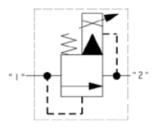
# IRV2-10 - Proportional Valve

Proportional inverse relief, Spool 57 L/min (15 USgpm) • 240 bar (3500 psi)



## Operation

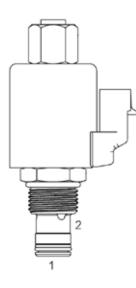
The IRV2-10 proportional relief is spring biased closed to highest setting. Increasing current to the coil will proportionally decrease the pressure setting.

This valve remains closed between port 1 and 2 until the predetermined pressure setting has been reached at port 1, overcoming the spring force and opening the spool to allow flow from port 1 to 2.

### **Features**

Hardened and ground components for accurate consistent control and a long life. Pilot style to give accurate pressure control over varying flows. IP9K Tough coil compatibility continuously rated.

### **Sectional View**



# **Performance Data**

#### **Ratings and Specifications**

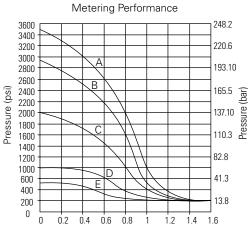
Performance data is typical with fluid at 21,8 cST (105 SUS) and 45	Э°С (120°F)
Typical application pressure (all ports)	240 bar (3500 psi)
Cartridge fatigue pressure (infinite life)	240 bar (3500 psi)
Maximum pressure setting range	35 bar to 240 bar (500 to 3500 psi)
Rated Flow	57 lpm ( 15 US gpm)
Nominal supply voltage	12/24 V
Cavity	C-10-2
Internal leakage, port 1 to port 2	114 cm3/min. (7 in3/min) @ 210 bar
Standard housing material	Aluminum or steel
Fluids	All general purpose hydraulic fluids such as: MIL-H-5606, SAE10, SAE20 etc
Filtration	Cleanliness code 18/16/13
Temperature range	-40°to 120° C (-40° to 248° F)
Hysterisis	100 psi with dither
Weight cartridge only	0.13 kg (.3 ibs)
Seal Kit	565803 (Buna-N), 56086 (Viton <sup>®</sup> )
Viton is a registered trademark of E.I. DuPont	

Endurance tested to 1 million cycles at full rated flow and pressure.

## Description

This is a inverse proportionally controlled spool type two stage relief valve. Ideal for use to control the fan drive or brush pressure where full speed or force is required under electrical failure.

### **Pressure Drop**



Amps

Pressure Differential A - 3500 psi B - 3000 psi

C -	2000	ps
D -	1000	psi

E - 500 psi





Where measurements are critical request certified drawings. We reserve the right to change specifications without notice.

# IRV2-10 - Proportional Valve

Proportional inverse relief, Spool 57 L/min (15 USgpm) • 240 bar (3500 psi)

IRV2 - Inverse proportional reliefCodePort SizeHousing NumberBlank - No coil2SizeAluminum SingleAluminum SingleAluminum SingleG - ISO 4400 DII2Size0Cartridge onlyFatigue RatedN - Deutsch (DC10 - 10 size6TSAE 6566150Y - Amp JR (DC3Seal Material2G1/4" BSPP5986433-001See section C.3Seal Material3G3/8" BSPP876703For coil part numbers and see section C.4Factory Set Pressure6HSAE 8876701User requested in 100 psi increments. Max pressure setting range 500 - 3500 psi7Coil Voltage8Type of Power00 - No coil ExampleBlank - No coil 010 - 10VDC 2L 12VDCD - DC w/o diode B - DC with diode11Coil Special FeBlank - No coil Blank - No coil Blank - No coilD - DC w/o diode B - DC with diode11Coil Special Fe	1 Function	1 6 Por	2 3	4 5	6 7 8	9 10 11 12 9 Connector Type
Aluminum Single       Aluminum Single       Aluminum Single       G - ISO 4400 DII         Proportional relief       Light Duty       Fatigue Rated       G - Spade Termin         2       Size       0       Cartridge only       W - Flying Lead         10 - 10 size       6T       SAE 6       566150       Y - Amp JR (DC         3       Seal Material       3G       3/8' BSPP       876703       For coil part numbers and see section C.         3       Salank - Buna-N       G - ISO 4400 DII       For coil part numbers and see section C.       For coil part numbers and see section C.         3       Seal Material       3G       3/8' BSPP       876703       For coil part numbers and see section C.         3       Factory Set Pressure       See section J for housing details.       For coil part numbers and see section C.         Jear requested in 100 psi nerements. Max pressure setting range 500 - 3500 psi ao - 3000 psi       To coil Voltage       B       Type of Power         30 - 3000 psi       0- No coil       D - DC wi/o diode       Blank - No coil       D - DC wi/o diode       Blank - No coil         5       Housing Material       Blank - Cartridge only       A Aluminum       No coil       D - DC wi/o diode       Blank - No coil         0       N - Aluminum       19.0 HEX       To				Housing Numb	ar .	
Light Duty       Fatigue Rated       U - Space lemmin         2       Size       0       Cartridge only       N - Deutsch (DC         0 - 10 size       6T       SAE 6       566150       Y - Amp JR (DC         3       Seal Material       3G       3/8" BSPP       5986433-001       For coil part numbers and see section C.         3       Seal Material       3G       3/8" BSPP       876703       For coil part numbers and see section C.         4       Factory Set Pressure       See section J for housing details.       T       Coil Voltage       8       Type of Power         10       Coil Voltage       8       Type of Power       Blank - No coil       J - J Series, 20 W         5       100 - No coil       D- No coil       D- No coil       D- No coil       D- No coil         10       00 - No coil       D- No coil       D- No coil       D- No coil       D- No special Fe         5       Housing Material       Hank - Cartridge only       III Coil Special IFe       Blank - No coil       D- No special I         11       Coil Special I       D- Vol C       D- DC with diode       D- No special I       Blank - No coil         12       Valve Special I       Blank - No coil       D- No special I       Blank - No coil <t< td=""><td></td><td>Coue</td><td>FUIT SIZE</td><td></td><td></td><td></td></t<>		Coue	FUIT SIZE			
2       Size       0       Cartridge only       N       N       Deutsch (PC)         0       10 size       6T       SAE 6       566150       Y       - Amp JR (DC)         3       Seal Material       2G       1/4" BSPP       5986433-001       See section C.       For coil part numbers and see section C.         1       Sage 3/8" BSP       876703       6H       SAE 6       876700       10       Coil Series         3       Seal Material       2G       1/4" BSP       5986433-001       See section C.       10       Coil Series         4       Factory Set Pressure       See section J for housing details.       7       Coil Voltage       8       Type of Power       Blank - No coil       J - J Series, 20 W       For coil part numbers and see section C.         5       Housing Material       0- No coil       D - No coil       D - DC w/o diode       Blank - No coil       11       Coil Special Fe         5       Housing Material       Iank - Cartridge only       -       Aluminum       Installation Drawing       12       Valve Special I         1       Blank - Cartridge only       19.0 HEX       19.0 HEX       72.4       25.4       12         1       19.0 HEX       19.0 HEX       19.0 HEX	proportional relief					
- 10 size       6T       SAE 6       566150       Y - Amp JR (DC P. Conduit         - 10 size       8T       SAE 8       566151       For coil part numbers and see section C.         Seal Material ank - Buna-N       2G       1/4" BSPP       5986433-001       For coil part numbers and see section C.         - Viton®       3G       3/8" BSPP       876703       10       Coil Series         BH       SAE 8       876701       Blank - No coil       J - J Series, 20 W         Factory Set Pressure       7       Coil Voltage       8       Type of Power         rements. Max pressure tring range 500 - 3500 psi ample       00 - No coil       D - DC w/o diode       B- DC with diode         10       10VDC       024 - 24VDC       B- DC with diode       00 - No special fee         112       Valve Special I         Bank - No coil       11       Bank - No coil         01 - Aluminum       Installation Drawing       12       25.4	Size	0	Cartridge only	Light Duty	Taligue nateu	
<ul> <li>- 10 size</li> <li>8T SAE 8 566151</li> <li>G 1/4' BSPP 5986433-001</li> <li>G 3/8' BSPP 876703</li> <li>GH SAE 6 876700</li> <li>GH SAE 6 876700</li> <li>GH SAE 6 876700</li> <li>GH SAE 8 876701</li> <li>Factory Set Pressure er requested in 100 psi rements. Max pressure tring range 500 - 3500 psi ample</li> <li>- 1500 psi - 3000 psi</li> <li>Housing Material ank - Cartridge only Aluminum</li> <li>mensions m (inch)</li> <li>19,0 HEX</li> <li>19,0 HEX</li> <li>- 10,0 HEX</li> <li>- 25,4</li> <li>- 25,4</li> </ul>	Size			566150		
Seal Material ank - Buna-N       2G       1/4" BSPP       5986433-001         - Viton®       3G       3/8" BSPP       876700         Factory Set Pressure ter requested in 100 psi crements. Max pressure ting range 500 - 3500 psi ample       See section J for housing details.       10 Coil Series         7       Coil Voltage       8       Type of Power         00 - No coil ample       00 - No coil 010 - 10VDC       Blank - No coil 010 - 10VDC       11 Coil Special Fe Blank - No coil 012 - 12VDC         Housing Material ank - Cartridge only - Aluminum       12       Valve Special I Blank - No coil         mensions m (inch)       19,0 HEX       Installation Drawing	- 10 size	-				
Seal Material       3G       3/8" BSPP       876703       10       Coil Series         ank - Buna-N       GH       SAE 6       876700       10       Coil Series         Pactory Set Pressure       See section J for housing details.       7       Coil Voltage       8       7/9       Type of Power       Blank - No coil       J - J Series, 20 W       For coil part numbers and see section C.         To coil Voltage       00 - No coil       00 - No coil       00 - No coil       00 - No coil       11       Coil Special Fe         ample       - 1500 psi       - 3000 psi       024 - 24VDC       B - DC with diode       00 - No special fe         Housing Material       ank - Cartridge only       19,0 HEX       Installation Drawing       12       Valve Special I         final field       19,0 HEX       19,0 HEX       25,4       10       25,4				300131	5986433-001	For coil part numbers and dimension
ank - Buna-N       6H       SAE 6       876700       10       Coil Series         Bank - No coil       See section J for housing details.       J - J Series, 20 W       For coil part numbers and see section C.         7       Coil Voltage       8       Type of Power       In Coil Series         00 - No coil       00 - No coil       D - DC w/o diode       In Coil Series         01 - 10VDC       01 - 10VDC       D - DC w/o diode       In Coil Series         02 - 12VDC       02 - 12VDC       D - DC w/o diode       In Coil Series         12       Valve Special Fee         Blank - Cartridge only       Aluminum       In Stallation Drawing         rtridge Only       19,0 HEX       Installation Drawing         (0.75)       19,0 HEX       12,25,4	Seal Material					
Viton®       BH       SAE 8       876701         Factory Set Pressure       See section J for housing details.       J - J Series, 20 W         rements. Max pressure       7       Coil Voltage       8       Type of Power         00 - No coil       00 - No coil       D - DC w/o diode       11       Coil Special Fee         01 - 10VDC       012 - 12VDC       024 - 24VDC       Blank - No coil       11       Coil Special Fee         12       Valve Special II         12       Valve Special II         Blank - No coil       12       Valve Special II         12       Valve Special II         Blank - No coil       12       Valve Special II         12       Valve Special II         Blank - No coil       12       Valve Special II         Blank - On coil       13       14       14         12       Valve Special II       14       14         13       19.0 HEX       19.0 HEX       14       14         14       19.0 HEX       12.25       14       14	<b>ank</b> - Buna-N					10 Coil Series
Factory Set Pressure       See section J for housing details.       J - J Series, 20 W         See section J for housing details.       7       Coil Voltage       8       Type of Power         See section J for housing details.       7       Coil Voltage       8       Type of Power         Ob - No coil       00 - No coil       D - DC w/o diode       11       Coil Special Fee         See section J for housing Material       00 - No coil       D - DC with diode       12       Valve Special Fee         Mensions       12       Valve Special Fee       12       Valve Special Fee         mensions       19,0 HEX       19,0 HEX       19,0 HEX       19,0 HEX       12,0 HEX	- Viton®					
Factory Set Pressure       Set construction of the backing details.         Factory Set Pressure       To coil Voltage       Set Type of Power         Set requested in 100 psi crements. Max pressure       O No coil 010 - 10VDC       Blank - No coil D - DC w/o diode       II Coil Special Fe Blank - No coil 024 - 24VDC         Mousing Material ank - Cartridge only - Aluminum       No coil       D DC with diode       II Coil Special Fe Blank - No coil 00 - No special fer         Immensions m (inch)       19.0 HEX       Installation Drawing       Installation Drawing					0,0,01	
ser requested in 100 psi crements. Max pressure etting range 500 - 3500 psi ample - 1500 psi - 3000 psi        7       Coil Voltage 00 - No coil 010 - 10VDC 012 - 12VDC 024 - 24VDC        8       Type of Power Blank - No coil D - DC w/o diode B - DC with diode        see section C.         11       Coil Special Fe Blank - No coil 00 - No special fe 00 - No special fe 12       Valve Special I Blank - No coil         imensions m (inch)       19,0 HEX (0.75)       Installation Drawing	Factory Set Pressure					For coil part numbers and dimensio
Increments. Max pressure etting range 500 - 3500 psi xample       00 - No coil 010 - 10VDC 012 - 12VDC 024 - 24VDC       Blank - No coil D - DC w/o diode B - DC with diode       11 Coil Special Fe Blank - No coil 00 - No special fe 00 - No special fe 12 Valve Special I Blank - No coil         5 Housing Material lank - Cartridge only - Aluminum       12 Valve Special I Blank - No coil         imensions nm (inch)       Installation Drawing         artridge Only (0.75)       19,0 HEX (0.75)	ser requested in <b>100 psi</b>	7 Coi	l Voltage	8 Type	of Power	
atting range 500 - 3500 psi (ample 5 - 1500 psi (b - 10VDC 012 - 12VDC 024 - 24VDC			-			
5 - 1500 psi     012 - 12VDC     024 - 24VDC     Bank - No coil       5 Housing Material lank - Cartridge only - Aluminum     12 Valve Special Is       imensions nm (inch)     Installation Drawing       19,0 HEX (0.75)     19,0 HEX (0.75)						11 Coil Special Features
0 - 3000 psi       024 - 24VDC       00 - No special fer         5       Housing Material lank - Cartridge only - Aluminum       12       Valve Special fer         imensions um (inch)       Installation Drawing         artridge Only       19,0 HEX       19,0 HEX         10,0 T5)       12,25,4		<b>012</b> - 12	VDC	<b>B</b> - DC	C with diode	
<ul> <li>Housing Material</li> <li>lank - Cartridge only</li> <li>Aluminum</li> <li>imensions</li> <li>im (inch)</li> <li>Installation Drawing</li> <li>artridge Only</li> <li>12 Valve Special Blank - No coil</li> <li>Blank - No coil</li> </ul>		<b>024</b> - 24	VDC			<b>00</b> - No special feature
Iank - Cartridge only   - Aluminum     imensions   im (inch)   Installation Drawing   artridge Only     19,0 HEX   (0.75)     19,0 HEX     19,0 HEX     25.4						
Aluminum imensions im (inch) artridge Only 19,0 HEX (0.75) 19,0 HEX (0.75) 25,4 19,0 HEX (2.85) 19,0 HEX (0.75) 19,0 HEX (0.75) 10,0 HEX (0.	Housing Material					
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artridge Only 19,0 HEX (0.75) 19,0 HEX (0.75) 25.4 19,0 HEX 19,0 HEX 10,0 HEX	imensions					
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19,0 HEX (0.75) 72.4 (2.85) 25.4				Installatio	on Drawing	
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				t		r Th
				1 72.4		
				(2.85)		
	2,4			<u>+</u>		
					2 =	20.8 (0.81)

25,4 HEX

(1.00)

0,875" - 14 THD.

2

Where measurements are critical request certified drawings. We reserve the right to change specifications without notice.

19.0 (0.75)

1

63.5 (2.50)



34,6 (1.36)

9.5 (0.37)

33,2 (1.31)