



# VALVES

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1800 022 831

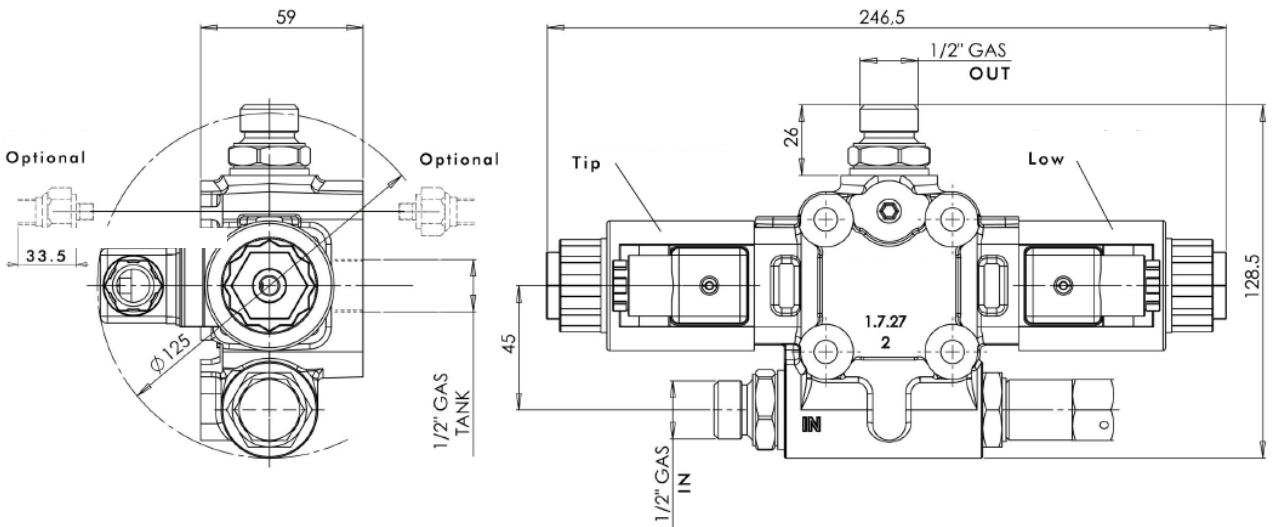
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Electric tipping valve operated by a switch to suit light-duty tipper trucks. Open centre hydraulic scheme according to CE standards.

- Built-in check and adjustable relief valves.
- Either Chassis or tank (DSE kit) mounting options.
- Ready for pressure signal switch mounting.
- Galvanized body and nickel spool.
- Compact size.
- Guaranteed for oil temperature range -15+110 °C, viscosity range 12+100 cSt and oil filtering 25 µm.

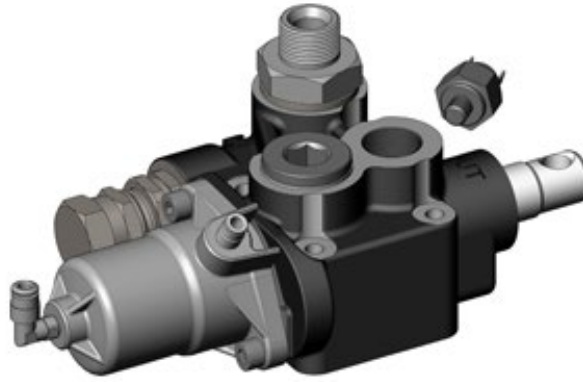
Dimensions



Tipping valve type	Order code	Pressure values		Flow  l/min
		Standard pressure setting bar	Max. pressure setting bar	
<b>FE-40 CE 12V</b>	12100400572	140	240	40
<b>FE-40 CE 24V</b>	12100400581			



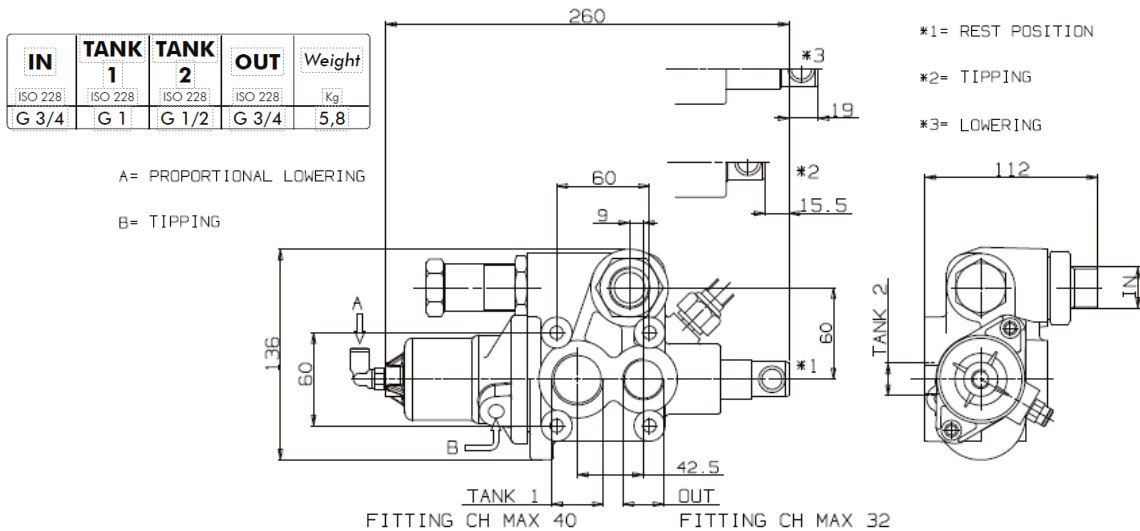
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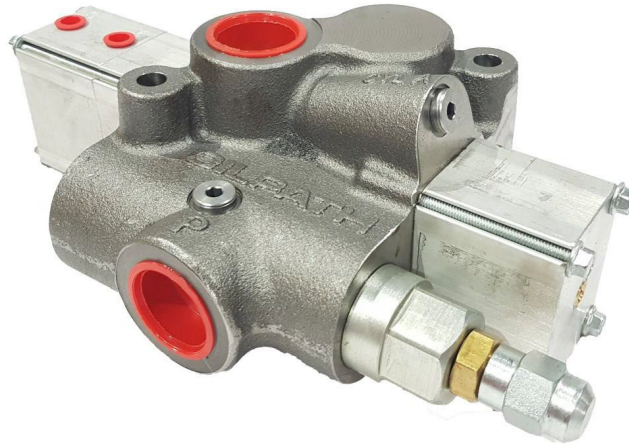
Proportional pneumatic tipping valve to suit medium-heavy-duty tipper trucks. Operated by proportional cab control. Open center hydraulic scheme according to CE standards.

- Built-in check and adjustable relief valves (direct type).
- Nodular cast-iron body for pressure up to 400 bar.
- Either Chassis or tank (DSP kit) mounting options.
- Mechanical Direct End-of-stroke.
- Ready for pressure signal switch mounting.
- Galvanized body and nickel spool.
- Compact size thanks to front ports.
- Guaranteed for oil temperature range -15+110 °C, viscosity range 12÷100 cSt and oil filtering 25 µm.

Dimensions



Tipping valve type	Order code	Pressure values		Flow l/min
		Standard pressure setting bar	Max. pressure setting bar	
<b>MODULAR 150 CE</b>	121-008-00185	160	280	150



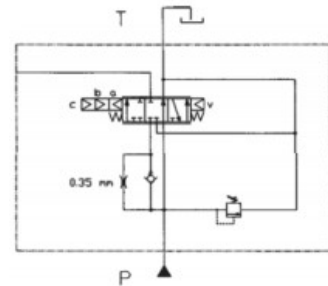
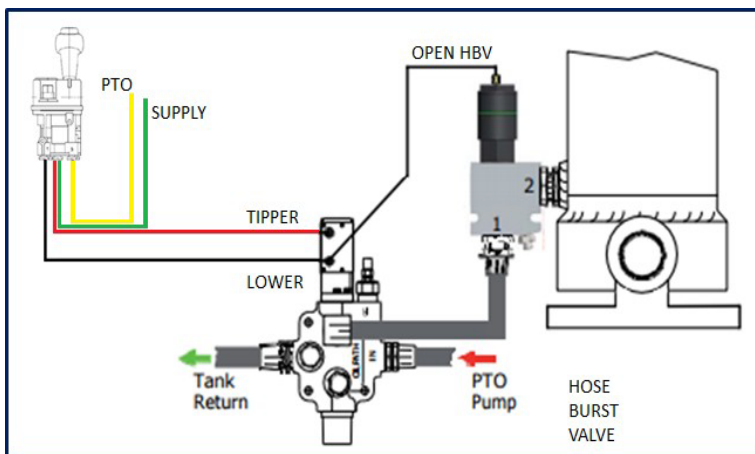
**Air Operated Single Spool Three Position Control Valve.**

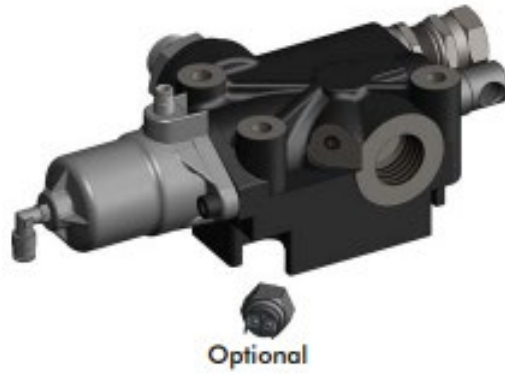
A single spool valve is for operating a single tipper hoist when operated by air cabin control. The OP22-1 valve is casted and manufactured in Australia by Oilpath. The valve has a flow 160 l/min and is designed with large internal tank galleries for low pressure drop.

Main Data	
Flow rate (l/min)	160
Max working pressure bar	245
Spool	Hard Chromed Plated
Port sizes (BSPP) Service	1"
Port sizes (BSPP) Tank Port	1 1/4"
Air port size	G1/8"
Air pressure requirement	90 PSI
Weight (kg)	7 kg

**Features:**

- Proportional operation
- Adjustable Relief
- Pressure Switch Port
- 1" BSPP service ports & 1 1/4" BSPP tank port
- Manual Handle option available
- Slow Lowering option available

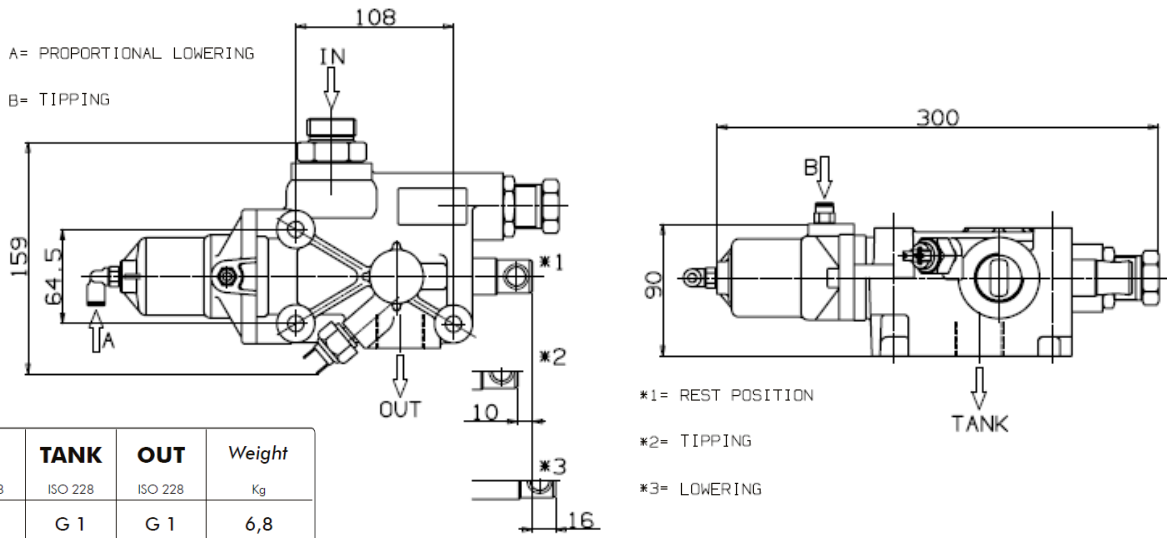




Proportional pneumatic tipping valve suitable for large oil flow applications especially designed for heavy-duty tipper bodies, off-road trucks and semi-trailers. Operated by proportional cab control. Open centre hydraulic scheme according to CE standards.

- Built-in check and adjustable relief valves (direct type).
- Nodular cast-iron body for pressure up to 400 bar.
- Either Chassis or tank mounting options.
- Mechanical Direct End-of-stroke.
- Ready for pressure signal switch mounting.
- Galvanized body and nickel spool.
- Guaranteed for oil temperature range -15+110 °C, viscosity range 12÷100 cSt and oil filtering 25 µm.

Dimensions



IN	TANK	OUT	Weight
ISO 228	ISO 228	ISO 228	Kg
G 1	G 1	G 1	6,8

Tipping valve type	Order code	Pressure values		Flow l/min
		Standard pressure setting bar	Max. pressure setting bar	
<b>MODULAR 250 CE</b>	121-008-00041	160	280	250

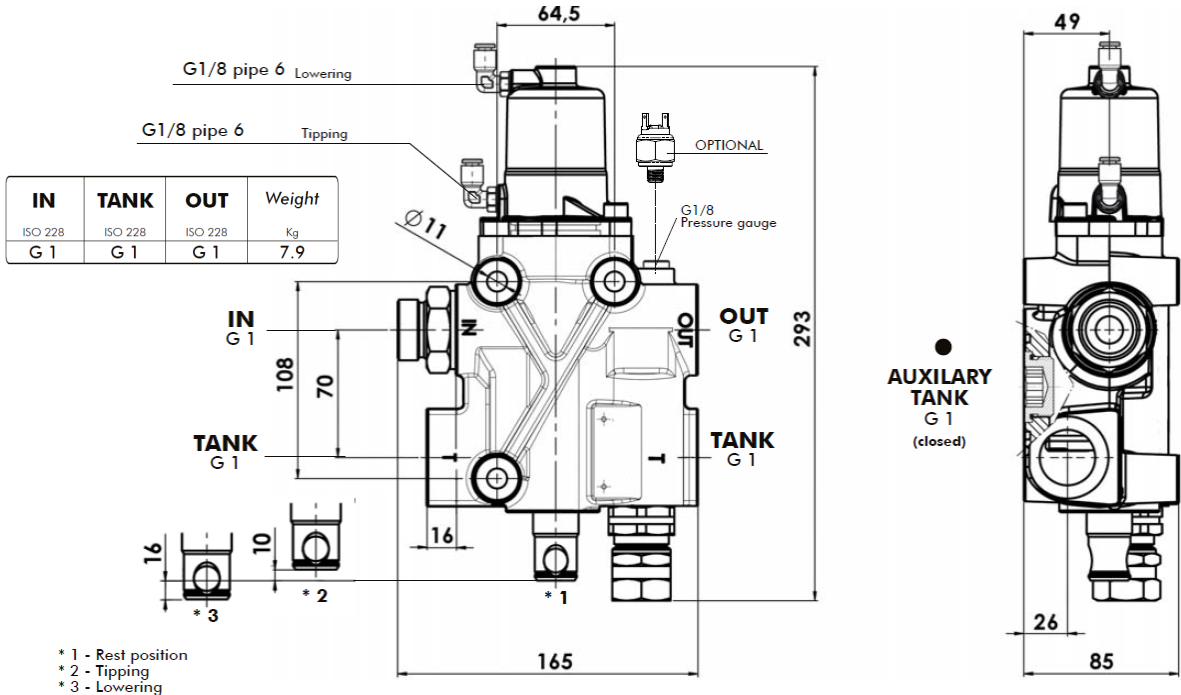


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Specially designed pneumatically operated hydraulic tipping valve for semitrailer tippers on tractor trucks. It allows quick and efficient pipe connections with time and fittings savings. This valve has an auxiliary outlet that can enable direct oil return when attached to a tank. It complies with the EC directive, featuring an open centre layout, a check valve on the pump input port, and a built-in adjustable relief valve. When used with a proportional air control valve (like our N-Force series), it allows adjustable tipper body lowering speed.

Dimensions



Tipping valve type	Order code	Pressure values		Flow l/min
		Standard pressure setting bar	Max. pressure setting bar	
<b>MODUL-TRUCK 250 CE</b>	121-018-00254	160	280	250

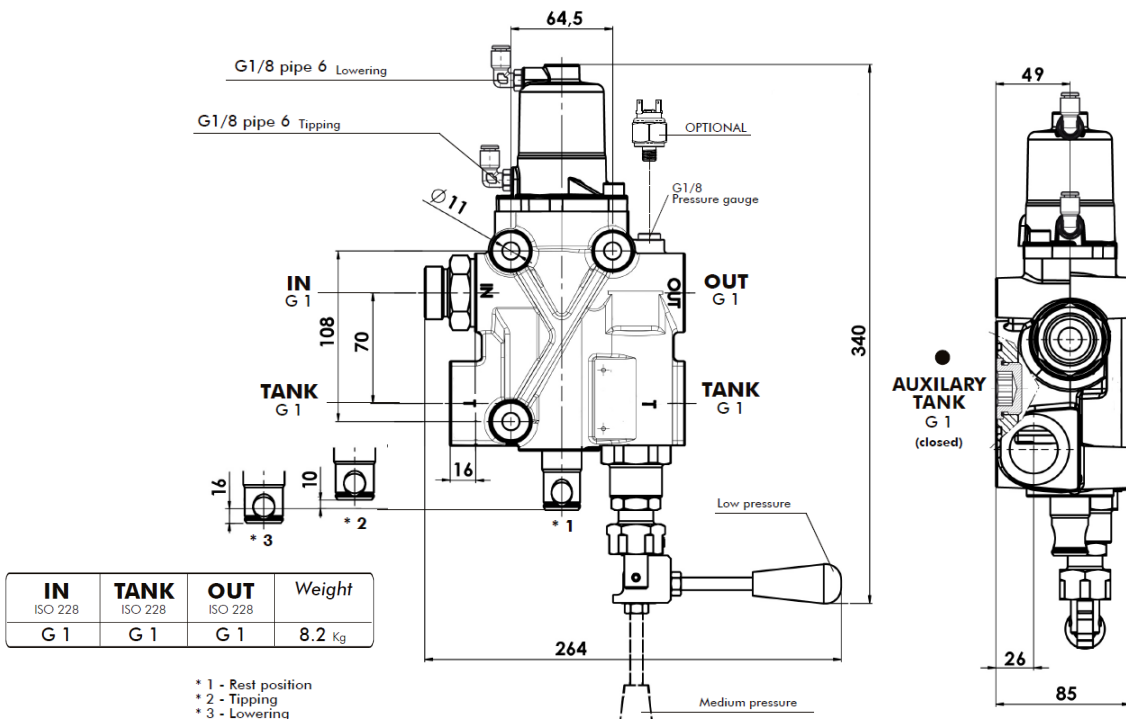


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Specially designed pneumatically operated hydraulic tipping valve for semitrailer tippers on tractor trucks. Features quick and efficient pipe connections, including a double-sided oil return option, saving time and fittings. It has an auxiliary outlet for direct oil return when connected to a tank. Complies with the EC directive with an open centre layout, a check valve on the pump input port, and a built-in adjustable relief valve (mechanical pressure type). When used with a proportional air control valve (e.g., our N-Force series), it allows adjustable tipper body lowering speed.

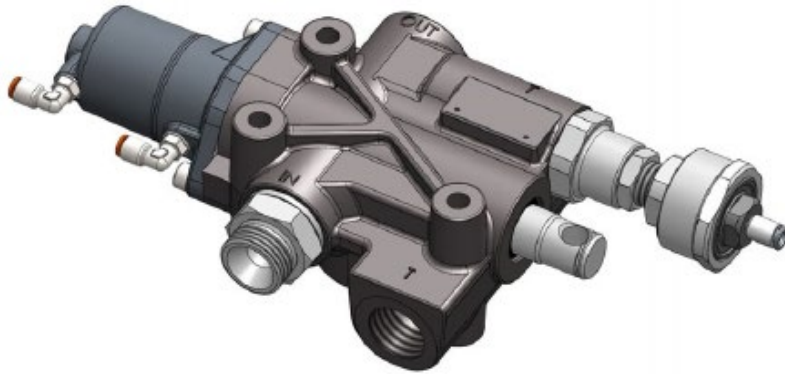
Dimensions



Tipping valve type	Order code	Pressure values		Flow l/min
		1 <sup>st</sup> - low bar	2 <sup>nd</sup> - medium bar	
<b>MODUL-TRUCK 250 CE</b>	12101802207	If not specified, the standard setting of the low pressure is of 140 Bar at 80 LPM. Medium pressure value is set consequently. For different setting please refer to the following graph.		250

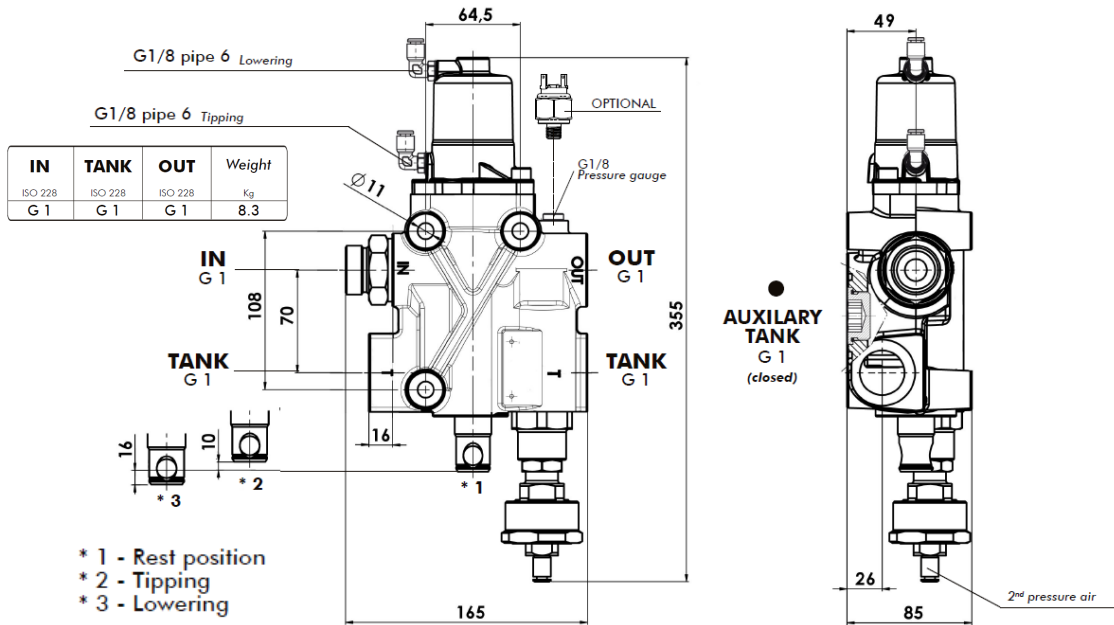



**MAX ALLOWED PRESSURE SETTING: 400 bar**  
**APPROX SETTING: 110 bar/rev**  
**PRESSURE SETTING HAS TO BE ALWAYS VERIFIED WITH A PRESSURE GAUGE**



Proportional pneumatic tipping valve for heavy-duty tipper bodies and semi-trailers with dual working pressures, selectable via pneumatic control. Features open centre hydraulic scheme according to CE standards, built-in check valve, dual pressure adjustable relief valve (pilot type), nodular cast-iron body for pressures up to 400 bar, and options for chassis or tank mounting. It includes mechanical direct end-of-stroke, readiness for pressure signal switch mounting, galvanized body, nickel spool, and is guaranteed to operate in an oil temperature range of -15 to +110 °C, with viscosity from 12 to 100 CST, and oil filters at 25 µm.

Dimensions

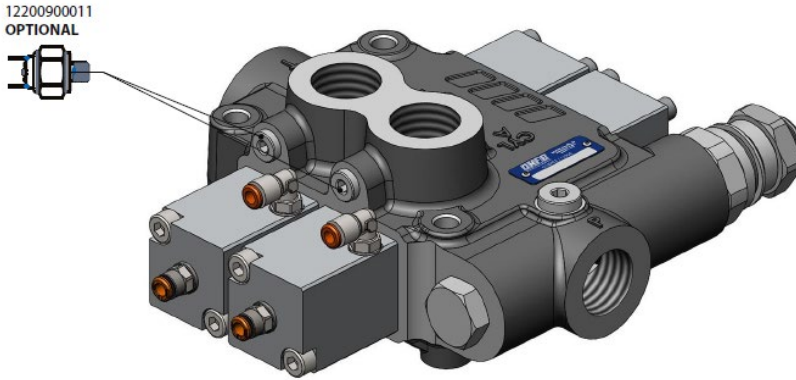


Tipping valve type	Order code	Pressure values		Flow l/min
		1 <sup>a</sup> - 1 <sup>st</sup> bar	2 <sup>a</sup> - 2 <sup>nd</sup> bar	
<b>MODUL-TRUCK 250 CE</b>	12101802609	If not specified, the standard setting of the 1 <sup>st</sup> pressure is of 170 bar at 80 LPM. 2 <sup>nd</sup> pressure value is 240 bar. For different setting please refer to the following graph.		250
 <b>MAX ALLOWED PRESSURE SETTING: 400 bar</b> <b>APPROX SETTING: 110 bar/rev</b> <b>PRESSURE SETTING HAS TO BE ALWAYS VERIFIED WITH A PRESSURE GAUGE</b>				



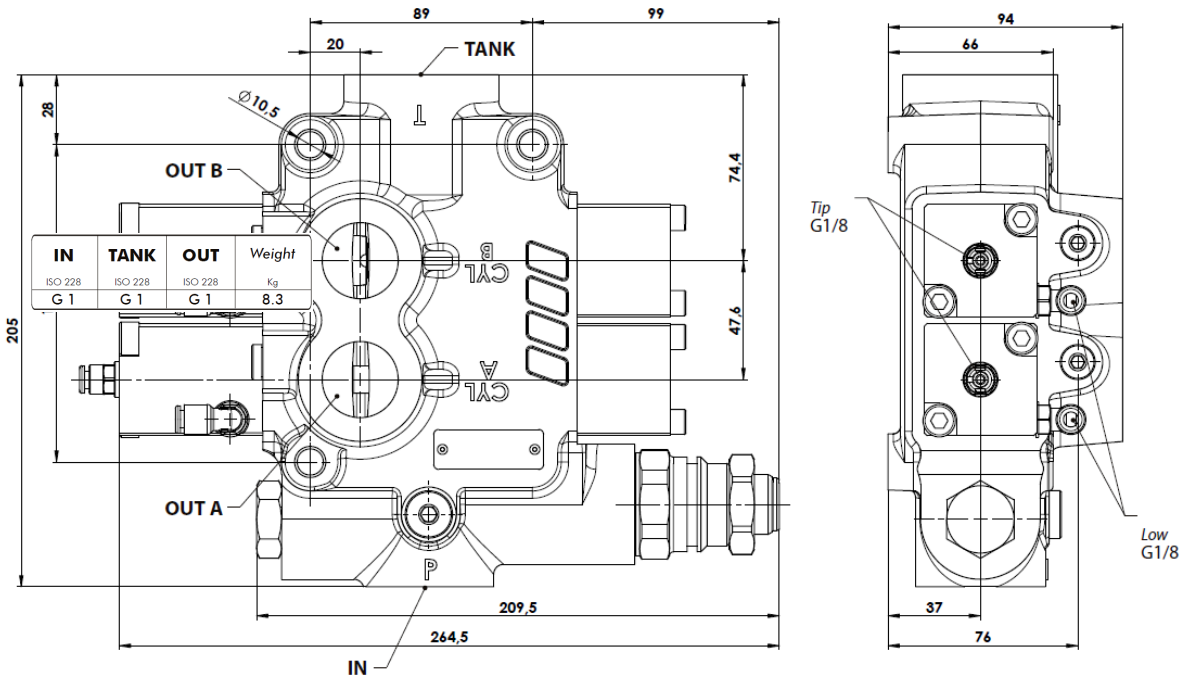
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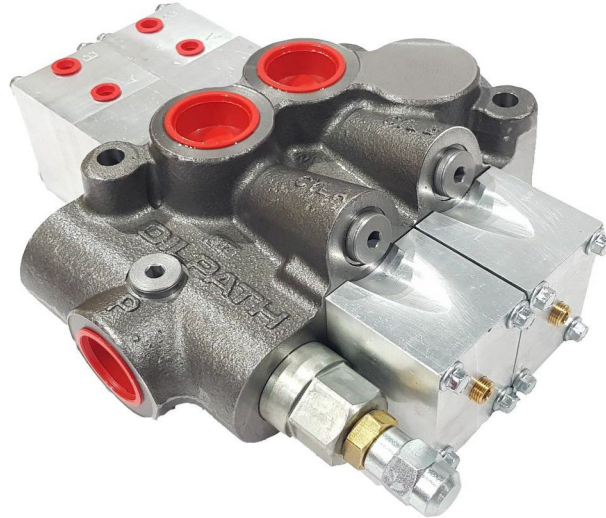
- CARTRIDGE 150 relief valve.
- Nodular cast-iron body for pressure up to 400 bar.
- Galvanized body and nickel spool.
- Guaranteed for oil temperature range -15+110 °C, viscosity range 12÷100 cSt and oil filtering 25 µm.

Dimensions



Order code

Tipping valve type	Order code	IN	TANK	OUT A-B	Flow	Pressure		Weight
						Standard pressure setting	Max. pressure setting	
						bar		
DM-160	12101500113	G 1	G 1-1/4	G 1	160	140	260	10



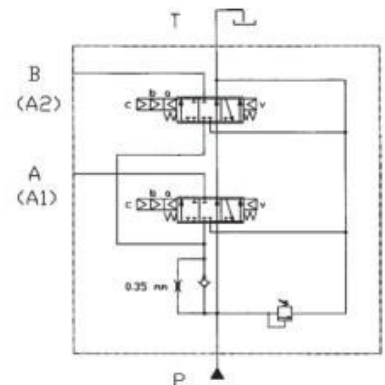
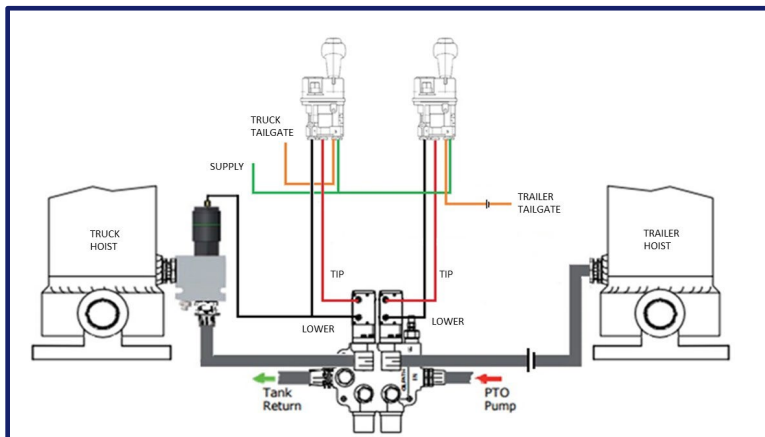
**Air Operated Dual Spool Three-Position Control Valve.**

The dual valve is for operating two tipping hoists for Truck & Dog or ‘B’ Double systems. The OP22 valve is cast and manufactured in Australia by Oilpath. The valve has a flow of 160 l/min and is designed with large internal tank galleries for low-pressure drop.

Main Data	
Flow rate (l/min)	160
Max working pressure bar	245
Spool	Hard Chromed Plated
Port sizes (BSPP) Service	1"
Port sizes (BSPP) Tank Port	1 1/4"
Air port size	G1/8"
Air pressure requirement	90 PSI
Weight (kg)	15 kg

**Features:**

- Proportional operation
- Adjustable Relief
- Pressure Switch Port option
- 1" BSPP service ports & 1 ¼" BSPP tank port
- Manual Handle option available
- Slow Lowering option available



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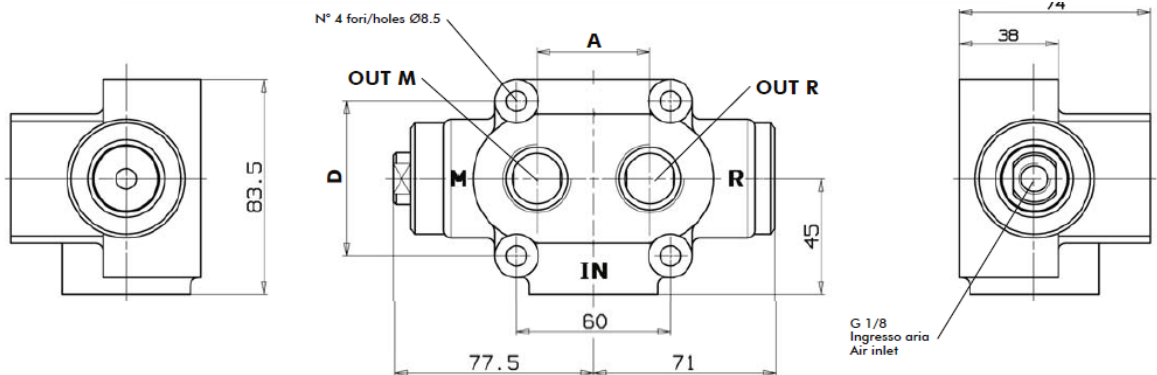




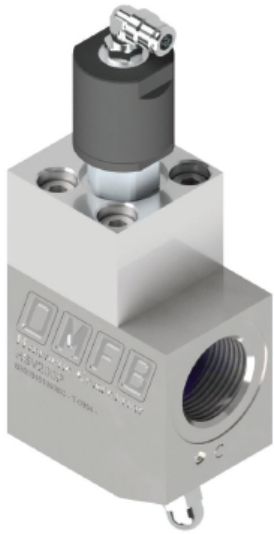
High-pressure 3-way pneumatic diverter valve for dual pressure line control. Ideal for Tipper/Crane and Truck/Trailer applications.

- Max flow: 250 l/min
- Max pressure: 400 bar
- Open centre design for shock prevention during switching.
- Corrosion-resistant coated body with Nickel spool.
- Guaranteed for oil temperatures -15 to +110°C, viscosity 12÷100 cSt, and 25 µm oil filtering.

Dimensions

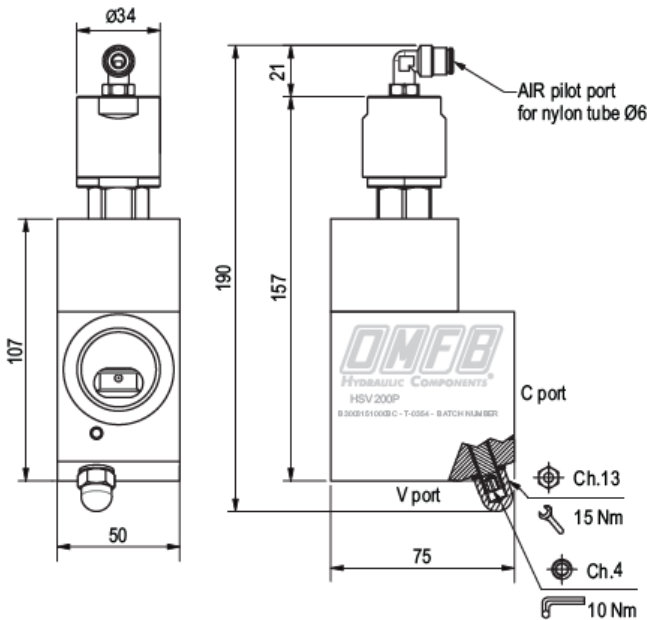


Tipping valve type	Order code	Pressure		Flow l/min	A	IN	OUT M & R	D	Weight kg
		In service bar	Max peak pressure bar						
<b>SEL 250-2</b>	121-022-00141	350	400	250	50	G 1	G 1	65	2,5

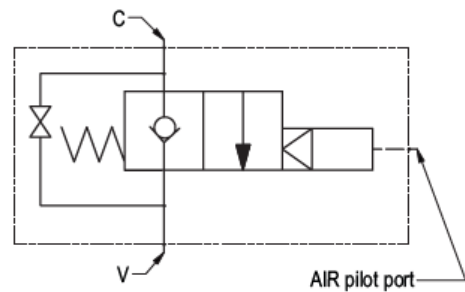


HSV Series valves are manufactured to exacting standards to ensure the highest levels of safety and reliability.

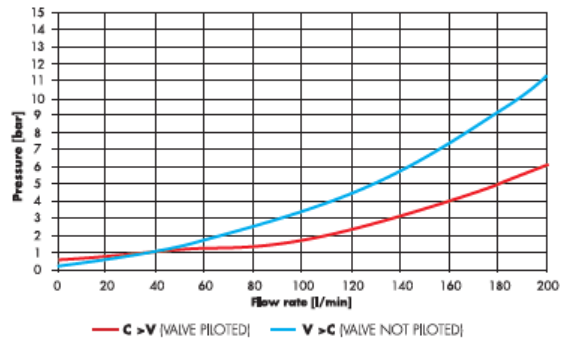
- Pilot-operated design results in minimal pressure-drop and the fastest lowering speeds on the market
- Emergency override feature
- Includes 1/8" to 6mm airline swivel fitting



HYDRAULIC DIAGRAM



PRESSURE DROP

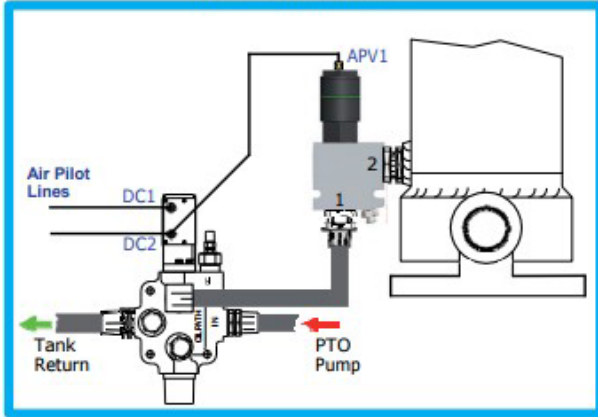


PRODUCT CODE	MAX. FLOW L/min	MAX. PRESSURE bar	PORTS	
			C & V BSPP	PILOT BSPP
HSV200P	200	250	1"	1/8"

## HOIST CHECK VALVE

The economical, High Quality sensible solution for the Tipper Industry

Typical Installation



### DESCRIPTION

The valve is an inline, direct acting, pneumatically operated hoist check valve for use in blocking or load holding. The valve is direct mounted to the Lift cylinder by its hydraulic connecting fitting and secured utilising clamping holes provided. It's ease of fitment gives it the highest degree of suitability for both new installations and retro fits to existing Tipper. Refer to the installation drawing.

### OPERATION

**Raise:** Flow comes from the truck mounted directional valve, enters port 1 of the APV valve and exits its port number 2 straight into the Lift Cylinder.

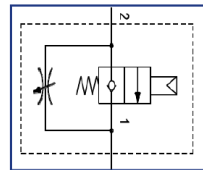
**Lower:** Air pilot pressure simultaneously operates the Truck directional valve to lower function as well as opening the check valve in the APV valve from port 2 to 1 which then allows oil to leave the cylinder and return to tank via the directional valve.

### COMPLIANCE

This valve can be utilised as the controlled lowering device on AS1418.8 compliant Tipper Hydraulic Circuits.

Air Pilot Operation

Function	DC1	DC2	APV1
Raise	Pressure	Vent	Vent
Hold	Vent	Vent	Vent
Lower	Vent	Pressure	Pressure



Schematic Diagram



### FEATURES & RATINGS

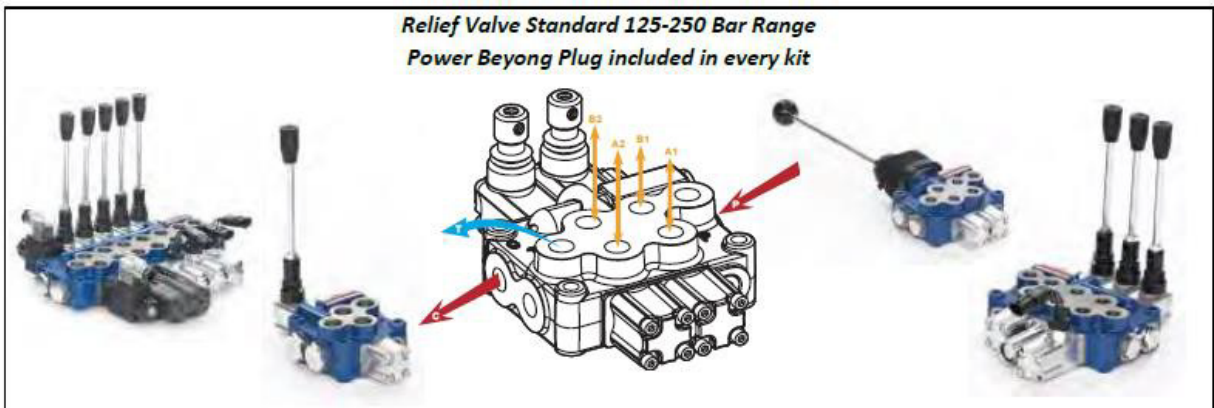
- Easy installation to new and existing vehicles.
- Low pressure drop for fast lowering.
- Hard anodised air cylinder with stainless piston for corrosion protection and extended wear life.
- High quality HydraForce cartridge valve Nose, Poppet, & Spring
- Internal leakage: 0.15cc/minute (3 drops/minute) maximum at 210 bar.
- Maximum operating pressure 210 bar (3,000 psi).
- Flow capability: see performance chart below.
- Minimum air pressure to operate 2.1bar (30psi).

**MB3 Monoblock - 45 lpm**

Part Number	Spool	Qty	Max Flow	Max Pressure	Ports
MB3/1S3/18L/G4-3-4	Cylinder	1	45 lpm	315 Bar (25 Bar on T)	1/2 BSPP- P,T,C 3/8 BSPP- A,B
MB3/1S3/28L/G4-3-4	Motor				
MB3/1S3/48L/G4-3-4	Single Acting				
MB3/2S3/18L/G4-3-4	Cylinder	2			
MB3/3S3/18L/G4-3-4		3			
MB3/4S3/18L/G4-3-4		4			
MB3/5S3/18L/G4-3-4		5			
MB3/6S3/18L/G4-3-4		6			

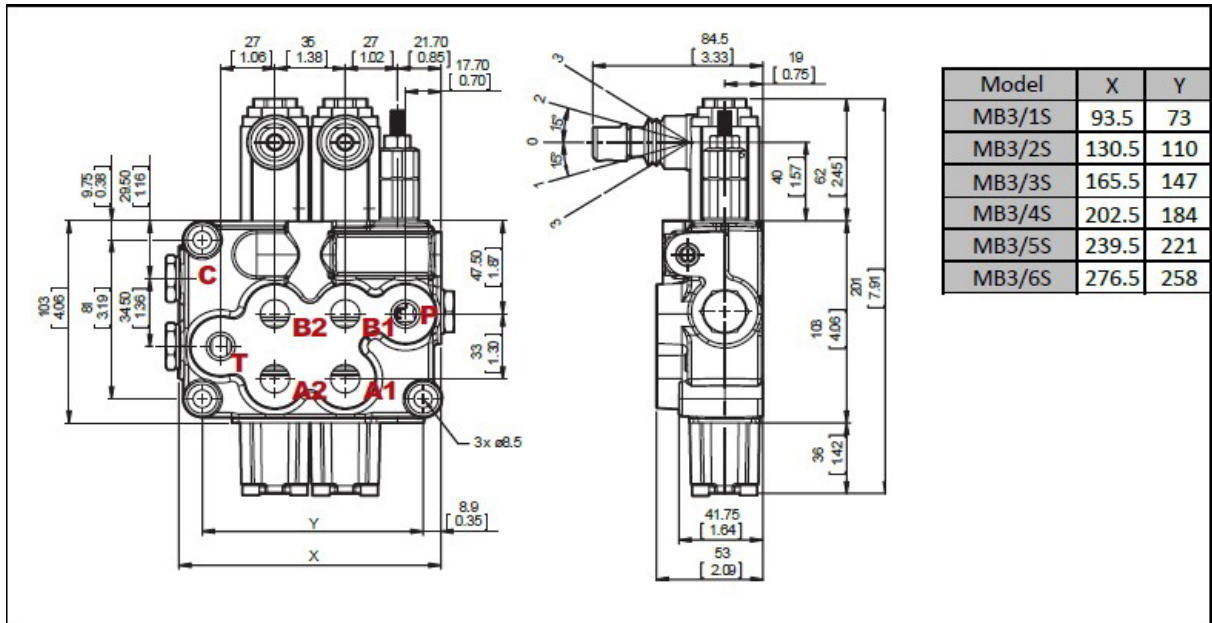
**MB3 Monoblock with Float Spools**

Part Number	Spool	Qty	Max Flow	Max Pressure	Ports
MB3/1S3/5PYL/G4-3-4	Cylinder with Float	1	45 lpm	315 Bar (25 Bar on T)	1/2 BSPP- P,T,C 3/8 BSPP- A,B
MB3/2S3/5PYL/G4-3-4	Cylinder with Float	2			
MB3/2S3/18L/5PYL/G4	Cylinder	1			
	Cylinder with Float	1			



**MB3 Options**

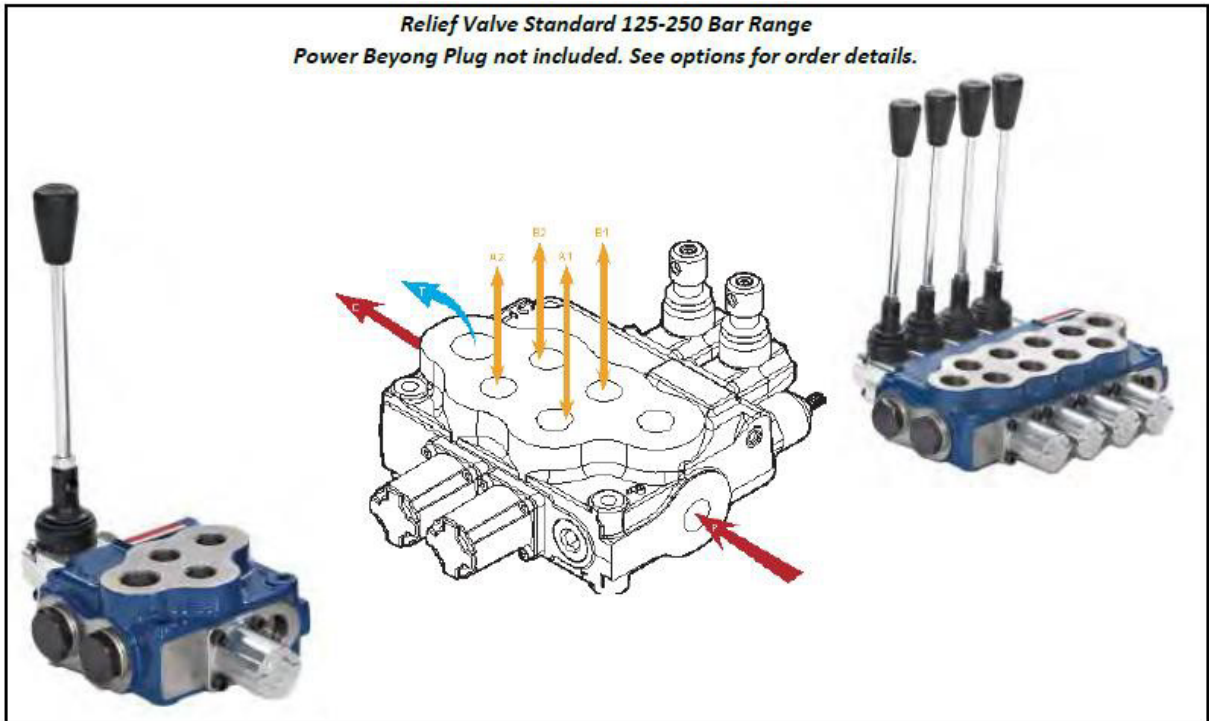
Part Number	Description
YLMB33002	Motor Spool
YLMB33003	Single Acting Spool on A Port
YLMB33004	Single Acting Spool on B Port
YLMB44061	Detent Kit, No Spring to Centre (variations available)
YLMB44091	Detent Kit, Spring to Centre (variations available)
YLMB44080	Pneumatic Spool Positioner
YLMB44300-12VDC	Electro-Pneumatic Spool Positioner, 12VDC
YLMB44300-24VDC	Electro-Pneumatic Spool Positioner, 24VDC
YLMB34611	Solenoid Kit with Cylinder Spool, 12VDC
YLMB34612	Solenoid Kit with Cylinder Spool, 24VDC
YLMB34621	Solenoid Kit with Motor Spool, 12VDC
YLMB34622	Solenoid Kit with Motor Spool, 24VDC
YLMB44803	Microswitch Kit, Normally Open, Double Acting (variations available)
YLMB44805	Microswitch Kit, Normally Open, Double Acting for Float Spool (SPYL)
FCR-2	Remote Joystick - 2 Spool Operation
YLMB45002	Joystick - 2 Spool Operation
YLMB45003	TQ Connection Kit for Joystick
RCC3/1S/HL	Remote Manual Lever
YLMBCABLE x M	Various Length Cables - contact us for price



**MB5 Monoblock, 80 lpm, Max 315 Bar**

Part Number	Spool	Qty	Max Flow	Max Pressure	Ports
MB5/1S3/18L/G8-6-8	Cylinder	1	80 lpm	315 Bar (25 Bar on T)	1" BSPP- T,C 3/4 BSPP- P,A,B
MB5/1S3/28L/G8-6-8	Motor				
MB5/1S3/48L/G8-6-8	Single Acting				
MB5/2S3/18L/G8-6-8	Cylinder	2			
MB5/3S3/18L/G8-6-8		3			
MB5/4S3/18L/G8-6-8		4			
MB5/5S3/18L/G8-6-8		5			
MB5/6S3/18L/G8-6-8		6			

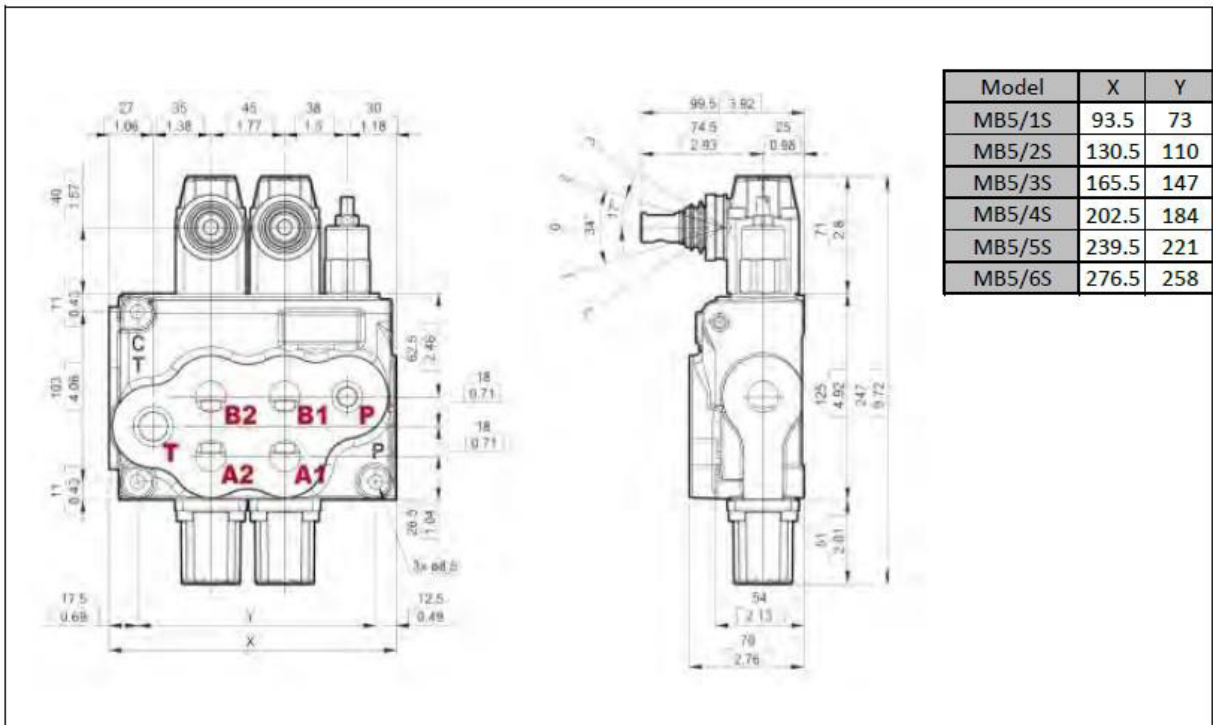
*Relief Valve Standard 125-250 Bar Range  
Power Beyond Plug not included. See options for order details.*





**MB5 Options**

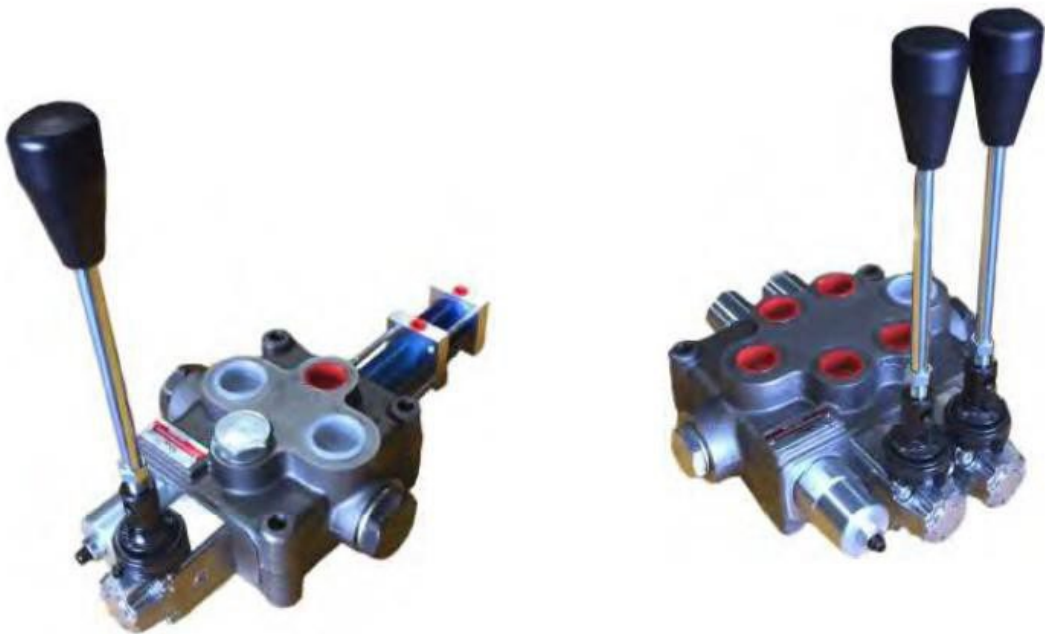
Part Number	Description
YLMB53002	Motor Spool
YLMB53003	Single Acting Spool on A Port
YLMB53004	Single Acting Spool on B Port
YLMB54061	Detent Kit, No Spring to Centre (variations available)
YLMB54091	Detent Kit, Spring to Centre (variations available)
YLMB54080	Pneumatic Spool Positioner
YLMB54300-12V	Electro-Pneumatic Spool Positioner, 12VDC
YLMB54300-24V	Electro-Pneumatic Spool Positioner, 24VDC
YLMB5COPG4	Power Beyond Plug
YLMB54803	Microswitch Kit, Normally Open (variations available)
FCR-2	Remote Joystick - 2 Spool Operation
YLMB55002	Joystick - 2 Spool Operation
YLMB55003	Connection Kit for Joystick
RCC5/1S/HL	Remote Manual Lever
YLMBCABLE x M	Various Length Cables - contact us for price



**MB6 Monoblock, 120 lpm, Max 315 Bar**

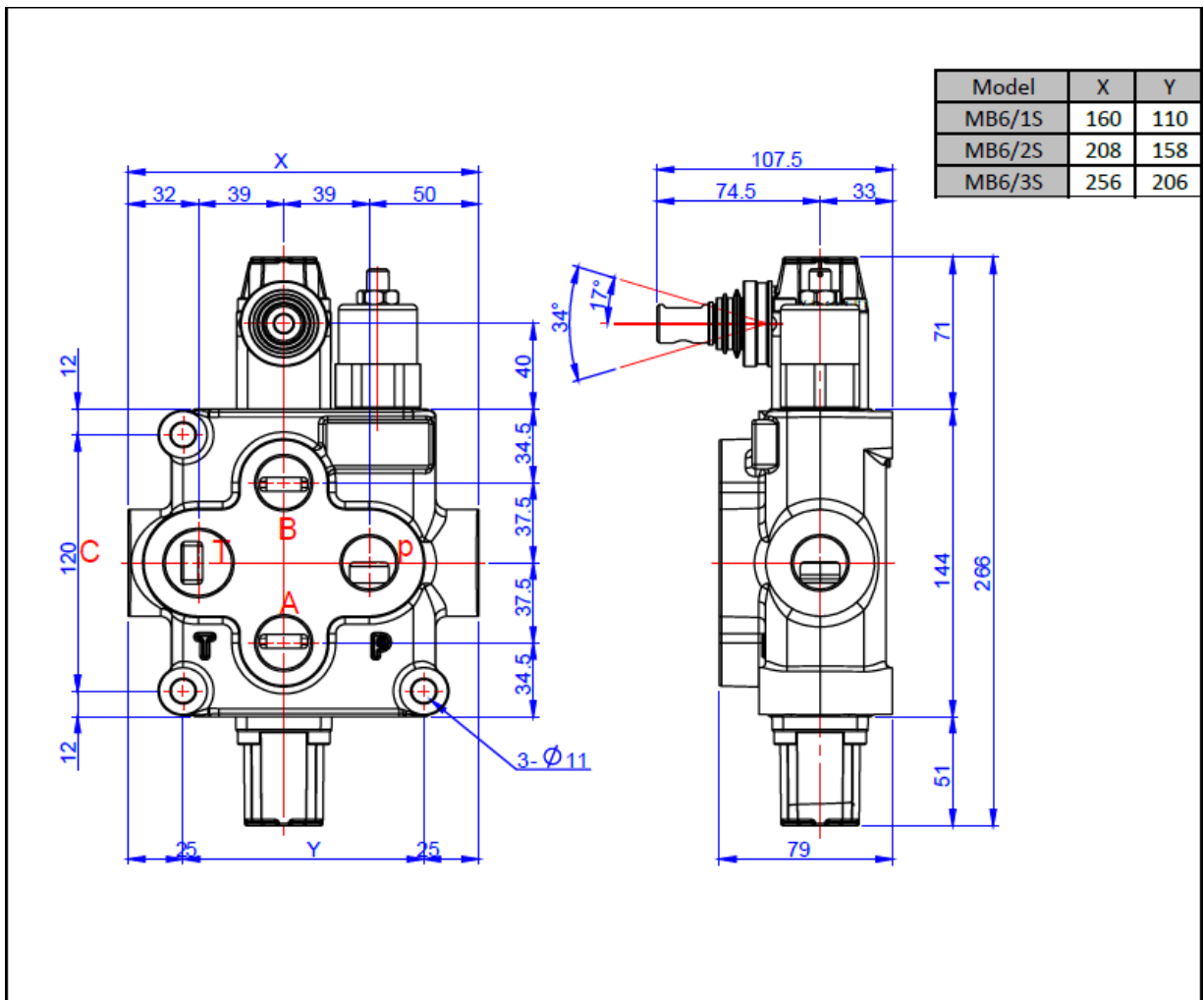
Part Number	Spool	Qty	Max Flow	Max Pressure	Ports
MB6/1S3/18L/G8-6-8	Cylinder	1	120 lpm	315 Bar (25 Bar on T)	1-1/4" BSPP- T,C 1 BSPP- P,A,B
MB6/1S3/28L/G8-6-8	Motor				
MB6/1S3/38L/G8-6-8	Single Acting				
MB6/1S3/38PL/G8-6-8	Single Acting with Pneumatic Control				
MB6/2S3/18L/G8-6-8	Cylinder	2	120 lpm	315 Bar (25 Bar on T)	1-1/4" BSPP- T,C 1 BSPP- P,A,B
MB6/2S3/18PL/G8-6-8	Single Acting with Pneumatic Control				
MB6/3S3/18L/G8-6-8	Cylinder	3	120 lpm	315 Bar (25 Bar on T)	1-1/4" BSPP- T,C 1 BSPP- P,A,B

*Relief Valve Standard 125-250 Bar Range  
Power Beyond Plug not included. See Options for order details.*



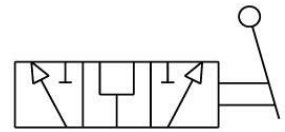
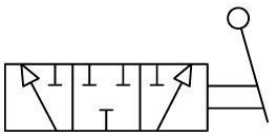
**MB6 Options**

Part Number	Description
YLMB63002	Motor Spool
YLMB63003	Single Acting Spool on A Port
YLMB64061	Detent Kit, No Spring to Centre (variations available)
YLMB64080	Pneumatic Spool Positioner
YLMB64300-12V	Electro-Pneumatic Spool Positioner, 12VDC
YLMB64300-24V	Electro-Pneumatic Spool Positioner, 24VDC
2BMTX01954	Power Beyond Plug



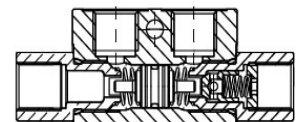
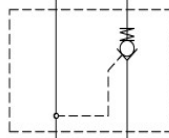
## Lever Diverter Valves, 3 Port

Part Number	Ports	Max Pressure	Max Flow	Spool Crossover
DDF3380B	3/8 BSPP	350 Bar	60 lpm	Closed Centre
DDF3120B	1/2 BSPP		90 lpm	
DDF3340B	3/4 BSPP		120 lpm	
DDF3100B	1" BSPP	300 Bar	200 lpm	
DDF3380A	3/8 BSPP	350 Bar	60 lpm	Open Centre
DDF3120A	1/2 BSPP		90 lpm	
DDF3340A	3/4 BSPP		120 lpm	
DDF3100A	1" BSPP	300 Bar	200 lpm	



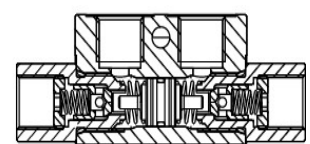
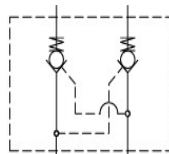
## Single Inline Pilot Check Valves

Part Number	Ports	Max Flow	Max Pres	Pilot Ratio	Material
VRSE140	1/4 BSPP	15 lpm	320 Bar	1:4	Steel
VRSE380	3/8 BSPP	35 lpm			
VRSE120	1/2 BSPP	45 lpm		1:2.9	
VRSE340	3/4 BSPP	70 lpm			



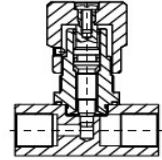
## Dual Inline Pilot Check Valves

Part Number	Ports	Max Flow	Max Pres	Pilot Ratio	Material
VRDE140	1/4 BSPP	15 lpm	320 Bar	1:4	Steel
VRDE380	3/8 BSPP	35 lpm			
VRDE120	1/2 BSPP	45 lpm		1:2.9	
VRDE340	3/4 BSPP	70 lpm			



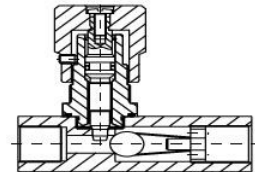
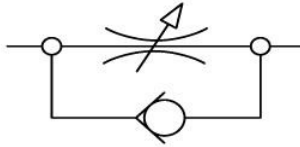
## Needle Flow Control Valves

Part Number	Ports	Max Flow	Max Pressure	Material
STBF140	1/4 BSPP	15 lpm	400 Bar	Steel
STBF380	3/8 BSPP	30 lpm		
STBF120	1/2 BSPP	50 lpm		
STBF340	3/4 BSPP	80 lpm		
STBF100	1" BSPP	150 lpm		



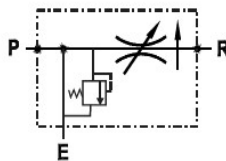
## Needle Flow Control Valves with Reverse Flow Check

Part Number	Ports	Max Flow	Max Pressure	Material
STUF140	1/4 BSPP	15 lpm	400 Bar	Steel
STUF380	3/8 BSPP	30 lpm		
STUF120	1/2 BSPP	50 lpm		
STUF340	3/4 BSPP	80 lpm		
STUF100	1" BSPP	150 lpm		

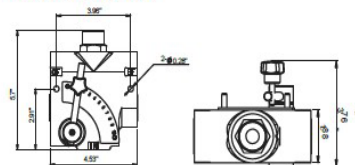


## Priority Flow Controls with Relief

Part Number	Ports	Max Flow	Max Pressure	Material
PFC60RV	7/8 UNO	60 lpm	200 Bar	Cast Iron
PFC120RV	1-1/16 UNO	120 lpm		



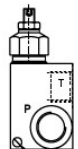
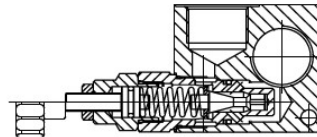
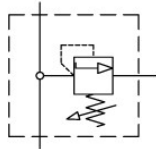
Installing Dimension (in.)



## Inline Relief Valves

Part Number	Ports	Max Flow	Max Pressure	Material
VMDR40-3801C	3/8 BSPP	40 lpm	10-110 Bar	Steel
VMDR40-3802C			20-210 Bar	
VMDR40-3803C			40-300 Bar	
VMDR40-1201C	1/2 BSPP		10-110 Bar	
VMDR40-1202C			20-210 Bar	
VMDR40-1203C			40-300 Bar	
VMDR90-1201C	1/2 BSPP	80 lpm	10-100 Bar	
VMDR90-1202C			20-250 Bar	
VMDR90-1203C			40-350 Bar	
VMDR120-3401C	3/4 BSPP	120 lpm	10-100 Bar	
VMDR120-3402C			20-250 Bar	
VMDR120-3403C			40-350 Bar	
VMDR120-1001C	1" BSPP		10-100 Bar	
VMDR120-1002C			20-250 Bar	
VMDR120-1003C			40-350 Bar	

81300109	Adjustment Handle VMDR40 Series
81300023	Adjustment Handle VMDR90-120 Series



## Cross Line Relief Valves

Part Number	Ports	Max Flow	Max Pressure	Material
VBDC3802	3/8 BSPP	40 lpm	20-210 Bar	Steel
VBDC3803			40-350 Bar	
VBDC1202	1/2 BSPP		20-210 Bar	
VBDC1203			40-350 Bar	
DPRL-04-20-A	3/4 BSPP	80 lpm	30-260 Bar	Alloy

