NUOVA GENERAL INSTRUMENTS
Safety valves
Loc.Campasso 29010 Pianello Val Tidone (PC) - Italy
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Calcolo portata di scarico valvola di sicurezza **Typ. :** F40
Safety Valve Fluid Delivery Calculation

Fluido : ARIA
Fluid : AIR

$$W = C\,K\,A\,P\sqrt{\frac{M}{Ta\;Z}} \quad \text{(lb/h)}$$

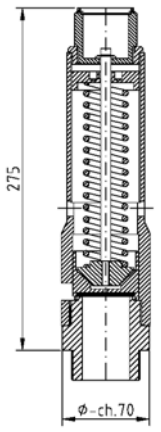
Pset	Pressione di taratura	7,00	bar g
	Setting pressure	101,53	psi g
T	Temperatura	15,60	°C
	Temperature	60,08	°F
A	Area orifizio	1.256,00	mm2
	Orifice area	1,95	sq in
K	Coefficiente di efflusso (90%Kd)	0,71	
	Coefficient of discharge (90%Kd)		
P	Pressione in bar assoluti (P+Sovrapressione+1)	8,70	bar a
	Absolute flowing pressure (P+Over pressure +14,5)	126,18	psi a
C	Funzione dell'esponente isentropico	356,00	
	Function of the isentropic exponent		
Ta	Temperatura del fluido in °K (°C + 273)	288,60	°K
	Fluid temperature (°F + 460)	520,08	°F + 460
M	Massa molecolare del fluido	28,97	kg/kmol
	Fluid molecolar mass		
Z	Fattore di comprimibilià del fluido	1,00	
	Compressibility factor		
ç	Massa volumica del fluido alla temperatura di calcolo	1,22	kg/m3
	Fluid volumic mass at the calculation temperature		

Inserendo i valori nella formula si ottiene :
Putting these data in the formula the risult is :

W	=	14.698,95	**lb/h**
m3/h / 1,699	=	3.206,86	**SCFM**
W / 2,205	=	6.666,19	**kg/h**
kg/h / ç	=	5.448,46	**m3/h**
m3/h / 0,06	=	90.807,68	**l/min**
l/min / 60	=	1.513,46	**l/s**
l/min x 60	=	5.448.460,63	**l/h**

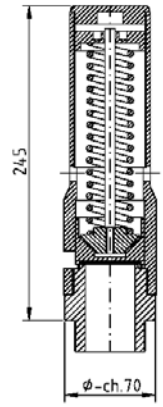
VALIDO PER OFFERTA

F40



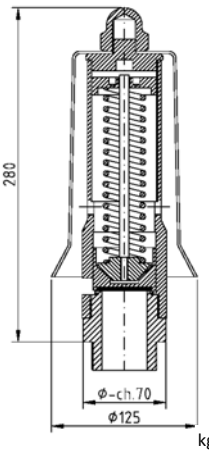
kg. 3,97

F40/S



kg. 3,65

F40/P



kg. 4,40

Tipo : *Type :*	F40	do: 40 mm

Omologazione ***Homologation***	**PN**	**Coefficiente efflusso ridotto** ***Low flow coefficient***	**Campo di taratura** ***Setting range***
CE - UKCA	40	0,59; >3 bar 0,69	0,3 - 30,0 bar
EAC	40	0,59; >3 bar 0,69	0,3 - 30,0 bar
ATEX Ex h II 2 Gb - UKEX (1)	40	0,59; >3 bar 0,69	0,3 - 30,0 bar
ATEX Ex h II 2 Db - UKEX	/	/	/
ASME XIII	40	0,712	1,0 - 30,0 bar
Canadian Reg. CRN	40	0,712	1,0 - 30,0 bar

CONFIGURAZIONE - *CONFIGURATION*

Materiale ***Material***	**Ottone** ***Brass***	**Mista Ottone-Acciaio inox** ***Mixed Brass-Stainles steel***	**Acciaio inox** ***Stainles steel***
Modelli ***Model***	Con ghiera *With ring nut*	Con ghiera *With ring nut*	Con ghiera *With ring nut*
	Senza Ghiera *Without ring nut*	Senza Ghiera *Without ring nut*	Senza Ghiera *Without ring nut*
	Con protezione *With Protection*	Con protezione *With Protection*	Con protezione *With Protection*
	/ /	/ /	/ /
	/ /	/ /	/ /
Sedi di Tenuta ***Seal System***	N.B.R. (Std) -10 / + 100 °C E.P.D.M. -50 / + 150 °C VITON -20 / +200 °C SILICONE -60 / +200 °C PTFE -196 / +250 °C KALREZ -20 / +250 °C /	N.B.R. (Std) -10 / + 100 °C E.P.D.M. -50 / + 150 °C VITON -20 / +200 °C SILICONE -60 / +200 °C PTFE -196 / +250 °C KALREZ -20 / +250 °C Metal -196 / +250 °C	N.B.R. (Std) -10 / + 100 °C E.P.D.M. -50 / + 150 °C VITON -20 / +200 °C SILICONE -60 / +200 °C PTFE -196 / +250 °C KALREZ -20 / +275 °C Metal -196 / +450 °C
Connessione Entrata ***Inlet Connection***	G.1"1/2 - 2" ISO228 R.1"1/2 - 2" EN10226 1"1/2 - 2" NPT DN40-50 PN16-40 2" - 2"1/2 150-300 lb / / / /	G.1"1/2 - 2" ISO228 R.1"1/2 - 2" EN10226 1"1/2 - 2" NPT 2" Tri Clamp DN40-50 DIN405-11851 DN40-50 PN16-40 2" - 2"1/2 150-300 lb / /	G.1"1/2 - 2" ISO228 R.1"1/2 - 2" EN10226 1"1/2 - 2" NPT 2" Tri Clamp DN40-50 DIN405-11851 DN40-50 PN16-40 2" - 2"1/2 150-300 lb / /
Connessione Uscita ***Outlet Connection***	/ / / / / / /	/ / / / / / /	/ / / / / / /

A richiesta possono essere eseguiti collaudi dai più prestigiosi enti quali: INAIL (area ISPESL), TÜV, RINA, Bureau Veritas, ABS e Lloyd Register.
On request tests can be made by the most prestigious societies, such as: INAIL (area ISPELS), TÜV, RINA, Bureau Veritas, ABS and Lloyd Register.

Note: (1) No Modello Con protezione / No Model With P