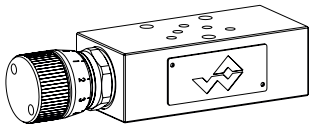
Throttle valve

Sandwich construction

- Q_{max} = 20 l/min
- $Q_{N\ max}$ = 15 l/min
- p_{max} = 315 bar

NG4-Mini
Wandfluh standard



DESCRIPTION

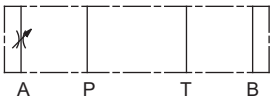
The throttle spindle which can be adjusted via a fine thread releases a ring gap, resp., a triangular notch for the volume flow. The adjusted throttle cross section generates a pressure drop which determines the volume flow. When screwed in, the throttle closes practically leakage-free. The oil flow is possible in both directions.

APPLICATION

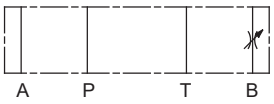
Throttle valves are used where volume flows have to be controlled continuously in both flow directions without taking into account pressure fluctuations. Miniature values are used where both, reduced dimensions and weight are important.

SYMBOL

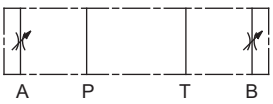
BDRA4



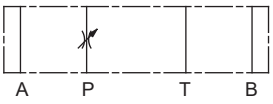
BDRB4



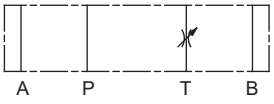
BDRAB4



BDRP4



BDRT4



TYPE CODE

B DR [ ] 4 [ ] - [ ] # [ ]

Mounting interface according to Wandfluh standard

Throttle valve

Type list / Function

in A	A	in B	B
in A and B	AB		
in P	P	in T	T

Nominal size 4-Mini

Standard	
Precision throttle	- FD

Sealing material	NBR	
	FKM (Viton)	D1

Design index (subject to change)

2.4-730

GENERAL SPECIFICATIONS

Designation	Throttle valve
Mounting	Sandwich construction
Nominal size	NG4-Mini according to Wandfluh standard
Ambient temperature	-25…+70 °C (NBR) -20…+70 °C (FKM)
Weight	0,80 kg (Sandwich construction A, B, T) 0,93 kg (Sandwich construction AB) 0,70 kg (Sandwich construction P)
MTTFd	150 years

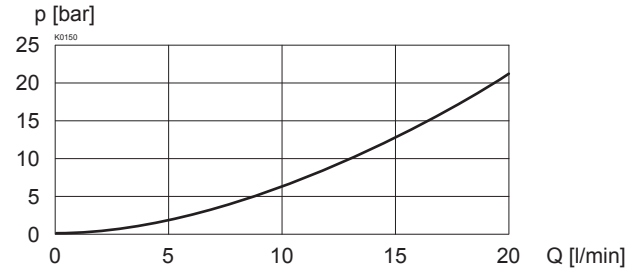
HYDRAULIC SPECIFICATIONS

Working pressure	p_{max} = 315 bar
Maximum volume flow	Q_{max} = 20 l/min
Nominal volume flow	Q_N = 15 l/min bei 10 bar Ventildruckverlust
Leakage oil	With closed throttle practically leakage-free
Fluid	Mineral oil, other fluid on request
Viscosity range	12 mm²/s…320 mm²/s
Temperature range fluid	-25…+70 °C (NBR) -20…+70 °C (FKM)
Contamination efficiency	Classe 20 / 18 / 14…21 / 19 / 15
Filtration	Required filtration grade ß 10…25 ≥ 75, see data sheet 1.0-50 / 2

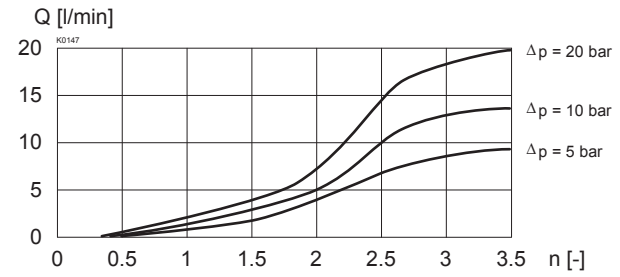
PERFORMANCE SPECIFICATIONS

Oil viscosity υ = 30 mm²/s

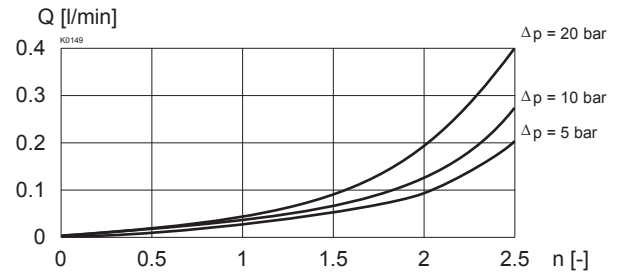
Δp = f (Q) **Pressure drop volume flow characteristic**



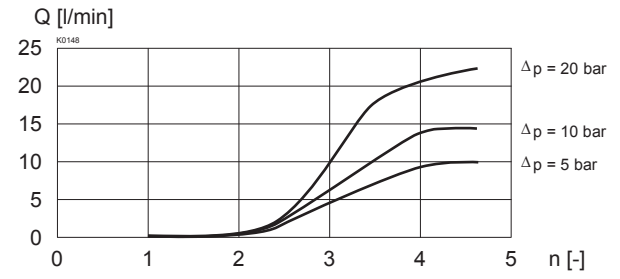
Q = f (n) **Volume flow adjustment characteristics**
Standardausführung



Q = f (n) **Volume flow adjustment characteristics**
Feindrossel



Q = f (n) **Volume flow adjustment characteristics**
Feindrossel



SEALING MATERIAL

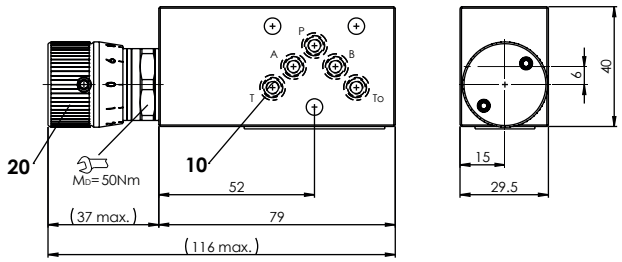
NBR or FKM (Viton) as standard, choice in the type code

SURFACE TREATMENT

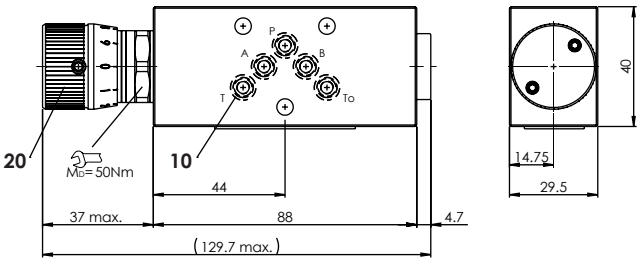
- The sandwich bodies are zinc-nickel coated
- The control knob is made of aluminium, anodised natural

DIMENSIONS

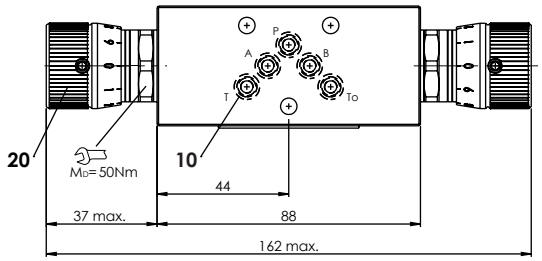
BDRP4
BDRT4 (Throttling on B side)



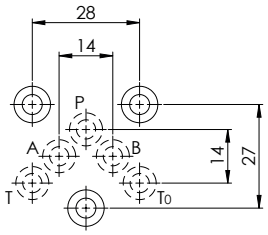
BDRA4
BDRB4 (Throttling on B side)



BDRAB4



HYDRAULIC CONNECTION



PARTS LIST

Position	Article	Description
10	160.2052	O-ring ID 5,28 x 1,78 (NBR)
	160.6052	O-ring ID 5,28 x 1,78 (FKM)
20	114.1204	Control knob

ACCESSORIES

Threaded subplate	Data sheet 2.9-10
Multi-station subplates	Data sheet 2.9-50
Module type manifold blocks	Data sheet 2.9-90
Technical explanations	Data sheet 1.0-100
Filtration	Data sheet 1.0-50

INSTALLATION NOTES

Mounting type	Sandwich mounting 3 fixing holes for socket head screws or studs M5
Mounting position	Any, preferably horizontal
Tightening torque	Fixing screws M_D = 5,2 Nm (screw quality 8.8, zinc coated)

STANDARDS

Mounting interface	Wandfluh standard
Contamination efficiency	ISO 4406

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