

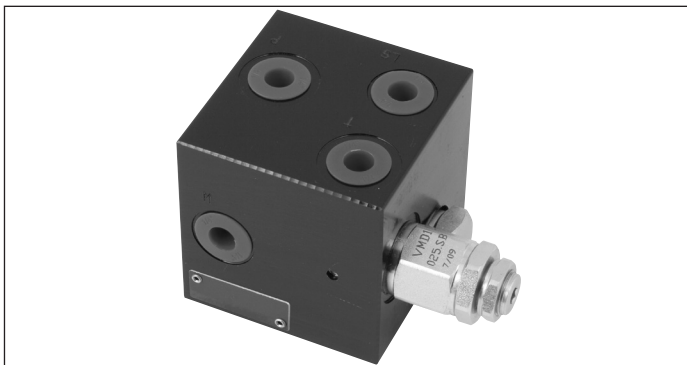
## Inlet Elements with primary pressure relief valve and proportional LS controlled 3-way flow regulator

TE-10-\_\_-

**RE 18300-09**

Edition: 04.2024

Replaces: 02.2016



### Description

The inlet elements TE-10-\_\_ 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 to the LS ports of the ED elements equipped with LS channels. The LS signal is sent downstream of the proportional flow restrictor VEP: it provides a proportional pressure compensated flow, across the VEP, for the ED elements of the Directional Valve Assembly, and it unloads the excess flow. The main functions are: to limit the maximum primary pressure in the P line and to supply proportional pressure compensated flow the ED elements of the Directional Valve Assembly. TE-10-\_\_ inlet elements are available with body made of Black Anodized Aluminium (Al).

P and T Port sizes can be G 3/8, G 1/2, or SAE 8. Test point M is G 1/4 on BSPP versions, and SAE 4 in SAE versions.

### Technical data

| General   |   |  |
|---|---|--|
| TE-10-02-00-  | kg (lbs)  | 0.83 (1.83)                            |
| TE-10-03-00-  | kg (lbs)  | 0.88 (1.94)                            |
| TE-10-56-00-  | kg (lbs)  | 0.88 (1.94)                            |
| TE-10-02-S_-  | kg (lbs)  | 1.08 (2.37)                            |
| TE-10-03-S_-  | kg (lbs)  | 1.16 (2.57)                            |
| TE-10-56-S_-  | kg (lbs)  | 1.16 (2.57)                            |
| Max rated flow at P1  |   |  |
| TE-10-02-00-  | l/min (gpm)   | 0-12 (0-3.1)                           |
| TE-10-03-00-  | l/min (gpm)   | 0-32 (0-8.4)                           |
| TE-10-56-00-  | l/min (gpm)   | 0-32 (0-8.4)                           |
| TE-10-02-S_-  | l/min (gpm)   | 0-12 (0-3.1)                           |
| TE-10-03-S_-  | l/min (gpm)   | 0-32 (0-8.4)                           |
| TE-10-56-S_-  | l/min (gpm)   | 0-32 (0-8.4)                           |
| Ambient Temperature   | °C (°F)   | -20....+50 (-4....+122)<br>(NBR seals) |
| Hydraulic   |   |  |
| Maximum pressure  | bar (psi)   | 210 (3045)                             |
| Maximum inlet flow  | l/min (gpm)   | 40 (10.6)                              |
| Rated flow at P1  | l/min (gpm)   | 32 (8.45)                              |
| Hydraulic fluid   | Mineral oil based hydraulic fluids HL (DIN 51524 part 1).   |  |
| 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 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: $\beta_{x \geq 75} X = 10 \dots 12$<br>ISO 4406: class 19/17/14<br>NAS 1638: class 8  |  |
| Viscosity range   | mm <sup>2</sup> /s  | 20....380                              |

### Note

For applications with different specifications consult us

Ordering details

|    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|----|
| 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 |
| TE | -  | 10 | -  | -  | -  | AL | -  | -  |

|        |                |  |  |  |  |  |  |    |
|--------|----------------|--|--|--|--|--|--|----|
| Family |                |  |  |  |  |  |  |    |
| 01     | Inlet Elements |  |  |  |  |  |  | TE |

|               |  |  |  |  |  |  |  |    |
|---------------|--|--|--|--|--|--|--|----|
| Configuration |  |  |  |  |  |  |  |    |
| 02            | Configuration with primary pressure relief valve and proportional LS controlled 3-way flow regulator |  |  |  |  |  |  | 10 |

|       |                      |  |  |  |  |  |  |    |
|-------|----------------------|--|--|--|--|--|--|----|
| Ports |                      |  |  |  |  |  |  |    |
| 03    | G 3/8 DIN 3852       |  |  |  |  |  |  | 02 |
|       | G 1/2 DIN 3852       |  |  |  |  |  |  | 03 |
|       | 3/4-16 UNF-2B (SAE8) |  |  |  |  |  |  | 56 |

|                               |                                       |  |  |  |  |  |  |    |
|-------------------------------|---------------------------------------|--|--|--|--|--|--|----|
| Primary Pressure Relief range |                                       |  |  |  |  |  |  |    |
| 04                            | Without primary pressure relief valve |  |  |  |  |  |  | 00 |
|                               | 25-120bar (362-1740 psi)              |  |  |  |  |  |  | SN |
|                               | 40-200bar (580-2900 psi)              |  |  |  |  |  |  | SB |
|                               | 200-350bar (2900-5076 psi)            |  |  |  |  |  |  | SV |

|          |           |  |  |  |  |  |  |    |
|----------|-----------|--|--|--|--|--|--|----|
| Material |           |  |  |  |  |  |  |    |
| 05       | Aluminium |  |  |  |  |  |  | AL |

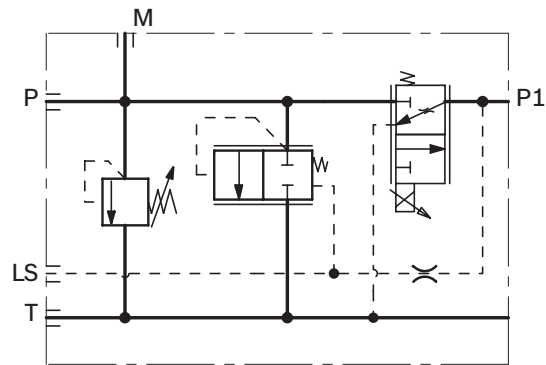
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|--------------------------|------------------------|--|--|--|--|--|--|---------|
| Cartridge voltage supply |                        |  |  |  |  |  |  |         |
| 06                       | No cartridge           |  |  |  |  |  |  | No code |
|                          | Cartridge without coil |  |  |  |  |  |  | 00      |
|                          | 12V DC                 |  |  |  |  |  |  | OB      |
|                          | 24V DC                 |  |  |  |  |  |  | OC      |

|                      |   |  |  |  |  |  |  |         |
|----------------------|---|--|--|--|--|--|--|---------|
| Electric connections |   |  |  |  |  |  |  |         |
| 07                   | No cartridge  |  |  |  |  |  |  | No code |
|                      | Without coils   |  |  |  |  |  |  | 00      |
|                      | With coils, without mating connector<br>DIN EN 175301-803 <sup>1)</sup> |  |  |  |  |  |  | 01      |

|             |                    |  |  |  |  |  |  |         |
|-------------|--------------------|--|--|--|--|--|--|---------|
| P1 Max Flow |                    |  |  |  |  |  |  |         |
| 08          | No cartridge       |  |  |  |  |  |  | No code |
|             | 12 l/min (3.2 gpm) |  |  |  |  |  |  | 12      |
|             | 30 l/min (7.9 gpm) |  |  |  |  |  |  | 30      |

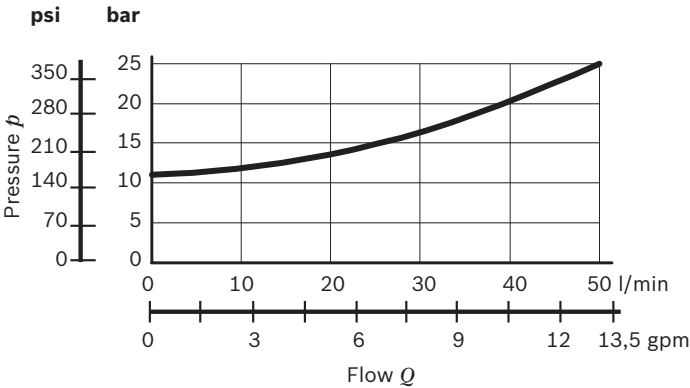
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|---------|----------------------------|--|--|--|--|--|--|---------|
| Options |                            |  |  |  |  |  |  |         |
| 09      | No cartridge               |  |  |  |  |  |  | No code |
|         | Standard                   |  |  |  |  |  |  | 00      |
|         | Screw type manual override |  |  |  |  |  |  | EF      |

▼ Symbol

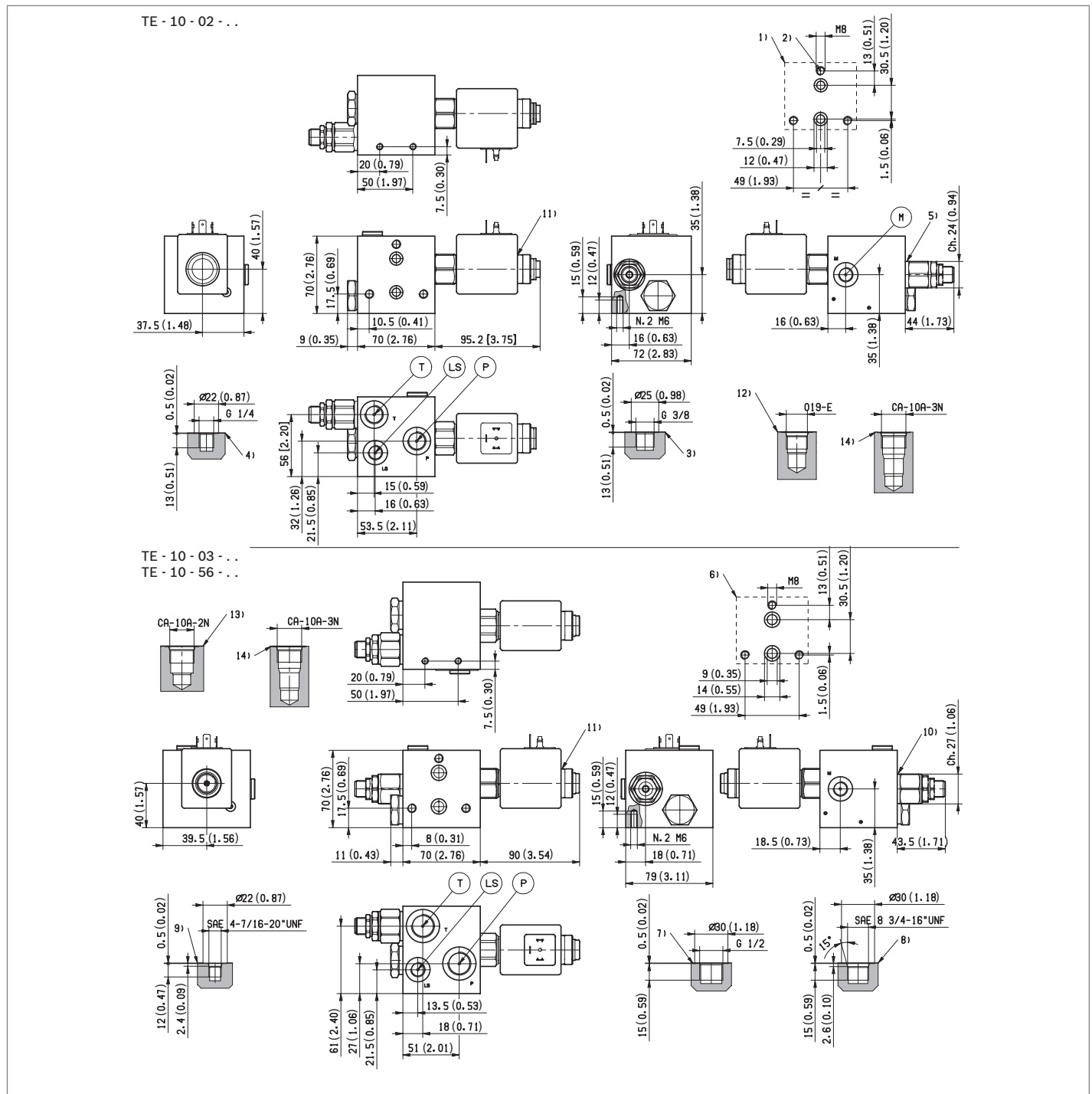


Characteristic curves

Pressure drop through compensator



1) For connectors ordering code see data sheet RE 18325-90.

**External dimensions and fittings**

- 1 Flange specifications for coupling to the ED Directional Valve Elements (versions TE-10-02...).
- 2 For tie rod and tightening torque information see data sheet RE 18301-90.
- 3 Hydraulic Ports P and T size G 3/8, for versions TE-10-02...
- 4 Port for pressure gauge connection M size G 1/4, for versions TE-10-02... and TE-10-03...
- 5 Primary Pressure Relief Cartridge VMD1025 for versions TE-10-02... (refer to RE 18301-91).
- 6 Flange specifications for coupling to the ED Directional Valve Elements (versions TE-10-03..., and TE-10-56...).
- 7 Hydraulic Ports P and T size G 1/2, for versions TE-10-03...
- 8 Hydraulic Ports P and T size SAE 8, for versions TE-10-56...
- 9 Port for pressure gauge connection M size SAE 4.
- 10 Primary Pressure Relief Cartridge VMD1040 for versions TE-10-03..., and TE-10-56... (refer to RE 18301-91).
- 11 Proportional Solenoid Cartridge, VEP type, (refer to RE 18301-91).
- 12 Cavity for Primary Pressure Relief Cartridge VMD1025.
- 13 Cavity for Primary Pressure Relief Cartridge VMD1040.
- 14 Cavity for Proportional Solenoid cartridge VEP.

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