

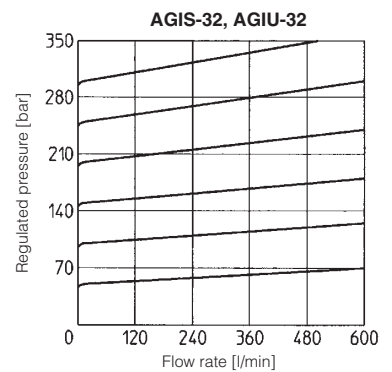
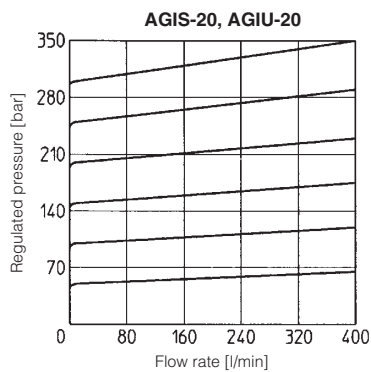
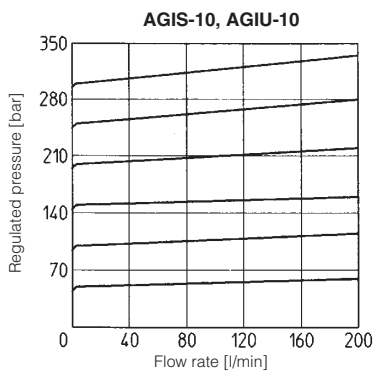
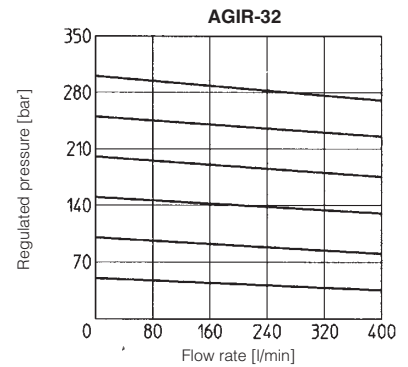
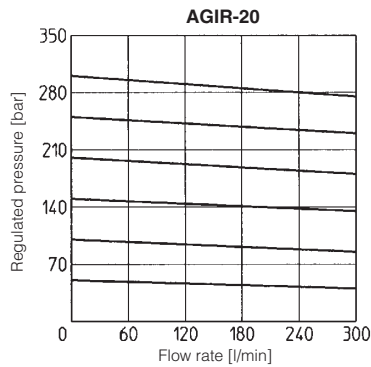
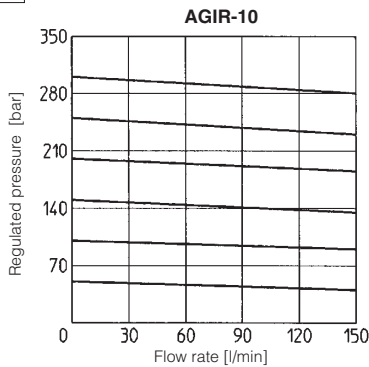
3 MAIN CHARACTERISTICS OF PRESSURE CONTROL VALVES TYPE AGIR, AGIS, AGIU

Assembly position / location	Any position
Subplate surface finishing	Roughness index $\sqrt{0.4}$, flatness ratio 0,01/100 (ISO 1101)
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 $\beta_{0.5} \geq 75$ (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%
Certification (only for -I and -ER version)	cURus North American standard

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



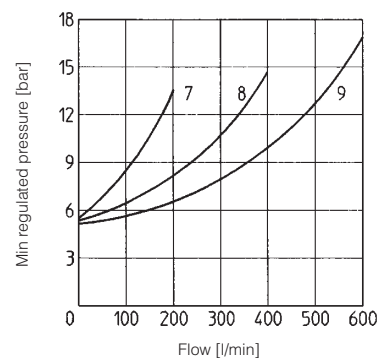
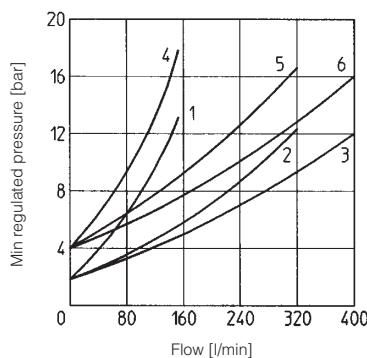
Note: for AGIU-10, the max flow rate is 100 l/min

Note: for AGIU-20, the max flow rate is 200 l/min

Note: for AGIU-32, the max flow rate is 300 l/min

5 OPERATING DIAGRAM based on mineral oil ISO VG 46 at 50°C

- 1 = AGIR-10 A → B
- 2 = AGIR-20 A → B
- 3 = AGIR-32 A → B
- 4 = AGIR-10 B → A
- 5 = AGIR-20 B → A
- 6 = AGIR-32 B → A



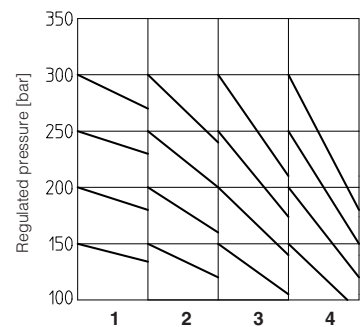
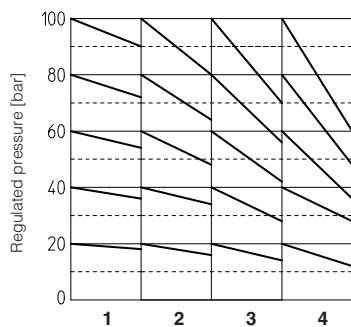
- 7 = AGIS-10
- 8 = AGIS-20
- 9 = AGIS-32

Opening/closing diagram for AGIU

- 1 = AGIU-*/*/.../standard 3 = AGIU-*/*/.../6
- 2 = AGIU-*/*/.../5 4 = AGIU-*/*/.../7

NOTES

- 1) Short pipes with low resistance must be used between the unloading valve and the accumulator;
- 2) When the resistance is high, the hydraulic pilot signal must be taken as closed as possible to the accumulator;
- 3) With high pump flow and small valve differential pressure of intervention it is unadvisable to use the version with external drain;
- 4) When to use the BA-*25 subplates:
 - a) in applications with working frequencies > 10 Hz use subplates type BA-*25/4 (spring with 4 bar of cracking pressure);
 - b) in applications with working frequencies < 10 Hz use subplates type BA-*25/2 (spring with 2 bar of cracking pressure);



6 ELECTRIC CONNECTORS ACCORDING TO DIN 43650 FOR AGIU 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 AGAM WITH SOLENOID VALVE

Solenoid valve type	External supply nominal voltage ± 10% (1)	Voltage code	Type of connector	Power consumption (3)	Code of spare coil DHI	Colour of coil label DHI	Code of spare coil DHE	Code of spare coil DHER
DHI DHE DHER	DC	12 DC	SP-666 or SP-667	33 W (DHI) 30 W (DHE, DHER)	SP-COU-12DC /80 SP-COU-24DC /80 SP-COU-110DC /80 SP-COU-220DC /80	green red black black	SP-COE-12DC/10 SP-COE-24DC/10 SP-COE-110DC/10 SP-COE-220DC/10	SP-COER-12DC/10 SP-COER-24DC/10 SP-COER-110DC/10 SP-COER-220DC/10
		24 DC						
110 DC								
220 DC								
	AC	110/50 AC (2)	SP-666 or SP-667	60 VA (DHI) 58 VA (DHE, DHER) (4)	SP-COI-110/50/60AC /80 - SP-COI-120/60AC /80 SP-COI-230/50/60AC /80 SP-COI-230/60AC /80	yellow - white light blue silver	SP-COE-110/50/60AC/10 SP-COE-115/60AC/10 - SP-COE-230/50/60AC/10 SP-COE-230/60AC/10	SP-COER-110/50/60AC/10 SP-COER-115/60AC/10 - SP-COER-230/50/60AC/10 SP-COER-230/60AC/10
		115/60 AC (5)						
120/60 AC (6)								
230/50 AC (2)								
230/60 AC								
230/60 AC								

- (1) For other supply voltages available on request see technical tables E010, E015.
- (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 (DHI) and 58 VA (DHER)
- (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.
- (5) Only for DHE and DHER
- (6) Only for DHI

8 DIMENSIONS [mm]

AGIR, AGIS, AGIU size 10

ISO 5781: 2000

Mounting surface: 5781-06-07-0-00

Fastening bolts:

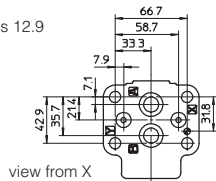
4 socket head screws M10x45 class 12.9

Tightening torque = 70 Nm

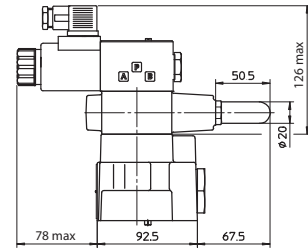
Seals: 2 OR 109/70, 2 OR 3068

Ports A, B: Ø = 14 mm

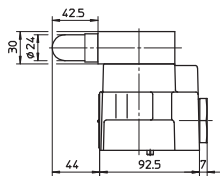
Ports X, Y: Ø = 5 mm



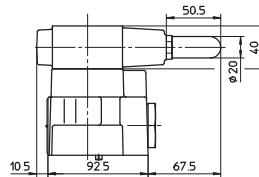
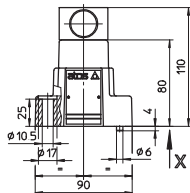
view from X



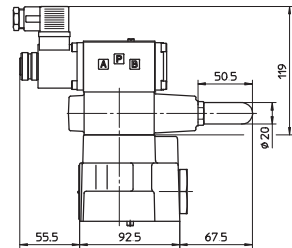
AGIU-10/10/-E(R)X**; Mass = 5,6 Kg



AGIR-10; Mass = 3,3 Kg
AGIRR-10; Mass = 3,5 Kg



AGIS-10; Mass = 3,8 Kg
AGISR-10; Mass = 4 Kg
AGIU-10; Mass = 3,8 Kg



AGIU-10/10/-IX**; Mass = 5,3 Kg

AGIR, AGIS, AGIU size 20

ISO 5781: 2000

Mounting surface: 5781-08-10-0-00

Fastening bolts:

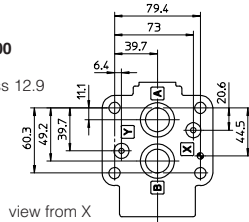
4 socket head screws M10x45 class 12.9

Tightening torque = 70 Nm

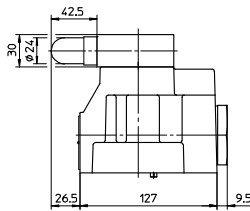
Seals: 2 OR 109/70, 2 OR 4100

Ports A, B: Ø = 22 mm

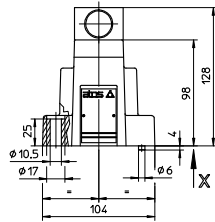
Ports X, Y: Ø = 5 mm



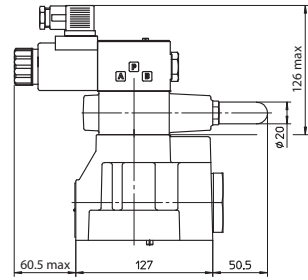
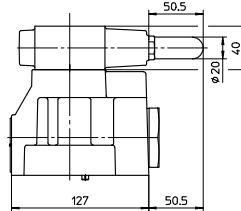
view from X



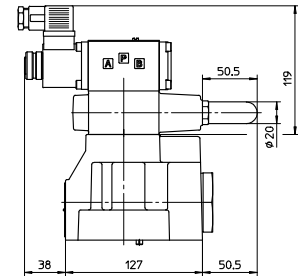
AGIR-20: Mass = 5,5 Kg
AGIRR-20: Mass = 5,7 Kg



AGIS-20: Mass = 6 Kg
AGISR-20: Mass = 6,2 Kg
AGIU-20: Mass = 6 Kg



AGIU-20/10/**-E(R)X; Mass = 7,8 Kg



AGIU-20/10/**-IX; Mass = 7,5 Kg

AGIR, AGIS, AGIU size 32

ISO 5781: 2000

Mounting surface: 5781-08-13-0-00

Fastening bolts:

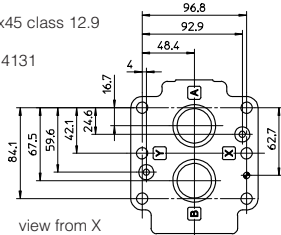
6 socket head screws M10x45 class 12.9

Tightening torque = 70 Nm

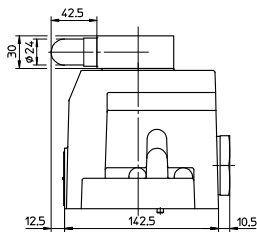
Seals: 2 OR 109/70, 2 OR 4131

Ports A, B: Ø = 28 mm

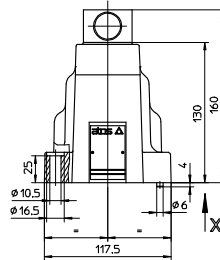
Ports X, Y: Ø = 5 mm



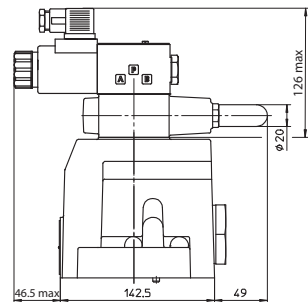
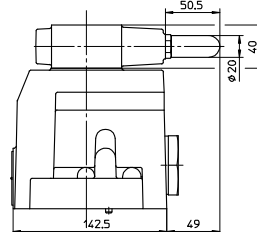
view from X



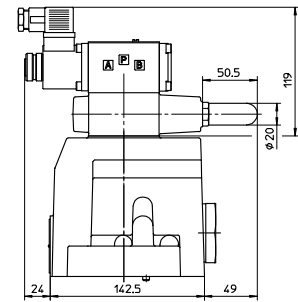
AGIR-32: Mass = 9,4 Kg
AGIRR-32: Mass = 9,6 Kg



AGIS-32: Mass = 9,9 Kg
AGISR-32: Mass = 10,1 Kg
AGIU-32: Mass = 9,9 Kg



AGIU-32/10/**-E(R)X; Mass = 11,7 Kg



AGIU-32/10/**-IX; Mass = 11,4 Kg

Overall dimensions refer to valves with connectors type SP-666

9 MOUNTING SUBPLATES

Valves	Subplate model	Port location	Ports				Ø Counterbore [mm]				Mass [Kg]
			A	B	X-Y	OUT	A	B	X-Y	OUT	
AGI*-10	BA-305	Ports A, B, Y underneath;	G 1/2"	G 1/2"	G 1/4"	-	30	30	21,5	-	1
AGI*-20	BA-505		G 1"	G 1"	G 1/4"	-	46	46	21,5	-	2
AGI*-32	BA-705		G 1 1/2"	G 1 1/2"	G 1/4"	-	63,5	63,5	21,5	-	7,5
AGIU-10	BA-325 (with incorporated check valve)	Ports A, B, Y underneath;	G 1/2"	G 3/4"	G 1/4"	G 1/2"	30	36,5	21,5	30	5
AGIU-20	BA-425 (with incorporated check valve)		G 1"	G 1"	G 1/4"	G 1"	46	46	21,5	46	6,5
AGIU-32	BA-625 (with incorporated check valve)		G 1 1/2"	G 1 1/2"	G 1/4"	G 1 1/2"	63,5	63,5	21,5	63,5	13

The subplates are supplied with fastening bolts. For further details see table K280