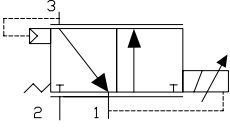
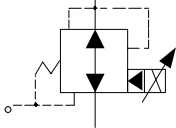


Proportional Pressure Reducing / Relieving Valves

Direct acting

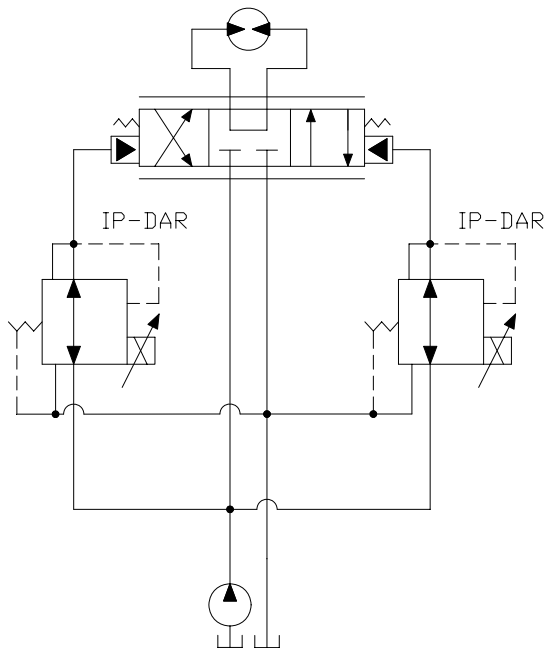
	GPM	PSI	LPM	BAR	MODEL	PAGE
	0,8	5000	3	345	IP-DAR-43-H	8
	0,8	700	3	50	IP-DAR-43-L	8
	2	500	8	35	EC PRV	10

Pilot operated

	GPM	PSI	LPM	BAR	MODEL	PAGE
	7,5	700	28	50	IP-PRZ-59	12
	7,5	700	28	50	EG-TRZ-42	14

Typical Schematic

Typical application for the IP DAR 43 or EC PRV is the control of a metering spool on a directional valve.



WARNING: The specifications/application data shown in our catalogs and data sheets are intended only as a general guide for the product described (herein). Any specific application should not be undertaken without independent study, evaluation, and testing for suitability.

IP-DAR-43-AJ Direct Acting Proportional, Pressure Reducing/Relieving, Slip-in type

DESCRIPTION

Special cavity, slip-in style flange retained, direct acting proportional, pressure reducing/relieving valve.

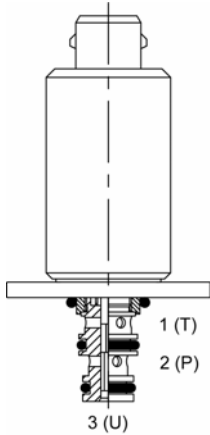
OPERATION

The IP-DAR-43-AJ generates a variable pressure in response to a PWM (Pulse Width Modulated) current signal. With no current applied to the proportional solenoid, the inlet port 2(P) is blocked and the regulated port 3 (U) is vented to port 1(T).

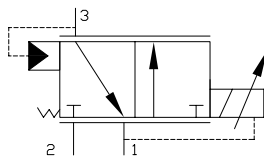
As current is increased, fluid pressure is proportionally controlled at the regulated port 3(U). On attainment of proportionally determined pressure at 3(U), the cartridge shifts to block flow at 2(P), thereby regulating pressure at 3(U). In this mode, the valve also will relieve 3(U) to 1(T) at a variable value over the set reducing pressure.

FEATURES

- Economical slip-in style
- Efficient wet-armature construction
- Integral waterproof coil
- Continuous duty rated solenoid



HYDRAULIC SYMBOL



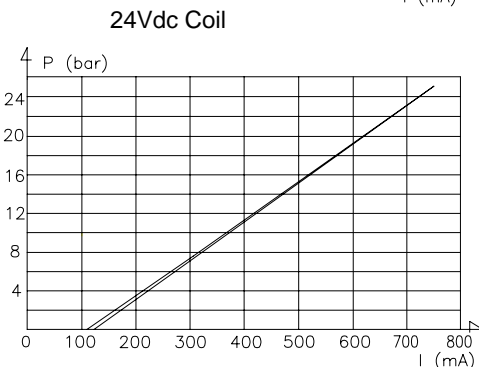
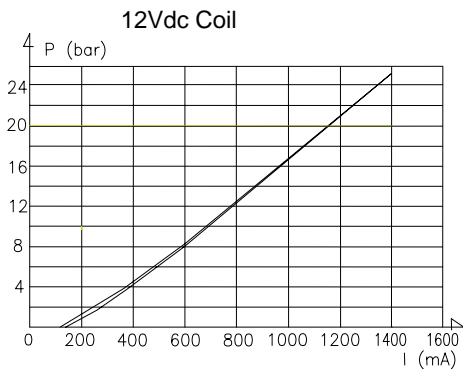
Flanged retained product.

The coil is an integral part of the valve and is not serviceable.

Eventual tank pressure exceeding 0 bar, has to be added to reduced pressure values.

PERFORMANCE

Reduced pressure (bar) vs. current (mA)



VALVE SPECIFICATIONS

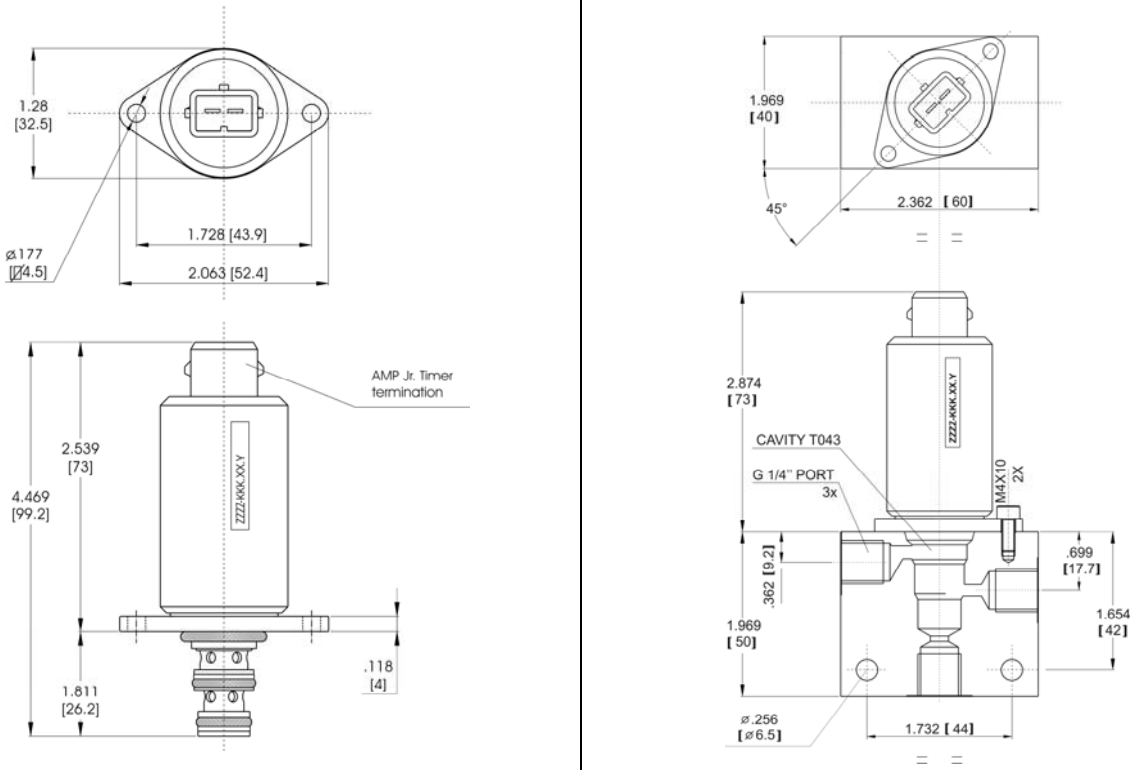
Nominal Flow	1 GPM (3,8 LPM)@ 12 bar Delta P
Max Inlet Pressure "H" version	5000 PSI (350 bar)
Max Inlet Pressure "L" version	700 PSI (50 bar)
Controlled pressure range	0÷25 bar (see graph)
Max. Back-pressure at T port	20 bar
Internal Leakage	10 ml/min at 500 PSI (35 bar)
Viscosity Range	36 to 3000 SSU (3 to 647 cSt)
Filtration	ISO 18/16/13
Media Operating Temperature Range	-25°C / +85° C
Weight	.63 lbs. (.29 kg)
Operating Fluid Media	General Purpose Hydraulic Fluid
Cavity	T043
Cavity Tool Kit	K-T043
Screws and torque	M4x10 / 3ft-lbs (4 Nm)

COIL SPECIFICATIONS

Current Supply Characteristics	PWM (Pulse Width Modulation)
Rated Current Range	150 ÷ 800 mA @ 24Vdc
Rated Current Range	200 ÷ 1500 mA @ 12Vdc
PWM or Super-imposed Dither Frequency	100 - 150 Hz
Coil Resistance (12 Vdc)	5.4 Ohm +/- 5% at 68°F (20°C)
Coil Resistance (24 Vdc)	22 Ohm +/- 5% at 68°F (20°C)
Max. Power consumption	12 Watt
Protection Degree	IP 67 according to IEC 529
Coil Termination	Amp Jr. - Timer
Connector Color	Blue 12 Vdc / Red 24 Vdc

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DIMENSIONS



ORDERING INFORMATION “L” version, inlet pressure up to 700 PSI (50 bar)

IP - DAR - 43 - AJ * - L - - - -

OPTIONS			BODIES
Buna Standard	00	Blank	Without Body
Buna, Screen**	F0	N	1/4" BSP Ports
HNBR standard	H	S	#6 SAE Ports
HNBR Screen**	FH		

ORDERING INFORMATION “H” version, inlet pressure up to 5000 PSI (350 bar)

IP - DAR - 43 - AJ * - H - - - -

OPTIONS			BODIES
Buna Standard	00	Blank	Without Body
Buna, Screen**	F0	N	1/4" BSP Ports
HNBR standard	H	S	#6 SAE Ports
HNBR Screen**	FH		

* : 12 or 24 Vdc

note : screen (on inlet port) : mesh 50 (300 µm)

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EC-PRV Direct Acting Proportional, Pressure Reducing/Relieving Valve

DESCRIPTION

7 size, 5/8-18 thread, "Mini" series, direct acting proportional pressure reducing/relieving valve.

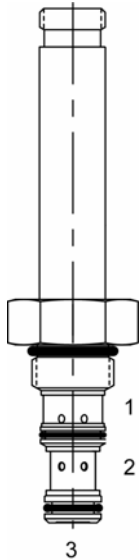
OPERATION

The IP-DAR-43-AJ12 generates a variable pressure in response to a PWM (Pulse Width Modulated) current signal. With no current applied to the proportional solenoid, the inlet port 2(P) is blocked and the regulated port 3 (U) is vented to port 1(T).

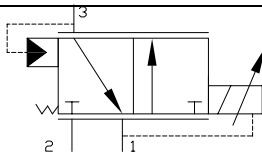
As current is increased, fluid pressure is proportionally controlled at the regulated port 3(U). On attainment of proportionally determined pressure at 3(U), the cartridge shifts to block flow at 2(P), thereby regulating pressure at 3(U). In this mode, the valve also will relieve 3(U) to 1(T) at a variable value over the set reducing pressure.

FEATURES

- Efficient wet-armature construction.
- Cartridges are voltage interchangeable.
- Industry common cavity.
- Unitized, molded coil design.
- Continuous duty rated solenoid.
- Optional coil voltages and terminations.

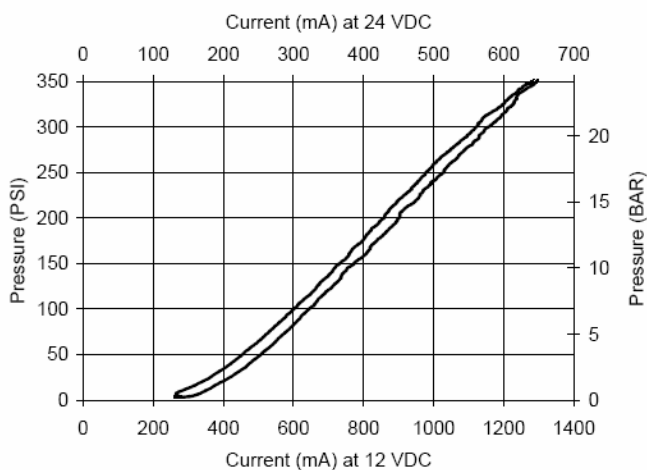


HYDRAULIC SYMBOL



PERFORMANCE

Actual Test Data (Cartridge Only)



VALVE SPECIFICATIONS

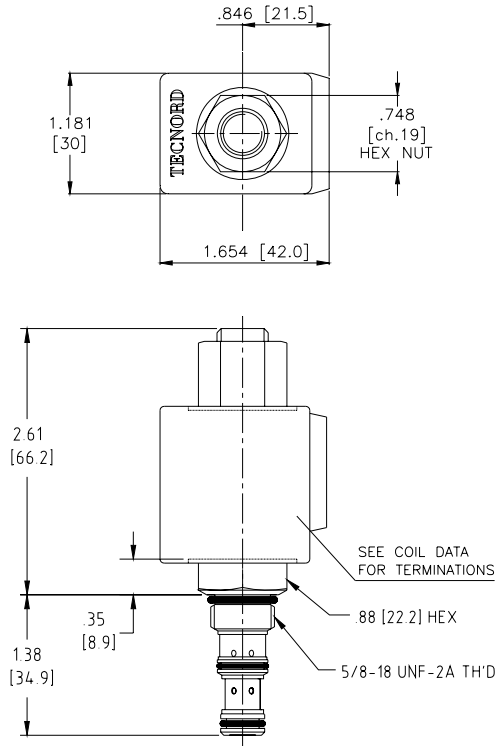
Nominal Flow	2 GPM (8 LPM)
Max Operating Pressure	500 PSI (35 bar)
Max Differential Pressure	300 PSI (21 bar)
Typical Hysteresis	5%
Viscosity Range	36 to 3000 SSU (3 to 647 cSt)
Filtration	ISO 18/16/13
Media Operating Temperature Range	-40° to 250° F (-40° to 120° C)
Weight	.18 lbs. (.08 kg)
Operating Fluid Media	General Purpose Hydraulic Fluid
Cartridge Torque Requirements	15 ft-lbs (20.3 Nm)
Coil Nut Torque Requirements	3-5 ft-lbs (4.1-6.8 Nm)
Cavity	MINI 3W
Cavity Form Tool (Finishing)	40500004
Seal Kit	21191010

COIL SPECIFICATIONS

Current Supply Characteristics	PWM (Pulse Width Modulation)
Rated Current Range	300 – 1300 mA
PWM or Super-imposed Dither Frequency	100 - 150 Hz
Coil Resistance (12 Vdc)	10 Ohm +/- 5% at 68°F (20°C)
Max. Power Consumption	16 Watt

WARNING: The specifications/application data shown in our catalogs and data sheets is intended only as a general guide for the product described (herein). Any specific application should not be undertaken without independent study, evaluation, and testing for suitability.

DIMENSIONS



(for bodies style and sizes see section "Accessories")

ORDERING INFORMATION

EC-PRV - - - -

- OPTIONS**
 Buna Standard **00**
 Viton Standard **V0**
 Buna, Screen **A0**
 Viton, Screen **W0**

- BODIES**
 Without Body
N 1/4 BSP Ports
S #6 SAE Ports

- VOLTAGE**
12 12 VDC
24 24 VDC

Note: Use screen only if flow direction is from (1) to (2).

"A" COIL TERMINATION

- DL** Double Lead
HC DIN 43650 (Hirschman)
JT AMP Jr. Timer - Integral
MP Metri-Pack - Integral

Approximate Coil Weight: .42 lbs. (.19 kg.)

WARNING: The specifications/application data shown in our catalogs and data sheets is intended only as a general guide for the product described (herein). Any specific application should not be undertaken without independent study, evaluation, and testing for suitability.

IP-PRZ-59-MP12 Pilot Operated Proportional, Pressure Reducing/Relieving, Slip-in type

DESCRIPTION

Special cavity, flange retained, slip-in proportional pressure reducing/relieving valve.

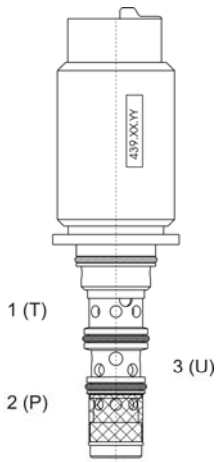
OPERATION

The IP-PRZ-59-MP12 generates a variable pressure in response to a PWM (Pulse Width Modulated) current signal. With no current applied to the proportional solenoid, the inlet port 2(P) is blocked and the regulated port 3(U) is vented to port 1(T).

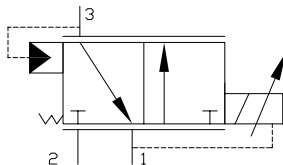
As current is increased, fluid pressure is proportionally controlled at the regulated port 3(U). On attainment of proportionally determined pressure at 3(U), the cartridge shifts to block flow at 2(P), thereby regulating pressure at 3(U). In this mode, the valve also will relieve 3(U) to 1(T) at a variable value over the set reducing pressure.

FEATURES

- Economical slip-in style
- Integral waterproof coil
- Efficient wet-armature construction.
- Hardened parts for long life.



HYDRAULIC SYMBOL



Flanged Retained Product.

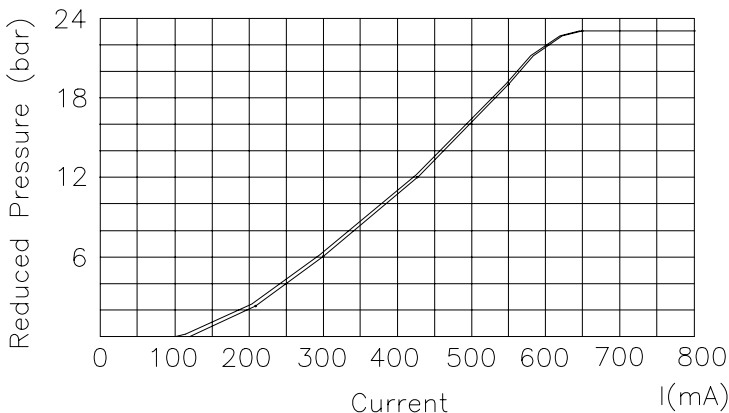
The coil (12 Vdc) is an integral part of the valve and is not serviceable.

Inlet pressure up to 50 bar.

Max regulated pressure can be increased up to 35 bar (factory preset only)

PERFORMANCE

Press. Vs. Current Characteristic
12 VDC coil / 10.2 Ohm



Curve is attained with SAE 40 Grade oil @ 50° C

VALVE SPECIFICATIONS

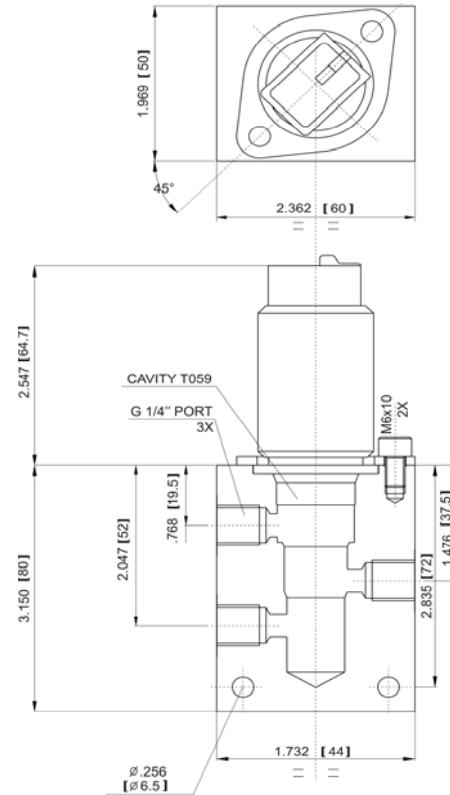
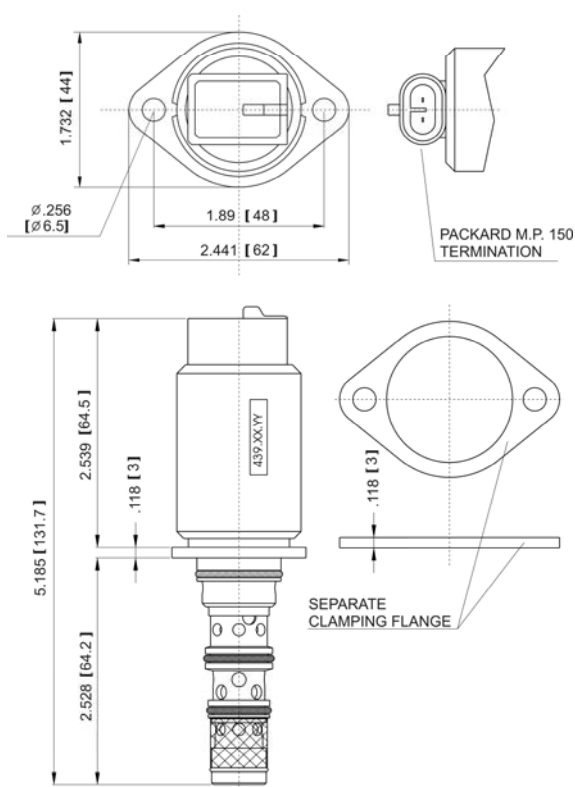
Nominal Flow	7,5 GPM (28 LPM) @ 3 bar Delta P
Max Inlet Pressure	700 PSI (50 bar)
Controlled pressure range	(see graph)
Max internal leakage	< 500 cc/min @ 16 bar
Viscosity Range	36 to 3000 SSU (3 to 647 cSt)
Filtration	ISO 18/16/13
Media Operating Temperature Range	-25°C / +85°C
Weight	.63 lbs. (.29 kg)
Operating Fluid Media	General Purpose Hydraulic Fluid
Cavity	T059
Cavity tools Kit (form tool, reamer, tap)	K-T059
Flange mounting screws and torque	M6x10 / 4 ft-lbs (6 Nm)

COIL SPECIFICATIONS

Current Supply Characteristics	PWM
Rated Current Range	100 – 1100 mA
PWM or Super-imposed Dither Frequency	100 - 150 Hz
Coil Resistance (12 Vdc)	10 Ohm +/- 5% at 68°F (20°C)
Max. Power Consumption	14 Watt
Protection Degree	IP 67 according to IEC 529
Coil Termination	Packard M.P. 150
Connector Color	Green

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DIMENSIONS



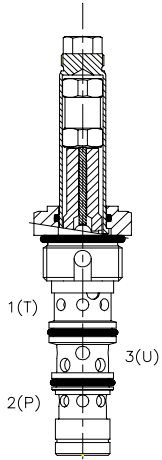
ORDERING INFORMATION

IP - PRZ - 59 - MP12 -

	<u>OPTIONS</u>		<u>BODIES</u>	
Buna Standard	00	Blank	Without Body	
Buna, Screen	A0	N	¼" BSP Ports	
		S	#6 SAE Ports	

WARNING: The specifications/application data shown in our catalogs and data sheets is intended only as a general guide for the product described (herein). Any specific application should not be undertaken without independent study, evaluation, and testing for suitability.

EG-TRZ-42 Pilot Operated Proportional, Pressure Reducing/Relieving



DESCRIPTION

Special cavity, 7/8-14 thread, pilot operated proportional pressure reducing/relieving valve.

OPERATION

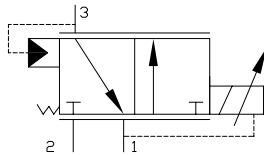
The IP-PRZ-59-MP12 generates a variable pressure in response to a PWM (Pulse Width Modulated) current signal. With no current applied to the proportional solenoid, the inlet port 2(P) is blocked and the regulated port 3(U) is vented to port 1(T).

As current is increased, fluid pressure is proportionally controlled at the regulated port 3(U). On attainment of proportionally determined pressure at 3(U), the cartridge shifts to block flow at 2(P), thereby regulating pressure at 3(U). In this mode, the valve also will relieve 3(U) to 1(T) at a variable value over the set reducing pressure.

FEATURES

- Hardened parts for long life.
- Efficient wet-armature construction.
- Unitized valve/coil.
- Continuous duty rated solenoid.

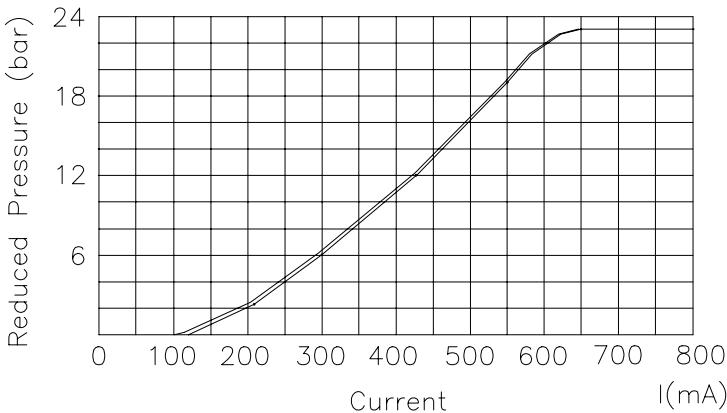
HYDRAULIC SYMBOL



Inlet pressure up to 50 bar.
Max regulated pressure can be increased up to 35 bar (factory preset only)

PERFORMANCE

Press. Vs. Current Characteristic
12 VDC coil / 10.2 Ohm



Curve is attained with SAE 40 Grade oil @ 50° C

VALVE SPECIFICATIONS

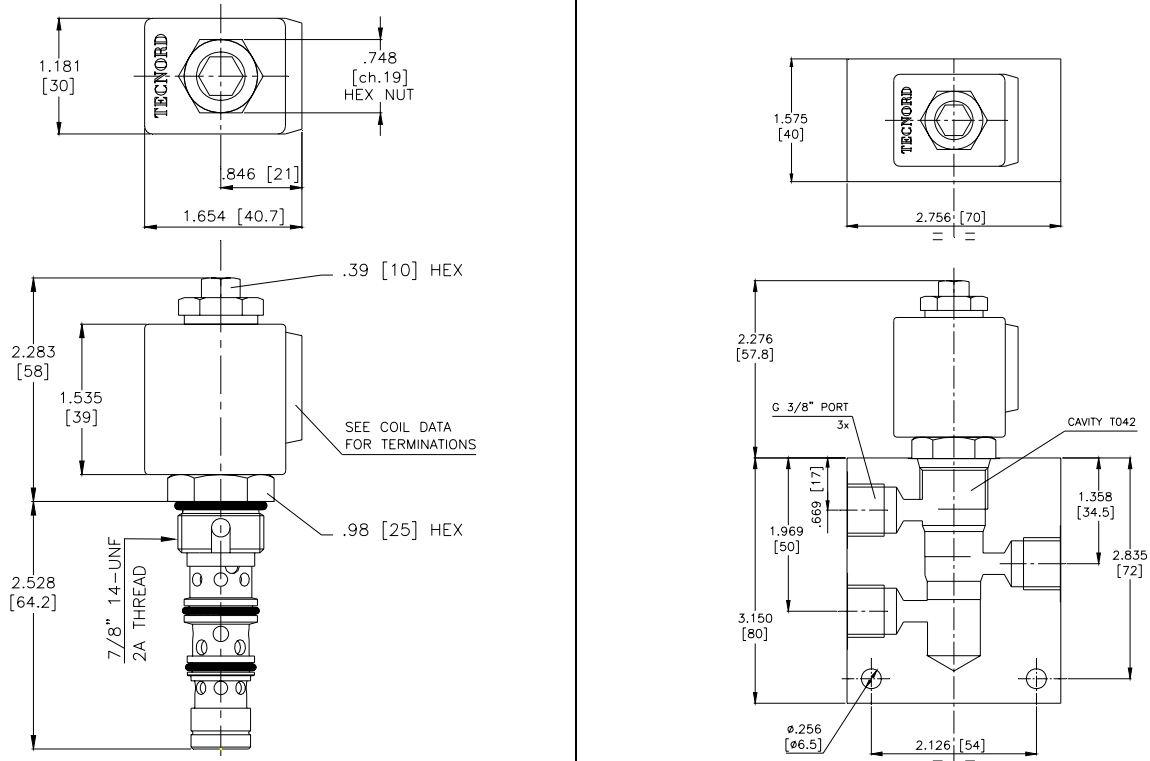
Nominal Flow	7,5 GPM (28 LPM) @ 3 bar Delta P
Max Inlet Pressure	700 PSI (50 bar)
Controlled pressure range	(see graph)
Max internal leakage	< 500 cc/min
Max. Back-pressure at T port	20 bar
Viscosity Range	36 to 3000 SSU (3 to 647 cSt)
Filtration	ISO 18/16/13
Media Operating Temperature Range	-25°C / +85°C
Weight	.63 lbs. (.29 kg)
Operating Fluid Media	General Purpose Hydraulic Fluid
Cartridge Torque Requirements	16 ft-lbs (30 Nm)
Coil Nut Torque Requirements	1-2 ft-lbs (2-3 Nm)
Cavity	T042
Cavity tools Kit (form tool, reamer, tap)	K-T042

COIL SPECIFICATIONS

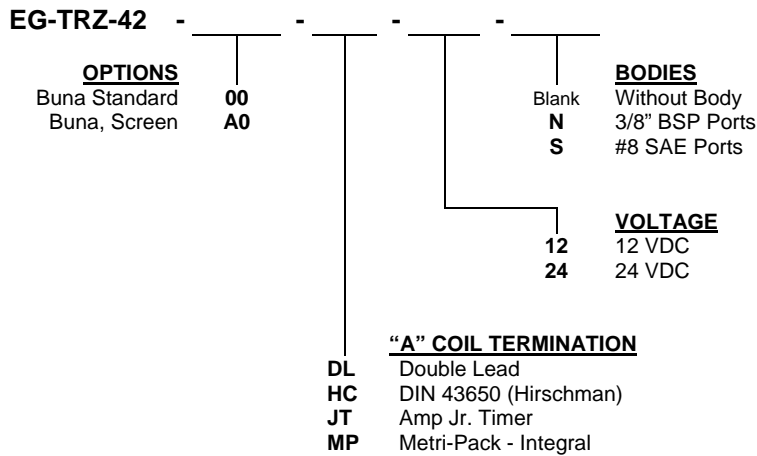
Current Supply Characteristics	PWM (Pulse Width Modulation)
Rated Current Range	100 – 1100 mA
PWM or Super-imposed Dither Frequency	100 - 150 Hz
Coil Resistance (12 Vdc)	10 Ohm +/- 5% at 68°F (20°C)
Max. Power Consumption	14 Watt

WARNING: The specifications/application data shown in our catalogs and data sheets is intended only as a general guide for the product described (herein). Any specific application should not be undertaken without independent study, evaluation, and testing for suitability.

DIMENSIONS



ORDERING INFORMATION



Approximate Coil Weight: .47lbs. (.21 kg.)

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