

This series of modular subplates has been designed to make hydraulic circuits and can be used directly on power packs or on any other section of the machine.

The subplates are assembled by means of 4 tie-rods with seal seats incorporated in the subplate.

The above assembly achieves compact units (including pressure and discharge manifolds): one face per subplate is used for connection to services and the other to mount ISO 4401-03 (CETOP 03) valves.

Complex circuits can also be set up using modular valves.

The recommended mounting configuration for **P2*** subplates on hydraulic power packs is with the main axis positioned vertically to obtain the bundle of pipes to utilities in two vertical rows; however assembly is not restricted to this configuration.

P2* **MODULAR SUBPLATES** **FOR ISO 4401-03 (CETOP 03)** **VALVES**

p max 350 bar

Q max 50 l/min

TECHNICAL SPECIFICATIONS

Maximum operating pressure - ports P - A - B - port T	bar	see paragraph 11 140
Maximum flow	l/min	50
Port dimensions: P - pressure T - lower drainage T - upper drainage A/B - users	BSP	3/8" 1/2" 3/8" 3/8"
Ambient temperature range	°C	-20 / +50
Fluid temperature range	°C	-20 / +80
Fluid viscosity range	cSt	10 ÷ 400
Fluid contamination degree	cSt	25
Recommended viscosity	According to ISO 4406:1999 class 20/18/15	

1 - IDENTIFICATION CODE

P	2	D	-		/	21
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Subplate _____

Dimension for _____
ISO 4401-03 (CETOP 03) valves

Single mounting facility _____

Serial No :
(from 20 to 29 and from 30 to 39 overall and
mounting dimensions remain unchanged)

Versions: (omit for standard subplate P2D/21)

F = with P - T threaded ports and additional pressure port.

I = intermediate with threaded fastening holes to reduce rods length and additional pressure port.

Z = arranged for the installation of an MZD pressure reducing valve

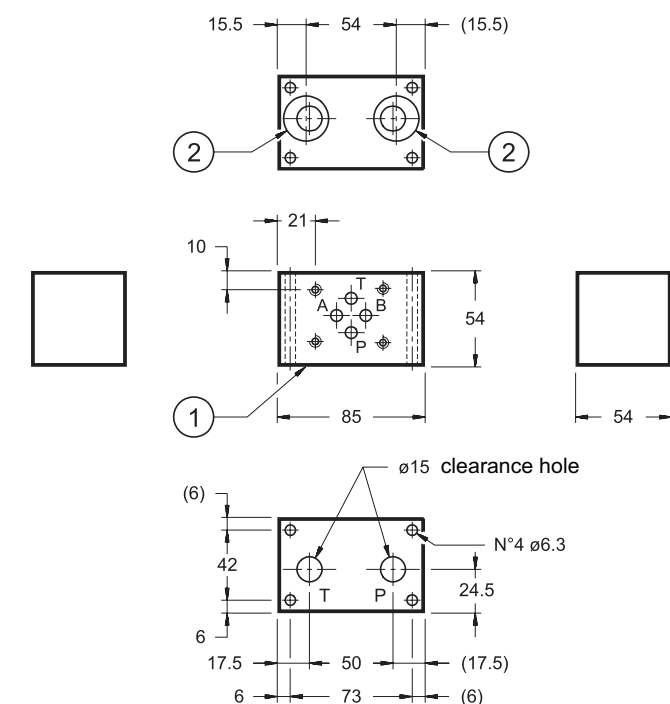
NOTE: identification code of subplates P2*-M*/33 see paragraph 6



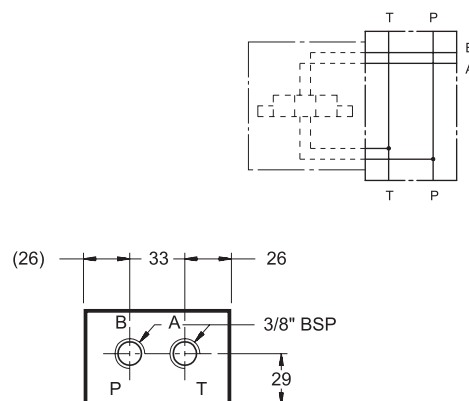
P2*

2 - OVERALL AND MOUNTING DIMENSIONS P2D/21 (cod. 1560121)

STANDARD SUPBLATE



Mass: kg 1,5



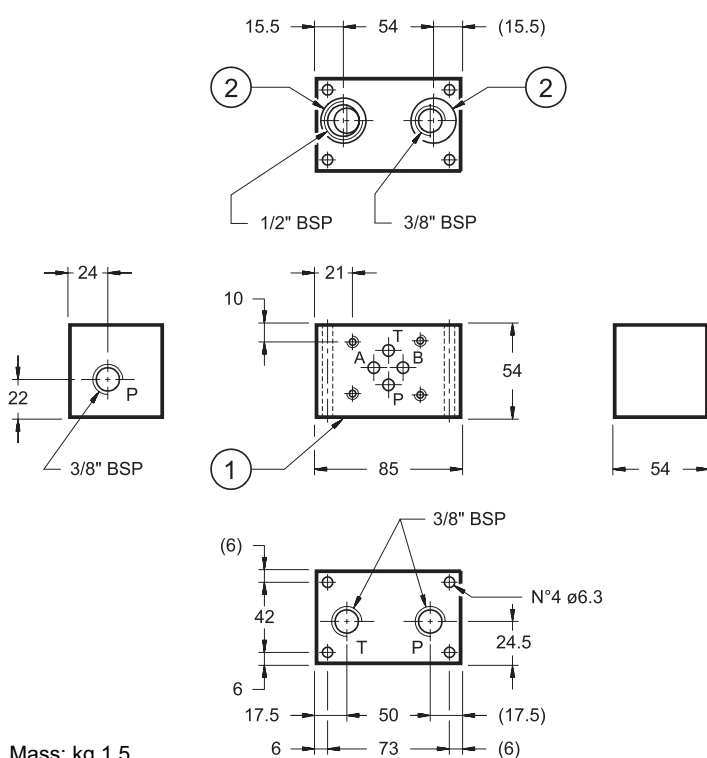
NOTE: The subplate is supplied with O-Ring made of NBR 90 Shore

dimensions in mm

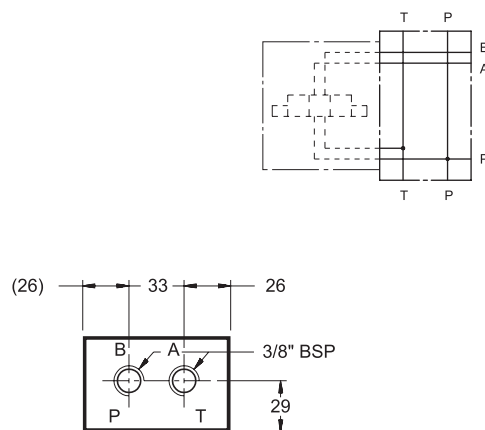
1	Mounting surface
2	OR seats 2093 (23.52x1.78)

3 - OVERALL AND MOUNTING DIMENSIONS P2D-F/21 (cod. 1560122)

P - T THREADED PORTS AND ADDITIONAL PRESSURE PORT SUBPLATE



Mass: kg 1,5



NOTE: The subplate is supplied with O-Ring made of NBR 90 Shore

dimensions in mm

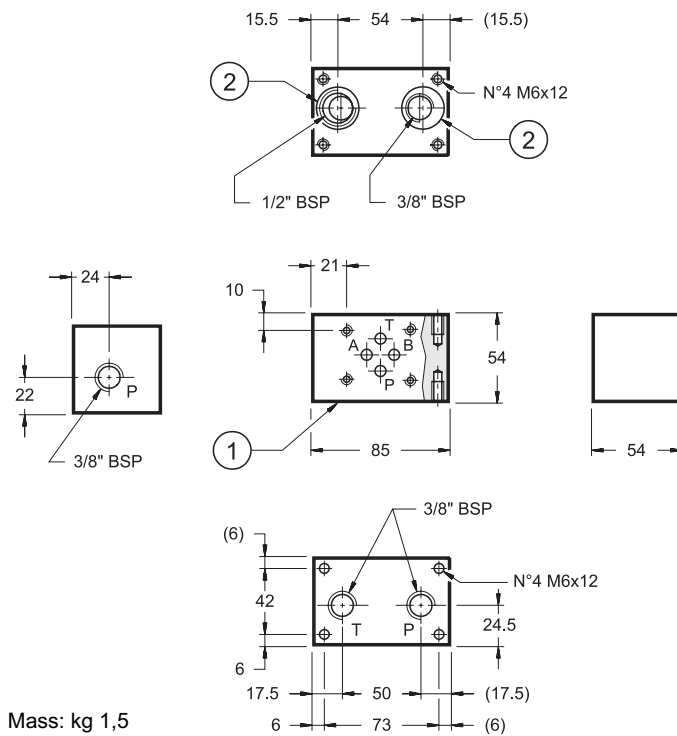
1	Mounting surface
2	OR seats 2093 (23.52x1.78)



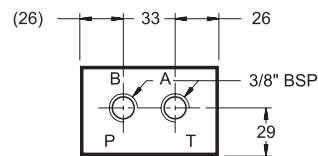
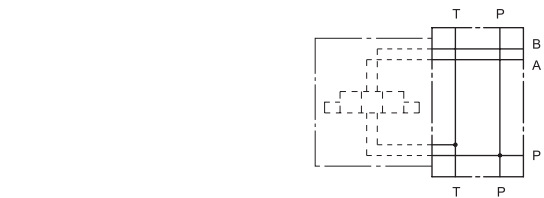
P2*

4 - OVERALL AND MOUNTING DIMENSIONS P2D-I/21 (cod. 1560123)

INTERMEDIATE SUBPLATE WITH THREADED FASTENING HOLES TO REDUCE ROD LENGHT AND ADDITIONAL PRESSURE PORT



Mass: kg 1,5



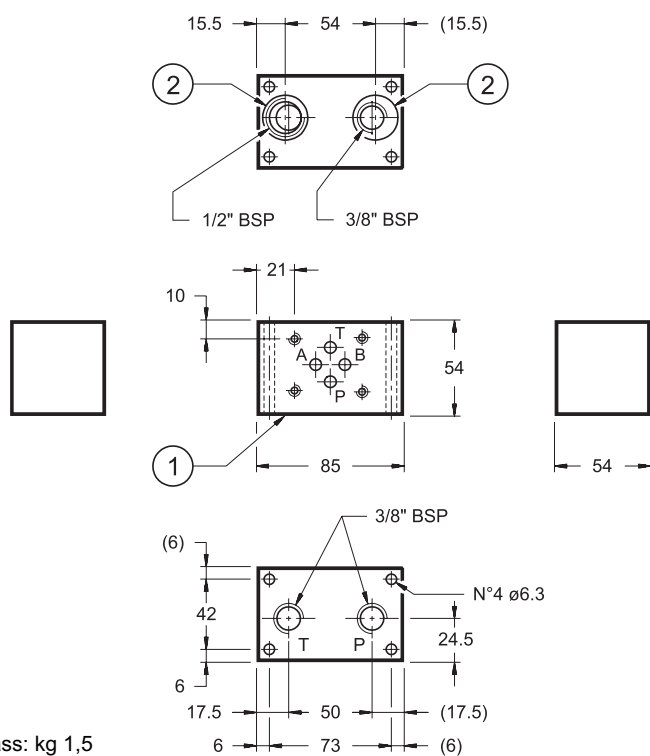
NOTE: The subplate is supplied with O-Ring made of NBR 90 Shore

dimensions in mm

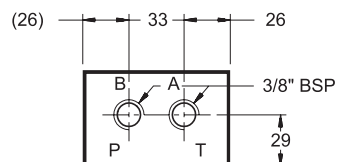
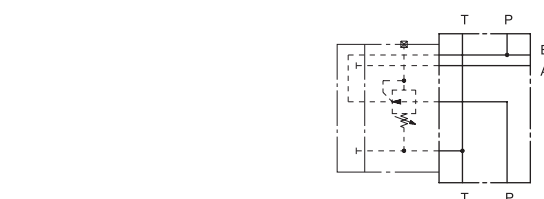
1	Mounting surface
2	OR seats 2093 (23.52x1.78)

5 - OVERALL AND MOUNTING DIMENSIONS P2D-Z/21 (cod. 1560025)

SUBPLATE ARRANGED FOR THE INSTALLATION OF AN MZD PRESSURE REDUCING VALVE



Mass: kg 1,5



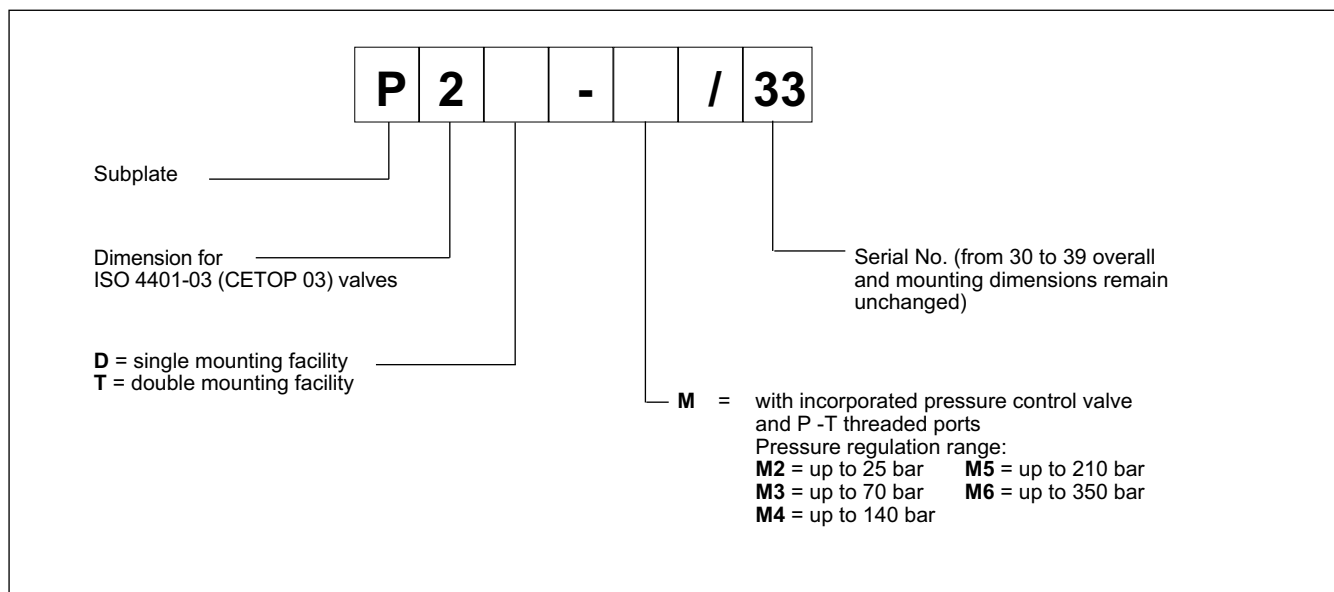
NOTE: The subplate is supplied with O-Ring made of NBR 90 Shore

dimensions in mm

1	Mounting surface
2	OR seats 2093 (23.52x1.78)

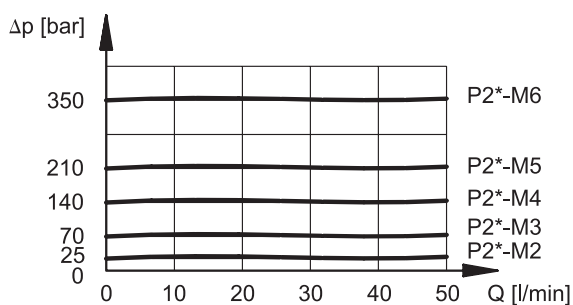


6 - IDENTIFICATION CODE subplates with incorporated pressure control valve

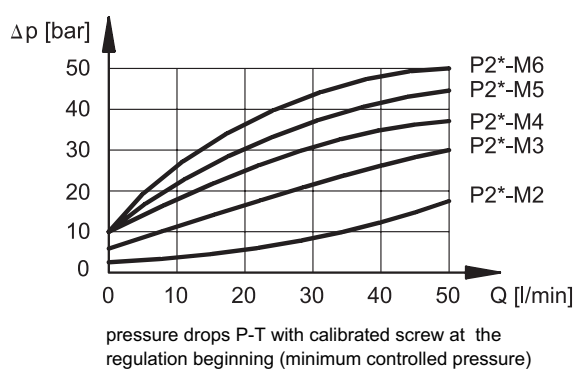


7 - CHARACTERISTIC CURVES FOR P2D-M* E P2T-M* SUBPLATES WITH PRESSURE CONTROL VALVE INCORPORATED (values obtained with viscosity of 36 cSt at 50°C)

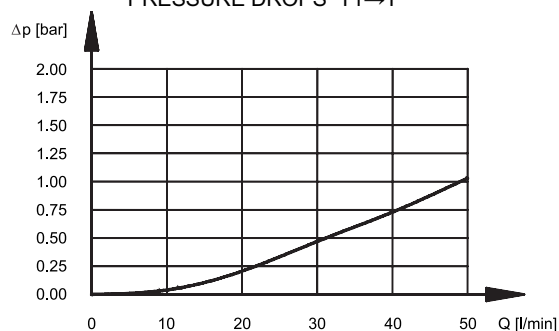
ADJUSTMENT



MINIMUM CONTROLLED PRESSURE



PRESSURE DROPS T1→T



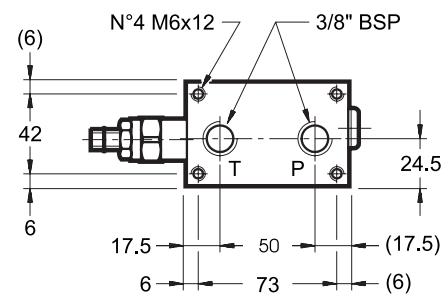
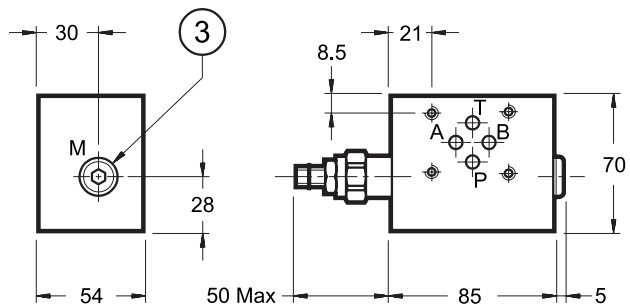
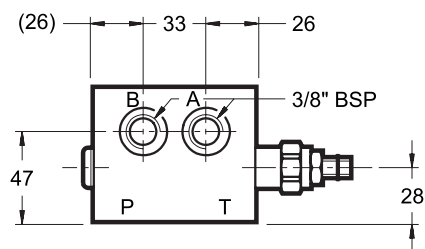
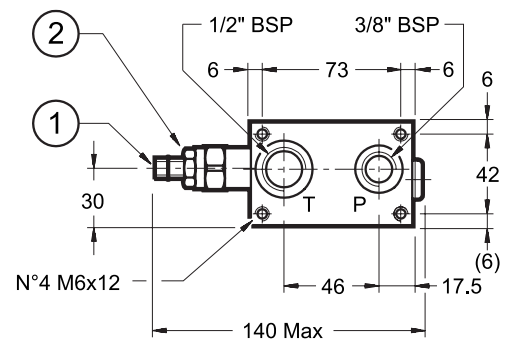
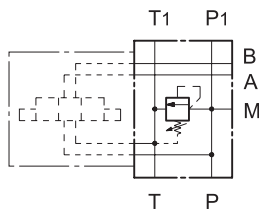


P2*

8 - OVERALL AND MOUNTING DIMENSIONS P2D-M*/ 33

SINGLE MOUNTING FACILITY SUBPLATE WITH PRESSURE RELIEF VALVE INCORPORATED

HYDRAULIC SYMBOL



dimensions in mm

Mass: kg 2,5

1	Countersunk hex. adjustment screw: spanner 6 Clockwise rotation to increase pressure
2	Locking nut: spanner 19
3	Pressure gauge port 1/4\"BSP plugged

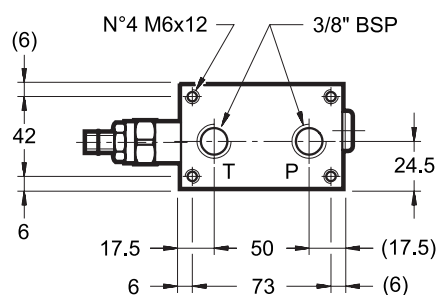
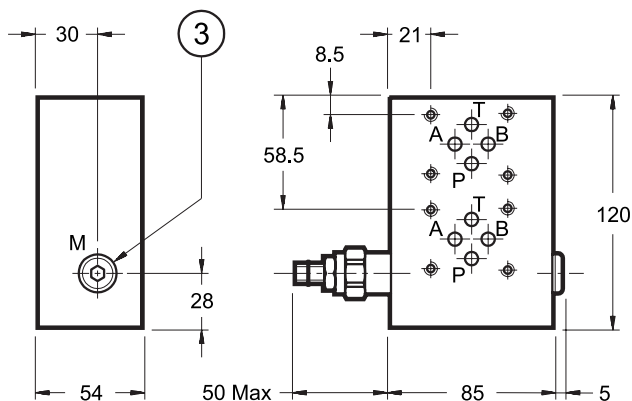
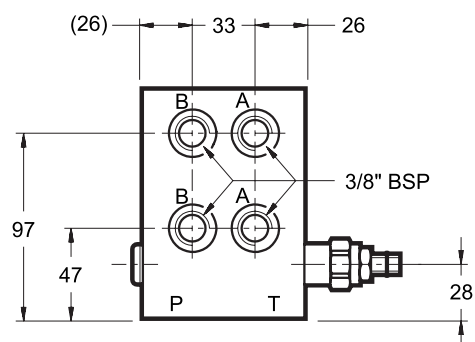
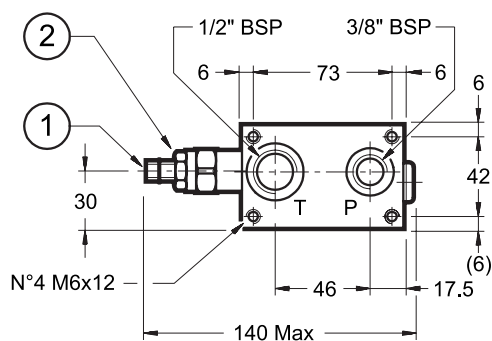
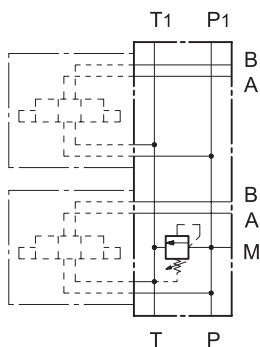


P2*

9 - OVERALL AND MOUNTING DIMENSIONS P2T-M* /33

DOUBLE MOUNTING FACILITY SUBPLATE WITH PRESSURE RELIEF VALVE INCORPORATED

HYDRAULIC SYMBOL



dimensions in mm

Mass: kg 5

1	Countersunk hex adjustment screw: spanner 6 Clockwise rotation to increase pressure
2	Locking nut: spanner 19
3	Pressure gauge port 1/4" BSP plugged



10 - HYDRAULIC FLUIDS

Use mineral oil-based hydraulic fluids HL or HM type, according to ISO 6743-4. For these fluids, use NBR seals. For fluids HFDR type (phosphate esters) use FPM seals (code V). For the use of other kinds of fluid such as HFA, HFB, HFC, please consult our technical department. Using fluids at temperatures higher than 80 °C causes a faster degradation of the fluid and of the seals characteristics.

The fluid must be preserved in its physical and chemical characteristics.

11 - PRESSURE LIMIT ON P

Depending on the tie-rod type and on the number of assembled subplates it is necessary to pay attention to the maximum pressure on P in order to avoid extruding the O-Rings.

n° of assembled subplates	Threaded bar class B7 DIN 975	Stud class 8.8 UNI 5911	Stud class 12.9
2	350 bar	350 bar	350 bar
3	300 bar	350 bar	350 bar
4	250 bar	300 bar	350 bar
5	200 bar	250 bar	300 bar
6	150 bar	200 bar	250 bar
Tightening torque	8 Nm	8 Nm	12 Nm



P2*



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