

Inlet Elements

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

TEG-13/2_

RE 18300-16

Edition: 07.2023

Replaces: 05.2023



Description

The inlet elements TEG-13 are employed to connect the external P, T lines to the P, T channels inside the EDG elements of the Directional Valve Assembly and to connect the LS line for inlet flow control. For Open Center configurations, an LS controlled 3-way compensator provides pressure compensated flow to the EDG elements of the Directional Valve Assembly, any excess flow is bypassed to tank at LS pressure plus compensator spring bias. For Closed Center configurations, the inlet compensator is used as piloting stage for main relief valve. When the EDG elements are in neutral position, the compensator bypasses the entire flow to tank at a bypass pressure equal to the compensator spring bias (Open Center configuration). The TEG-13 can be equipped with a NO or NC Solenoid Unloading VEI Cartridge, which can be employed to unloads to tank the LS signal. When activated the entire flow is bypassed to tank at compensator bias spring pressure.

The TEG-13... is made of zinc plated cast iron.

The D36 coil must be ordered separately (refer to RE18325-90).

Technical data

General		
TEG13	kg (lbs)	3.6 (7.9) to 4,5 (10)
Ambient Temperature	°C (°F)	-20....+90 (-4....+194) (NBR seals)
Hydraulic		
Maximum pressure	bar (psi)	350 (5076)
Maximum inlet flow for TEG-13-__-3 version	l/min (gpm)	33 (8.7)
Maximum inlet flow for TEG-13-__-5 version	l/min (gpm)	50 (13.2)
Maximum inlet flow for TEG-13-__-8 version	l/min (gpm)	80 (21.1)
Maximum inlet flow for TEG-13-__-0 version	l/min (gpm)	120 (31.7)
Hydraulic fluid	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.	
General properties: it must have physical lubricating and chemical properties suitable for use in hydraulic.		
Fluid Temperature	°C (°F)	-20....+100 (-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 ² /s	5....420

Note

For applications with different specifications consult us

Ordering details

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
TEG	-	13	/	2	-	-	-	-	-	12	-	-	-	CI

Family

01	Inlet Elements	TEG
----	----------------	------------

Configuration

02	Function for fixed or variable displacement pump (open/closed centre)	13
----	---	-----------

Flange configuration option

03	EDG flange 2	2
----	--------------	----------

Pilot oil supply option¹⁾

04	No pilot oil supply option	0
	With pressure reducing and relieving MHRDRB, without external oil supply	1
	With pressure reducing and relieving MHRDRB with external oil supply	2
	Without pressure reducing and relieving MHRDRB (with Normally open plug R930088470), with external oil supply	3
	With pressure reducing valve cavity plugged (with Normally closed plug R930074980)	9

Ports

05	P 1/2" BSPP; T 3/4" BSPP; LS 1/4" BSPP	01
	P 1/2" BSPP; T 1/2" BSPP; LS 1/4" BSPP	02
	P 3/8" BSPP; T 3/8" BSPP; LS 1/4" BSPP	03
	P (SAE8), T (SAE10), LS (SAE6)	06

System configuration option

06	Open Center	OC
	Closed Center	CC

Dual Stage Compensator Option

07	Plugged, no option	99
----	--------------------	-----------

Spool compensator size

08	Maximum inlet flow 33 l/min	3
	Maximum inlet flow 50 l/min	5
	Maximum inlet flow 80 l/min	8
	Maximum inlet flow 120 l/min	0

Compensator cracking pressure

09	12 bar (174 psi)	12
	12 bar with (174 psi) locking option ²⁾	BR

LS relief valve pressure setting

10	35-140 bar (500-2000 psi)	1
	105-210 bar (1500-3000 psi)	2
	175-350 bar (2500-5000 psi)	3
	Plugged	P

LS line unloading valve option

11	Without valve (ordered separately)	00
	Standard VEI normally open, single check ³⁾	A_
	Standard VEI normally open, double check ³⁾	B_
	Standard VEI normally closed, single check ³⁾	C_
	Standard VEI normally closed, without override, double check ²⁾	D_
	Plugged	PP

LS line unloading valve option – Override Option

12	Standard	_A
	Push style manual override	_B
	Push and twist style manual override	_C

Unloading valve coil voltage option

13	Without coil	00
	12 Vdc	OB
	24 Vdc	OC

Unloading valve coil electric connector type

14	Without coil	00
	With coil, without mating connector DIN EN 175301-803	01
	With coil, with bi-directional diode, without mating connector vertical Amp-Junior	03
	With coils, with bi-directional diode, without mating connector DT04-2P	07

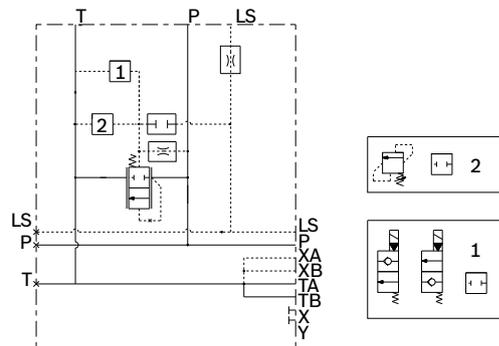
Material

15	Cast Iron	CI
----	-----------	-----------

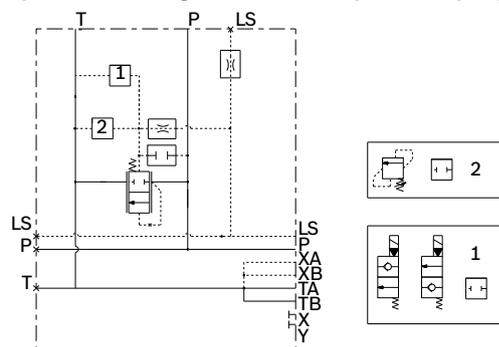
- 1) Pressure reducing valve MHRDRB setting: 35 bar (508 psi) R900641606.
- 2) Available only for OC selection at point (06); this selection disables pressure relieving function. Please make sure you have relieving function in your system.
- 3) For A-B-C-D selection, please select also Override Option (12).

▼ Symbol

Closed Center Configuration (Variable displacement pump)



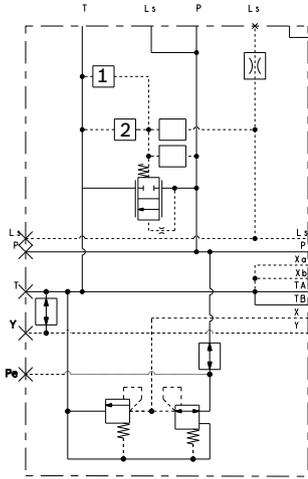
Open Center Configuration (Fixed displacement pump)



Symbol

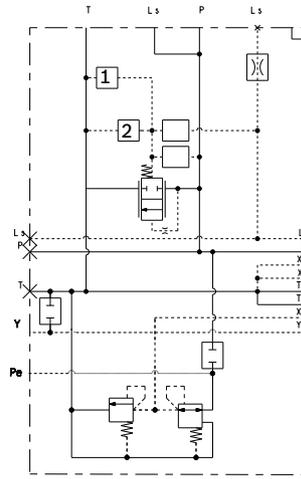
TEG-13/21_ _

With pressure reducing and relieving MHDRDB, without external oil supply



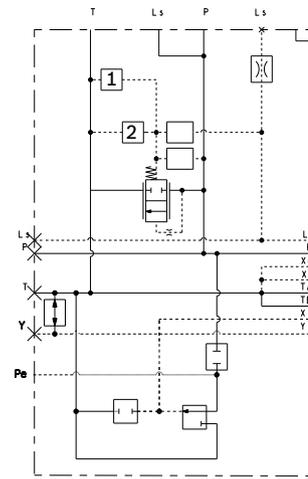
TEG-13/22_ _

With pressure reducing and relieving MHDRDB, with external oil supply



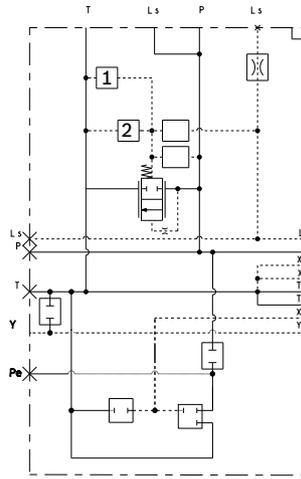
TEG-13/23_ _

Without pressure reducing and relieving MHDRDB (with Normally open plug), with external oil supply



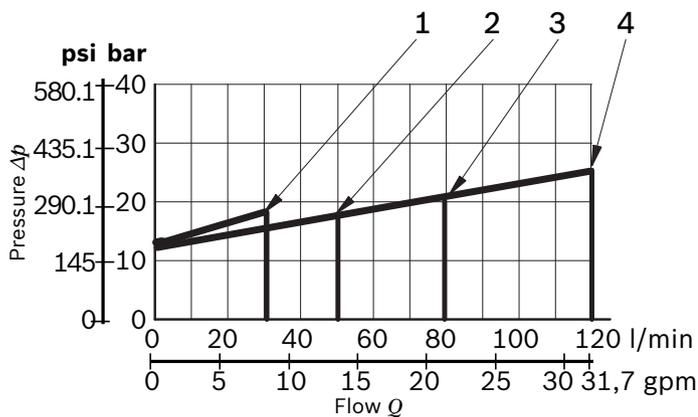
TEG-13/29_ _

Without pressure reducing and relieving MHDRDB (with Normally closed plug), without external oil supply



Characteristic curves

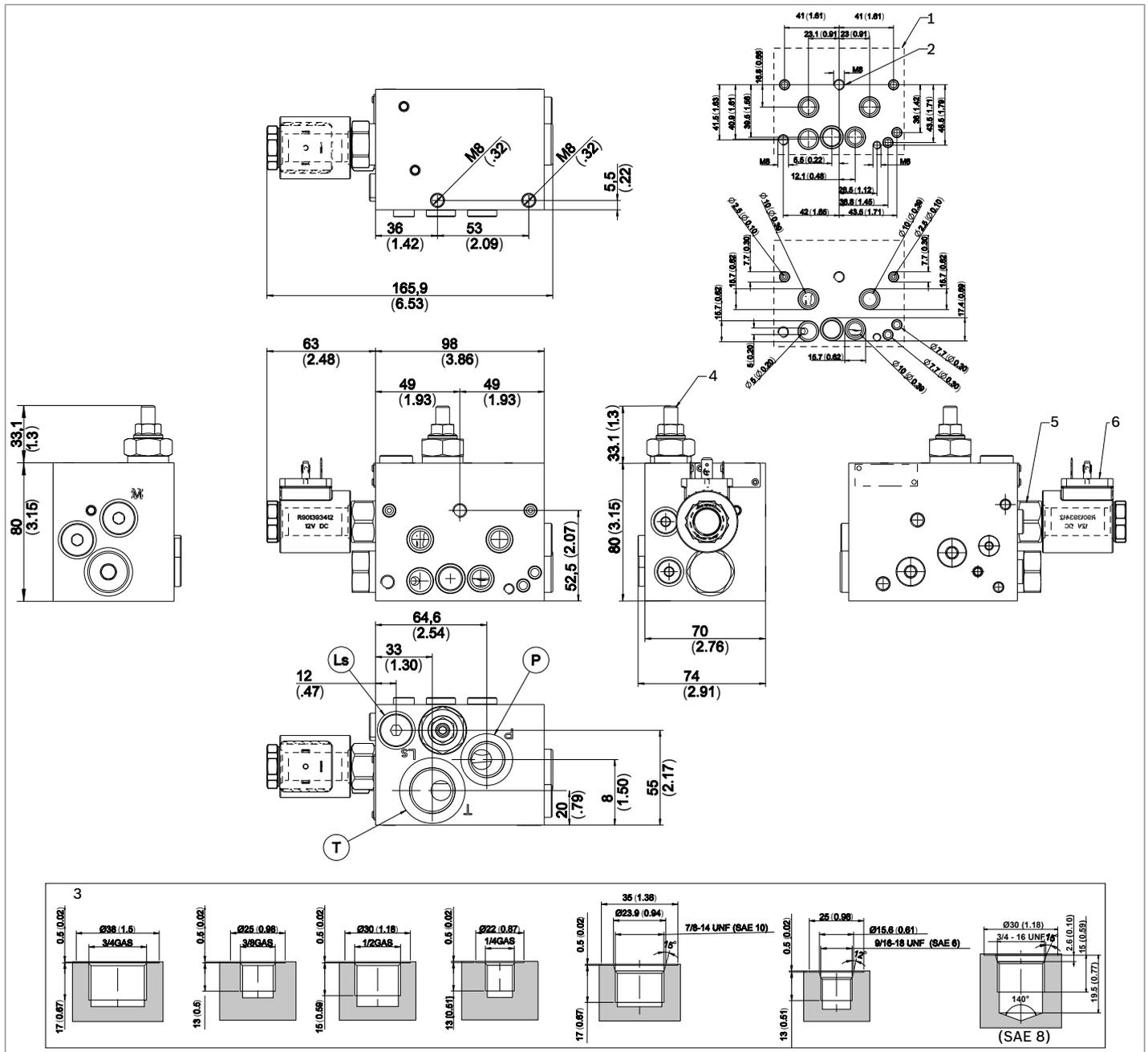
DeltaP main compensator



Model	Curve no.
TEG-13/_ _ 33 l/min@12bar compensator version	1
TEG-13/_ _ 50 l/min@12bar compensator version	2
TEG-13/_ _ 80 l/min@12bar compensator version	3
TEG-13/_ _ 120l/min@12bar compensator version	4

Measured with hydraulic fluid ISO-VG32 at 45° ±5 °C (113° ±9 °F); ambient temperature 20 °C (68 °F).

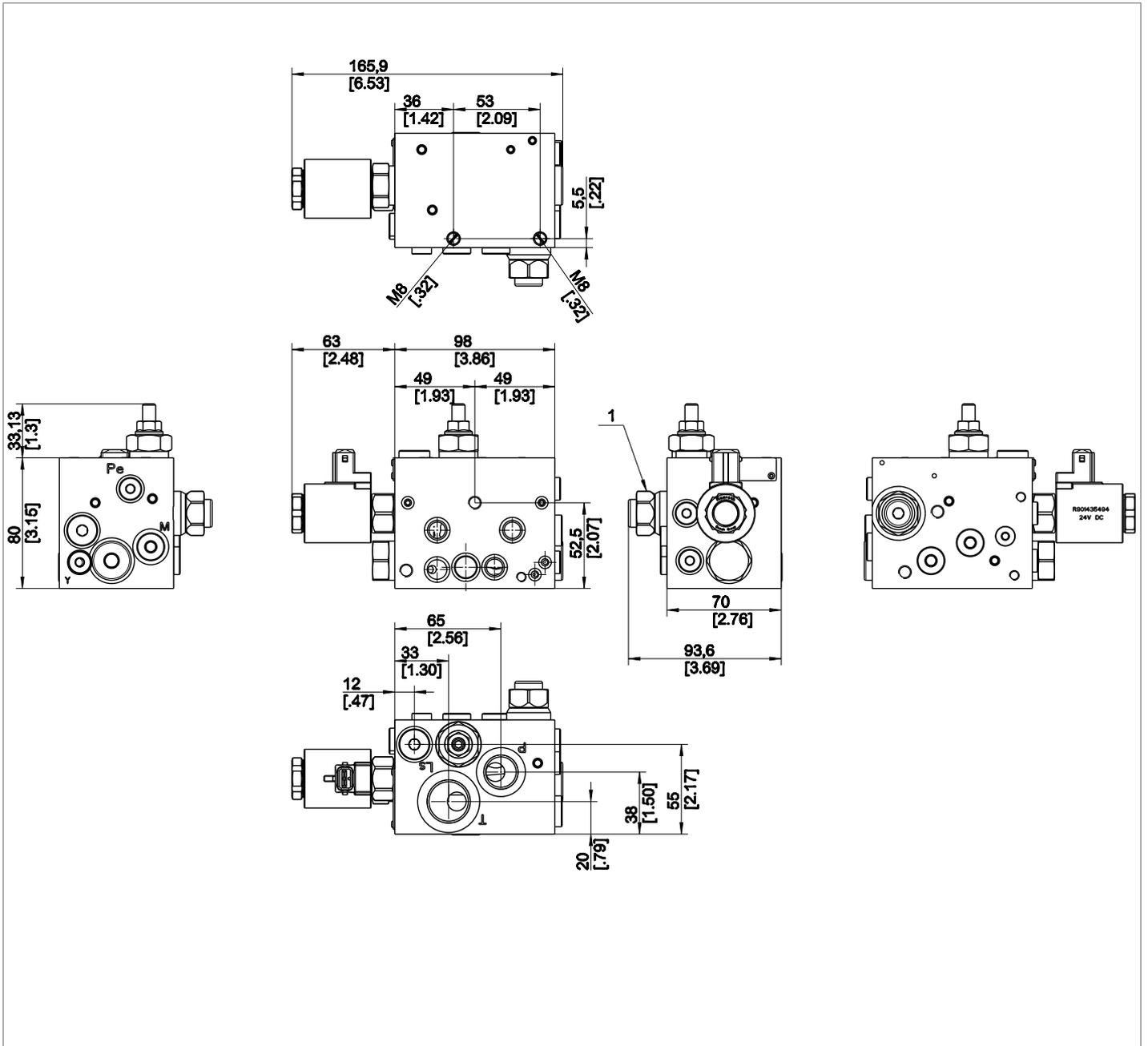
External dimensions and fittings



- 1 Flange specifications for coupling to the EDG Directional Valve Elements.
- 2 Three threaded holes two M8 and one M6 for coupling of the EDG Directional Valve Elements.
- 3 For P, T and LS port size and configuration, please see page 2.

- 4 Pressure relief cartridge VSBN-08A datasheet RE18318-04.
- 5 Solenoid Unloading cartridge VEI-16-08A-NA or VEI-16-08A-NC type datasheet 18323-26 or 18323-25.
- 6 Solenoid Unloading cartridge coil D36 RE18325-90.

External dimensions and fittings



- 1** Pressure reducing and relieving valve MHDRDB, optional configuration (refer to RE 18318-55).

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-hydraulics-cdv@boschrexroth.com
www.boschrexroth.com/compacthydraulics

© 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.