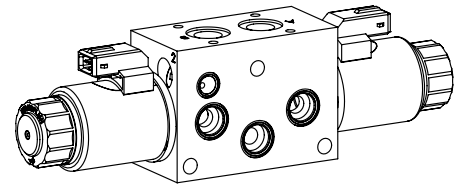


Control Section CMVA-MA06-...-M

Directional control valve section, solenoid-operated, with load sensing

- ◆ $Q_{max} = 60 \text{ l/min}$
- ◆ Various volume flow levels
- ◆ $p_{max} = 250 \text{ bar}$



DESCRIPTION

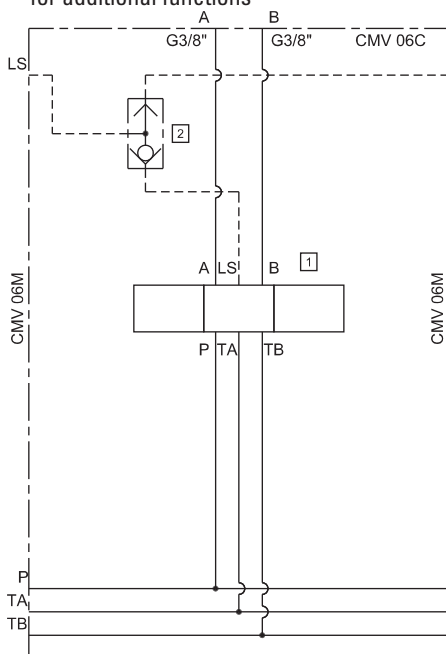
Direct operated, solenoid-operated spool valve with integrated LS connection. When the solenoids are de-energised, the spool is held in the centre position (6/3-way execution) or switched back to the basic position (6/2-way execution) by the spring. The load pressure in the LS line is transmitted by the integrated load sensing. Additional functions can be flanged directly to the actuator side. The appropriate mounting interface must be provided (see type code).

APPLICATION

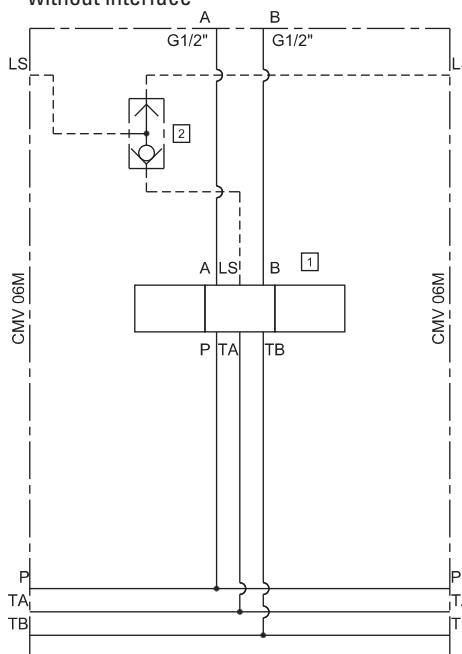
Directional control valve sections with integrated LS connection have been specially developed for mobile applications and are characterised by high performance and flexibility at a low weight. Thanks to the wide range of different volume flow rates and spool symbols, the valves can be adapted to the respective application. Typically, these valves are used in agricultural, construction and municipal machinery, as well as in material handling equipment.

SYMBOL

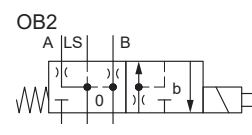
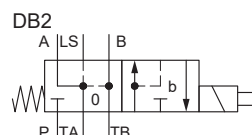
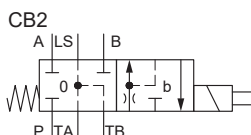
A+B G3/8" with interface CMV 06C for additional functions



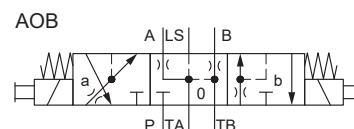
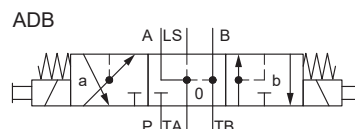
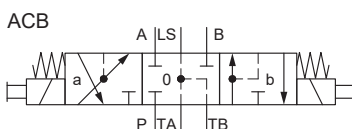
A+B G1/2" without interface



**Ausführungen Schieberventil
6/2-Wege-Ausführung**



6/3-way execution



TYPE CODE

Control Section MA06

Material

A Aluminium

Modul Description

MA06 Control Section with CMV LS installation kit 06, without pressure compensator

Connections for actuators A+B

Threaded BSP 3/8" connections with CMV-06 interface for additional functions ☐ A

Threaded connections BSP 1/2" without interface ☐ B

Sealing material

D0 NBR

Switching solenoid

Designation of symbols according to table

Forward flow control

Nominal volume flow rate Q_N at Δp 10 bar

4 l/min ☐ 04

16 l/min ☐ 16

32 l/min ☐ 32

48 l/min ☐ 48

Nominal voltage U_N

without coil (standard) ☐ X5 (available coils see below)

Manual override actuation pin integrated in the armature tube (standard) ☐

Design index (subject to change)

4.1-15

AVAILABLE COILS

Order separate. See data sheet 1.1-182.

DC current

12 VDC

24 VDC

Connector socket DIN EN 175301-803/ISO 4400

D: IP65

WDE45/23x50-G12

WDE45/23x50-G24

Connector Deutsch DT04-2P

G: IP67 and IP69K

WGE45/23x50-G12

WGE45/23x50-G24

Connector socket AMP Junior-Timer axial

I: IP66

WIE45/23x50-G12

WIE45/23x50-G24

Connector socket AMP Junior-Timer radial

J: IP66

WJE45/23x50-G12

WJE45/23x50-G24

Relative duty factor

100 % ED

Voltage tolerance

 $\pm 10\%$ with regard to nominal voltage

Note!



Other electrical specifications see data sheet 1.1-182

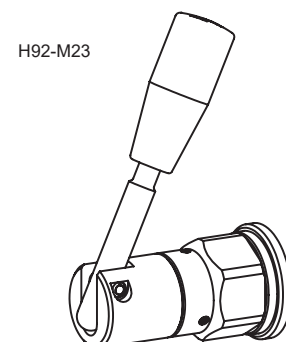
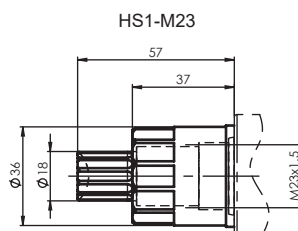
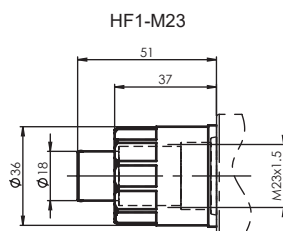
OPTIONAL MANUAL OVERRIDES

Order separate. See data sheet 1.1-312. Instead of the knurled nut, it is mounted on the anchor tube.

HF1-M23 push button

HS1-M23 spindle

H92-M23 hand lever (TFS 1.1)



GENERAL SPECIFICATIONS

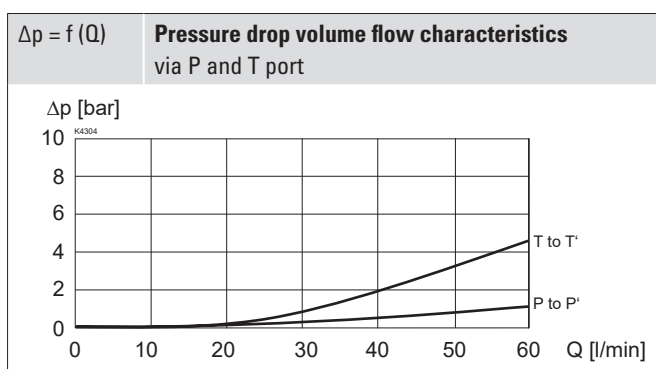
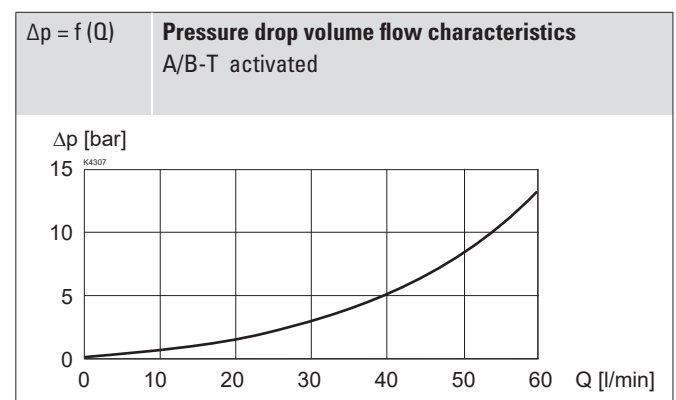
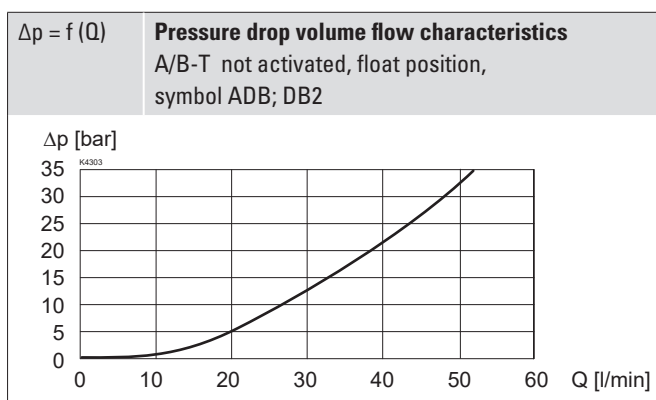
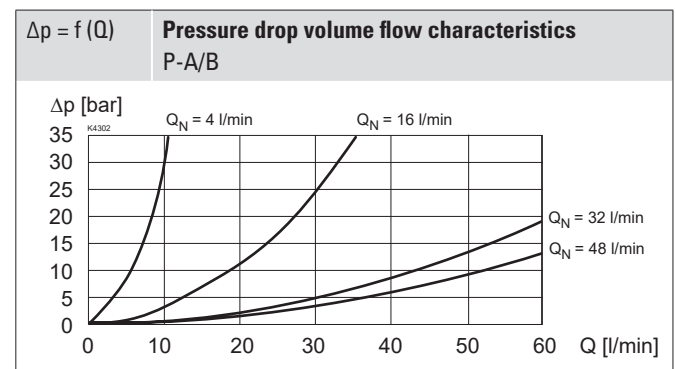
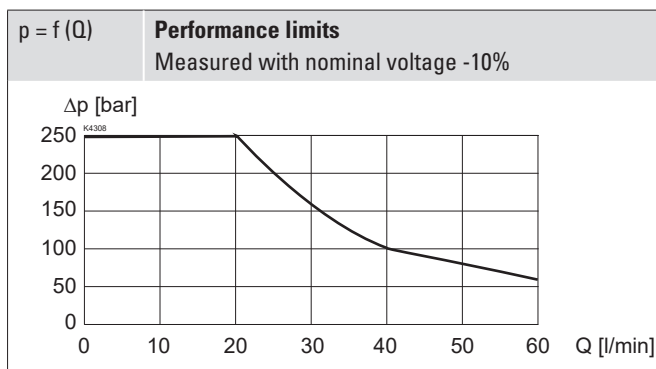
Designation	Solenoid operated spool valve
Construction	Direct operated
Mounting	Sectional design
Nominal size	CMVA-06
Actuation	Switching solenoid
Ambient temperature	-25...+50 °C
Weight	1.22 kg (6/2-way execution) 1.49 kg (6/3-way execution) (without solenoids)

HYDRAULIC SPECIFICATIONS

Working pressure	$p_{\max} = 250 \text{ bar}$
Maximum volume flow	$Q_{\max} = 60 \text{ l/min}$
Nominal volume flow	at $\Delta p 10 \text{ bar}$: $Q_N = 4 \text{ l/min}, 16 \text{ l/min}, 32 \text{ l/min}, 48 \text{ l/min}$
Leakage oil	On request
Fluid	Mineral oil, other fluid on request
Viscosity range	12 mm ² /s...320 mm ² /s
Temperature range fluid	-25...+70 °C
Contamination efficiency	Class 20 / 18 / 14
Filtration	Required filtration grade $\beta_{10...16} \geq 75$, see data sheet 1.0-50

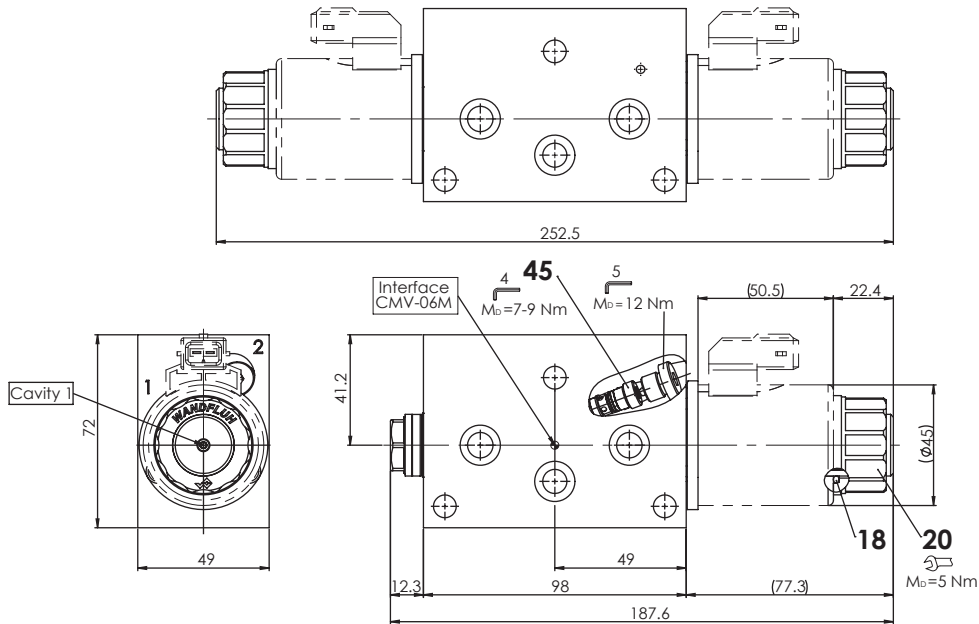
PERFORMANCE SPECIFICATIONS

Oil viscosity $\nu = 30 \text{ mm}^2/\text{s}$

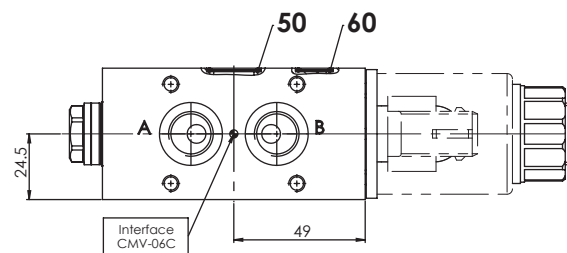


DIMENSIONS

6/3-way execution

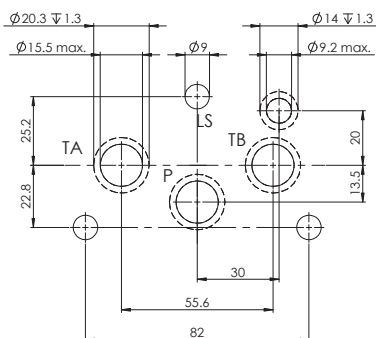


6/2-way execution

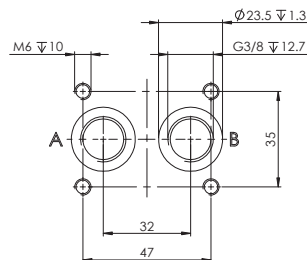


HYDRAULIC CONNECTION

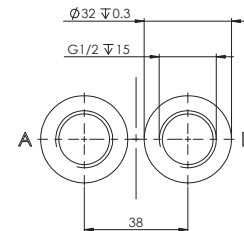
Main connections
CMV-06M



A+B G3/8"
with interface for additional functions
CMV-06C



A+B G1/2"
without interface



PARTS LIST

Position	Article	Description
45	106198	Shuttle valve
20	154.2701	Knurled nut M23 x 1,5 x 19,7
	107145	Seal kit CMV.-MA06-D0
		Seal kit consisting of:
18		O-ring ID 22,22 x 2,62
50		O-ring ID 17,17 x 1,78
60		O-ring ID 10,82 x 1,78

SURFACE TREATMENT

- ◆ The external steel parts are zinc/nickel coated
- ◆ The aluminium housings are untreated

ACCESSORIES

Mating connector grey (A)	Article no. 219.2001
Mating connector black (B)	Article no. 219.2002

SEALING MATERIAL

NBR as standard

INSTALLATION NOTES

Mounting type	Sectional mounting Three through holes for M8 Screws / threaded tie rods
Mounting position	Any, preferably horizontal
Tightening torque	Fixing screws $M_D = 23,5 \text{ Nm}$ (screw quality 8,8, zinc coated) $M_D = 5 \text{ Nm}$ knurled nut

STANDARDS / TECHNICAL INFORMATION

Contamination efficiency	ISO 4406
Filtration	Data sheet 1.0-50
Technical explanations	Data sheet 1.0-100
Relative duty factor	Data sheet 1.1-430