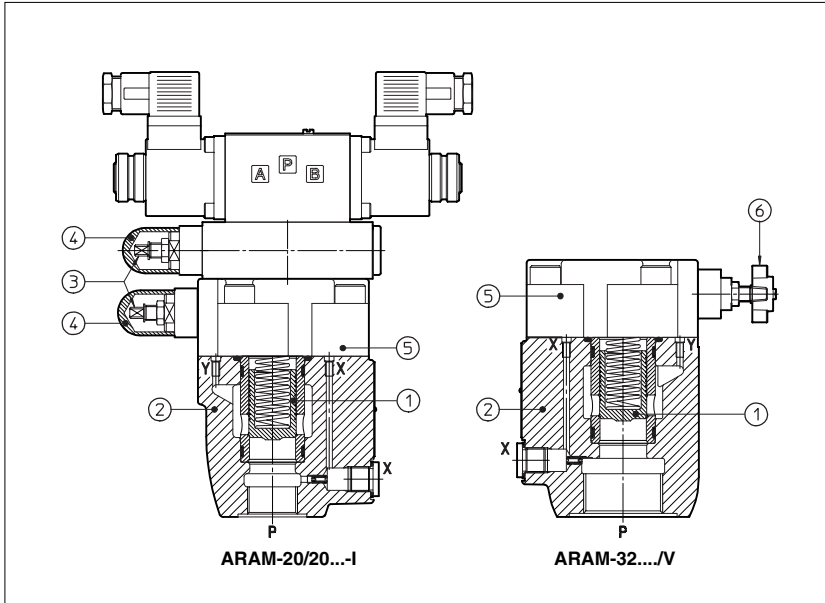


Pressure relief valves type ARAM

two stage, in line mounting - G 3/4" and G 1 1/4" threaded ports



ARAM are double stage pressure relief valve with balanced poppet and GAS threaded ports.

In standard versions the piloting pressure of the poppet ① of the main stage ② is regulated by means of a grub screw ③ protected by cap ④ in the cover ⑤. Optional versions with setting adjustment by handwheel ⑥ instead of the grub screw are available on request. Clockwise rotation increases the pressure.

These valves can be equipped with a venting solenoid valve ⑦ (for normally open or normally closed valves). Another setting control can be made through the independent pilot port.

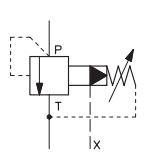
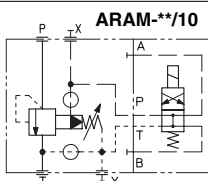
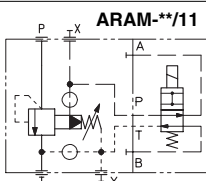
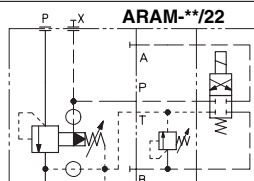
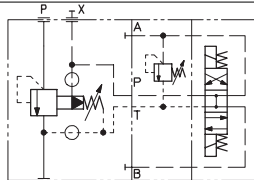
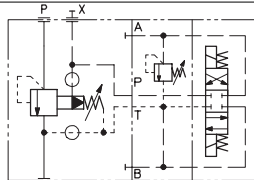
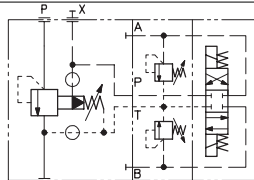
Threaded ports: G 3/4", G 1 1/4".
 Max flow: 350, 500 l/min respectively.
 Pressure up to 350 bar.

Valves designed to operate in hydraulic systems with hydraulic mineral oil or synthetic fluid having similar lubricating characteristics

1 MODEL CODE

ARAM	-	20	/	2		0	/	210/100/100	/	V	-	I	X	24DC	**	/*
ARAM = pressure relief valve threaded port connections				(1)		(1)			(1)		(1)	(1)	(1)	(1)		Synthetic fluids: WG = water-glycol PE = phosphate ester Design number
Size: 20 = port P - G 3/4" 32 = port P - G 1 1/4"																Supply voltage, see section 7: 00 = solenoid valve without coils (only for OI solenoid)
Number of the different setting pressure values: 1 = one setting pressure 2 = two setting pressure 3 = three setting pressure																X = without connector See section 6 for available connectors, to be ordered separately
0 = venting with de-energized solenoid 1 = venting with energized solenoid 2 = without venting																Solenoid of pilot valve: -I = solenoid OI (DHI) for AC and DC supply
Pressure range: 50 = 4÷50 bar; 100 = 6÷100 bar; 210 = 7÷210 bar; 350 = 8÷350 bar																Options (2): /V = regulating handwheel instead of a grub screw protected by cap
(1) Only for ARAM with solenoid valve for venting and/or for the selection of the setting pressure (2) For handwheel features, see technical table K150																Pressure range of second/third setting: 50 = 4÷50 bar; 100 = 6÷100 bar; 210 = 7÷210 bar; 350 = 8÷350 bar

2 HYDRAULIC CHARACTERISTICS

ARAM				
				
Valve model		ARAM-20		ARAM-32
Max flow [l/min]		350		500
Pressure range [bar]		4÷50; 6÷100; 7÷210; 8÷350		

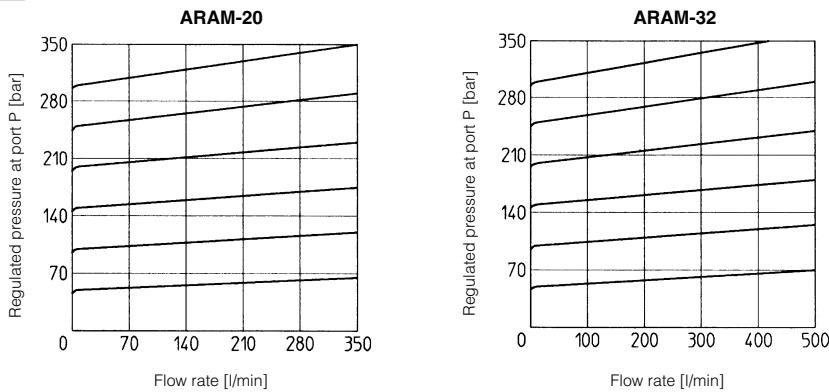
3 MAIN CHARACTERISTICS OF PRESSURE CONTROL VALVES TYPE ARAM

Assembly position / location	Any position
Ambient temperature	-20°C to + 70°C
Fluid	Hydraulic oil as per DIN 51524 . . . 535; for other fluids see section 11
Recommended viscosity	15 ÷ 100 mm ² /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 _{0.5} ≥ 75 (recommended)
Fluid temperature	-20°C +60°C (standard and /WG seals) -20°C +80°C (/PE seals)

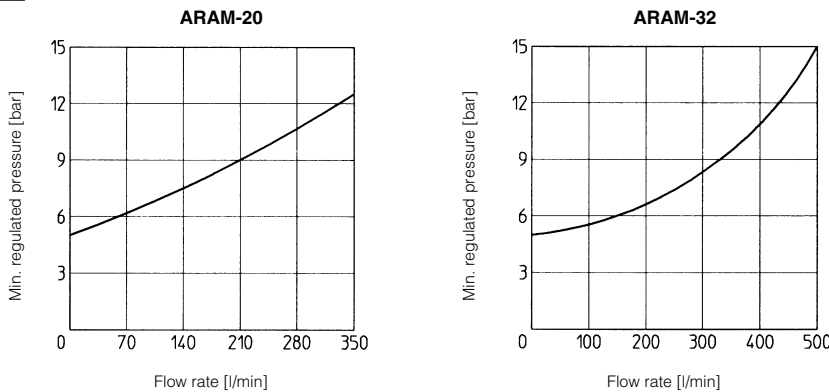
3.1 Coils characteristics

Insulation class	H
Connector protection degree	IP 65
Relative duty factor	100%
Supply voltage and frequency	See electric feature 7
Supply voltage tolerance	± 10%

4 REGULATED PRESSURE VERSUS FLOW DIAGRAMS based on mineral oil ISO VG 46 at 50°C



5 MINIMUM PRESSURE VERSUS FLOW DIAGRAMS based on mineral oil ISO VG 46 at 50°C



6 ELECTRIC CONNECTORS ACCORDING TO DIN 43650 FOR ARAM WITH SOLENOID VALVE

The connectors must be ordered separately

Code of connector	Function
SP-666	Connector IP-65, suitable for direct connection to electric supply source
SP-667	As SP-666 connector IP-65 but with built-in signal led, suitable for direct connection to electric supply source

For other available connectors see tab. E010 and K500.

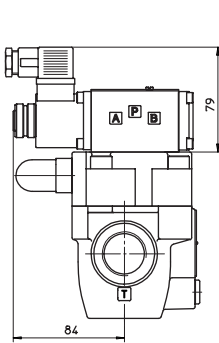
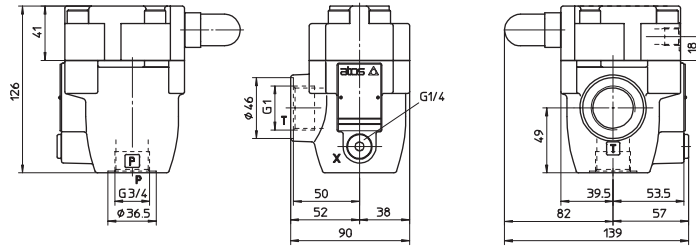
7 ELECTRIC FEATURES FOR ARAM WITH SOLENOID VALVE

Type of solenoid	External supply nominal voltage ± 10% (1)		Type of connector	Power consumption (34)	Code of spare coil	Colour of coil label
OI	DIRECT CURRENT	6 DC 12 DC 24 DC 48 DC	SP-666 or SP-667	33 W	SP-COU-6DC /80 SP-COU-12DC /80 SP-COU-24DC /80 SP-COU-48DC /80	brown green red silver
		ALTERNATE CURRENT	110/50 AC (2) 120/60 AC 230/50 AC (2) 230/60 AC	SP-666 or SP-667	60 VA (4)	SP-COI-110/50/60AC /80 SP-COI-120/60AC /80 SP-COI-230/50/60AC /80 SP-COI-230/60AC /80

- (1) For other supply voltages available on request see technical table E010.
- (2) Coil can be supplied also with 60 Hz of voltage frequency: in this case the performances are reduced by 10 ÷ 15% and the power consumption is 55 VA.
- (3) Average values based on tests performed at nominal hydraulic condition and ambient/coil temperature of 20°C.
- (4) When solenoid is energized, the inrush current is approx 3 times the holding current. Inrush current values correspond to a power consumption of about 150 VA.

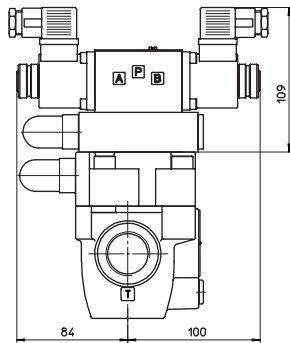
8 DIMENSIONS [mm]

ARAM-20
Mass: 3,9 Kg



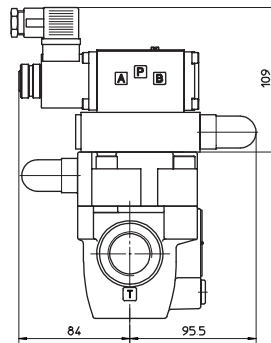
ARAM-20/10/-IX**
ARAM-20/11/-IX**

Mass: 5,4 Kg



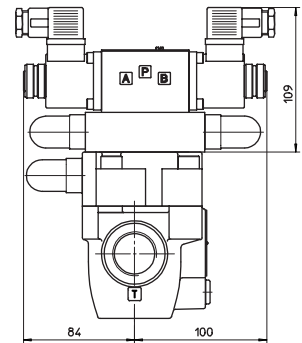
ARAM-20/20/-IX**
ARAM-20/21/-IX**

Mass: 7,1 Kg



ARAM-20/22/-IX**

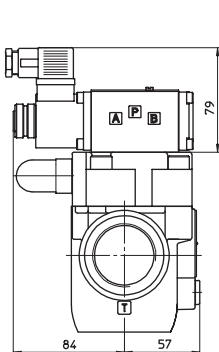
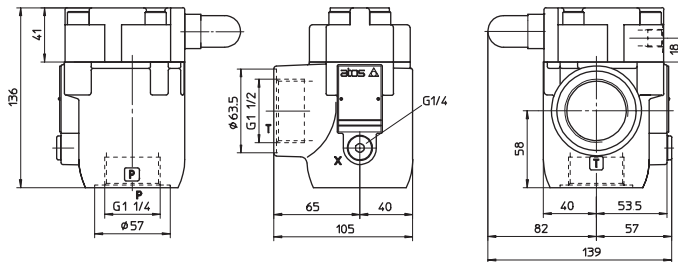
Mass: 6,8 Kg



ARAM-20/32/-IX**

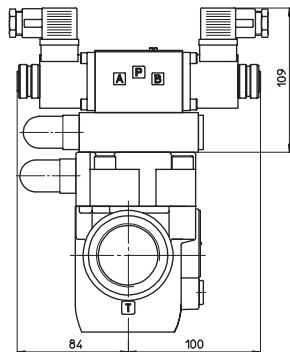
Mass: 7,4 Kg

ARAM-32
Mass: 4,7 Kg



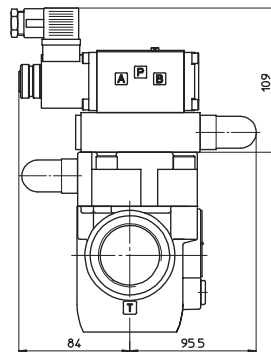
ARAM-32/10/-IX**
ARAM-32/11/-IX**

Mass: 6,2 Kg



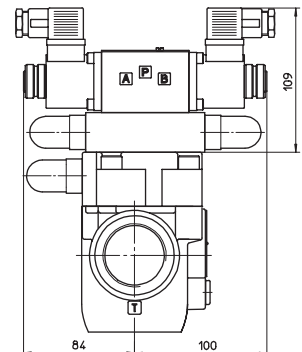
ARAM-32/20/-IX**
ARAM-32/21/-IX**

Mass: 7,9 Kg



ARAM-32/22/-IX**

Mass: 7,6 Kg



ARAM-32/32/-IX**

Mass: 8,2 Kg