

NEEDLE VALVES TYPE ZA

APPLICATION AREA:

The needle valves are designed for installation, startup and maintenance of pressure /flow converters, pressure gauges and other fittings and supplementary equipment in industrial automatic systems.

Depending on their design version, the needle valve can be used for the following operations and procedures: on site or remote adjustment of instruments, enabling /disabling of flow, draining, venting or calibration of instruments, air purging of pipelines to expel contaminations.

FEATURES:

- high parameters of operating pressure and temperature,
- high tightness and reliability of valve closure,
- high resistance to external leaks,
- easy operation,
- purposeful selection of materials for parts and sealing to achieve versatility of application,
- wide choice of connection and design options,
- securing of the valve stem against sliding out during operation.

DESIGN:

Body	<ul style="list-style-type: none"> - material: <ul style="list-style-type: none"> • carbon steel S355J2G3 (1.0570), • stainless steel X6CrNiMoTi 17-12-2 (1.4571), - inlet port (pipeline side): <ul style="list-style-type: none"> • connecting nozzle - internal pipe thread • connecting nozzle - external pipe thread, - outlet port (instrument side): <ul style="list-style-type: none"> • direct connection (flange), • connecting nozzle - internal pipe thread, • connecting nozzle - internal metric thread, - thread sizes: <ul style="list-style-type: none"> • basic: NPT 1/4 "; 3/8"; 1/2", • M 20 x 1,5,
Gland	- material - the same as the valve body,
Stem	- acid resistant, burnished on the sealing surface, with rolled screw thread in the area where no contact with the handled utilities is anticipated, polished.
Needle	- two options: a hard one - stainless steel with further quenching or a soft one, made of PTFE, secured against revolving when engaged into the valve seat.
Gland sealing	- spring gasket made of acid resistant spiral tape and graphite.
Stem sealing	- PTFE packing, graphite; o-ring of EPDM - depending on specific application.
Handwheel	- T-shaped, acid resistant.
Protecting sleeve	- plastic, protects stem threads against contaminations and bears marking of the valve designation: blue - On/Off valve, red - vent valve.

TECHNICAL PARAMETERS



Maximum working pressure
Throughout orifice diameter
Maximum working temperature with regard to the type of sealing

- 400 bar.
- 4 mm.
- EPDM
- PTFE; VITON
- Graphite

150°C,
200°C,
500°C.

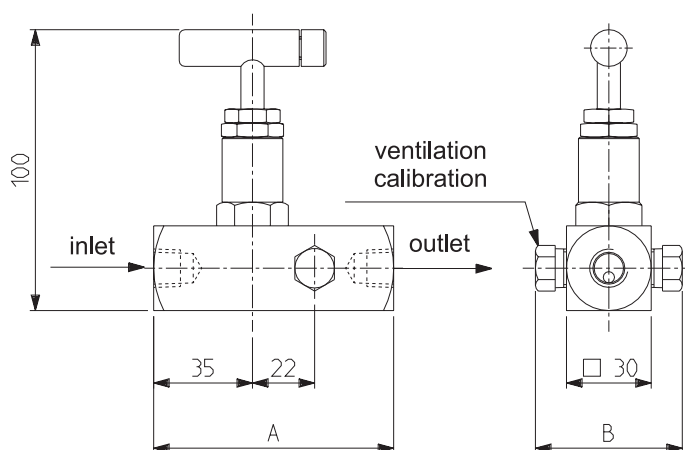
DESIGN OPTIONS:

Inlet	Outlet	A
NPT 1/4"	NPT 1/4"	60
NPT 3/8"	NPT 3/8"	60
NPT 1/2"	NPT 1/2"	70
NPT 1/2"	M20x1,5	70

ZA - 11 - the single, 2-port needle valve, On/Off type with internal threads at both inlet and outlet.

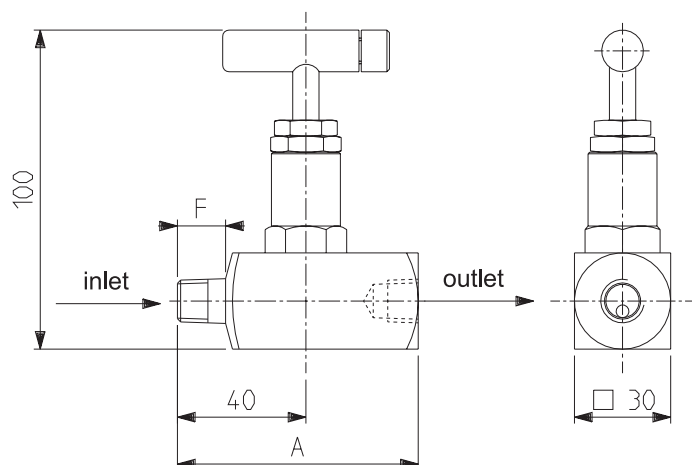
Inlet	Outlet	A
NPT 1/4"	NPT 1/4"	65
NPT 3/8"	NPT 3/8"	65
NPT 1/2"	NPT 1/2"	75
NPT 1/2"	M20x1,5	75

ZA - 12 - the needle valve (same as ZA-11) with vent



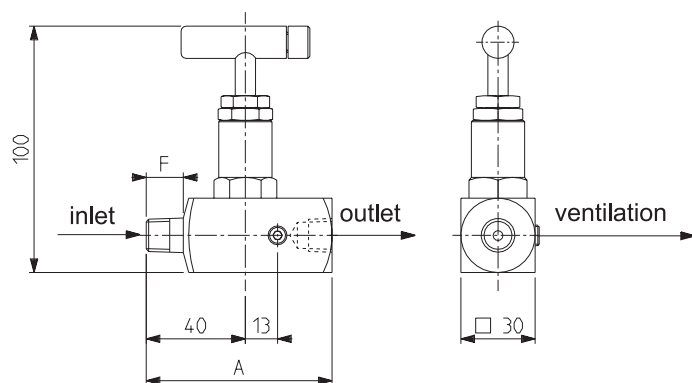
Inlet	Outlet	A	B
NPT 1/4"	NPT 1/4"	80	50
NPT 3/8"	NPT 3/8"	80	50
NPT 1/2"	NPT 1/2"	90	60

ZA - 13 - the needle valve (same as ZA - 11) with vent and calibration.



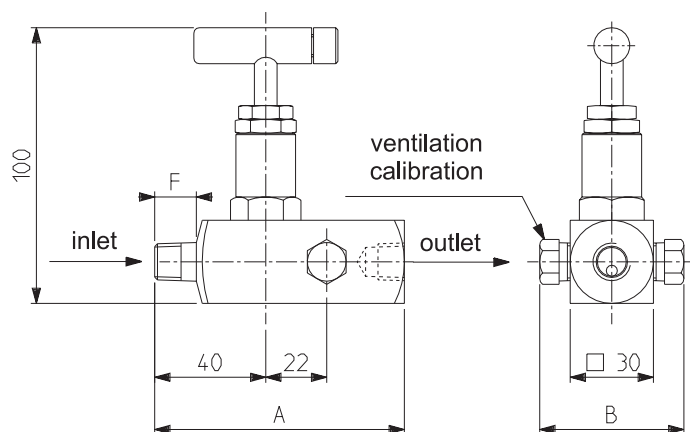
Inlet	Outlet	A	F
NPT 1/4"	NPT 1/4"	70	15
NPT 3/8"	NPT 3/8"	70	15
NPT 1/2"	NPT 1/2"	75	20
NPT 1/2"	M20x1,5	75	20

ZA - 14 - the single, 2-port, needle valve, On/Off type with an externally tapped nozzle at inlet and internal thread at outlet



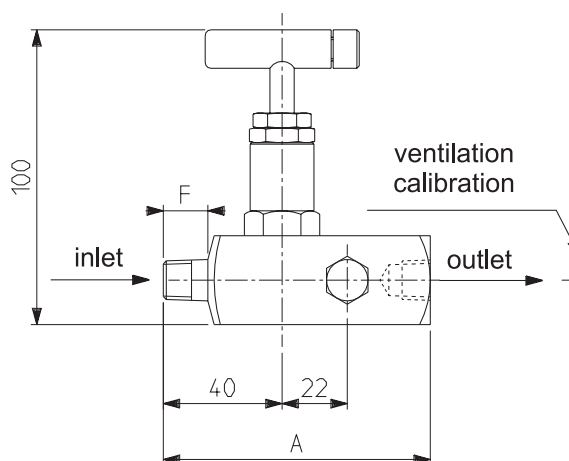
Inlet	Outlet	A	F
NPT 1/4"	NPT 1/4"	75	15
NPT 3/8"	NPT 3/8"	75	15
NPT 1/2"	NPT 1/2"	80	20
NPT 1/2"	M20x1,5	80	20

ZA - 15 - the needle valve (same as ZA-14) with.



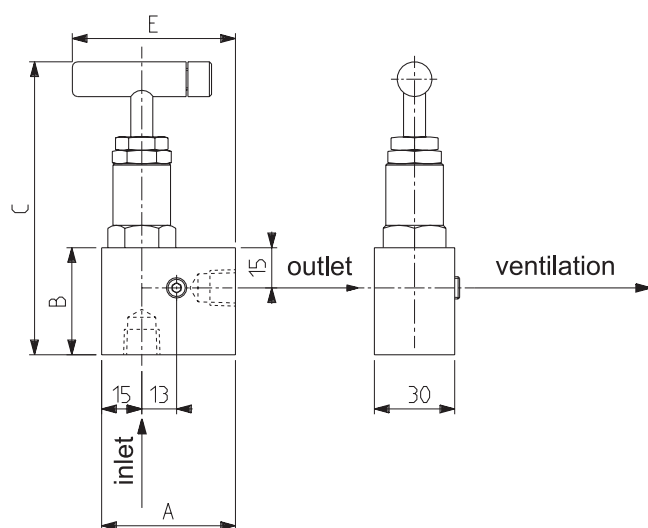
Inlet	Outlet	A	B	F
NPT 1/4"	NPT 1/4"	90	50	15
NPT 3/8"	NPT 3/8"	90	50	15
NPT 1/2"	NPT 1/2"	100	60	20

ZA - 16 - the needle valve (same as ZA-14) with vent and calibration.



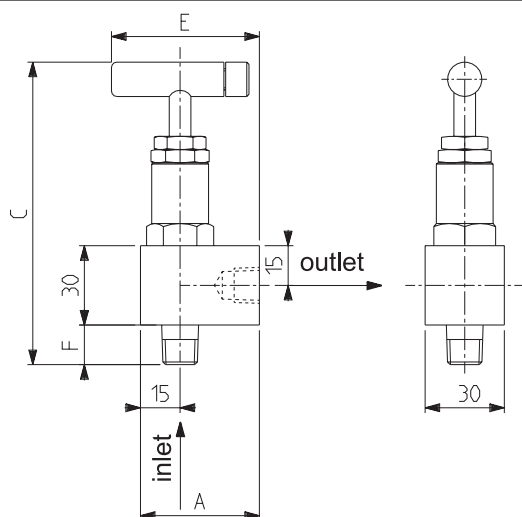
Inlet	Outlet	A	B	C	E
NPT 1/4"	NPT 1/4"	45	110	56	40
NPT 3/8"	NPT 3/8"	45	110	56	40
NPT 1/2"	NPT 1/2"	50	115	61	45
NPT 1/2"	M20x1,5	50	115	61	45

ZA - 17 - the single, 2-port, angular, needle valve, On/Off type with internal thread at both inlet and outlet.



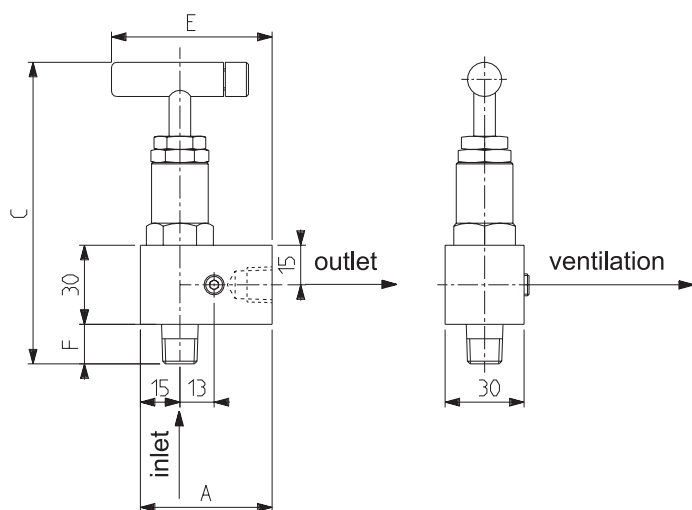
Inlet	Outlet	A	B	C	E
NPT 1/4"	NPT 1/4"	50	40	112	61
NPT 3/8"	NPT 3/8"	50	40	110	61
NPT 1/2"	NPT 1/2"	55	45	115	66
NPT 1/2"	M20x1,5	55	45	115	66

ZA - 18 - the needle valve, same as (ZA-17) with vent.



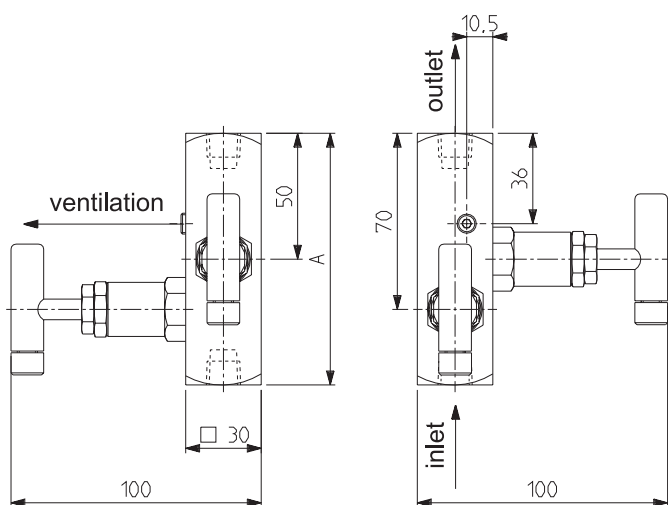
Inlet	Outlet	A	C	E	F
NPT 1/4"	NPT 1/4"	45	115	56	15
NPT 3/8"	NPT 3/8"	45	115	56	15
NPT 1/2"	NPT 1/2"	50	120	61	20
NPT 1/2"	M20x1,5	50	120	61	20

ZA - 19 - the single, 2-port, angular needle valve, On/Off type with an externally tapped nozzle at inlet and internal thread at outlet



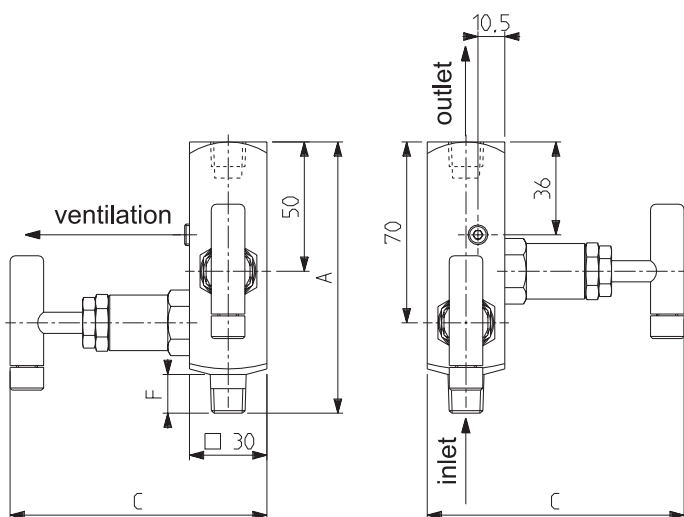
Inlet	Outlet	A	C	E	F
NPT 1/4"	NPT 1/4"	50	115	61	15
NPT 3/8"	NPT 3/8"	50	115	61	15
NPT 1/2"	NPT 1/2"	55	120	66	20
NPT 1/2"	M20x1,5	55	120	66	20

ZA - 20 - the needle valve (same as ZA-19) with vent.



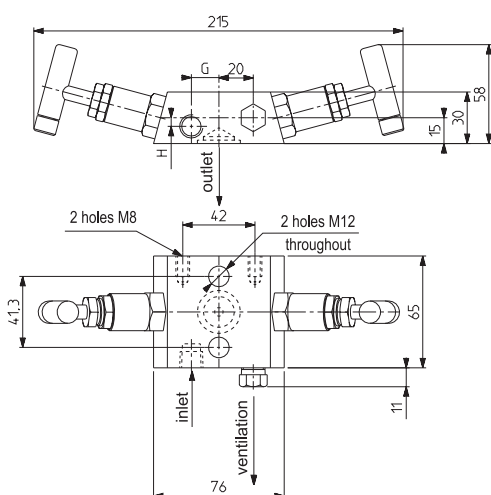
Inlet	Outlet	A
NPT 1/4"	NPT 1/4"	100
NPT 3/8"	NPT 3/8"	100
NPT 1/2"	NPT 1/2"	105

ZA - 21 - the double needle valve with On/Off and venting function, with linear characteristic curve and internal threads at both inlet and outlet



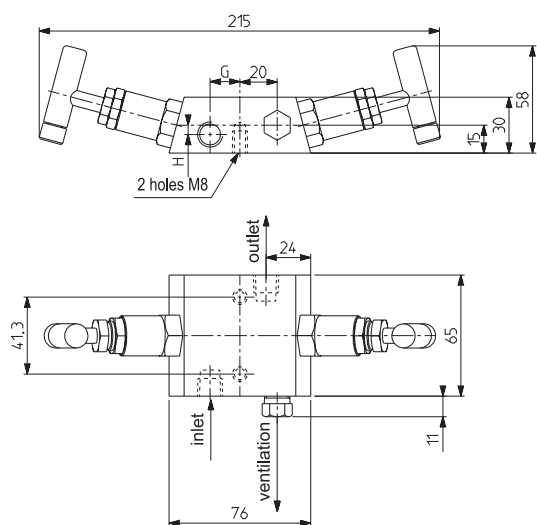
Inlet	Outlet	A	F
NPT 1/4"	NPT 1/4"	105	15
NPT 3/8"	NPT 3/8"	105	15
NPT 1/2"	NPT 1/2"	110	20

ZA - 22 - the needle valve (same as ZA-21) with an externally tapped nozzle at inlet and internal thread at



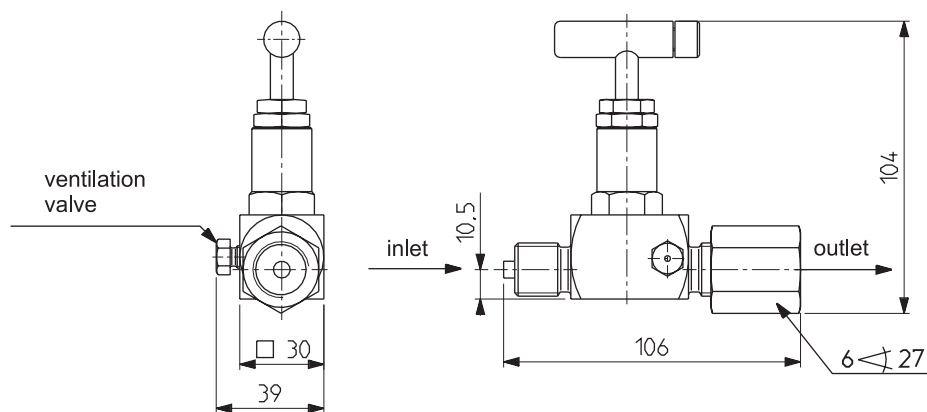
Inlet	Outlet	G	H
NPT 1/4"	flanged	16	5
NPT 1/2"		20	3

ZA - 23 - the double needle valve with On/Off and venting function, manifold type, with internal thread at inlet flange connection at outlet.



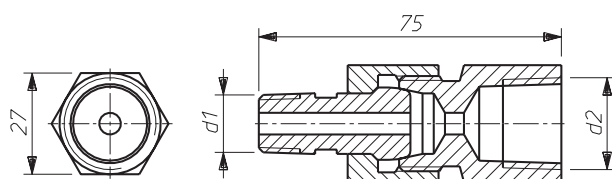
Inlet	Outlet	G	H
NPT 1/4"	NPT 1/4"	16	5
NPT 1/2"	NPT 1/2"	20	3

ZA - 24 - the needle valve (same as ZA-23) with internal thread at both inlet and outlet.



Inlet	Outlet
G 1/2"	G 1/2"
M20x1,5	M20x1,5

ZA - 25 - the single needle valve, throughout, On/Off, with externally tapped nozzle at inlet and internal thread at outlet, with vent



d_1	d_2
NPT 1/4"	NPT 1/4"
	NPT 3/8"
	NPT 1/2"
	M20x1,5

ZA - 33 - adapter

NOTE: Connecting parts as well as the adapter are not supplied.valves. Please order separately. Complete with needle valves.

PRODUCT CODE:

Needle valve **ZA** -

- - / -

Design option: (by respective data sheet)

Body material:

- carbon steel
- stainless steel

S
K

Inlet (by respective drawings):

- NPT 1/4"
- NPT 3/8"
- NPT 1/2"
- G 1/2"
- M20x1,5

1
2
3
4
5

Working temperature (stem sealing):

- 150°C - water, steam (EPDM)
- 200°C - (PTFE)
- 500°C - (GRAPHITE)
- 200°C - oil, gases, hydrocarbons (VITON)

1
2
3
4

Outlet (by respective drawings):

- flange
- NPT 1/4"
- NPT 3/8"
- NPT 1/2"
- G 1/2"
- M20x1,5

0
1
2
3
4
9

EXAMPLE OF THE PRODUCT CODE:

The double needle valve with linear characteristics, with NPT 1/4" internal threads at both inlet and outlet, stainless steel, for working temperature below 200°C:

ZA-21-K-1/1-2

ORDER PLACEMENT:

Orders must contain product codes in accordance with OEM data sheets, working parameters: pressures and temperatures of handled utilities.

Please do not hesitate to refer to the Marketing and Sales Department as well as the Technical Department for assistance to choose valves that suit your needs.