

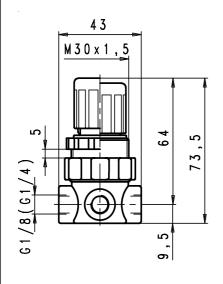
AIR TREATMENT Special Equipment

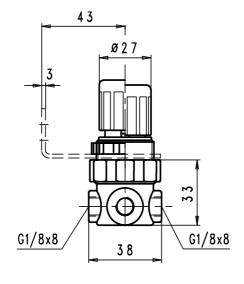
1. MICRO REGULATORS DR022

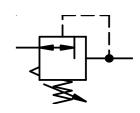
ITEM	DR02200	DR02201			
Port size	G 1/8"	G 1/4"			
Gauge size	G 1/8"				
Description	Air line regulator with o	diaphragm and relieving			
	feature				
Mounting	Arbitrary				
Supply pres.	Pe max. 28 bar				
Reduc. pres.	Standard: Pa 0,5-10 bar				
	Optional: Pa 0,1-3,5 bar / 0,15-7 bar				
Temp.	Max. 60°C				
	(other temperature ranges upon request)				
Fixing	Panel mounting (DR0034)				
	Mounting bracket (MW30)				
Weight	0,220 kg				



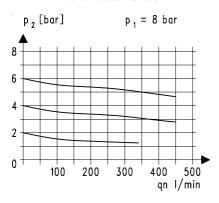
Gauge Not Included



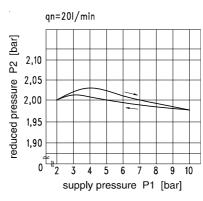




Flow characteristics



Pressure characteristics



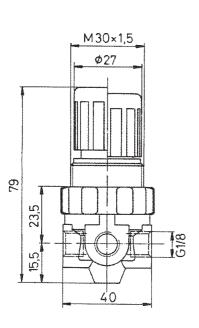
ordering indication DR.022- ** * type 1 port size On G 1/8" On G 1/4" Options example: DR02201

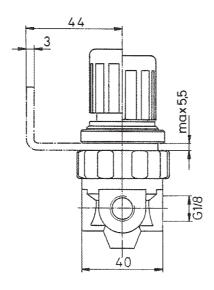
2. MICRO REGULATORS DR021

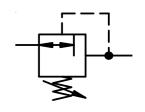
ITEM	DR02100	DR02101		
Port size	G 1/8"	G 1/4"		
Media	Water, compressed air	, non corrosive gases		
Description	Air line regulator with o	liaphragm and		
	non-relieving feature	•		
Mounting	Arbitrary			
Supply pres.	Pe max. 25 bar			
Reduc. pres.	Standard: Pa 0,5-10 bar			
	Optional: Pa 0,1-3 bar / 0,5-6 bar / 0,5-16 bar			
Temp.	Max. 50°C			
Body	Messing			
Fixing	Panel mounting (DR0034)			
	Mounting bracket (MW30)			
Weight	0,200 kg			

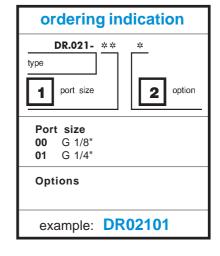




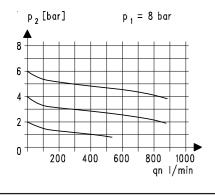




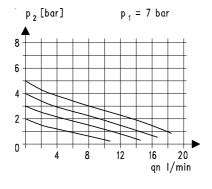




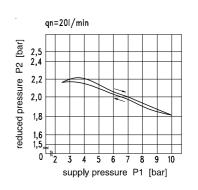
Flow characteristics (AIR)



Flow characteristics (H2O)



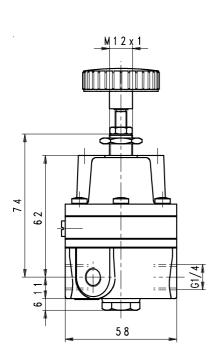
Pressure characteristics

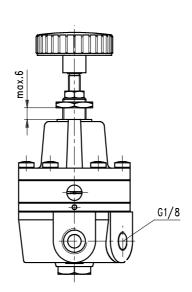


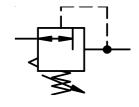
3. HIGH PRECISION REGULATORS FDR02

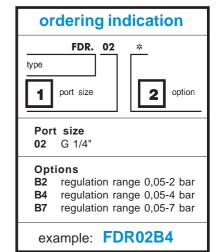
ITEM	FDR02			
Port size	G 1/4"			
Gauge size	G 1/8"			
Media	Compressed ai	r sintered 5 µm,	free of oil	
Description	Air line regulate	or with diaphragn	n and relieving	
	feature			
Mounting	Arbitrary			
Supply pres.	Pe max. 16 ba	r		
Reduc. pres.	Pa 0,05 - 2 bar	Pa 0,05 - 4 bar	Pa 0,05 - 7 bar	
Air cons. by	< 2,2 l/min.	< 3 l/min.	< 4,1 l/min.	
supply pres.	Pe 5 bar	Pe 7 bar	Pe 10 bar	
Temp.	Max. 60°C			
Fixing	Panel mounting			
Weight	0,600 kg			



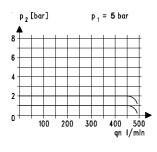




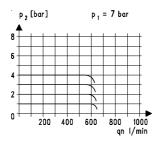




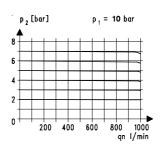
Flow characteristics (0,05 - 2 bar)



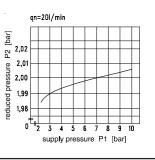
Flow characteristics (0,05 - 4 bar)



Flow characteristics (0,05 - 7 bar)



Pressure characteristic



2 +32 3 355 32 20

4. ELECTRONIC PROPORTIONAL REGULATORS Series 1700

General

Modern industrial applications require increasingly high performances from their pneumatic components. For example, the speed and thrust of a pneumatic actuator may need to be varied. These parameters often need to be modified dynamically while an operation is

This solution can be achieved by means of a regulator that can vary pressure over time.

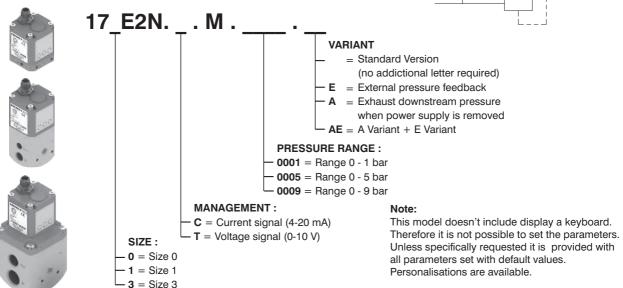
Pneumax portfolio includes 1700 Series electronic proportional regulator, available in three different sizes with flow rates of 7, 1100, and 4000 NI/min respectively and supporting Analog/Digital, CANopen® or IO-Link communication interfaces.

Product presentation

The supply and exhaust connections are on one side of the regulator and the working port is on the opposite side. The two remaining sides carry G 1/8" ports that are blanked off with removable plugs, these can be used to connect a pressure gauge or as an outlet port. If you order the version with the external feedback there is a M5 threaded connection to which connect the feedback pressure (to the pressure transducer). This connection is placed on the outlet connection side. This option allows to take the signal from a remote point instead of directly from the outlet connection; this function is typically used when the regulated pressure is used far away to the regulator. The control solenoid valves, the pressure sensor, and the management electronics are placed in upper part of the regulator. The electronic management system is the same for all the size 0, size 1 and size 3 regulators.

Functional diagram Analogic/Digital +24VDC CANopen® IO-Link MICROPROCESS. EXH OUT IN

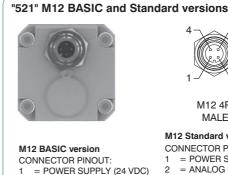
ORDERING CODES "521 M12 BASIC version"



Accessories







= GND

= ANALOG INPUT



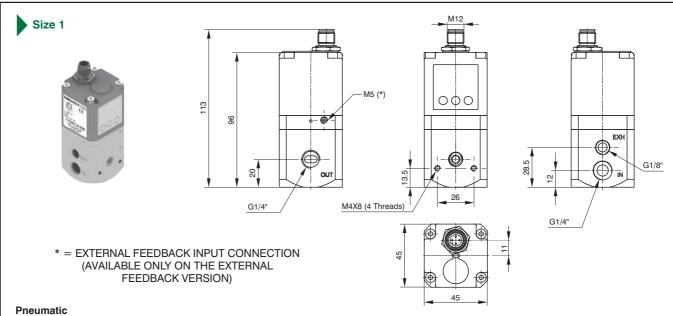
M12 4P MALE

M12 Standard version CONNECTOR PINOUT: = POWER SUPPLY (24 VDC)

- - = ANALOG OUTPUT
 - (depending on the model) = GND
 - = ANALOG INPUT



+ +32 3 355 32 20



Fluid	Air filtered at 5 micron and dehumidified			
Minimum inlet pressure	Desired outlet pre	Desired outlet pressure + 1 bar		
Maximum inlet pressure	10 bar	10 bar		
Outlet pressure	0 ÷ 9 bar	0 ÷ 9 bar		
Nominal flowrate from 1 to 2	Size 0	Size 1	Size 3	
(6 bar ΔP 1 bar)	7 NI/min	1100 NI/min	4000 NI/min	
Discharge flowrate (a 6 bar with 1 bar overpressure)	7 NI/min	1300 NI/min	4500 NI/min	
Air consumption	< 1 NI/min	< 1 NI/min	< 1 NI/min	
Supply connection	M5	G 1/4"	G 1/2"	
Operating connection	M5	G 1/4"	G 1/2"	
Exhaust connection	Ø1,8	G 1/8"	G 3/8"	
Maximum fitting tightening	3 Nm	15 Nm	15 Nm	

Electric

Supply voltage 2		24VDC ± 10% (stabilized with ripple<1%)			
Standby current consumption		70mA			
Current consumption with solenoid valves on		400mA	400mA		
**Reference Signal	Voltage	*0 ÷ 10 V *0 ÷ 5 V *1 ÷ 5 V	* Selectable by keyboard or by RS-232 ** Valid only for devices with analog input		
	Current	*4 ÷ 20 mA *0 ÷ 20 mA			
Voltage		10 kΩ			
**Input Impedance	Current	250 Ω			
**Digital Inputs		24VDC ± 10%			
**Digital Output		24 VDC PNP (max	current 50 mA)		

Functional

Linearity - Hysteresis - Repeatability	± Insensitivity
Sensitivity	0,01 bar
Assembly position	Indifferent
Protection grade	IP65 (with casing fitted)
Ambient temperature	-5° ÷ 50° / 23°F ÷ 122°F

For installation/operation; see manual included with delivery or online

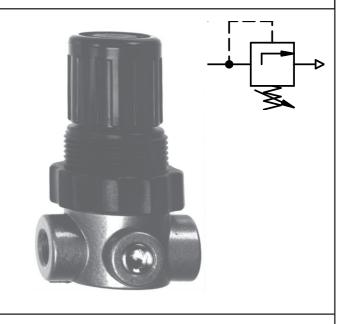
Constructional

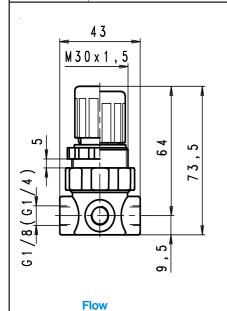
Body	Anodized aluminum			
Shutters	Brass with vulcanized N	Brass with vulcanized NBR		
Diaphragm	Cloth-covered rubber			
Seals	NBR			
Cover for electrical part	Technopolymer			
Springs	AISI 302			
Weight	Size 0	Size 1	Size 3	
Weight	168 gr.	360 gr.	850 gr.	

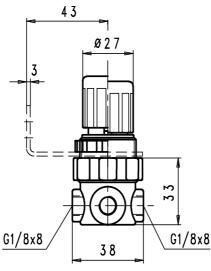
3.03.05 **2** +32 3 355 32 20

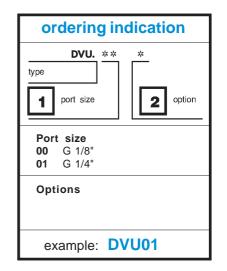
5. RELIEF VALVES DVU

ITEM	DVU00	DVU01	
Port size	G 1/8"	G 1/4"	
Media	Air, non agressive gas	es and fluids	
Description	Spring loaded diaphrag	gm-relief-valve	
	opening pressure adjus	stable	
Mounting	Arbitrary		
Pressure	Standard: Pn 3 bar		
	Optional: Pn 2 bar / 7 bar / 10 bar		
Temp.	Max. 60°C		
	(other temperature ranges upon request)		
Fixing	Panel mounting (DR0034)		
	Mounting bracket (MW30)		
Weight	0,140 kg		

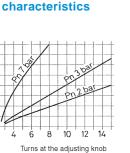


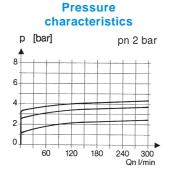


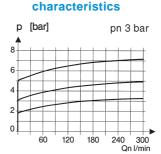




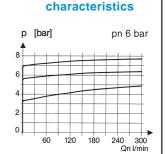
8







Pressure



Pressure

3.03.06 **2** +32 3 355 32 20

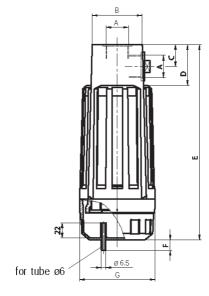
6. CENTRAL EXHAUST FINE-FILTER/SILENCERS FSD

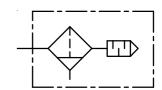
ITEM	FSD33	FSD34	FSD55	
Port size	G 1/2"	G 3/4"	G 1"	
Description	3 graduated of	oalescence-filter		
Mounting	Vertically,			
	threaded conn	ection on the top	and side	
Drain model	Overflow for to	Overflow for tube diameter inside ø6		
Supply pres.	Pe 10 bar			
Residual oil	0,01 mg/m³			
concent	filter efficiency > 99,99 %			
Reduction	ca. 40 dB(A) (Pe=5 bar, Qv=2000 l/min. and			
of noise	1 m distance to the equipment)			
Filter change	min. once in a year			
Temp.	Max. 60° C			
Weight	0,735 kg	0,700 kg	1,250 kg	



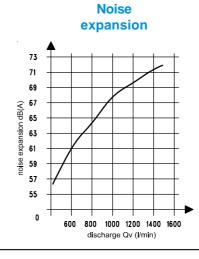
Filter change: min. once a year

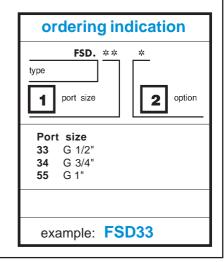
*Filter element: 9.4033.06.700 (FSD33/34)
*Filter element: 9.4055.06.700 (FSD55)





Type	Α	В	С	D	Е	F	G
FSD.33	G 1/2	62	26	48	215		ø90
FSD.34	G 3/4	02	20	40	215	15	Ø90
FSD.55	G 1	73	32	60	300		ø110



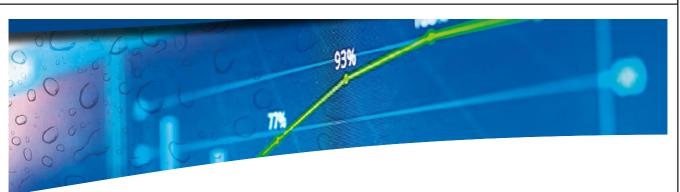


Port size G 1/2" Description Conde Vertica Pressure range Pe 1,5 Valve

bowlguard included

Port size	G 1/2"
Description	Condensation drain with auto drain
Mounting	Vertically, drain plug at bottom
Pressure range	Pe 1,5 bar to 16 bar
	Valve opens at Pe < 1,5 bar
Temp.	Max. 50° C
Bowlvolume	Max. 49 cm ³
Drain model	Fully automatic condensate drain
Fixing	Install in pipe line
Dimensions	H161 x D60 mm 0,185 kg.
Cod.	KA212AM

8. AUTOMATIC AIR DRYER SERIES HSC/SEC





The main strengths of the condensate separators **Series HSC** are effectiveness, reliability, and versatility.

The effectiveness in the removal of condensate is obtained through the particular design of the **DRYVOLUTION** system: thanks to a series of concentric flanges, assembled with a precise angle of incidence with respect to the direction of inlet flow, they generate a compressed air expansion (which takes place inside a chamber downstream of the flanges) that brings about a considerable decrease in the temperature and consequently the condensation of humidity.

This is then directed to the bottom of the bowl.

The reliability derives from the fact that no electric power and no chemical

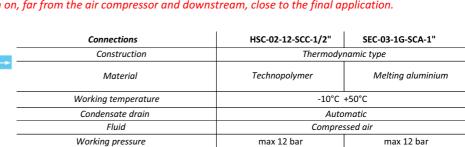
substance is used, and moreover there is no moving part (with the exception of the sole automatic drain): the performance is steady and maintenance is practically zero.

The versatility is guaranteed by the performances and the technical features: the range covers a wide spectrum of flow-rates and the materials used, together with the assembly, make it a very sturdy product. Therefore, it perfectly suits many different applications: upstream of coalescing filters (cleaning of air inside clean rooms), downstream of big compressors for air distribution inside factories, on board of trucks and agricultural machines, upstream of pneumatic tools, etc.

Effective, maintenance-free, and suitable for any flow-rate and application

- Water separation through the decrease in the temperature of compressed air
- No moving part, except for the automatic drain
- Easy to install
- Made in technopolymer and brass OT58
- One size, with 3 possible flow-rate settings
- Maintenance-free
- No electricity or chemical substances required
- No sparks or interferences caused
- Instant operation
- Possibility of combination with cooler VR50 to further lower temperatures

The air dryer works correctly if there is the right difference between the inlet pressure and the outlet pressure (Delta-P around 1 bar), with the system on, far from the air compressor and downstream, close to the final application.





Adjustable flow-rate

Dew point a 6 bar



H210 x W110 x D90 mm 550 gr



Look flow-rate

-8°C / ISO 8573-1

Λ I R E K Λ

H270 x W120 x D120 mm 1830 gr

Flow-rate

Aria / Air

Olio / Oil

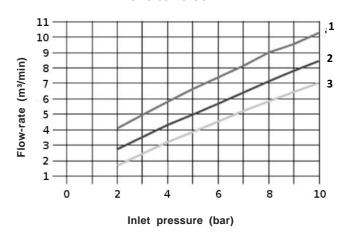
Scorie / Particles

Condensa / Condensation

HSC-02-12-SCC-1/2" 2000 1800 1600 Flow-rate (NI/min) 1400 1200 1000 3 800 600 400 200 0 2 4 6 Inlet pressure (bar)

- 1 Inlet opening max
- 2 Inlet opening med
- 3 Inlet opening min

SEC-03-1G-SCA-1"



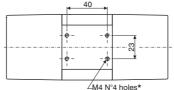
- 1 Inlet opening max
- 2 Inlet opening med
- 3 Inlet opening min

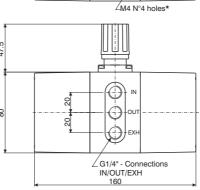
9. PRESSURE BOOSTER MDPT40

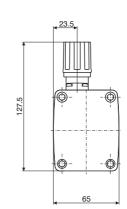
Pressure booster in Technopolymer Ø40

ATEX (€ © II 3GD









* Direct Wall Fixing Ordering code

MDPT40.2R.**⊚**

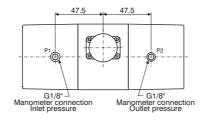
MANOMETER OPTIONS
Without options = Standard
without manometer

- A = Manometer P1 0-12 bar Manometer P2 0-20 bar B = Manometer P1 0-12 bar
 - Manometer P2 0-16 bar
 C = Manometer P1 0-12 bar
 Manometer P2 0-12 bar

STD=Standard

ORDER CODE MDPT40.2R.B

Your available pressure just a little too low?





Operational characteristics

- Pressure Booster with max. 2:1 Compression ratio
- Automatic operation for use with compressed air only
- Maintains downstream air when the supply pressure fails (Providing the circuit has no leakage)
- Integrated regulator for output pressure control, with overpressure relief valve
- IN,OUT and EXH connections G1/4" on the same side
- Manometer connections G1/8" to monitor and control the input and output pressures
- Body and cover in technopolymer
- Connections in technopolymer

Technical characteristics

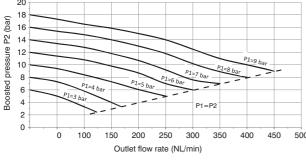
Connections (IN / OUT / EXT)	G1/4"
Manometer connections P1/P2	G1/8"
Working pressure (bar) [Min Max.]	2,5 ÷ 10
Working temperature (°C) [Min Max.]	-5 ÷ + 50
Moltiplication ratio max.	2:1
Assembly position	Any
Pressure regulation	Manual with relieving
Weight	905 gr.
	G1/8 - 4 N/m

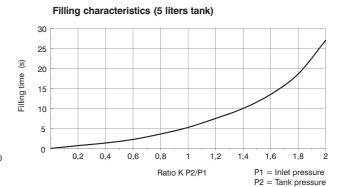
Max. fittings torque G1/8 = 4 N/

G1/4 = 9 N/m

Characteristics curves

Flow rate characteristics





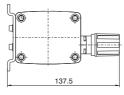
Bracket

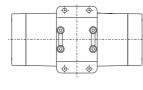
Ordering code

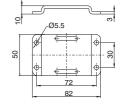
T1740.01

Weight gr. 94,5 Complete with booster fixing screws









10. PNEUMATIC COOLERS VR





PNEUMATIC COOLERS

MACHINE TOOLS / MACHINING

Cooling of machined parts and of tools: milling, turning, cutting, etc.; cooling of blades and saws, etc.

AUTOMATIC MACHINERY / PACKAGING

Cooling of control cabinets, of closing points of bags, of welding points, of glues, of foils for packaging, of control displays, of touch panels, etc.

COMPOSITE MATERIALS

Tooling, machining, etc.; carbon fibres' processing.

MOULDING

Both for plastics and metals. Cooling of moulds, sprues, and moulded parts.

AUTOMOTIVE

Cooling of plastic components.

FOUNDRIES

Cooling of moulds and workpieces.

PRESSES

Cooling of electric motors and of parts of the press itself.

PAPER PROCESSING

Cooling of blades.

TEXTILE

Cooling of needles.

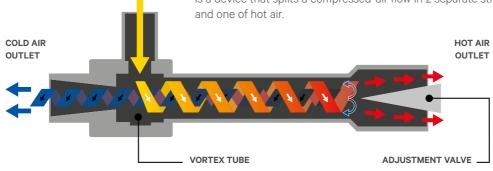
- LASER CUTTING
- **TUBES EXTRUSION**
- LINEAR MOTORS.
- ΔT up to -40°C for the cold flow and +60°C for the hot flow, in comparison to the temperature of air at inlet
- Easy to install, thanks to flanges and magnetic supports
- Patented system of hot air's recovery to actuate an amplifier/conveyor
- Made of corrosion-resistant materials
- No moving part, so not subject to wear and tear
- No electricity or chemical substances required
- They do not cause either sparkles or interferences
- Instant operation
- Reliable and maintenance-free





DESCRIPTION OF VORTEX TUBES

The Rangue-Hilsch tube, in the industrial sector better known as "Vortex tube", is a device that splits a compressed-air flow in 2 separate streams: one of cold air, and one of hot air.



Ranque-Hilsch tube (Vortex tube)

PNEUMATIC COOLERS

Series VR /	VRX / VR	₹U-G
VR-100	G1/8"	120 W 100 Kcal/h*
VR-200	D8	240 W 200 Kcal/h*
VR-300T	G1/4"	360 W 300 Kcal/h*
VR-300U	G1/4"	360 W 300 Kcal/h*
VR-200U	G1/4"	264 W 220 Kcal/h*
VR-400U	G1/4"	528 W 440 Kcal/h*
VR-400G	G1/4"	528 W 440 Kcal/h*
VR-600U	G1/4"	720 W 600 Kcal/h*
VR-600G	G1/4"	790 W 660 Kcal/h*
VRX-100	G1/8"	132 W 110 Kcal/h*
VRX-300	G1/4"	600 W 523 Kcal/h*
VRX-500	G1/4"	730 W 630 Kcal/h*
VRX-1000	G3/8"	1650 W 1417 Kcal/h*

ELECTRONICALLY-CONTROLLED PNEUMATIC COOLE

See VRX-100
See VR-200U
See VRX-300
See VR-400U
See VRX-500
See VRX-1000

Datasheets (full catalogue) see www.pneuvano.com *Cooling power at 7 bar and 20°C

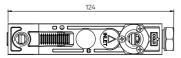
SERIES VR-100

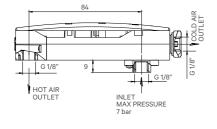
MODULAR PNEUMATIC COOLERS



12 490







GENERAL FEATURES - VR-100	
Materials	Body and cover: Nylon 6.6
	Air connections and nozzles: brass
Air inlet port	G-1/8" F
Outlet port (cold flow)	G-1/8" F
Exhaust port (hot flow)	G-1/8" F
Recommended hose	Ø-8x1
Air supply pressure	3 ÷ 7 bar
Cooling power*	120 W - 100 Kcal/h - 400 BTUH
Optional magnetic support	KACM-VR100

*with inlet pressure 7 Bar and inlet temperature 20°C

PERFORMANCES AND CONSUMPTION TABLE (with air temperature at inlet 20°C)

Pressure bar	Outlet temperature cold flow °C	Consumption NL/min
1	-1.5	32
2	-8	53
3	-15	74
4	-21,5	94
5	-24,5	115
6	-26,5	135
7	-28	154

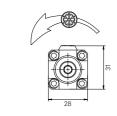
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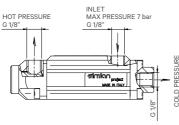
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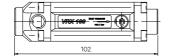
SERIES VRX-100

HIGH-PERFORMANCE PNEUMATIC COOLERS









GENERAL FEATURES - VRX-100		
Materials	Sleeve: anodized aluminium	
	Ends: Nylon 6.6	
Air inlet port	G-1/8" F	
Outlet port (cold flow)	G-1/8" F	
Exhaust port (hot flow)	G-1/8" F	
Recommended hose	Ø-8x1	
Air supply pressure	1 ÷ 7 bar	
Cooling power*	132 W - 110 Kcal/h - 440 BTUH	
Optional magnetic support	KACM-VRX-100	
Weight	170 g	

^{*} With inlet pressure 7 Bar and inlet temperature 20°C.

PERFORMANCES AND CONSUMPTION TABLE (with air temperature at inlet 20°C)

Pressure bar	Outlet temperature cold flow °C	Consumption NL/min	Noise level* dBA
1	-2	32	54
2	-12	53	58
3	-18	74	62
4	-23	94	64
5	-26	115	64
6	-28	135	66
7	-31	154	68

^{*}Test made with insulated LOC-LINE flexible tube at cold outlet, and tube L= 1 m at hot air outlet.



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STAND-ALONE SERIES, VRX-100-XTRONIC

ELECTRONICALLY-CONTROLLED PNEUMATIC COOLERS

STAND-ALONE SERIES

These are pneumatic coolers with temperature-control device, in a single unit. The market increasingly demands stand-alone devices, which are able to function autonomously, based on the parameters of the ambient temperature.

Therefore, we designed and developed the **XTRONIC** temperature-control units, which are available both for remote control and installed on pneumatic coolers.

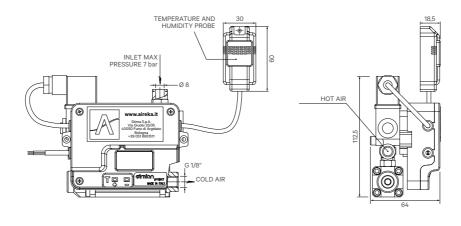
So, it will be enough to place one of these electronically-controlled devices inside the enclosure that has to be cooled, connect the pneumatic hoses and the electric wires, and set the desired temperature range on the display of the unit.

This way, the cooler will start working only when it is necessary, it will maintain the required refrigeration, and it will make it possible to save compressed air and energy.

Our XTRONIC control units can be customised too.



GENERAL FEATURES - VRX-100 XTRONIC				
Supply voltage	24 V DC			
Recommended hose	Ø 8x1			
Supply pressure	max 7 bar			
Cooling power and performances	See VRX-100 (page 21)			
Probe length	1 m			
Temperature range	-20°C +60°C			
Humidity range	00% 100% RH			
Accuracy	0.1°C , 0.1 % RH			
Current capacity	max 10 A			
Coil voltage and power	24 V - 3.1 W			
Electric wires' section	0.75 mm			
Weight	760 a			



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COOLER AIR SAVING

PATENTED SYSTEM



VR Series coolers and **AM Series** amplifiers used together to introduce cold air and extract hot air from electrical cabinets at the same time, using a single compressed air supply.

- Effective ventilation of the electrical cabinet
- Reduction of compressed air consumption
- Optimisation of cooling results



Description 1) Amplifier 2) Hot air outlet 3) Pneumatic cooler 4) Nozzle for cold outlet

APPLICAZIONI SPECIALI



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11. AIR KNIVES ABT



- Design geometries optimised to maximise the Coanda effect
- Double blow-off flow (both sides of the blade)
- Powerful, uniform flow, suitable for cleaning small and large surfaces
- Modular design and possibility of customisation
- No moving parts, so maintenance-free

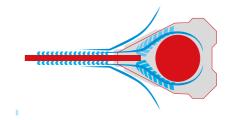
which is a result of the air flow on both sides of the blade, and thanks to their easy installation, by means of two neodymium magnets and of brackets, which make it possible to direct the knife according to all demands. These products are very effective for cleaning, drying, and cooling.

DESCRIPTION OF THE COANDA EFFECT

The air amplifiers and the air knives exploit the Coanda effect.

This phenomenon can be explained as the tendency of a fluid to follow the contour of a surface nearby. It is named after the pioner of aerodynamics Henri Coanda, who in 1936 patented some instruments that exploited the capacity to deviate a flow.

The compressed air introduced in an amplifier or in an air knife is forced to pass through a reduced section, from 0.02 mm to 0.08 mm, and, by lapping the surface nearby, the surrounding air is attracted towards the flow's direction, so that the volume of air becomes from 5 to 20 times bigger than it was at the inlet.



AIR KNIVES

Series ABT / ABX / ABZ				
ABT-030	32 mm			
ABT-030 PLUS	32 mm			
ABT-060	76 mm			
ABT-100	100 mm			
ABT-200	170 mm			
ABT-240	218 mm			
ABT-400	362 mm			
ABT-600	554 mm			
ABT-800	745 mm			
	Blade length / flow width			

AIR KNIVES

Series ABT / A	ies ABT / ABX / ABZ					
ABT-F1C	150-1200 mm					
ABX-1000	1000 mm					
ABX-1500	1500 mm					
ABX-2000	2000 mm					
ABZ-1000	1000 mm					
ABZ-1500	1500 mm					
ABZ-2000	2000 mm					

Datasheets (full catalogue) see www.pneuvano.com

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ΛIR**EΚΛ**

12. AIR AMPLIFIERS AM



- Design geometries optimised to maximise the Coanda effect
- Adjustable flow-rate
- Wide section for suction and blow-off, suitable for a variety of applications
- Instant operation
- No moving part, so not subject to wear and tear
- No electricity or chemical substances required
- More efficient than venturis and ejectors
- It does not cause neither sparks nor interferences
- Reliable and maintenance-free

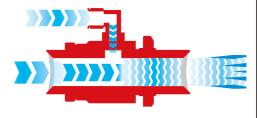
effect, so they use a small amount of compressed air to generate a powerful, high-speed flow. Their capability to perform both functions of suction and blow-off make them useful for many applications, including ventilating electric cabinets, conveying fumes and lightweight particles produced by machining, conveying and handling of light parts, drying, and cooling. When combined with the VR Series coolers, they create an effective patented system where, by conveying the hot air flow exhausted by the cooler to actuate an AM Series amplifier, the cooling power is optimised, so that to make it possible to drawn hot air out of enclosures and ventilate closed areas to be cooled. The flow-rate can be adjusted by simply turning the nut.

DESCRIPTION OF THE COANDA EFFECT

The air amplifiers and the air knives exploit the Coanda effect.

This phenomenon can be explained as the tendency of a fluid to follow the contour of a surface nearby. It is named after the pioner of aerodynamics Henri Coanda, who in 1936 patented some instruments that exploited the capacity to deviate a flow.

The compressed air introduced in an amplifier or in an air knife is forced to pass through a reduced section, from 0.02 mm to 0.08 mm, and, by lapping the surface nearby, the surrounding air is attracted towards the flow's direction, so that the volume of air becomes from 5 to 20 times bigger than it was at the inlet.



AIR AMPLIFIERS

Series AM-T		
AM-10T	G1/8"	Ø19
AM-15T	G1/8"	Ø19
AM-20T	G1/4"	Ø32
AM-25T	G1/4"	Ø32
AM-30T	G1/4"	Ø38
AM-40T	G3/8"	Ø50
AM-50T	G3/8"	Ø63

Datasheets (full catalogue) see www.pneuvano.com





PERFORMANCES AND CONSUMPTION TABLE

OPENING 90°							
SUPPLY PRESSURE bar	CONSUMPTION NI/min	FLOW-RATE NI/min	AMPLIFICATION RATIO	VACUUM mbar	NOISE LEVEL dBA		
2	76	349,9	4,6	65	63		
3	101	449,8	4,4	100	65		
4	126	506,4	4,0	130	66		
5	153	558,1	3,6	155	68		
6	178	621,4	3,5	185	70		
OPENING 180°							
2	158	533,12	3,4	100	76		
3	216	643	3,0	155	80		
4	283	741,4	2,6	190	85		
5	341	816,34	2,4	220	90		
6	391	849,6	2,2	240	92		

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13. DIGITAL LEAKSHOOTER LKS1000

Ultrasonic compressed air, gas and vacuum leak detector with camera.

Compressed air is a costly form of energy and 20 to 40% of it is lost through leaks.

Systematically checking for and eliminating leaks can therefore bring considerable energy savings.

Film, view and photograph the precise spot where compressed air, steam, pressurised gas and vacuums are leaking using the LEAKSHOOTER® LKS1000-V2T.

The LEAKSHOOTER® LKS1000-V2T is a sophisticated tool. Extremely sensitive, it is capable of finding all leaks, even the smallest, including those no bigger than the size of a syringe needle, at a distance of 20 metres. Leaks can be detected in all types of industrial environment thanks to the possibility of adjusting the gain on the device to filter out all undesirable noise.

The LEAKSHOOTER® LKS1000-V2T is used like a camera. When it comes near a leak, a dynamic white target appears on the large colour screen. The target shrinks as it approaches the source of the leak. A bar graph at the bottom of the screen accompanies and facilitates the search.

When the device is facing the leak, a cross appears around the centre of the target. It is then possible to photograph and save the precise location of the leak.

APPROXIMATE SEVERITY OF LEAK & FLOW & COST (0-10) (m³/h) (€, \$, £)

VERY SMALL

MEDIUM

BIG

VERY BIG

The photos can be uploaded directly onto a PC via a USB cable (supplied), ready to be attached to inspection reports.

It is still possible, whilst visually searching for a leak, to use the traditional method of leak detection, listening for the hissing sound of the leak using the professional headphones also supplied, which can be plugged directly into the device.

Various accessories are available for the LEAKSHOOTER® LKS1000-V2T enabling it to be used for other applications as well as leak detection.



LKS1000-V2T

SPECIFICATIONS LKS1000-V2TO Sensitivity Detects a leak of 0,1 mm at 3 bars at 20 m Camera Colour 640 x 480 pixels + LED lighting Capacitive touchscreen - LCD Colour 5,7" 640 x 480 pixels Display **Pictures** BMP, number, name, date and time Dynamic White circle for leak detection Colored circle with cross for the leak severity target Measurements dB RMS and MAX RMS Up to 1000 pictures, can be uploaded to PC Memory Communication **USB** cable supplied **US** sensor Open type - Bandwidth ± 2 kHz to - 6 dB - Central frequency 40 kHz ± 1 kHz - Adjustable frequency mixer from 30 to 50 kHz -Adjustable gain from 40 to 120 dB Adjustable volume - Wired headphone LKSEAR Headphones Rechargeable Li-Ion battery Power supply > 5 hours Autonomy -10° C to $+50^{\circ}$ C Temperature range H: 310 mm - W: 165 mm - D: 65 mm **Dimensions** 700 gr for the LKS1000 Weight 3,8 kg including ABS case CE Standards CEM 2004/108/CE: EN61000-6-4 & EN61000-6-2 Accessories Ultrasonic emitter Reference: LKSDOME Flexible 400 mm US Sensor Reference: LKSFLEX Flexible 1500 mm US Sensor Reference: LKSFLEX1500 Mechanical US sensor (steam trap - bearing) Reference: LKSPROBE



Reference: LASERKIT

Autonomous laser kit + support for LEAKSHOOTER. Option.

LEAKREPORTEDITOR for report edition option. Available in different languages.

LEAK**SHOOTER**®

LKS1000-V3TOPRO

Ultrasonic compressed air, gas and vacuum leak detector with camera.

Compressed air is a costly form of energy and 20 to 40% of it is lost through leaks.

Systematically checking for and eliminating leaks can therefore bring considerable energy savings.

LEAKSHOOTER® LKS1000-V3T⊕PRO is a unique and sensational detection device:

- It uses a camera and a dynamic on screen target to precisely find leak location (patent).
- It features a new concept of Steam Trap diagnostic: The STRAPSHOOTER®.

The STRAPSHOOTER® program is an Easy to use firmware which can automatically diagnose your Steam Trap condition state.

LEAKSHOOTER® LKS1000-V3T⊕PRO is extremely sensitive, capable to find compressed air leaks (not bigger than the size of syringe needle) at a distance of 20m.

The LEAKSHOOTER® LKS1000-V3T⊕PRO is used like a camera.

When it comes near a leak, a dynamic yellow target appears on the large colour screen. The target turns red and shrinks as it approaches the source of the leak. A bar graph at the bottom of the screen accompanies and facilitates the search.

When the device is facing the leak, a cross appears in the centre of the target. It is then possible to photograph and save the precise location of the leak.

APPROXIMATE SEVERITY OF LEAK & FLOW & COST (0-10) (m³/h) (€, \$, £)

VERY SMALL

MEDIUM

BIG

VERY BIG

Each photo is numbered, dated and timed and shows the dB RMS level of the leak.

The photos can be uploaded directly onto a PC via a USB cable (supplied), ready to be attached to inspection reports.

It is still possible, whilst visually searching for a leak, to use the traditional method of leakdetection, listening for the hissing sound of the leak using the professional headphones also supplied, which can be plugged directly into the device.

Various accessories are available for the LEAKSHOOTER® LKS1000-V3TOPRO enabling it to be used for other applications as well as leak detection.



SPECIFICATIONS LKS1000-**V3T⊕PRO**

Sensitivity	Detects a leak of 0,1 mm at 3 bars at 20 m
Camera	Colour 640 x 480 pixels + LED lighting
Display	Capacitive touchscreen - LCD Colour 5,7" 640 x 480 pixels
Pictures	BMP, number, name, date and time
Dynamic target	White circle for leak detection Colored circle with cross for the leak severity
Measurements	dB RMS and MAX RMS
Memory	Up to 1000 pictures, can be uploaded to PC
Communication	USB cable supplied
US sensor	Open type - Bandwidth \pm 2 kHz to - 6 dB - Central frequency 40 kHz \pm 1 kHz - Adjustable frequency mixer from 30 to 50 kHz - Adjustable gain from 40 to 106 dB
Thermal Camera	Flir Lepton 160x120 pixels, 50mK sensitivity, -10°C to +400°C, adjustable emissivity ${\bf \epsilon}$
Headphones	Adjustable volume - Wired headphone LKSEAR
Power supply	Rechargeable Li-lon battery
Autonomy	> 5 hours
Temperature range	- 10°C to + 50°C
Dimensions	H: 310 mm - W: 165 mm - D: 65 mm
Weight	700 gr for the LKS1000 3,8 kg including ABS case
CE Standards	CEM 2004/108/CE : EN61000-6-4 & EN61000-6-2

Accessories



Ultrasonic emitter Reference: LKSDOME



Flexible 400 mm US Sensor Reference: LKSFLEX



Flexible 1500 mm US Sensor Reference: LKSFLEX1500



Mechanical US sensor (steam trap - bearing) Reference : LKSPROBE



Autonomous laser kit + support for LEAKSHOOTER. Option.

Reference: LASERKIT



LEAKREPORTEDITOR for report edition option. Available in different languages. Reference: LEAKREPORTEDITOR



14. ULTRASONIC LEAK DETECTOR ULD300

ompressed air is an expensive operation.
In large installations the cost of a small air leak may be insignificant, but many leaks can practically blow money into the air. Finding these small leaks is just the job for the Ultrasonic Leak Detector.

In a plant where loud noise levels often exist, it is very difficult to locate leaks by listening for them. Most plant noises are in the normal audio range while air or gas escaping form a small orifice will be in the ultrasonic range. Our leak detector will ignore the background noise and detect only the ultrasonic sounds that are generated.





FEATURES

- Detects any pressurized gas leak, regardless of type: compressed air & vacuum, CFC's, HFC's, Nitrogen, etc.
- Detects also the ultrasonic noise caused by arcing electrical switchgear.
- Detects leaks in pipes on the ceiling without ladder!
- Unaffected by contaminants or windy, roof-top conditions.

SPECIFICATIONS

Weight: 160 grams (with battery)
Dimensions: 60 x 180 x 25 mm
Frequency Response: 35Khz to 45Khz + 6dB
Power Consumption: 22mA at 9 Volts DC

Battery Life: 9-Volt Alkaline Batteries (33 hours)
Performance: Meets the A.S.T.M. Standard

Battery Test: LED color indicating (green=good, red=replace)

Representation: Visual: High intensity LED

Acoustic: With headphone (included)

Case: High impact ABS

ORDER CODE ULD300

(Includes Leak Detector ULD300, Parabola PB1 for reducing background noise, Tubular extension & Headphone)



ECO LEAK FINDER

Detects and locates quickly and reliably air leaks in pressurized systems forming highly visible bubbles. Can be used for almost all types of gases including compressed air.

- ECO Friendly Water Based
- DIN EN 14291
- NSF P1 Registered

This product is acceptable in and around food processing areas without direct nor indirect contact with food or potable water.

- DVGW (Deutsche Vereinigung des Gas- und Wasserfaches) Certificated

Ideal for Piping, Fittings, Valves, Compressors...

ORDER CODE ECO LEAKFINDER

Spray 500 ml