

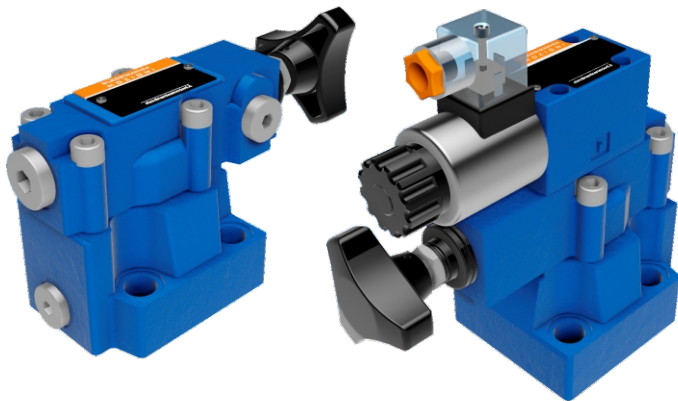


VALVOLE DI PRESSIONE

DB & DBW

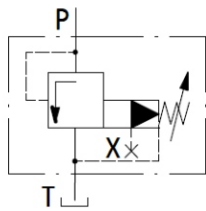
PILOT OPERATED PRESSURE
RELIEF VALVES

DB AND DBW TYPE VALVE IS A PILOT OPERATED PRESSURE RELIEF VALVE, 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.

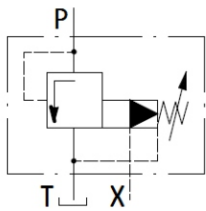


TECHNICAL DATA

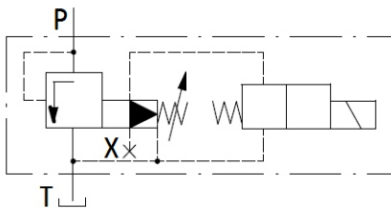
SIZE		10	15	20	25	30
MAX. FLOW RATE (L/MIN)	SUPLATE	250	–	50	–	650
	THREADED	250	500	500	500	650
OPERATING PRESSURE (MPA)	A,B,X,P PORTS	350				
	PORT T (DB)	315				
MAX. BACK PRESSURE (MPA)	PORT Y (DB)	315				
	PORT Y OR T (DBW)	AC UP TO 160, DC UP TO 210				
MAX. SETTING PRESSURE (MPA)		5; 10; 20; 31.5; 35				
FLUID TEMPERATURE (°C)		-20 – 80				
FILTRATION ACCURACY (µm)		25				
VALVE BODY (MATERIAL)		CASTING PHOSPHATING SURFACE				



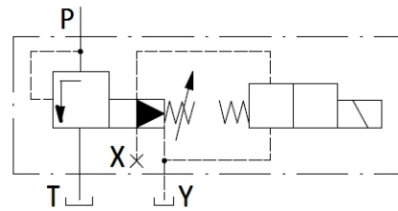
DB.../...



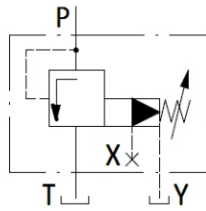
DB.../...X...



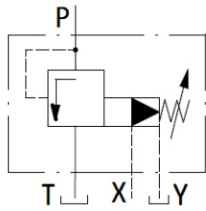
DBW.../...



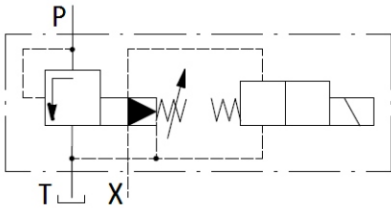
DBW.../...Y...



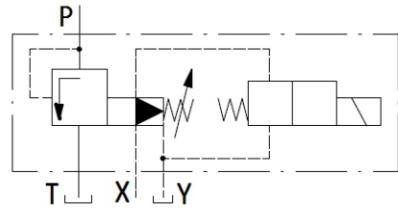
DB.../...Y...



DB.../...XY...



DBW.../...X...



DBW.../...XY...

TECHNICAL DATA

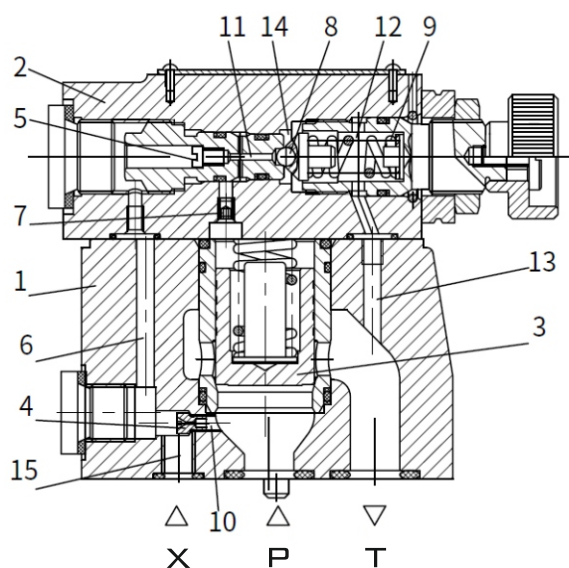
TYPE DB PRESSURE RELIEF VALVE

THE PRESSURE OF CHANNEL P 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 P 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 P. 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). INTERNAL DRAIN - TYPE DB...50...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 P TO PORT T IS OPEN WHILE THE OPERATIONAL 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).

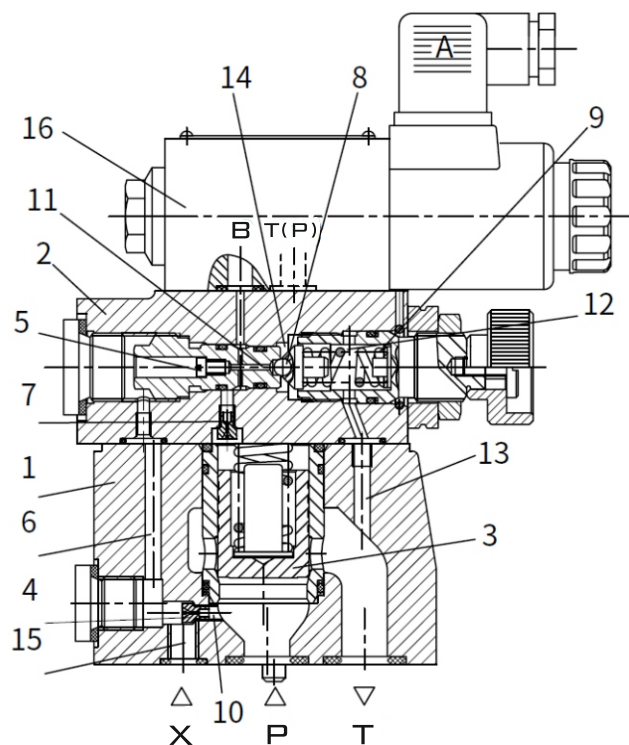
TYPE DBW PRESSURE RELIEF VALVE

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).

DB



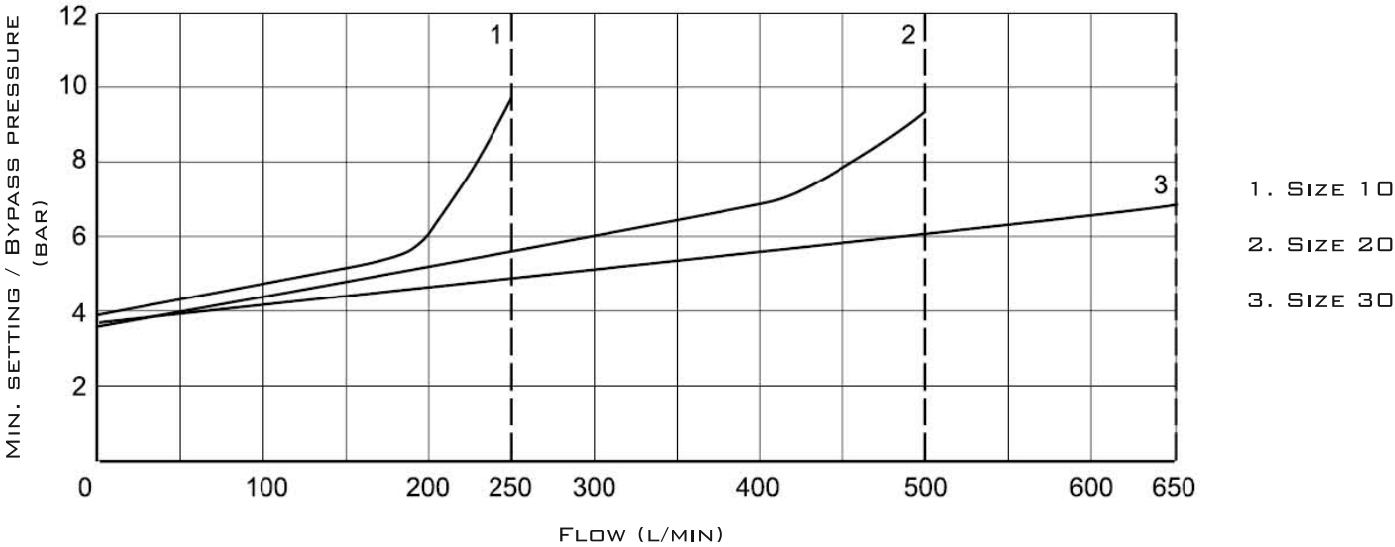
DBW



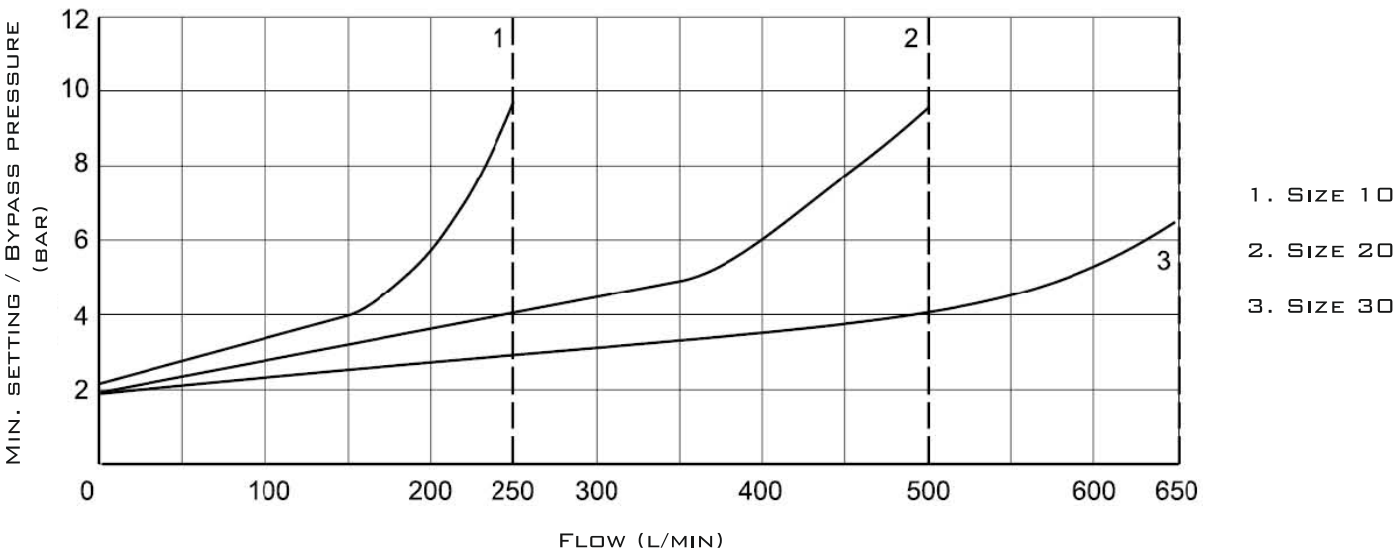


CHARACTERISTIC CURVES

CHARACTERISTIC OF MIN. SETTING PRESSURE BYPASS / BYPASS PRESSURE AND FLOW
STANDART



CHARACTERISTIC OF MIN. SETTING PRESSURE BYPASS / BYPASS PRESSURE AND FLOW
TYPE "U"



ATTENTION!
THE CURVES MEASURED WITHOUT PRESSURE WHEN CONTROL OIL BACK TO THE TANK.
REFERS TO THE BACK INTO HOUSING OF THE CONTROL OIL, THE PRESSURE OF "T" PORT HAS
INCREASED AGAINST THE INPUT PRESSURE.
THE CURVES ARE AVAILABLE WHEN THE OUTPUT PRESSURE $P_t=0$ WITHIN THE FLOW RANGES.

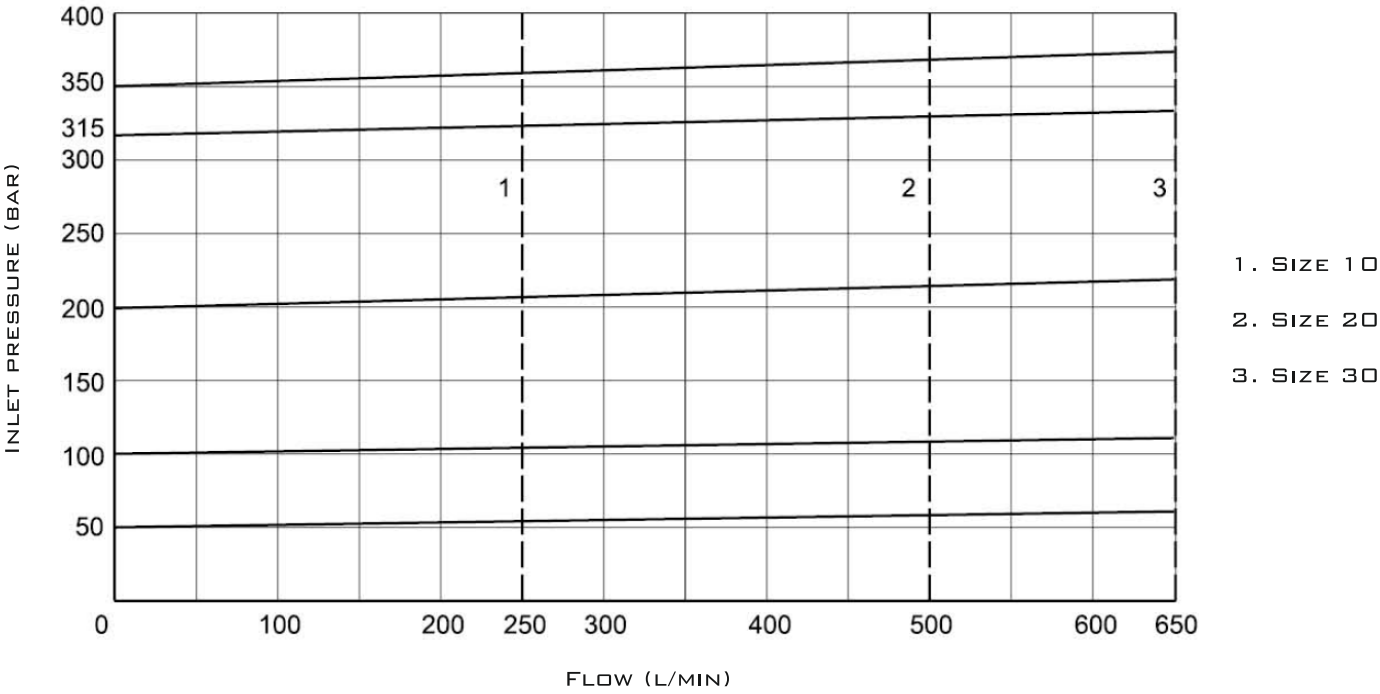
SEE ALSO:
DBD, ZDB



PILOT OPERATED PRESSURE
RELIEF VALVES

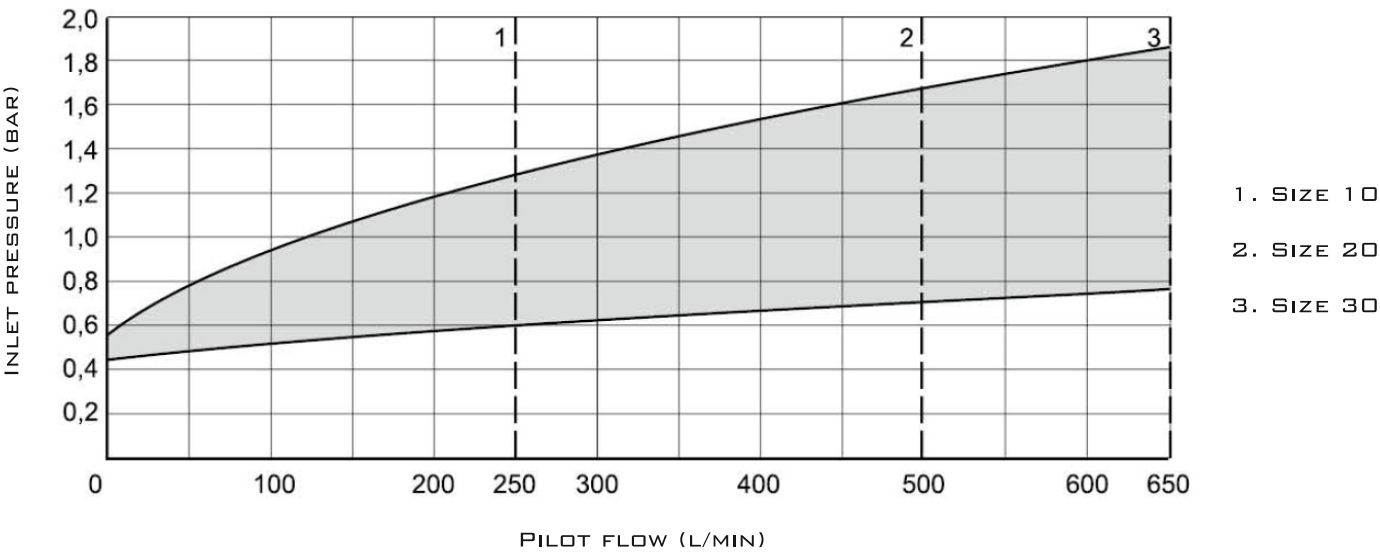
CHARACTERISTIC CURVES

CHARACTERISTIC OF INLET PRESSURE AND FLOW



ATTENTION!
REFERS TO THE BACK INTO HOUSING OF THE CONTROL OIL, THE PRESSURE OF “T” PORT
HAS INCREASED AGAINST THE INPUT PRESSURE.

PILOT FLOW



THREADED MOUNTING

The technical drawing illustrates the dimensions for two solenoid valve models: DB..G..50 and DB..G..30. The top section shows the DB..G..50 model with its outline and installation dimensions. The bottom section shows the DB..G..30 model with its outline and installation dimensions. The drawing includes various views: a side view, a top view, and a cross-sectional view. Key dimensions are labeled with numbers and symbols, including diameters (Φ), lengths (L), and heights (H). The DB..G..50 model has a maximum length of 156mm and a maximum height of 18mm. The DB..G..30 model has a maximum length of 169mm and a maximum height of 18mm. The drawing also shows the internal components of the valve, including the solenoid coil, armature, and valve body.

DB..G..50 OUTLINE AND INSTALLATION DIMENSION

DB..G..30 OUTLINE AND INSTALLATION DIMENSION

MODEL	D 1		D2	D3	D3	B1	H1	H2	H3	H4	L1	L2	L3
	METRIC	INCH											
DB10G	M22X1.5	G 1/2"	34	14	9	63	27	125	10	62	85	14	62
DB15G	M27X2	G3/4"	42	16						57			
DB20G	M33X2	G 1"	47	18									
DB25G	M42X2	G 1 1/4"	58	20	11	70	42	138	13	66	100	18	72
DB30G	M48X2	G 1 1/2"	65	22									

	VALVOLE DI PRESSIONE	DB & DBW																				
		PILOT OPERATED PRESSURE RELIEF VALVES																				
ORDER CODE																						
<table><tr><td>DB</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>50</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>			DB								50											
DB								50														
NO CODE= =WITHOUT SOLENOID VALVE W=WITH SOLENOID VALVE		NO CODE=PILOT OPERATED VALVE C=PILOT OPERATED WITHOUT MAIN CARTRIDGE (NOT MARKED SIZE) C=PILOT OPERATED WITH MAIN CARTRIDGE (MARKED SIZE) T=REMOTE PRESSURE ADJUSTING VALVE																				
SUBPLATE MOUNTING SIZE: 10, 20, 30 THREADED CONNECTION SIZE: 10, 15, 20, 25, 30		NO CODE=SUBPLATE MOUNTING G=THREAD CONNECTION																				
1=ROTARY KNOB 2=ADJUSTING BOLT WITH PROTECT COVER 3=LOCKABLE KNOB WITH SCALE 7=KNOB WITH SCALE																						
30=30 SERIES 50=50 SERIES																						
50=MAX. SETTING PRESSURE 5 MPA 100=MAX. SETTING PRESSURE 10 MPA 200=MAX. SETTING PRESSURE 20 MPA 315=MAX. SETTING PRESSURE 31.5 MPA 350=MAX. SETTING PRESSURE 35 MPA																						
NO CODE= =NBR SEALS V=FKM SEALS																						
ONLY FOR PORT Y1 IN PILOT VALVE OF THREADED CONNECTION OR SUBPLATE MOUNTING NO CODE=INCH THREAD 2=METRIC THREAD																						
FOR DBW../...S...: R12=ORIFICE Ø1.2 IN PORT B OF DIRECTIONAL VALVE																						
FOR DBW: Z4=ELECTRICAL PLUG WITHOUT LAMP Z5L=ELECTRICAL PLUG WITH LAMP																						
FOR DBW: N=WITH HAND OVERRIDE																						
G12=DC12V G24=DC24V W110R=AC110V W220R=AC220V																						
FOR DBW: 6E=WITH HIGH PERFORMANCE DIRECTIONAL SPOOL VALVE																						
NO CODE=WITHOUT SWITCHING SHOCK DAMPING S=WITH SWITCHING SHOCK DAMPING (ONLY WITH TYPE DBW)																						
NO CODE=STANDARD TYPE U=VALVE FOR LOWER OPENING PRESSURE																						
NO CODE=INTERNAL SUPPLY, INTERNAL DRAIN X=EXTERNAL SUPPLY, INTERNAL DRAIN Y=INTERNAL SUPPLY, EXTERNAL DRAIN XY=EXTERNAL SUPPLY, EXTERNAL DRAIN																						