RE 18300-13/07.12

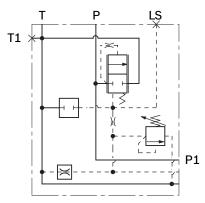
1/4

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

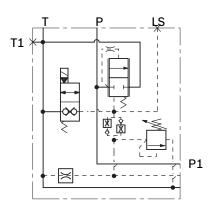
TE-13- -



HYDRAULIC - SYMBOL



Without unloading valve and fixed pilot restrictor



With unloading valve and STR pilot restrictor

Description

General

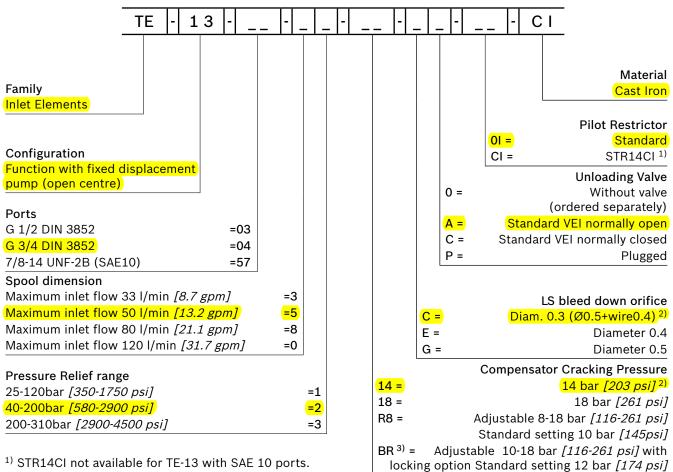
The inlet elements TE-13— are employed to connect the external P, T lines to the P, T channels inside the ED elements of the Directional Valve Assembly and to connect the LS line for inlet flow control. An LS controlled 3-way compensator provides pressure compensated flow to the ED elements of the Directional Valve Assembly, any excess flow si 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 unloads 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)

TE13 k	g [lbs]	3.6 [7.9]
Ambient Temperature	°C <i>[°F]</i> -20		.+50 <i>[-4+120]</i>
Hydraulic			
Maximum pressure	bar <i>[psi]</i>		310 <i>[4500]</i>
Maximum inlet flow for TE-133 version	l/min [gpm]		33 [8.7]
Maximum inlet flow for TE-135 version	l/min [gpm]		50 [13.2]
Maximum inlet flow for TE-138 version	l/min ,	[gpm]	80 [21.1]
Maximum inlet flow for TE-130 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	0	C <i>[°F]</i>	-20+80 <i>[-4+176]</i> (NBR)
Permissible degree of fluid contamination			ISO 4572: β _x ≥75 X=1012 ISO 4406: class 19/17/14 NAS 1638: class 8
Viscosity range	r	nm²/s	5420

^{*} 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.

Ordering Details



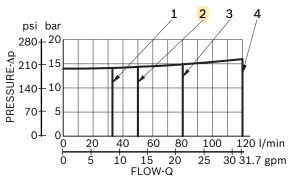
²⁾ Recommended version.

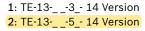
³⁾ Suggested for open/closed center configuration.

Characteristic curves

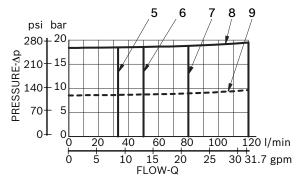
Measured with hydraulic fluid ISO-VG32 at $45^{\circ} \pm 5^{\circ}$ C [113° $\pm 9^{\circ}$ F]; ambient temperature 20° C [68° F].

Pressure drop trough compensator



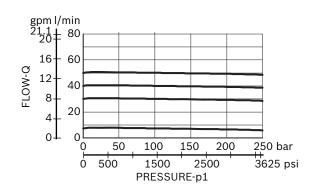


- 3: TE-13-__-8_- 14 Version
- 4: TE-13-_ _-0_- 14 Version

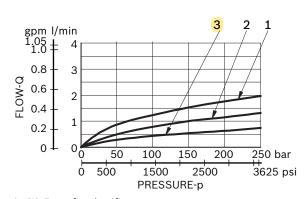


- 5: TE-13-__-3_- 18/R8 Version
- **6**: TE-13-_ _-5_- 18/R8 Version
- 7: TE-13-__-8_- 18/R8 Version
- 8: TE-13-__-0_- 18/R8 Version
- 9: TE-13-_-0_- R8 lowest adjustable setting

Flow rate compensation (P1)

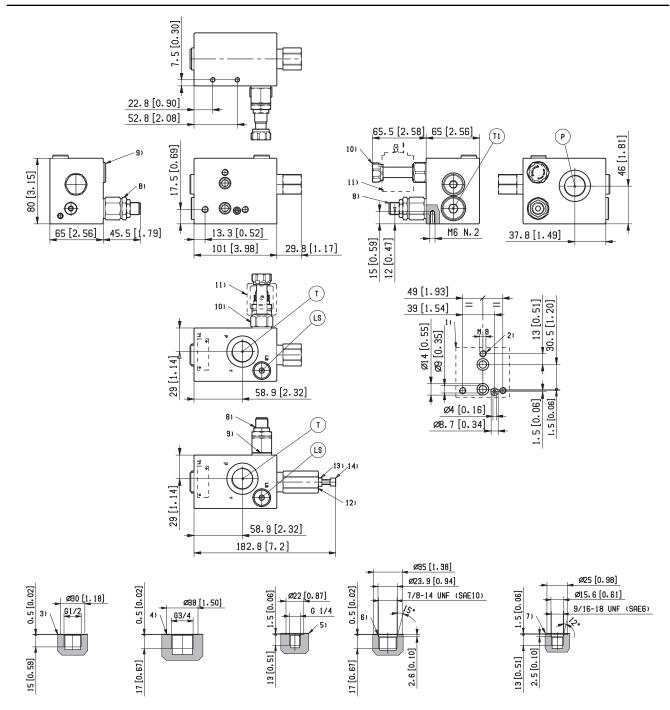


LS drain



- $\mathbf{1} \colon \varnothing 0.5 mm \text{ fixed orifice}$
- 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.

Bosch Rexroth Oil Control S.p.A.
Oleodinamica LC Division
Via Artigianale Sedrio, 12
42030 Vezzano sul Crostolo
Reggio Emilia - Italy
Tel. +39 0522 601 801
Fax +39 0522 606 226 / 601 802
compact-directional-valves@oilcontrol.com
www.boschrexroth.com

© This document, as well as the data, specifications and other information set forth in it, are the exclusive property of Bosch Rexroth Oil Control S.p.a.. It may not be reproduced or given to third parties without its consent.

The data specified above only serve to describe the product. No statements concerning a certain condition or suitability for a certain application can be derived from our information. The information given does not release the user from the obligation of own judgment and verification. It must be remembered that our products are subject to a natural process of wear and aging. Subject to change.