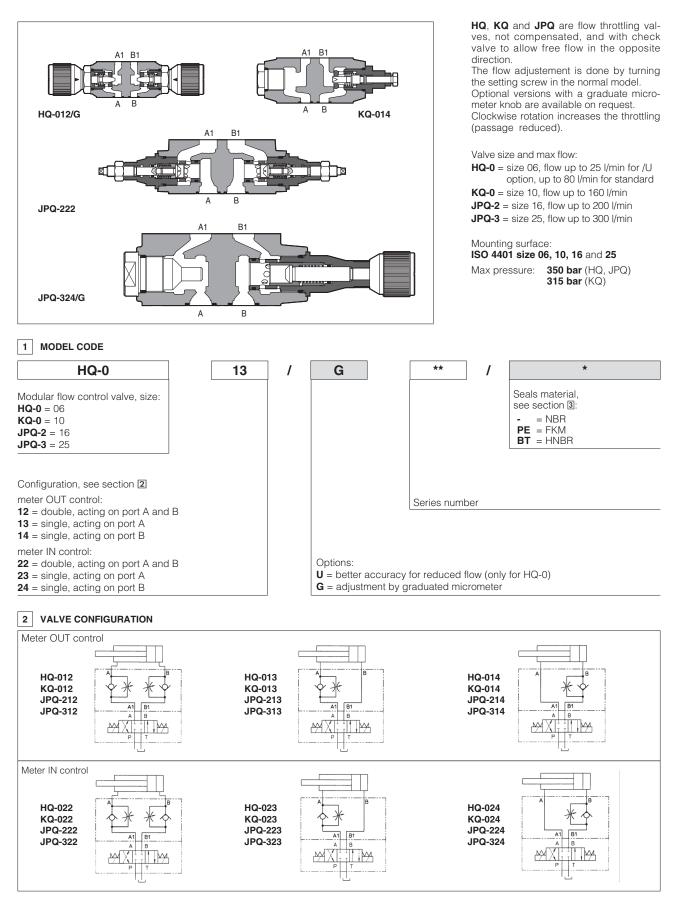


Modular throttle valves type HQ, KQ, JPQ

flow control, ISO 4401 sizes 06, 10, 16 and 25



3 MAIN CHARACTERISTICS, SEALS and HYDRAULIC FLUID - for other fluids not included in below table, consult our technical office

Assembly position / location	Any position		
Subplate surface finishing	Roughness index Ra 0,4 - flatness ratio 0,01/100 (ISO 1101)		
MTTFd values according to EN ISO 13849	150 years, for further details see technical table P007		
Compliance	RoHS Directive 2011/65/EU as last update by 2015/65/EU REACH Regulation (EC) n°1907/2006		
Ambient temperature	Standard execution = -30°C ÷ +70°C /PE option = -20°C ÷ +70°C /BT option = -40°C ÷ +70°C		
Seals, recommended fluid temperature	NBR seals (standard) = $-20^{\circ}C \div +60^{\circ}C$, with HFC hydraulic fluids = $-20^{\circ}C \div +50^{\circ}C$ FKM seals (/PE option)= $-20^{\circ}C \div +80^{\circ}C$ HNBR seals (/BT option)= $-40^{\circ}C \div +60^{\circ}C$, with HFC hydraulic fluids = $-40^{\circ}C \div +50^{\circ}C$		
Recommended viscosity	15÷100 mm²/s - max allowed range 2.8 ÷ 500 mm²/s		
Max fluid contamination level	ISO4406 class 20/18/15 NAS1638 class 9, see also filter section at www.atos.com or KTF catalog		
Hydraulic fluid	Suitable seals type	Classification	Ref. Standard
Mineral oils	NBR, FKM, HNBR	HL, HLP, HLPD, HVLP, HVLPD	DIN 51524
Flame resistant without water	FKM	HFDU, HFDR	ISO 12922
Flame resistant with water	NBR, HNBR	HFC	

Flow [I/min]

125

200

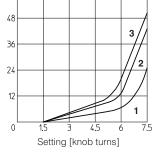
150

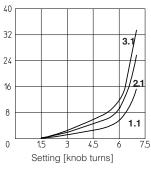
Flow [I/min]

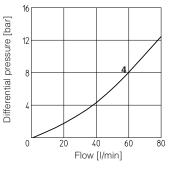
4 DIAGRAMS OF HQ-0 based on mineral oil ISO VG 46 at 50°C 60

Flow [I/min]

- 1 = Regulation diagram at ∆p 10 bar (1.1 = option /U)
- 2 = Regulation diagram at ∆p 30 bar (2.1 = option /U)
- **3** = Regulation diagram at Δp 50 bar (3.1 = option /U)
- $\mathbf{4} = \mathbf{Q}/\Delta \mathbf{p}$ diagram for free flow through the non-return valve

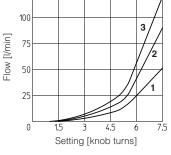


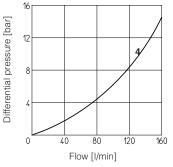




5 DIAGRAMS OF KQ-0 based on mineral oil ISO VG 46 at 50°C

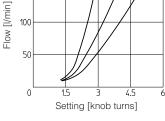
- **1** = Regulation diagram at Δp 10 bar
- $\mathbf{2}$ = Regulation diagram at Δp 30 bar
- $\mathbf{3}$ = Regulation diagram at Δp 50 bar
- $\mathbf{4} = \mathbf{Q}/\Delta \mathbf{p}$ diagram for free flow through the non-return valve



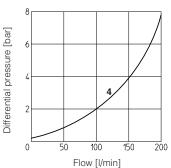


6 DIAGRAMS OF JPQ-2 based on mineral oil ISO VG 46 at 50°C

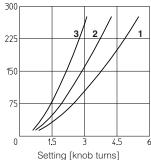
- $\mathbf{1}$ = Regulation diagram at Δp 10 bar
- $\mathbf{2}$ = Regulation diagram at Δp 30 bar
- $\mathbf{3}$ = Regulation diagram at Δp 50 bar
- $\mathbf{4} = \mathbf{Q}/\Delta \mathbf{p}$ diagram for free flow through the non-return valve

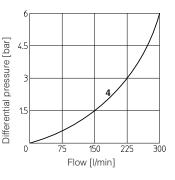


3



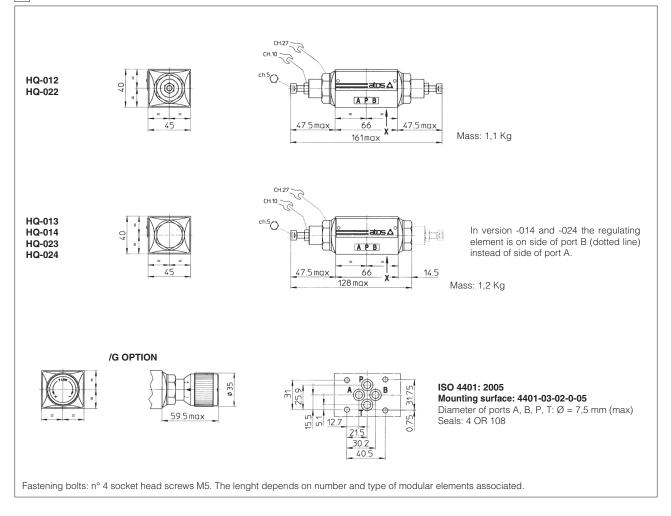




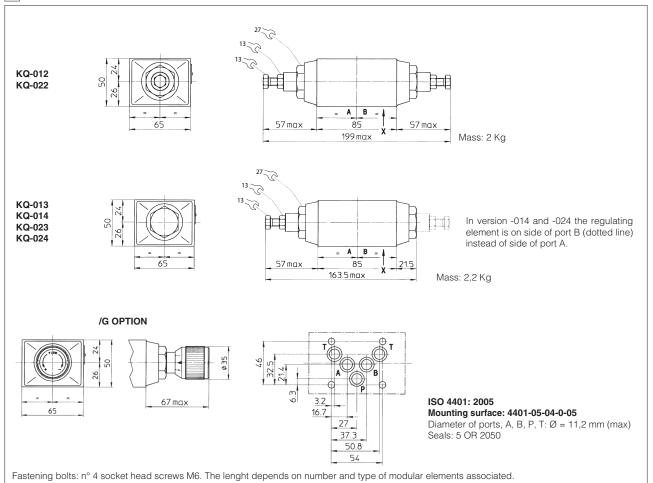


7 DIAGRAMS OF JPQ-3 based on mineral oil ISO VG 46 at 50°C

- $\mathbf{1}$ = Regulation diagram at Δp 10 bar
- $\mathbf{2}$ = Regulation diagram at Δp 30 bar
- $\mathbf{3}$ = Regulation diagram at Δp 50 bar
- $\mathbf{4} = \mathbf{Q}/\Delta \mathbf{p}$ diagram for free flow through the non-return valve



9 INSTALLATION DIMENSIONS OF KQ-0 VALVES [mm]



10 INSTALLATION DIMENSIONS OF JPQ-2 VALVES [mm]

