

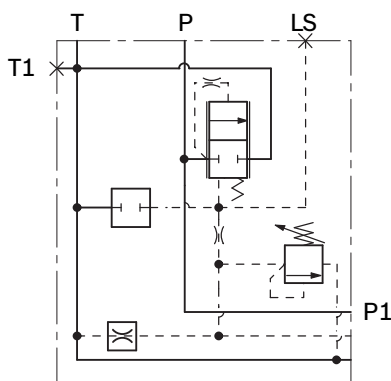
# Inlet element with by-pass compensator, LS relief for open center control block and solenoid operated unloading

TE-13-\_\_-

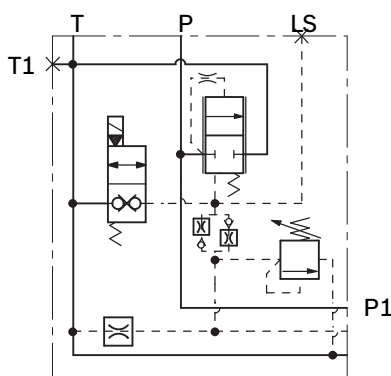


DV0095

## HYDRAULIC - SYMBOL



Without unloading valve and fixed pilot restrictor



With unloading valve and STR pilot restrictor

## Description

The inlet elements TE-13-\_\_ are employed to connect the external P, T lines to the P, T channels inside the ED elements of the Directional Valve Assembly and to connect the LS line for inlet flow control. An LS controlled 3-way compensator provides pressure compensated flow to the ED elements of the Directional Valve Assembly, any excess flow is bypassed to tank at LS pressure plus compensator spring bias. When the ED elements are in neutral position, the compensator bypasses the entire flow to tank at a bypass pressure equal to the compensator spring bias. In case the LS pressure reaches the relief pressure setting, the compensator unloads to tank the entire flow at relief pressure plus compensator spring bias. The TE-13 can be equipped with a NO or NC Solenoid Unloading VEI Cartridge, which can be employed to unload to tank the LS signal and bypasses the entire flow to tank at a bypass pressure equal to the compensator spring bias. The TE-13 is provided with non compensated bleed down orifice. The TE-13-.... is made of zinc plated cast iron. The coil S8-356 must be ordered separately (refer to RE18325-90).

## Technical Data (for applications outside these parameters, please consult us)

### General

TE13	kg [lbs]	3.6 [7.9]
Ambient Temperature	°C [°F]	-20....+50 [-4....+120]

### Hydraulic

Maximum pressure	bar [psi]	310 [4500]
Maximum inlet flow for TE-13- -3 version	l/min [gpm]	33 [8.7]
Maximum inlet flow for TE-13- -5 version	l/min [gpm]	50 [13.2]
Maximum inlet flow for TE-13- -8 version	l/min [gpm]	80 [21.1]
Maximum inlet flow for TE-13- -0 version	l/min [gpm]	120 [31.7]
Max. rated flow at P1	l/min [gpm]	Variable*

### Hydraulic fluid

General properties: it must have physical lubricating and chemical properties suitable for use in hydraulic systems such as, for example:

Mineral oil based hydraulic fluids HL (DIN 51524 part 1).  
Mineral oil based hydraulic fluids HLP (DIN 51524 part 2).  
For use of environmentally acceptable fluids (vegetable or polyglycol base) please consult us.

Fluid Temperature	°C [°F]	-20....+80 [-4....+176] (NBR)
Permissible degree of fluid contamination		ISO 4572: $\beta_x \geq 75$ X=10...12 ISO 4406: class 19/17/14 NAS 1638: class 8
Viscosity range	mm <sup>2</sup> /s	5....420

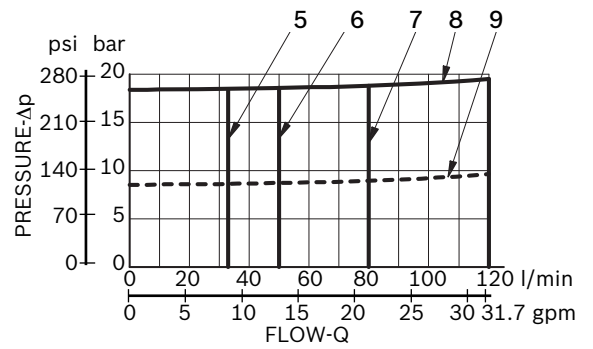
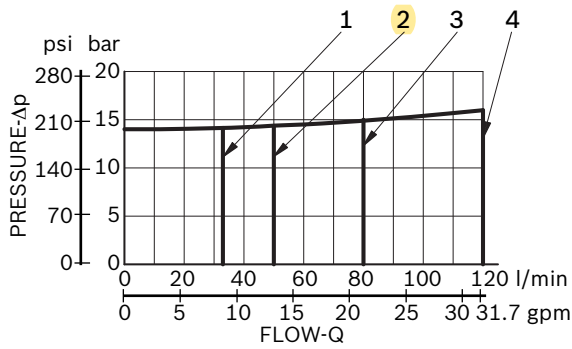
\* The maximum regulated flow on P1 line is related both to the pressure drop of the ED valve assembled on the group and their spools size.



### Characteristic curves

Measured with hydraulic fluid ISO-VG32 at  $45^{\circ} \pm 5^{\circ} \text{ C}$  [ $113^{\circ} \pm 9^{\circ} \text{ F}$ ]; ambient temperature  $20^{\circ} \text{ C}$  [ $68^{\circ} \text{ F}$ ].

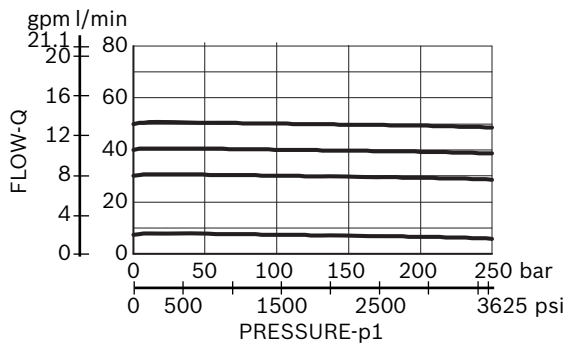
#### Pressure drop trough compensator



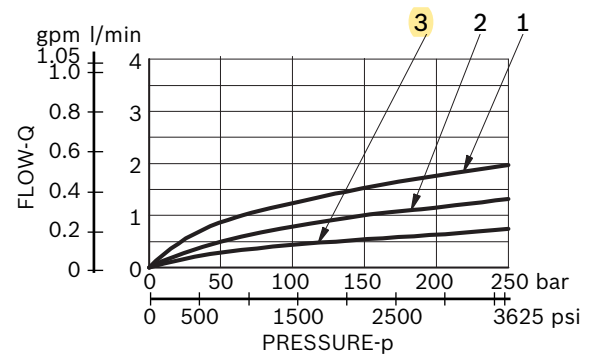
- 1: TE-13-\_-3- 14 Version
- 2: TE-13-\_-5- 14 Version
- 3: TE-13-\_-8- 14 Version
- 4: TE-13-\_-0- 14 Version

- 5: TE-13-\_-3- 18/R8 Version
- 6: TE-13-\_-5- 18/R8 Version
- 7: TE-13-\_-8- 18/R8 Version
- 8: TE-13-\_-0- 18/R8 Version
- 9: TE-13-\_-0- R8 lowest adjustable setting

#### Flow rate compensation (P1)

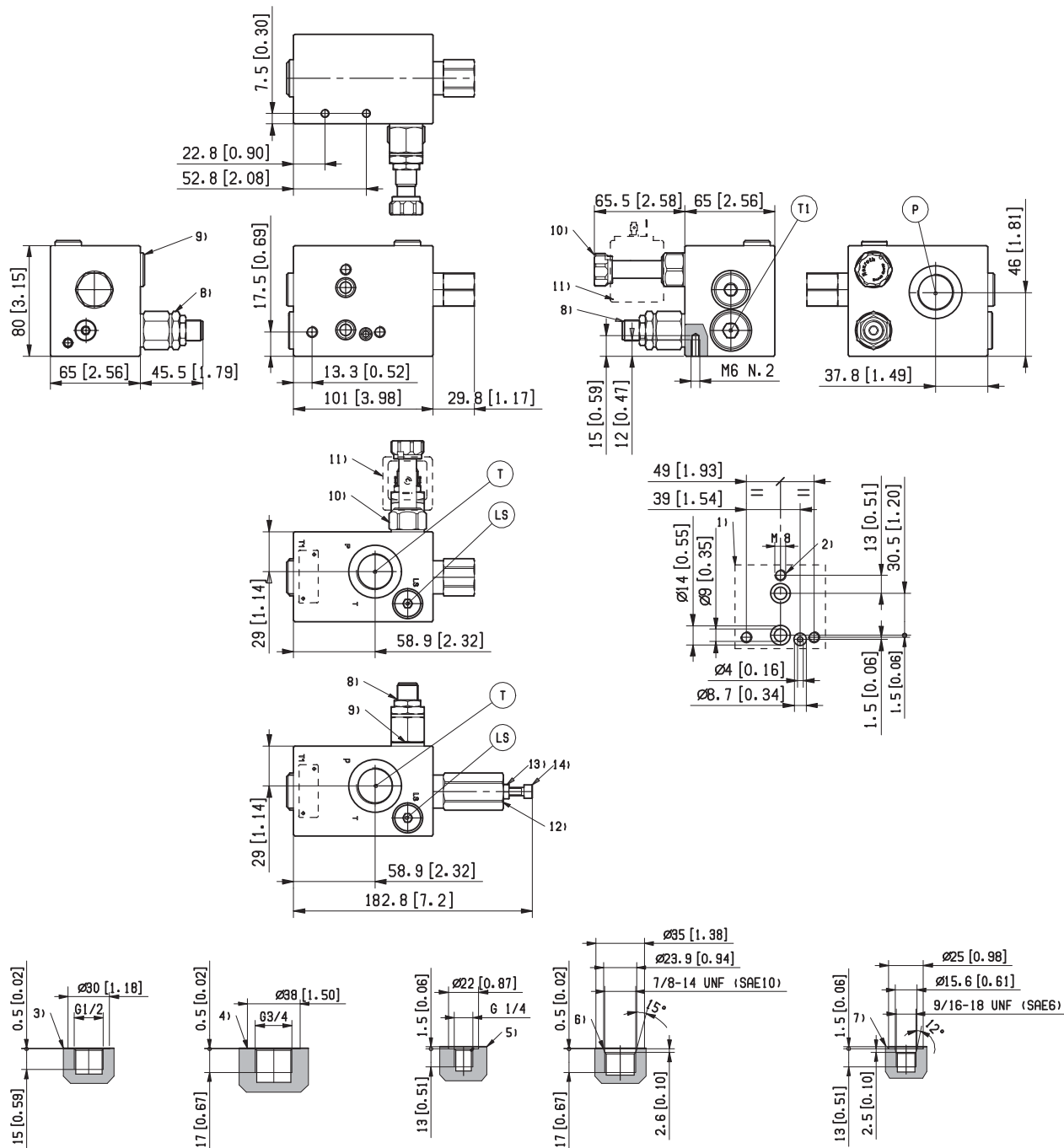


#### LS drain



- 1: Ø0.5mm fixed orifice
- 2: Ø0.4mm fixed orifice
- 3: Ø0.3mm fixed orifice

## External Dimensions and Ports



- 1 Flange specifications for coupling to the ED Directional Valve Elements.
- 2 For tie rod and tightening torque information see data sheet RE 18301-90.
- 3 Hydraulic ports P and T G1/2, inlet elements TE-13-03-...
- 4 Hydraulic ports P and T G3/4, inlet elements TE-13-04-...
- 5 Test point LS port G1/4, inlet elements TE-13-03-... and TE-13-04.
- 6 Hydraulic ports P and T SAE10, inlet element TE-13-57-...
- 7 Test point LS port SAE6, inlet element TE-13-57-...
- 8 Pressure relief cartridge VMD1020, with screw type adjuster.
- 9 Unloading valve CA-08A-2N cavity plug TE-13-...-...-P-.
- 10 Solenoid Unloading cartridge VEI-8A-2T-06... type.
- 11 VEI Coil S8-356 ordered separately.
- 12 Both adjustable cracking pressure version (R8) and locking option (BR).
- 13 Maximum torque of the nut 5-6 Nm (R8 and BR).
- 14 Maximum torque of the locking screw (BR) 9-10 Nm.