

R114-R138-R112-R121

Brass pressure regulator,
for compressed air, gas and liquid



FEATURES

Pressure regulator for inlet pressure up to 50 bar (725 psi).

Connection ports:

R114	1/4" - F
R138	3/8" - F
R112	1/2" - F (1/4" size)
R121	1/2" - F (1/2" size)

Outlet pressure is controlled by a rubber diaphragm. Balanced main valve.

Available the ATEX version.

Brand  II 2GDc IICX.

For use in potentially explosive atmosphere zones: 1, 21, 2, 22 (not applicable in mines and zone 0).

The product complies with the 97/23/CE PED directive.

Gauge for outlet pressure (accuracy class 1.6)

SPECIFICATIONS

Weight R114/R138/R112: diaphragm model ~1.3 kg (~2.8 lb), piston model ~1.8 kg (~4 lb)

Weight R121: diaphragm model ~2 kg (~4.4 lb), piston model ~2.2 kg (~4.8 lb)

Operating temperature: -20°C ÷ +60°C (-4 °F ÷ +140 °F) for standard version

Main valve leakage: VI (bubble tight)

Flow coefficient R114/R138/R112: Kv= 0.35 Nm³/h (Cv = 0.41 US gal/min)

Flow coefficient R121: Kv= 1 Nm³/h (Cv = 1.17 US gal/min)

Degree of protection: IP25

G $\frac{1}{4}$ gauge ports on both sides

MATERIALS

Body and bonnet: brass

Internal parts: brass

Main valve spring: stainless steel AISI 304 (for R114/R138/R112), AISI 302 (for R121)

Adjusting spring: C85 (not in contact with the fluid)

Diaphragm: two coupled diaphragms in NBR and PTFE (PTFE in contact with the fluid)

Piston: brass

O-Ring: NBR/FPM/EPDM depending on the fluid (different compounds available on request)

Main valve gasket: NBR/FPM/EPDM depending on the fluid (different compounds available on request), PUR for inlet pressure greater than 30 bar

ACCESSORIES

Pilot-controlled version, outlet pressure controlled by a pilot regulator

Panel mounting ring-nut: ODU80101 (R114-R138-R112), ODU80301 (R121)

Wall mounting bracket + ring-nut: M12102 (R114-R138-R112), M12101 (R121)

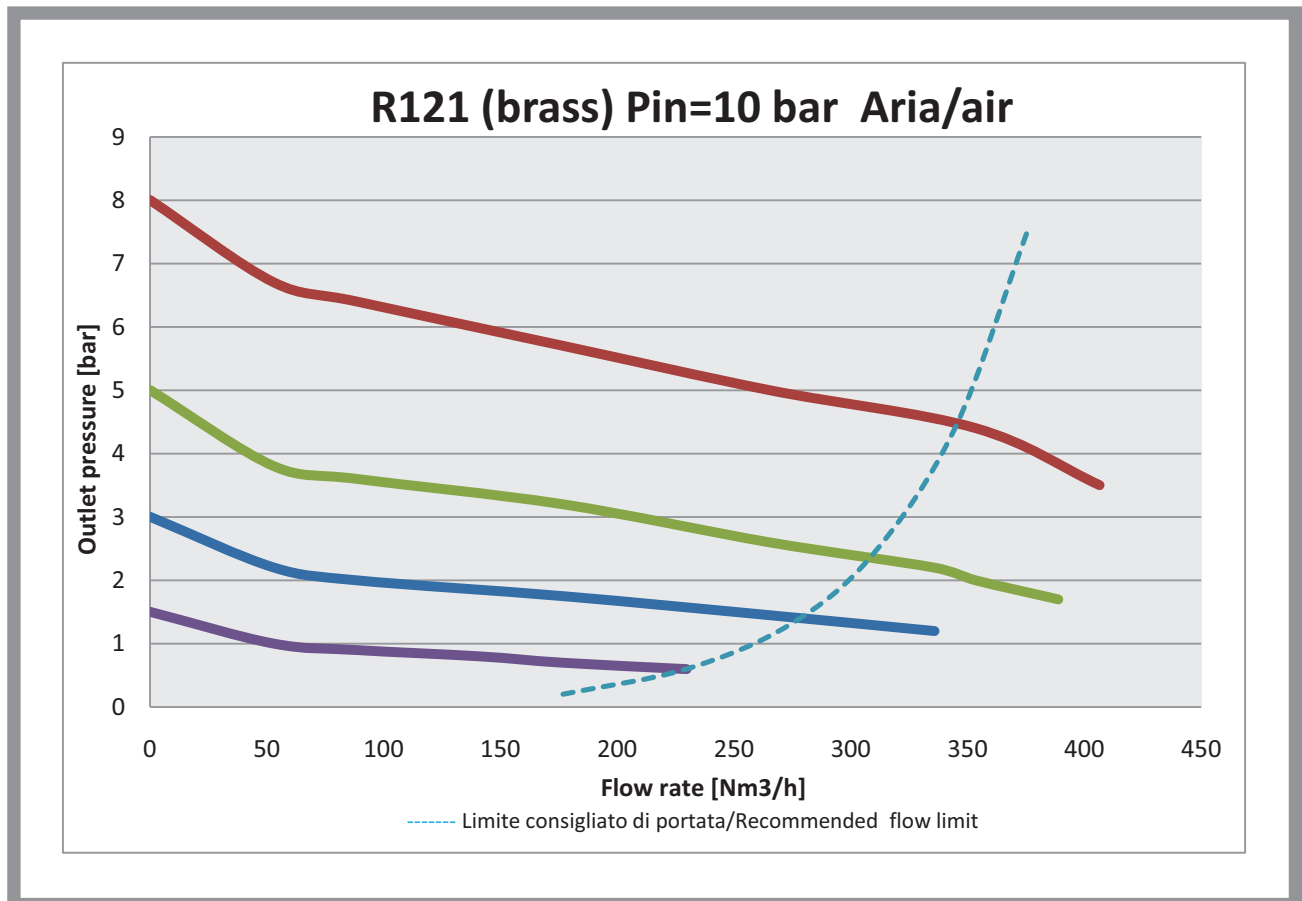
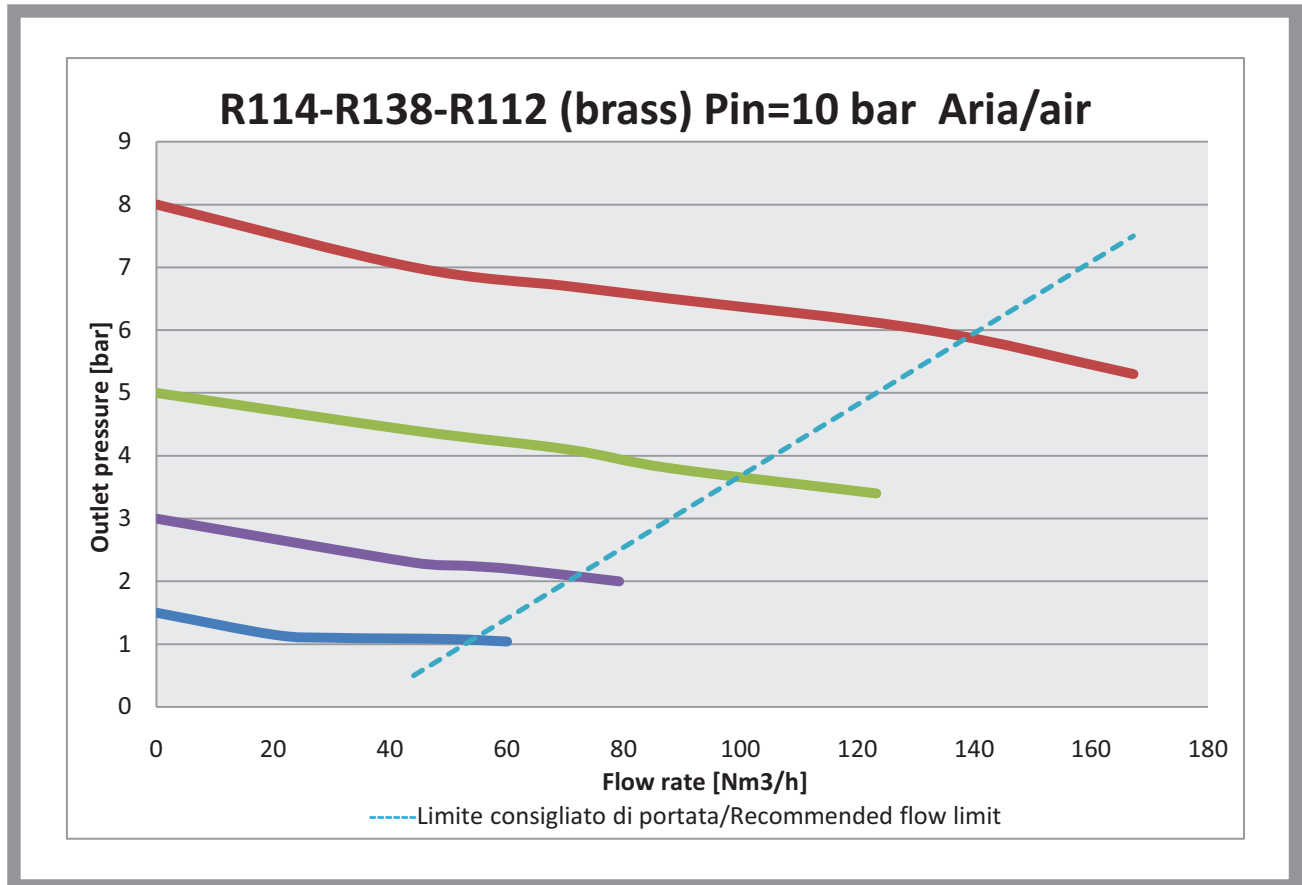
Relieving overpressure function (only for compressed air version)

SPARE PARTS

Gauge

Complete kit: net filter, complete main valve, o-rings, assembled diaphragm

flow charts



available model types

**Regolatori di pressione per media pressione in ottone,
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**Pressure regulators for medium pressure, made of brass,
for compressed air and technical, non corrosive gases and liquid**

Corpo e campana da fusione / Forged body and bonnet

TYPE	PS bar	P.Out bar	CONNECTION IN	CONNECTION OUT	CODE	MEDIUM
						R114
R114 A1	30	0,2-1,5	G 1/4-F	G 1/4-F	521#N	O2
						Liquid
						*
						Air - Relieving
R114 B1	30	0,3-3	G 1/4-F	G 1/4-F	521#N	O2
						Liquid
						*
						Air - Relieving
R114 C1	30	0,8-8	G 1/4-F	G 1/4-F	521#N	O2
						Liquid
						*
						Air - Relieving
R114 E1	30	1,5-15	G 1/4-F	G 1/4-F	521#N	O2
						Liquid
						*
						Air - Relieving
R114 F1	50	1,5-15	G 1/4-F	G 1/4-F	521#N	O2
						Liquid
						*
						Air - Relieving
R114 G1	50	3-30	G 1/4-F	G 1/4-F	521#N	O2
						Liquid
						*
						Air - Relieving
R114 L1	50	5-50	G 1/4-F	G 1/4-F	521#N	O2
						Liquid
						*
						Air - Relieving
RP114 E1**	30	1,5-15	G 1/4-F	G 1/4-F	521#N	O2
						Liquid
						*
						Air - Relieving
RP114 F1**	50	1,5-15	G 1/4-F	G 1/4-F	521#N	O2
						Liquid
						*
						Air - Relieving
RP114 L1**	50	5-50	G 1/4-F	G 1/4-F	521#N	O2
						Liquid
						*
						Air - Relieving

* Aria - N2 - He - Ar - H2 - C3H8 - CH4 - CO2 - N2O

** Versione pilotata / Dome loaded execution

ATTACCHI DIVERSI DA STANDARD / CONNECTION DIFFERENT FROM STANDARD

Attacchi entrata/uscita NPT / Inlet/outlet connections NPT

Attacchi flangiati / Connections with flanges

ESECUZIONI DIVERSE DA STANDARD / EXECUTIONS DIFFERENT FROM STANDARD

Pressione ingresso max 60 bar / Inlet pressure max 60 bar

Pressione uscita pretarata / Pre-set outlet pressure

Pressione uscita tarata fissa / Fixed outlet pressure

O-ring diversi da standard - FPM / O-ring different of standard - FPM

O-ring diversi da standard - EPDM / O-ring different from standard - EPDM

Convogliamento su campana / Venting on bonnet

Vite di regolazione a "T" / "T" setting screw

Cromatura-nichelatura / Chrome-Nichel plating

Stampigliatura su specifica del cliente / Not standard branding

Versione ATEX / ATEX version

Temperature diverse da standard / Special temperature range

Sgrassato uso O2 / Degreased for O2

ACCESSORI / ACCESSORIES

Ghiera ODU80101 / Ring nut ODU80101

Kit staffa + ghiera M12102 / Kit bracket + Ring nut M12102

available model types

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TYPE	PS bar	P.Out bar	CONNECTION IN	CONNECTION OUT	CODE	MEDIUM
						R138
R138 A1	30	0,2-1,5	G 3/8-F	G 3/8-F	521#L	O2
						Liquid
						*
						Air - Relieving
R138 B1	30	0,3-3	G 3/8-F	G 3/8-F	521#L	O2
						Liquid
						*
						Air - Relieving
R138 C1	30	0,8-8	G 3/8-F	G 3/8-F	521#L	O2
						Liquid
						*
						Air - Relieving
R138 E1	30	1,5-15	G 3/8-F	G 3/8-F	521#L	O2
						Liquid
						*
						Air - Relieving
R138 F1	50	1,5-15	G 3/8-F	G 3/8-F	521#L	O2
						Liquid
						*
						Air - Relieving
R138 G1	50	3-30	G 3/8-F	G 3/8-F	521#L	O2
						Liquid
						*
						Air - Relieving
R138 L1	50	5-50	G 3/8-F	G 3/8-F	521#L	O2
						Liquid
						*
						Air - Relieving
RP138 E1**	30	1,5-15	G 3/8-F	G 3/8-F	521#L	O2
						Liquid
						*
						Air - Relieving
RP138 F1**	50	1,5-15	G 3/8-F	G 3/8-F	521#L	O2
						Liquid
						*
						Air - Relieving
RP138 L1**	50	5-50	G 3/8-F	G 3/8-F	521#L	O2
						Liquid
						*
						Air - Relieving

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TYPE	PS bar	P.Out bar	CONNECTION IN	CONNECTION OUT	CODE	MEDIUM
						R112
R112 A1	30	0,2-1,5	G 1/2-F	G 1/2-F	521#01	O2
						Liquid
						*
						Air - Relieving
R112 B1	30	0,3-3	G 1/2-F	G 1/2-F	521#01	O2
						Liquid
						*
						Air - Relieving
R112 C1	30	0,8-8	G 1/2-F	G 1/2-F	521#01	O2
						Liquid
						*
						Air - Relieving
R112 E1	30	1,5-15	G 1/2-F	G 1/2-F	521#01	O2
						Liquid
						*
						Air - Relieving
R112 F1	50	1,5-15	G 1/2-F	G 1/2-F	521#01	O2
						Liquid
						*
						Air - Relieving
R112 G1	50	3-30	G 1/2-F	G 1/2-F	521#01	O2
						Liquid
						*
						Air - Relieving
R112 L1	50	5-50	G 1/2-F	G 1/2-F	521#01	O2
						Liquid
						*
						Air - Relieving
RP112 E1**	30	1,5-15	G 1/2-F	G 1/2-F	521#01	O2
						Liquid
						*
						Air - Relieving
RP112 F1**	50	1,5-15	G 1/2-F	G 1/2-F	521#01	O2
						Liquid
						*
						Air - Relieving
RP112 L1**	50	5-50	G 1/2-F	G 1/2-F	521#01	O2
						Liquid
						*
						Air - Relieving

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TYPE	PS bar	P.Out bar	CONNECTION IN	CONNECTION OUT	CODE	MEDIUM
						R121
R121 A1	30	0,2-1,5	G 1/2-F	G 1/2-F	521#P	O2
						Liquid
						*
						Air - Relieving
R121 B1	30	0,3-3	G 1/2-F	G 1/2-F	521#P	O2
						Liquid
						*
						Air - Relieving
R121 C1	30	0,8-8	G 1/2-F	G 1/2-F	521#P	O2
						Liquid
						*
						Air - Relieving
R121 E1	30	1,5-15	G 1/2-F	G 1/2-F	521#P	O2
						Liquid
						*
						Air - Relieving
R121 F1	50	1,5-15	G 1/2-F	G 1/2-F	521#P	O2
						Liquid
						*
						Air - Relieving
R121 G1	50	3-30	G 1/2-F	G 1/2-F	521#P	O2
						Liquid
						*
						Air - Relieving
R121 L1	50	5-50	G 1/2-F	G 1/2-F	521#P	O2
						Liquid
						*
						Air - Relieving
RP121 E1**	30	1,5-15	G 1/2-F	G 1/2-F	521#P	O2
						Liquid
						*
						Air - Relieving
RP121 F1**	50	1,5-15	G 1/2-F	G 1/2-F	521#P	O2
						Liquid
						*
						Air - Relieving
RP121 L1**	50	5-50	G 1/2-F	G 1/2-F	521#P	O2
						Liquid
						*
						Air - Relieving

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Cromatura-nichelatura / Chrome-Nichel plating

Stampigliatura su specifica del cliente / Not standard branding

Versione ATEX / ATEX version

Temperature diverse da standard / Special temperature range

Sgrassato uso O2 / Degreased for O2

ACCESSORI / ACCESSORIES

Ghiera ODU80301 / Ring nut ODU80301

Kit staffa + ghiera M12101 / Kit bracket + Ring nutM12101

generating the product code

Reg. R121+R114+R138 Ottone			
AA BB CC DD E F GG			
AA	Attacchi / Connections	01	R112 IN/OUT G 1/2-F
		L0	R138 G 3/8-F
		N0	R114 G 1/4-F
		P0	R121 G 1/2-F
BB	Pressione ingresso / Inlet pressure	D0	30 bar
		E0	50 bar
CC	Intervallo uscita / Outlet range	A0	Pout 0,2 - 1,5 bar
		B0	Pout 0,3 - 3 bar
		D0	Pout 0,8 - 8 bar
		E0	Pout 1,5 - 15 bar
		F0	Pout 3 - 30 bar
		G0	Pout 5 - 50 bar
DD	Tipologia di fluido / Fluid type	01	Relieving
		15	O2
		97	NBR
		98	EPDM
		99	FPM
E	Pilotato / Pilot operated	n	Non pilotato
		P	Pilotato
F	Marchiato / Marked	I	ID
		Z	Dir ATEX 94/9 CE
GG	Accessori / Accessories	00	Nessun accessorio

CODE COMPOSITION EXAMPLE

521#N0 D0 D0 97 N I 00

521#: die-cast standard brass pressure regulator

N0: connection G¼-F

D0: maximum inlet pressure 30 bar

D0: outlet pressure range 0,8-8 bar

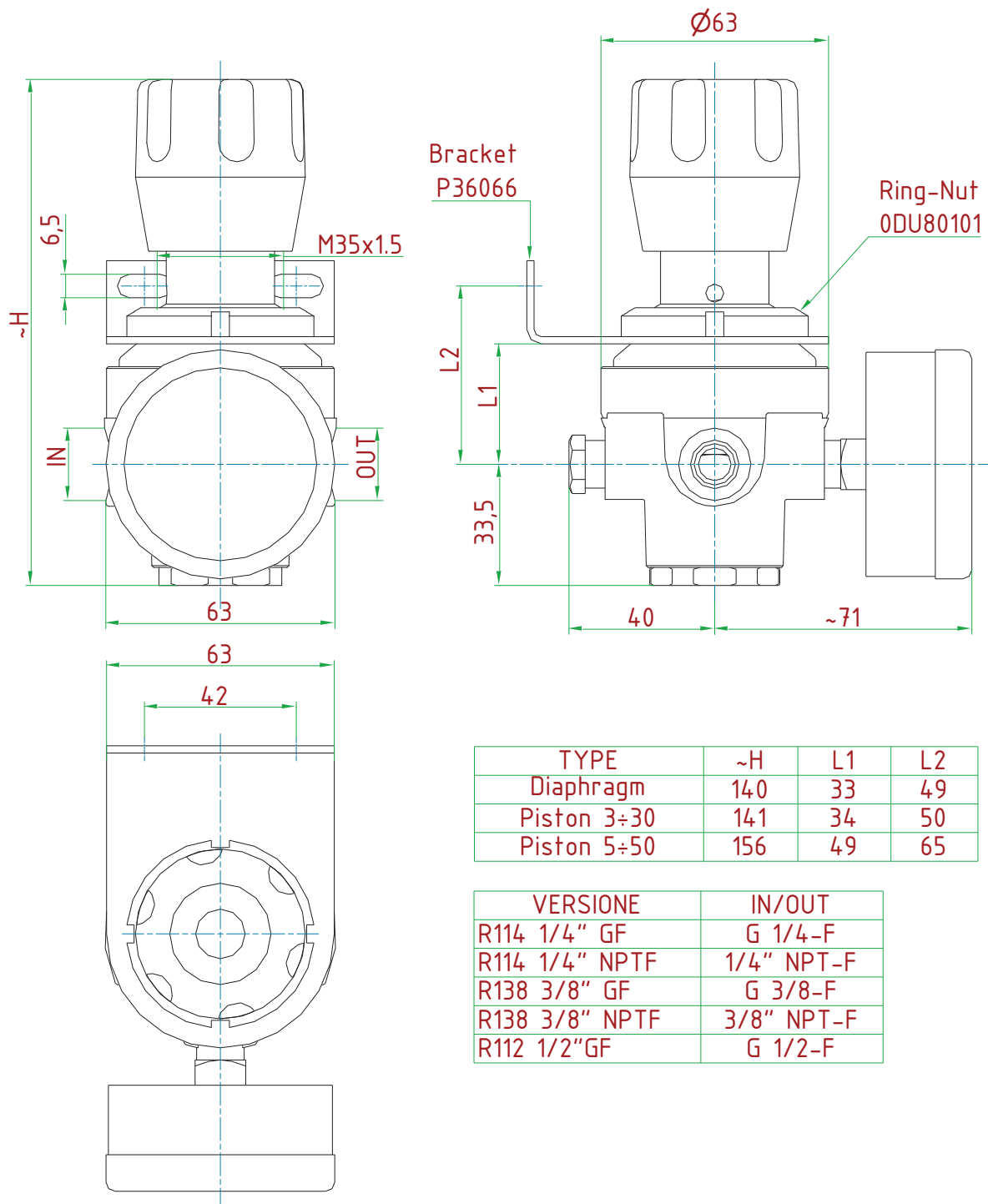
97: NBR gaskets

N: not pilot-controlled

I

00: no accessories

technical drawings (all dimensions in mm)

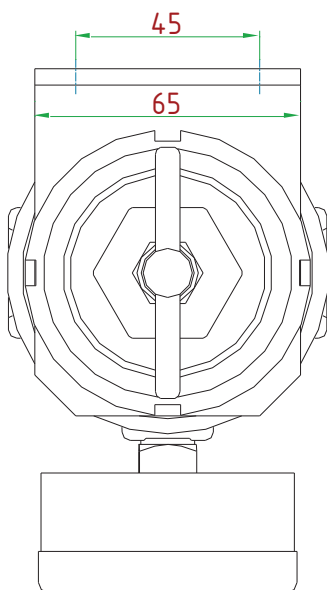
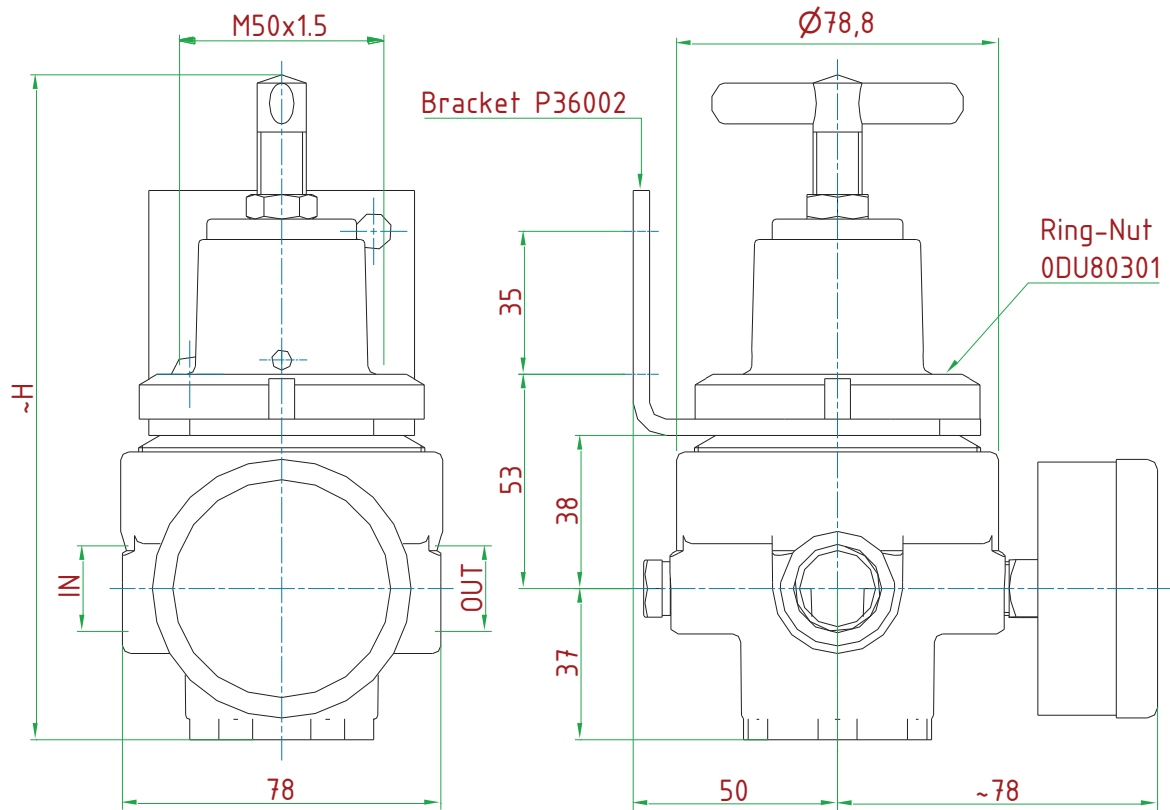


TYPE	$\sim H$	L1	L2
Diaphragm	140	33	49
Piston 3÷30	141	34	50
Piston 5÷50	156	49	65

VERSIONE	IN/OUT
R114 1/4" GF	G 1/4-F
R114 1/4" NPTF	1/4" NPT-F
R138 3/8" GF	G 3/8-F
R138 3/8" NPTF	3/8" NPT-F
R112 1/2"GF	G 1/2-F

technical drawings (all dimensions in mm)

Bracket and Ring-Nut to be ordered separately
 Kit order number: M12101



TYPE	$\sim H$	OUTLET PRESSURE
Diaphragm	163	Up to 15 bar
Piston	159	More than 15 bar

TYPE	IN/OUT
R121 1/2" GF	G 1/2-F
R121 1/2" NPTF	1/2 NPT-F