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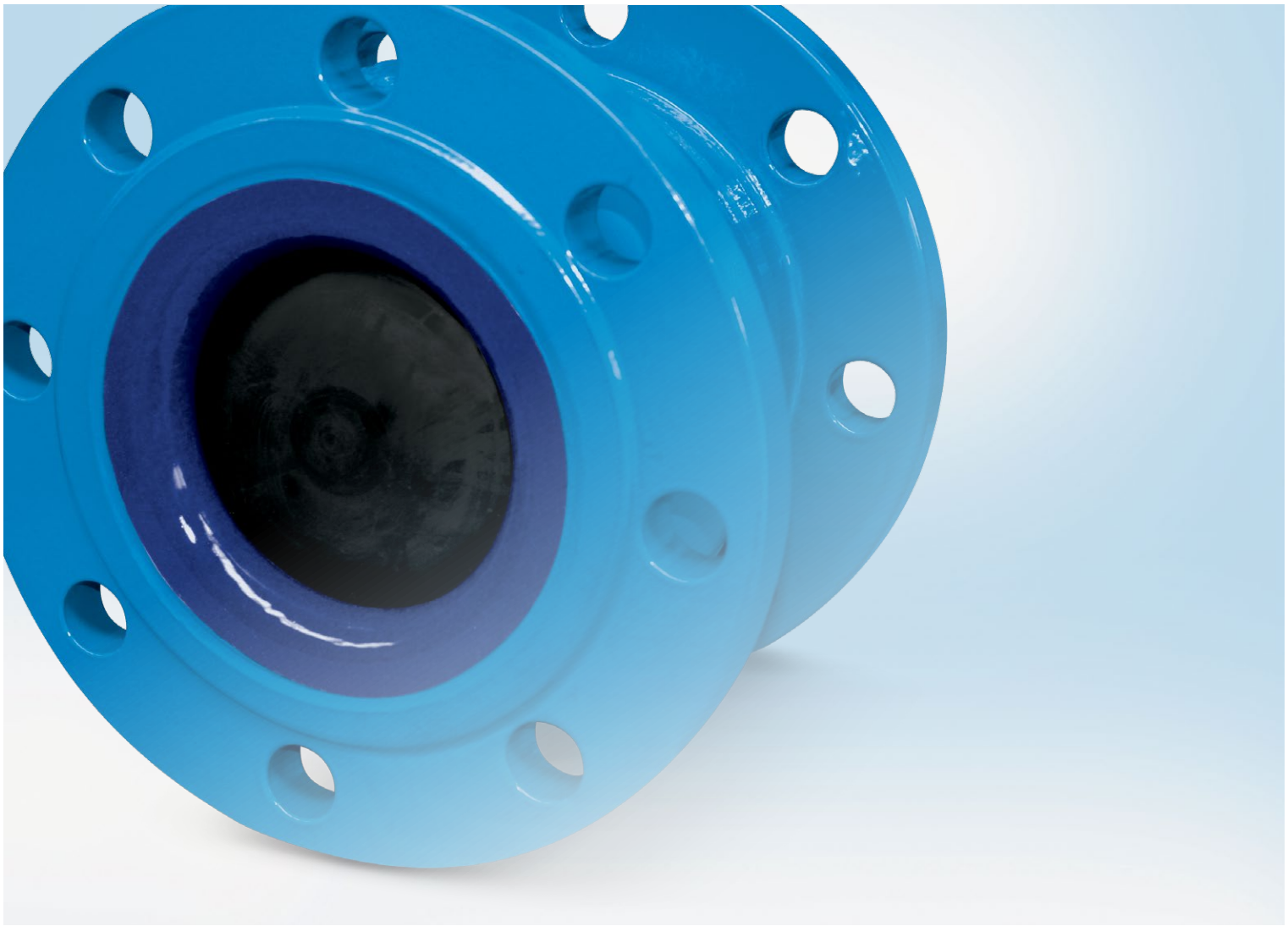
Data sheet
ERHARD non slam nozzle check valve



ERHARD non slam nozzle check valve

The innovative non-return valve for maximum economy

An optimised flow cross-sectional area as well as a valve disc and valve stem gasket designed for minimum flow resistance ensure minimum head losses with the ERHARD non slam nozzle check valve. This enables highly economic operation especially in pumping stations. Valve disc, spring and closing travel have been engineered in such a way [2] that the ERHARD non slam nozzle check valve reacts that quickly even in highest flow delays (e. g. in a vertical line) that only minimal return flow velocities occur, with the flow being gently slowed, thus reducing water hammers to a minimum.

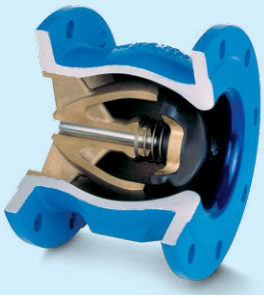
Thanks to its compact form (face-to-face dimension to DIN EN 558, basic line 14), the adjustable spring force as well as its use in any installation position, the ERHARD non slam nozzle check valve can be used for a wide range of applications up to pressure ratings of PN 40 in the natural and drinking water sector as well as in purified wastewater. The body is made from spheroidal cast iron EN-JS1030 (EN-JS1025 for PN 40), the body insert is made from bronze. The resilient-seated piston is rubberised to W270. All internal parts can be easily replaced and the guide bushes are maintenance-free. The ERHARD non slam nozzle check valve is internally enamelled for protection against corrosion and the outside has been coated with EKB in blue. Position indication is optionally available [3].

Operating instructions
BA43E000

with position indication:
BA43E001

1

2



3

The overview

Brief specifications:

- **Valve disc (DN80-300):** zinc-free bronze / elastomer KTW / W270
- **Valve ring (DN350-600):** 1.4404 / elastomer KTW / W270
- **Internal body:** zinc-free bronze
- **Guiding stem:** stainless steel
- **Guiding bush:** high-performance polymer
- **Body:** ductile cast iron
- **Spring:** stainless steel
- **Protection outside:** ERHARD EKB fusion bonded epoxy
- **Protection inside:** ERHARD vitreous enamel

Dimensions and weights

Nominal size DN	face-to-face dim. L (EN558-basic line 14) mm	Weight approx.. kg	Flange outside diameter D mm				Locking (Hub) mm
		PN10/16	PN 10	PN 16	PN 25	PN 40	
DN 80	180	14	–	200	200	200	19
DN 100	190	19	–	220	235	235	20
DN 125	200	27	–	250	270	270	23
DN 150	210	32	–	285	300	300	32
DN 200	230	50	340	340	360	375	35
DN 250	250	70	400	400	425	450	43
DN 300	270	97	455	455	485	515	49
DN 350	290	135	505	520	–	–	39
DN 400	310	165	565	580	–	–	44
DN 500	350	275	670	715	–	–	56
DN 600	390	480	780	840	–	–	71

We need the following data for preparing a quotation:

- *Nominal size DN*
- *Temperature range*
- *Position of installation*
- *Pressure rating PN*
- *Flow velocities (min./max.)*
- *Case of application*
- *Type of flow medium/analysis*
- *Characteristic curve of the plant*

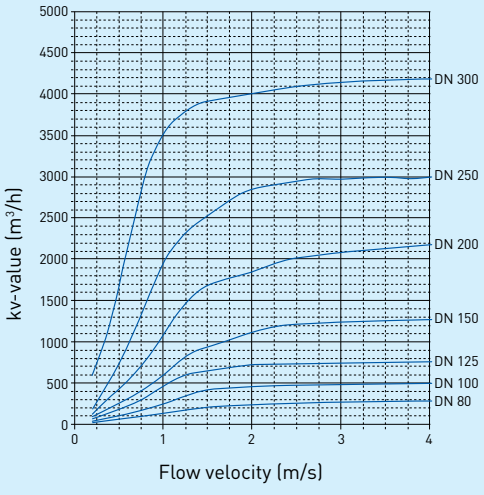
Please contact us. We will be glad to advise you.

Area of operations

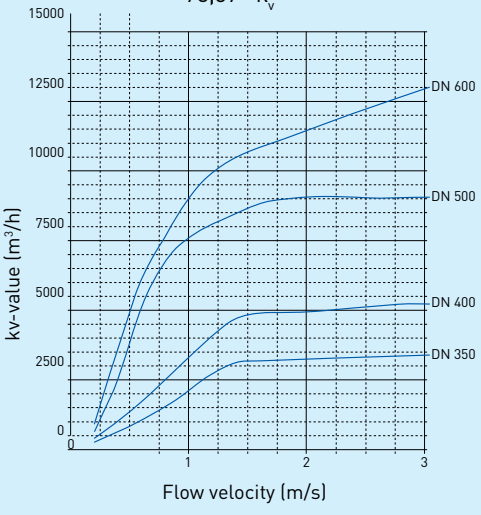
- Minimum back-pressure DN80-300: 4 mWS
- Minimum back-pressure DN350-600: 8 mWS
- Max. working temperature +60 °C
- Full opening at approx. 2 m/s

Hydraulic characteristic curves

$$\zeta = \left(\frac{\pi \cdot DN^2}{78{,}57 \cdot k_v}\right)^2 \quad DN \ldots mm$$



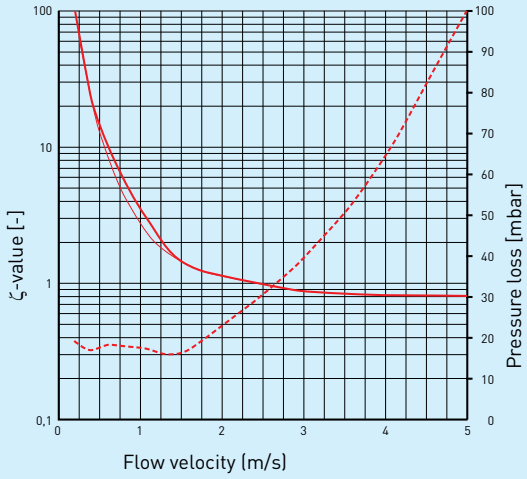
$$\zeta = \left(\frac{\pi \cdot DN^2}{78{,}57 \cdot k_v}\right)^2 \quad DN \ldots mm$$



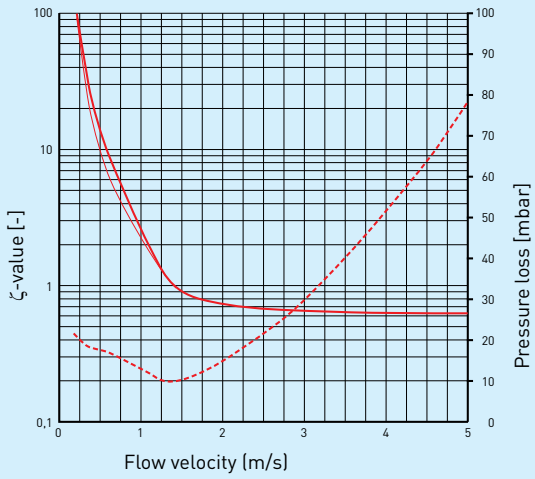
Zeta-Values

Diagrams valid for cavitation free operation.

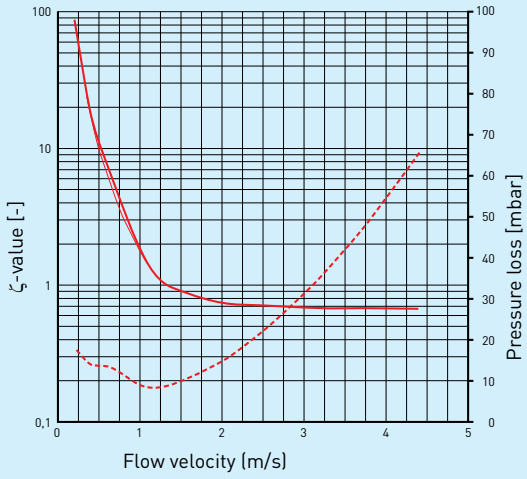
DN 80 PN 40, Zeta-value at 5 m/s: 0,85



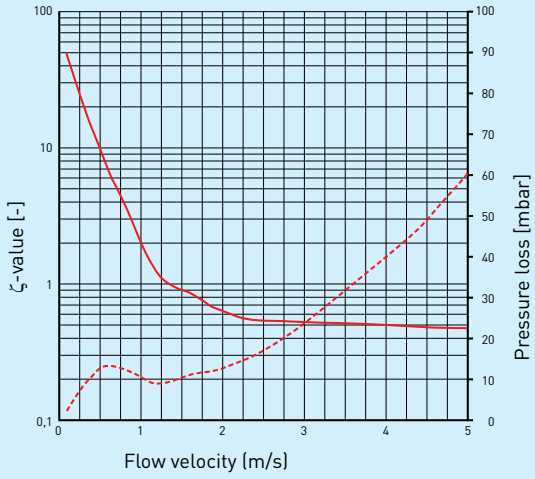
DN 100 PN 40, Zeta-value at 5 m/s: 0,63



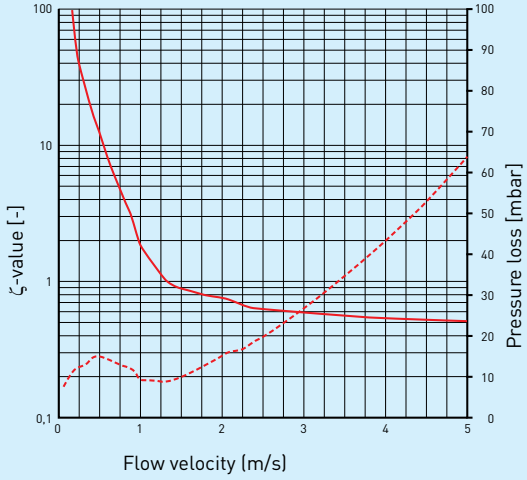
DN 125 PN 40, Zeta-value at 5 m/s: 0,69



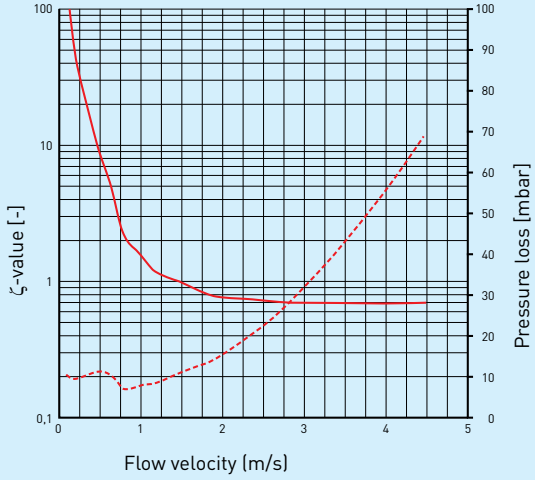
DN 150 PN 10/16, Zeta-value at 5 m/s: 0,48



DN 200 PN 10/16, Zeta-value at 5 m/s: 0,51



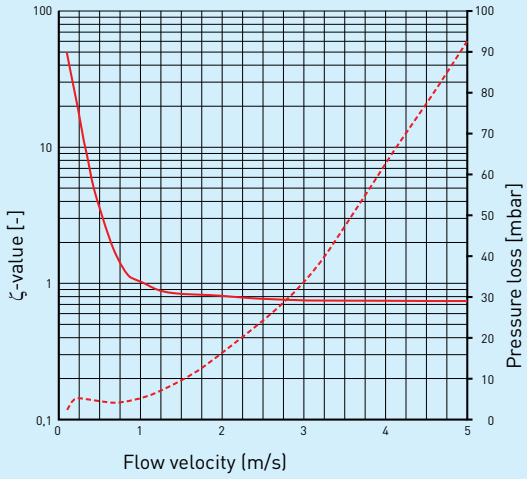
DN 250 PN 10/16, Zeta-value at 5 m/s: 0,69



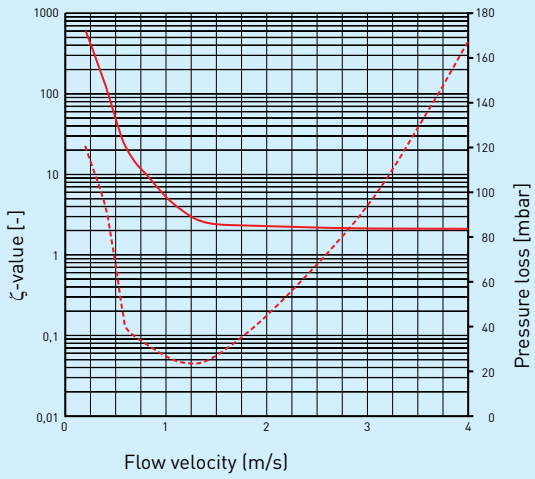
Zeta-Values

Diagrams valid for cavitation free operation.

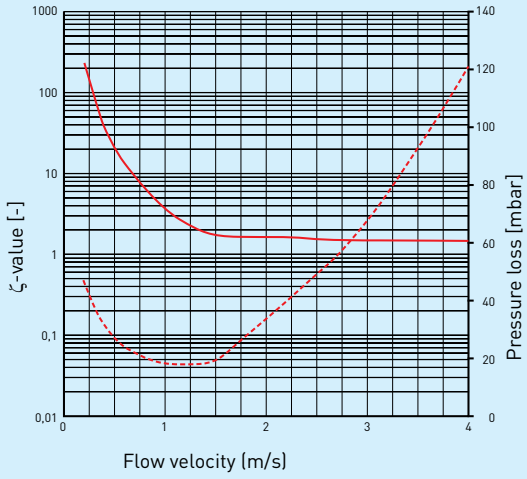
DN 300 PN 10/16, Zeta-value at 5 m/s: 0,74



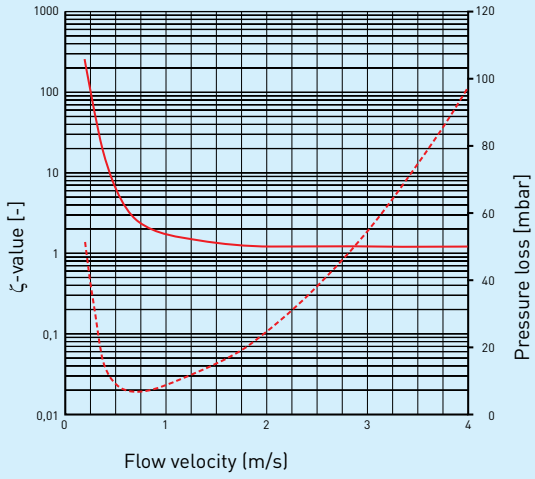
DN 350 PN 10/16



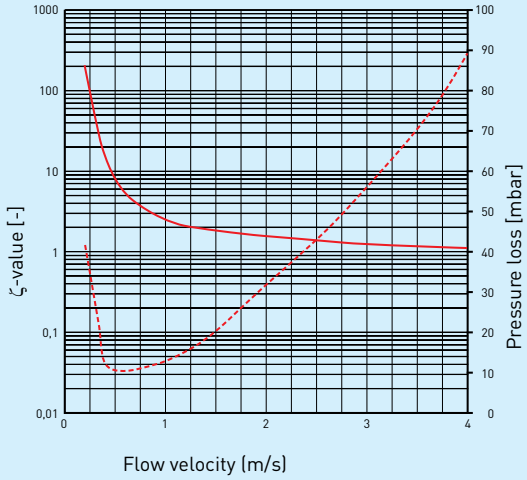
DN 400 PN 10/16



DN 500 PN 10/16



DN 600 PN 10/16



Zeta-value with increasing speed

Zeta-value with decreasing speed

Pressure loss Dp

Your Choice in Waterflow Control

TALIS is the undisputed Number One for water transport and water flow control. TALIS has the best solutions available in the fields of water and energy management as well as for industrial and communal applications. We have numerous products for comprehensive solutions for the whole water cycle – from hydrants, butterfly valves and knife gate valves through to needle valves. Our experience, innovative technology, global expertise and individual consultation processes form the basis for developing long-term solutions for the efficient treatment of the vitally important resource "water".

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