

Characteristics

- **Modular System;**
- **Easy use and maintenance** front-mounted controls;
- **Independent controls of different banks of Micro-pumps;**
- Coaxial air/oil or single pipe **system with a single component;**
- **Oil flow variable to each point;**
- **Air exclusion on single point,** for oil only operation;
- **Independent adjustable air and oil;**
- Adjustable **mixing air flow to each point;**
- **Command mini pumps with pneumatic timer or air solenoid;**
- **Minipumps can also be controlled using pneumatic limit switch or inductive sensors;**

Applications

- **Tool and cutter grinding;**
- **Rollforming;**
- **Boring;**
- **Chains;**
- **Pipes bending;**
- **Drilling;**
- **Milling;**
- **Broching;**
- **Tapping;**
- **Bending;**
- **Punching;**
- **Gear cutting.**

VIP4 ToolsPro

Minimal Air/Oil System Lubrication

Minimal Air/Oil Lubrication Panel

Air/Oil Minimal lubrication is a relatively new technology that has been used successfully to substitute costly Oil Re-circulation and non environmentally-sound Mist Systems.

It has provided excellent results both in terms of performance and total system cost.

It is ideal for use on Bearings, High Speed Bearings, Gears and also in certain circumstances on Guides. It is particularly suited to Spindle Lubrication.

In the past, excessive oil has been used often only to ensure that the 'system is working'. This oil generates heat and has to be taken away from the lubrication point.

Vip4Tools/Pro is designed for high performance at a low cost, it is distinguished by its compactness.

The system comprises a pneumatically controlled mini-pump and the mixer base. The mini-pump can be manually regulated to cover a wide range of needs (0-30 mm³). The modularity of the system allows extreme versatility by allowing different numbers of base mixing-manifolds to be installed accordingly.

The components are positioned at the front of the mounting panel to allow the user to easily perform regulation of the micro-pumps and air regulation. The ABS box is provided for protection of all the micropumps and tubing. Steel box versions are also available for harsher environments.

The mixing bases incorporate a flow regulator than can be completed set to zero for the exclusion of the air that allows operation oil only.

The air regulation is independent for each base unit and can be set in a differential manner.

Additionally, a small pressure gauge can be mounted on each base to have visual indication of pressure setting.

The system is also distinguished by the simplicity of the oil micro-pump output regulation and the mixing air flow for each individual item by the easy access fully accessible by the user.

The system offers the possibility to form, with the inclusion of appropriate screw-inserts into the mixing bases , two separate banks of bases that have common air and pump manifolds..

Example of notation : 2 +2 +6-> 1bank of 2pt micro-pumps +1 bank of 2pt micropumps + 1 bank of 6 micropumps for a total of 10 pts. lubrication (with 3 separate pump commands)

VIP4 ToolsPro Advantages:

- **Spray mist is not generated** but a mixture of air/oil;
- Modularity allows **easy maintenance and low cost;**
- **Save lubricant** due to minimal oil dosage;
- Positive **environmental impact;**
- Significant **reduction in process costs.**
- **Work environment more healthy** without coolant;

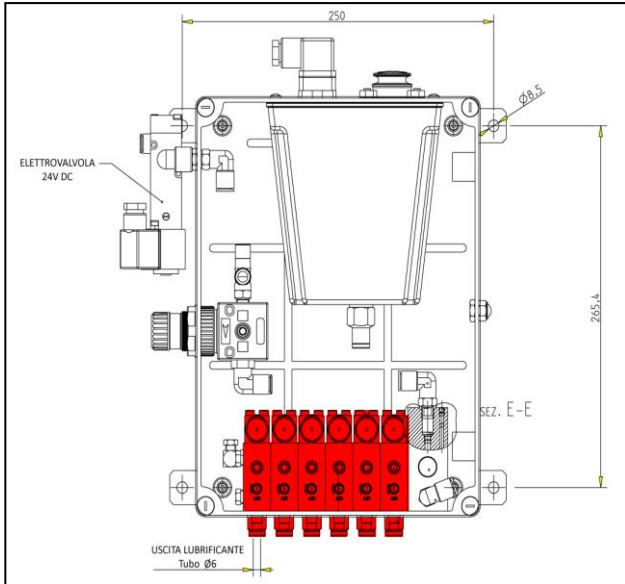


TECHNICAL SPECIFICATIONS

Air supply pressure	5 ÷ 8 bar (73.5 ÷ 117.6 psi)
Working temperature	-5 ÷ +55 °C (+23 ÷ +131 °F)
Working humidity	90% max
Permitted lubricants	Mineral - synthetic
Oil viscosity at working temperature	32 ÷ 320 cSt (149.9 ÷ 1480 SUS)
Conservation temperature	-20 ÷ +65 °C (-4 ÷ +149 °F)

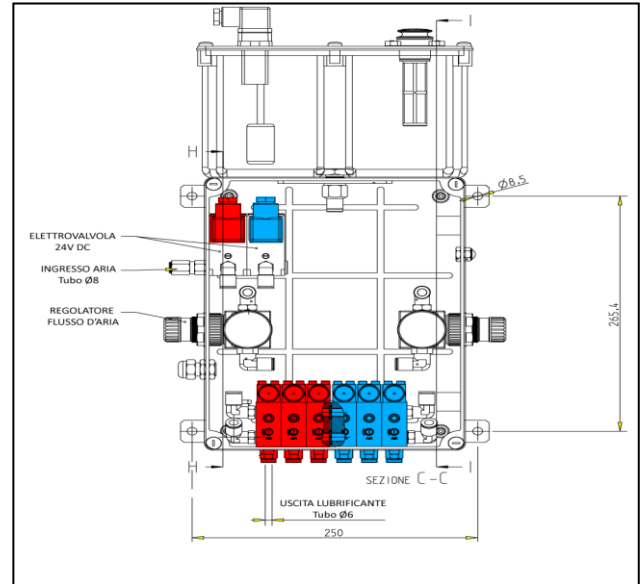
VIP4 ToolsPro VERSIONS: There are four types of Vip4 ToolsPro family (with pneumatic timer, with solenoid, for external limit switch, with inductive sensors).

VIP4ToolsPro 1 LT. 6 Lubrication points with Pneumatic Timer
(See Fig. 1-2)



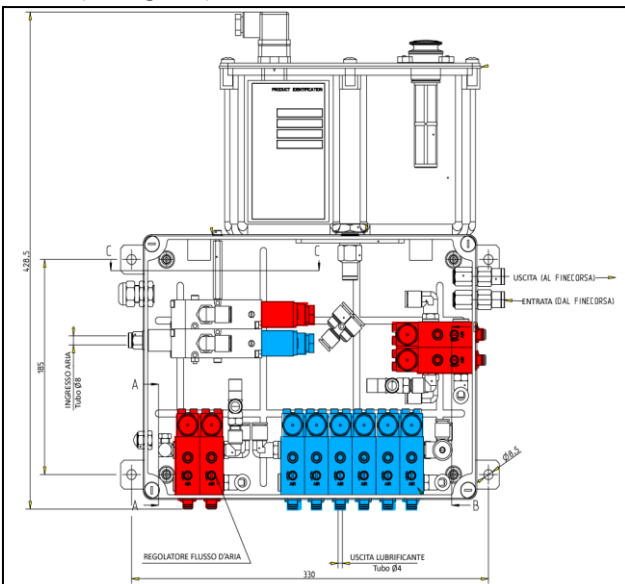
N° Elements	Weight	
	Kg	Lib
1	4,3	9.5
2	4,8	10.6
3	5,3	11.7
4	5,8	12.8
5	6,3	13.9
6	6,8	15

VIP4 ToolsPro 3 LT. 3+3 Lubrication points with Solenoid
(See Fig. 3-4)



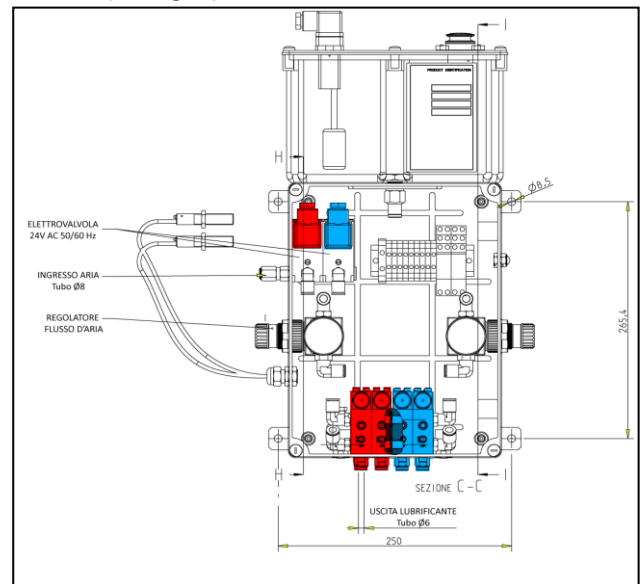
N° Elements	Weight	
	Kg	Lib
2	6,7	14.8
3	7,2	15.9
4	7,7	17
5	8,2	18.1
6	8,7	19.2

VIP4ToolsPro 3 LT. 2+2+6 Lubrication points for External Limit Switch
(See Fig. 5-6)



N° Elements	Weight	
	Kg	Lib
3	6,9	15.2
4	7,4	16.3
5	7,9	17.4
6	8,4	18.5
7	8,9	19.6
8	9,4	20.7
9	9,9	21.8
10	10,4	23

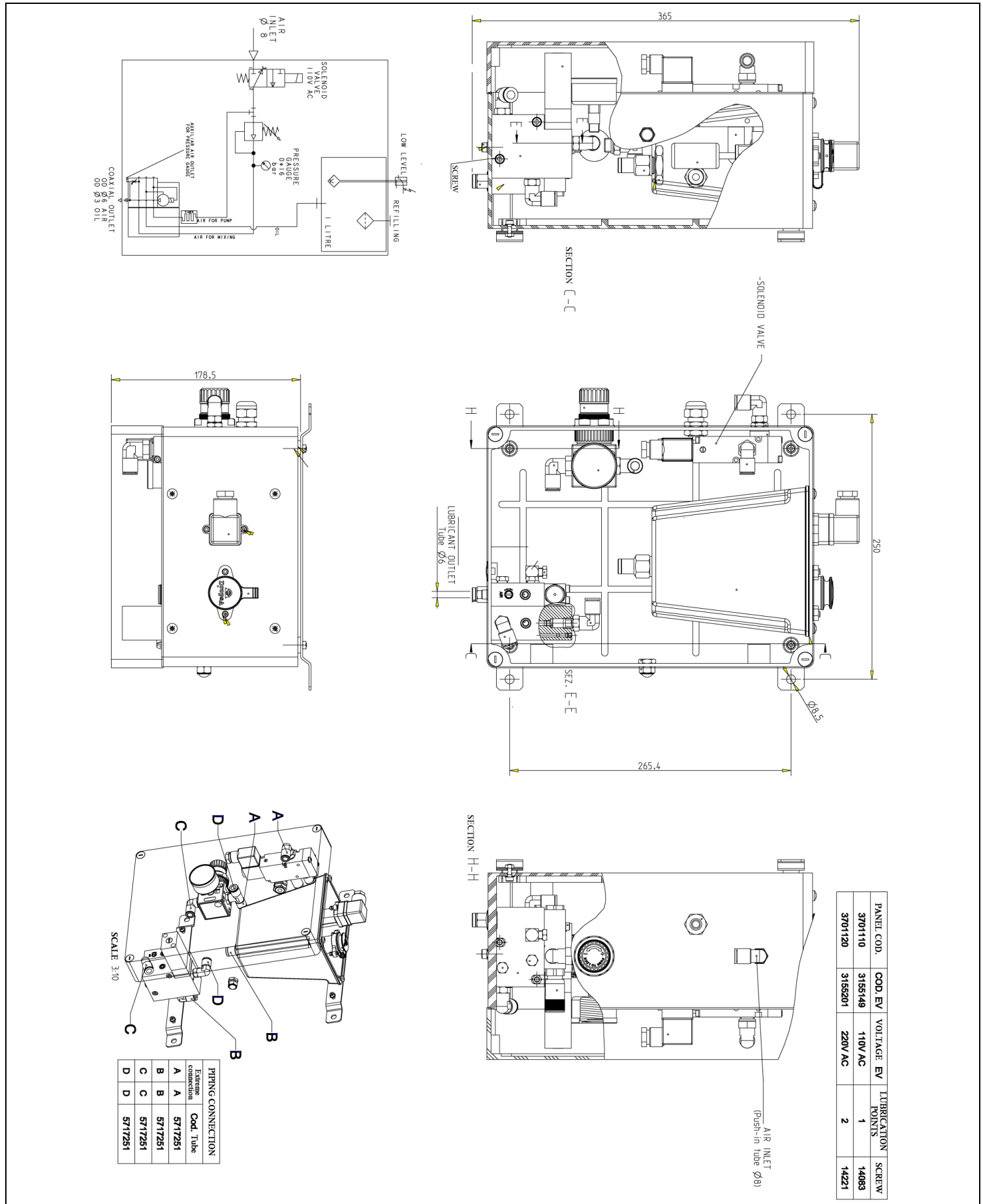
VIP4 ToolsPro 3LT. 2+2 Lubrication points with Inductive Sensors
(See Fig. 7)



N° Elements	Weight	
	Kg	Lib
2	8	17.6
3	8,5	18.7
4	9	19.8
5	9,5	20.9
6	10	22

VIP4 ToolsPro with timer (Fig. 1)

Air/Oil Panel 1Lt. Cod. 3701110

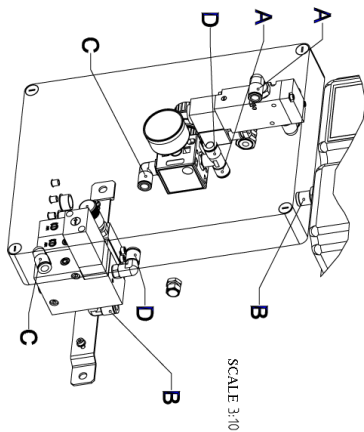
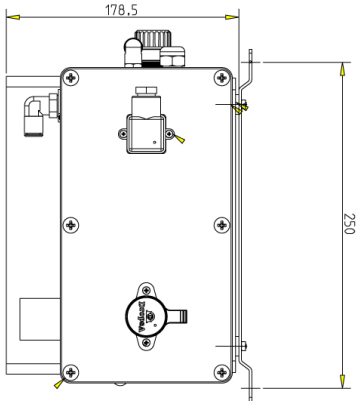
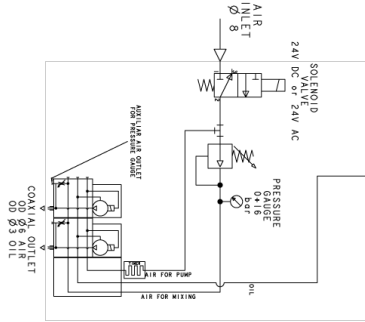


PANEL COD.	COD. EV	VOLTAGE EV	LUBRICATION POINTS	SCREW
3701110	3155149	110V AC	1	14083
3701120	3155201	220V AC	2	14221

VIP4 ToolsPro with timer (Fig.2)

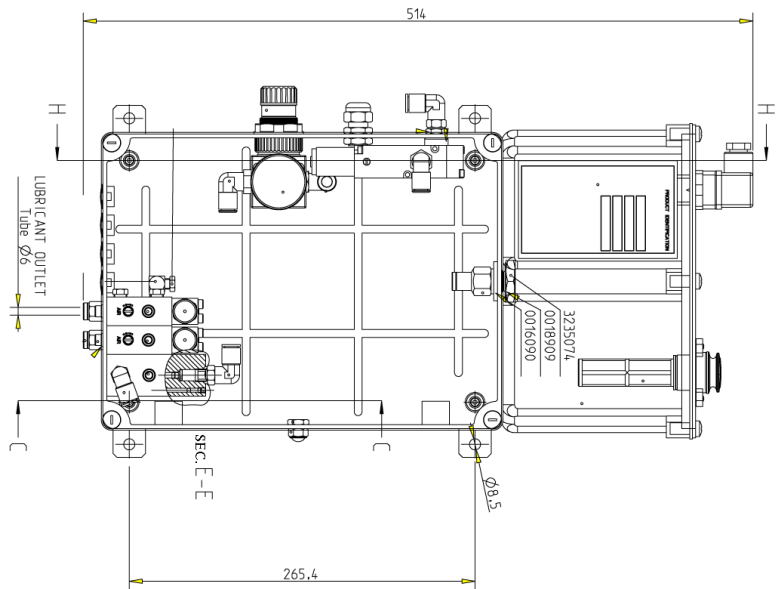
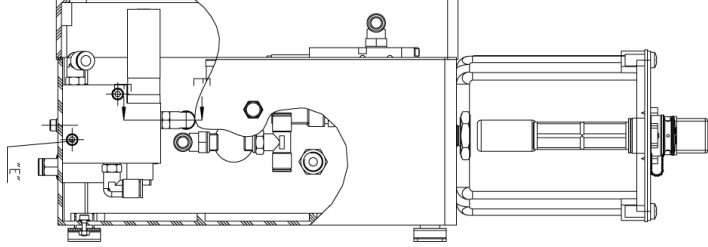
Air/Oil Panel 3Lt. from 1 to 6 points Cod. 3703320

PANEL	LUBRICANT POINTS	SOLENOID VALVE	E
3703310	1	3155148 24V DC	14083
3703320	2	3155148 24V DC	12775
3703330	3	3155148 24V DC	14202
3703340	4	3155148 24V DC	14222
3703350	5	3155148 24V DC	14220
3703360	6	3155219 24V DC	14083
3704310	1	3155219 24V AC 50/60Hz	12775
3704320	2	3155219 24V AC 50/60Hz	14202
3704330	3	3155219 24V AC 50/60Hz	14222
3704340	4	3155219 24V AC 50/60Hz	14220
3704350	5	3155219 24V AC 50/60Hz	14220
3704360	6	3155219 24V AC 50/60Hz	14220

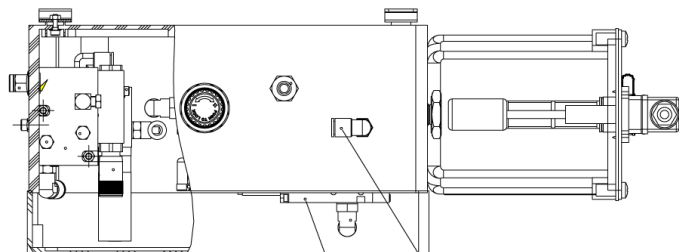


PIPING CONNECTION		Extreme connection		Cod. Tube	
A	A	A	A	5717251	5717251
B	B	B	B	5717251	5717251
C	C	C	C	5717251	5717251
D	D	D	D	5717251	5717251

SECTION C-C

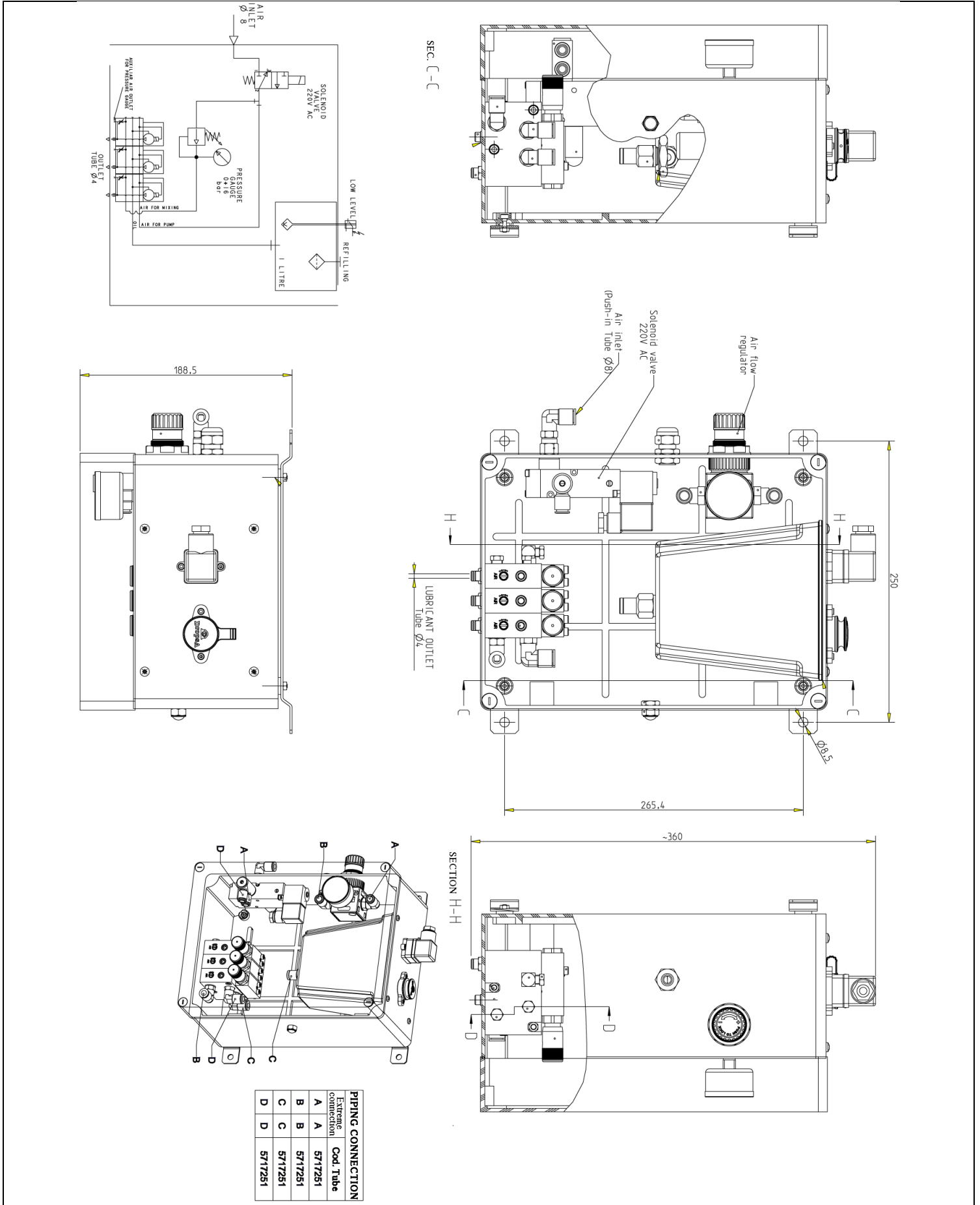


SECTION H-H



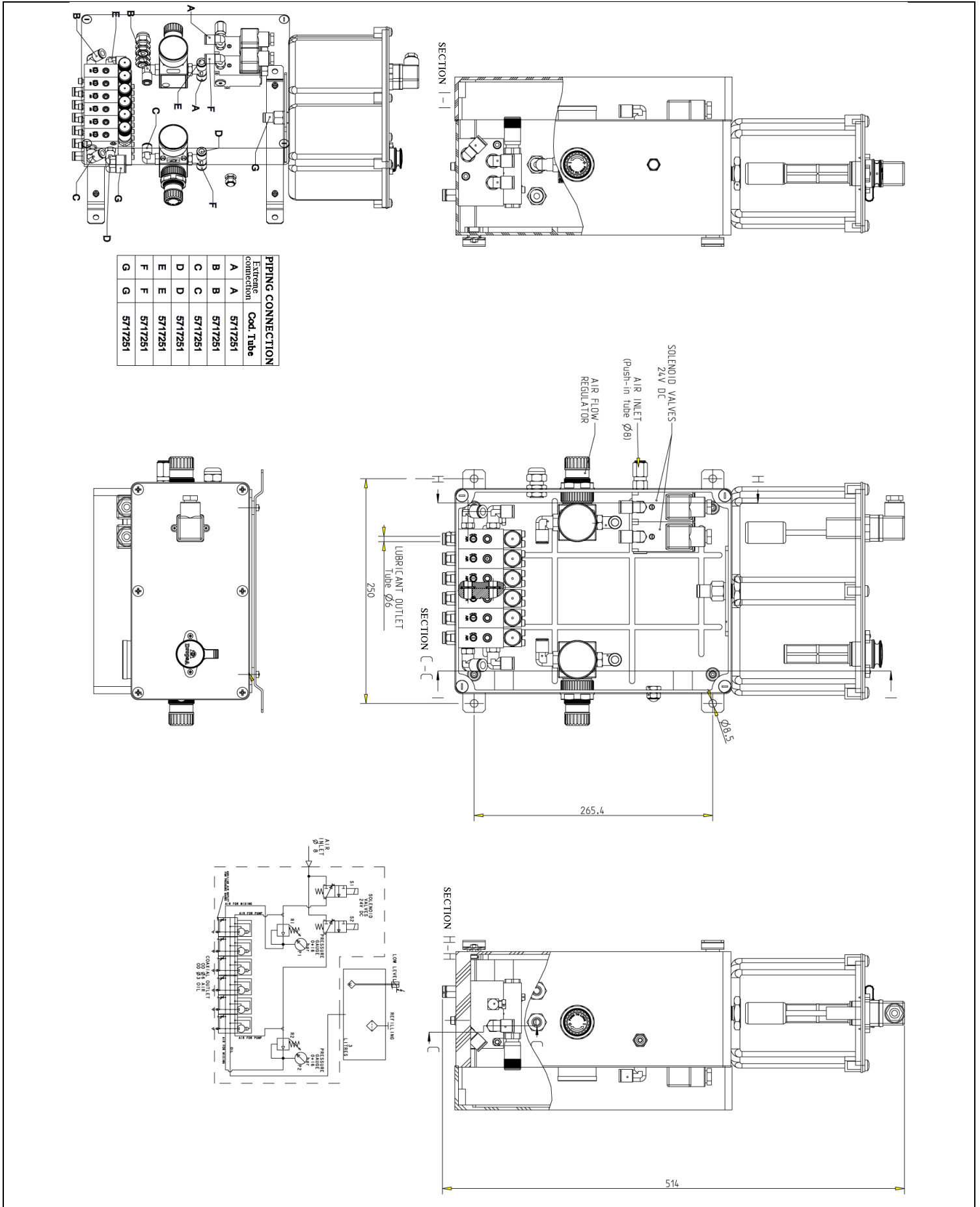
VIP4 ToolsPro with solenoid (Fig.3)

Air/Oil Panel 1Lt. 3 points Cod. 3704130



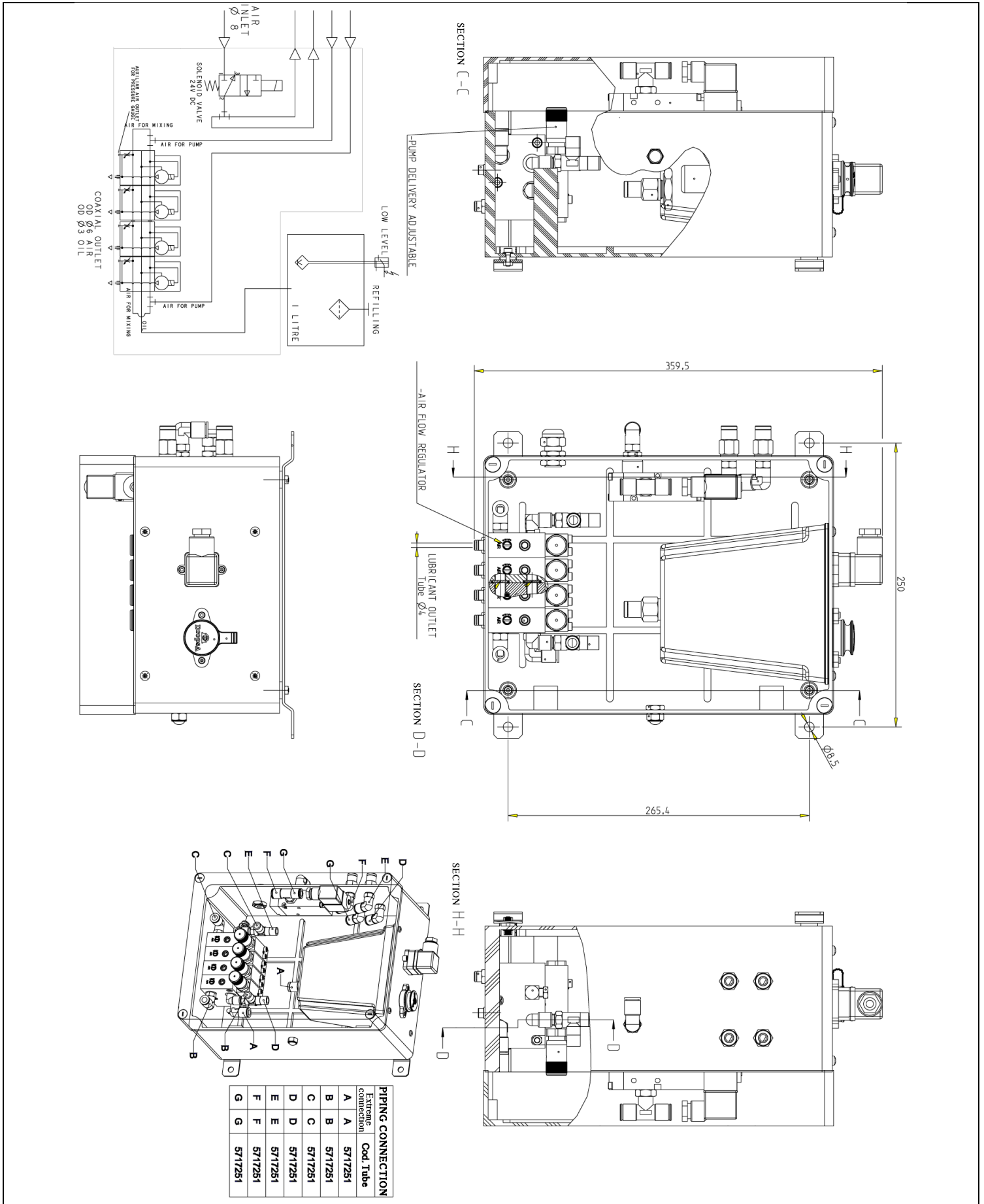
VIP4 ToolsPro with solenoid (Fig.4)

Air/Oil Panel 3Lt. 3+3 points Cod. 3704333



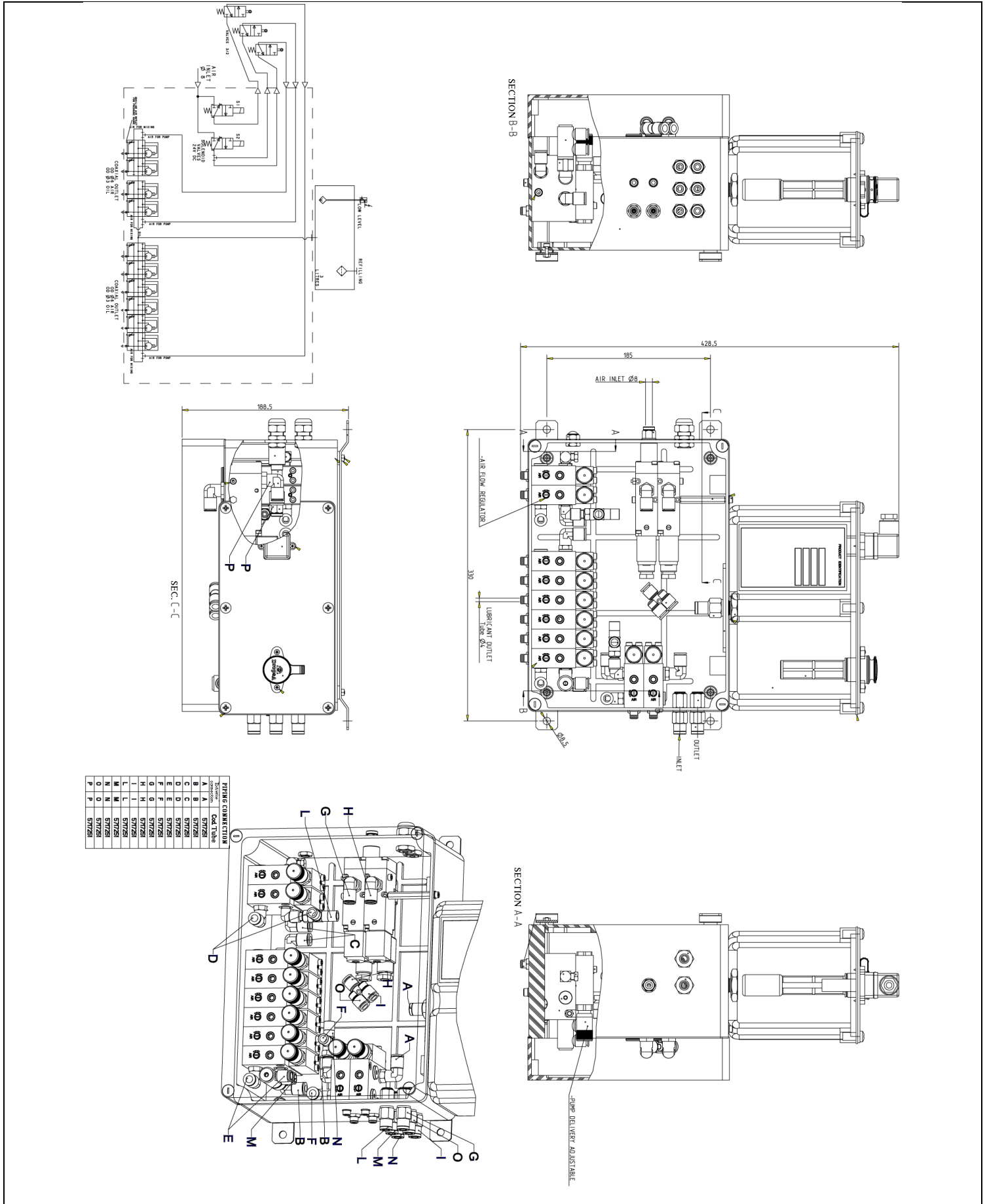
VIP4 ToolsPro for external limit switch (Fig.5)

Air/Oil Panel 1Lt. 2+2 points Cod. 3701122



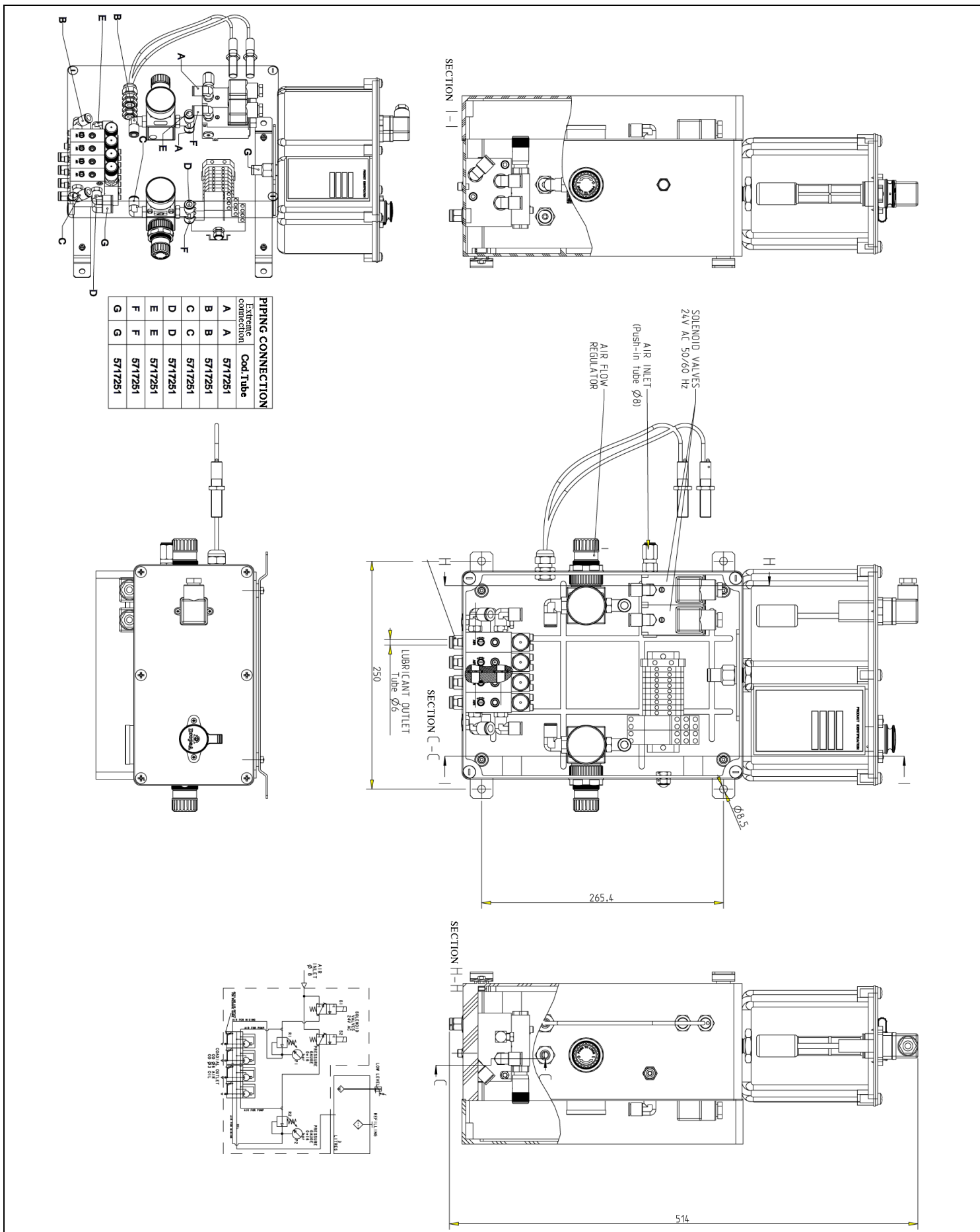
VIP4 ToolsPro for external limit switch (Fig.6)

Air/Oil Panel 3Lt. 2+2+6 points Cod. 3701346



VIP4 ToolsPro with inductive sensors (Fig.7)

Air/Oil Panel 3Lt. 2+2+6 points Cod. 3706322





ORDER INFORMATIONS

The major versions order codes are list below. For other combinations please contact the Dropsa sales office.

Code	Description	Reservoir Size	Solenoid Voltage
3701110	1 Lubrication point (with pneumatic timer)	1 Liter	110V AC
3701120	2 Lubrication points (with pneumatic timer)	1 Liter	220V AC
3701122	2+2 Lubrication points (for external limit switch)	1 Liter	24V DC
3701322	2+2 Lubrication points (for external limit switch)	3 Liters	24V DC
3701332	3+2 Lubrication points (for external limit switch)	3 Liters	24V DC
3701342	2+2+1+1 Lubrication points (for external limit switch)	3 Liters	110V AC
3701344	2+2+2+2 Lubrication points (for external limit switch)	3 Liters	24V AC
3701346	2+2+6 Lubrication points (for external limit switch)	3 Liters	24V DC
3702130	3 Lubrication points	1 Liter	24V DC
3702321	2+1 Lubrication points (for external limit switch)	3 Liters	24V AC 50/60Hz
3702322	2+2 Lubrication points (for external limit switch)	3 Liters	24V AC 50/60Hz
3702370	7 Lubrication Points with pneumatic timer	3 Liter	24V DC
3703160	6 Lubrication points (with pneumatic timer)	1 Liter	24V DC
3703310	1 Lubrication point (with pneumatic timer)	3 Liters	24V DC
3703320	2 Lubrication points (with pneumatic timer)	3 Liters	24V DC
3703330	3 Lubrication points (with pneumatic timer)	3 Liters	24V DC
3703340	4 Lubrication points (with pneumatic timer)	3 Liters	24V DC
3703350	5 Lubrication points (with pneumatic timer)	3 Liters	24V DC
3703360	6 Lubrication points (with pneumatic timer)	3 Liters	24V DC
3704310	1 Lubrication point (with pneumatic timer)	3 Liters	24V AC 50/60Hz
3704320	2 Lubrication points (with pneumatic timer)	3 Liters	24V AC 50/60Hz
3704330	3 Lubrication points (with pneumatic timer)	3 Liters	24V AC 50/60Hz
3704333	3+3 Lubrication points (with dual air pressure regulator)	3 Liters	24V DC
3704340	4 Lubrication points (with pneumatic timer)	3 Liters	24V AC 50/60Hz
3704350	5 Lubrication points (with pneumatic timer)	3 Liters	24V AC 50/60Hz
3704360	6 Lubrication points (with pneumatic timer)	3 Liters	24V AC 50/60Hz
3705322	2+2 Lubrication points (with dual air pressure regulator)	3 Liters	220V AC 50/60Hz
3706330	3 Lubrication points (with pneumatic timer)	3 Liters	Not present

COMPONENTS:

Code	Description
3130139	Oil Refill Filter
1525072	Modular Mixing Base
3103116C	Pneumatic Micropump module. (Also Order 2x fixing screws PN 14067)
5717251	Tube, flexible Ø8
3044337	Tank, 1 lt
6770072	Tank, 3 lt
1655583	Level, SambaSensor
1524845	Pneumatic Timer
20686	Air Pressure Regulator
3155214	EV 24V C.C. (Per 3701346-3704333)
3155148	EV 24V C.C. (for 3701122-3701322-3701332-3703160-3703310-3703320-3703330-3703340-3703350-3703360)
3155219	EV 24V C.A. (3702322-3704310-3704320-3704330-3704340-3704350-3704360)
3155220	EV 220V C.A. (3705322)
3155224	EV 110V C.A. (3701342)
3155225	EV 24V C.A. (3701344)

ACCESSORIES:

Code	Description
5717202	Nylon tube Ø 4 x 2,5
5717232	Nylon tube Ø 3 x 1,5
5717242	Nylon tube Ø 4 x 1,5 black
5717300	Tube, flexible Ø4 (0,16 in.)
5717301	Tube, flexible Ø 6 (0,23 in.)
1524486	Lubrication nozzle 32 mm (1,26 in)
1524487	Lubrication nozzle 48 mm (1,89 in)
3132583	Spray tube with magnetic base L = 180 mm. (7.08 inch.)
3132768	Lubrication coaxial nozzle
3132714	Spray tube with magnetic base L = 400 mm. (15.74 inch.)
3150112	Coil supply voltage 24V dc
3150113	Coil supply voltage 24V ac
3150114	Coil supply voltage 110V ac
3150115	Coil supply voltage 220V ac

Info Distributor:

C2121PE WK 51/15

Dropsa products can be purchased from Dropsa subsidiary and Dropsa sales representatives, visit www.dropsa.com/contact or contact us sales@dropsa.com