

## Intermediate elements with pressure reducer, and relieving

TI-03-\_\_-

**RE 18301-26**

Edition: 02.2016

Replaces: 07.2012



### Description

The intermediate elements TI-03-\_\_- are designed to be fitted between two directional valve elements. They have a pressure reducing and relieving cartridge which supplies a flow with constant reduced pressure to the downstream operators.

The same cartridge relieves to Tank directly any excessive pressure surge in the downstream line.

These elements basically consist of a stackable aluminium housing, with a VRPX-10A type pressure reducing cartridge.

### Technical data

| General                                                                                                                                   |                                                                                                                                                              |                                        |        |
|-------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|--------|
| Weight Intermediate element without cartridge TI-03-00-00-AL                                                                              | kg (lbs)                                                                                                                                                     | 0.42                                   | (0.93) |
| Weight Intermediate element with cartridge TI-03-00-__-AL                                                                                 | kg (lbs)                                                                                                                                                     | 0.62                                   | (1.37) |
| Ambient Temperature                                                                                                                       | °C (°F)                                                                                                                                                      | -20....+50 (-4....+122)<br>(NBR seals) |        |
| Hydraulic                                                                                                                                 |                                                                                                                                                              |                                        |        |
| Maximum pressure                                                                                                                          | bar (psi)                                                                                                                                                    | 250 (3625)                             |        |
| Maximum inlet flow                                                                                                                        | l/min (gpm)                                                                                                                                                  | 50 (13.2)                              |        |
| 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).<br>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<br>ISO 4406: class 19/17/14<br>NAS 1638: class 8                                                                       |                                        |        |
| Viscosity range                                                                                                                           | mm <sup>2</sup> /s                                                                                                                                           | 5....420                               |        |

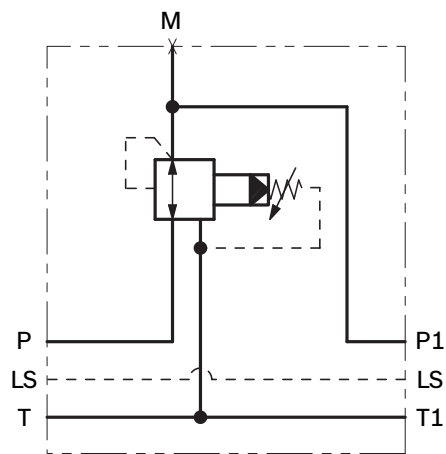
### Note

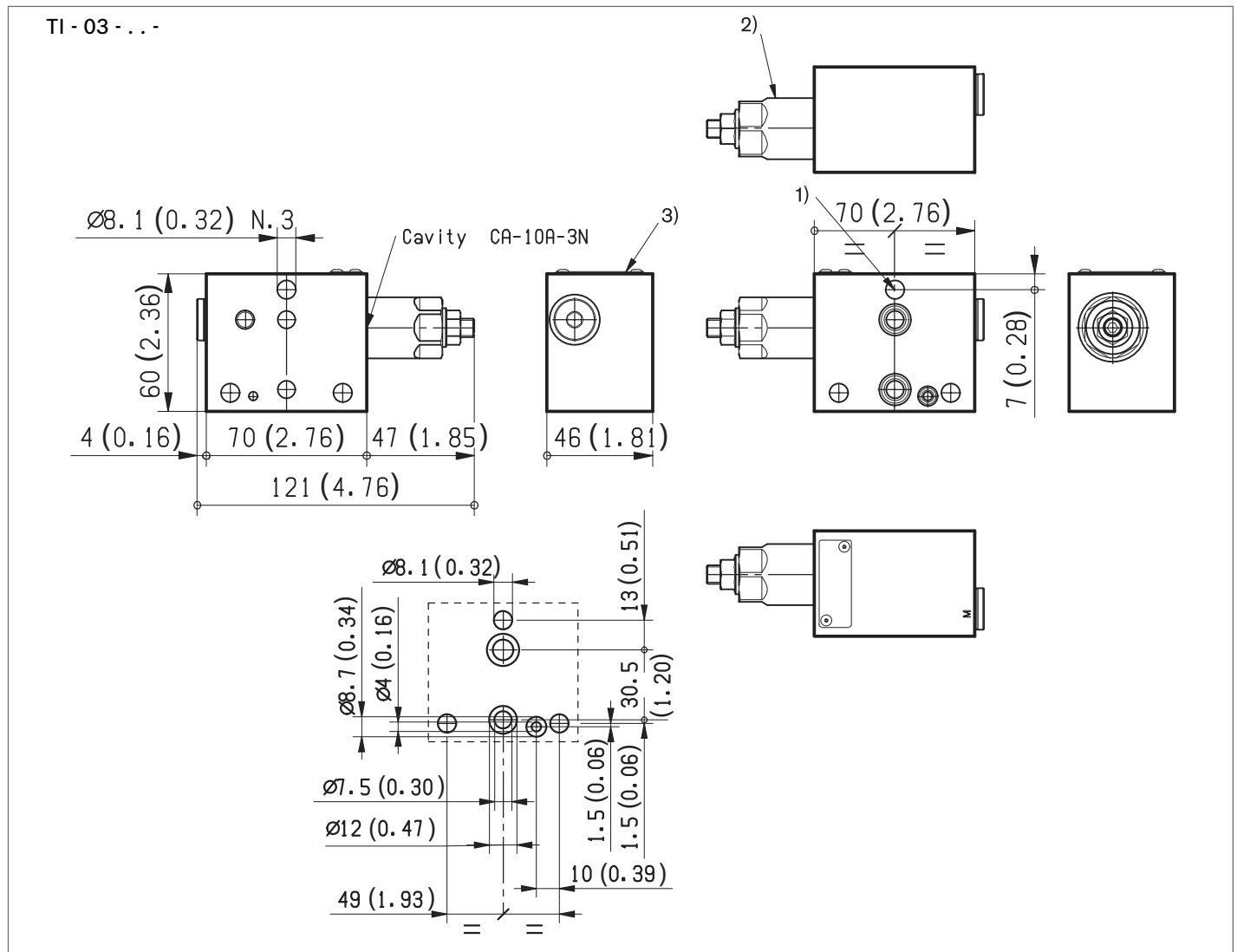
For applications with different specifications consult us

Ordering details

|                               |                                      |    |    |    |   |  |   |    |
|-------------------------------|--------------------------------------|----|----|----|---|--|---|----|
| 01                            | 02                                   | 03 | 04 |    |   |  |   |    |
| Tl                            | -                                    | 03 | -  | 00 | - |  | - | AL |
| Family                        |                                      |    |    |    |   |  |   |    |
| 01                            | Intermediate Elements                |    |    |    |   |  |   | Tl |
| Configuration                 |                                      |    |    |    |   |  |   |    |
| 02                            | with pressure reducer, and relieving |    |    |    |   |  |   | 03 |
| Pressure reducing valve range |                                      |    |    |    |   |  |   |    |
| 03                            | 35-140bar (500-2000 psi)             |    |    |    |   |  |   | V1 |
|                               | 70-250bar (1000-3625 psi)            |    |    |    |   |  |   | V2 |
| Material                      |                                      |    |    |    |   |  |   |    |
| 04                            | Aluminium                            |    |    |    |   |  |   | AL |

Symbols



**External dimensions and fittings**

- 1 For tie rod and tightening torque information see data sheet RE 18301-90.
- 2 Pressure reducing and relieving cartridge VRPX.

- 3 Identification label.
- 4 Test point for pressure gauge connection.

**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](http://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.