

Check and metering valve

A-VBC-33-DX

08.49.24 - X - Y - Z

RE 18309-05

Edition: 04.2014

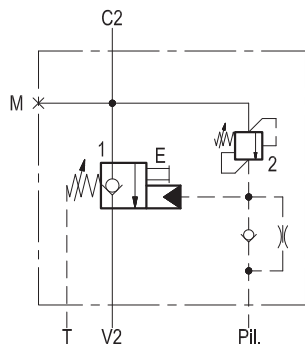
Replaces: 07.2012



Description

Upstream flow (V2 - C2) to the cylinder is free through a check valve, and reverse flow (C2 - V2) is locked/metered by a leak free spool (1) which provides fine metering in the initial opening stroke. The spool, normally held closed by an adjustable spring force, is remotely controlled by joystick pilot pressure; the pilot pressure required to move the spool is load independent because the spring is vented to Tank. The valve includes a small relief cartridge (2) which senses C2 pressure and opens under overload or shock conditions in order to pilot wide open the metering spool and to allow cylinder pressure to be relieved downstream through the hose (V2) and through the main control valve.

Note: port identified with M are not protected with calibrated orifice but in direct connection with pressure channels.



Technical data

General

Manifold material	Steel
Weight	3.4 kg (7.5 lbs)
Fluid temperature range	-30 °C ... 100 (-22 ... 212 °F)
Other technical data	see data sheet 18350-50

Hydraulic

Max. operating pressure	420 bar (6000 psi)
Max. flow	150 l/min (40 gpm)

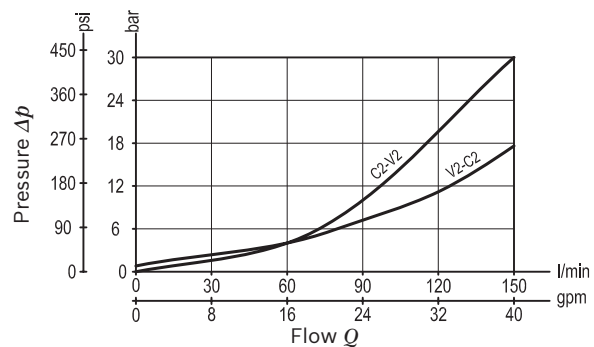
This valve is designed to be flange mounted on boom cylinders of hydraulic excavators, and, with specific adjustments, it can become part of load holding and load lowering systems designed to comply with ISO Standard 8643 (hose burst protection).

Note: the Tank vented port must be connected to a "low pressure tank line" (to the joystick tank line, or to tank directly).

The Factory sealed "E" screw can be used for Emergency spool opening and boom lowering, in case of pilot pressure failure; once the emergency boom lowering is completed, the "E" screw must be restored to its original position and locked.

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

Characteristic curve



Ordering code

08.49.24	X	Y	Z
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Check and metering valve

Pilot ratio

= 03 Inner hex. socket screw protected by locking nut

Port sizes

V2 - C2

Pil - T

= 04

G 3/4

G 1/4

SPRINGS

		Adj. pressure range bar (psi)	Pres. increase bar/turn (psi/turn)	Std. setting bar (psi)
= 60	Valve 1	7-20 (102-290)	3.2 (51)	7.5 (109) "cracking"
	Valve 2	350-460 (5000-6000)	228 (3306)	350 (5000) "5 l/min"

Tamper resistant cap code

11.04.31.001

R930000777

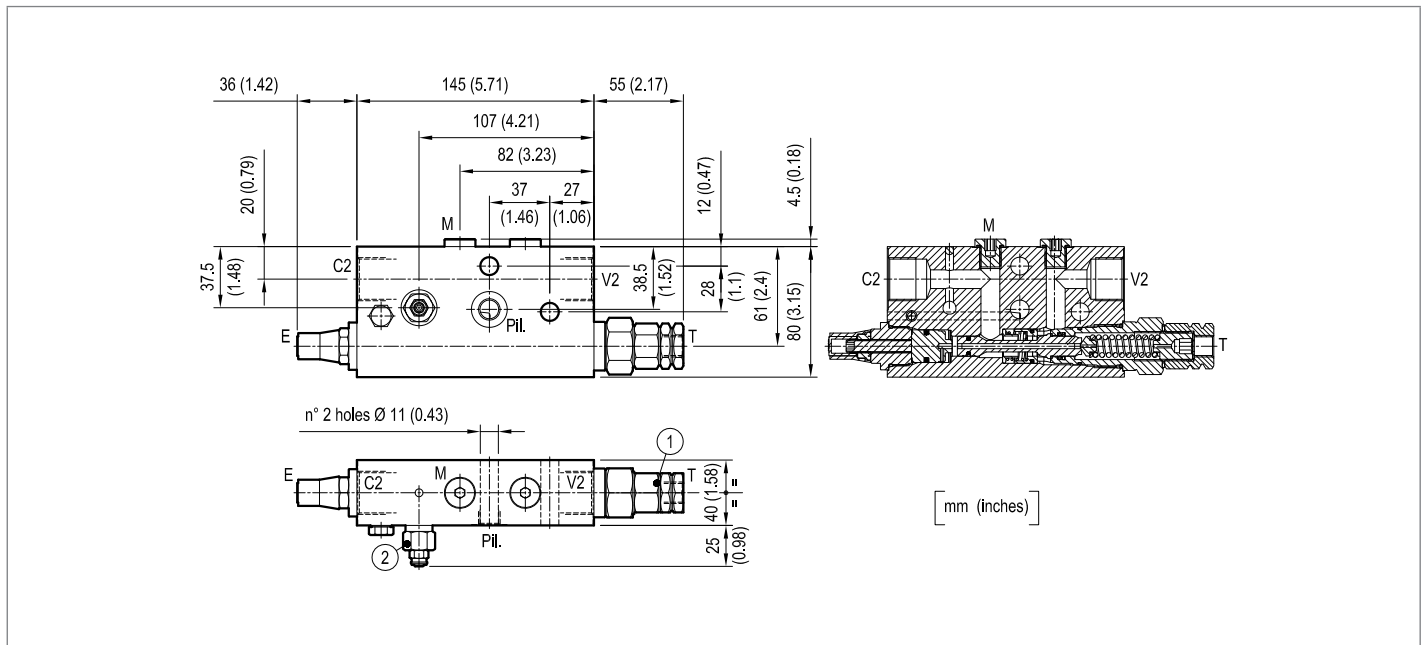
for Valve 2



Type	Material number
08492403044000D	R930006289

Type	Material number

Dimensions



Bosch Rexroth Oil Control S.p.A.

Via Leonardo da Vinci 5
 P.O. Box no. 5
 41015 Nonantola – Modena, Italy
 Tel. +39 059 887 611
 Fax +39 059 547 848
 compact-hydraulics-mcv@boschrexroth.com
 www.boschrexroth.com/compacthydraulics

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