



No. 1 in Transport Hydraulics



# DIRECTIONAL VALVE L40A1AZ




- ◆ Manufactured in one section only (Monoblock)
- ◆ Double Acting (cylinder) Spool with Spring Return Control
- ◆ Nominal flow rate - 40 l/min.
- ◆ Max. working pressure - 300 bar
- ◆ Max. output backpressure - 50 bar
- ◆ Adjustable pressure relief valve
- ◆ Inlet single acting check valve
- ◆ Spool negative filling
- ◆ Working temperature: min - 10° - max 80°C
- ◆ Spool leakage at 100 bar (Temp. 50°C Visc. 27 CST): 18 ml/min
- ◆ Standard relief 80 - 300 bar
- ◆ Weight - 1.900kg

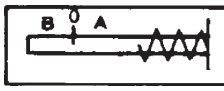
### ORDERING CODE:

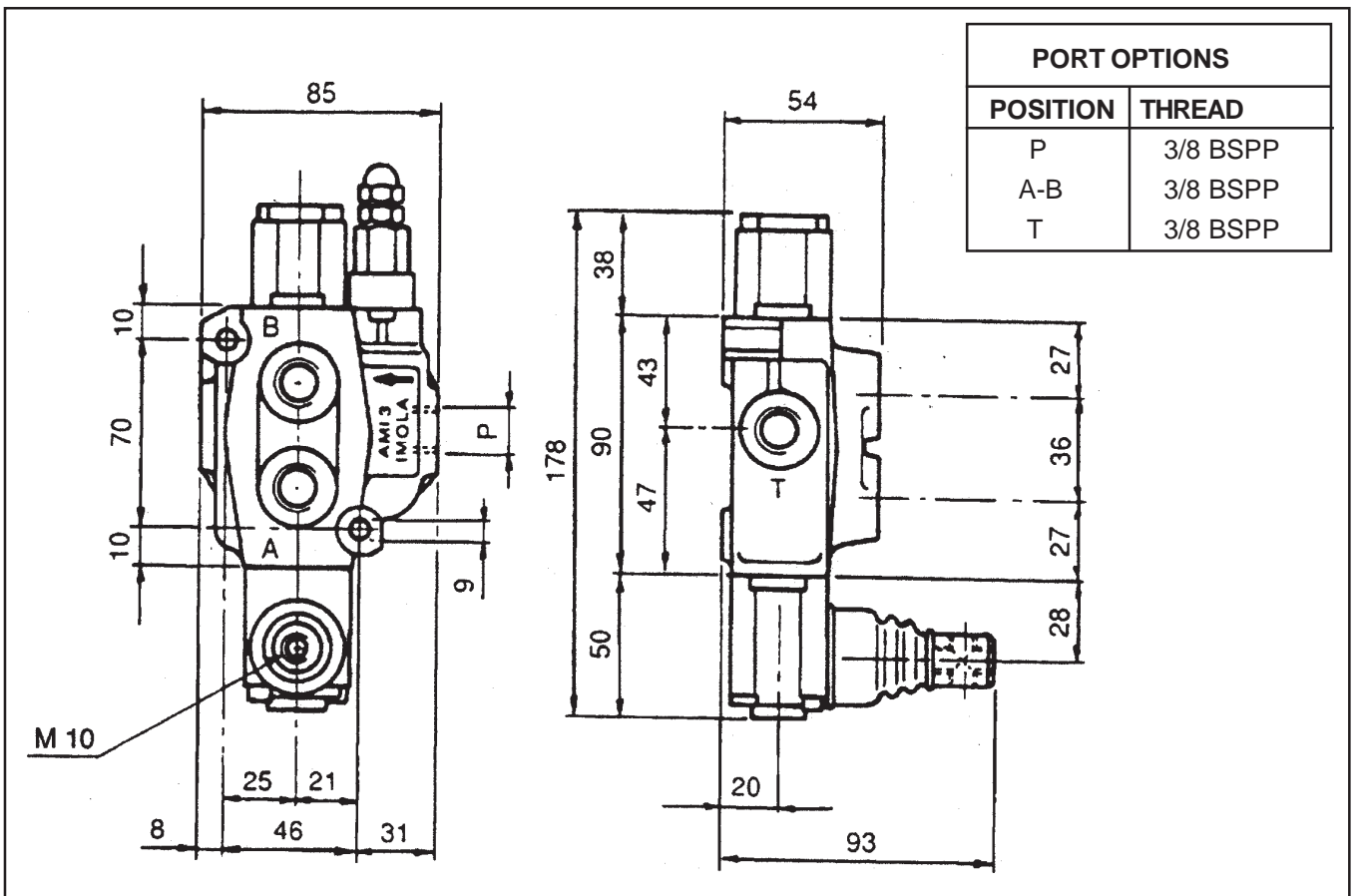
Example:

(Refer to Spool Type, Spool Controller Type and Port Option Charts for code letters)

L40	A	1	A	Z	XXX
SERIES	PORTS - STANDARD		SECTIONS = 1		
SPOOL = Double Acting ("cylinder spool")			CONTROLLER = Spring Return A and B		
NO SPECIAL OPTIONS					

SPOOL OPTIONS			
TYPE	DIAGRAM	TYPICAL USES	SPOOL TYPE
A		DOUBLE-ACTING CYLINDERS	3 POSITION DOUBLE-ACTING

CONTROLLER OPTIONS		
TYPE	DIAGRAM	CONTROLLER TYPE
Z		3 POSITION, SPRING RETURN TO CENTRE





No. 1 in Transport Hydraulics



# DIRECTIONAL VALVE L45



- ◆ Manufactured in one section only (Monoblock)
- ◆ Nominal flow rate - 45 l/min.
- ◆ Max. working pressure - 400 bar
- ◆ Max. output backpressure - 50 bar
- ◆ Adjustable pressure relief valve
- ◆ Inlet single acting check valve
- ◆ Spool negative filling
- ◆ Working temperature: min - 10° - max 80°C
- ◆ Spool leakage at 100 bar (Temp. 50°C Visc. 27 CST): 18 ml/min
- ◆ Optional high pressure carry over
- ◆ Standard relief 80 - 300 bar
- ◆ Weight - 3.200kg

\*Spool Position Micro Switch Option = VC1/L45 = Switch closed in Pos A & B, open in Neutral.  
 = VC2/L45 = Switch closed in Pos A, open in B & Neutral.

### ORDERING CODE:

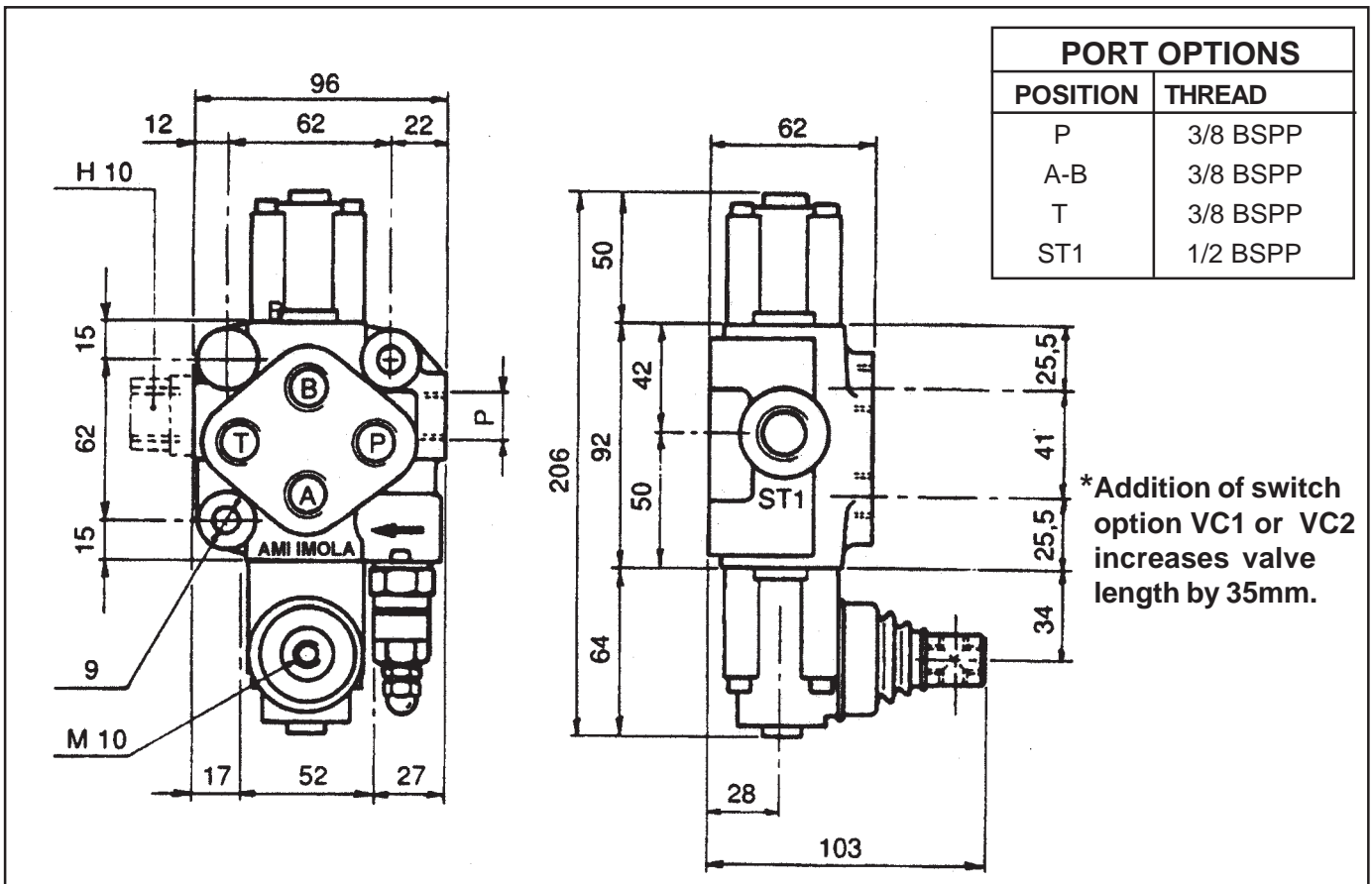
Example

(Refer to Spool Type, Spool Controller Type and Port Option Charts for code letters)

L45	A	1	A	Z	XXX
SERIES					
PORT OPTION					
NO. OF SPOOLS					
SPOOL TYPE					
SPOOL CONTROLLER TYPE					
SPECIAL OPTIONS (IF REQUIRED DESIGNATED BY FACTORY)					

SPOOL OPTIONS			
TYPE	DIAGRAM	TYPICAL USES	SPOOL TYPE
A		DOUBLE-ACTING CYLINDERS	3 POSITION DOUBLE-ACTING
B		SINGLE ACTING RAMS (MEGARAM, BINOTTO)	3 POSITION SINGLE-ACTING SERVICE IN A
F		MOTOR CIRCUITS	3 POSITION DOUBLE-ACTING A AND B TO TANK

CONTROLLER OPTIONS		
TYPE	DIAGRAM	CONTROLLER TYPE
Z		3 POSITION, SPRING RETURN TO CENTRE
Y		DETENT IN 3 POSITIONS
X		PNEUMATIC PILOT SPRING CENTRED
V		MICROSWITCH SPRING CENTRED *This is not VC1 or VC2 option.





No. 1 in Transport Hydraulics



# DIRECTIONAL VALVE M45



- ◆ Manufactured in 2 to 5 sections (Monoblock)
- ◆ Nominal flow rate - 45 l/min.
- ◆ Max. working pressure - 350 bar
- ◆ Max. output backpressure - 50 bar
- ◆ Adjustable pressure relief valve
- ◆ Inlet single acting check valve
- ◆ Spool negative filling
- ◆ Working temperature: min - 10° - max 80°C
- ◆ Spool leakage at 100 bar (Temp. 50°C Visc. 27 CST): 18 ml/min
- ◆ Optional high pressure carry over
- ◆ Standard relief 60 - 350 bar
- ◆ Optional relief 10 - 250 bar
- ◆ Weight

M45 (2 sections) .....	5.000 kg
M45 (3 sections) .....	6.750 kg
M45 (4 sections) .....	8.500 kg
M45 (5 sections) .....	10.100 kg

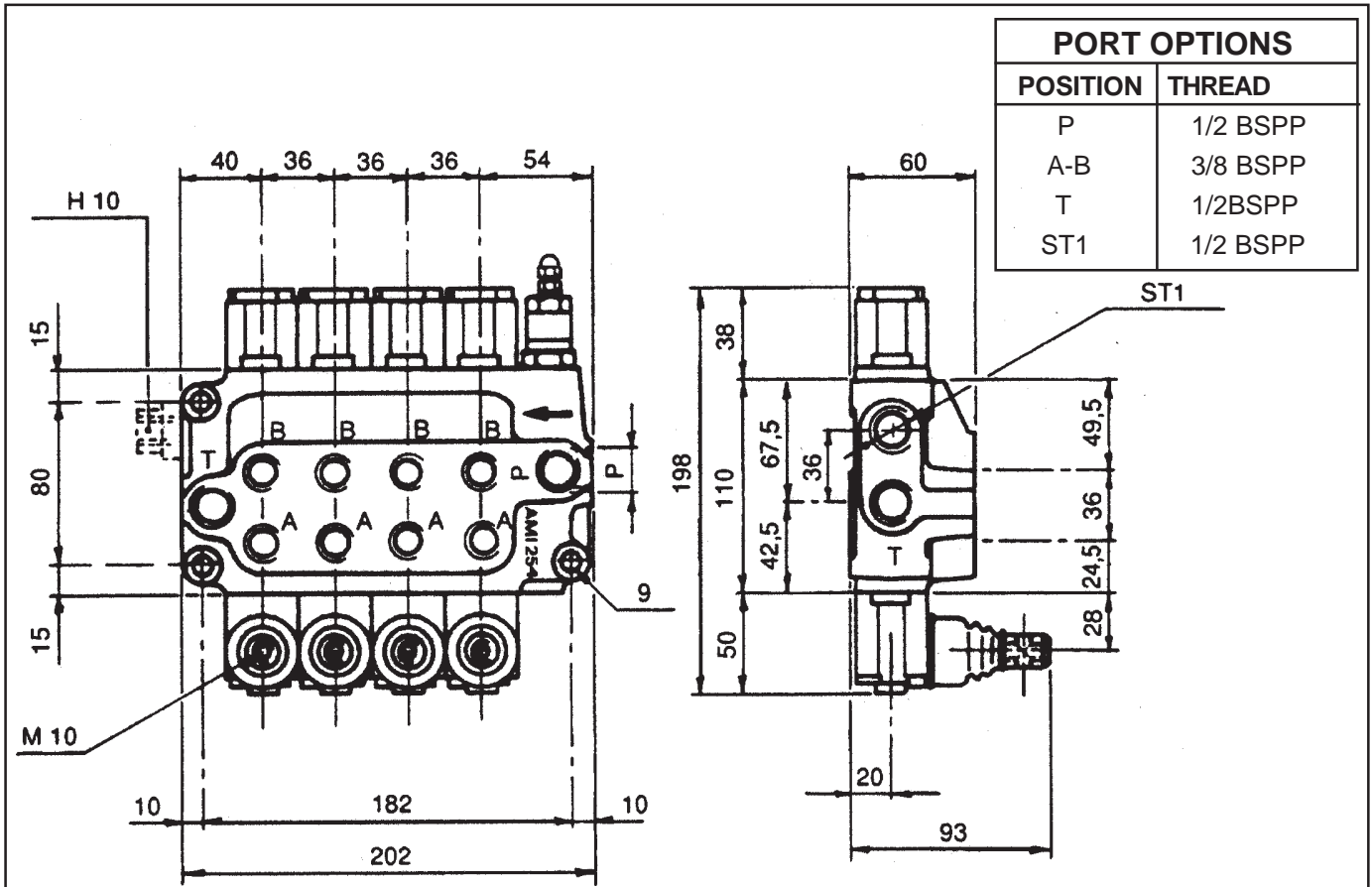
## ORDERING CODE:

Example: (Refer to Spool Type, Spool Controller Type and Port Option Charts for code letters)

M45	A	3	A	Z	B	Y	F	W	XXX	
SERIES	PORT OPTION		NO. OF SPOOLS		1ST SPOOL TYPE		1ST SPOOL CONTROLLER TYPE		2ND SPOOL TYPE	
SPECIAL OPTIONS (IF REQUIRED DESIGNATED BY FACTORY)										

SPOOL OPTIONS			
TYPE	DIAGRAM	TYPICAL USES	SPOOL TYPE
A		DOUBLE-ACTING CYLINDERS	3 POSITION DOUBLE-ACTING
B		SINGLE ACTING RAMS (MEGARAM, BINOTTO)	3 POSITION SINGLE-ACTING SERVICE INA
D		LOW LOADER RAMPS	4 POSITION DOUBLE-ACTING WITH FLOATING 4TH POSITION
F		MOTOR CIRCUITS	3 POSITION DOUBLE-ACTING A AND B TO TANK

CONTROLLER OPTIONS		
TYPE	DIAGRAM	CONTROLLER TYPE
Z		3 POSITION, SPRING RETURN TO CENTRE
Y		DETENT IN 3 POSITIONS
X		PNEUMATIC PILOT SPRING CENTRED
P		4 POSITION, SPRING RETURN TO CENTRE, FLOATING DETENT IN 4TH POSITION





*No. 1 in Transport Hydraulics*



# DIRECTIONAL VALVE M70



- ◆ Manufactured in 1 to 5 sections (Monoblock)
- ◆ Nominal flow rate - 60 l/min.
- ◆ Max. working pressure - 350 bar
- ◆ Max. output backpressure - 80 bar
- ◆ Adjustable pressure relief valve
- ◆ Single acting check valve for each section
- ◆ Spool negative filling
- ◆ Working temperature: min - 10° - max 80°C
- ◆ Spool leakage at 100 bar (Temp. 50°C Visc. 27 CST): 20 ml/min
- ◆ Optional high pressure carry over
- ◆ Standard relief 60-350 bar
- ◆ Operational relief 10-250 bar
- ◆ Weight

M70 (1 section) .....	5.400 kg
M70 (2 sections) .....	8.700 kg
M70 (3 sections) .....	11.950 kg
M70 (4 sections) .....	15.350 kg
M70 (5 sections) .....	17.700 kg

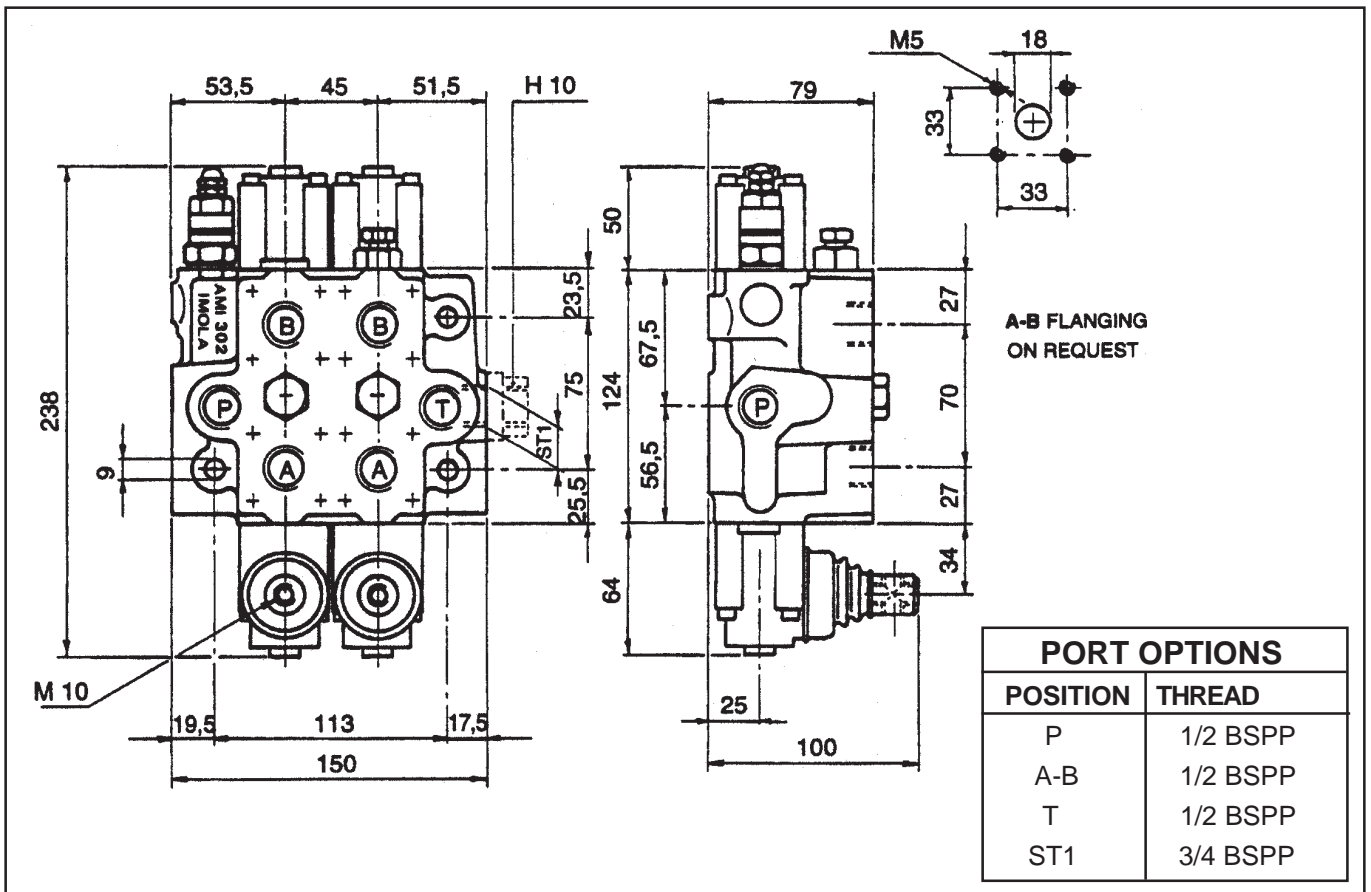
## ORDERING CODE:

Example: (Refer to Spool Type, Spool Controller Type and Port Option Charts for code letters)

M70	A	3	A	Z	B	Y	F	W	XXX
SERIES									
PORT OPTION									
NO. OF SPOOLS									
1ST SPOOL TYPE									
1ST SPOOL CONTROLLER TYPE									
2ND SPOOL TYPE									
2ND SPOOL CONTROLLER TYPE									
3RD SPOOL TYPE									
3RD SPOOL CONTROLLER TYPE									
SPECIAL OPTIONS (IF REQUIRED DESIGNATED BY FACTORY)									

SPOOL OPTIONS			
TYPE	DIAGRAM	TYPICAL USES	SPOOL TYPE
A		DOUBLE-ACTING CYLINDERS	3 POSITION DOUBLE-ACTING
B		SINGLE ACTING RAMS (MEGARAM, BINOTTO)	3 POSITION SINGLE-ACTING SERVICE IN A
F		MOTOR CIRCUITS	3 POSITION DOUBLE-ACTING A AND B TO TANK

CONTROLLER OPTIONS		
TYPE	DIAGRAM	CONTROLLER TYPE
Z		3 POSITION, SPRING RETURN TO CENTRE
Y		DETENT IN 3 POSITIONS
X		PNEUMATIC PILOT SPRING CENTRED
Q		3 POSITION, SPRING RETURN TO CENTRE, DETENT IN B
O		2 POSITION, SERVICE IN A DETENT IN A AND 0
J		2 POSITION, SERVICE IN A SPRING RETURN TO 0





No. 1 in Transport Hydraulics



# DIRECTIONAL VALVE M130



- ◆ Manufactured in 1 to 3 sections (Monoblock)
  - ◆ Nominal flow rate - 120 l/min.
  - ◆ Max flow rate - 130 l/min.
  - ◆ Max. working pressure - 220 bar
  - ◆ Max. output backpressure - 50 bar
  - ◆ Adjustable pressure relief valve
  - ◆ Single acting check valve for each section
  - ◆ Spool negative filling
  - ◆ Working temperature: min - 10° - max 80°C
  - ◆ Spool leakage at 100 bar (Temp. 50°C Visc. 27 CST): 21 ml/min
  - ◆ Standard relief 10 - 220 bar\*
  - ◆ Weight
- |                         |           |
|-------------------------|-----------|
| M130 (1 section) .....  | 11.900 kg |
| M130 (2 sections) ..... | 16.400 kg |
| M130 (3 sections) ..... | 20.900 kg |

\*In some manual actuation, detented spool applications working pressure may be extended beyond 220 bar to a maximum of 280 bar. Contact the Tech Office.

## ORDERING CODE:

Example:

(Refer to Spool Type, Spool Controller Type and Port Option Charts for code letters)

	M130	A	3	A	Z	B	Y	F	W	XXX
SERIES										
PORT OPTION										
NO. OF SPOOLS										
1ST SPOOL TYPE										
1ST SPOOL CONTROLLER TYPE										
2ND SPOOL TYPE										
2ND SPOOL CONTROLLER TYPE										
3RD SPOOL TYPE										
3RD SPOOL CONTROLLER TYPE										
SPECIAL OPTIONS (IF REQUIRED DESIGNATED BY FACTORY)										

SPOOL OPTIONS			
TYPE	DIAGRAM	TYPICAL USES	SPOOL TYPE
A		DOUBLE-ACTING CYLINDERS	3 POSITION DOUBLE-ACTING
B		SINGLE ACTING RAMS (MEGARAM, BINOTTO)	3 POSITION SINGLE-ACTING SERVICE IN A
F		MOTOR CIRCUITS	3 POSITION DOUBLE-ACTING A AND B TO TANK

CONTROLLER OPTIONS		
TYPE	DIAGRAM	CONTROLLER TYPE
Z		3 POSITION, SPRING RETURN TO CENTRE
Y		DETENT IN 3 POSITIONS
X		PNEUMATIC PILOT SPRING CENTRED

**PORT OPTIONS**

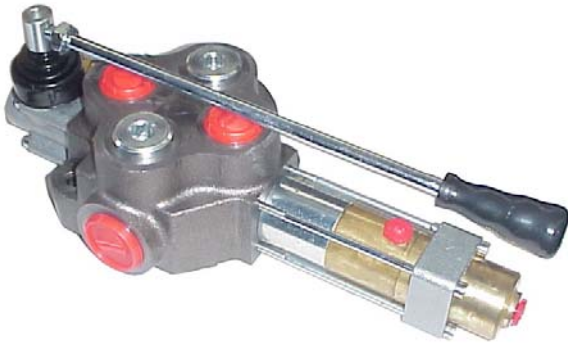
POSITION	THREAD
P	3/4 BSPP
A-B	3/4 BSPP
T	1" BSPP
ST1	1" BSPP



No. 1 in Transport Hydraulics



# DIRECTIONAL VALVE M131



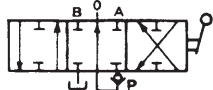
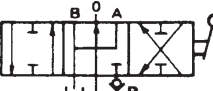
- ◆ Manufactured in 1 section (Monoblock).
- ◆ Nominal flow rate - 100 l/min.
- ◆ Max. working pressure - 220 bar for Spring Centre.
- ◆ Max. working pressure - 300 bar.
- ◆ Adjustable pressure relief valve.
- ◆ Single acting check valve for each section.
- ◆ Spool negative filling.
- ◆ Working temperature: min - 10° - max 80°C.
- ◆ Spool leakage at 100 bar (Temp. 50°C Visc. 27 CST): 21 ml/min.
- ◆ Standard relief 10 - 280 bar.
- ◆ Weight  
M131 (1 section) ..... 10 kg


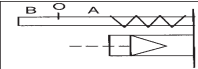
### ORDERING CODE:

Example:

(Refer to Spool Type, Spool Controller Type and Port Option Charts for code letters)

<b>M131</b>	<b>A</b>	<b>1</b>	<b>A</b>	<b>Z</b>
SERIES				
PORT OPTION				
NO. OF SPOOLS				
SPOOL TYPE				
SPOOL CONTROLLER TYPE				

SPOOL OPTIONS			
TYPE	DIAGRAM	TYPICAL USES	SPOOL TYPE
A		DOUBLE-ACTING CYLINDERS	3 POSITION DOUBLE-ACTING
F		MOTOR CIRCUITS	3 POSITION DOUBLE-ACTING A AND B TO TANK

CONTROLLER OPTIONS		
TYPE	DIAGRAM	CONTROLLER TYPE
Z		3 POSITION, SPRING RETURN TO CENTRE
X		PNEUMATIC PILOT SPRING CENTRED

