

# Mounting subplates type BA

Multi-station, for ISO 4401 size 06 and 10

The multi-station mounting subplates type BA for directional control valves are built in cast iron G25 (UNI/ISO 185) with phosphate coating and their mounting surface are in accordance with the international standards ISO 4401. They perform limited pressure drops and are available in two families with different features:

**BA-114** = made by a **single subplate** from 1 to 10 stations for directional valves and modular elements ISO size 06 (BA-214) and from 1 to 6 stations for directional valves and modular elements ISO size 10 (BA-314).

Model	Port P	Port T	Use ports A and B	Qmax	Qmax use ports	Pmax
BA-214	G 1/2"	G 1/2"	G 3/8" lateral	80 l/min	60 l/min	350 bar
BA-214*/P	G 1/2"	G 1/2"	G 3/8" rear	80 l/min	60 l/min	350 bar
BA-314	G 3/4"	G 1"	G 3/4" lateral	150 l/min	100 l/min	300 bar
BA-314*/P	G 3/4"	G 3/4"	G 1/2" rear	100 l/min	80 l/min	300 bar

**BA-244** = made by **modular subplates** with 1, 2, 3, 4 stations for directional valves and modular elements ISO 4401 size 06. Designed for the installation on to power units' cover, they can be easily assembled together via 4 socket headed cap screws M6 class 12.9 (included in the supply), to obtain the desired configuration (up to a maximum of twelve parallel stations).

They are available in the basic version or with direct acting pressure relief cartridge type SP-CART M-5/\*\*\*\*.

The integrative elements of this family allow to widen the mounting configurations and permit to solve all typical circuit solutions of oleohydraulic plants.

P and T ports = G 3/8; A and B use ports = G 3/8; flow up to 35 l/min; pressure up to 250 bar.

## 1 MODEL CODE OF SUBPLATES TYPE BA-214

**BA-214** / **5** / **P** / **\*\***

Type of subplate:  
**BA-214** = for valves ISO size 06  
**BA-314** = for valves ISO size 10

Number of stations (see section 5 6 7 8):  
**1** = one station      **6** = six stations  
**2** = two stations    **7** = seven stations (only for BA-214)  
**3** = three stations    **8** = eight stations (only for BA-214)  
**4** = four stations     **9** = nine stations (only for BA-214)  
**5** = five stations     **10** = ten stations (only for BA-214)

Series number

- = with A and B lateral ports  
/P = with A and B rear ports (not for BA-214/1 and BA-314/1 and /6)

## 2 MODEL CODE OF SUBPLATES TYPE BA-244

**BA-244** / **4** / **M5** / **210** / **\*\*** / **\***

Type of subplate:  
**BA-244** = modular subplate for valves ISO size 06

- G 3/8 rear ports A and B
- through channels P and T with G 3/8 ports
- one G 3/8 port T on valve side
- G 1/4 lateral pressure sensing ports

Number of stations:  
**1** = one station  
**2** = two stations  
**3** = three stations  
**4** = four stations

- = basic version  
**M5** = version with direct acting pressure relief cartridge SP-CART M-5/\*\*\*\* (available also as spare part) - see tab. C010

Series number

Synthetic fluids  
**WG** = water-glycol  
**PE** = phosphate ester

Pressure range of the pressure relief valve for versions /M5:  
**100** = 3 ÷ 100 bar  
**210** = 5 ÷ 210 bar  
**250** = 8 ÷ 250 bar (see the installation notes at section 4)

## 3 MODEL CODE OF INTEGRATIVE ELEMENTS FOR SUBPLATES TYPE BA-244

**BA-244** / **0** / **M5** / **210** / **\*\*** / **\***

Type of integrative element:  
**BA-244/0/M5** = basic version without ISO interface, with direct acting pressure relief cartridge SP-CART M-5/\*\*\*\* (available also as spare part) - see tab. C010  
**BA-244/0/RM5** = basic version without ISO interface, with direct acting pressure relief cartridge SP-CART M-5/\*\*\*\* (available also as spare part - see tab. C010) and check valve on line P for circuits with accumulator - see tab. C400.  
**BA-244/0/SA** = basic version without ISO interface, with discharge shut-off valve and prearrangement for mounting of accumulator, pressure switches and manometer (not included)  
**BA-244/1/PB** = one station version, with prearrangement for mounting of pressure reducing valve (not included) on offtake line

- through channel T with G 3/8 ports
- one G 3/8" port T on valve side

Series number

Synthetic fluids:  
**WG** = water-glycol  
**PE** = phosphate ester

Pressure range of the pressure relief valve for versions /M5 and /RM5:  
**100** = 3 ÷ 100 bar  
**210** = 5 ÷ 210 bar  
**250** = 8 ÷ 250 bar (see the installation notes at section 4)

#### 4 TECHNICAL CHARACTERISTICS

Installation positions	Horizontal or vertical position. For BA-244, if vertically mounted a maximum of 12 parallel stations can be obtained; if horizontally mounted, proper brackets are recommended to be used in all cases involving 4 or more overhanging stations (see section 16). <b>N.B.</b> The sum of the pressures acting at the same time on ports P and T must not exceed 250 bar.
Ambient temperature	From -20 °C to +70 °C
Fluid	Hydraulic oil as per DIN 51524...535, for other fluids contact our technical office
Recommended viscosity	15 ÷ 100 mm <sup>2</sup> /s at 40 °C (ISO VG 15 ÷ 100)
Fluid contamination class	ISO 19/16 achieved with in line filters at 25 µm value and β <sub>0.5</sub> ≥ 75 (recommended only for versions /M5 and /RM5)
Fluid temperature	-20°C +60°C (standard and /WG seals) -20°C +80°C (/PE seals)

#### 5 OVERALL DIMENSIONS OF SUBPLATES TYPE BA-214 [mm]

Ports P and T = G 1/2"  
Use ports A and B = G 3/8"  
Q<sub>max</sub> = 80 l/min  
Q<sub>max</sub> use ports = 60 l/min  
P<sub>max</sub> = 350 bar

**Mounting surface  
ISO 4401-03-02-0-05**

The length of the subplate varies with the number of stations as shown in the table below

Stations	1	2	3	4	5	6	7	8	9	10
Dimension A	70	120	170	220	270	320	370	420	470	520
Mass [Kg]	2	3,5	5	6,5	8	9,5	11	12,5	14	15,5

**The 5-station version is shown in the drawing**

#### 6 OVERALL DIMENSIONS OF SUBPLATES TYPE BA-314 [mm]

Ports P = G 3/4"  
Ports T = G 1"  
Use ports A and B = G 3/4"  
Q<sub>max</sub> = 150 l/min  
Q<sub>max</sub> use ports = 100 l/min  
P<sub>max</sub> = 300 bar

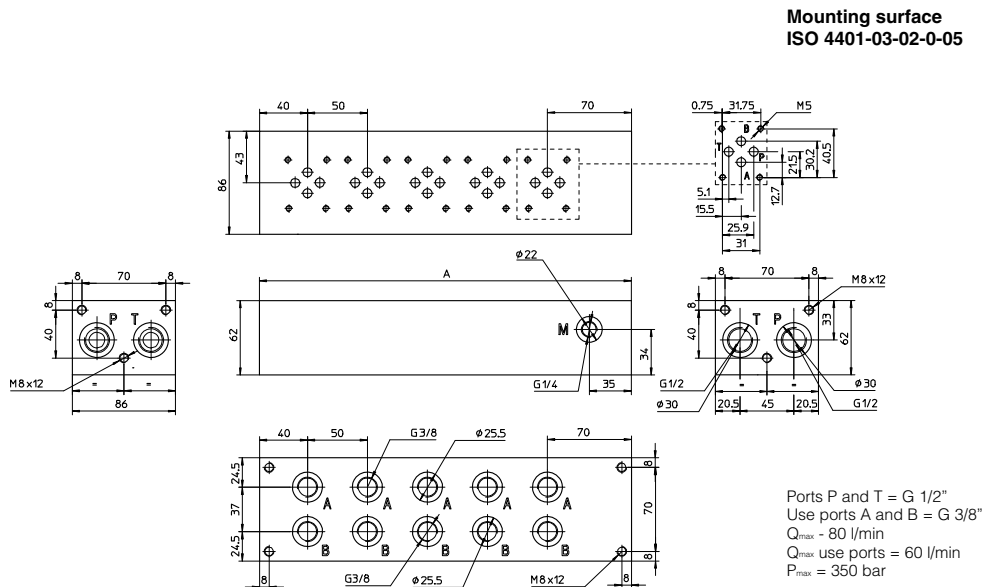
**Mounting surface  
ISO 4401-05-04-0-05**

The length of the subplate varies with the number of stations as shown in the table below

Stations	1	2	3	4	5	6
Dimension A	80	160	240	320	400	480
Mass [Kg]	4	8,5	13	17,5	22	26,5

**The 5-station version is shown in the drawing**

**7 OVERALL DIMENSIONS OF SUBPLATES TYPE BA-214/\*P [mm]**

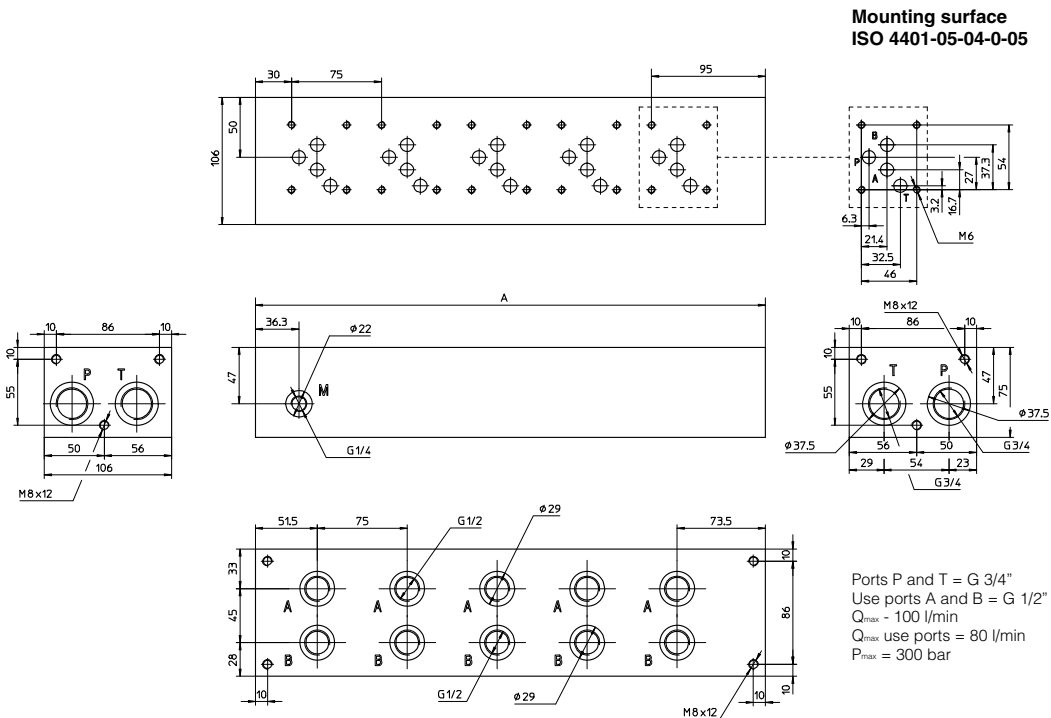


The length of the subplate varies with the number of stations as shown in the table below

Stations	2	3	4	5	6	7	8	9	10
Dimension A	160	210	260	310	360	410	460	510	560
Mass [Kg]	5,4	7	8,7	10,4	12,1	13,8	15,5	17,2	18,9

The 5-station version is shown in the drawing

**8 OVERALL DIMENSIONS OF SUBPLATES TYPE BA-314/\*P [mm]**

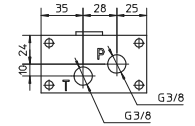
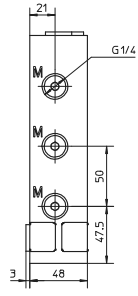
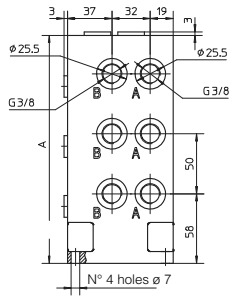


The length of the subplate varies with the number of stations as shown in the table below

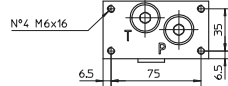
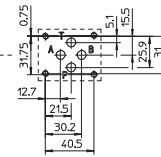
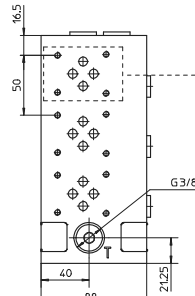
Stations	2	3	4	5
Dimension A	200	275	350	425
Mass [Kg]	10	13	17,5	22

The 5-station version is shown in the drawing

**9 OVERALL DIMENSIONS OF SUBPLATES TYPE BA-244 [mm]**



Mounting surface  
ISO 4401-03-02-0-05



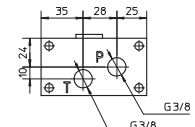
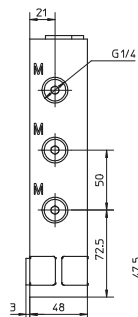
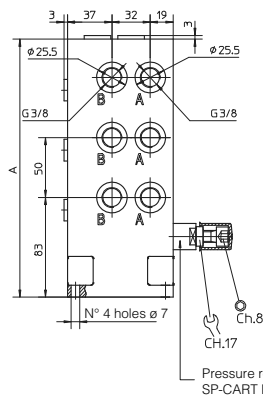
The length of the subplate varies with the number of stations as shown in the table below

Stations	1	2	3	4
Dimension A	90	140	190	240
Mass [Kg]	2,5	3,5	5,2	7

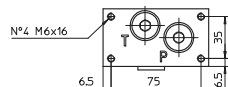
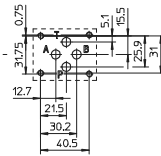
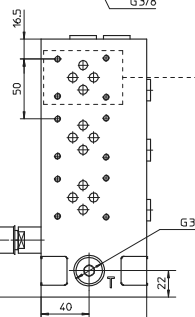
The 3-station version is shown in the drawing

Fastening bolts: 4 exagonal head screws M6x20 class 12.9 included in the supply  
Tightening torque = 15 Nm  
Seals: 2 OR-3081 included in the supply

**10 OVERALL DIMENSIONS OF SUBPLATES TYPE BA-244/M5 [mm]**



Mounting surface  
ISO 4401-03-02-0-05



The length of the subplate varies with the number of stations as shown in the table below

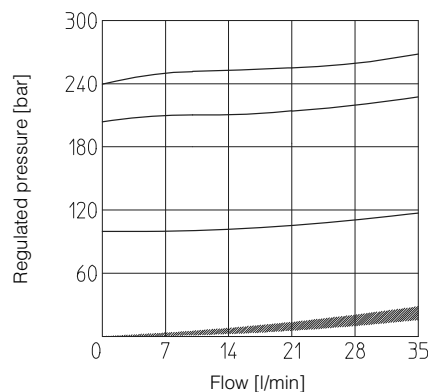
Stations	1	2	3	4
Dimension A	115	165	215	265
Mass [Kg]	3,1	4,1	5,8	7,5

The 3-station version is shown in the drawing

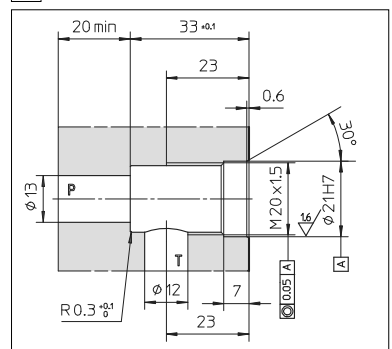
Fastening bolts: 4 exagonal head screws M6x20 class 12.9 included in the supply  
Tightening torque = 15 Nm  
Seals: 2 OR-3081 included in the supply

**11 REGULATED PRESSURE/FLOW DIAGRAMS FOR VERSIONS BA-244/M5 AND /RM5**

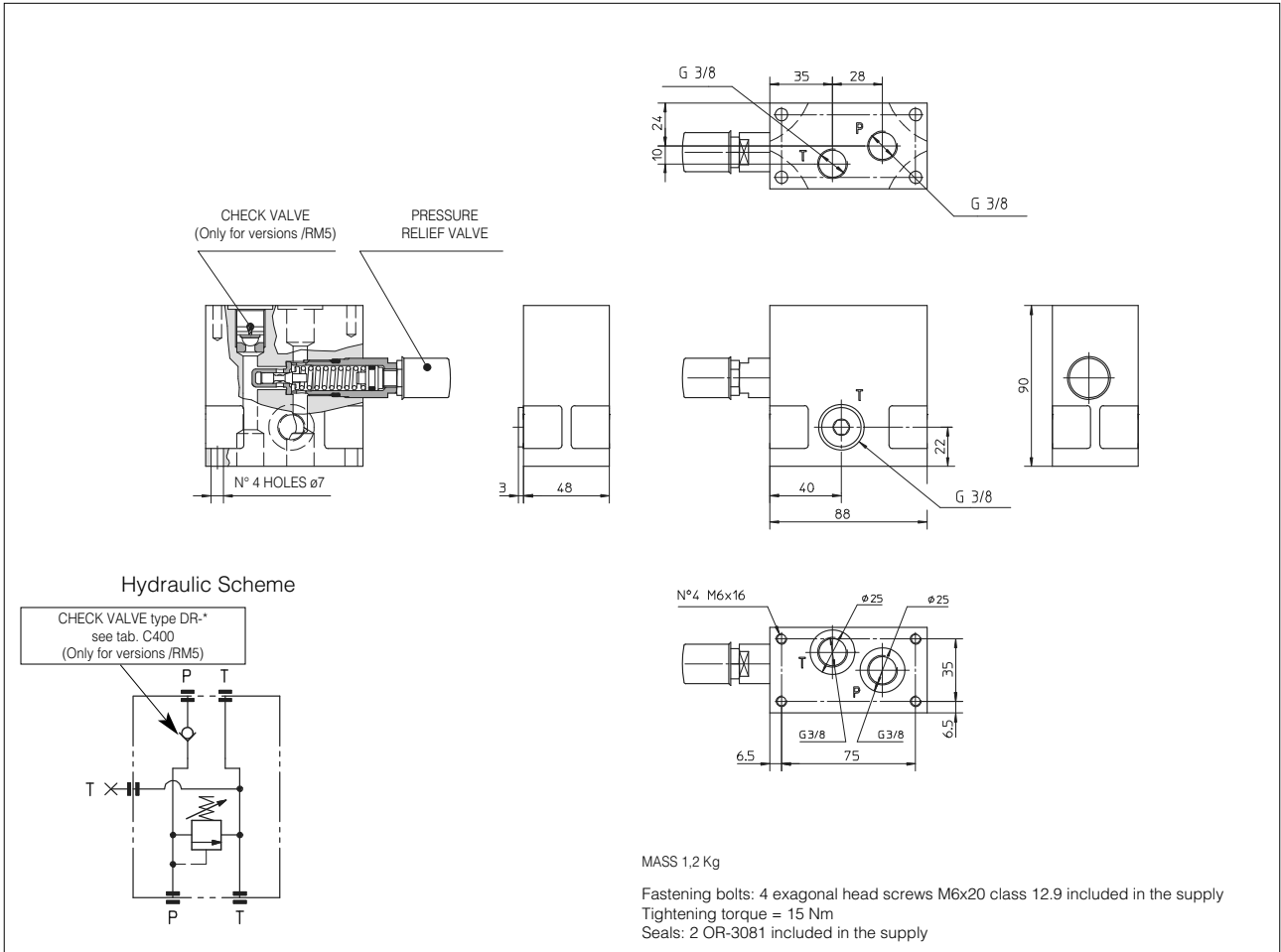
MAIN CHARACTERISTICS OF ENCLOSED PRESSURE RELIEF VALVE	
Model code	Regulation range
SP-CART M-5/100	3 ÷ 100 bar
SP-CART M-5/210	5 ÷ 210 bar
SP-CART M-5/250	8 ÷ 250 bar
Qmax = 35 l/min	



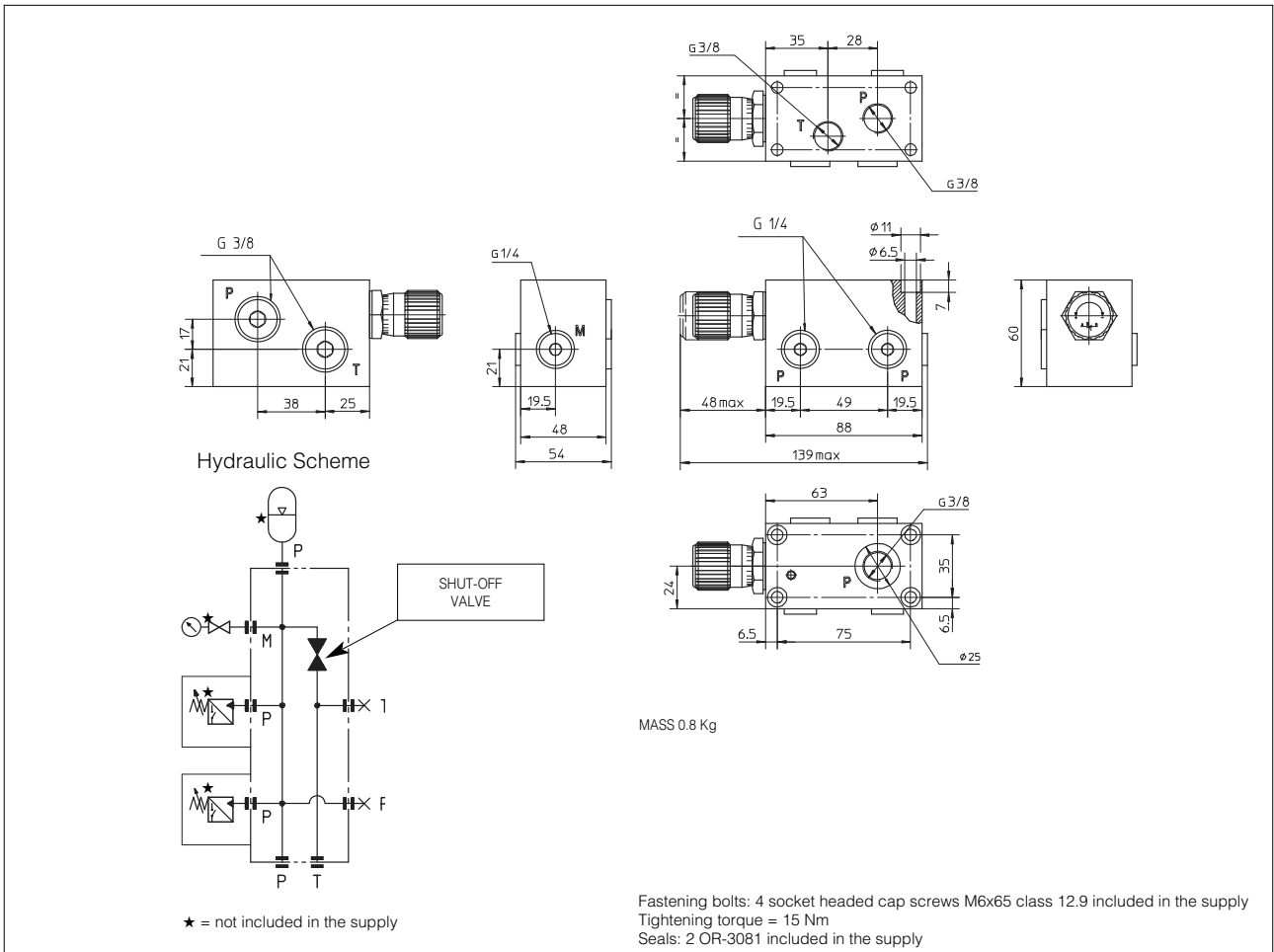
**12 DIMENSIONS OF SP-CART M-5/\*\*\* SEAT**



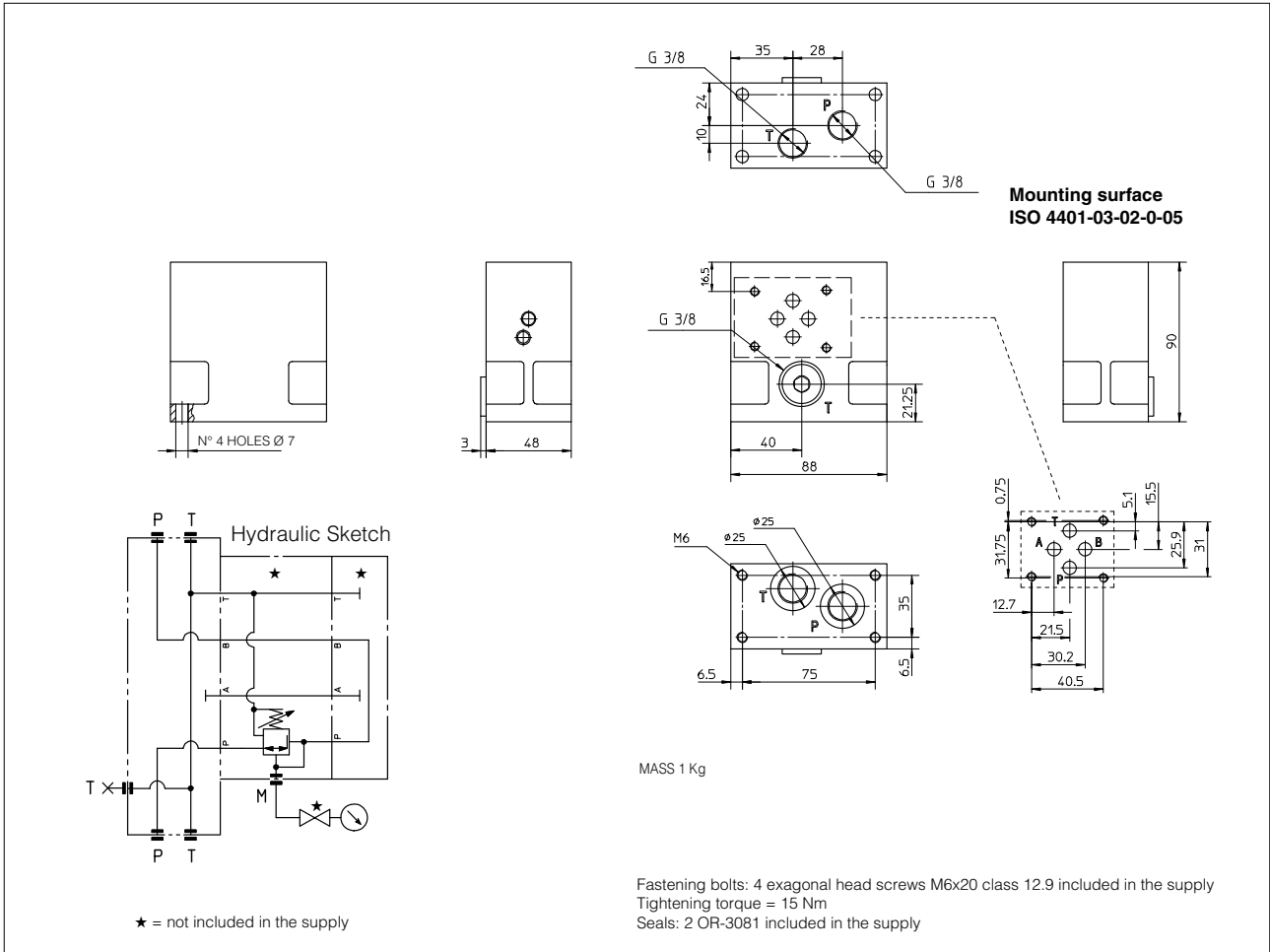
**13 OVERALL DIMENSIONS OF SUBPLATES TYPE BA-244/0/M5 AND TYPE BA-244/0/RM5**



**14 OVERALL DIMENSIONS OF SUBPLATES TYPE BA-244/0/SA**



**15 OVERALL DIMENSIONS OF SUBPLATES TYPE BA-244/1/PB**



**16 EXAMPLES OF APPLICATION FOR SUBPLATES TYPE BA-244**

