CUSTOM UNITS SUMMARY

METAL WORK PNEUMATIC

New deal

ONE

PRECISION REGULATION AND PRESSURE CONTROL

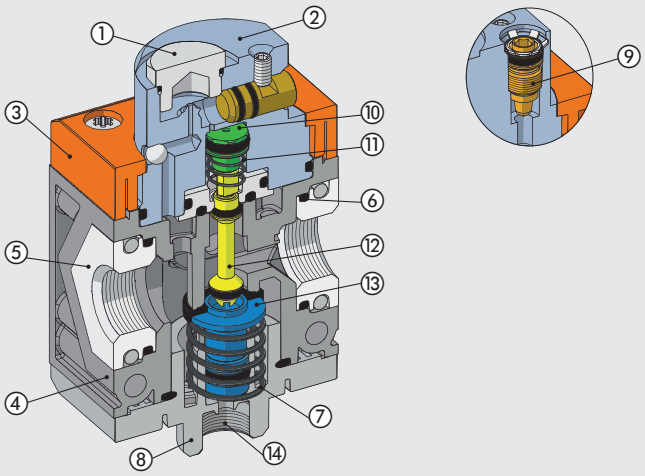
SYNTESI® PROGRESSIVE START VALVE

The progressive start valve (VAP) is a pneumatic component that allows air enter the circuit gradually, thereby avoiding excessive pressure bursts. A sophisticated system of internal valves allows two separate stages of operation. During the first stage, a quantity of air that can be regulated via a pin flows from the VAP. The second stage starts when the downstream pressure reached 40 to 60% of the upstream pressure, during which full-port flow is achieved.
When the supply pressure is cut off, the VAP still remains open to allow the system to be relieved downstream.
In the final relief stage, part of the downstream pressure is relieved by the VAP itself.
The progressive start valve (VAP) is particularly useful on machinery where it is important to prevent actuators from moving rapidly and out of control, or where, for safety reasons, the air in-feed needs to be gentle and gradual.
It, however, there is a major leak in the downstream system, it may never be possible to achieve the pressure required to open the valve completely.

TECHNICAL DATA		VAP SY1			VAP SY2			
Threaded port		1/8"	1/4"	3/8"	3/8"	1/2"	3/4"	1"
Threaded discharge port		1/8"			1/4"			
Inlet pressure	bar	3 - 15			3 - 13			
	MPa	0.3 - 1.5			0.3 - 1.3			
	psi	43 - 217			43 - 188			
Flow rate at 6.3 bar (0.63 MPa; 91 psi) ΔP 0.5 bar (0.05 MPa; 7 psi)	Nl/min	900	1000	1100	2800	3600	3600	
	scfm	32	39	39	99	127	127	
Flow rate at 6.3 bar (0.63 MPa; 91 psi) ΔP 1 bar (0.1 MPa; 14 psi)	Nl/min	1250	1500	1600	4400	4800	4800	
	scfm	44	53	57	156	170	170	
Drain flow rate at 6.3 bar (0.63 MPa; 91 psi)	Nl/min	500			2700			
	scfm	18			96			
Maximum flow rate start-up, at 6.3 bar (0.63 MPa; 91 psi)	Nl/min	170			700			
with regulation pin completely unscrewed	scfm	6			25			
Min/max temperature at 10 bar; 1 MPa; 145 psi	°C	From -10 to +50			From -10 to +50			
Weight	g	193	185	179	477	452	448	437
Fluid		Compressed air or other inert gases						
Mounting position		In any position						
Additional air take-off, for pressure gauges or fittings		1/8", front and rear			1/4", front and rear			
Additional air take-off flow rate at 6.3 bar	Nl/min	500			1500			
(0.63 MPa; 91 psi) ΔP 1 bar (0.1 MPa; 14 psi)	scfm	18			53			
Wall fixing screws		No. 2 M4 screws			No. 2 M5 screws			

COMPONENTS

① OT58 nickel-plated brass cap
② Anodized aluminium upper block
③ Technopolymer flange
④ Technopolymer body
⑤ IN/OUT bushing made of OT58 nickel-plated brass or passivated aluminium for 3/4" - 1"
⑥ O-ring NBR gasket
⑦ Stainless steel valve spring
⑧ Technopolymer bottom plug
⑨ OT58 brass progressive start regulation pin
⑩ OT58 brass internal valve
⑪ Stainless steel spring stem recoveryng
⑫ OT58 brass stem
⑬ OT58 brass main valve with vulcanized gasket
⑭ OT58 brass threaded insert

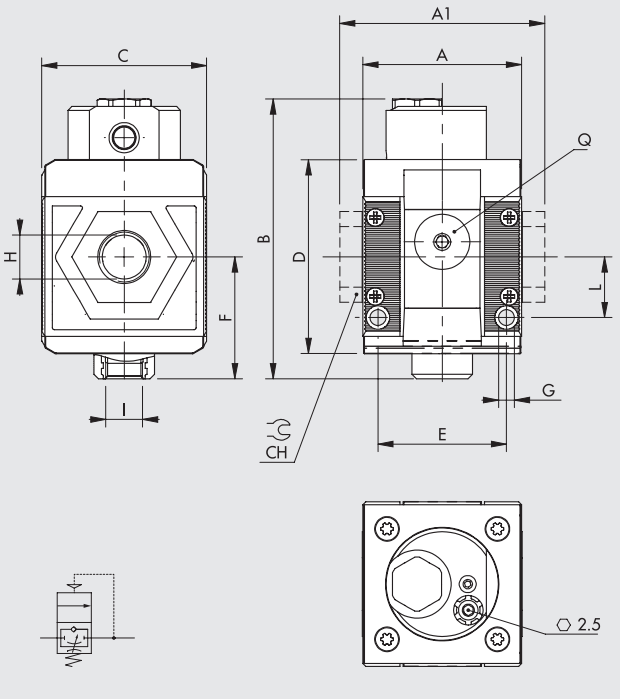


Please contact our sales offices for further information and quotation.

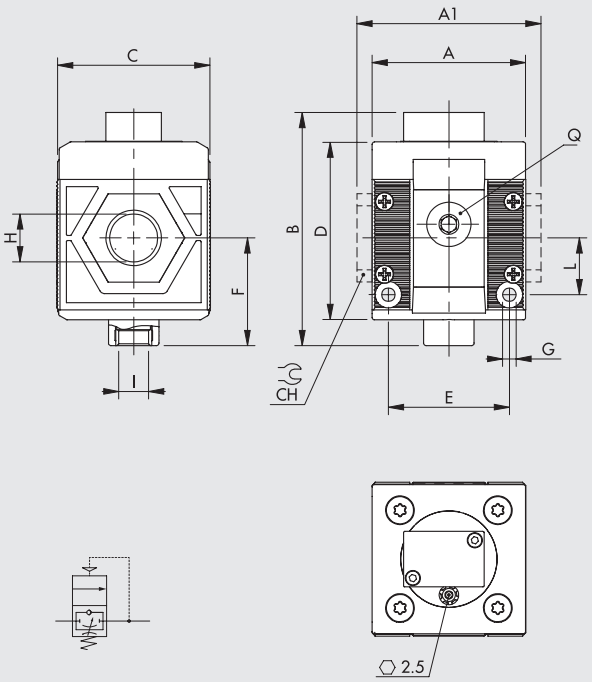
METAL WORK PNEUMATIC

DIMENSIONS

SY1



SY2



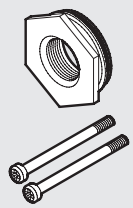
	VAP SY1			VAP SY2			
H (threaded port)	1/8"	1/4"	3/8"	3/8"	1/2"	3/4"	1"
A	42			60.5			
A1	-	-	44	-	-	95	95
B	74			92.5			
C	44			61			
CH	-			-	-	32	36
D	51.5			70.5			
E	33.5			47.5			
F	32.2			42.7			
G	Hole for M4 screws			Hole for M5 screws			
I (exhaust))	1/8"			1/4"			
L	16			22.5			
Q (additional air takes-off)	1/8"			1/4"			

ORDERING CODES

Code	Description
82950D9	VAP SY1 without bushings
82950D8	VAP SY2 without bushings

ACCESSORIES

THREADED PORT



Code	Description
9210001	Kit IN OUT 1/8 SY1
9210002	Kit IN OUT 1/4 SY1
9210003	Kit IN OUT 3/8 SY1
9210011	Kit IN OUT 3/8 SY2
9210012	Kit IN OUT 1/2 SY2
9210013	Kit IN OUT 3/4 SY2
9210014	Kit IN OUT 1 SY2

Max torque 0.4 Nm for SY1
Max torque 2.5 Nm for SY2

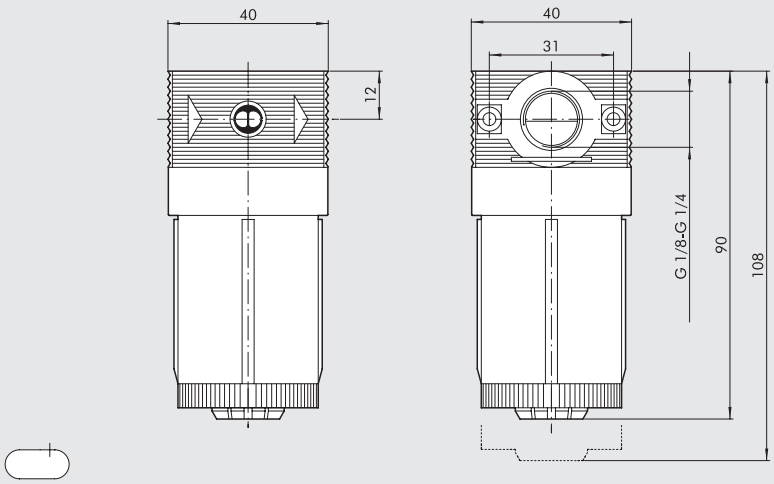
NOTES

bit FILTER WITHOUT FILTERING ELEMENT

This is a standard filter without a filtering element that can be used as a tank.
Instead of the RMSA there is a plastic cap similar to the one used for lubricator bowls.

N.B.: For technical data refer to the standard version.

DIMENSIONS



ORDERING CODES

Code	Description
8292109	Fil BIT 1/8 without filtering element
8292111	Fil BIT 1/4 without filtering element

N.B.: Capacity: ~ 30 cm^3.

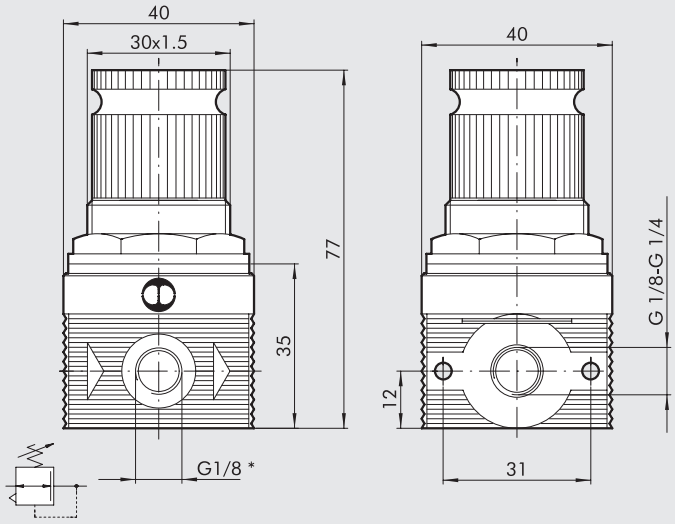
bit MICRO-REGULATORS WITH SPECIAL GREASE

BERULUB OX 40 is used to lubricate the inner parts that come into contact with the flow of air oxygen-compatible grease.
In this case, the compressed air that may come into contact with oxygen is not polluted.

N.B.: MW regulators have been designed and tested for use with compressed air. No claims can be made by the user if they are used with other fluids.

N.B.: For technical data refer to the standard version.

DIMENSIONS



* Pressure gauge port

ORDERING CODES

Code	Description
8826701	MR Bit 1/8 02 with special grease

NOTES

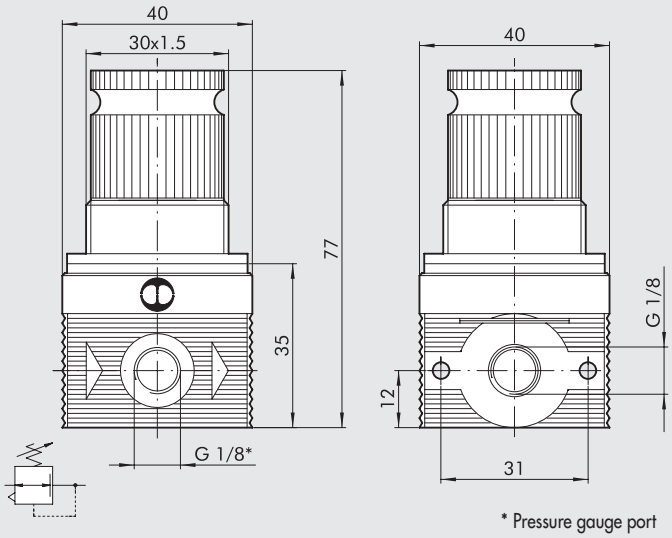
BERULUB OX 40 EP: is a white silicone-based oil for oxygen installations, used as a lubricant in pressure reducers, valves and other equipment in healthcare sectors and for the lubrication of O-ring seals in autogenous welding systems.
At an operating temperature of 60° C, the grease pressure limit is 60 bar.
The grease temperature range is from -40 to +200°C.
Suitable for lubricating sliding and rolling elements made of metal (steel and non-ferrous metal) or synthetic material.

bit MICRO-REGULATORS WITH SOME PARTS MISSING

These bit micro-regulators are supplied incomplete for installation requirements.

N.B.: For technical data refer to the standard version.

WITHOUT RING NUT AND BOX



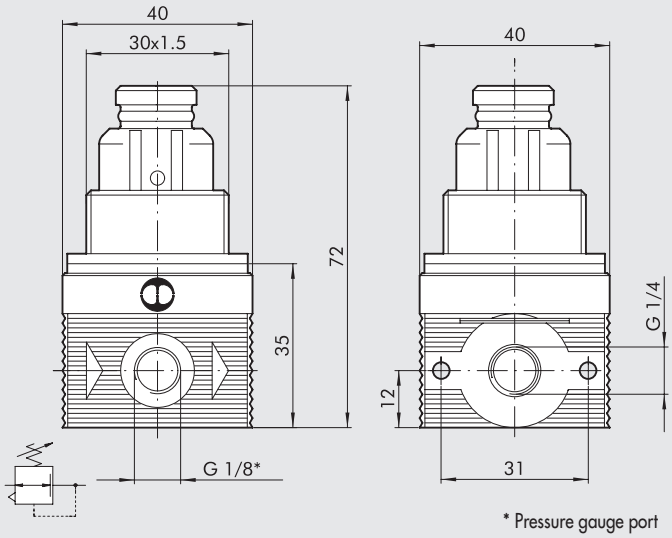
* Pressure gauge port

ORDERING CODES

Code	Description
8286801	MR BIT 1/8 04 without ring nut

N.B.: Supplied unpacked and without ring nut.

WITHOUT RING NUT AND KNOB



* Pressure gauge port

ORDERING CODES

Code	Description
8384501	MR BIT 1/4 02 without ring nut and knob
8384502	MR BIT 1/4 08 without ring nut and knob

N.B.: Supplied without fixed ring nut and without adjusting knob.

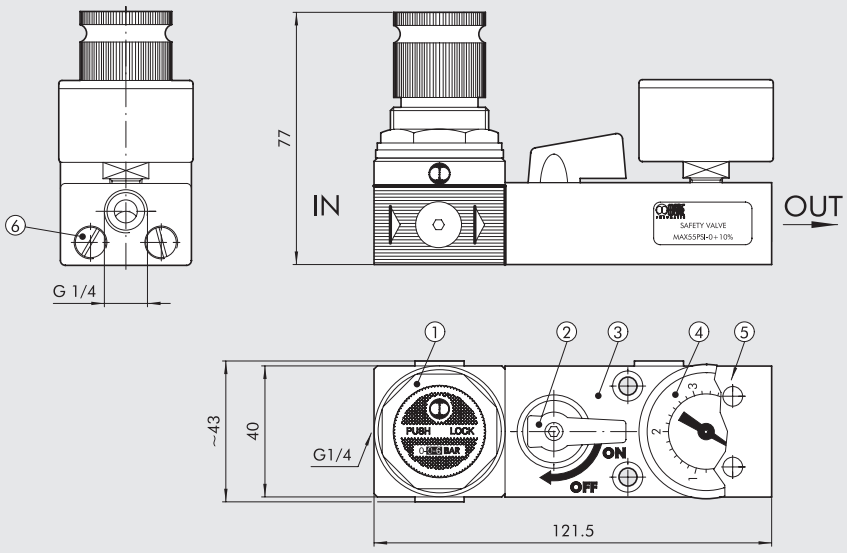
Please contact our sales offices for further information and quotation.

bit MICRO-REGULATORS WITH SAFETY VALVE LOCK

This comprises a bit unit that has been preset at max. 4 bar, a ball cock valve, a 0 to 4 bar pressure gauge and two safety valves set at 3.8 bar +0 / −10%.
It is used to supply compressed air to mixers and other devices where it is important for the pressure not to exceed the maximum value even when the regulator is faulty.

DIMENSIONS

① MR Bit 1/4 04 max 4 bar
② Ball tap
③ Painted aluminium body
④ Pressure gauge 04 Ø 40
⑤ Valve drain
⑥ Safety valves



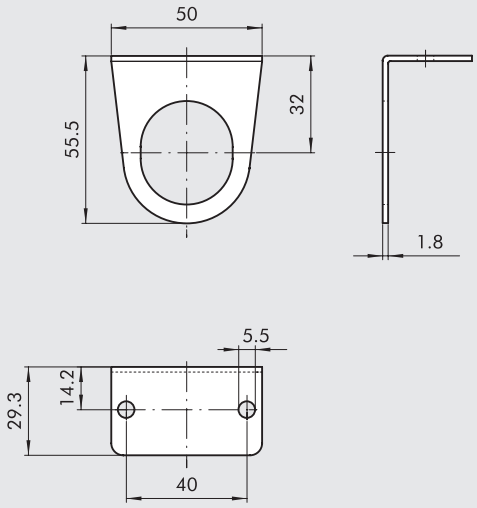
ORDERING CODES

Code	Description
8825970	MR Bit + safety valve lock + ball cock valve

R-FR bit BRACKET
CENTRE DISTANCE 40 mm

The centre distance of the fixing holes on this bracket is 40 mm.

DIMENSIONS



ORDERING CODES

Code	Description
8000210	R-FR fixing bracket centre distance 40

Material: white zinc-plated steel.

Please contact our sales offices for further information and quotation.

METAL WORK PNEUMATIC

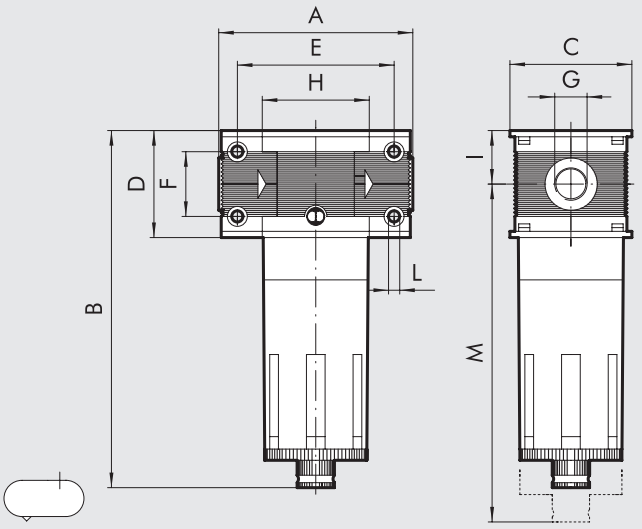
NOTES

Skillair® 300 CLEANER WITHOUT FILTERING ELEMENT

This is an STD cleaner without a filtering element that can be used as a tank.

N.B.: For technical data refer to the standard version.

DIMENSIONS



	DEP 300
Threaded port G	1/2"
A	110
B	195
C	72
D	65
E	92
F	42
H	65
I	32.5
L	M5 hole
M	215

ORDERING CODES

Code	Description
8825975	Dep 300 1/2 without filtering element

N.B.: The cup inside the bowl is made of nickel-plated OT58 brass.

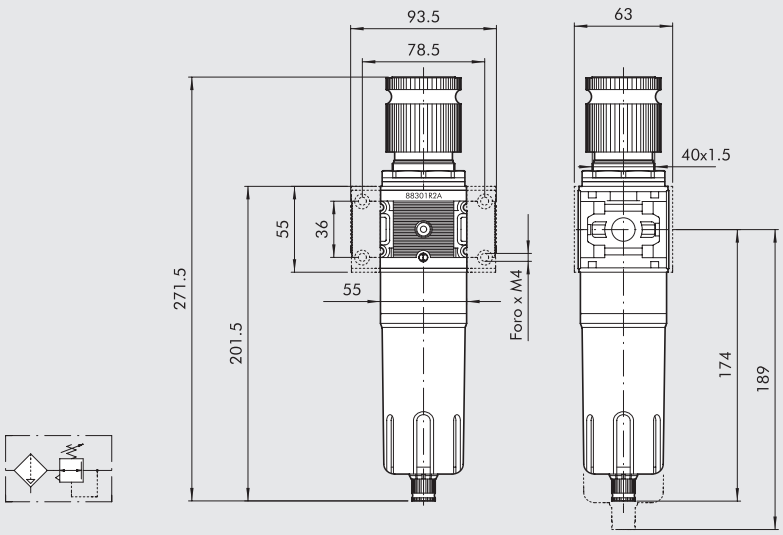
NOTES

Skillair® 200 FILTER-REGULATOR WITH METAL BOWL

This is a FR with black painted aluminium bowl.
The inner cup is made of clear plastic.

N.B.: For technical data refer to the standard version.

DIMENSIONS



ORDERING CODES

Code	Description
88301R2A	FR 200 20 08 with metal bowl without end plates

N.B.: The plates on the regulator body are marked with the part code.

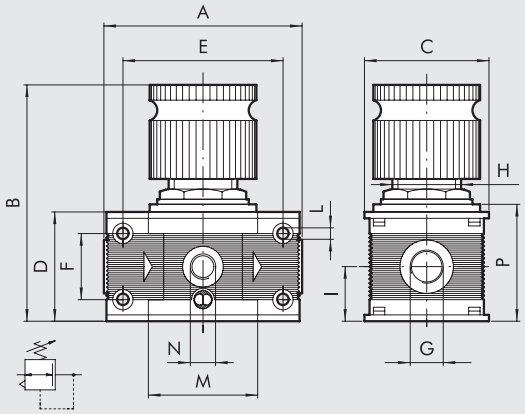
NOTES

Skillair® REGULATOR WITH FOOD INDUSTRY SUITABLE GREASE

As it is compatible for use in the food industry, Molycote 111 grease is used to lubricate internal parts that come into contact with the air flow.

N.B.: For technical data refer to the standard version.

DIMENSIONS



	REG 100		REG 200		
Threaded port G	1/4″	3/8″	1/4″	3/8″	1/2″
A	78		93.5		
B	98		125		
C	50		63		
D	43		55		
E	63		78.5		
F	26		36		
H	30 x 1.5		40 x 1.5		
I	21.5		27.5		
L	M4 hole		M5 hole		
M	43		55.5		
N (pressure gauge port)	1/8″		1/8″		
P	46		58		

ORDERING CODES

Code	Description
8825935	Reg 100 1/4 08 Molykote
8825960	Reg 200 1/2 08 Molykote

NOTES

Molykote 111: is a clear, high-viscosity white silicon grease approved by the British Standard WRC. **It is important not to mix it with other types of grease**.

Please contact our sales offices for further information and quotation.

Skillair® REGULATORS WITH SPECIAL GREASE

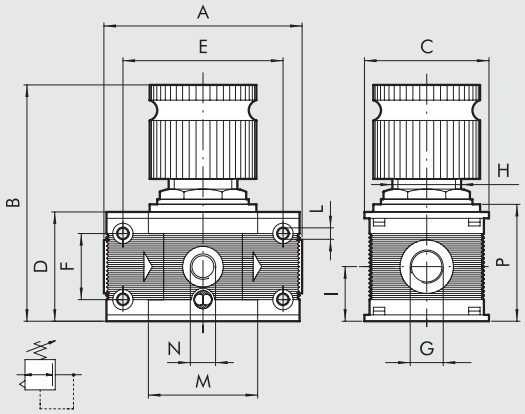
METAL WORK PNEUMATIC

BERULUB OX 40 EP is used to lubricate the inner parts that come into contact with the flow of air oxygen-compatible grease.
In this case, the compressed air that may come into contact with oxygen is not polluted.

N.B.: MW regulators have been designed and tested for use with compressed air. No claims can be made by the user if they are used with other fluids.

N.B.: For technical data refer to the standard version.

DIMENSIONS



	REG 100		REG 300		
Threaded port G	1/4″	3/8″	1/2″	3/4″	1″
A	78		110		112
B	98		148		
C	50		72		
D	43		65		
E	63		92		
F	26		42		
H	30 x 1.5		48 x 1.5		
I	21.5		32.5		
L	M4 hole		M5 hole		
M	43		65		
N (pressure gauge port)	1/8″		1/8″		
P	46		69		

ORDERING CODES

Code	Description
8826185	Reg 100 3/8 012 with special grease
8826186	Reg 300 012 with special grease without end plates

NOTES

BERULUB OX 40 EP: is a white silicone-based oil for oxygen installations, used as a lubricant in pressure reducers, valves and other equipment in healthcare sectors and for the lubrication of O-ring seals in autogenous welding systems.
At an operating temperature of 60° C, the grease pressure limit is 60 bar.
The grease temperature range is from -40 to +200° C.
Suitable for lubricating sliding and rolling elements made of metal (steel and non-ferrous metal) or synthetic material.

Skillair® SERVO PILOTED PILOT REGULATOR

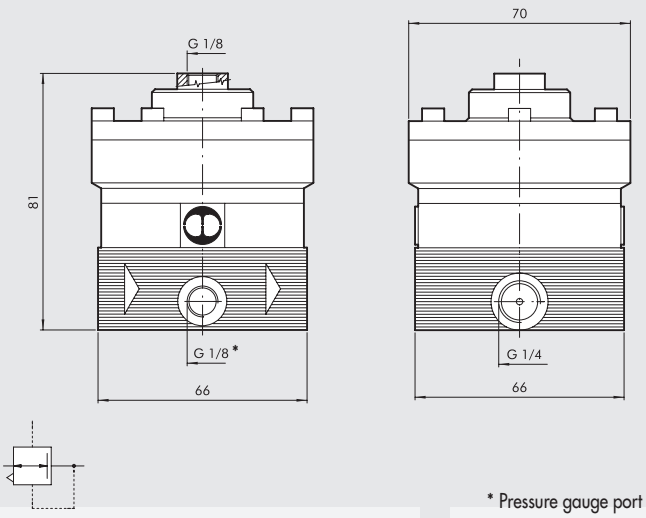
This is made by combining the bottom of the pilot regulator and the top of the Skillair® pilot regulator.

- Double rolling diaphragm to ensure maximum stroke and flow rate.
- Low load losses.
- High in pressure setting accuracy.
- High sensitivity during relieving.

A slight air leak is required for correct operation of the regulator and is not to be considered as a malfunction.

TECHNICAL DATA		PILOT REGULATOR
Threaded port		1/4"
Setting range	bar	Depending on the pilot
Max. input pressure	MPa	1.3
	bar	13
	psi	188
Flow rate at 6.3 bar (0.63 MPa to 91psi) ΔP 0.5 bar (0.05 MPa to 7psi)		120 Nl/min - 4.3 scfm
Flow rate at 6.3 bar (0.63 MPa to 91psi) ΔP 1 bar (0.1 MPa to 14psi)		140 Nl/min - 5 scfm
Fluid		Filtered, lubricated or unlubricated compressed air.
		Lubrication, if used, must be continuous.
Max temperature at 1 MPa; 10 bar; 145 psi	°C	50
	°F	122
Weight	kg	0.6
Mounting position		In any position
Pressure gauge port		1/8"
Notes on use		The regulator pressure must always be set upwards
		For increased sensitivity, use a pressure regulator with a rated pressure as close as possible to the required value.
		Do not take air from the pressure gauge ports. Mount directly on Reg 400.

DIMENSIONS



* Pressure gauge port

ORDERING CODES

Code	Description
8293317	Reg P 1/4 pilot

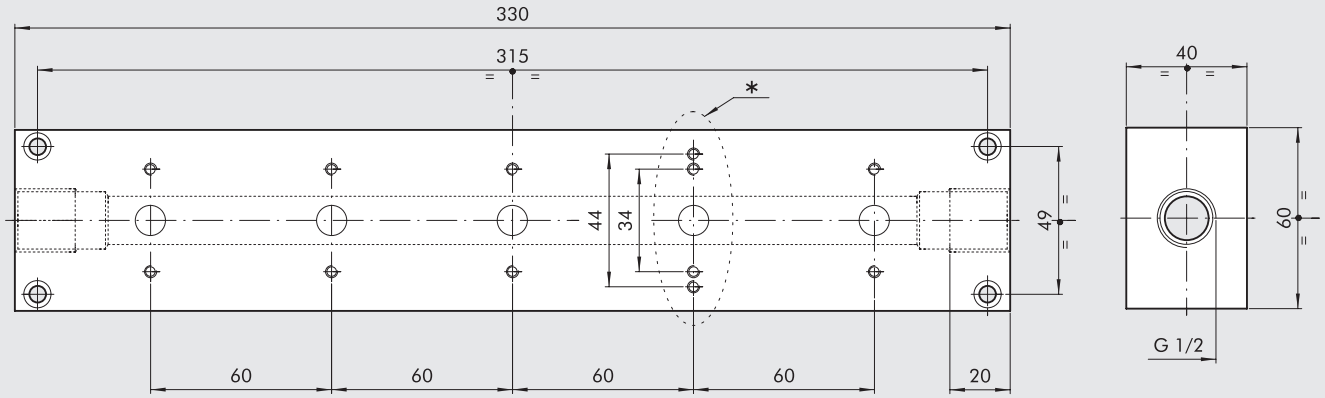
Please contact our sales offices for further information and quotation.

Skillair® 100
5-POSITION SUB-BASE

METAL WORK PNEUMATIC

A 5-position sub-base for the Skillair® 100.
The 4th position can be used for the Skillair® 200.

DIMENSIONS



* Position also compatible with Skillair® 200

ORDERING CODES

Code	Description
8000209	SK 100 5-position sub-base

N.B.: The code does not include adaptor bases.

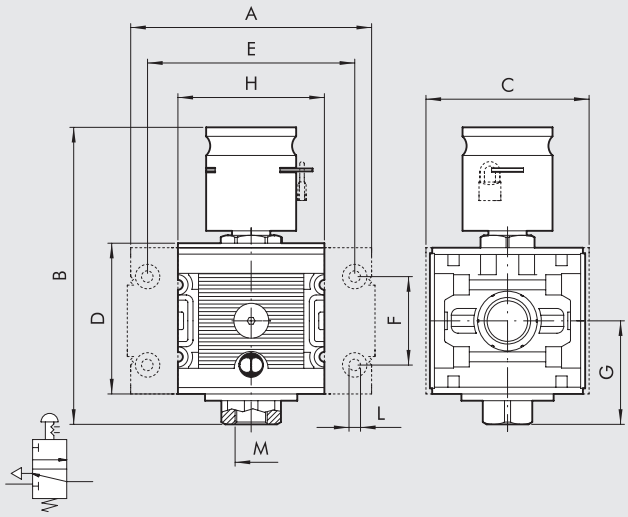
NOTES

Skillair® SHUT-OFF VALVE LOCKABLEIN 2 POSITIONS

Unlike the standard V3V, which can only be locked in the closed position, this version can be locked during operation.

N.B.: For technical data refer to the standard version.

DIMENSIONS



	V3V 100		V3V 200			V3V 300		
Threaded port G	1/4″	3/8″	1/4″	3/8″	1/2″	1/2″	3/4″	1″
A	78		93.5			110		112
B	106		119			132		
C	50		63			72		
D	43		55			65		
E	63		78.5			92		
F	26		36			42		
H	43		55.5			65		
I	33.5		40			46.5		
L	M4 hole		M5 hole			M5 hole		
M (relief)	1/8″		1/4″			3/8″		

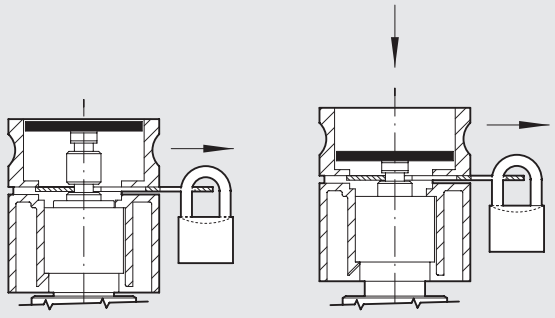
ORDERING CODES

Code	Description
8286464A	V3V 100 lockable in 2 positions without end plates
8286465A	V3V 200 lockable in 2 positions without end plates
8286466A	V3V 300 lockable in 2 positions without end plates

OPERATION

DE-ACTIVATED

ACTIVATED



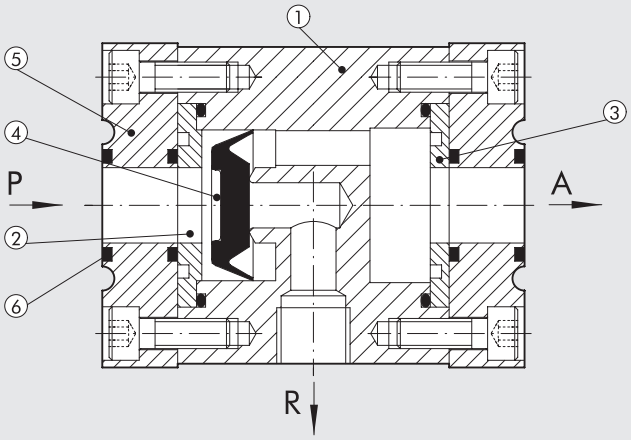
Please contact our sales offices for further information and quotation.

OIL CHECK VALVE WITH DRAIN
Skillair® 100

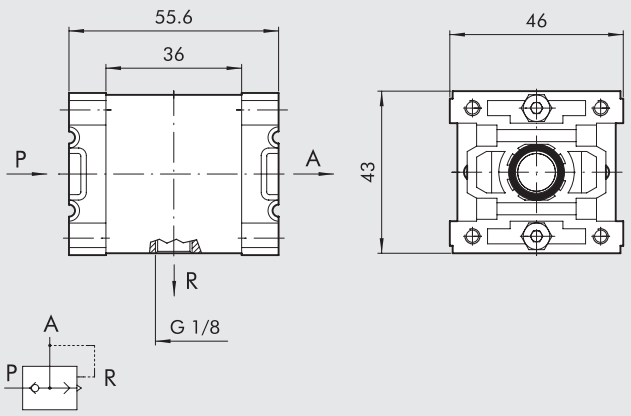
This module can be inserted between two Skillair® 100 elements (e.g. a filter and a lubricator) to prevent the oil from returning due to back pressure. In this case oil is drained out via a 1/8" (R) threaded coupling.

COMPONENTS

① Black anodised aluminium body
② Anodised aluminium input plate
③ Anodised aluminium output plate
④ Adiprene lip seal
⑤ Adaptor base made of zamak
⑥ NBR seals



DIMENSIONS



ORDERING CODES

Code	Description
8282717	VNRO 100

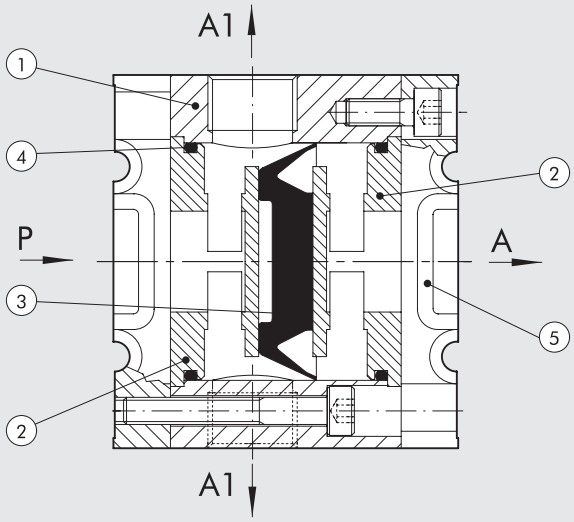
OIL CHECK VALVE
Skillair® 200

This module can be inserted between two Skillair® 200 elements (e.g. a filter and a lubricator) to prevent the oil from returning due to back pressure.
1/4" couplings (A1) to be used as air intakes are mounted before the VNRO.

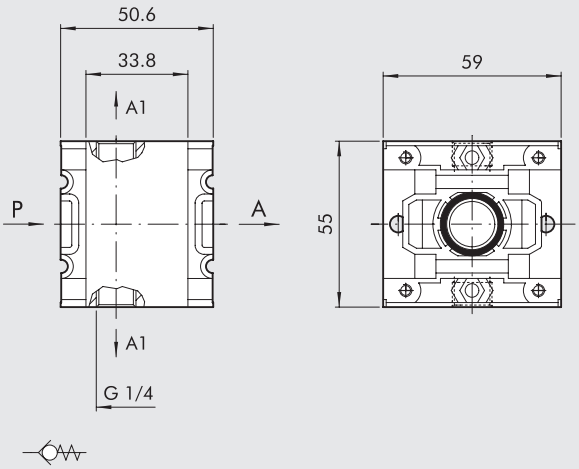
COMPONENTS

① Body made of black anodised aluminium
② Input spacer ring made of OT58 nickel-plated brass
③ Output spacer ring made of OT58 nickel-plated brass
④ Adiprene lip gasket
⑤ Adaptor base made of zamak

A1 = air intakes before VNRO



DIMENSIONS



ORDERING CODES

Code	Description
8331521	VNRO 200

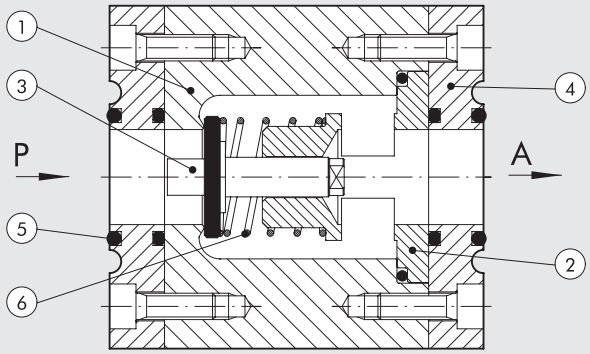
OIL CHECK VALVE
Skillair® 300

METAL WORK PNEUMATIC

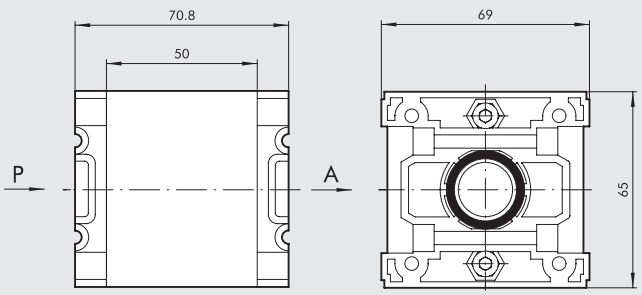
This module can be inserted between two Skillair® 300 elements (e.g. a filter and a lubricator) to prevent the oil from returning due to back pressure.

COMPONENTS

① Body made of black anodised aluminium
② spacer ring made of OT58 nickel-plated brass
③ Valve with NBR vulcanized gasket
④ Adaptor base made of zamak
⑤ NBR seals
⑥ Stainless steel valve spring



DIMENSIONS



ORDERING CODES

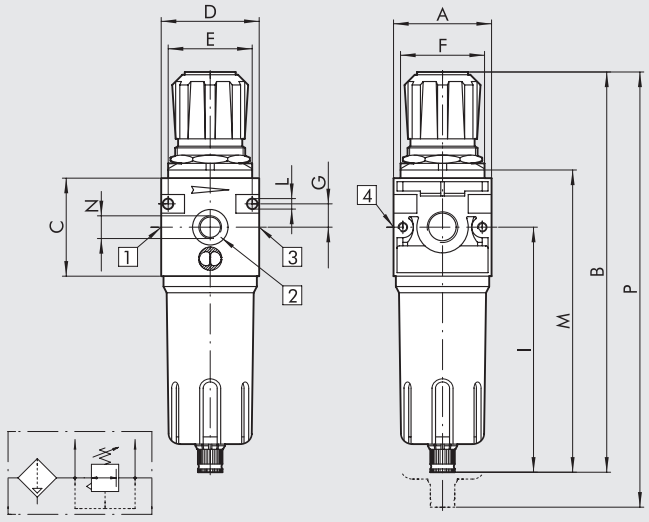
Code	Description
8149903	VNRO 300

Newdeal 1/4" FILTER-REGULATOR WITH NON-REGULATED AIR INTAKE

The main feature of this filter-regulator is that the 1/8" front port (2) is connected to the filtered non-regulated air pipe, while the rear port (4) is connected to the filtered and regulated air pipe, as with standard ports.

N.B.: For technical data refer to the standard version.

DIMENSIONS

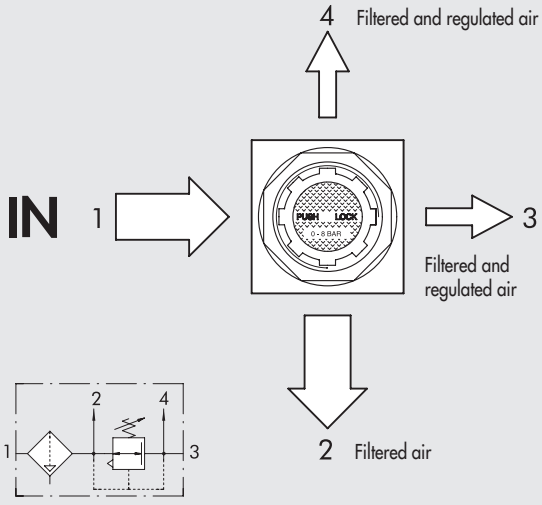


	FR ND 1/4"
Threaded port	1/4"
A	42
B	190
C	42
D	42
E	36
F	30 x 1.5
G	10
I	121
L	M4 hole
M	145
N	1/8"
P	233

ORDERING CODES

Code	Description
8293155	FR ND 1/4 20 08 RMSA

OPERATING SCHEME

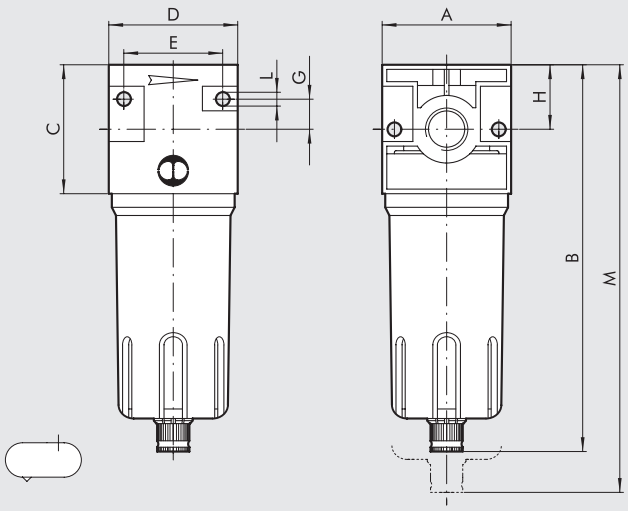


Newdeal FILTERS
WITHOUT FILTERING ELEMENT

These are standard filters without a filtering element that can be used as tanks.

N.B.: For technical data refer to the standard version.

DIMENSIONS



	FIL ND 3/8"	FIL ND 1/2"	FIL ND 3/4"	FIL ND 1"
Threaded port	3/8"	1/2"	3/4"	1"
A	60		80	
B	180		235	
C	60		80	
D	60		80	
E	46		66	
G	14		22	
H	30		40	
L	M4 hole		M6 hole	
M	230		325	

ORDERING CODES

Code	Description
8842323	Fil ND 3/8 without filtering element
8826446	Fil ND 1/2 without filtering element
8826449	Fil ND 1 without filtering element

Bowl capacity: ND 3/8-1/2 = ~ 200 cm^3
ND 1 = ~ 490 cm^3

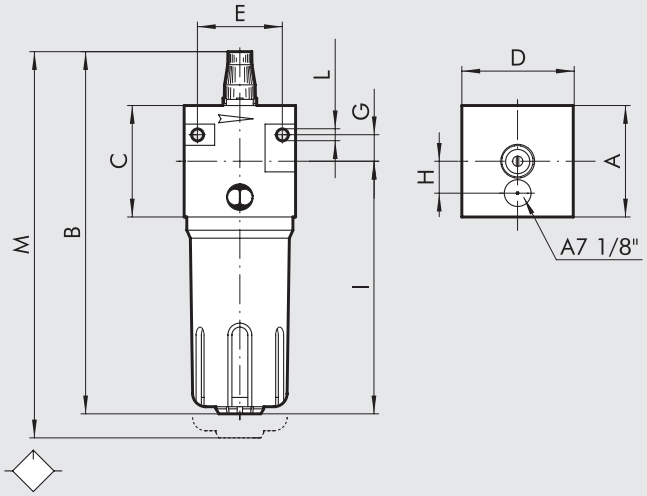
NOTES

New deal 3/8" LUBRICATOR WITH OIL FILLING FROM THE TOP

This is a lubricator with a 1/8" hole at the top of the body to allow oil filling from the top without the need to remove the bowl. During use, the hole in the lubricator is plugged by an A7 fitting.

N.B.: For technical data refer to the standard version.

DIMENSIONS



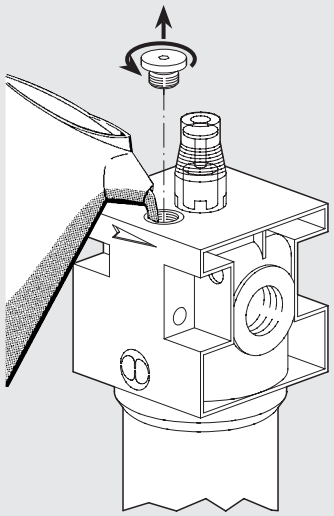
	LUB ND 3/8"
Threaded port	3/8"
A	60
B	195
C	60
D	60
E	46
G	14
H	17.2
I	136
L	M4 hole
M	220

ORDERING CODES

Code	Description
8283110	Lub ND 3/8 with oil filling from the top

N.B.: Disconnect the pressure feed before filling the system with oil.
The body is painted grey.

OPERATING SCHEME



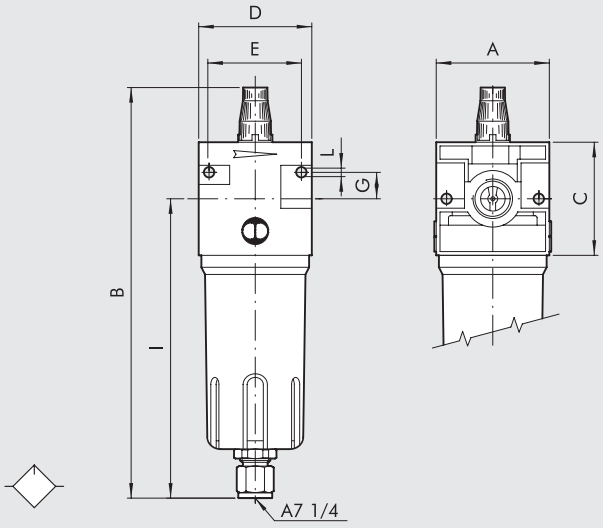
Please contact our sales offices for further information and quotation.

Newdeal BOTTON OIL FILLING LUBRICATOR

At the bottom of the bowl is a 1/4" fitting for oil filling without having to remove the bowl.
During use, the 1/4" hole in the lubricator is plugged by an A7 fitting, supplied with the lubricator.

N.B.: For technical data refer to the standard version.

DIMENSIONS



	LUB ND 1/4"	LUB ND 1/2"	LUB ND 1"
Threaded port	1/4"	1/2"	1"
A	42	60	80
B	~179	~221	~286
C	42	60	80
D	42	60	80
E	32	46	66
G	10	14	22
I	~133	~162	~208
L	M4 hole	M4 hole	M6 hole

ORDERING CODES

Code	Description
8826439	Lub ND 1/4 with oil filling
8826440	Lub ND 1/2 with oil filling
8826441	Lub ND 1 with oil filling

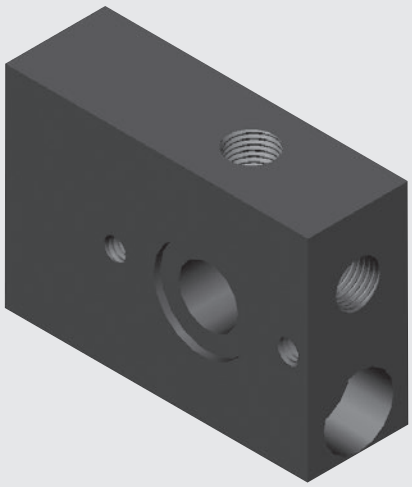
N.B.: Supplied with 2 screws.
Disconnect the pressure feed before filling the system with oil.

NOTES

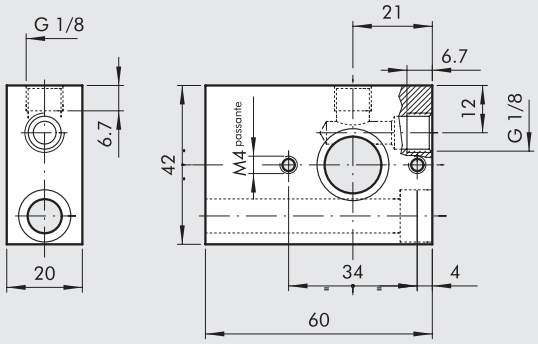
Newdeal 1/4"
AIR INTAKE WITH WALL FIXING

The air intake has a depth of 60 mm to allow an New Deal 1/4" group to be fixed to the wall yet detached from it.

N.B.: With M4 fixing holes, the air intake cannot be connected directly to a regulator or filter-regulator.



DIMENSIONS

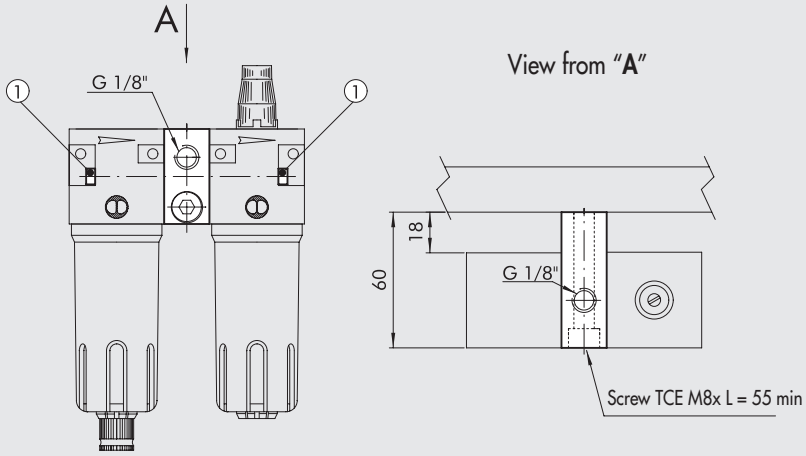


ORDERING CODES

Code	Description
8286810	New Deal 1/4 air intake L = 60

N.B.: Supplied complete with 4 M4x35 (①) securing screws and seal.
Material: black anodised aluminium.

TYPICAL ASSEMBLY

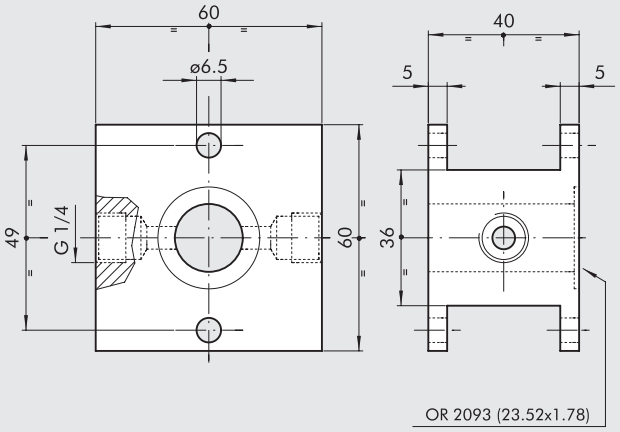


Please contact our sales offices for further information and quotation.

New deal AIR INTAKE 3/8" - 1/2" SPECIAL

Due to its special design, the PA can be inserted between 2 regulators using four M5x10 screws.
The air outlets are situated on opposite sides, so that can be one at the front and one at the rear (Fig. 1), or one at the top and one at the bottom by rotating PA by 90° (Fig. 2).

DIMENSIONS



ORDERING CODES

Code	Description
8096902	New Deal air intake 3/8-1/2 special

N.B.: Supplied complete with one O-ring seal.
Material: black anodised aluminium.

TYPICAL ASSEMBLY

Fig. **1**

View from "**A**"

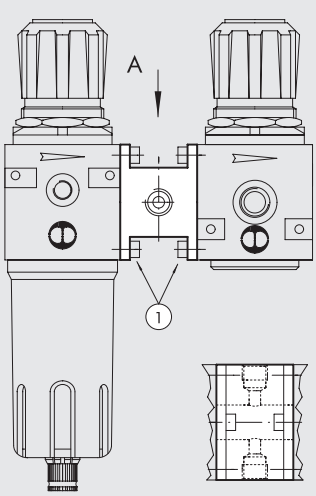
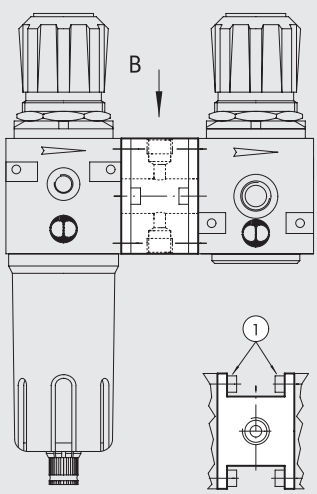


Fig. **2**

View from "**B**"



① Screws TCE M5x10

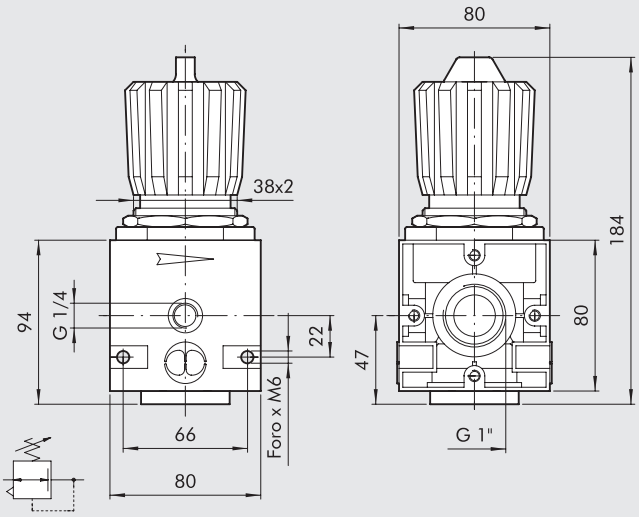
Newdeal 1" REGULATOR WITH SPECIAL GREASE

BERULUB OX 40 EP is used to lubricate the inner parts that come into contact with the flow of air oxygen-compatible grease.
In this case, the compressed air that may come into contact with oxygen is not polluted.

N.B.: MW regulators have been designed and tested for use with compressed air. No claims can be made by the user if they are used with other fluids.

N.B.: For technical data refer to the standard version.

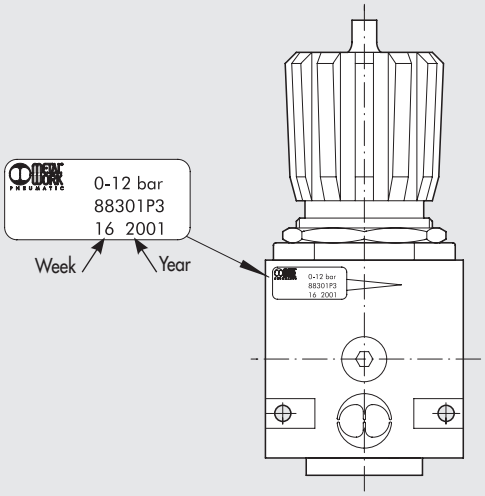
DIMENSIONS



ORDERING CODES

Code	Description
88301P3	Reg ND 1 012 with special grease

IDENTIFICATION LABEL



NOTES

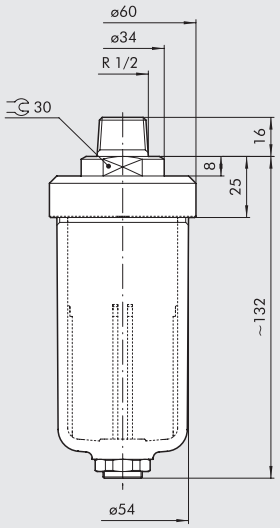
BERULUB OX 40 EP: is a white silicone-based oil for oxygen installations, used as a lubricant in pressure reducers, valves and other equipment in healthcare sectors and for the lubrication of O-ring seals in autogenous welding systems.
At an operating temperature of 60°C, the grease pressure limit is 60 bar.
The grease temperature range is from -40 to +200° C.
Suitable for lubricating sliding and rolling elements made of metal (steel and non-ferrous metal) or synthetic material.

Please contact our sales offices for further information and quotation.

TANK-BOWL R1/2"

The SCAL bowl is made of clear plastic and used as a tank.
The cap is made of orange painted brass.

DIMENSIONS



ORDERING CODES

Code	Description
8261112	R1/2 tank-bowl

N.B.: The capacity is about 164 cm³.

NOTES

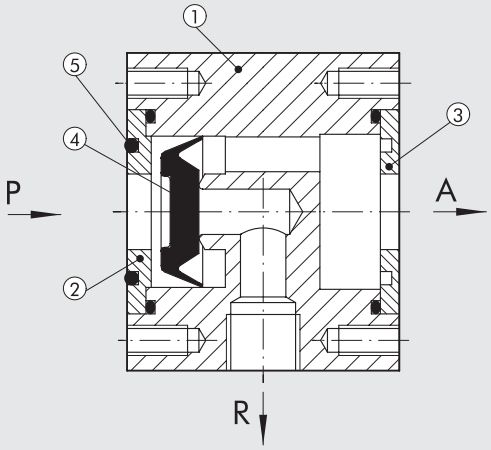
OIL CHECK VALVE WITH DRAIN Newdeal 1/4"

This module can be inserted between two New Deal 1/4" elements (e.g. a filter and a lubricator) to prevent the oil from returning due to back pressure. In this case oil is drained out via a 1/8" (R) threaded coupling.

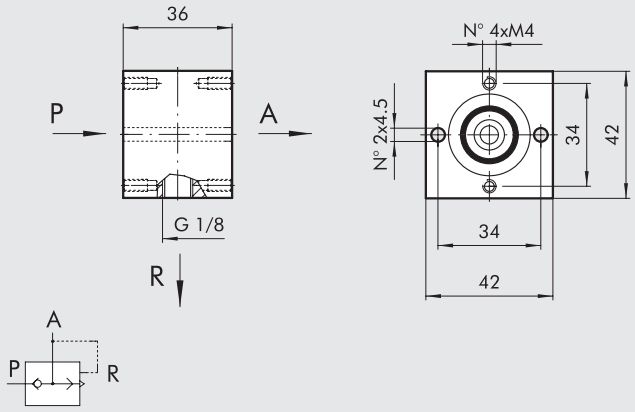
N.B.: Use M4x75 screws to connect a regulator or filter-regulator to the lubricator.

COMPONENTS

① Black anodised aluminium body
② Anodised aluminium output plate
③ Anodised aluminium output plate
④ Adiprene lip seal
⑤ NBR seals



DIMENSIONS



ORDERING CODES

Code	Description
8293138	VNRO New Deal 1/4

N.B.: Comes complete with 2 M4x82 tie rods and 2 connecting bushings.

Please contact our sales offices for further information and quotation.

OIL CHECK VALVE
New deal 3/8"-1/2"

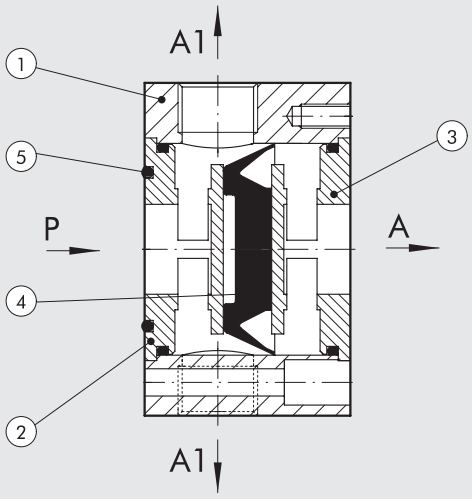
This module can be inserted between two New Deal 3/8"-1/2" elements (e.g. a filter and a lubricator) to prevent the oil from returning due to back pressure.
1/4" (A1) couplings to be used as air intakes are mounted before the VNRO.

N.B.: Use M5x90 screws to connect a regulator or filter-regulator to the lubricator.

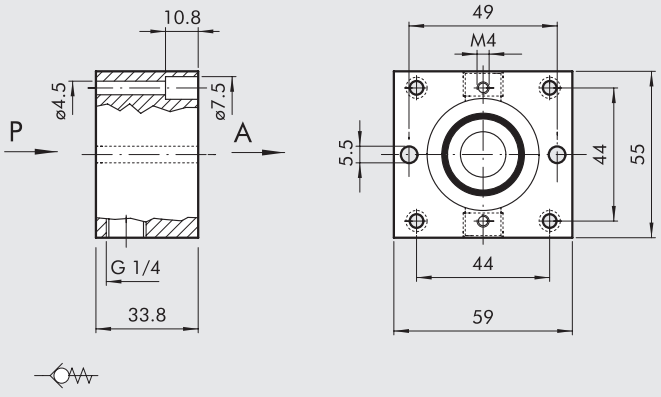
COMPONENTS

① Body made of black anodised aluminium
② Input spacer ring made of OT58 nickel-plated brass
③ Output spacer ring made of OT58 nickel-plated brass
④ Adiprene lip gasket
⑤ NBR seal

A1 = air intakes before VNRO



DIMENSIONS



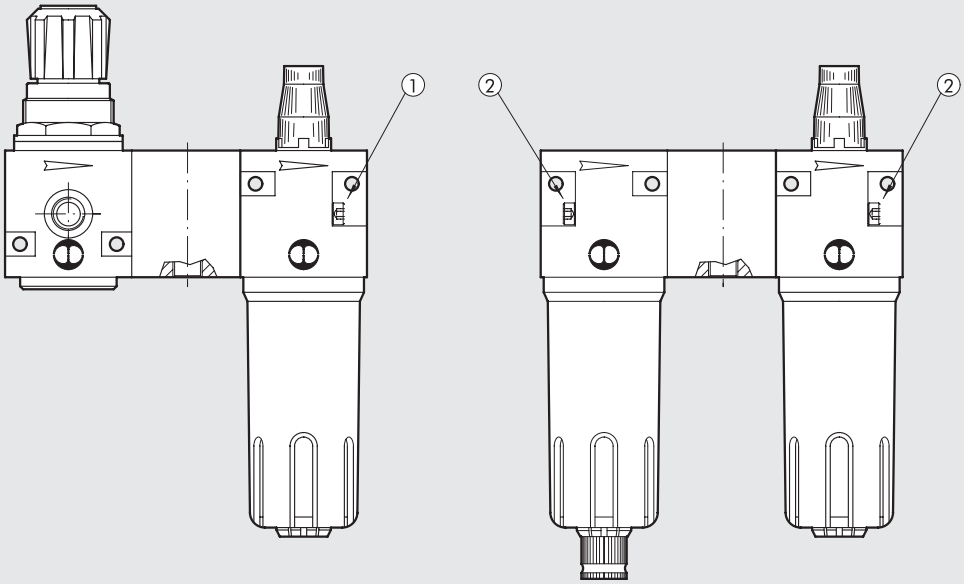
ORDERING CODES

Code	Description
8286727	VNRO New Deal 3/8-1/2

N.B.: Supplied complete with 2 M5x90 hex screws.

OIL CHECK VALVE New deal - ASSEMBLY

ASSEMBLY



① M4x75 for ND 1/4"
M5x90 for ND 3/8"-1/2"

② M4x40 for ND 1/4"
M5x55 for ND 3/8"-1/2"

NOTES

METAL WORK PNEUMATIC

NOTES

SERIE SAFE AIR®

ONE SAFE AIR® is a pneumatic safety component consisting of a ONE air treatment unit arranged in series with a 3/2 electro-pneumatic valve with spool monitoring.
A pressure switch is placed between the ONE unit and the monitored valve to indicate the presence of pressure.
The safety function consists of discharging the circuit downstream the component.
A maximum pressure valve is installed after the monitored valve.
ONE SAFE AIR® comes in various configurations, all based on electric ONE units.
ONE SAFE AIR® is a component classified in category 4 according to ISO EN 13849 and is suitable for use in safety circuits up to PL = e.
The product come with:

- a voluntary examination certificate no. TC1250/21/AD/ad, issued by Bureau Veritas in accordance with EN ISO 13849;
- a certificate of compliance examination to the Machinery Directive 2006/42/EC no. CV 015-12-2014 released by Bureau Veritas.

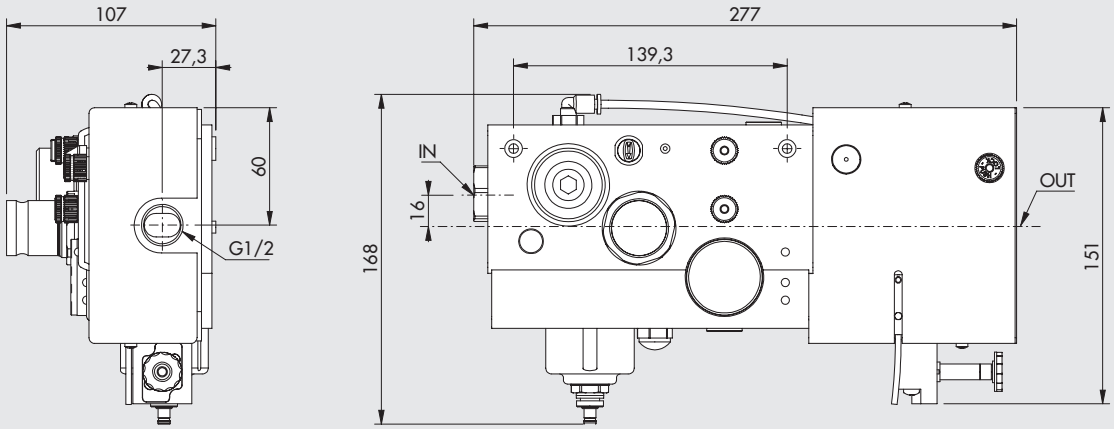
TECHNICAL DATA		
Operation	mm	Dual 3/2 monostable valve with pressure regulation
Fluid		Filtered unlubricated air (50 µm)
Operating temperature range	°C	-10 to +50
Operating pressure	bar	2.5 to 10
Delivery flow rate at 6.3 bar Δp 0.5 bar (with 1/2" input thread)	Nl/min	2900
Delivery flow rate at 6.3 bar Δp 1 bar (with 1/2" input thread)	Nl/min	3600
Flow rate on free exhaust silencer (ONE) at 6.3 bar	Nl/min	1600
Flow rate on free exhaust silencer (valve) at 6.3 bar	Nl/min	4600
TRA/TRR at 6.3 bar (safety valve)	ms/ms	36/60
TRA/TRR at 6.3 bar	ms/ms	Depending on the APR/60
Solenoid pilot		According Cnomo
Manual actuator		Monostable on solenoid pilot
Coils		30 mm side, Ø 8 hole
		2 W - 24 VDC; 3.5 VA - 24, 110, 220 VAC 50/60 Hz
		22 mm side, Ø 8 hole
		2 W - 12, 24 VDC; 3.5 VA - 24, 110, 220 VAC 50/60 Hz
		Certified EN 60204.1 and VDE 0580*
Max coil ring nut torque	Nm	1
Maximum safety pressure switch current	A	2
Maximum safety pressure switch voltage	V	250
Pressure switch contacts		Normally open (NO) and normally closed (NC)
Insulation class of the solenoid ONE		F155
Switching time		100% ED
Electrical connector		M12x1, 5-PIN 90°, according to CEI IEC 60947-5-2 *
Power solenoid ONE	W	3/0.3
Voltage solenoid ONE	V	24VDC ±10%
Type of sensor used		Hall effect
Wall fixing (max. panel thickness 10 mm)		Front, with M5x75 screws or back, with M6x70 screws.
		The screws are included in the supply.
Maximum torque screws ONE	Nm	3.5 ±0.5
Mounting position		Vertical
Direction of flow		From left to right
Weigth	kg	2.5
Compatibility with oils		See **chapter Z1**
Class of protection		IP65 with coil and connector mounted
Noise level		Max. 78 dBA with silenced relief
B10d		20 x 10^6 cycles
Categoria - ISO EN 13849		4
DC Low		High (>99 %)
CCF		90
PL - ISO EN 13849		Suitable for use in safety circuits up to PL=e

* To avoid malfunctions, we recommend using Metal Work accessories.

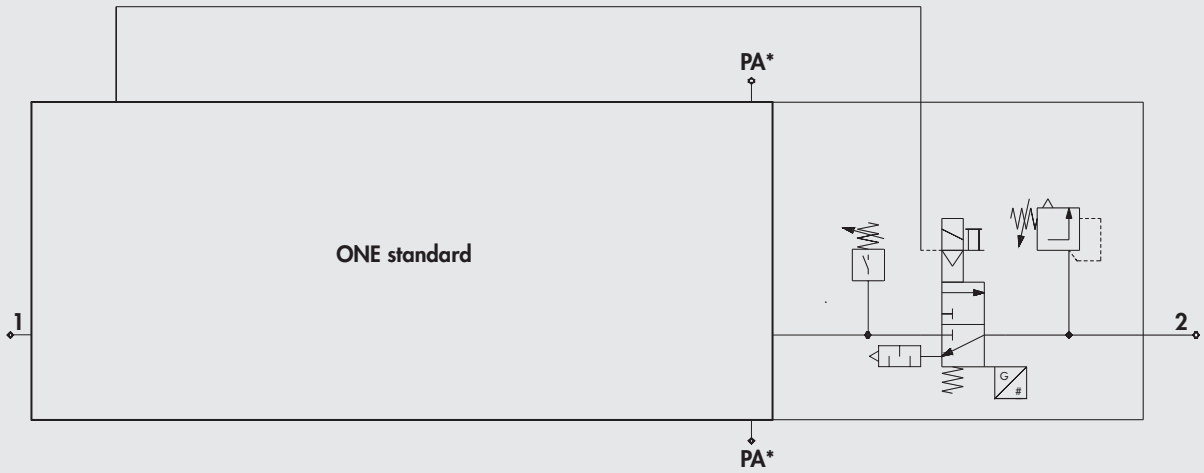
Please contact our sales offices for further information and quotation.

METAL WORK PNEUMATIC

DIMENSIONS



OVERALL DIAGRAM



* No safety function is provided for PA.

NOTES

ORDERING CODES

	A	B	C	D	E	F	G	H	I	L	M
	ONE electric	Air intake	Degree of filtration	Clogged filter signal	Condensate drain	Pressure regulation	Valves	Pressure switch	Air outlet	Various	
EXAMPLE	54	3	2	1	1	8	7	1	0	S	1
	54 ONE electric	**3** 1/2″	**2** 20 µm	**0** NO	**0** RMSA	**4** 0.5 to 4 bar	**5** V3V manual and V3V electric	**0** NO	**0** Without bushing	**S** Safe air®	**1** M8 pressure switch (0.3 m) + M8 sensor (0.3 m)
		4 3/4″	**5** 5 µm	**1** YES	**1** auto-matic (RA)	**8** 0.5 to 8 bar	**6** V3V manual with padlock and V3V electric	**1** YES			**3** M8 pressure switch (0.3 m) + 3 wire sensor (2 m)
		5 1″					**7** V3V manual and APR electric				**6** 2 m pressure switch + M8 sensor (0.3 m)
							8 V3V manual with padlock and APR electric				**8** 2 m pressure switch + 3 wire sensor (2 m)
							9 only V3V electric				
							A only APR electric				

Please contact our sales offices for further information and quotation.

METAL WORK PNEUMATIC

A **ONE electric**

B **Air intake**
There are 3 different gas cylindrical threads: 1/2", 3/4" and 1".

C **Degree of filtration**
A cartridge with a degree of filtering of 5 µm (yellow) or 20 µm (white) is available. This value is marked on the plug.

D **Clogged filter signal**
If the filter gets so clogged up that it causes an excessive drop in pressure as the air passes through, the orange indicator will project from the body by a few millimetres.

E **Condensate drain**
RMSA: the condensate is drained out automatically only by relieving the air pull the knurled knob for having the same result.
Automatic (RA): a floating system that automatically drains the condensate out whenever the level of water in the bowl reaches the set value.

F **Pressure regulation**
There are 2 possible regulation fields.
The value is marked on the regulation knob.

G **Valves**
There are 6 different combinations.

- 5 - V3V manual and V3V electric: two V3V in series are present, one is manual the other electrical. By operating both the valve the air flow is allowed. If one or two are switched OFF, the air downstream is relieved. The electrical one can also be operated manually by reefing pushed the "TEST" button.
- 6 - V3V manual with padlock and V3V electric: like the previous, with the padlock device in "OFF" position.
- 7 - V3V manual and APR electric: One manual V3V and one soft start valve are present. When both are operated, the pressure starts to increase slowly, with a fine adjustable ramp, and when it reaches about 30-40% of the set value, the valve opens completely and the pressure rises to the set value.
- 8 - V3V manual with padlock and APR electric: like the previous, with the padlock device on the manual V3V in "OFF" position.
- 9 - V3V elettric: It's present only the electrical V3V. The valve will open if it is powered on. When the power supply is switched off, the valve closes and air downstream is relieved. The valve can also be operated manually by keeping pushed the test button.
- A - APR elettric: It's present only the electric soft start valve. Whent it is powered ON, the pressure starts to increase slowly,with a fine adjustable ramp, and when it reaches about 30-40% of the set value, the valve opens completely and the pressure rises to the set value.

H **Pressure switch**
The pressure switch has a switching contact, which means you can have a normally-open signal or a normally-close signal. It is also connected to the NC and NO LEDs which come on if the actual pressure is less or greater than the set pressure, respectively. The LEDs only come on if an electric charge is connected to them.

I **Air outlet without bushings**

L **Safe air® versions**

M **Type sensors**

PRE-SET bit

The following two types are available:

- **Regulators with fixed setting**: that can be set and locked with pressure at a fixed value. The adjusting screw can be fixed with Loctite to lock regulation.
- **Regulators with maximum pressure setting**: pressure can be regulated up to the maximum preset value. A spacer can be inserted on the adjusting screw to limit pressure.

Both types can be supplied with a standard knob or a blank unserigraphed knob.

MR regulators and FR filters-regulators can also be supplied.

N.B.: For technical data refer to the standard version.

The table below lists some of the versions currently available:

Code	Description	Type of setting	PM	PR	Notes
8295005	MR BIT 1/8 02 TF 2	TF	6	2	Without knob
8286723	MR BIT 1/8 04 TF 3	TF	6	3	Unserigraphed knob
8801703	MRA BIT 1/4 04 TF 4	TF	6	4	For water – unserigraphed knob
8286862	MR BIT 1/4 08 TF 8	TF	10	8	Unserigraphed knob
8849233	MRA BIT 1/8 01TM 1	TM	6	1	For water – unserigraphed knob
8286783	MR BIT 1/4 02 TM 1.5	TM	6	1.2	Unserigraphed knob
8295007	MR BIT 1/4 02 FC TM 1.8	TM	6	1.8	02 FC standard knob
8825972	MR BIT 1/8 04 TM 4	TM	6	4	04 standard knob
8825936	MR BIT 1/4 04 TM 4	TM	6	4	04 standard knob
8238506	MR BIT 1/4 04 TM 5	TM	6	5	Unserigraphed knob
8292123	MR BIT 1/8 08 TM 6	TM	7.5	6	06 knob
88301N3	MR BIT 1/4 08 TM 6	TM	7.5	6	06 knob

TF = fixed setting
TM = maximum setting
PM = upstream pressure
PR = regulated pressure

NOTES

The fixed or maximum upstream pressure and regulated pressure must always be defined.
The regulators must have a tolerance on the nominal value, measured without flow rate, as follows:

- for fixed setting: ± 0.1 bar
- for max pressure setting: ± 15% of the maximum regulated pressure, and in no case less than ± 0.4 bar.

PRE-SET
New deal AND Skillair®

METAL WORK PNEUMATIC

The following two types are available:

- **Regulators with fixed setting**: that can be set and locked with pressure at a fixed value.
  The adjusting screw can be fixed with Loctite to lock regulation.
- **Regulators with maximum pressure setting**: pressure can be regulated up to the maximum preset value.
  A spacer can be inserted on the adjusting screw to limit pressure.

Both types can be supplied with a standard knob or a blank unserigraphed knob.

MR regulators and FR filters-regulators can also be supplied.

N.B.: For technical data refer to the standard version.

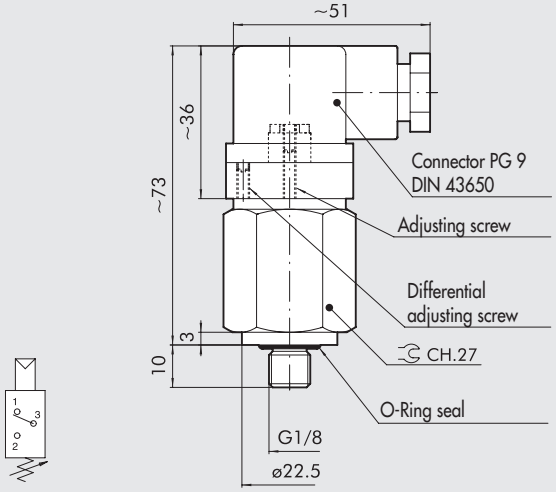
NOTES

The fixed or maximum upstream pressure and regulated pressure must always be defined
The regulators must have a tolerance on the nominal value, measured without flow rate, as follows:
- for fixed setting: ± 0.1 bar
- for max pressure setting: ± 15% of the maximum regulated pressure, and in no case less than ± 0.4 bar.

PRESSURE SWITCH WITH TWO ELECTRIC SIGNALS

This pressure switch has two separate electric signals for opening and closing. The pressure difference for opening and closing can be regulated. The pressure switch comes with connector and fairlead.

DIMENSIONS



TECHNICAL DATA

Operating pressure	bar	from 1 to 10
Maximum static pressure	bar	80
Switching tolerance at 25 °C	bar	±0.4
Differential		min 10% - max 30% actual value
Temperature range	°C	from -5 to +90
Maximum voltage	VAC	250
Max. current intensity	A	6 (resistive) - 2 (inductive)
Degree of protection		IP65 DIN40050
Body		brass
Connector and fairlead	PA	6.6
Electric contacts		silver-coated copper 3µm
Diaphragm		NBR
Max. no. of switching at 25°		120 cycles/1'
Mechanical life		1000000 cycles
Torque	kgm	5
Weight	g	100

ORDERING CODES

Code	Description
9000301	Adjustable pressure switch 1/8" PSM 10 R18 NA-NC

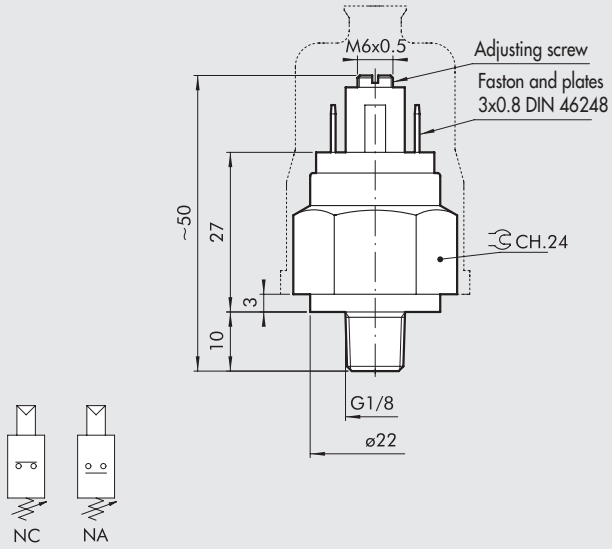
NOTES

Please contact our sales offices for further information and quotation.

PRESSURE SWITCHES

These pressure switches send an electric signal when they reach a pressure that can be adjusted by means of a screw.
The NO version sends a signal if the pressure exceeds the set value.
The NC version sends a signal if the pressure is below the set value.

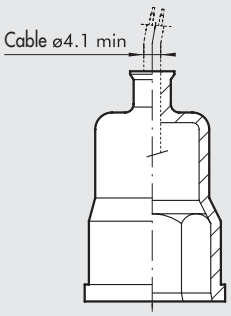
DIMENSIONS



TECHNICAL DATA

Operating pressure	bar	from 2 to 10
Maximum static pressure	bar	80
Switching tolerance at 25 °C	bar	±0.3
Fixed differential at 25 °C	bar	0.2
Temperature range	°C	from -5 to +60
Type of contact		NA o NC
Maximum voltage	VAC	48
Maximum working power	VA	20
Max. current intensity	A	0.5 (resistive) - 0.2 (inductive)
Rigidity test		1500 V - 10 mA -10 s
Degree of protection		IP00
Degree of protection with CAP1		IP54
Body		brass
Faston contact holding frame	PA	6.6 charged
Electric contacts		silver-coated copper 3µm
Diaphragm		NBR
Max. no. of switching at 25°		200 cycles/1'
Mechanical life		1000000 cycles
Torque	kgm	5
Weight	g	63

SAFETY CAP



ORDERING CODES

Code	Description
9000101	Adjustable pressure switch 1/8" PMN 10 NA
9000201	Adjustable pressure switch 1/8" PMN 10 NC
9000901	Safety cap CAP1

NOTES