- For sub-plate mounting
- Porting pattern to DIN 24 340 form E and ISO 6264
- For threaded connection and installation in manifolds
- 5 pressure ratings
- Unloading operation via a built-on solenoid directional valve
- 2 adjustment versions
· Knob
· Adjusting bolt with protective cap
- Optional switching shock dam ⁞ G/ capz /chingwithcap

Function and configuration

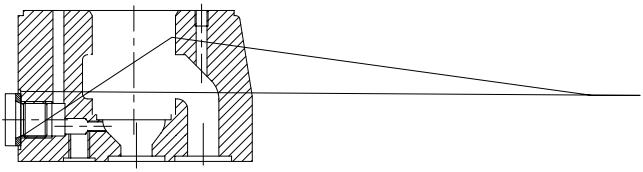
Types DB and DBW pressure valves are pilot operated pressure relief valves, used to limit (DB) or limit and unload (DBW) pressure via solenoid operation. The pressure relief valves consist of main valve (1) with main spool cartridge (3) and pilot operated valve (2) with pressure adjustment elements.

· Type DB pressure relief valves

The pressure of channel A acts on the main spool (3), meanwhile, pressure is applied via control line (6) and (7) with orifice (4) and (5) on the spring loaded side of the main spool (3) and on the ball (8) in the pilot operated valve(2). If the pressure in channel A rises excess the setting value at the spring (9), the ball (8) opens against the spring (9). As for the internal control forms, signal is given by control oil (10) and (6) supplied by channel A. The oil from the spring loaded side of the main spool (3), via control line (7), orifice(11), and ball (8), then flows into spring chamber (12). External drain - type DB...L5X...Y, oil flows via control line(14) into the tank. In virtue of the orifice (4) and (5), the pressure drop arises at the main spool (3), and the connection from port A to port B is open while theoperational pressure setting maintained stable. The pressure relief valve may unload or shift the different pressure (second rated pressure value) in virtue of external control port X (15).

· Type DBW pressure relief valves

The function of pressure relief valve type DBW is the same with pressure relief valve type DB, the difference is that valve type DBW operates unloading via a built-on directional valve(16).



Function and configuration

- **Pressure relief valves with switching shock damping**

Technical data

Fixing position			Optional				

Ordering code

Without directional valve= No code
With directional valve=W

Pressure relief valve, pilot operated = No code
Pilot operated valve = C
(without main spool cartridge, no mark for nom. size)
Pilot operated valve with main spool cartridge = C
(marked with size 10 or 30)
Remote pressure adjusting valve =T [1]
(no mark for nom. size)

Nominal size	Connection mode	
	sub-plate mounting	Threaded connection
	Marked	
10	=10	=10
15		=15
20	=20	=20
25		=25
32	=30	=30

For DBW:
Normally closed =A
(load breakaway, unload electrified)
Normally open =B
(contrary to the above)

Sub-plate mounting = -
Threaded connection = G

Rotary Knob =1
Adjusting bolt with protective cap =2

Series L50 to L59 =L5X
(L50 to L59: unchanged installation and connection dimensions)

1) DBT/DBWT are the same as DBC/DBWC, except that the small hole against the main valve hole

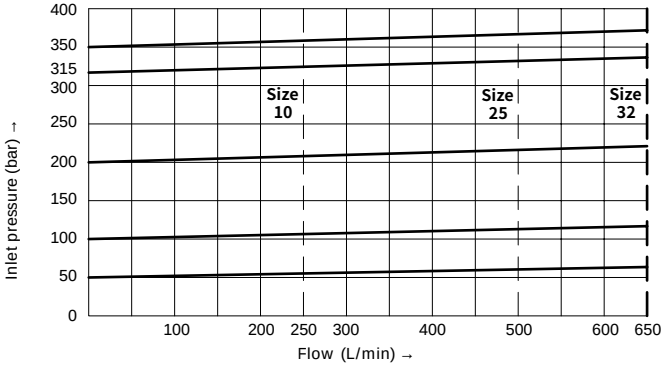
Notes:

1. The pilot relief valves may have lower starting pressure and higher flow, but have higher internal leakage, If lower leakage is required, such as safety valve, it is recommended to choose direct operated pressure relief valves, DBD type.
2. The integrative performance of pilot relief valves with 'U' is not good as the standard version, except lower opening pressure.

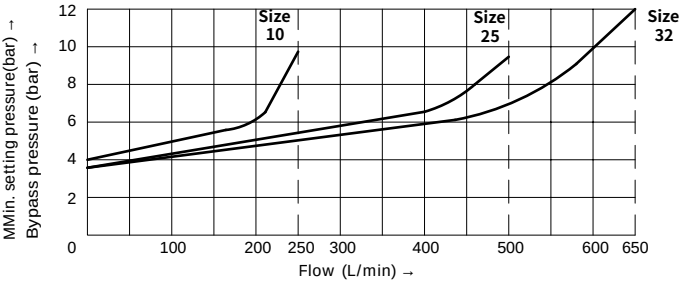
Performance curves (Measured at ϑ_{oil} =40 ± 5 , using HLP 46)

The characteristic curves are measured with external pilot oil drain at zero pressure. With internal pilot oil drain, the inlet pressure at port B should be added to the value presented as curves.

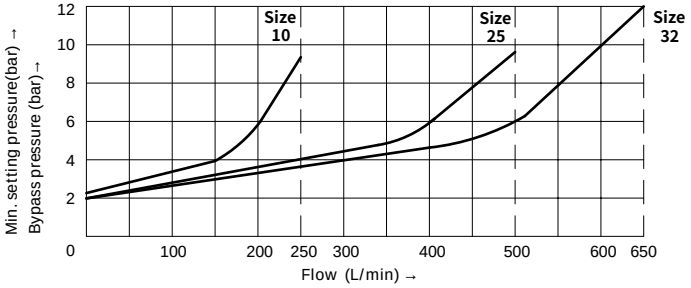
Inlet pressure in relation to the flow-rate



inimum setting pressure and bypass pressure in relation to the flow-rate!
· Standard version



inimum setting pressure and bypass pressure in relation to the flow-rate!
· Version "U"



Unit dimensions

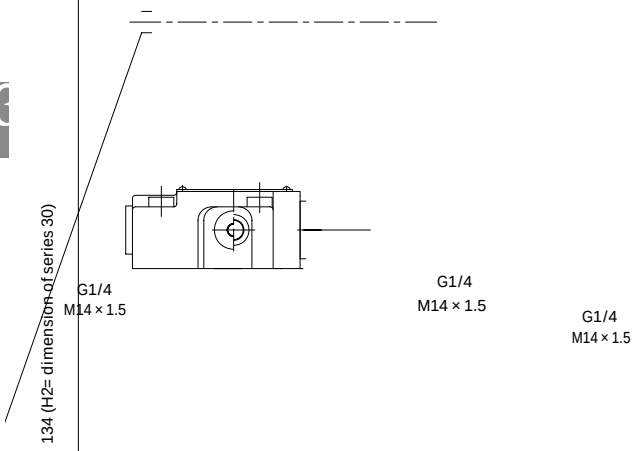
(Dimensions in mm)

· Sub-plate mounting

Requirement for

Unit dimensions

(Dimensions in mm)



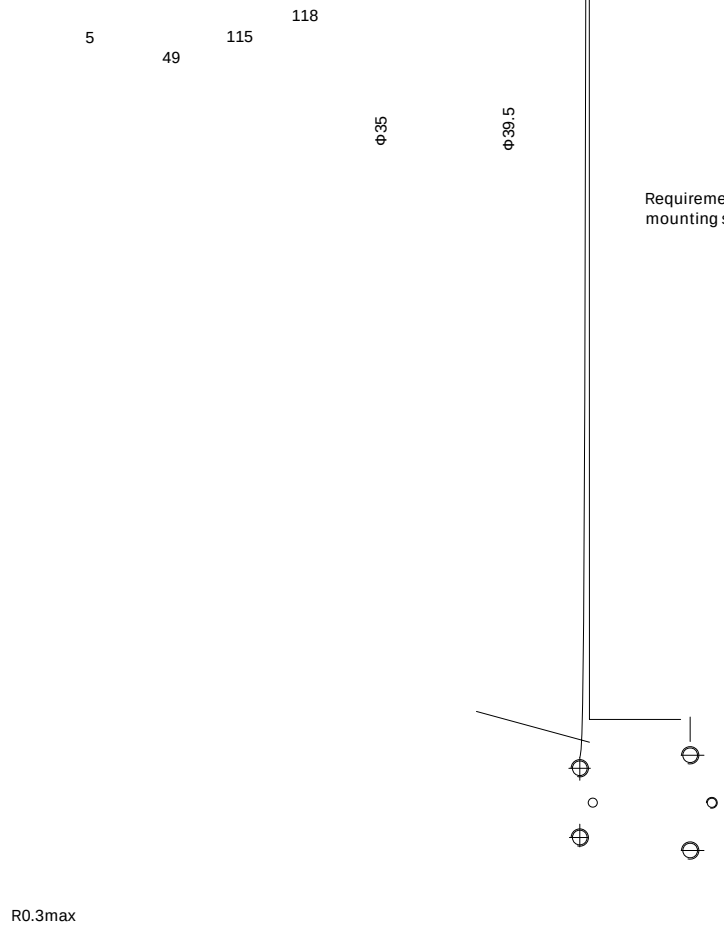
DB..G..L5X outline and installation dimension

DB..G..30 outline and installation dimension

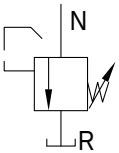
Unit dimensions

(Dimensions in mm)

·With main spool valve (DBC10 or 30) or without main spool valve (DBC, DBT)



Remote pressure adjusting valve



6 α D Ş