

HY-TS10-26 (Proportional Relief Valve)

Introduction



Description:
A screw-in, cartridge-style, pilot-operated, spool-type hydraulic relief valve, which can be infinitely adjusted across a prescribed range using a variable electric input. The regulated pressure is proportional to the input electrical current. This valve is intended for use as a pressure limiting device in demanding applications.

Operation:
The TS10-26 blocks flow from ① to ② until sufficient pressure is present at ① to open the pilot section by offsetting the electrically induced solenoid force. With no current applied to the solenoid, the valve will relieve at approximately 6.9 bar (100 psi). The optional manual override allows the valve to be set when the electric supply is lost. The manual setting is added to the electric setting. To prevent the system from being over pressurized, the manual override should always be disengaged prior to applying power to the coil.

Technical specification (for application beyond these parameters, please contact with us)

Model	HY-TS10-26
Installation position	When possible, the valve should be mounted below the reservoir oil level. This will maintain oil in the armature preventing trapped air instability. If this is not feasible, mount the valve horizontally for best results.
Storage temperature (°C)	-20°C To +55°C
Ambient temperature (°C)	-20°C To +50°C

Hydraulic specification

Max. operating pressure	241 Bar (3500 psi)
Rated flow	94.6 Lpm (25gpm), DP=13.1bar (190psi) cartridge only, ① to ②, coil energized
Flow path	Free flow: ① to ② coil de-energized; Relieving: ① to ② coil energized
Max. pilot flow	0.76 Lpm (0.2 gpm)
Hysteresis	Less than 3%
Hydraulic fluid	Mineral oil, phosphate-ester
Fluids	7.4~420 cSt (50~2000 sus)
Temperature	-40°C~-+120°C (-40~250°F) , with NBR seals
Cavity	HY10-2, see page G1.3

Electrical specification

Max. control current	12 VDC coils:110A; 24 VDC coils:0.55A
Relief pressure range (from zero to max. control current)	A:6.9-207 bar (100-3000psi); B:6.9-159 bar (100-2300psi); C:6.9-117 bar (100-1700psi)

HY-TS10-26 (Proportional Relief Valve)

Model instruction

HY-TS10-26 - * - * - * - * * *

Proportional relief valve

Maximum relief pressure
A 207bar (3000psi)
B 159bar (2300psi)
C 117 bar (1700psi)

Option
None blank
Manual override M

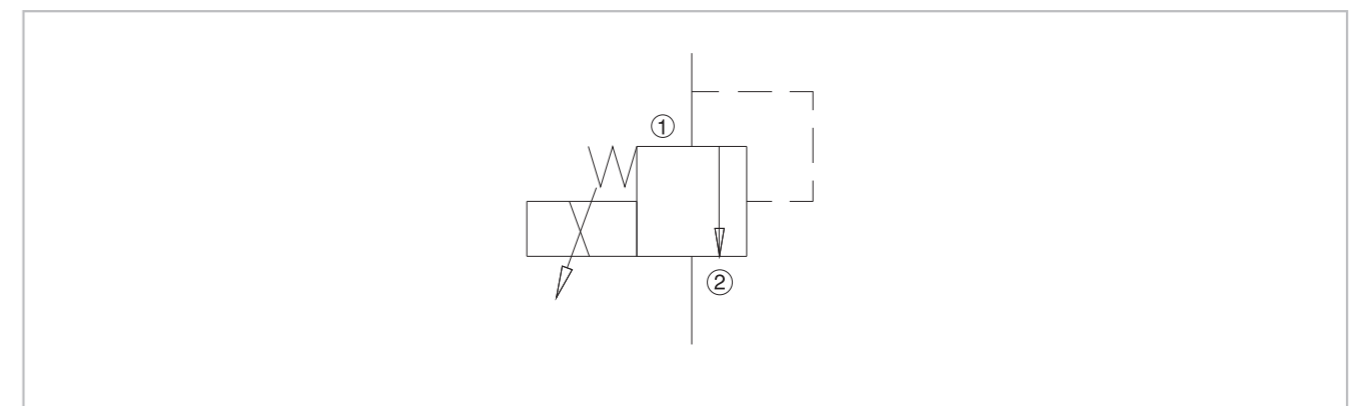
Porting
0 Cartridge only
6T SAE6
8T SAE8
3B 3/8 in. BSP*
4B 1/2 in. BSP*

Std. coil termination (VDC)
DG DIN 43650
ER Deutsch DT04-2P

Voltage
0 Less coil
12 12 VDC
24 24 VDC

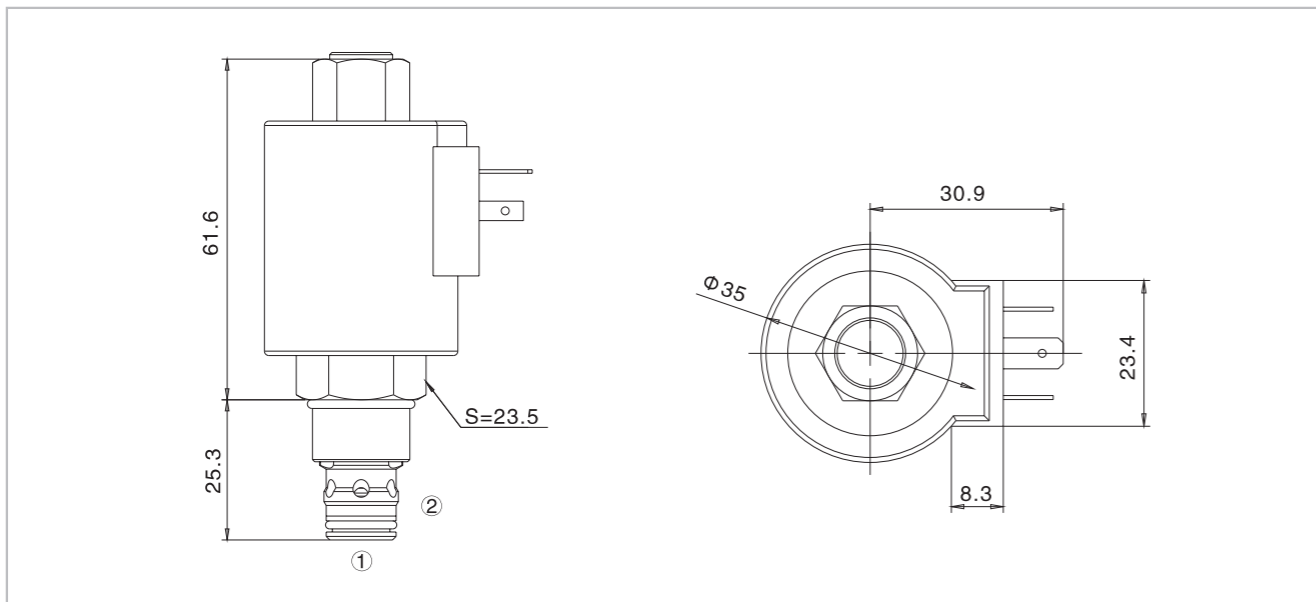
Seals
N NBR Seals
V FPM Seals

Code symbol

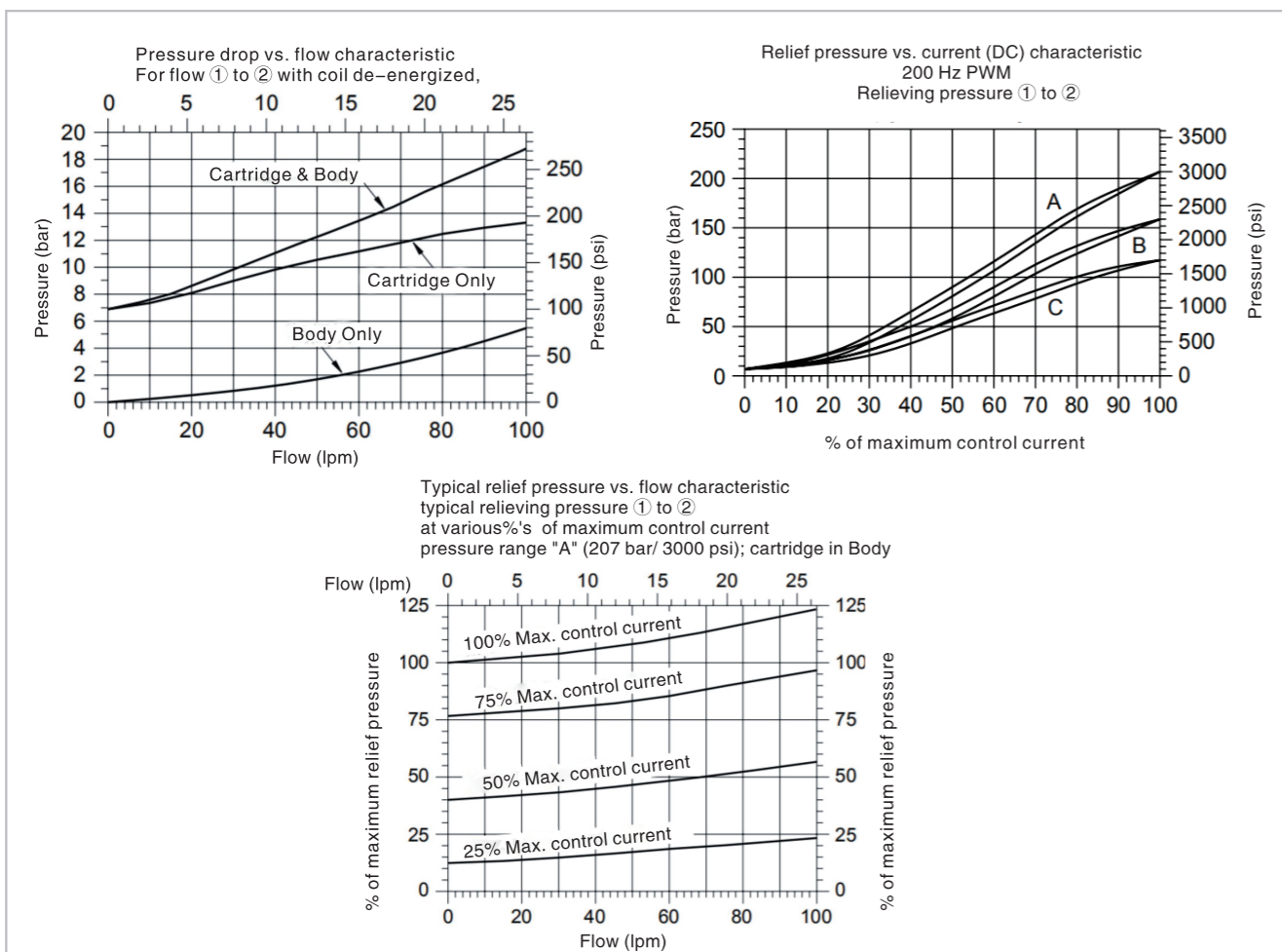


HY-TS10-26 (Proportional Relief Valve)

External dimensions



Specification performance



HY-TS10-27 (Proportional Pilot-operated Relief Valve)

Introduction



Description:

A screw-in, cartridge-style, pilot-operated, hydraulic pressure relief valve, which can be infinitely adjusted across a prescribed range using a variable electric input. Pressure output is inversely proportional to DC current input. This valve is intended for use as a pressure limiting device in demanding applications.

Operation:

The TS10-27 blocks flow from ① to ② until sufficient pressure is present at ? to open the valve by overcoming the preset induced spring force. With no current applied, the valve will relieve at ① 50psi of the spring maximum. Applying current to the coil reduces the induced spring force thereby reducing the valve setting. The regulated pressure is inversely proportional to the input electrical current.
 Note: This valve is ideal for hydraulic fan drive applications. Please contact the manufactory for more information about electronic controller for fan drive applications.

Technical specification (for application beyond these parameters, please contact with us)

Model	HY-TS10-27
Installation position	When possible, the valve should be mounted below the reservoir oil level. This will maintain oil in the armature preventing trapped air instability. If this is not feasible, mount the valve horizontally for best results.
Storage temperature (°C)	-20°C To +55°C
Ambient temperature (°C)	-20°C To +50°C

Hydraulic specification

Max. operating pressure	241 Bar(3500 psi)
Minimum operating dither/ pulse frequency	75.7 Lpm (20 gpm), DP=14.8 bar(215 psi) cartridge only, ① to ②, coil energized
Flow path	Free flow: ① to ② coil energized; Relieving: ① to ② coil de-energized
Max. pilot flow	0.76 Lpm (0.2 gpm)
Hysteresis	Less than 3%
Hydraulic fluid	Mineral oil, phosphate-ester
Fluids	7.4~420 cSt (50~2000 sus)
Temperature	-40°C~+120°C (-40~250°F) , With NBR seals
Cavity	HY10-2, see page H.1.3

Electrical specification

Max. control current	12 VDC coils:1.10A; 24 VDC coils:0.55A
Relief pressure range (from zero to max. control current)	A:207~10.3 bar (3000~150 psi); B:138~10.3 bar (2000~150 psi); C: 69~10.3 bar (1000~150 psi)