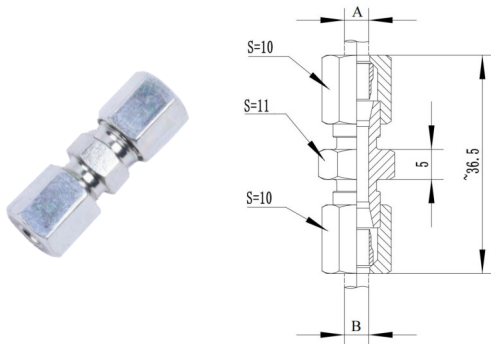


## Extension fitting assembly



Part number	OD	Thread M	Material
UF-5C0602	Ø6	R1/8	Zinc Color-plated
UF-5C0610	Ø6	M10*1	

## Line Connectors



Part number	A	B	Material
UF-5KM0602	Ø6	R1/8	Carbon steel, galvanized nickel
UF-5KM0610	Ø6	M10*1	
UF-5KM0608	Ø6	M8*1	
UF-5KM0606	Ø6	M6*1	
UF-5KM0402	Ø4	R1/8	
UF-5KM0410	Ø4	M10*1	
UF-5KM0408	Ø4	M8*1	
UF-5KM0406	Ø4	M6*1	

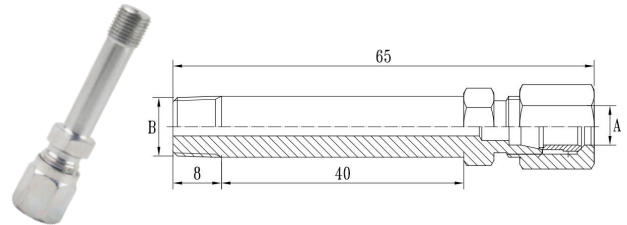
Part number	A	B	Material
UF-104-000	Ø4	Ø4	Zinc plated
UF-106-000	Ø6	Ø6	
UF-108-000	Ø8	Ø8	
UF-110-000	Ø10	Ø10	



## BANJO Extension - SS

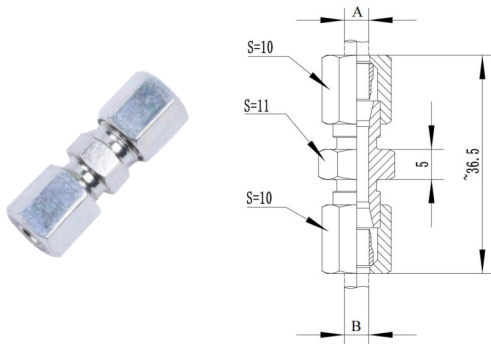


## Extension fitting assembly - SS



Part number	OD	Thread M	Material
UF-5C0602-VA	Ø6	R1/8	Stainless Steel
UF-5C0610-VA	Ø6	M10*1	

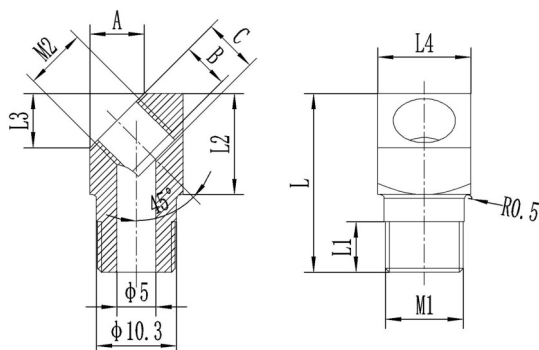
## Line Connectors - SS



Part number	A	B	Material
UF-5KM0602-VA	Ø6	R1/8	Stainless Steel
UF-5KM0610-VA	Ø6	M10*1	
UF-5KM0608-VA	Ø6	M8*1	
UF-5KM0606-VA	Ø6	M6*1	
UF-5KM0402-VA	Ø4	R1/8	
UF-5KM0410-VA	Ø4	M10*1	
UF-5KM0408-VA	Ø4	M8*1	
UF-5KM0406-VA	Ø4	M6*1	

Part number	A	B	Material
UF-104-000-VA	Ø4	Ø4	Stainless Steel
UF-106-000-VA	Ø6	Ø6	
UF-108-000-VA	Ø8	Ø8	
UF-110-000-VA	Ø10	Ø10	

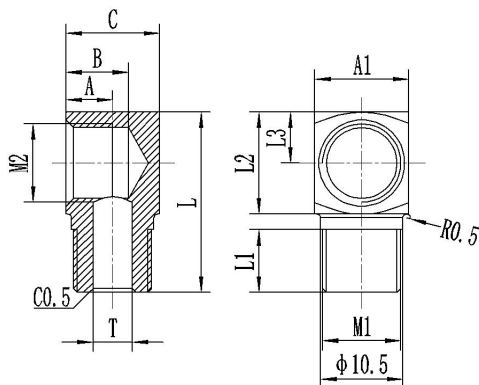
## Elbow Connector 45°



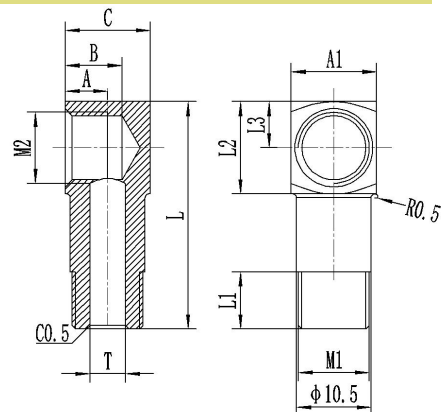
Part number	M1	M2	L	L1	L2	L3	L4	A	B	C
UF-100-822	ZM8*1	M8*1	23	6.5	13	7	12	7	6	7
UF-5EM0410	ZM10*1	M8*1	23	6.5	13	7	12	7	6	7
UF-100-833	ZM10*1	M10*1	23	6.5	13	7	12	7	6	7
UF-100-844	ZG1/8	ZG1/8	23	6.5	13	7	12	7	6	7
UF-100-855	ZG1/4	ZG1/4	33	6.5	18	7	12	7	6	7

## Elbow Connector 90°

9GM10



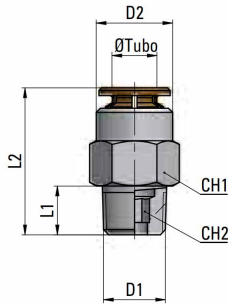
9GM10-Z



Part number	M1	M2	L	L1	L2	L3	A	B	C	A1
UF-100-711	ZM8*1	M8*1	23	8	13	6.5	6	8	12	12
UF-9GM1008	ZM10*1	M8*1	23	8	13	6.5	6	8	12	12
UF-100-733	ZM10*1	M10*1	23	8	13	6.5	6	8	12	12
UF-9GM10-Z	ZM10*1	M10*1	32	8	13	6.5	6	8	12	12
UF-100-744	ZG1/8	ZG1/8	23	8	13	6.5	6	8	12	12
UF-100-755	ZG1/4	ZG1/4	33	8	18	6.5	6	8	12	17

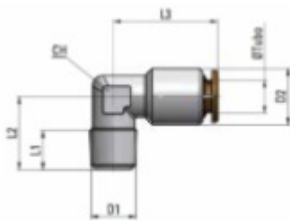
# Fittings & Accessories

## Straight Male Push Lock Connector - 80 Bar (Plated Brass)



Part number	OD	D1	D2	L1	L2
UF-104-054	Ø4	R1/8	9	7.5	18.5
UF-104-051	Ø4	M6*1.0	9	8	23
UF-104-052	Ø4	M8*1.0	9	8	20
UF-104-053	Ø4	M10*1.0	9	8	20
UF-106-054	Ø6	R1/8	12	7.5	21.5
UF-106-051	Ø6	M6*1.0	12	8	25.5
UF-106-052	Ø6	M8*1.0	12	8	25.5
UF-106-053	Ø6	M10*1.0	12	8	22

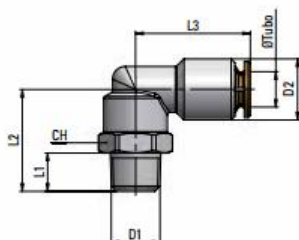
## Push Lock Elbow - 80 Bar (Plated Brass)



Part number	OD	D1	D2	L1	L2
UF-104-114	Ø4	R1/8	9	7.5	15.5
UF-104-111	Ø4	M6*1.0	9	8	17
UF-104-112	Ø4	M8*1.0	9	8	17
UF-104-113	Ø4	M10*1.0	9	8	18
UF-106-114	Ø6	R1/8	12	7.5	15.5
UF-106-111	Ø6	M6*1.0	12	8	17
UF-106-112	Ø6	M8*1.0	12	8	17
UF-106-113	Ø6	M10*1.0	12	8	18

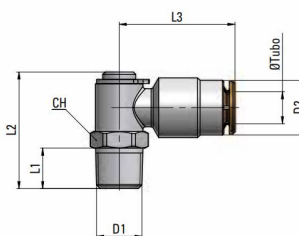
# Fittings & Accessories

## Push Lock Rotary Elbow - 60 Bar (Plated Brass)



Part number	OD	D1	D2	L1	L2
UF-MP150418	Ø4	R1/8"	9	7.5	20
UF-MP1504M6	Ø4	M6*1.0	9	8	20.5
UF-MP1504M8	Ø4	M8*1.0	9	8	20.5
UF-MP1504M10	Ø4	M10*1.0	9	8	20.5
UF-MP150618	Ø6	R1/8"	12	7.5	20
UF-MP1506M6	Ø6	M6*1.0	12	8	21.5
UF-MP1506M8	Ø6	M8*1.0	12	8	21.5
UF-MP1506M10	Ø6	M10*1.0	12	8	21.5

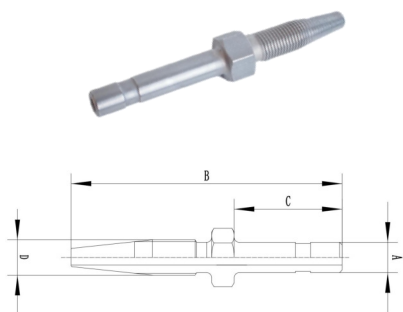
## Push Lock Rotary Elbow - 60 Bar (Plated Brass)



Part number	OD	D1	D2	L1	L2
UF-HP180418	Ø4	R1/8"	9.5	8.5	22
UF-HP1804M6-1	Ø4	M6*0.75	9.5	6	22
UF-HP1804M6	Ø4	M6*1	9.5	8	22
UF-HP1804M8	Ø4	M8*1	9.5	8	22
UF-HP1804M10	Ø4	M10*1	9.5	8	22
UF-HP180618	Ø6	R1/8"	11.5	8.5	24
UF-HP180614	Ø6	R1/4"	11.5	11	24
UF-HP1806M6	Ø6	M6*1	11.5	8	24
UF-HP1806M8	Ø6	M8*1	11.5	8	24
UF-HP1806M10	Ø6	M10*1	11.5	8	24

## 6mm Hose Stud Straight - Carbon Steel

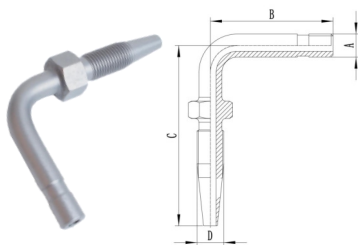
M7 for 8.4mm hose  
M10 for 12mm hose



Part number	A	B	C	D	Material
UF-K049 (Short)	Ø6	49	18	M7*0.75	Carbon steel, galvanized nickel
UF-K051 (Long)	Ø6	64	30	M7*0.75	
UF-K054-Groove	Ø6	54	22	M7*0.75	
UF-K053-Groove	Ø6	61	30	M7*0.75	

## 6mm Hose Stud 90° Carbon Steel

M7 for 8.4mm hose  
M10 for 12mm hose



Part number	A	B	C	D	Material
UF-K151 - Groove	Ø6	28	45	M7*0.75	Carbon steel, galvanized nickel
UF-K152 - Groove	Ø6	25	45	M7*0.75	
UF-K149 (Short)	Ø6	21	45	M7*0.75	
UF-K152 (Long)	Ø6	33	45	M7*0.75	

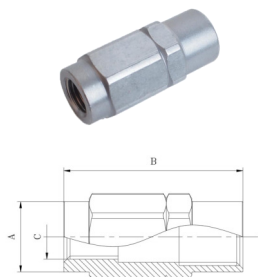
## 6mm Hose Stud 45° Carbon Steel



Part number	OD	B	C	D	Material
UF-K-057	Ø6	30	57	M7*0.75	Carbon steel, galvanized nickel

## Threaded sleeve Carbon Steel

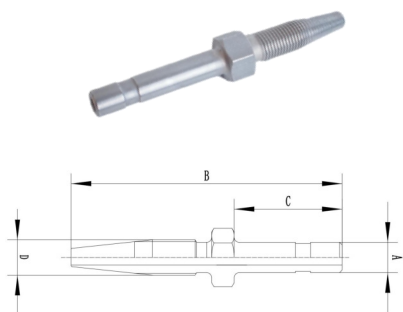
M7 for 8.4mm hose  
M10 for 12mm hose



Part number	OD	A	B	C	Material
UF-K-050	Ø6/8	SW12	28	M7*0.75	Carbon steel, galvanized nickel
UF-K-060	Ø6/8	SW17	36	M10*1	

## 6mm Hose Stud Straight - Stainless Steel

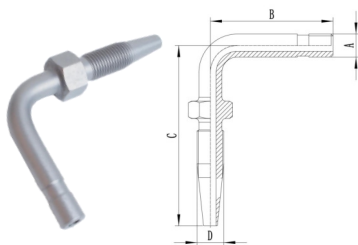
M7 for 8.4mm hose  
M10 for 12mm hose



Part number	A	B	C	D	Material
UF-K049-VA(Short)	Ø6	49	18	M7*0.75	Stainless Steel
UF-K051-VA (Long)	Ø6	64	30	M7*0.75	
UF-K054-VA-Groove	Ø6	54	22	M10*1	
UF-K053-VA-Groove	Ø8	61	30	M10*1	

## 6mm Hose Stud 90° Stainless Steel

M7 for 8.4mm hose  
M10 for 12mm hose



Part number	A	B	C	D	Material
UF-K151-VA - Groove	Ø6	28	45	M7*0.75	Stainless Steel
UF-K152-VA - Groove	Ø6	25	45	M7*0.75	
UF-K149-VA(Short)	Ø6	21	45	M7*0.75	
UF-K152-VA(Long)	Ø8	33	45	M7*0.75	

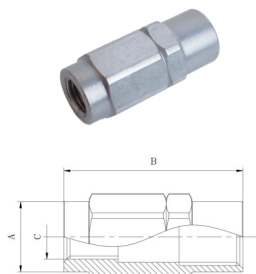
## 6mm Hose Stud 45° Stainless Steel



Part number	OD	B	C	D	Material
UF-K057-VA	Ø6	30	57	M7*0.75	Stainless Steel

## Threaded sleeve Stainless Steel

M7 for 8.4mm hose  
M10 for 12mm hose



Part number	OD	A	B	C	Material
UF-K050-VA	Ø6	Ø11	28	M7*0.75	Stainless Steel
UF-K060-VA	Ø8	Ø14	28	M10*1	

## Coupling Nuts Carbon Steel - Galvanized Nickel



## Ferrule



Part number	Thread	TUBE O.D.	MPa
UF-104-200	M8*1	Ø4 (SW10)	Super light series LL
UF-106-200	M10*1	Ø6(SW12)	
UF-106-200L	M12*1.5	Ø6(SW14)	Light series L
UF-108-200	M14*1.5	Ø8(SW14)	
UF-108-200-L	M16*1.5	Ø8(SW17)	
UF-110-200-L	M18*1.5	Ø10(SW19)	

Part number	TUBE O.D.	MPa
UF-104-210-LL	Ø4	Super light series LL
UF-106-210-LL	Ø6	
UF106-210L	Ø6	Light series L
UF-108-210-LL	Ø8	
UF-108-210-L	Ø8	
UF-110-210-L2	Ø10	

## Coupling Nuts - Stainless Steel

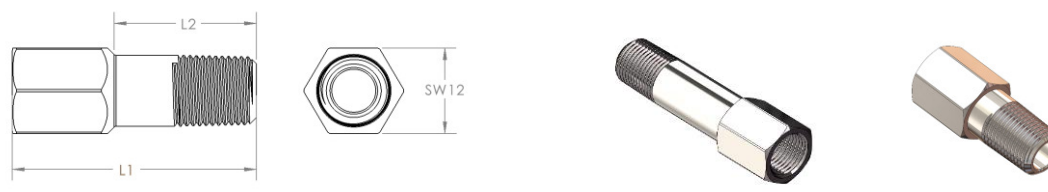


Part number	Thread	TUBE O.D.	MPa
UF-104-200 - VA	M8*1	Ø4	Super light series LL
UF-106-200- VA	M10*1	Ø6	
UF-106-200L- VA	M12*1.5	Ø6	Light series L
UF-108-200- VA	M14*1.5	Ø8	
UF-110-200L- VA	M16*1.5	Ø10	



## Extensions

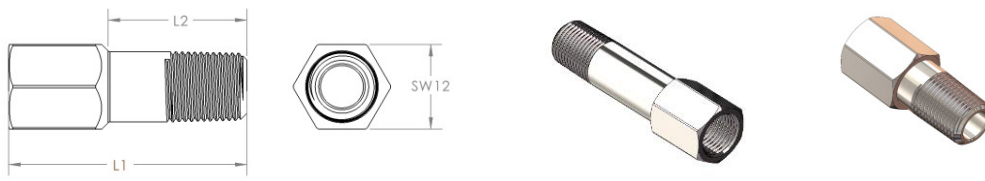
Zinc-nickel, Cr-6-free



NPT THREADS AVAILABLE ON REQUEST

Item Code / UF Code	Alternative Part Number	Description	Dim Ref 1	Dim Ref 2	Manufacture	Pressure		
<b>ADAPTORS EXTENSION CONNECTORS MILD STEEL</b>		<b>EXTENSIONS MILD STEEL</b>	<b>REFERENCE 1</b>	<b>REFERENCE 2</b>				
UF-004-025	NA	EXTENSION 1/8BSP(F)-1/8BSP(M) MILD STEEL	L1=25MM	L2=11MM	YES	400BAR		
UF-004-030	NA	EXTENSION 1/8BSP(F)-1/8BSP(M) MILD STEEL	L1=30MM	L2=16MM	YES	400BAR		
UF-004-035	NA	EXTENSION 1/8BSP(F)-1/8BSP(M) MILD STEEL	L1=35MM	L2=21MM	YES	400BAR		
UF-004-040	NA	EXTENSION 1/8BSP(F)-1/8BSP(M) MILD STEEL	L1=40MM	L2=26MM	YES	400BAR		
UF-004-045	NA	EXTENSION 1/8BSP(F)-1/8BSP(M) MILD STEEL	L1=45MM	L2=31MM	YES	400BAR		
UF-004-050	NA	EXTENSION 1/8BSP(F)-1/8BSP(M) MILD STEEL	L1=50MM	L2=36MM	YES	400BAR		
UF-004-055	NA	EXTENSION 1/8BSP(F)-1/8BSP(M) MILD STEEL	L1=55MM	L2=41MM	YES	400BAR		
UF-005-026	NA	EXTENSION 1/8BSP(F)-1/4BSP(M) MILD STEEL	L1=26MM	L2=12MM	YES	400BAR		
UF-005-040	NA	EXTENSION 1/8BSP(F)-1/4BSP(M) MILD STEEL	L1=40MM	L2=26MM	YES	400BAR		
UF-005-050	NA	EXTENSION 1/8BSP(F)-1/4BSP(M) MILD STEEL	L1=50MM	L2=36MM	YES	400BAR		
UF-005-055	NA	EXTENSION 1/8BSP(F)-1/4BSP(M) MILD STEEL	L1=55MM	L2=41MM	YES	400BAR		

Stainless Steel

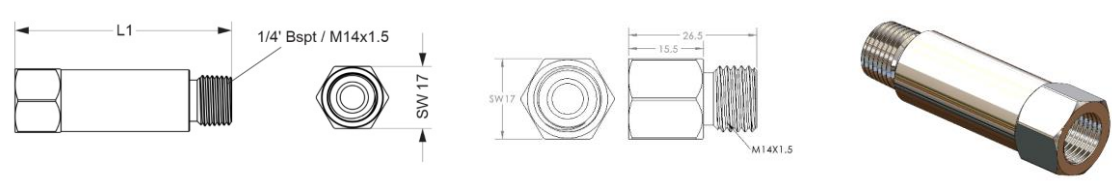


NPT THREADS AVAILABLE ON REQUEST

Item Code / UF Code	Alternative Part Number	Description	Dim Ref 1	Dim Ref 2	Manufacture	Pressure		
<b>ADAPTORS EXTENSION CONNECTORS STAINLESS STEEL</b>		<b>EXTENSIONS STAINLESS STEEL</b>	<b>REFERENCE 1</b>	<b>REFERENCE 2</b>				
UF-004-025SS	NA	EXTENSION 1/8BSP(F)-1/8BSP(M) STAINLESS STEEL	L1=25MM	L2=11MM	YES	400BAR		
UF-004-030SS	NA	EXTENSION 1/8BSP(F)-1/8BSP(M) STAINLESS STEEL	L1=30MM	L2=16MM	YES	400BAR		
UF-004-035SS	NA	EXTENSION 1/8BSP(F)-1/8BSP(M) STAINLESS STEEL	L1=35MM	L2=21MM	YES	400BAR		
UF-004-040SS	NA	EXTENSION 1/8BSP(F)-1/8BSP(M) STAINLESS STEEL	L1=40MM	L2=26MM	YES	400BAR		
UF-004-045SS	NA	EXTENSION 1/8BSP(F)-1/8BSP(M) STAINLESS STEEL	L1=45MM	L2=31MM	YES	400BAR		
UF-004-050SS	NA	EXTENSION 1/8BSP(F)-1/8BSP(M) STAINLESS STEEL	L1=50MM	L2=36MM	YES	400BAR		
UF-004-055SS	NA	EXTENSION 1/8BSP(F)-1/8BSP(M) STAINLESS STEEL	L1=55MM	L2=41MM	YES	400BAR		
UF-005-026SS	NA	EXTENSION 1/8BSP(F)-1/4BSP(M) STAINLESS STEEL	L1=26MM	L2=12MM	YES	400BAR		
UF-005-040SS	NA	EXTENSION 1/8BSP(F)-1/4BSP(M) STAINLESS STEEL	L1=40MM	L2=26MM	YES	400BAR		
UF-005-050SS	NA	EXTENSION 1/8BSP(F)-1/4BSP(M) STAINLESS STEEL	L1=50MM	L2=36MM	YES	400BAR		
UF-005-055SS	NA	EXTENSION 1/8BSP(F)-1/4BSP(M) STAINLESS STEEL	L1=55MM	L2=41MM	YES	400BAR		

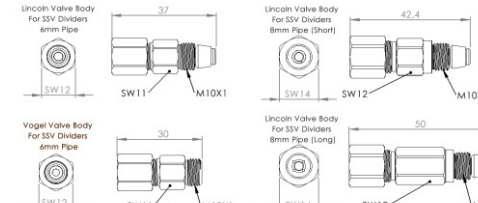
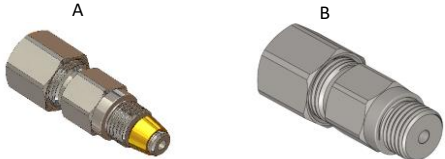
## Pump Element Extensions

Stainless Steel  
Zinc-nickel, Cr-6-free

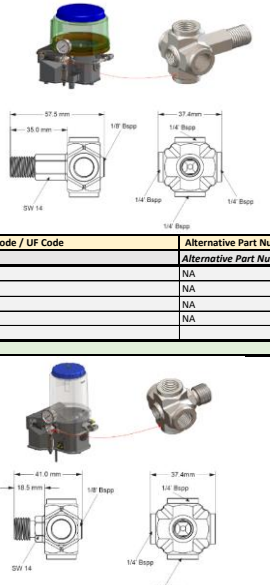



Item Code / UF Code	Alternative Part Number	Description	Dim Ref 1	Dim Ref 2	Manufacture	Pressure		
<b>PUMP ELEMENT EXTENSIONS MILD STEEL &amp; STAINLESS STEEL</b>		<b>PART DESCRIPTION</b>	<b>REFERENCE 1</b>	<b>HEX SIZE</b>				
UF-LLPE-MS	NA	Pump Element Lincoln L56.6mm with 1/4' BSP(T) (M)	L1=56.6MM	HEX=17MM	YES	400BAR		
UF-LLPE-SS	NA	Pump Element Lincoln L56.6mm with 1/4' BSP(T) (M)	L1=56.6MM	HEX=17MM	YES	400BAR		
UF-VLPE-MS	NA	Pump Element Vogel L56.6mm with M14X1.5 (M)	L1=56.6MM	HEX=17MM	YES	400BAR		
UF-VLPE-SS	NA	Pump Element Vogel L56.6mm with M14X1.5 (M)	L1=56.6MM	HEX=17MM	YES	400BAR		
UF-LSPE-MS	NA	Pump Element Lincoln L41.0mm with 1/4' BSP(T) (M)	L1=41.0MM	HEX=17MM	YES	400BAR		
UF-LSPE-SS	NA	Pump Element Lincoln L41.0mm with 1/4' BSP(T) (M)	L1=41.0MM	HEX=17MM	YES	400BAR		
UF-VSPE-MS	NA	Pump Element Vogel L41.0mm with M14X1.5 (M)	L1=41.0MM	HEX=17MM	YES	400BAR		
UF-VSPE-SS	NA	Pump Element Vogel L41.0mm with M14X1.5 (M)	L1=41.0MM	HEX=17MM	YES	400BAR		
UF-VPES-OMS	NA	Pump Element extension short M14X1.5 Mild Steel	L1=26.5MM	HEX=17MM	YES	400BAR		
UF-VPES-SS	NA	Pump Element extension short M14X1.5 SS	L1=26.5MM	HEX=17MM	YES	400BAR		

## Valve Body Outlets

									
									
Stainless Steel Zinc-nickel, Cr-6-free									
Item Code / UF Code	Alternative Part Number	Description	Dim Ref 1	Dim Ref 2	Manufacture	Minimum Qty Req	Pressure	Price Rands	US Dollar Price
<b>CHECK VALVE FOR LUBRICATION DIVIDERS</b>									
UF-306-003-RVL	504-30344-4	VALVE BODY LINCOLN 6MM MS (A)	REFERENCE 1	HEX SIZE	YES	500	350BAR		
UF-CN6-M10LL	223-12374-9	COUPLING NUT 6MM MS		HEX 11MM	YES	500			
UF-SCR-6L	223-12295-3	CUTTING RING 6MM MS		L SERIES	YES	500	305 BAR		
UF-SCR-6LL	223-12295-2	CUTTING RING 6MM MS		LL SERIES	YES	500	107 BAR		
UF-BVVB-001	NA	BRASS FERRULE		ONLY LINCOLN CV	YES	500			
UF-LVBSS-006	NA	VALVE BODY COMPLETE 6MM SS (A)	37mm Long	HEX 11MM	YES	500	350BAR		
UF-CN6-M10LL-SS	223-13638-2	COUPLING NUT 6MM SS		HEX 11MM	YES	500			
UF-SLVBMS-08 SHORT	NA	VALVE BODY LINCOLN 8MM SHORT MS (A)	42mm Long	HEX 12MM	YES	500	350BAR		
UF-LLVBMS-08 LONG	NA	VALVE BODY LINCOLN 8MM LONG MS (A)	50mm Long	HEX 12MM	YES	500	350BAR		
UF-CN8-M12LL	223-13032-3	COUPLING NUT 8MM MS		HEX 14MM	YES	500			
UF-SCR-8L	NA	CUTTING RING 8MM MS		L SERIES	YES	500	305 BAR		
UF-SCR-8LL	223-12295-5	CUTTING RING 8MM MS		LL SERIES	YES	500	107 BAR		
UF-SLVBSS-08 SHORT	NA	VALVE BODY LINCOLN 8MM SHORT SS (A)	42mm Long	HEX 12MM	YES	500	350BAR		
UF-LLVBSS-08 LONG	NA	VALVE BODY LINCOLN 8MM LONG SS (A)	50mm Long	HEX 12MM	YES	500	350BAR		
UF-CN8-M12LL-SS	223-13638-1	COUPLING NUT 8MM SS		HEX 14MM	YES	500			
UF-VVBMS-M10	NA	VALVE BODY VOGEL 6MM MS (B)	30mm Long	HEX 11MM	YES	500	350BAR		
UF-VVBSS-M10	NA	VALVE BODY VOGEL 6MM SS (B)	30mm Long	HEX 11MM	YES	500	350BAR		
UF-RVBMS-1/8BSPT	NA	RAASM VALVE BODY 6MM MS (B)	32mm Long	HEX 11MM	YES	500	350BAR		
UF-RVBSS-1/8BSPT	NA	RAASM VALVE BODY 6MM SS (B)	32mm Long	HEX 11MM	YES	500	350BAR		
UF-RVBMS-08 Short	NA	RAASM VALVE BODY 8MM MS SHORT (B)		HEX 12MM	YES	500	350BAR		
UF-RVBSS-08 Short	NA	RAASM VALVE BODY 8MM SS SHORT (B)		HEX 12MM	YES	500	350BAR		
UF-RVBMS-08 Long	NA	RAASM VALVE BODY 8MM MS LONG (B)		HEX 12MM	YES	500	350BAR		
UF-RVBSS-08 Long	NA	RAASM VALVE BODY 8MM SS LONG (B)		HEX 12MM	YES	500	350BAR		

## 5 & 6 Way Adaptors

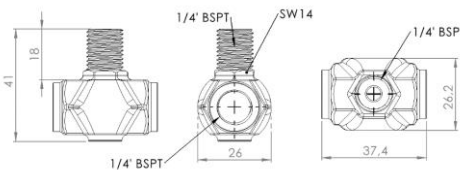
									
									
Stainless Steel Zinc-nickel, Cr-6-free									
Item Code / UF Code	Alternative Part Number	Description	Dim Ref 1	Dim Ref 2	Manufacture	Minimum Qty Req	Pressure	Price Rands	US Dollar Price
<b>ADAPTORS 5 WAY T LONG</b>									
UF-6WT-LLMS-1/4BSPT	NA	6 WAY ADAPTOR FOR LINCOLN & VOGEL PUMPS	REFERENCE 1	HEX SIZE	YES	100	600 BAR		
UF-6WT-LLSS-1/4BSPT	NA	6 WAY ADAPTOR 1/4BSPT - LINCOLN - SS	L1=57.5MM	HEX 14MM	YES	100	600 BAR		
UF-6WT-VLMS-M14X1.5	NA	6 WAY ADAPTOR 14X1.5 - VOGEL - MS	L1=57.5MM	HEX 14MM	YES	100	600 BAR		
UF-6WT-VLSS-M14X1.5	NA	6 WAY ADAPTOR 14X1.5 - VOGEL - SS	L1=57.5MM	HEX 14MM	YES	100	600 BAR		
<b>ADAPTORS 5 WAY T SHORT</b>									
UF-6WT-LSMS-1/4BSPT	NA	6 WAY ADAPTOR 1/4BSPT - LINCOLN - MS	L1=41MM	HEX 14MM	YES	100	600 BAR		
UF-6WT-LSSS-1/4BSPT	NA	6 WAY ADAPTOR 1/4BSPT - LINCOLN - SS	L1=41MM	HEX 14MM	YES	100	600 BAR		
UF-6WT-VSMS-M14X1.5	NA	6 WAY ADAPTOR 14X1.5 - VOGEL - MS	L1=41MM	HEX 14MM	YES	100	600 BAR		
UF-6WT-VSSS-M14X1.5	NA	6 WAY ADAPTOR 14X1.5 - VOGEL - SS	L1=41MM	HEX 14MM	YES	100	600 BAR		

## 3 Way adaptor Extensions long

Stainless Steel  
Zinc-nickel, Cr-6-free

Item Code / UF Code	Alternative Part Number	Description	Dim Ref 1	Dim Ref 2	Manufacture	Minimum Qty Req	Pressure	Price Rands	US Dollar Price
<b>ADAPTORS 3 WAY T LONG</b>		<b>3 WAY ADAPTOR FOR LINCOLN &amp; VOGEL PUMPS</b>	<b>REFERENCE 1</b>	<b>HEX SIZE</b>					
UF-3WT-LLMS-1/4BSPT	NA	3 WAY ADAPTOR 1/4BSPT - LINCOLN - MS	LENGTH=77MM	HEX 14MM	YES	100	600 BAR		
UF-3WT-LLSS-1/4BSPT	NA	3 WAY ADAPTOR 1/4BSPT - LINCOLN - SS	LENGTH=77MM	HEX 14MM	YES	100	600 BAR		
UF-3WT-VLMS-M14X1.5	NA	3 WAY ADAPTOR 14X1.5 - VOGEL - MS	LENGTH=77MM	HEX 14MM	YES	100	600 BAR		
UF-3WT-VLSS-M14X1.5	NA	3 WAY ADAPTOR 14X1.5 - VOGEL - SS	LENGTH=77MM	HEX 14MM	YES	100	600 BAR		

Stainless Steel  
Zinc-nickel, Cr-6-free



Item Code / UF Code	Alternative Part Number	Description	Dim Ref 1	Dim Ref 2	Manufacture	Minimum Qty Req	Pressure	Price Rands	US Dollar Price
<b>ADAPTORS 3 WAY T SHORT</b>		<b>3 WAY ADAPTOR FOR LINCOLN &amp; VOGEL PUMPS</b>	<b>REFERENCE 1</b>	<b>HEX SIZE</b>					
UF-3WT-LSMS-1/4BSPT	NA	3 WAY ADAPTOR 1/4BSPT - LINCOLN - MS	LENGTH=41MM	HEX 14MM	YES	100	600 BAR		
UF-3WT-LSSS-1/4BSPT	NA	3 WAY ADAPTOR 1/4BSPT - LINCOLN - SS	LENGTH=41MM	HEX 14MM	YES	100	600 BAR		
UF-3WT-VSMS-M14X1.5	NA	3 WAY ADAPTOR 14X1.5 - VOGEL - MS	LENGTH=41MM	HEX 14MM	YES	100	600 BAR		
UF-3WT-VSSS-M14X1.5	NA	3 WAY ADAPTOR 14X1.5 - VOGEL - SS	LENGTH=41MM	HEX 14MM	YES	100	600 BAR		

## Bulkhead Connectors

A

B

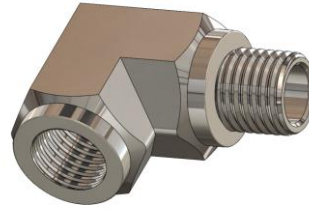
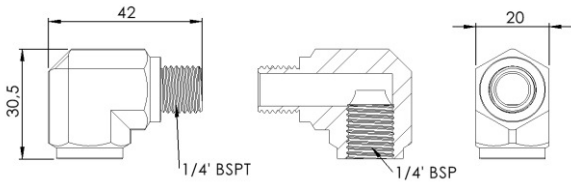
C

Stainless Steel  
Zinc-nickel, Cr-6-free

Item Code / UF Code	REFERENCE TO PART	Description	Dim Ref 1	Dim Ref 2	Manufacture	Minimum Qty Req	Pressure	Price Rands	US Dollar Price
<b>BULKHEAD CONNECTORS JIC 37° &amp; GEL SERIES</b>		<b>BULKHEAD CONNECTORS M12, MILD STEEL &amp; SS</b>	<b>DRILL PANEL HOLE</b>	<b>REFERENCE 2</b>					
UF-BH7/16-GE6LMS	REF: A	BULKHEAD CONNECTOR 7/16" TO CONNECT TO 6MM PIPE	12.5MM	L2=6MM	YES	100	500BAR		
UF-BH7/16-GE6LSS	REF: A	BULKHEAD CONNECTOR 7/16" TO CONNECT TO 6MM PIPE	12.5MM	L2=6MM	YES	100	500BAR		
UF-BH7/16-GE8LMS	REF: A	BULKHEAD CONNECTOR 7/16" TO CONNECT TO 8MM PIPE	12.5MM	L2=8MM	YES	100	500BAR		
UF-BH7/16-GE8LSS	REF: A	BULKHEAD CONNECTOR 7/16" TO CONNECT TO 8MM PIPE	12.5MM	L2=8MM	YES	100	500BAR		
UF-BH7/16-7/16MS	REF: B	BULKHEAD CONNECTOR 7/16" TO CONNECT 7/16" JIC	12.5MM	7/16" UNF	YES	100	500BAR		
UF-BH7/16JIC-7/16	REF: B	BULKHEAD CONNECTOR 7/16" TO CONNECT 7/16" JIC SS	12.5MM	7/16" UNF	YES	100	500BAR		
UF-GE6L-GE6LMS	REF: C	BULKHEAD CONNECTOR 6MM PIPE TO CONNECT TO 6MM PIPE	12.5MM	L2=6MM	YES	100	500BAR		
UF-GE6L-GE6LSS	REF: C	BULKHEAD CONNECTOR 6MM PIPE TO CONNECT TO 6MM PIPE	12.5MM	L2=6MM	YES	100	500BAR		
UF-GE8L-GE8LMS	REF: C	BULKHEAD CONNECTOR 8MM PIPE TO CONNECT TO 8MM PIPE	12.5MM	L2=8MM	YES	100	500BAR		
UF-GE8L-GE8LSS	REF: C	BULKHEAD CONNECTOR 8MM PIPE TO CONNECT TO 8MM PIPE	12.5MM	L2=8MM	YES	100	500BAR		
UF-GE6L-GE8LMS	REF: C	BULKHEAD CONNECTOR 6MM PIPE TO CONNECT TO 8MM PIPE	12.5MM	L1=8MM, L2=6MM	YES	100	500BAR		
UF-GE6L-GE8LSS	REF: C	BULKHEAD CONNECTOR 6MM PIPE TO CONNECT TO 8MM PIPE	12.5MM	L1=8MM, L2=6MM	YES	100	500BAR		

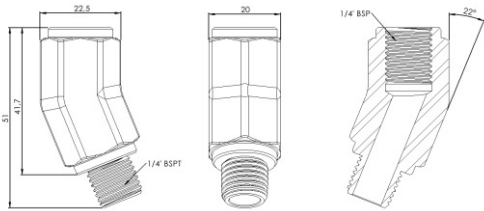
## High Pressure / heavy duty Elbows, T Connectors & special T Sections

Stainless Steel



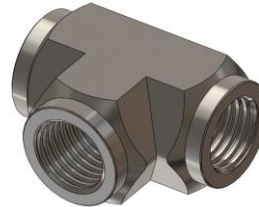
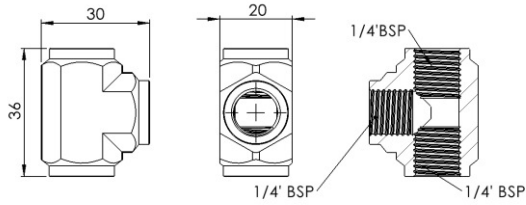
Item Code / UF Code	REFERENCE TO PART	Description	Dim Ref 1	Dim Ref 2	Manufacture	Minimum Qty Req	Pressure	Price Rands	US Dollar Price
ELBOW 90°	Alternative Part Number	ELBOW 90° STAINLESS STEEL S SERIES	DIMENSION	DIMENSION					
UF-E90-SS	NA	ELBOW 90° STAINLESS STEEL			YES	50	600 BAR		

Stainless Steel



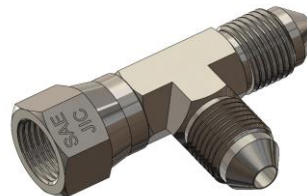
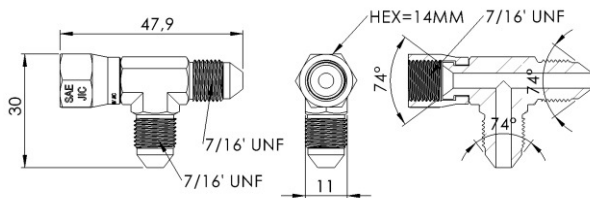
Item Code / UF Code	REFERENCE TO PART	Description	Dim Ref 1	Dim Ref 2	Manufacture	Minimum Qty Req	Pressure	Price Rands	US Dollar Price
ELBOW 22°	Alternative Part Number	ELBOW 22° STAINLESS STEEL S SERIES	DIMENSION	DIMENSION					
UF-E22-SS	NA	ELBOW 22° STAINLESS STEEL			YES	50	600 BAR		

Stainless Steel



Item Code / UF Code	REFERENCE TO PART	Description	Dim Ref 1	Dim Ref 2	Manufacture	Minimum Qty Req	Pressure	Price Rands	US Dollar Price
3 WAY T	Alternative Part Number	3 WAY T STAINLESS STEEL S SERIES	DIMENSION	DIMENSION					
UF-E3T-SS	NA	3 WAY T STAINLESS STEEL			YES	50	600 BAR		

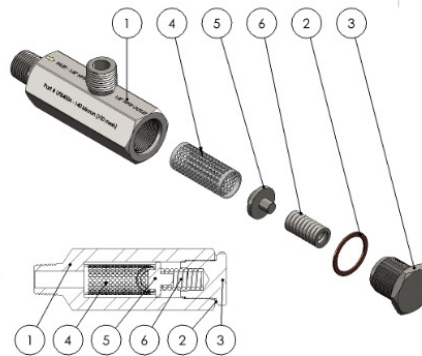
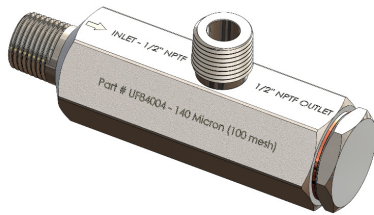
Stainless Steel



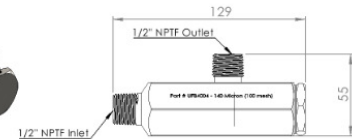
Item Code / UF Code	REFERENCE TO PART	Description	Dim Ref 1	Dim Ref 2	Manufacture	Minimum Qty Req	Pressure	Price Rands	US Dollar Price
3 WAY T	Alternative Part Number	3 WAY T STAINLESS STEEL S SERIES	DIMENSION	DIMENSION					
UF-E7/16T	NA	3 WAY 7/16' T WITH SWIVEL STAINLESS STEEL			YES	50	300 BAR		

Grease filter : 140µm 100 Mesh - UF-84004.....Grease Filter 250µm - UF-84013

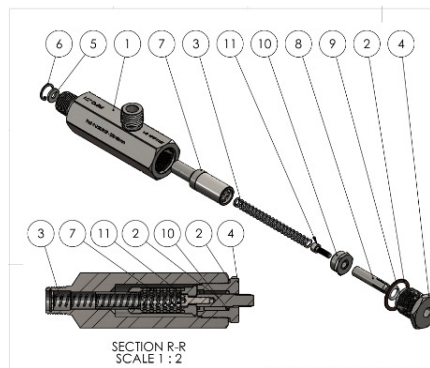
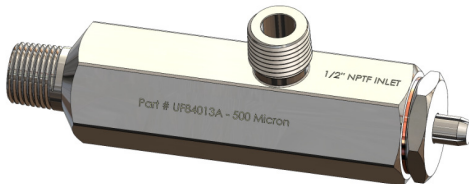
UF-84004



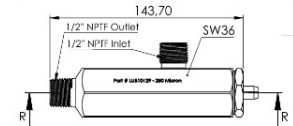
ITEM NO.	DESCRIPTION	PART #	QTY.
1	Main Body 84004	UFMDF-84004	1
2	Copper Washer 84004	UFCW-84004	1
3	End Cap 84004	UFEC-84004	1
4	Filter Cartridge 140 micron (100 Mesh)	UFEC-84004	1
5	Spring Support 84004	UFSS-84004	1
6	Main Spring 84004	UFMS-84004	1



UF-84013

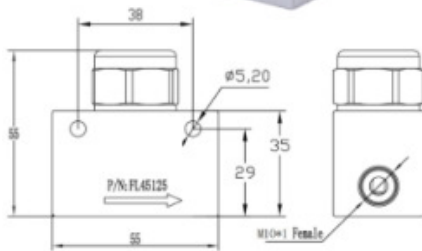


ITEM NO.	DESCRIPTION	PART #	QTY.
1	Main Body UF84013	UFMDF-84013	1
2	Copper Washer 84004	UFCW-84004	1
3	Main Spring UF84013	UFMS-84013	1
4	End Cap UF84013	UFEC-84013	1
5	Steel Washer M6X14	UFSW14	1
6	Circlip 16mm Int.	UFCC-16MM	1
7	Filter Cartridge 250 Micron for UF84013	UF84013FE	1
8	Indicator Pin UF84013	UFIP-84013	1
9	O-ring 9X2.5 Viton	OR9X2.5VIT	1
10	Indicator Pin Support Nut	UFIPSN-84013	1
11	Caphead M5X16 S5	UFCHSM5X16	1



Complies to general & driven Machinery Regulations - DMR & GMR

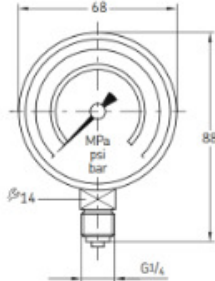
Grease filter: 180µm and 125µm




Part number	Rate	Thread F	Material
UF-AL45180	180µm	M10*1	AL
UF-AL45125	125µm	M10*1	

To order filters with other rate, please contact your sales manager.

## Pressure Gauges



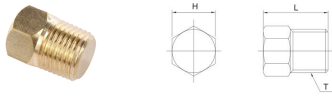


Stainless Steel  
Glycerin filled

Item Code / Uf Code	REFERENCE TO PART	Description	Dim Ref 1	Dim Ref 2	Manufacture	Pressure		
<b>PRESSURE GAUGES STAINLESS STEEL</b>	<b>Alternative Part Number</b>	<b>PRESSURE GAUGES WITH 1/4" BSPT BOTTOM MOUNT</b>	<b>HEX SIZE 1</b>	<b>DIMENSION L1</b>				
UF-PG55-40	169-104-015	PRESSURE GAUGE 0-40 BAR SS	HEX 14MM	L=88MM	YES	0-40BAR		
UF-PG55-60	169-106-015	PRESSURE GAUGE 0-60 BAR SS	HEX 14MM	L=88MM	YES	0-60BAR		
UF-PG55-100	169-110-015	PRESSURE GAUGE 0-100 BAR SS	HEX 14MM	L=88MM	YES	0-100BAR		
UF-PG22-250	169-125-015	PRESSURE GAUGE 0-250 BAR SS	HEX 14MM	L=88MM	YES	0-250BAR		
UF-PG55-400	169-140-001	PRESSURE GAUGE 0-400 BAR SS	HEX 14MM	L=88MM	YES	0-400BAR		
UF-PG55-600	NA	PRESSURE GAUGE 0-600 BAR SS	HEX 14MM	L=88MM	YES	0-600BAR		

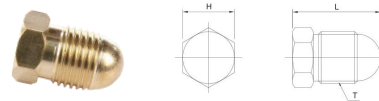


## Closure plug - (Brass)



Part number	L	T	H
UF-3G0408	12	M8*1.0	8
UF-3G0601	14	PT1/8"	10

## Sleeve plug - (Brass)



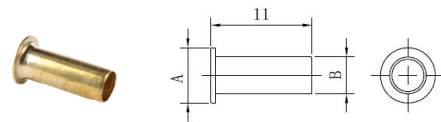
Part number	L	T	H
UF-3G04	16	M8*1.0	8
UF-3G06	17	M10*1.0	10

## Straight Fitting assembly - (Brass)



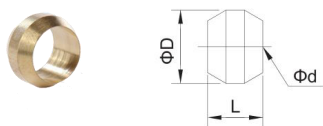
Part number	OD	Thread
UF-3D0410T	Ø4	M10*1
UF-3D0610T	Ø6	M10*1
UF-3D0408T	Ø4	M8*1.0
UF-3D0406T	Ø4	M6*1.0

## Re-enforcing tube - (Brass)



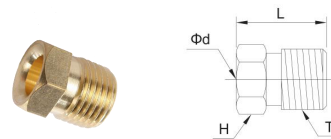
Part number	A	B
UF-BF04	4	2
UF-BF0425	4	2.5
UF-BF06	6	4
UF-BF0630	6	3

## Cone Ferrule - (Brass)



Part number	OD	Ød	ØD	L
UF-3B04	4	4.1	6	4.5
UF-3B06	6	6.1	8	5
UF-3B08	8	8.1	11	7
UF-3B10	10	10.1	13.5	8

## Nut Adaptor - (Brass)



Part number	OD	Ød	L	H	T
UF-3A04	4	4.1	12	8	M8*1.0
UF-3A06	6	6.1	12.5	10	M10*1.0
UF-3A08	8	8.1	14	14	M14*1.5
UF-3A10	10	10.1	15	16	M16*1.5



## Fittings & Accessories

### High-pressure Polyamide Tube



Part number	Outer diameter	Inside diameter
UF-T-HP03	Ø6	Ø3
UF-T-HP04	Ø8.6	Ø4
UF-T-HP06	Ø11	Ø6.3

### Nylon tubing (BP in black; WP in white)



Part number	Outer diameter	Inside diameter
UF-T-BP06	Ø6	Ø3
UF-T-BP04	Ø4	Ø2.5
UF-T-WP06	Ø6	Ø4
UF-T-WP04	Ø4	Ø2

### Steel tubing - SS 316



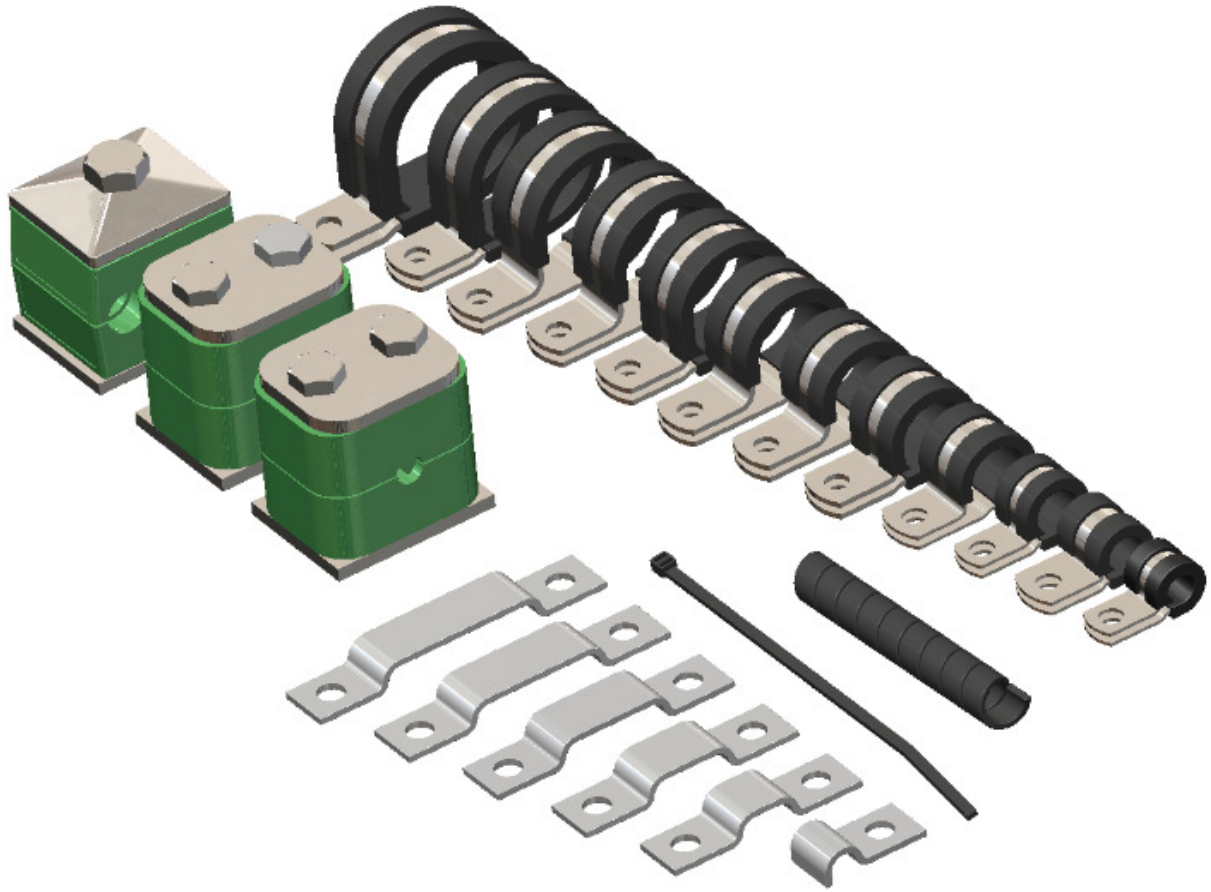
Part number	Outer diameter	Inside diameter
UF-T-CP04	Ø4	Ø2
UF-T-CP06	Ø6	Ø4
UF-T-CP08	Ø8	Ø6
UF-T-CP10	Ø10	Ø8

### Pipe Protective Spring coil



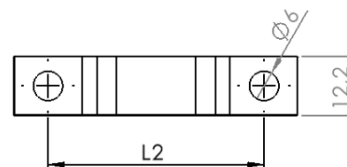
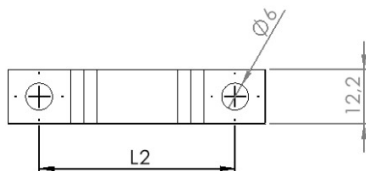
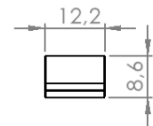
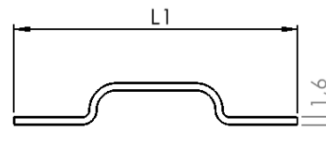
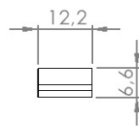
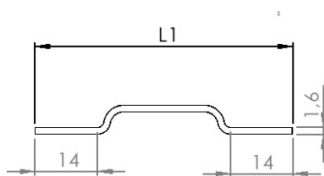
Part number	Ød	Suitable pipe outer diameter
UF-THT04	4.5	4
UF-THT06	6.5	6
UF-THT08	11	9.3

## Pipe & Tubing Fixures



6mm Steel Pipe Clamp Dims

6mm Steel Pipe Clamp Dims



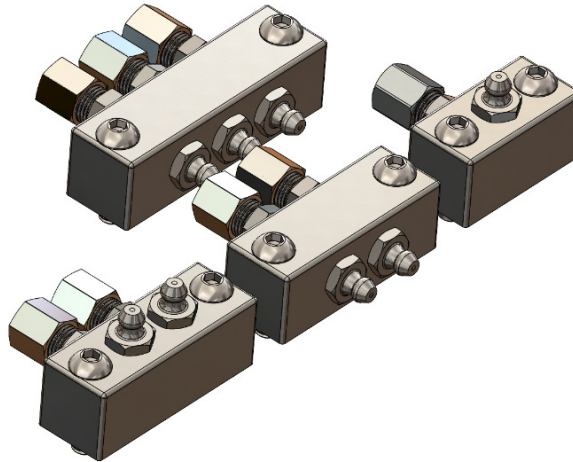
## Steel Pipe Clamps Mild Steel for 6 & 8mm Pipes- Galvanized Nickel

Part number	Description	Ref: - L1	Ref: L2	Material
UFL-GJ-6-1	Steel Pipe Clamp for 1 Pipe - 6mm	L1=24.5mm	-	Mild Steel Galvanized Nickel
UFL-GJ-6-2	Steel Pipe Clamp for 2 Pipes - 6mm	L1=45.7mm	L2=31.8mm	
UFL-GJ-6-3	Steel Pipe Clamp for 3 Pipes - 6mm	L1=51.7mm	L2=37.8mm	
UFL-GJ-6-4	Steel Pipe Clamp for 4 Pipes - 6mm	L1=57.7mm	L2=43.8mm	
UFL-GJ-6-5	Steel Pipe Clamp for 5 Pipes - 6mm	L1=63.7mm	L2=49.8mm	
UFL-GJ-6-6	Steel Pipe Clamp for 6 Pipes - 6mm	L1=69.7mm	L2=55.8mm	
UFL-GJ-8-1	Steel Pipe Clamp for 1 Pipe - 8mm	L1=26.2mm	-	
UFL-GJ-8-2	Steel Pipe Clamp for 2 Pipes - 8mm	L1=50.1mm	L2=36.2mm	
UFL-GJ-8-3	Steel Pipe Clamp for 3 Pipes - 8mm	L1=58.1mm	L2=44.2mm	
UFL-GJ-8-4	Steel Pipe Clamp for 4 Pipes - 8mm	L1=66.1mm	L2=52.8mm	
UF-M5MS	M5 Self Tapping Screw	M5X10mm		

## Steel Pipe Clamps Mild Steel for 6 & 8mm Pipes- Stainless Steel

Part number	Description	Ref: - L1	Ref: L2	Material
UFL-GJ-6-1-VA	Steel Pipe Clamp for 1 Pipe - 6mm	L1=24.5mm	-	Stainless Steel
UFL-GJ-6-2-VA	Steel Pipe Clamp for 2 Pipes - 6mm	L1=45.7mm	L2=31.8mm	
UFL-GJ-6-3-VA	Steel Pipe Clamp for 3 Pipes - 6mm	L1=51.7mm	L2=37.8mm	
UFL-GJ-6-4-VA	Steel Pipe Clamp for 4 Pipes - 6mm	L1=57.7mm	L2=43.8mm	
UFL-GJ-6-5-VA	Steel Pipe Clamp for 5 Pipes - 6mm	L1=63.7mm	L2=49.8mm	
UFL-GJ-6-6-VA	Steel Pipe Clamp for 6 Pipes - 6mm	L1=69.7mm	L2=55.8mm	
UFL-GJ-8-1-VA	Steel Pipe Clamp for 1 Pipe - 8mm	L1=26.2mm	-	
UFL-GJ-8-2-VA	Steel Pipe Clamp for 2 Pipes - 8mm	L1=50.1mm	L2=36.2mm	
UFL-GJ-8-3-VA	Steel Pipe Clamp for 3 Pipes - 8mm	L1=58.1mm	L2=44.2mm	
UFL-GJ-8-4-VA	Steel Pipe Clamp for 4 Pipes - 8mm	L1=66.1mm	L2=52.8mm	
UF-M5MS	M5 Self Tapping Screw SS	M5X10mm		

## Remote Grease Port Manifolds for 90° applications



Part number	Description	Length	Square	Material
UF-1PM90°-1/8	1 PORT MANIFOLD WITH 1/8" BSP THREADED HOLE	L=40mm	20mm	Stainless Steel
UF-2PM90°-1/8	2 PORT MANIFOLD WITH 1/8" BSP THREADED HOLE	L=55mm	20mm	
UF-3PM90°-1/8	3 PORT MANIFOLD WITH 1/8" BSP THREADED HOLE	L=70mm	20mm	
UF-4PM90°-1/8	4 PORT MANIFOLD WITH 1/8" BSP THREADED HOLE	L=85mm	20mm	
UF-5PM90°-1/8	5 PORT MANIFOLD WITH 1/8" BSP THREADED HOLE	L=100mm	20mm	
UF-6PM90°-1/8	6 PORT MANIFOLD WITH 1/8" BSP THREADED HOLE	L=115mm	20mm	
UF-BHS-M6X25	Button Head Screw	M6X25		
UF-GN-1/8BSPT	Grease Nipple 1/8" Bspt			

## Remote Grease Port Manifolds for parallel applications

Part number	Description	Length	Square	Material
UF-1PM-1/8	1 PORT MANIFOLD WITH 1/8" BSP THREADED HOLE	L=40mm	20mm	Stainless Steel
UF-2PM-1/8	2 PORT MANIFOLD WITH 1/8" BSP THREADED HOLE	L=55mm	20mm	
UF-3PM-1/8	3 PORT MANIFOLD WITH 1/8" BSP THREADED HOLE	L=70mm	20mm	
UF-4PM-1/8	4 PORT MANIFOLD WITH 1/8" BSP THREADED HOLE	L=85mm	20mm	
UF-5PM-1/8	5 PORT MANIFOLD WITH 1/8" BSP THREADED HOLE	L=100mm	20mm	
UF-6PM-1/8	6 PORT MANIFOLD WITH 1/8" BSP THREADED HOLE	L=115mm	20mm	
UF-BHS-M6X25	Button Head Screw	M6X25		
UF-GN-1/8BSPT	Grease Nipple 1/8" Bspt			

\*\* Connectors, grease nipples and screws to be ordered separately

## Spiralwrap



Part number	Ød	Suitable pipe outer diameter
UF-THL08-1	8	6
UF-THL10-1	10	8.6
UF-THL12-1	12	11.2

## Cable tie



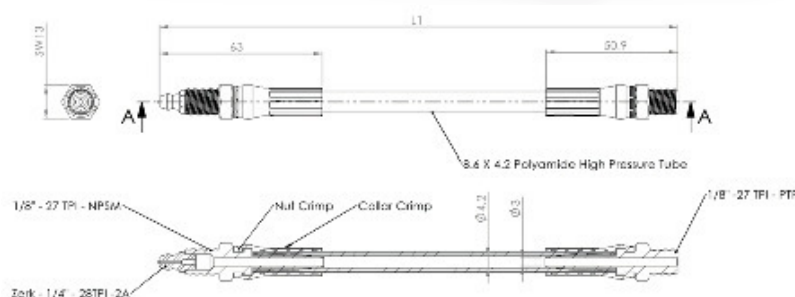
Part number	Width	Length	Material
UF-ZDCH5200	5	200	Nylon
UF-ZDCH5300	5	300	
UF-ZDCH5500	5	500	

## R Pipe clamp



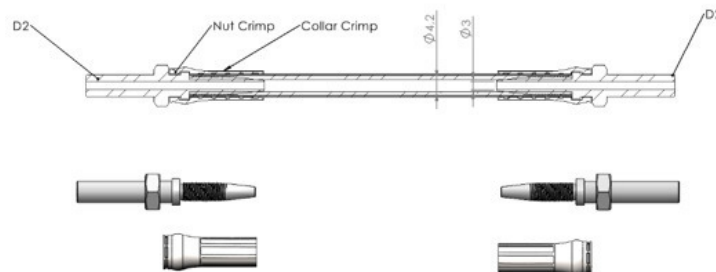
Part number	Ød	Mounting hole
UF-RC06	6	6.4mm
UF-RC08	8	6.4mm
UF-RC10	10	6.4mm
UF-RC12	12	6.4mm
UF-RC14	14	6.4mm
UF-RC16	16	6.4mm
UF-RC18	18	6.4mm
UF-RC20	20	6.4mm
UF-RC22	22	6.4mm
UF-RC25	25	6.4mm
UF-RC28	28	6.4mm
UF-RC30	30	6.4mm

Hose Connections for 8.4mm hose crimped with grease nipple  
Carbon Steel-Zinc Nickel, CR Free with option in SS



Item Code	Alt Item Code	Description	Dim Ref L1	Dim Ref 2	Max Pressure
UF-CZF-200MS		Crimped Sleeve for 8.4mm hose	L1=200mm	1/8" BSPT	350 Bar
UF-CZF-250MS		Crimped Sleeve for 8.4mm hose	L1=250mm	1/8" BSPT	350 Bar
UF-CZF-300MS		Crimped Sleeve for 8.4mm hose	L1=300mm	1/8" BSPT	350 Bar
UF-CZF-400MS		Crimped Sleeve for 8.4mm hose	L1=400mm	1/8" BSPT	350 Bar
UF-CZF-500MS		Crimped Sleeve for 8.4mm hose	L1=500mm	1/8" BSPT	350 Bar
UF-CZF-750MS		Crimped Sleeve for 8.4mm hose	L1=750mm	1/8" BSPT	350 Bar
UF-CZF-1000MS		Crimped Sleeve for 8.4mm hose	L1=1000mm	1/8" BSPT	350 Bar
UF-CZF-200SS		Crimped Sleeve for 8.4mm hose	L1=200mm	1/8" BSPT	350 Bar
UF-CZF-250SS		Crimped Sleeve for 8.4mm hose	L1=250mm	1/8" BSPT	350 Bar
UF-CZF-300SS		Crimped Sleeve for 8.4mm hose	L1=300mm	1/8" BSPT	350 Bar
UF-CZF-400SS		Crimped Sleeve for 8.4mm hose	L1=400mm	1/8" BSPT	350 Bar
UF-CZF-500SS		Crimped Sleeve for 8.4mm hose	L1=500mm	1/8" BSPT	350 Bar
UF-CZF-750SS		Crimped Sleeve for 8.4mm hose	L1=750mm	1/8" BSPT	350 Bar
UF-CZF-1000SS		Crimped Sleeve for 8.4mm hose	L1=1000mm	1/8" BSPT	350 Bar

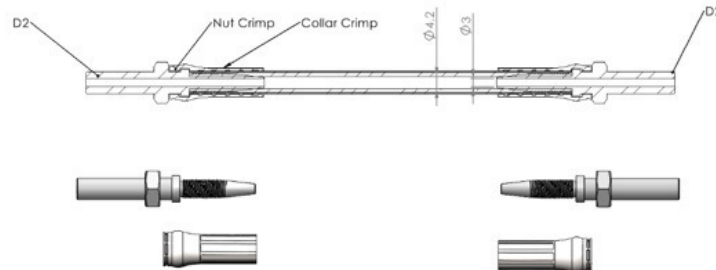
Hose Connections for 8.4mm hose crimped with 6mm Standpipe  
Carbon Steel-Zinc Nickel, CR Free with option in SS



Item Code	Alt Item Code	Description	Dim Ref L1	Dim Ref 2	Max Pressure
UF-6F-200MS		Crimped Sleeve for 8.4mm hose	L1=200mm	6MM	350 Bar
UF-6F-250MS		Crimped Sleeve for 8.4mm hose	L1=250mm	6MM	350 Bar
UF-6F-300MS		Crimped Sleeve for 8.4mm hose	L1=300mm	6MM	350 Bar
UF-6F-400MS		Crimped Sleeve for 8.4mm hose	L1=400mm	6MM	350 Bar
UF-6F-500MS		Crimped Sleeve for 8.4mm hose	L1=500mm	6MM	350 Bar
UF-6F-750MS		Crimped Sleeve for 8.4mm hose	L1=750mm	6MM	350 Bar
UF-6F-1000MS		Crimped Sleeve for 8.4mm hose	L1=1000mm	6MM	350 Bar
UF-6F-200SS		Crimped Sleeve for 8.4mm hose	L1=200mm	6MM	350 Bar
UF-6F-250SS		Crimped Sleeve for 8.4mm hose	L1=250mm	6MM	350 Bar
UF-6F-300SS		Crimped Sleeve for 8.4mm hose	L1=300mm	6MM	350 Bar
UF-6F-400SS		Crimped Sleeve for 8.4mm hose	L1=400mm	6MM	350 Bar
UF-6F-500SS		Crimped Sleeve for 8.4mm hose	L1=500mm	6MM	350 Bar
UF-6F-750SS		Crimped Sleeve for 8.4mm hose	L1=750mm	6MM	350 Bar
UF-6F-1000SS		Crimped Sleeve for 8.4mm hose	L1=1000mm	6MM	350 Bar

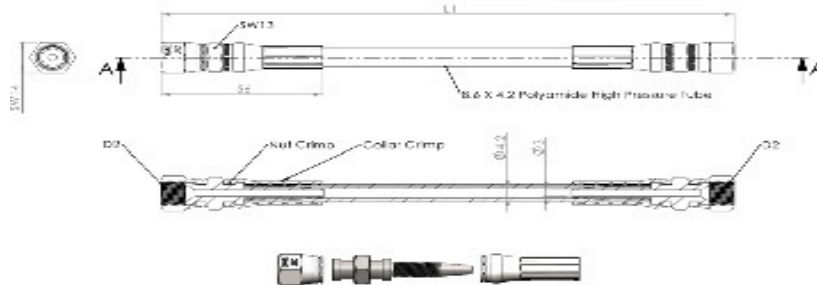


## Hose Connections for 8.4mm hose crimped with 8mm Standpipe Carbon Steel-Zinc Nickel, CR Free with option in SS



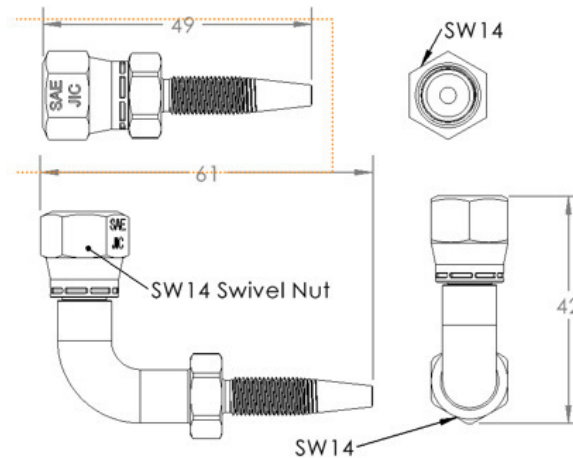
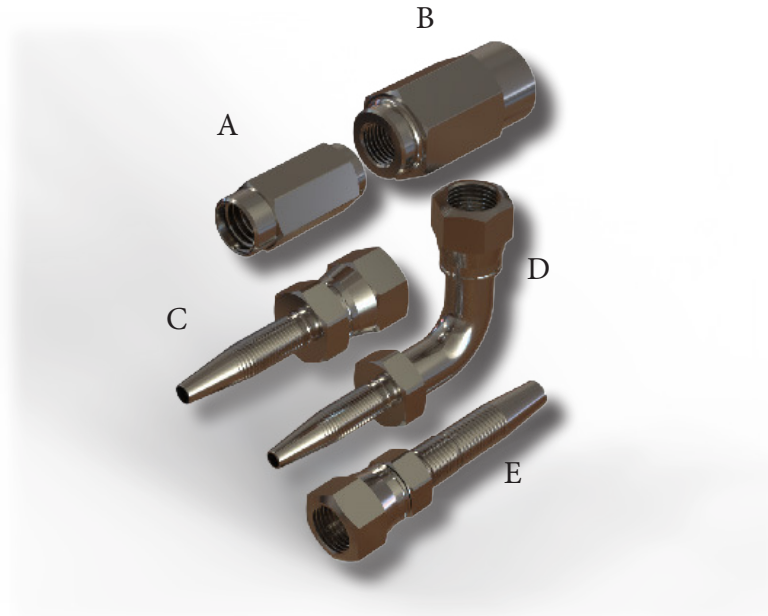
Item Code	Alt Item Code	Description	Dim Ref L1	Dim Ref 2	Max Pressure
UF-8F-200MS		Crimped Sleeve for 8.4mm hose	L1=200mm	8MM	350 Bar
UF-8F-250MS		Crimped Sleeve for 8.4mm hose	L1=250mm	8MM	350 Bar
UF-8F-300MS		Crimped Sleeve for 8.4mm hose	L1=300mm	8MM	350 Bar
UF-8F-400MS		Crimped Sleeve for 8.4mm hose	L1=400mm	8MM	350 Bar
UF-8F-500MS		Crimped Sleeve for 8.4mm hose	L1=500mm	8MM	350 Bar
UF-8F-750MS		Crimped Sleeve for 8.4mm hose	L1=750mm	8MM	350 Bar
UF-8F-1000MS		Crimped Sleeve for 8.4mm hose	L1=1000mm	8MM	350 Bar
UF-8F-200SS		Crimped Sleeve for 8.4mm hose	L1=200mm	8MM	350 Bar
UF-8F-250SS		Crimped Sleeve for 8.4mm hose	L1=250mm	8MM	350 Bar
UF-8F-300SS		Crimped Sleeve for 8.4mm hose	L1=300mm	8MM	350 Bar
UF-8F-400SS		Crimped Sleeve for 8.4mm hose	L1=400mm	8MM	350 Bar
UF-8F-500SS		Crimped Sleeve for 8.4mm hose	L1=500mm	8MM	350 Bar
UF-8F-750SS		Crimped Sleeve for 8.4mm hose	L1=750mm	8MM	350 Bar
UF-8F-1000SS		Crimped Sleeve for 8.4mm hose	L1=1000mm	8MM	350 Bar

Hose Connections for 8.4mm hose crimped Swivel Nut 7/16" (37°) UNF  
Carbon Steel-Zinc Nickel, CR Free with option in SS



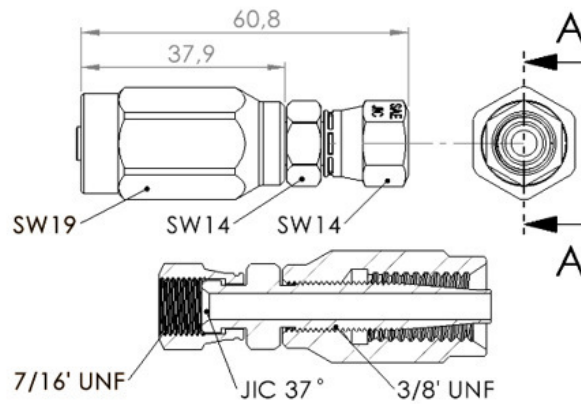
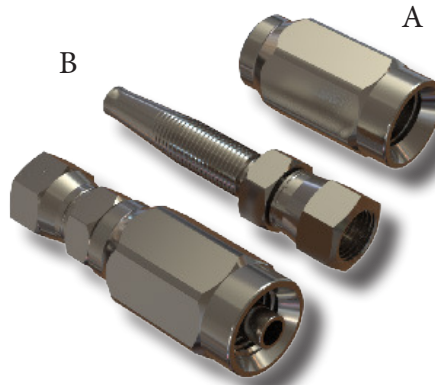
Item Code	Alt Item Code	Description	Dim Ref L1	Dim Ref 2	Max Pressure
UF-JIC-200MS		Crimped Sleeve for 8.4mm hose	L1=200mm	7/16" UNF	350 Bar
UF-JIC-250MS		Crimped Sleeve for 8.4mm hose	L1=250mm	7/16" UNF	350 Bar
UF-JIC-300MS		Crimped Sleeve for 8.4mm hose	L1=300mm	7/16" UNF	350 Bar
UF-JIC-400MS		Crimped Sleeve for 8.4mm hose	L1=400mm	7/16" UNF	350 Bar
UF-JIC-500MS		Crimped Sleeve for 8.4mm hose	L1=500mm	7/16" UNF	350 Bar
UF-JIC-750MS		Crimped Sleeve for 8.4mm hose	L1=750mm	7/16" UNF	350 Bar
UF-JIC-1000MS		Crimped Sleeve for 8.4mm hose	L1=1000mm	7/16" UNF	350 Bar
UF-JIC-200SS		Crimped Sleeve for 8.4mm hose	L1=200mm	7/16" UNF	350 Bar
UF-JIC-250SS		Crimped Sleeve for 8.4mm hose	L1=250mm	7/16" UNF	350 Bar
UF-JIC-300SS		Crimped Sleeve for 8.4mm hose	L1=300mm	7/16" UNF	350 Bar
UF-JIC-400SS		Crimped Sleeve for 8.4mm hose	L1=400mm	7/16" UNF	350 Bar
UF-JIC-500SS		Crimped Sleeve for 8.4mm hose	L1=500mm	7/16" UNF	350 Bar
UF-JIC-750SS		Crimped Sleeve for 8.4mm hose	L1=750mm	7/16" UNF	350 Bar
UF-JIC-1000SS		Crimped Sleeve for 8.4mm hose	L1=1000mm	7/16" UNF	350 Bar

## Hose Connections for 8.4mm & 11.2mm Hose 7/16" JIC (37°) Swivel Nut Carbon Steel-Zinc Nickel, CR Free with option in SS



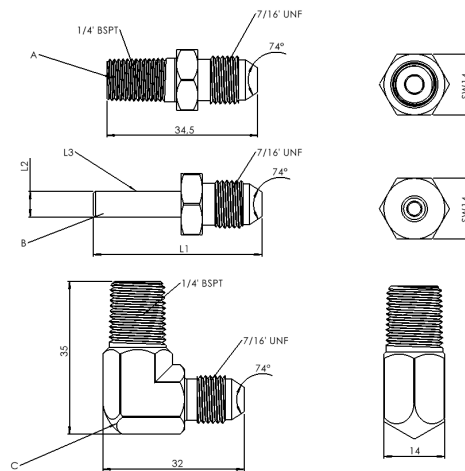
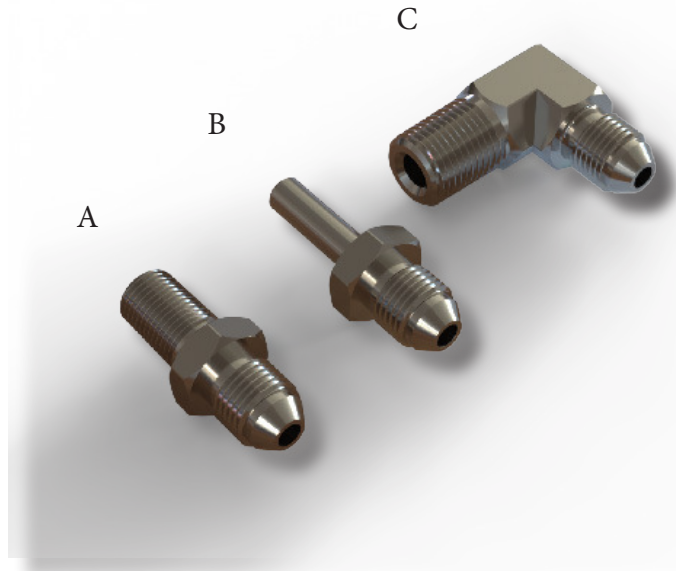
Item Code	Description	Dim Ref L1	Dim Ref 2	Max Pressure
UF-08MS-JIC	JIC Swivel Insert for 8.4mm Hose Str.	Hex=14	C	400 Bar
UF-08SS-JIC	JIC Swivel Insert for 8.4mm Hose Str.	Hex=14	C	400 Bar
UF-08MS-JIC90	JIC Swivel Insert for 8.4mm Hose 90°	Hex=14	D	400 Bar
UF-08SS-JIC90	JIC Swivel Insert for 8.4mm Hose 90°	Hex=14	D	400 Bar
UF-12MS-JIC	JIC Swivel Insert for 11.2mm Hose Str.	Hex=14	E	400 Bar
UF-12SS-JIC	JIC Swivel Insert for 11.2mm Hose Str.	Hex=14	E	400 Bar
UF-K050	Threaded Sleeve for 8.4mm hose	Hex=12	A	400 Bar
UF-K050-VA	Threaded Sleeve for 8.4mm hose	Hex=12	A	400 Bar
UF-K060	Threaded Sleeve for 11.2mm hose	Hex=17	B	400 Bar
UF-K060-VA	Threaded Sleeve for 11.2mm hose	Hex=17	B	400 Bar

## Hose Connections for 1/4" R1 Hose with 7/16" JIC (37°) Swivel Nut Carbon Steel-Zinc Nickel, CR Free with option in SS



Item Code	Description	Dim Ref L1	Dim Ref 2	Max Pressure
UF-R1INS-7/16MMS	R1 Insert with 7/16 Swivel 37° Stud 3/8 UNF MS	Hex=14, Sleeve 19	A	350 Bar
UF-R1INS-7/16MSS	R1 Insert with 7/16 Swivel 37° Stud 3/8 UNF SS	Hex=14, Sleeve 19	A	350 Bar
UF-R1S-SS	7/16 JIC Threaded Sleeve - R1(1/4") Hose SS	Hex 19mm	B	350 Bar
UF-R1S-MS	7/16 JIC Threaded Sleeve - R1(1/4") Hose MS	Hex 19mm	B	350 Bar

## Nipple Connections 7/16" JIC (37°) UNF Carbon Steel-Zinc Nickel, CR Free with option in SS



Item Code	Description	Dim Ref L1	Dim Ref 2	Max Pressure
UF-JIC-1	7/16 JIC to 1/8 BSPT Nipple MS	24.5mm	A	350 Bar
UF-JIC-2	7/16 JIC to 1/4 BSPT Nipple MS	-	A	350 Bar
UF-7/16JIC1/8-01	7/16 JIC to 1/8 BSPT Nipple SS	24.5mm	A	350 Bar
UF-JIC-2SS	7/16 JIC to 1/4 BSPT Nipple SS	-	A	350 Bar
UF-JIC-6S	7/16 JIC to 6mm Standpipe Short Nipple MS	L3 =20mm	B	350 Bar
UF-JIC-6L	7/16 JIC to 6mm Standpipe Long Nipple MS	L3 =30mm	B	350 Bar
UF-JIC-6SS	7/16 JIC to 6mm Standpipe Short Nipple SS	L3 =20mm	B	350 Bar
UF-JIC-6LS	7/16 JIC to 6mm Standpipe Long Nipple MS	L3 =30mm	B	350 Bar
UF-JIC-8S	7/16 JIC to 8mm Standpipe Short Nipple MS	L3 =30mm	B	350 Bar
UF-JIC-8L	7/16 JIC to 8mm Standpipe Long Nipple MS	L3 =30mm	B	350 Bar
UF-JIC-8SS	7/16 JIC to 8mm Standpipe Short Nipple SS	L3 =30mm	B	350 Bar
UF-JIC-8LS	7/16 JIC to 8mm Standpipe Long Nipple SS	L3 =30mm	B	350 Bar
UF-JIC-1/8-90MS	7/16 JIC to 1/8 BSPT elbow Nipple MS	-	C	350 Bar
UF-JIC-1/8-90SS	7/16 JIC to 1/8 BSPT elbow Nipple SS	-	C	350 Bar
UF-JIC-1/4-90MS	7/16 JIC to 1/4 BSPT elbow Nipple MS	-	C	350 Bar
UF-JIC-1/4-90SS	7/16 JIC to 1/4 BSPT elbow Nipple MS	-	C	350 Bar



Series  
**OL500**



IP54  

**Wide Range of Oil Viscosity.  
Refillable On-Site. Cost Effective.**



# Pulsarlube **OL500**

## Features & Advantages

### Outstanding Performance

- ▶ A vertical feed pump controlled by a microprocessor allows accurate dispensing and covers a wide viscosity range
- ▶ Large 500ml oil reservoir

### Cost Savings

- ▶ Lower maintenance costs than manual lubrication
- ▶ Refillable oil reservoir

### Multi-Point Lubrication

High output pressure (10bar) enables long lubelines and multi-point lubrication

### User Friendly Programming

Easy to program with built-in LCD and simple button controls

### Easy Maintenance

Transparent container for easy visual inspection of remaining oil

### Other Features

- ▶ Various dispensing settings to suit a wide range of industrial applications
- ▶ Auto Lockout mode to prevent unintentional system changes
- ▶ Easy to install in confined areas

## Typical Industries and Applications



— Bearings

— Chains

— Cable ropes

— Cable tracks

— Pumps

— Motors

— Escalators, etc.

## Overview

## Product Specifications



### Oil Reservoir Capacity

500ml (refillable)

### Power Supply

DC 4.5V Battery Pack (replaceable)

### Operating Pressure

10bar (145psi) (depends on oil viscosity)

### Operating Temperature

Standard Alkaline Battery :  
-15°C~60°C (5°F~140°F)  
Optional Lithium Battery :  
-40°C~60°C (-40°F~140°F)

### Dispensing Periods

1, 2, 4, 6, 12, 18, 24 month & H (15 days)

### Single Point Remote Installation

Max. 6m (20ft) with Ø4 tube

### Multi-Point Installation

Max. 3m (10ft) with O.D. Ø4 tube  
(Up to 4 lube points)

### Product Certifications & IP Code

IP54

### Oil Viscosity Range

10~10,000 cSt@40°C

\* Special instructions available  
for 10~100 cSt@40°C



Series  
**S100**



**Ingenious Design for Easy Installation and Simple Operation.**



Pulsarlube **S**

### Features & Advantages

#### Innovative Design

The upward piston movement dramatically reduces grease hardening, the chronic issue of conventional spring type lubricators

#### More Reliable Lubrication

More reliable than other conventional spring type lubricators by minimizing the problem of oil separation

#### Cost Savings

Prevent plant downtime and save on manpower consumption for manual lubrication

#### User Friendly

- ▶ Available pre-filled and can be installed right out of the box
- ▶ Grease dispensing rate can be easily adjusted by using a control knob
- ▶ Refillable and reusable

### Typical Industries and Applications



The following equipment will benefit from using the Pulsarlube S

- Ball, roller bearings
- Shield bearings
- Bronze, oilite or open bearings
- Applications where a bearing flush is necessary

### Overview



### Product Specifications

#### Grease Pouch Capacity

100ml (refillable)

#### Operating Method

Spring

#### Operating Pressure

N/A

#### Operating Temperature

-20°C~100°C (-4°F~212°F)

#### Dispensing Periods

5 Dial Settings

#### Single Point Remote Installation

N/A

#### Multi-Point Installation

N/A

Series  
M60/M125/M250/M500



CE FCC IP65  

**Total Reliability - Advanced Diagnostics, Unrivalled Output Pressure, Wide Temp Capability.**



Pulsarlube **M**

### Features & Advantages

#### Cost Savings

Substantial savings from the use of replaceable grease pouches and battery packs (Service Pack)

#### Remote Installation

High output pressure (30bar) enables remote installation up to 10m (33ft)

#### Multi-Point Installation

Up to 8 lube points using Ø6 tube, Max. 6m (20ft) per point

#### Simple Operation

Easy to program with built-in LCD and simple button controls

#### Convenient Maintenance

Transparent container for easy visual inspection of remaining lubricant

#### Other Features

- ▶ Various dispensing settings & grease pouch volumes to suit a wide range of industrial applications
- ▶ Auto Lock Out mode to prevent unintentional mode changes
- ▶ Easy to install in hazardous & confined areas

### Typical Industries and Applications

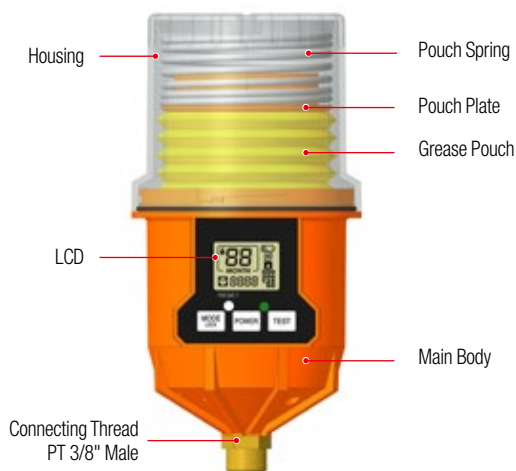


- Automotive plants, iron/steel mills and nuclear power plants
- Cleanrooms & LM Guides where precise, multi-point lubrication is needed
- HVAC equipment & cooling towers where long lube lines may be necessary

- Motors and pumps in city water & wastewater treatment facilities
- Any places with extreme (low or high) temperature

### Overview

### Product Specifications



#### Grease Pouch Capacity

60ml / 125ml / 250ml / 500ml  
(capacity setting available)

#### Power Supply

DC 4.5V Battery Pack (replaceable)  
Standard : Alkaline Battery  
Optional : Lithium Battery

#### Operating Pressure

30~60bar (435~870psi)

#### Operating Temperature

Standard Alkaline Battery :  
-15°C~60°C (5°F~140°F)  
Optional Lithium Battery :  
-40°C~60°C (-40°F~140°F)

#### Dispensing Periods

1~12 month

#### Single Point Remote Installation

Max. 10m (33ft) with Ø6 tube

#### Multi-Point Installation

Max. 6m (20ft) with Ø6 tube  
(Up to 8 lube points)

#### Dispensing Volume Size

0.34ml/stroke (@20°C/68°F)

#### Product Certifications & IP Code

CE / KC / FCC / RoHS / IP65



Series  
MSP60/MSP125/MSP250/MSP500



More Reliable. More Efficient. More Precise.  
Machine Synchronized & Externally Powered.



Pulsarlube **MSP**

### Features & Advantages

#### Synchronized Lubrication

A pre-set amount of grease is delivered only when the equipment is in operation, avoiding the possibility of over lubrication and waste

#### Cost Savings

- ▶ There is no need to replace the battery pack for up to 5 years
- ▶ Substantial savings from the use of replaceable grease pouches and battery packs (Service Pack)
- ▶ Perfect solution to prolong machinery life by preventing under or over-lubrication and optimize maintenance efficiency

#### Other Features

- ▶ Various dispensing settings & grease pouch volumes to suit a wide range of industrial applications
- ▶ Easy to adjust dispensing periods, even while in operation
- ▶ Transparent container for easy visual inspection of remaining lubricant

### Typical Industries and Applications



- Motors & pumps
- Equipment that is shut down or in stand-by for long periods of time
- Electronics & automobiles
- Cleanrooms where over-lubrication is critically monitored

### Product Specifications

#### Grease Pouch Capacity

60ml / 500ml (pre-set)  
125ml / 250ml (capacity setting available)

#### Power Supply

External Power Supply (\*Backup Battery Required)

- 1) VAC  
AC-DC ADAPTOR (100~220V)
- 2) VDC  
DC-DC CONVERTOR (12V~24V)

#### Operating Pressure

30~60bar (435~870psi)

#### Operating Temperature

Standard Alkaline Battery :  
-15°C~60°C (5°F~140°F)  
Optional Lithium Battery :  
-40°C~60°C (-40°F~140°F)

#### Dispensing Periods

60ml : 1~12 month  
125ml / 250ml : 1, 2, 3, 6, 12 month & H (15 days)  
500ml : 1, 2, 4, 6, 12, 18, 24 month & H (15 days)

\* MSP is also available for oil applications

#### Single Point Remote Installation

Max. 10m (33ft) with Ø6 tube

#### Multi-Point Installation

Max. 6m (20ft) with Ø6 tube  
(Up to 8 lube points)

#### Dispensing Volume Size

0.34ml/stroke (@20°C/68°F)

### Relay Specifications

#### Voltage Rate Input Range

VAC : 100~220V, 0.5A 50~60Hz  
VDC : 12V~24V

#### Voltage Rate Output Range

5.0V, 2A

#### Power ON Indicator

Red LED

#### Power Supply Dimensions

85 mm (D) x 49 mm (W) x 32 mm (H)

#### Wire Length From Power Supply

Input : 1m (3.3ft) Output : 4.5m (15ft)

#### Wire Length From MSP Lubricator

90mm (3.5in)



**HIGHLY EFFICIENT & COMPETITIVE  
DESICCANT BREATHER**

Pulsarlube **AIR**

# PULSARLUBE® AIR AB-PX SERIES

Advanced protection even in high humidity & dust areas

Whenever pressure or fluid levels inside a reservoir fluctuates, airborne contaminants such as dust/dirt, moisture, and oxygen are drawn in through the breather vent port from the ambient environment.

These unwanted contaminants can expedite oxidation and corrosion, increase humidity leading to condensation and free water accumulation, cause oil emulsion, and lead to sludge or acid formation. This in turn results in frequent fluid and filter changes, increased operating and maintenance costs, and shortened equipment life.

Using desiccant breathers on reservoirs containing hydraulic fluid, oil, or other fluids can prevent possible contamination by filtering out dust, other airborne contaminants, and moisture.

**The Pulsarlube PX Breather is a proactive and effective maintenance countermeasure to keep the entire fluid system clean and to extend the storage and service life of fluids, even in high humidity and dust areas.**



#### Protection Against Ambient Air Exchange

Intake check valves limit air exchange with the environment until air flow is required, extending desiccant service life.



#### Superior Filtering Performance

The combination of an activated carbon filter, advanced electret filter, and baffle plate offers effective contamination control.



#### Extended Service Life

A larger volume of silica gel provides higher adsorption rates over comparable competitor products.



#### Longer Shelf Life

Premium packaging using a non-permeable, triple layer film guarantees long lasting shelf life.



#### Easy Maintenance

Simply replace the breather when the orange silica gel turns dark green.

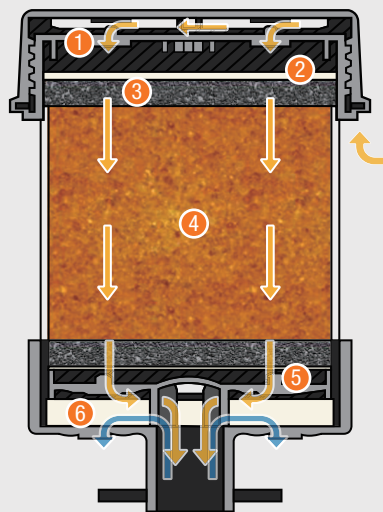


### Design & Features

Filters airborne contaminants

Dehumidifies

Prevents oil mist contamination  
from reservoir



- 1 Check Valve**  
prolongs life of desiccant by limiting ambient air exchange until air flow is required
- 2 Electret Filter (particle size > 2µm)**  
captures airborne dirt, dust, and other undesirable particles by electrostatic charge
- 3 Activated Carbon Filter**  
removes fumes and odor
- 4 Desiccant Silica Gel**  
turns from orange to green as it adsorbs moisture from incoming air
- 5 Baffle Plate**  
protects silica gel from oil mist contamination by providing a one-way barrier between the reservoir and silica gel
- 6 Oil Absorbent Foam**  
absorbs oil mist drawn in from reservoir

### Typical Industries and Applications



· Hydraulic Reservoirs



· Industrial Gearboxes



· Transformers



· IBC & Fluid Tanks



· Mobile Equipment

### Product Specifications

	AB-PX100	AB-PX101	AB-PX102
<b>Diameter</b>	5.54" / 14.07cm	5.54" / 14.07cm	5.54" / 14.07cm
<b>Height</b>	5.51" / 14cm	6.77" / 17.2cm	10.28" / 26.1cm
<b>Silica Gel</b>	440g	660g	1320g
<b>Mounting Connection</b>	1" slip fit	1" slip fit	1" slip fit
<b>Max. Adsorption Capacity</b>	160ml	279ml	538ml
<b>Max. Air Flow</b>	20cfm	20cfm	20cfm
<b>Max. Reservoir Fluid Flow</b>	150gpm	150gpm	150gpm
<b>Type of Desiccant</b>	100% Silica Gel	100% Silica Gel	100% Silica Gel

▼ From the left AB-PX102, 101, 100



#### NOTE

A variety of adaptors are available to connect Pulsarlube Air to most reservoir ports.



Series  
BT60/BT120/BT240



022-190186



KLT Co., Ltd.  
Model:  
BT60 CMIIT ID: 2019DJ0846  
BT120 CMIIT ID: 2019DJ0847  
BT240 CMIIT ID: 2019DJ1090

IP65

Patent Nr: 10-2010757



New Generation, Bluetooth-Enabled  
Automatic Lubricator.



Pulsarlube **BT**

### Features & Advantages

#### Convenient Lubrication Management

Conveniently control and monitor lubricators using the Pulsarlube mobile app  
Various grease pouch capacities and lubricant types available

#### Enhanced User-Friendliness

Straightforward installation and operation  
Easy to use app interface

#### Integrated DB Management

Keep track of operational status of all paired lubricators by using the integrated database

#### Safe Working Environment

Remotely monitor lubricator status in hazardous and inaccessible work areas  
via mobile app in close proximity

#### Outstanding Performance

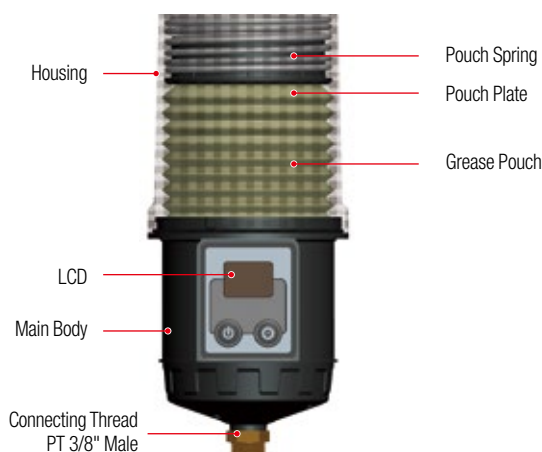
- ▶ Bluetooth 4.1 enables connections up to 20m (66ft) away
- ▶ High output pressure enables remote installation up to 6m (20ft)
- ▶ Ingress Protection Rating : IP65

### Typical Industries and Applications



- Hard to reach areas where maintenance access is not easy
- Hazardous locations where it is not safe to perform routine maintenance
- Where bearings are located in close proximity
- Where lubrication management is tedious and inconvenient

### Overview



### Product Specifications

#### **Grease Pouch Capacity**

60ml / 120ml / 240ml (pre-set)

#### **Power Supply**

DC 4.5V Battery Pack (replaceable)  
Standard : Alkaline Battery  
Optional : Lithium Battery

#### **Operating Pressure**

30~60bar (435~870psi)

#### **Operating Temperature**

Standard Alkaline Battery :  
-15°C~60°C (5°F~140°F)  
Optional Lithium Battery :  
-40°C~60°C (-40°F~140°F)

#### **Dispensing Periods**

1~12 month

#### **Single Point Remote Installation**

Max. 6m (20ft) with Ø6 tube

#### **Multi-Point Installation**

Max. 3m (10ft) per point with Ø6 tube  
(Up to 8 lube points)

#### **Dispensing Volume**

0.34ml/stroke (@ 20°C/68°F)

#### **Product Certifications & IP Code**

CE / KC / FCC / SIG / NCC / RCM /  
SRRC / NBTC / ICASA / J-MIC / IP65

#### **Bluetooth Range**

5~20m depending on installation environment

#### **Bluetooth Specifications**

Bluetooth 4.1 (class 2)



Series

EXPL60/EXPL120/EXPL240/EXPL480



CE  $\text{Ex}$   $\text{K}$ <sup>s</sup> IECEx NEPSI ETL IP65  

High Reliability & Stability.  
Advanced Explosion Proof Capability.



Pulsarlube **EXPL**



### Features & Advantages

### Global Hazardous Locations Certifications

- ▶ IECEx : Ex ic IIB T4 Gc (International)
- ▶ ATEX : II 3 G Ex ic IIB T4 Gc (EU)
- ▶ KCs : Ex ic IIB T4 (KR)
- ▶ NEPSI : Ex ic IIB T4 Gc (CN)
- ▶ ETL : Class I, Division 2, Groups A, B, C, & D, T4  
Class II, Division 2, Groups F, G, T4 (NA)

### High level of Ingress Protection

IP65 - dust tight and protected against water jets

### Applications

Specifically designed for safe use in highly hazardous locations containing flammable medium in the air (ignitable gases, vapors, and dust)

### Multi-Point Installation

Up to 8 lube points using a Lithium battery pack with max 60bar (870psi) operating pressure



### Typical Industries and Applications



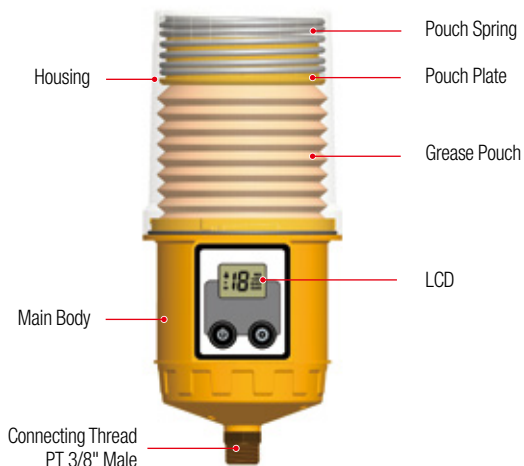
- Electric motors & pumps used in petrochemical plants, transportation of crude oil/natural gas, hot/cold rolling equipments in steel industry, cooling water treatment facility in power plants, etc.
- Applications in environments where flammable gases or vapors are present in quantities sufficient to produce explosive or ignitable mixtures
- Cooling tower pumps & motors at hydroelectric, thermal and nuclear power plants



### Overview



### Product Specifications



#### Grease Pouch Capacity

60ml / 120ml / 240ml / 480ml (pre-set)

#### Power Supply

DC 4.5V Battery Pack (replaceable)  
Standard (T4) : Alkaline Battery  
Optional (T5) : Lithium Battery  
\* 480ml : Lithium Battery Pack

#### Operating Pressure

30~60bar (435~870psi)

#### Operating Temperature

-15°C~50°C (5°F~122°F)  
\* Below 0°C (32°F) : Lithium Battery

#### Dispensing Periods

60ml : 1~12 month  
120ml~480ml : 1, 2, 3, 6, 9, 12 month

#### Single Point Remote Installation

Lithium Battery : Max. 6m (20ft) with Ø6 tube

#### Multi-Point Installation

Lithium Battery : Max. 3m (10ft) with Ø6 tube  
(Up to 8 lube points)

#### Dispensing Volume Size

0.34ml/stroke (@ 20°C/68°F)

#### Product Certifications & IP Code

ATEX / IECEx / KCs / ETL / NEPSI / CE / IP65

Series  
Mi60/Mi125/Mi250



Intelligent Integration of a Vibration Sensor Allowing  
Synchronization to Application.



Pulsarlub **Mi**



### Features & Advantages

#### Vibration Sensor

Lubricator operates only when vibration is detected on the installed application

#### Cost Savings

Substantial savings from the use of replaceable grease pouches and battery packs (Service Pack)

#### Easy Installation

Place the magnetic vibration sensor on any flat metal surface

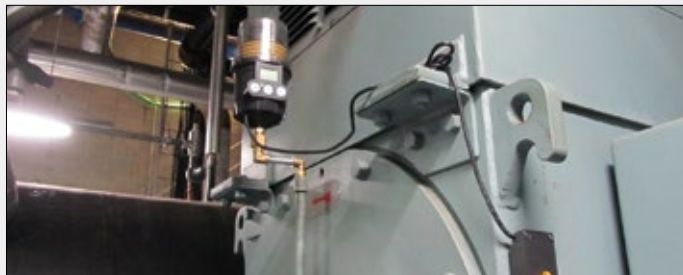
#### More Reliable & Precise Lubrication

A pre-set amount of grease is delivered only when the equipment is in operation, avoiding the possibility of over lubrication and waste

#### Other Features

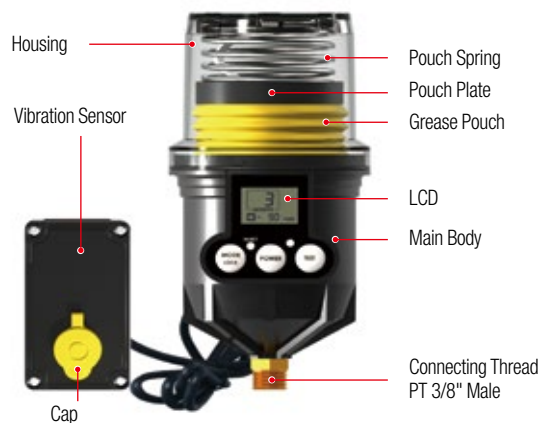
- ▶ Easy to adjust dispensing periods in operation
- ▶ Easy to install in hazardous & confined areas
- ▶ Transparent container for easy visual inspection of remaining lubricant

### Typical Industries and Applications



- Motors and pumps from municipal water & waste water treatment facilities
- Paper mills, steel mills and cement plants where water & excessive contaminants exist
- Electric motors, pumps, blowers and fans
- Applications where synchronized lubricators cannot be wired to an external power supply or PLC

### Overview



### Product Specifications

#### Grease Pouch Capacity

60ml / 125ml / 250ml  
(capacity setting available)

#### Power Supply

DC 4.5V Battery Pack (replaceable)  
Standard : Alkaline Battery  
Optional : Lithium Battery

#### Operating Pressure

30~60bar (435~870psi)

#### Operating Temperature

Standard Alkaline Battery :  
-15°C~60°C (5°F~140°F)  
Optional Lithium Battery :  
-40°C~60°C (-40°F~140°F)

#### Dispensing Periods

1~12 month

#### Single Point Remote Installation

Max. 1m (3.3ft) with Ø6 tube

#### Multi-Point Installation

Max. 1m (3.3ft) with Ø6 tube  
(Up to 2 lube points)

#### Dispensing Volume Size

0.34ml/stroke (@20°C/68°F)

#### Product Certifications & IP Code

CE / KC

#### Vibration Detector

Piezoelectric Cantilever-type Film Sensor  
Adjustable Sensitivity Range  
Connection Wire Length : 1.2m

#### Service Life of Battery Pack

60ml / 125ml : Up to 2 years  
250ml : Up to 1 year 6 months

#### Product Dimensions

183mm (H) x 91mm (Ø)  
\*Excludes Vibration Sensor



Series  
PLC60/PLC120/PLC240/PLC480



CE IP65



PLC Controlled. Remotely Monitored.  
Greater Lubrication Efficiency.



Pulsarlube **PLC**

### Features & Advantages

#### PLC Integration

Programmed to deliver fresh lubricant upon receiving a signal from the PLC

#### Consistent Lubrication

Precise lubrication on demand

#### Multi-Point Installation

Up to 8 lube points using Ø6 tube, Max. 6m (20ft) per point

#### High Output Pressure

30 ~ 60bar (435 ~ 870psi)

#### User-Controlled Lubrication

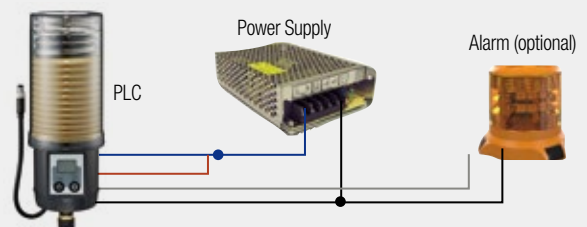
The user can program the dispensing rate based on the operating time of the equipment (INTERVAL type)

### PLC MONTH & INTERVAL TYPE Wire Connection Instructions

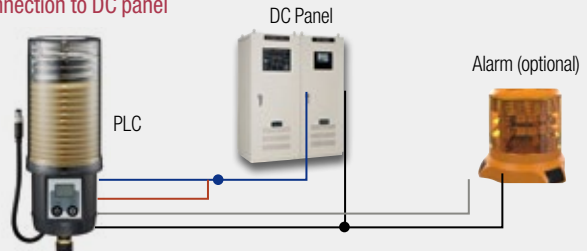
Applicable for both MONTH TYPE & INTERVAL TYPE



Connection to External Power Supply (DC Adapter for MONTH type only)



Connection to DC panel



### Overview



### Product Specifications

#### Grease Pouch Capacity

60ml / 120ml / 240ml / 480ml (pre-set)

#### Power Supply

9~36V DC (DC/DC Converter included)

#### Operating Pressure

30~60bar (435~870psi)

#### Operating Temperature

-20°C~60°C (-4°F~140°F)

#### Dispensing Periods

MONTH type : 1~12 month  
INTERVAL type : 1, 2, 3...6 Mode

#### Single Point Remote Installation

Max. 10m (33ft) with Ø6 tube

#### Multi-Point Installation

Max. 6m (20ft) with Ø6 tube  
(Up to 8 lube points)

#### Dispensing Volume Size

MONTH type : 0.34ml/stroke (@20°C/68°F)  
INTERVAL type :  
0.34ml x Mode selected (@20°C/68°F)

#### Product Certifications & IP Code

CE / KC / IP65

#### Output Voltage

Max. 1A (for alarm)

#### Product Type

Signal (MONTH type / INTERVAL type)

#### PLC Input/Output Types

Available in PNP or NPN

#### Dispensing Volume on Purge Mode

2ml (6 strokes)

Series  
EXP60/EXP120/EXP240/EXP480



CE Ex IECEx NEPSI IP65



Improved High Reliability & Stability  
in Hazardous Areas.



Pulsarlube **EXP**



### Features & Advantages

#### Global Hazardous Locations Certifications

- ▶ IECEx : Ex ic IIC T5/T4 Gc (International)
- ▶ ATEX : II 3 G Ex ic IIC T5/T4 Gc (EU)
- ▶ KCs : Ex ic IIC T5/T4 (KR)
- ▶ NEPSI : Ex ic IIC T5/T4 Gc (CN)

#### High level of Ingress Protection

IP65 - dust tight and protected against water jets

#### Applications

Specifically designed for safe use in highly hazardous locations containing flammable medium in the air (ignitable gases, vapors, and dust)

#### Multi-Point Installation

Up to 8 points using a Lithium battery pack with max 60bar (870psi) operating pressure

#### Other Functions

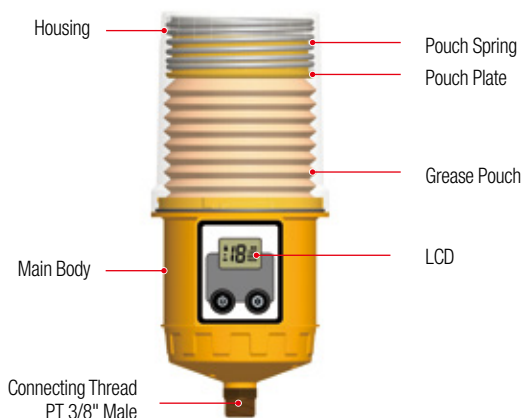
- ▶ Selectable grease pouch capacity & dispensing periods suitable for installations
- ▶ Auto Lock Out mode to prevent unintentional mode changes
- ▶ Easy to check LCD displays with backlight function

### Typical Industries and Applications



- Electric motors & pumps used in petrochemical plants, transportation of crude oil/natural gas, hot/cold rolling equipments in steel industry, cooling water treatment facility in power plants, etc.
- Applications in environments where flammable gases or vapors are present in quantities sufficient to produce explosive or ignitable mixtures
- Cooling tower pumps & motors at hydroelectric, thermal and nuclear power plants

### Overview



### Product Specifications

#### Grease Pouch Capacity

60ml / 120ml / 240ml / 480ml (pre-set)

#### Power Supply

DC 4.5V Battery Pack (replaceable)  
Standard (T4) : Alkaline Battery  
Optional (T5) : Lithium Battery  
**\* 480ml : Lithium Battery Pack**

#### Operating Pressure

30~60bar (435~870psi)

#### Operating Temperature

0°C~50°C (32°F~122°F)

#### Dispensing Periods

60ml : 1~12 month  
120ml~480ml : 1, 2, 3, 6, 9, 12 month

#### Single Point Remote Installation

Lithium Battery : Max. 6m (20ft) with Ø6 tube

#### Multi-Point Installation

Lithium Battery : Max. 3m (10ft) with Ø6 tube  
(Up to 8 lube points)

#### Dispensing Volume Size

0.34ml/stroke (@ 20°C/68°F)

#### Product Certifications & IP Code

ATEX / IECEx / KCs / CE / NEPSI / IP65