

RE 18310-15/04.10

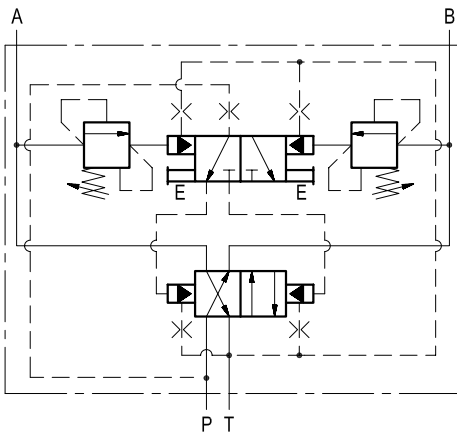
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Replaces: RE 00171/02.07

# Automatic directional

VDA-N-F10

05.90.14 - X - 43 - Z



## Description

It is a directional valve which generates continuous reciprocating motion of a double acting actuator, with no need of external controls. It delivers the pump flow to port A (or B), and opens to tank port B (or A), until A (or B) pressure increases and opens the related small relief valve; the relieved oil shifts the position of the 3/2 pilot spool, and, consequently, the line pressure P pilots the main 4/2 spool to the opposite position; the oil flow is diverted to the other outlet port B (or A) and the port previously supplied becomes open to tank: the motion is reversed. Shifting takes place whenever the load increases up to the selected pressure relief setting and the cycle is repeated automatically and indefinitely as long as the pump continues to run.

## Technical data

### Hydraulic

Max. operating pressure	bar (psi)	210 (3000)
Pump flow	l/min (gpm)	at least 3 (0.8)

The shifting pressure level can be different for line A and line B; it is adjusted separately by adjusting each one of the two port relief valves. For correct operation, the main relief valve of the system must be pressure set at least 15% higher than the highest of the 2 shifting pressures.

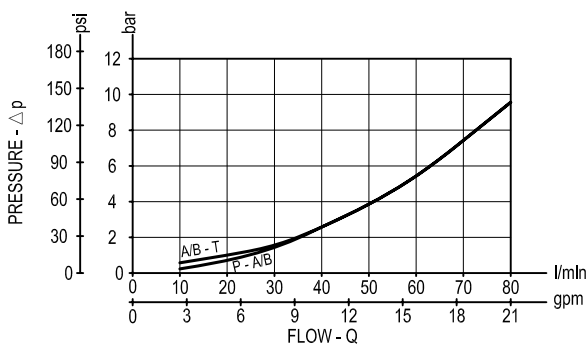
NOTE: Upon starting, the initial direction of motion is undetermined: oil can start out of A or B depending only from the configuration in which the pump was previously stopped. Initial oil flow out of A or out of B as desired can be selected manually before starting by pushing into one of the two 5.0 mm dia. manual reactivation accesses (E); this will position at one end the 3/2 pilot spool.

### General

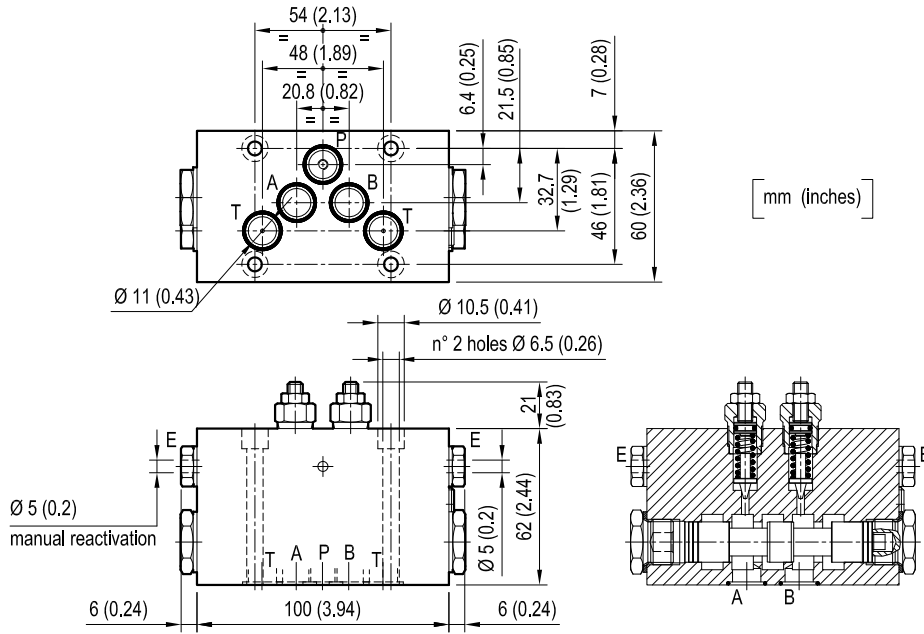
Manifold material		Cast iron
Weight	kg (lbs)	2.4 (5.2)
Fluid temperature range	°C (°F)	between -30 (-22) and +100 (212)
Other technical data		see data sheet RE 18350-50

**Note:** for applications outside these parameters, please consult us.

## Performance



Dimensions



Ordering code

05.90.14	X	43	Z
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Automatic directional

Adjustments

= 03 Leakproof hex. socket screw



Port sizes	A	B	P	T
	CETOP 5 (F10)	CETOP 5 (F10)	CETOP 5 (F10)	CETOP 5 (F10)

SPRINGS

	Adj. pressure range bar (psi)	Pres. increase bar/turn (psi/turn)	Std. setting Q=5 (l/min.) bar (psi)
= 10	15-100 (218-1450)	25 (363)	100 (1450)
= 20	50-210 (725-3000)	50 (725)	200 (2900)
= 35	100-350 (1450-5000)	100 (1450)	350 (5000)

Type	Material number
05901403431000B	R930002570
05901403432000B	R930002571
05901403433500B	R930002572

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