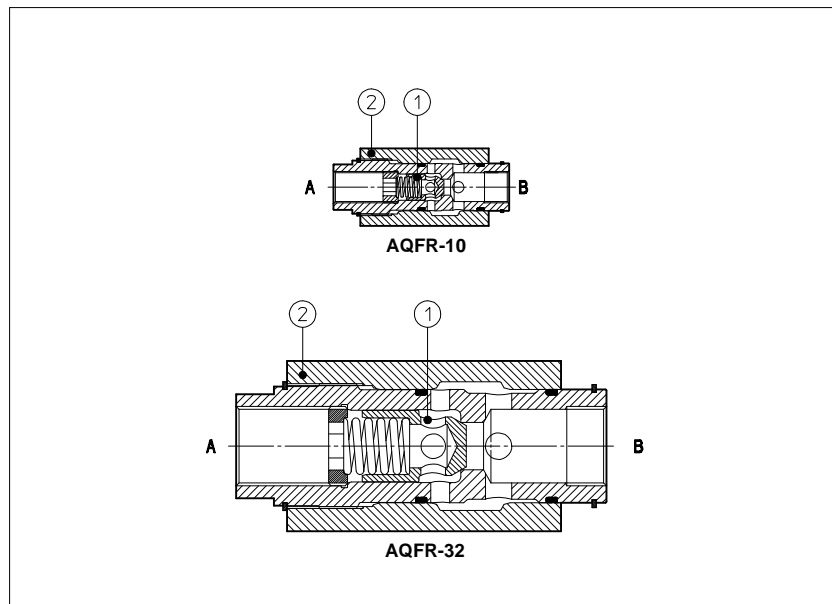


Flow restrictor valves type AQFR

in-line mounting - from 3/8" BSP to 1 1/4" BSP threaded ports



AQFR are flow throttling valves not compensated with a built-in check valve ① to allow the free flow in the opposite direction.

The flow adjustment is done by turning the external exagon ②. Clockwise rotation increases the throttling (passage reduced). The regulated flow is a function of the pressure drop existing between the inlet and outlet ports.

They are available in five sizes: from 3/8" to 1 1/4" BSP with flow up 30, 50, 80, 160, 250 l/min respectively and pressure up to 400/350 bar (depending on size).

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

1 MODEL CODE

AQF

Throttling valve
in-line mounting

R

R = with check valve for free reverse flow

- 10

Size and ports dimensions:

- 10** = 3/8" BSP
- 15** = 1/2" BSP
- 20** = 3/4" BSP
- 25** = 1" BSP
- 32** = 1 1/4" BSP

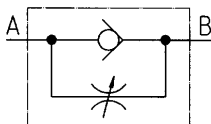
Design number

/*

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

2 HYDRAULIC CHARACTERISTICS

Hydraulic symbol



Valve model		AQFR-10	AQFR-15	AQFR-20	AQFR-25	AQFR-32
Max recommended flow	[l/min]	30	50	80	160	250
Max pressure	[bar]	400			350	

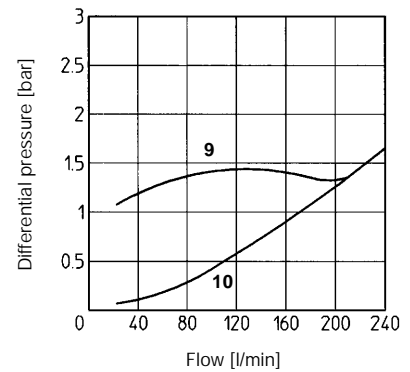
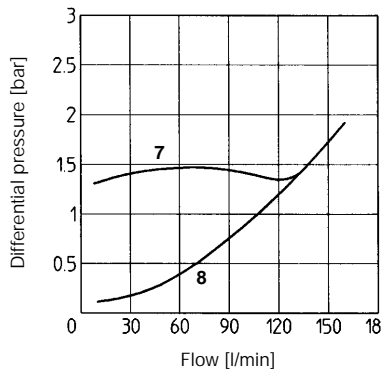
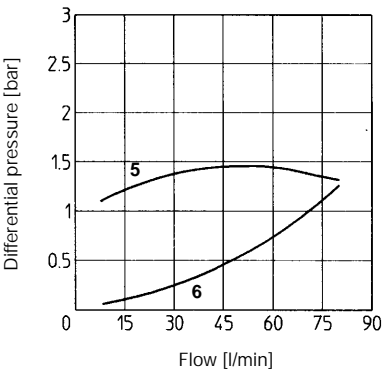
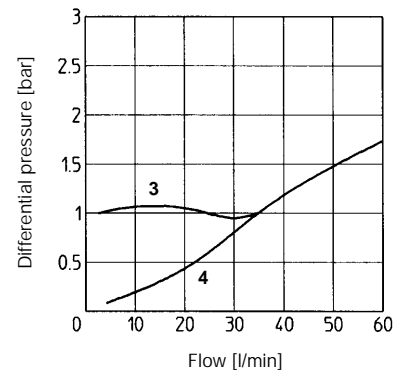
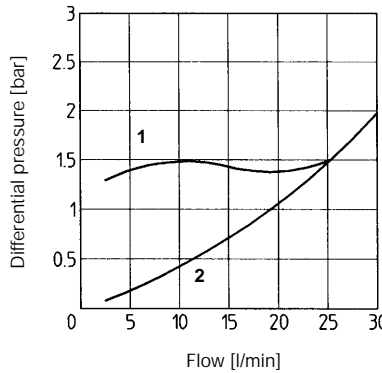
3 MAIN CHARACTERISTICS OF FLOW RESTRICTOR VALVES TYPE AQFR

Assembly position / location	Any position
Ambient temperature	-20°C to +70°C
Fluid	Hydraulic oil as per DIN 51525...535; for other fluids see section 1
Recommended viscosity	15 ÷ 100 mm ² /sec at 40°C (ISO VG 15 ÷ 100)
Fluid contamination class	ISO 19/16, achieved with in line filters at 25 µm value and β ₂₅ ≥ 75 (recommended)
Fluid temperature	T ≤ 80°C, if T ≥ 60°C select /PE seals

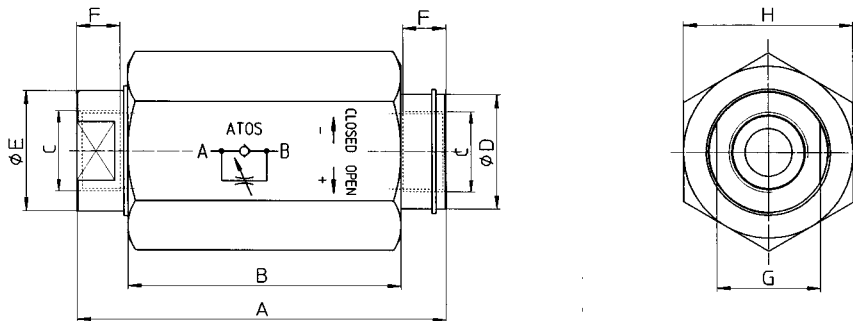
4 DIAGRAMS

4.1 Q/Δp diagram through the chec valve for free flow B→A with the throttle valve fully open and fully closed

- 1 = AQFR-10 fully closed
- 2 = AQFR-10 fully open
- 3 = AQFR-15 fully closed
- 4 = AQFR-15 fully open
- 5 = AQFR-20 fully closed
- 6 = AQFR-20 fully open
- 7 = AQFR-25 fully closed
- 8 = AQFR-25 fully open
- 9 = AQFR-32 fully closed
- 10 = AQFR-32 fully open



5 DIMENSIONS [mm]



Valve model	A	B	C	ØD	ØE	F	G	H	Mass [Kg]
AQFR-10	93	68	3/8" BSP	28	25	13	24	41	0,7
AQFR-15	105	78	1/2" BSP	32	30	15	27	46	1
AQFR-20	127	95,5	3/4" BSP	36	34	17	32	55	1,6
AQFR-25	153	112	1" BSP	48	45	19	42	75	3,5
AQFR-32	196	145	1 1/4" BSP	63	60	21	55	90	6,5