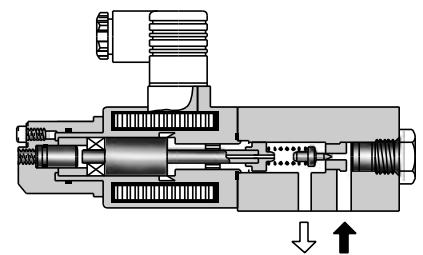


#### Specifications

Model Numbers	EDG-01
Description	
Max. Operating Pres.	24.5 MPa (3550 PSI)
Max. Flow	2 L/min (.53 U.S.GPM)
Min. Flow	0.3 L/min (.08 U.S.GPM)
Pressure Adj. Range MPa (PSI)	Refer to Model Number Designation
Rated Current	EDG-01*-B 800 mA EDG-01*-C 900 mA EDG-01*-H 950 mA
Coil Resistance	10 $\Omega$
Hysteresis	Less than 3%
Repeatability	Less than 1%
Approx. Mass	2 kg (4.4 lbs.)



#### Model Number Designation

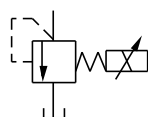
ED	G	-01	V	-C	-1	-PN	T13	-51	*
Series Number	Type of Mounting	Valve Size	Applicable Control <sup>★1</sup>	Pressure Adj. Range MPa (PSI)	Safety Valve	P-Line Orifice	T-Line <sup>★2</sup> Orifice	Design Number	Design Standards
ED: Proportional Electro-Hydraulic Pilot Relief Valve	G: Sub-plate Mounting	01	None: General use	B: 0.5 - 6.9 ( 70 - 1000)	None: Without Safety Valve	PN : Without Orifice (Standard)	T15	51	Refer to <sup>★3</sup>
			V: Vent Control of Relief Valve (Omit if not required)	C: 1.0 - 15.7 ( 145 - 2275)	1 : With Safety Valve		T13		
			H: 1.2 - 24.5 ( 175 - 3550)		T11				

★1. When the valve is to be used for vent control purpose, orifice adjustment is required due to piping capacity limitations. Therefore, consult your Yuken representative in advance.

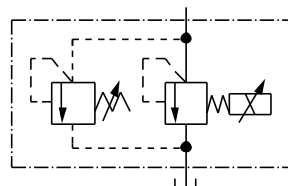
★2. The orifice used as the pilot valve may differ from the standard orifice.

★3. Design Standards: None..... Japanese Standard "JIS" and European Design Standard  
90..... N. American Design Standard

#### Graphic Symbols



Without Safety Valve



With Safety Valve

#### ■ Attachment

##### ● Mounting Bolts

Four socket head cap screws in the table below are included.

Descriptions	Soc. Hd. Cap Screw
Japanese Standard "JIS" European Design Standard	M5 × 45 Lg.
N. American Design Standard	No. 10 - 24 UNC × 1-3/4 Lg.

#### ■ Applicable Power Amplifier

For stable performance, it is recommended that Yuken's applicable power amplifiers be used (for details see Catalogue No. Pub. EC-1305).

Model Numbers: AME-D-10-\*-20

AME-D2-1010-\*-10

SK1022-\*-\*-11

SK1015-11 (For DC power supply)

AMN-D-10 (For DC power supply)

#### ■ Sub-plate

Piping Size	Japanese Standard "JIS"		European Design Standard		N. American Design Standard		Approx. Mass kg (lbs.)
	Sub-plate Model Numbers	Thread Size	Sub-plate Model Numbers	Thread Size	Sub-plate Model Numbers	Thread Size	
1/8	DSGM-01-30	Rc 1/8	DSGM-01-3080	1/8 BSP.F	DSGM-01-3090	1/8 NPT	0.8 (1.8)
1/4	DSGM-01X-30	Rc 1/4	DSGM-01X-3080	1/4 BSP.F	DSGM-01X-3090	1/4 NPT	0.8 (1.8)
3/8	DSGM-01Y-30	Rc 3/8	—	—	DSGM-01Y-3090	3/8 NPT	0.8 (1.8)

- Sub-plates are available. Specify the sub-plate model number from the table above. When sub-plates are not used, the mounting surface should have a good machined finish.

#### ■ Instructions

##### ● Tank-Line Back Pressure

Check that the tank line back pressure does not exceed 0.2 MPa (29 PSI).

##### ● Vent Control

When the valve is used for vent control of relief valves or others, use the pipes of 6 mm (.24 in.) ID. 300 mm (11.8 in.) or less length for connection.  
If the pressure is instable, provide a 1 to 1.5 mm (.04 to .06 in.) diameter orifice to the vent port of the relief valves or others.

##### ● Circuit Pressure Control

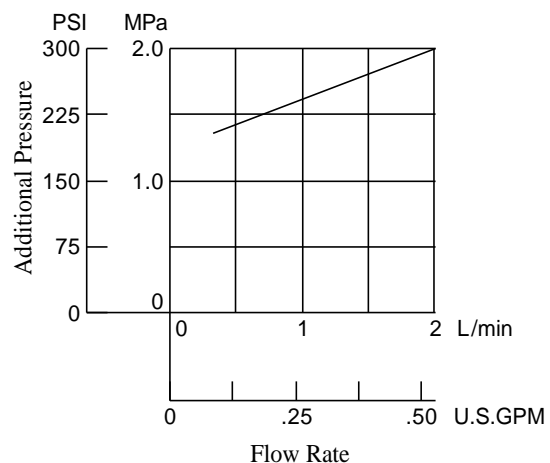
When the pressure in a circuit is directly controlled with this valve, set the trapped oil volume being more than 40 cm<sup>3</sup> (2.44 cu. in.).

##### ● Safety Valve Pressure Setting

The pressure of the safety valve at the maximum flow is preset at the value equal to the upper limit of the pressure adjustment range plus 2 MPa (290 PSI).

In case where the upper limit of operating pressure is low or the upper limit of flow rate to be used is different from the specified maximum flow, please adjust and determine the setting pressure of the safety valve at the value calculated from the following formula.

Setting pressure = (Operating pressure upper limit) + (Additional pressure indicated below)

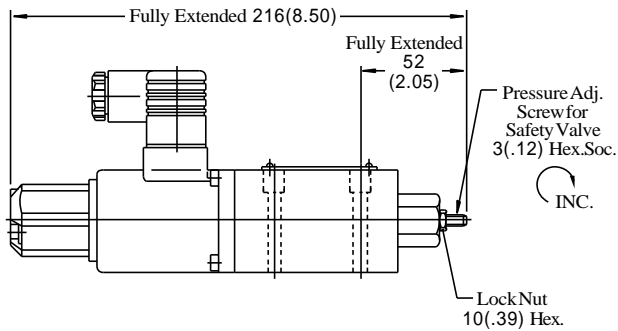


To lower the setting pressure, turn the safety valve pressure adjustment screw anti-clockwise. After adjustment, be sure to tighten the lock nut.

### Installation Drawing

EDG-01\*-\*-1-PNT\*-51/5190

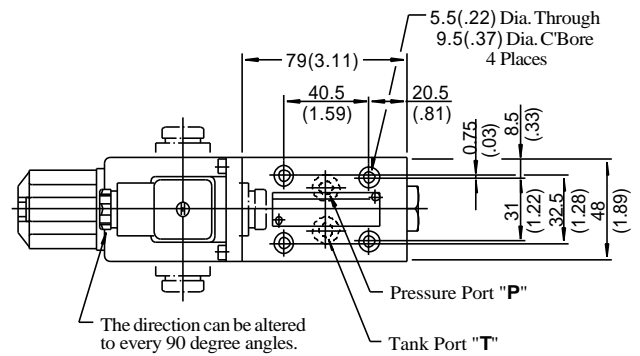
With Safety Valve



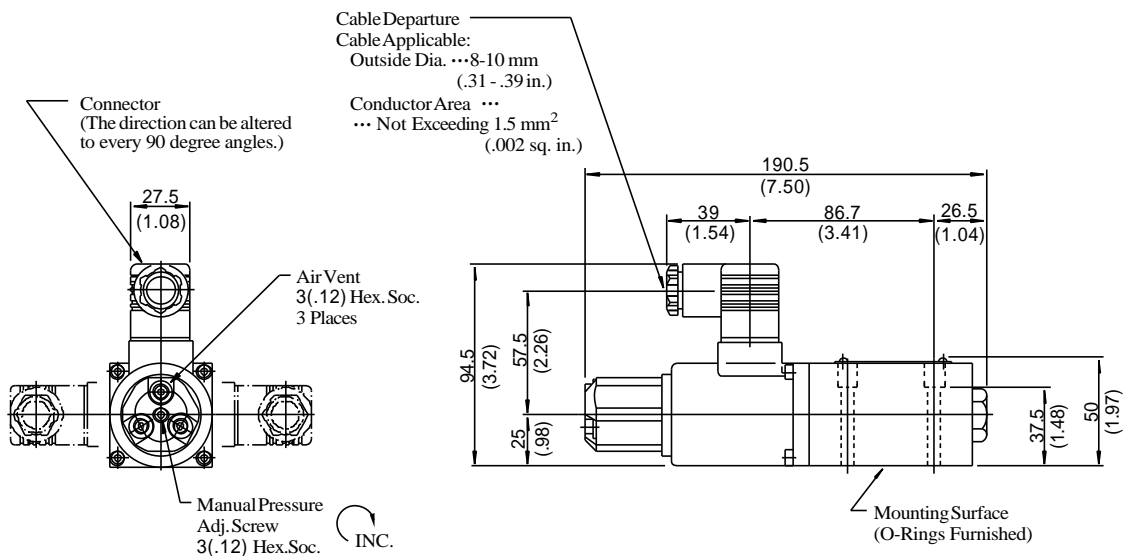
- For other dimensions, refer to the without safety valve.

EDG-01\*-\*-PNT\*-51/5190

Without Safety Valve

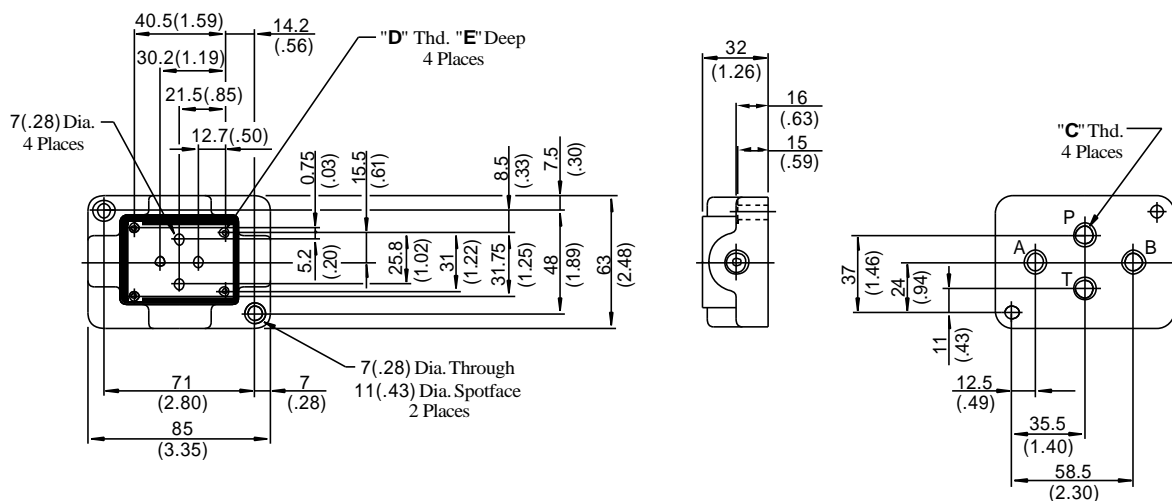


### DIMENSIONS IN MILLIMETRES (INCHES)



#### ■ Sub-plates

DSGM-01\*-30/3080/3090



DIMENSIONS IN  
MILLIMETRES (INCHES)

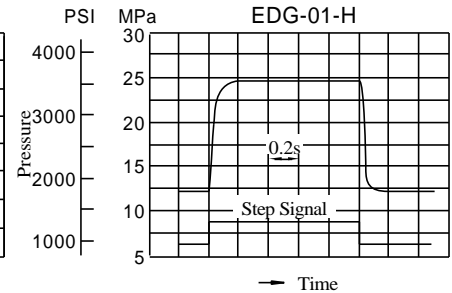
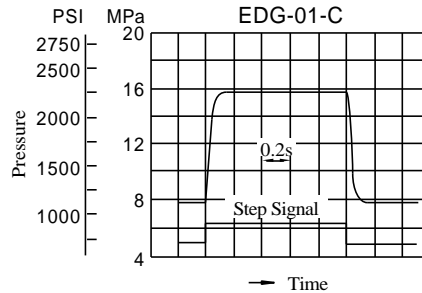
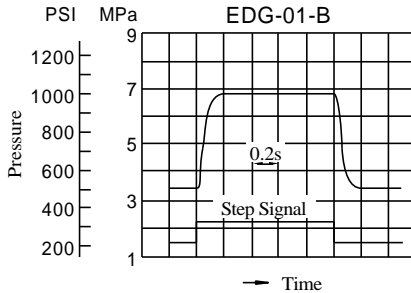
Sub-plate Model Numbers	Thread Size		"E" mm (in.)
	"C" Thd.	"D" Thd.	
DSGM-01-30	Rc 1/8	M5	10 (.39)
DSGM-01-3080	1/8BSP.F		
DSGM-01-3090	1/8NPT	No.10-24 UNC	12 (.47)
DSGM-01X-30	Rc 1/4	M5	10 (.39)
DSGM-01X-3080	1/4BSP.F		
DSGM-01X-3090	1/4NPT	No.10-24 UNC	12 (.47)
DSGM-01Y-30	Rc 3/8	M5	10 (.39)
DSGM-01Y-3090	3/8 NPT	No.10-24 UNC	12 (.47)

#### Typical Performance Characteristics

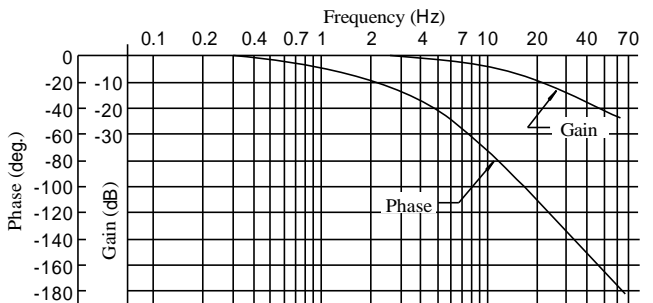
##### Step Response (Example)

These Characteristics have been obtained by measuring on each valve.  
Therefore, they may vary according to a hydraulic circuit to be used.

Flow Rate : 2 L/min (.53 U.S. GPM)  
Trapped Oil Volume : 40 cm<sup>3</sup> (2.44 cu. in.)  
Viscosity : 30 mm<sup>2</sup>/s (141 SSU)

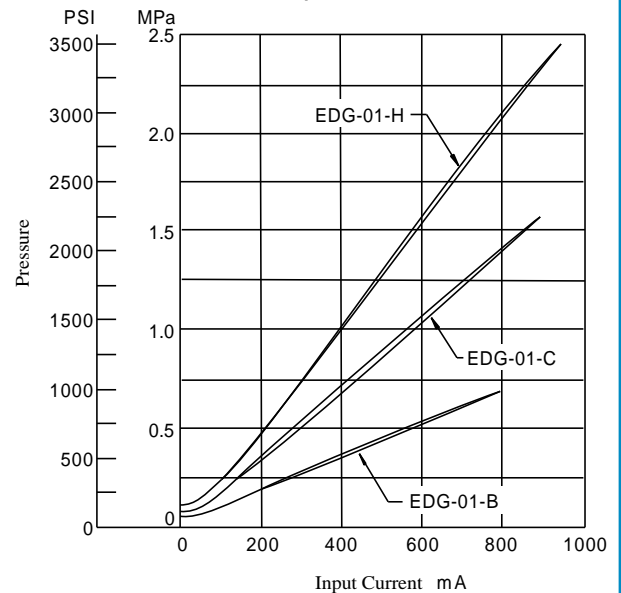


##### Frequency Response

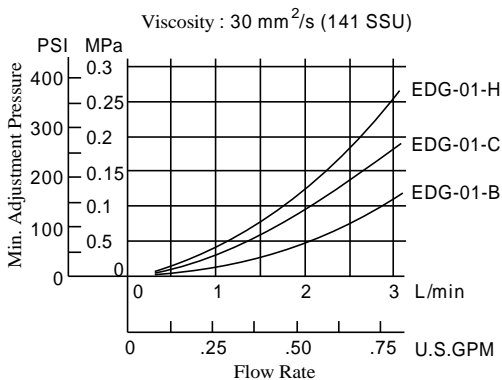


Flow Rate : 2 L/min (.53 U.S. GPM)  
Pressure : 7.8 ± 1.6 MPa (1130 ± 230 PSI)  
Trapped Oil Volume : 30 cm<sup>3</sup> (1.83 cu. in.)  
Viscosity : 30 mm<sup>2</sup>/s (141 SSU)

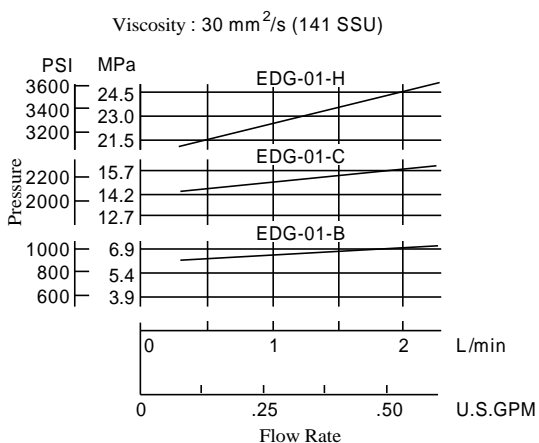
##### Control Pressure vs. Input Current



##### Min. Adjustment Pressure



##### Flow Rate vs. Pressure



##### Viscosity vs. Pressure

