

FRS0 Flow Controls

Mit Bitte zur Prüfung an Fr. Heckert / Paul Wiegand

FRS0.G14 Valve Series

GAS Cartridge - 210 bar

Direct acting - Pressure Compensated

Description

A direct acting, screw-in insert type, 2-way pressure compensated flow control valve.

The flow rate of this valve in the 1 to 2 flow path is largely independent of the system pressure and is determined by the dimension of a calibrated orifice.

The valve cannot be adjusted for variable flow output.

Free flow in the 2 to 1 path is allowed and not pressure compensated

Technical Features

External surfaces are oxide burnished and corrosion-protected.

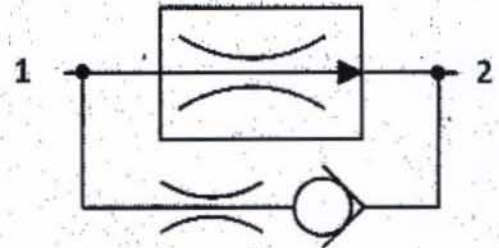
All valve parts are made of high strength steel. Spool is hardened and ground to guarantee low wear and to extend service life.

Suitable for heavy duty applications.

Extremely compact size.

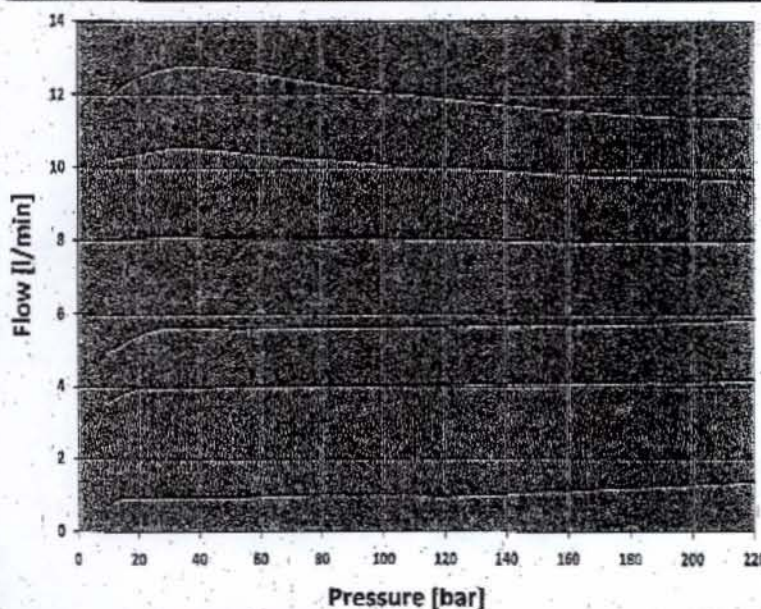
GAS cavity.

Symbols



02011043

Performance Details



Technical Data

Maximum operating pressure: 210 bar

Maximum pressure compensated flow: 12 l/min

Temperature: -30°C to 110°C

Fluids: Mineral-based or synthetics with lubricating properties at viscosities of 7.4 to 420 cSt

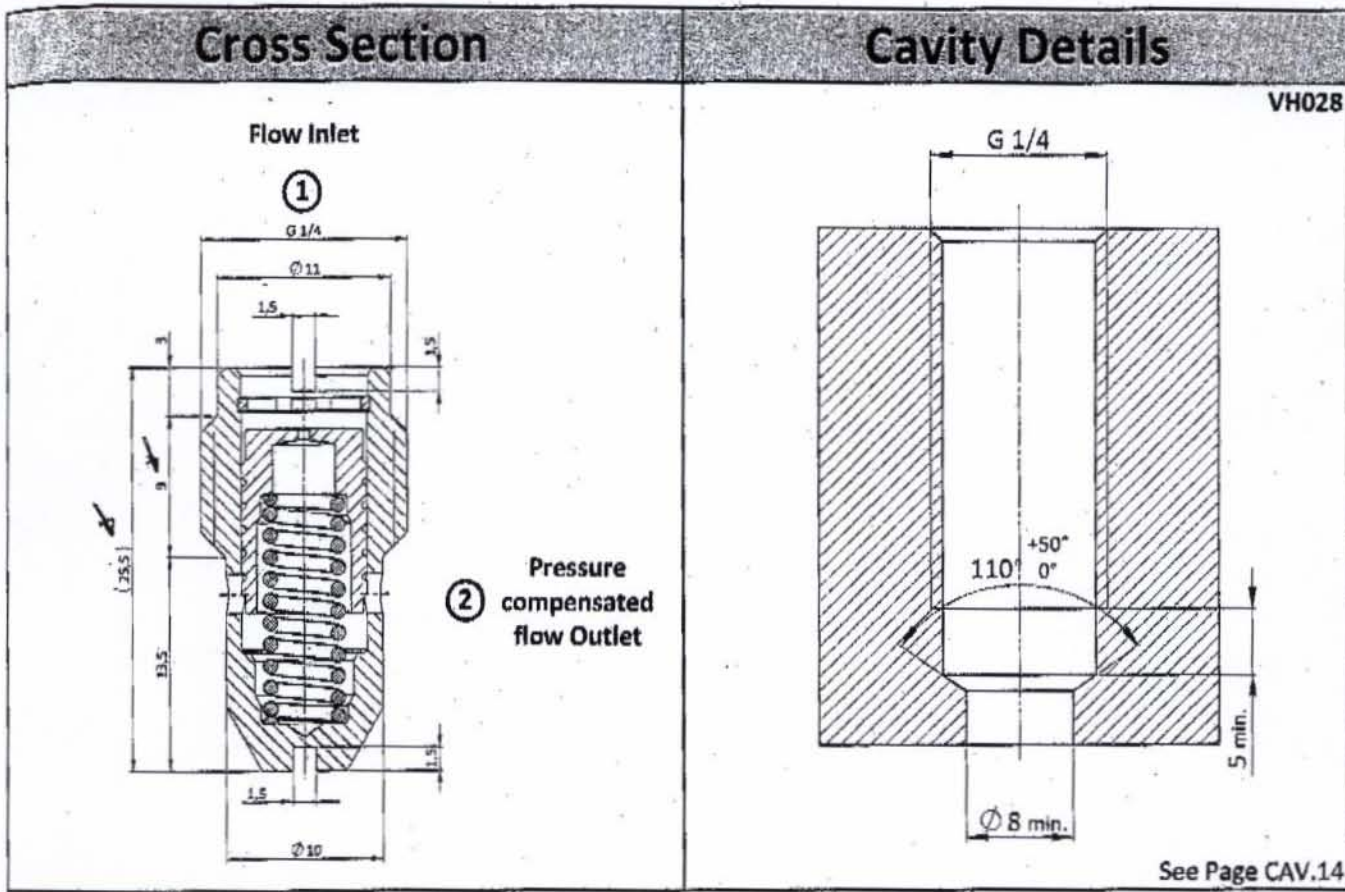
Installation: no orientation restrictions

Weight: 0.013 kg

Installation torque: 3-5 Nm

NOTE: The performance chart illustrates flow handling capacity in the pressure compensated mode for a few significant flow settings.

P/Q curve is recorded at $T_{oil} = 40^\circ C$ and 46 cSt



Ordering Code

F R S O . **G 1 4** . **O N** . *** * ***

Valve Basic Code

Cavity

G14 = GAS G1/4

UNF or Metric cavities are available upon request

Fixed Flow setting (l/min with 1 decimal)
See table below for standard fixed flow options
Customized fixed flows can be provided upon request.

02011043

Flow setting options

1 l/min	010
2 l/min	020
3 l/min	030
4 l/min	040
5 l/min	050
6 l/min	060
7 l/min	070
8 l/min	080
9 l/min	090
10 l/min	100
12 l/min	120

Das Muster ist lt. Datenblatt des Herstellers ebenfalls für 1,0 l/min ausgelegt

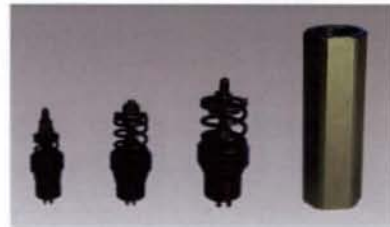
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2-Wege-Stromregelventil VCD1 mit Umgehungs-Rückschlagventil

Beschreibung.....

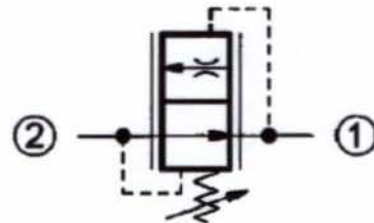
Das VCD1 ist ein sehr kompaktes Einschraubventil. Es regelt (begrenzt) einen Volumenstrom in die Einschraubrichtung. In der entgegengesetzten Richtung kann das Medium mit geringem Widerstand fließen. Der Kolben ist gehärtet und geschliffen.



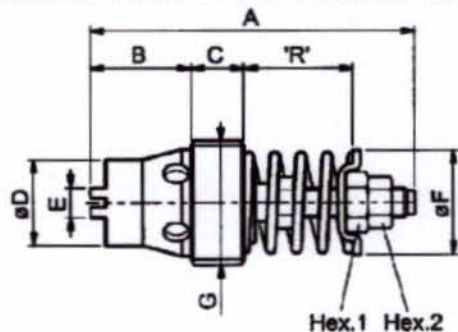
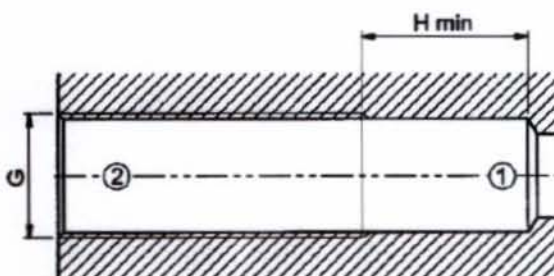
Technische Daten.....

Betriebsdruck: max. 315 bar
Volumenstrom: max. 150 l/min
Betriebstemperatur: - 20 °C – +80 °C
Betriebsmedien: Mineralöle nach DIN 51524
Filtration: min. 25 µm
Einstellung: erfolgt bei 100 bar
Werkstoff: Stahl

Symbolbild

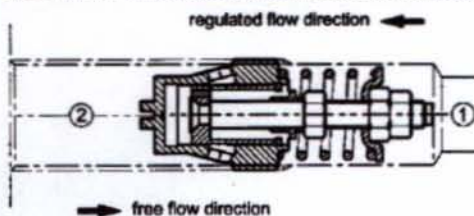


lieferbare Ausführungen.....

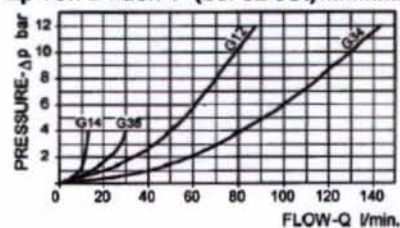


G	A	B	C	D	E	F	Hex.1	Hex.2	H	Weight Kg	Installation torque	Flow max l/min.
1/4 Gas	38.3	12.5	7	10	4	10.3	5.5	4.5	22	0.012	6 Nm	10
3/8 Gas	43	13.5	7	11.5	4	14	7	6	23	0.025	8 Nm	25
1/2 Gas	49	18	8	15	6	18.2	7	6	27	0.038	12 Nm	67
3/4 Gas	60	21	10	20	6	23	7	6	31	0.070	15 Nm	150

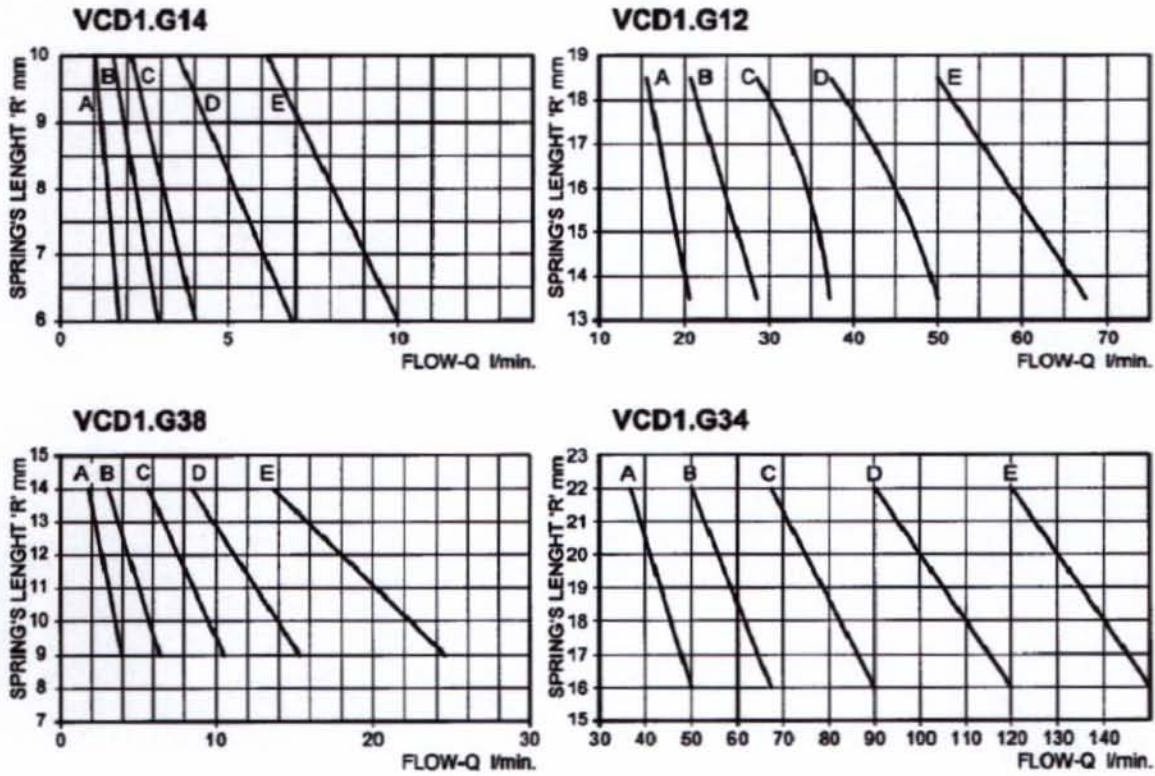
Schnittbild.....



Δp von 2 nach 1 (bei 32 cSt).....



Einstellwerte für die Federlänge ,R' [mm] ergibt Volumenstrom Q [l/min].....



G	Einstellbereiche				
	A	B	C	D	E
1/4	1-1.6	1.6-2.5	2.5-4.0	4.0-6.3	6.3-10
3/8	2.5-4.0	4.0-6.3	6.3-10	10-16	16-25
1/2	16-21	21-28	28-37	37-50	50-67
3/4	37-50	50-67	67-90	90-120	120-150

Typenschlüssel.....

VCD1	-	G12	-	B	-	25
Basiscode	Baugrösse		Einstellbereich		Einstellung [l/min]	
	G14 = G 1/4"		A, B, C, D, E		Optional	
	G38 = G 3/8"					
	G12 = G 1/2"					
	G34 = G 3/4"					