GC Series Rotary Gear Flow Dividers

Order Code	Gear Face Width	Displacement		SAE Ports		Minimum Flow/Sec		Maximum Flow/Sec		Cont. Diff. Pressure Between Inlet/Outlet		Maxium Outlet Pressure Any Section	
		In.³	Cm.³	Inlet	Outlet	GPM	L/M	GPM	L/M	PSI	BAR	PSI	BAR
06	3/16	.097	1.60	9/16-18	9/16-18	0.8	3.0	1.7	6.4	1800	124	3500	241
* 08	1/4	.129	2.13	3/4-16	3/4-16	1.2	4.5	2.5	9.5				
12	3/8	.194	3.18	3/4-16	9/16-18	1.7	6.4	4.5	13.2				
* 16	1/2	.258	4.24	7/8-14	7/8-14	2.5	9.5	5.0	18.9				
20	5/8	.323	5.29	7/8-14	7/8-14	3.0	11.4	6.0	22.7				
* 24	3/4	.388	6.36	7/8-14	7/8-14	3.5	13.2	7.0	26.5	1600	110		
28	7/8	.453	7.42	7/8-14	7/8-14	4.0	15.1	8.0	30.3	1300	90		
* 32	1	.517	8.42	7/8-14	7/8-14	4.5	17.0	9.0	34.1	1200	83		

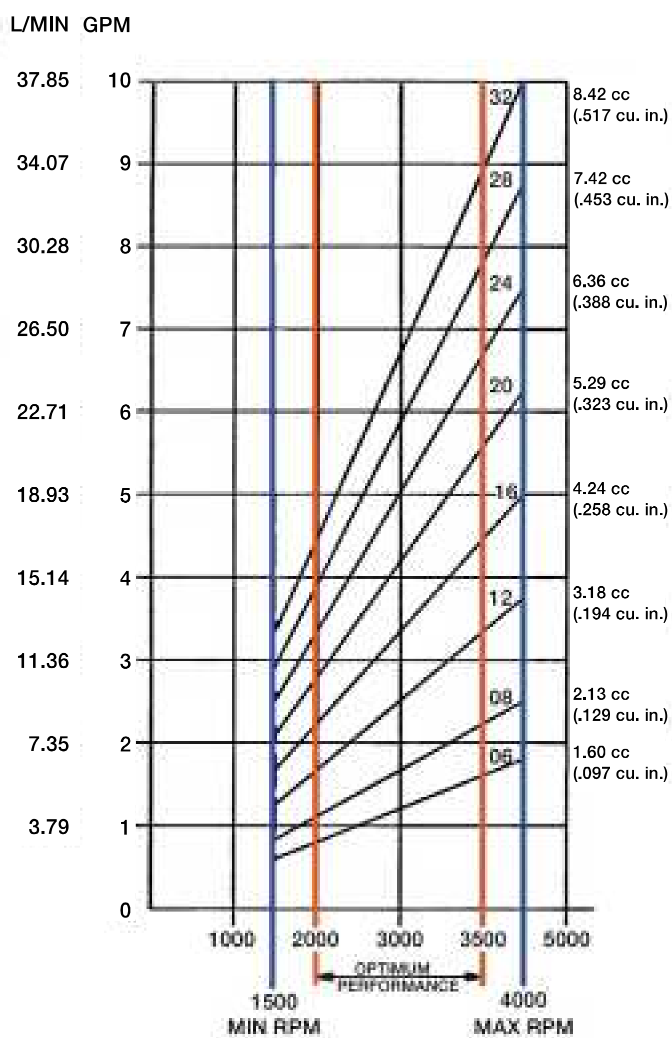
NOTE: Flows listed above are per section.

For European Style GC Flow Dividers, all inlet and outlet ports are 1/2-14 BSPP.

* Stock units available in two and four section versions, see page 9.

MAXIMUM inlet pressure 3000 psi (207 bar) • MAXIMUM outlet pressure 3500 psi (241 bar). For 3 section flow dividers or flow dividers with unequal sections, contact the factory. Recommended operating range 2000 rpm (min^{-1}) to 3500 rpm (min^{-1}).

Performance



The curve on the left and the chart above can be useful in selecting the proper size flow divider sections. The curve shows speed vs. flow per section.

For equal sized sections:
Assume four section dividers with a total flow of 12 GPM (45.4 L/M) in and 3 GPM (11.4 L/M) per section out. From the chart, an order code 16 or 24 would be suitable for this flow. However, the nearer the mid-range, the better the efficiency. From the curve, order code 16 crosses the 3 GPM (11.4 L/M) line at 2750 RPM (min^{-1}). The best selection is the order code 16 gear section.

For proportional flow, the curve is used as follows:
Assume a four section divider with an input flow of 19 GPM (71.9 L/M) and an outlet flow of 7 GPM (26.5 L/M) , 5 GPM (18.9 L/M), 4 GPM (15.1 L/M), and 3 GPM (11.4 L/M). With a straight edge on the 3000 RPM (min^{-1}) line, proper flow for 7 GPM (26.5 L/M) is given with an order code 32 gear section, 5 GPM (18.9 L/M) with an order code 24 gear section, 4 GPM (15.1 L/M) with an order code 20 gear section and 3 GPM (11.4 L/M) with an order code 16 gear section.

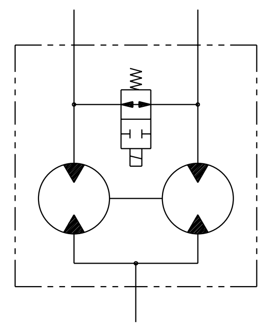
The chart above also shows the allowable differential pressures. The differential relief valve setting is determined by the maximum pressure needed by the circuit minus the inlet pressure without exceeding the allowable differential pressure. Either the continuous or intermittent differential pressures are used, depending on the curcuit requirement. The differential relief valve is adjustable through a range of 500 - 1000 PSI (34.5 - 68.9 BAR). Our standard setting for the differential relief valves is 750 PSI (51.7 BAR).

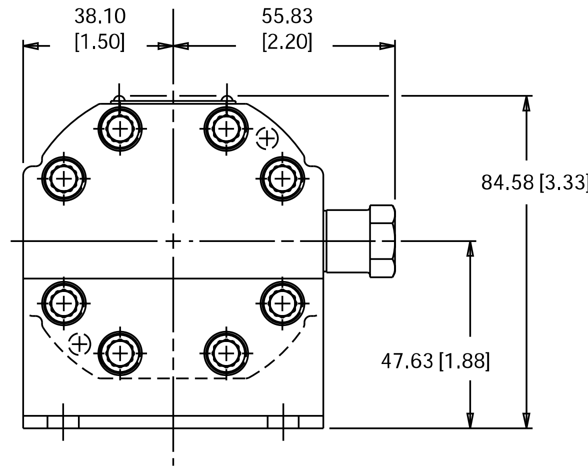
2 Section
GC Series Flow Divider
U.S. & European Style

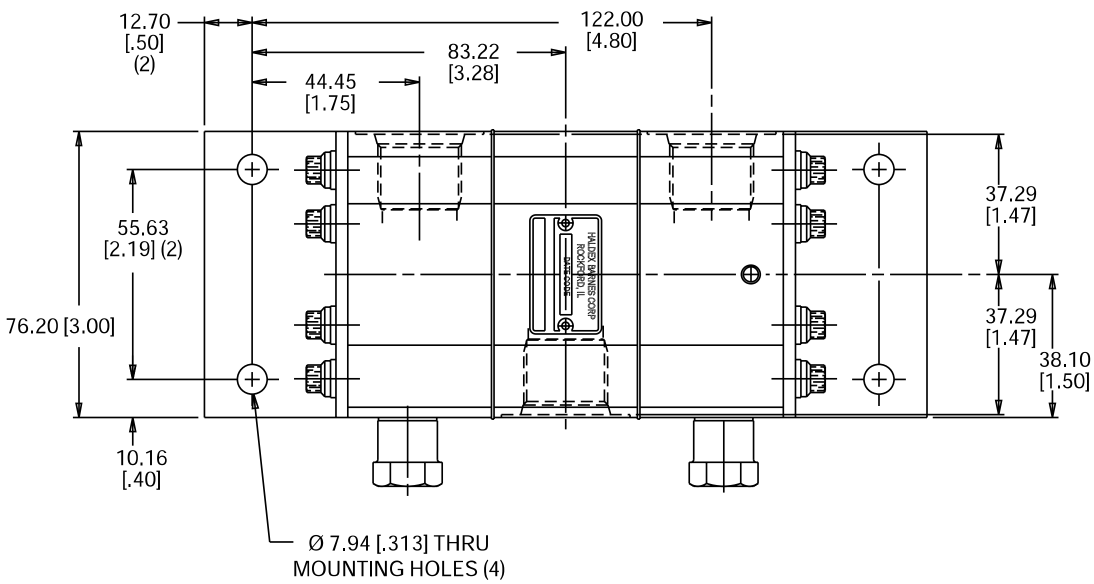
NOTE: The only difference between the U.S. version and European version is the porting configuration. The U.S. version has SAE standard ports (refer to page 3) and the European version has 1/2-14 BSPP ports.

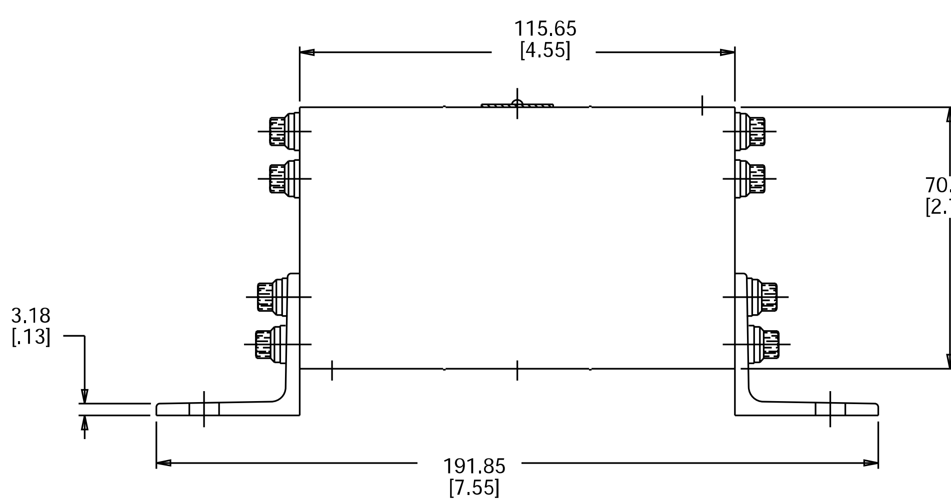
(inches are in brackets)

Available Circuits





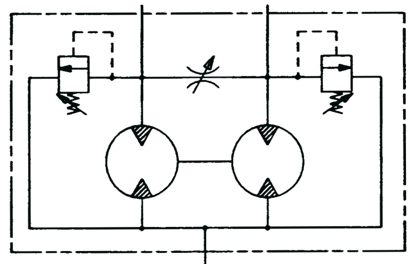


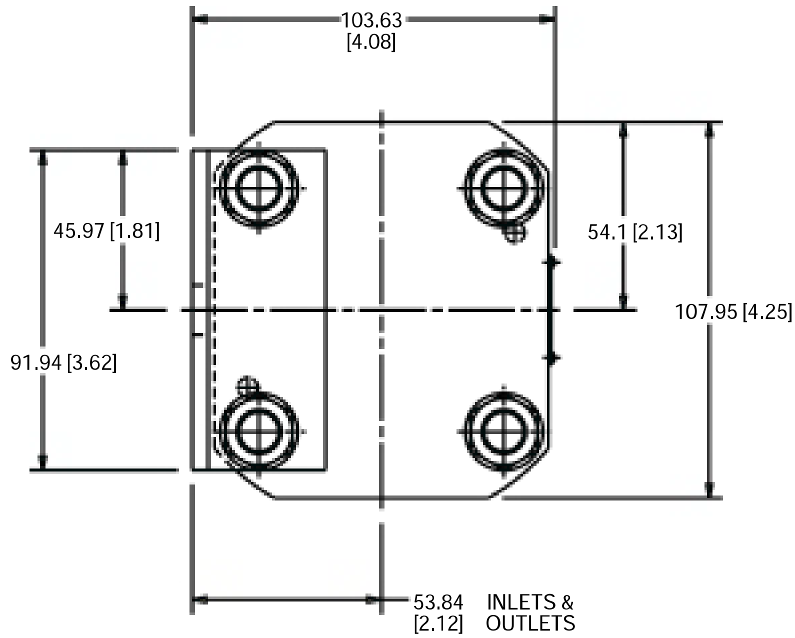


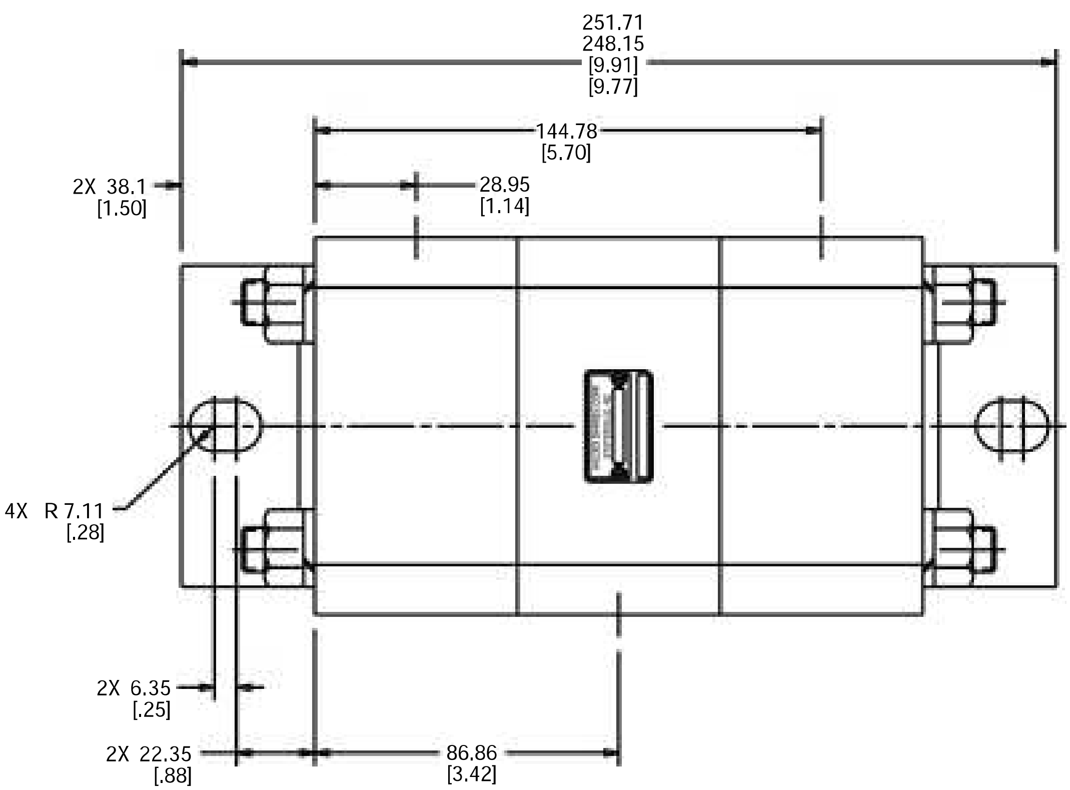
2 Section
D Series Flow Divider

(inches in brackets)

Available Circuits







Stock Haldex Hydraulic Systems Flow Dividers

GC Series (U.S. Version) Flow Dividers

Sections	Ports (SAE)		Relief Valve	Displacement in.^{3} Per Section	Model Code X-Ref	Stock P/N
	Inlet	Outlet				
2	3/4-16	3/4-16	Included	.129	FG1220021	1300634
2	7/8-14	7/8-14	Included	.258	FG1440021	1300635
2	7/8-14	7/8-14	Included	.388	FG1770021	1300636
2	7/8-14	7/8-14	Included	.517	FG1990021	1300637
4	3/4-16	3/4-16	Included	.129	FG3222221	1303139
4	7/8-14	9/16-18	Included	.258	FG3444421	1303140
4	7/8-14	3/4-16	Included	.388	FG3777721	1303142
4	7/8-14	7/8-14	Included	.517	FG3999921	1303143

GC Series (European Version) Flow Dividers

Sections	Ports (BSPP)		Relief Valve	Displacement cc Per Section	Model Code X-Ref	Stock P/N
	Inlet	Outlet				
2	1/2-14	1/2-14	Included	2.11	FG1220023	1303144
2	1/2-14	1/2-14	Included	4.24	FG1440023	1303145
3	1/2-14	1/2-14	Included	4.24	FG2444023	1303146
2	1/2-14	1/2-14	Included	3.18	FG1330023	1303165
2	1/2-14	1/2-14	Included	4.24	FG1440023	1303149
3	1/2-14	1/2-14	Included	4.24	FG2444023	1303166
4	1/2-14	1/2-14	Included	2.11	FG3222223	1303157
4	1/2-14	1/2-14	Included	4.24	FG3444423	1303147

D Series Flow Dividers

Sections	Ports (SAE)		Relief Valve	Displacement in.^{3} Per Section	Model Code X-Ref	Stock P/N
	Inlet	Outlet				
2	1 5/16-12	7/8-14	Included	.581 (9.5 cc)	FD2-0-V20S7.5-20S7.5-0-B10	1300315
2	1 5/16-12	3/4-16	Included	.348 (5.7 cc)	FD2-0-V12Q7.5-12Q7.5-0-B10	1300322
4	1 5/16-12	7/8-14	Included	.581 (9.5 cc)	FD2-V20S7.5-20S7.5-20S7.5-20S7.5-B10	1300323
4	1 5/16-12	3/4-16	Included	.348 (5.7 cc)	FD2-V12Q7.5-12Q7.5-12Q7.5-12Q7.5-B10	1300324
2	1 5/16-12	1 1/16-12	Included	.813 (13.3 cc)	FD2-0-V28T7.5-28T7.5-0-B10	1300352
4	1 5/16-12	1 1/16-12	Included	.813 (13.3 cc)	FD2-V28T7.5-28T7.5-28T7.5-28T7.5-B10	1300353

How To Order Haldex GC Series Flow Dividers

Haldex Hydraulic Systems stocks a selection of GC Series two section and four section flow dividers, which include a built-in adjustable differential relief valve in each section. See page 9 for a list of stock available. If the GC Series flow divider required is not a stock item at Haldex, it may be ordered by following the ordering code show below. Non-stock options require a 100-piece minimum.

Determine the number of sections needed.
Determine gear size of sections required:
Fill in all blanks in model code below:

1	2	3	4	5	6	7	8	9
F	G	__	__	__	__	__	__	__

1. **Type**

F	Flow Divider

2. **Series**

G	GC Series Flow Divider

3. **Number of Sections**

1	Two Sections
2	Three Sections
3	Four Sections

4, 5, 6, 7. **Gear Size(s) (each section)**

0	None
1	.097 in.^{3}/rev.
2	.129 in.^{3}/rev.
3	.194 in.^{3}/rev.
4	.258 in.^{3}/rev.
5	.291 in.^{3}/rev.
6	.323 in.^{3}/rev.
7	.388 in.^{3}/rev.
8	.453 in.^{3}/rev.
9	.517 in.^{3}/rev.

8. **Relief Valve**

1	None
2	One Each Section

9. **Porting**

1	SAE (Standard)
2	NPTF

EXAMPLE: FG1440021

Two section flow divider, .258 in.^{3}/rev. gear first section, .258 in.^{3}/rev. gear second section, no 3rd or 4th section, relief valve in each section, SAE ports.

How To Order Haldex GC Series Flow Dividers (European Version)

Haldex Hydraulic Systems stocks a selection of GC Series two section and four section flow dividers (European Version), which include a built-in adjustable differential relief valve in each section. See page 9 for a list of stock available. If the GC Series flow divider required is not a stock item at Haldex, it may be ordered by following the ordering code show below. Non-stock options require a 100-piece minimum.

Determine the number of sections needed.
Determine gear size of sections required:
Fill in all blanks in model code below:

1	2	3	4	5	6	7	8	9
F	G	__	__	__	__	__	__	__

1. **Type**

F	Flow Divider

2. **Series**

G	GC Series Flow Divider

3. **Number of Sections**

1	Two Sections
2	Three Sections
3	Four Sections

4, 5, 6, 7. **Gear Size(s) (each section)**

0	None
1	1.58 cc/rev.
2	2.11 cc/rev.
3	3.18 cc/rev.
4	4.24 cc/rev.
5	4.76 cc/rev.
6	5.29 cc/rev.
7	6.36 cc/rev.
8	7.42 cc/rev.
9	8.47 cc/rev.

8. **Relief Valve**

1	None
2	One Each Section

9. **Porting**

3	BSPP

EXAMPLE: FG1220023

Two section flow divider, 2.11 cc/rev. gear first section, 2.11 cc/rev. gear second section, no 3rd or 4th section, relief valve in each section, BSPP ports.