

PHZS Series

● DESCRIPTION

Medium pressure line filter

Connection type and size:

Threaded connection: 1" 1-1/4" 1-1/2" 2"

SAE Flange connection: 1" 1-1/4" 1-1/2" 2" 2-1/2"

Maximum flow rate up to 780 l/min

● TECHNICAL PARAMETER

Maximum working pressure: 60 bar

Bypass valve opening pressure: 3.5 bar

Transmitter opening pressure: 2.5 bar

Temperature range: -25 to +110

● MATERIALS

Head: Cast iron

Filter bowl: Carbon steel

Seals: NBR nitrile rubber (standard)

Or FKM fluororubber (customizable)

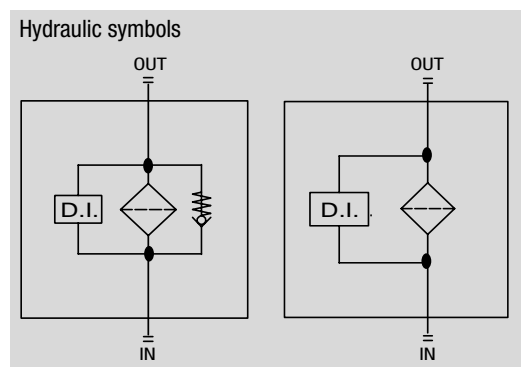
Filter element material: Fiberglass



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● MEDIA COMPATIBILITY

Suitable for mineral oil, lubricating oil, fire-resistant oil, and rapidly biodegradable media.
(If used for water-based or special media, please consult our sales department.)



Weights [kg] and volumes [dm³]

Filter series	Weights [kg]						Volumes [dm ³]							
	Length	1	2	3	4	5	6	Length	1	2	3	4	5	6
PHZS 210-211		3.10	4.80	6.40					1.60	2.10	2.80			
PHZS 400-401			7.20	8.10	8.80	11.90	14.40			3.50	5.00	6.50	9.50	13.50

FILTER ASSEMBLY SIZING

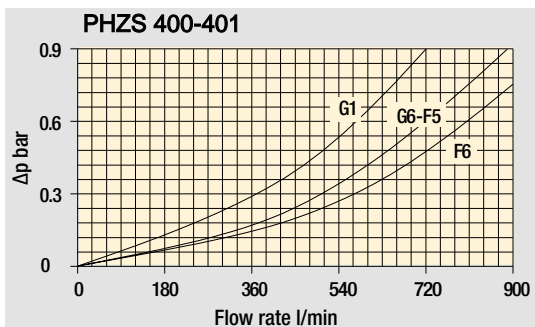
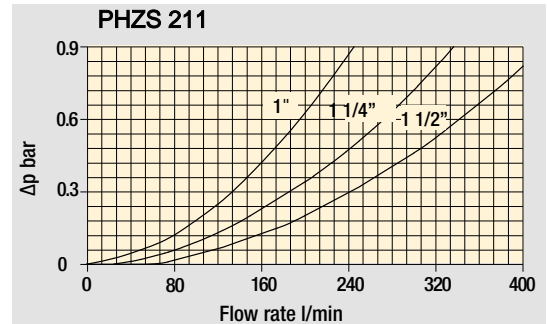
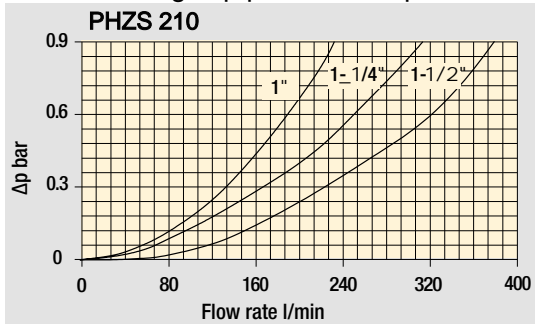
Flow rates (l/min)

Filter series	Length	Filter element design - F series					Filter element design - W series			
		F03	F05	F10	F20	F30	W25	W60	W90	W250
PHZS 210	1	106	130	190	200	221	286	287	287	288
	2	153	175	220	237	249	288	289	290	290
	3	204	214	248	260	265	289	290	291	291
PHZS 211	1	118	149	227	240	269	358	359	360	361
	2	178	207	268	292	307	361	362	363	364
	3	247	260	306	323	329	362	363	364	365
PHZS 400	2	205	244	370	411	515	524	556	556	720
	3	280	333	474	515	602	637	660	660	760
	4	347	400	535	564	637	660	688	688	769
	5	459	501	610	660	717	700	721	721	781
	6	504	575	676	689	728	708	727	727	783
PHZS 401	2	200	236	347	382	468	475	501	501	628
	3	268	315	434	468	537	565	582	582	659
	4	328	373	484	507	565	582	603	603	665
	5	423	456	544	582	626	613	629	629	674
	6	459	516	594	604	634	619	633	633	676

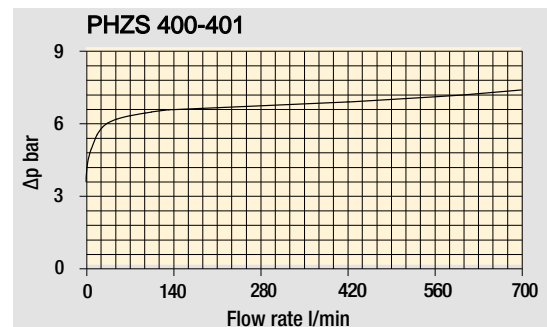
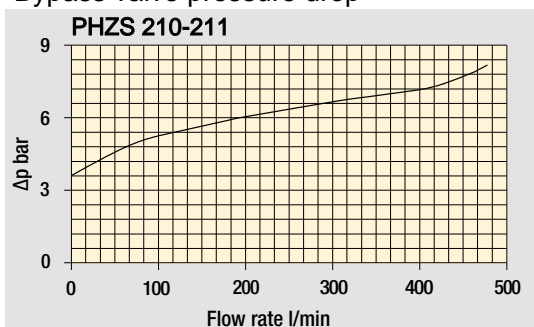
Maximum flow rate for a complete return filter with a pressure drop $\Delta p = 0.7$ bar.

The reference fluid has a kinematic viscosity of $30 \text{ mm}^2/\text{s}$ (cSt) and a density of $0.86 \text{ kg}/\text{dm}^3$.

Filter housings Δp pressure drop



Bypass valve pressure drop



The curves are plotted using mineral oil with density of $0.86 \text{ kg}/\text{dm}^3$ in compliance with ISO 3968 Δp varies proportionally with density.

Ordering Options Table

PHZS 210 1 F2 F 10 N A B

Filter type

Filter specification

210

Length

1 2 3

Connection type and size

Type	Connection	Filter specification		
		1	2	3
F2	1"	●	●	●
F3	1-1/4" SAE	●	●	●
F4	1-1/2" SAE	●	●	●

Filter element material

F: Fiberglass
W:Stainless steel wire mesh

Filter fineness(μm)

F: 03 05 10 20 30
W: 25 60 90

Seals

N: NBR V: FKM

Differential pressure transmitter

A: Steel blanking plug in indicator port
A: Visual (Automatic reset)
BM: Visual (Manual reset)
C: Electrical indicator
CM: Visual and electrical indicators
CL: Visual and electrical indicators
D: Electrical indicator
DM: Electrical indicator Plug DT 04-2P

Bypass valve opening pressure

S = Without bypass valve
B = 3.5 bar



Filter Element

PYZS 210 1 F 10 N

Filter element type

Filter element specification

210

Length

1 2 3

Filter element material

F: Fiberglass

W:Stainless steel wire mesh

Filter fineness(μm)

F: 03 05 10 20 30

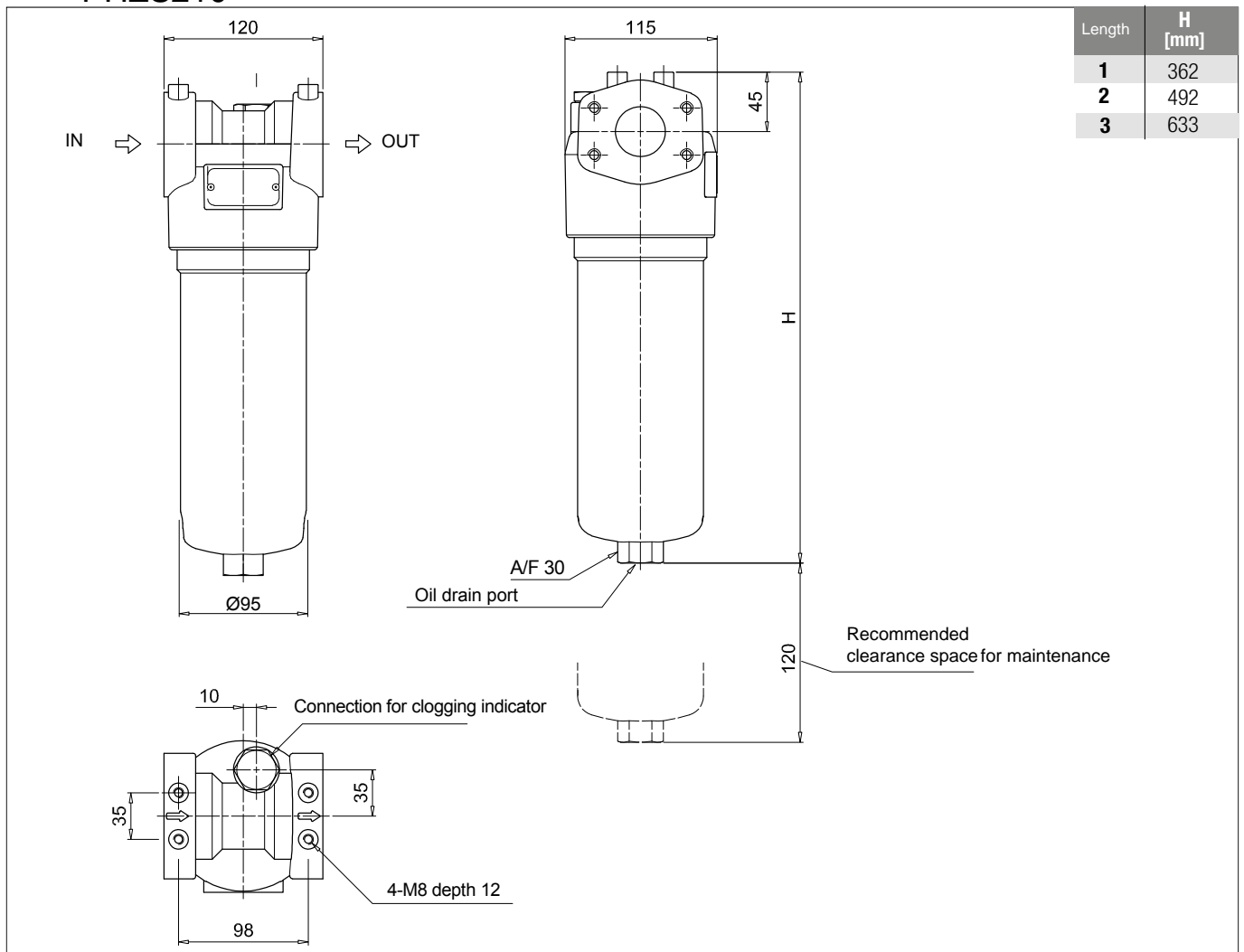
W: 25 60 90

Seals

N: NBR V: FKM

DIMENSIONS

PHZS210



Ordering Options Table

PHZS 211 1 G4 F 10 N A B

Filter type

Filter specification

211

Length

1 2 3

Connection type and size

Type	Connection	Filter specification		
		1	2	3
G4	G"	●	●	●
G5	G1-1/4"	●	●	●
G6	G1-1/2"	●	●	●

Filter element material

F: Fiberglass

W:Stainless steel wire mesh

Filter fineness(μm)

F: 03 05 10 20 30

W: 25 60 90

Seals

N: NBR V: FKM

Differential pressure transmitter

A: Steel blanking plug in indicator port

B: Visual (Automatic reset)

BM: Visual (Manual reset)

C: Electrical indicator

CM: Visual and electrical indicators

CL: isual and electrical indicators

D: Electrical indicator

D: Electrical indicator Plug DT 04-2P

Bypass valve opening pressure

S = Without bypass valve

B = 3.5 bar



Filter Element

PYZS 211 1 F 10 N

Filter element type

Filter element specification

211

Length

1 2 3

Filter element material

F: Fiberglass

W: Stainless steel wire mesh

Filter fineness(μm)

F: 03 05 10 20 30

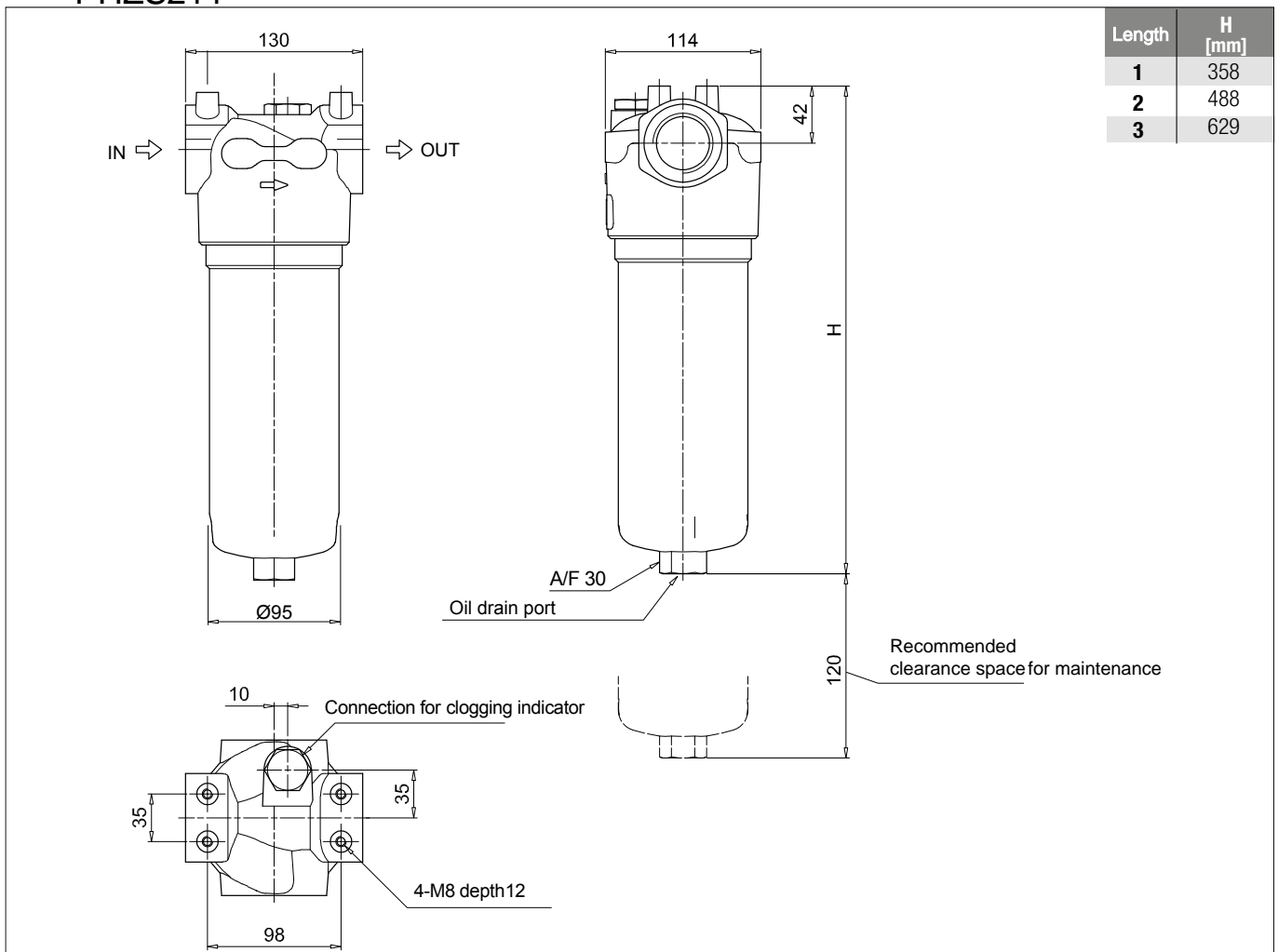
W: 25 60 90

Seals

N: NBR V: FKM

DIMENSIONS

PHZS211



Ordering Options Table

PHZS 400 2 F5 F 10 N A B

Filter type

Filter specification

400 401

Length

2 3 4 5 6

Connection type and size

Type	Connection	Filter specification				
		2	3	4	5	6
G6	G1-1/2"	●	●	●	●	●
G7	G2"	●	●	●	●	●
F5	2" SAE	●	●	●	●	●
F6	2-1/2" SAE	●	●	●	●	●

Filter element material

F: Fiberglass

W:Stainless steel wire mesh

Filter fineness(μm)

F: 03 05 10 20 30

W: 25 60 90

Seals

N: NBR V: FKM

Differential pressure transmitter

A: Steel blanking plug in indicator port

B: Visual (Automatic reset)

BM: Visual (Manual reset)

C: Electrical indicator

CM: Visual and electrical indicators

CL: isual and electrical indicators

D: Electrical indicator

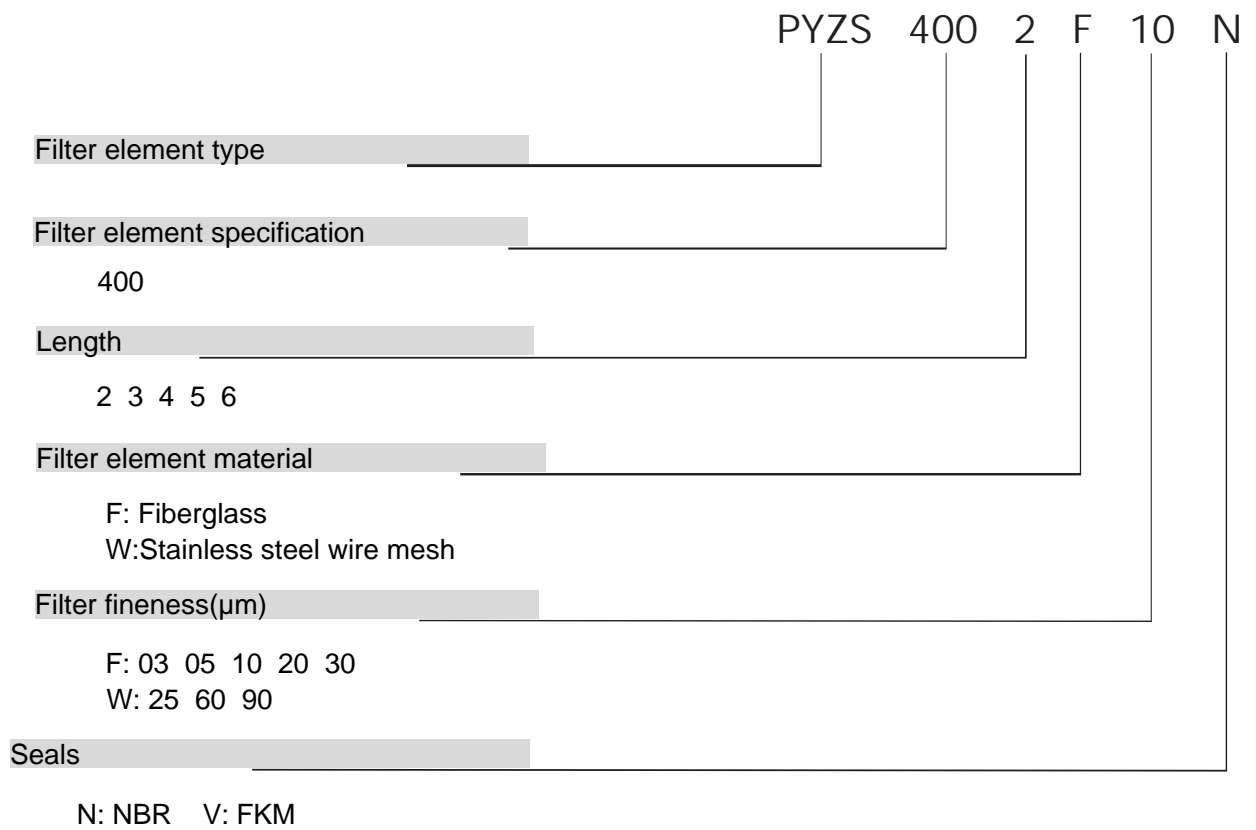
D: Electrical indicator Plug DT 04-2P

Bypass valve opening pressure

S = Without bypass valve

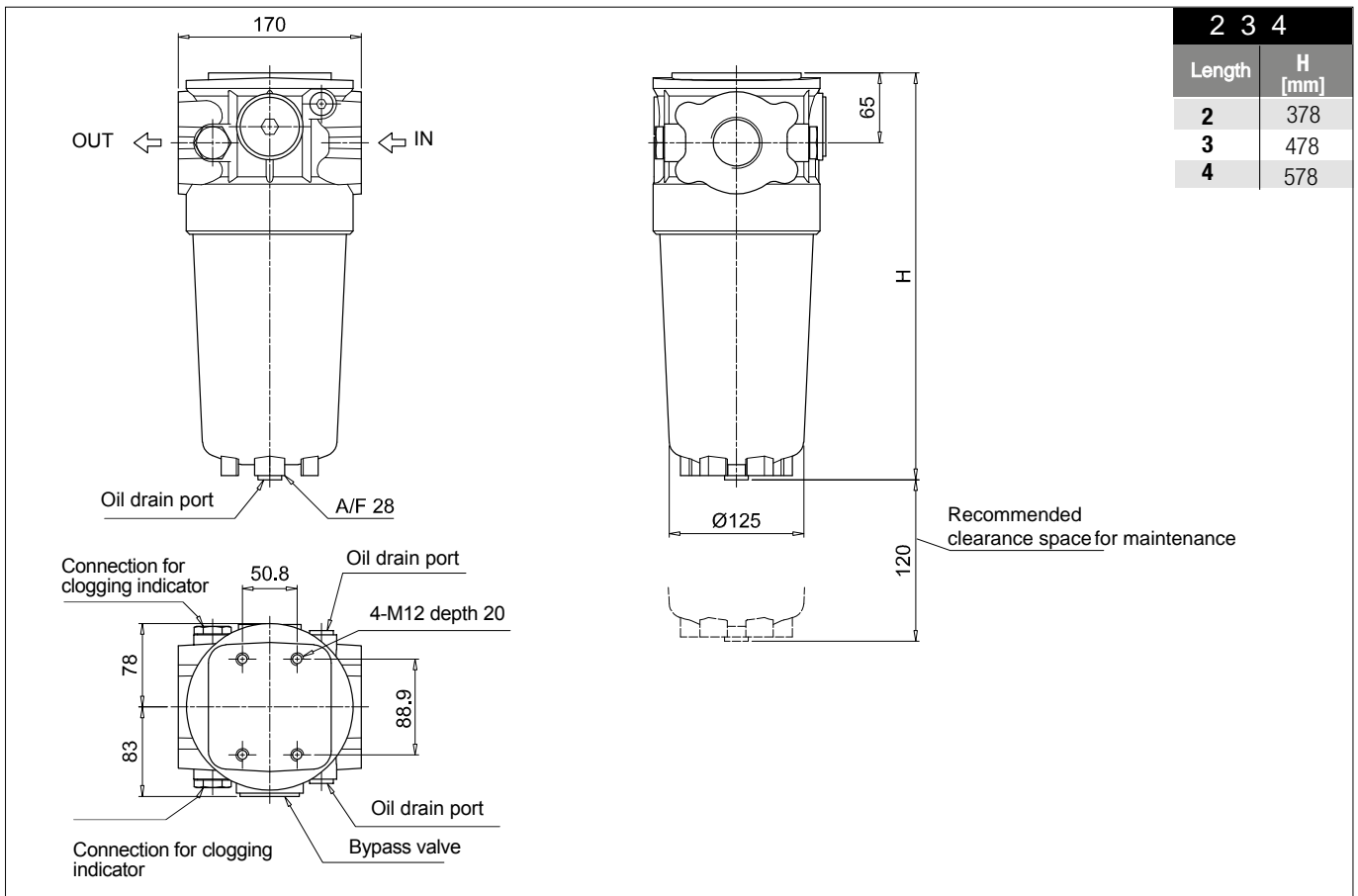
B = 3.5 bar

Filter Element

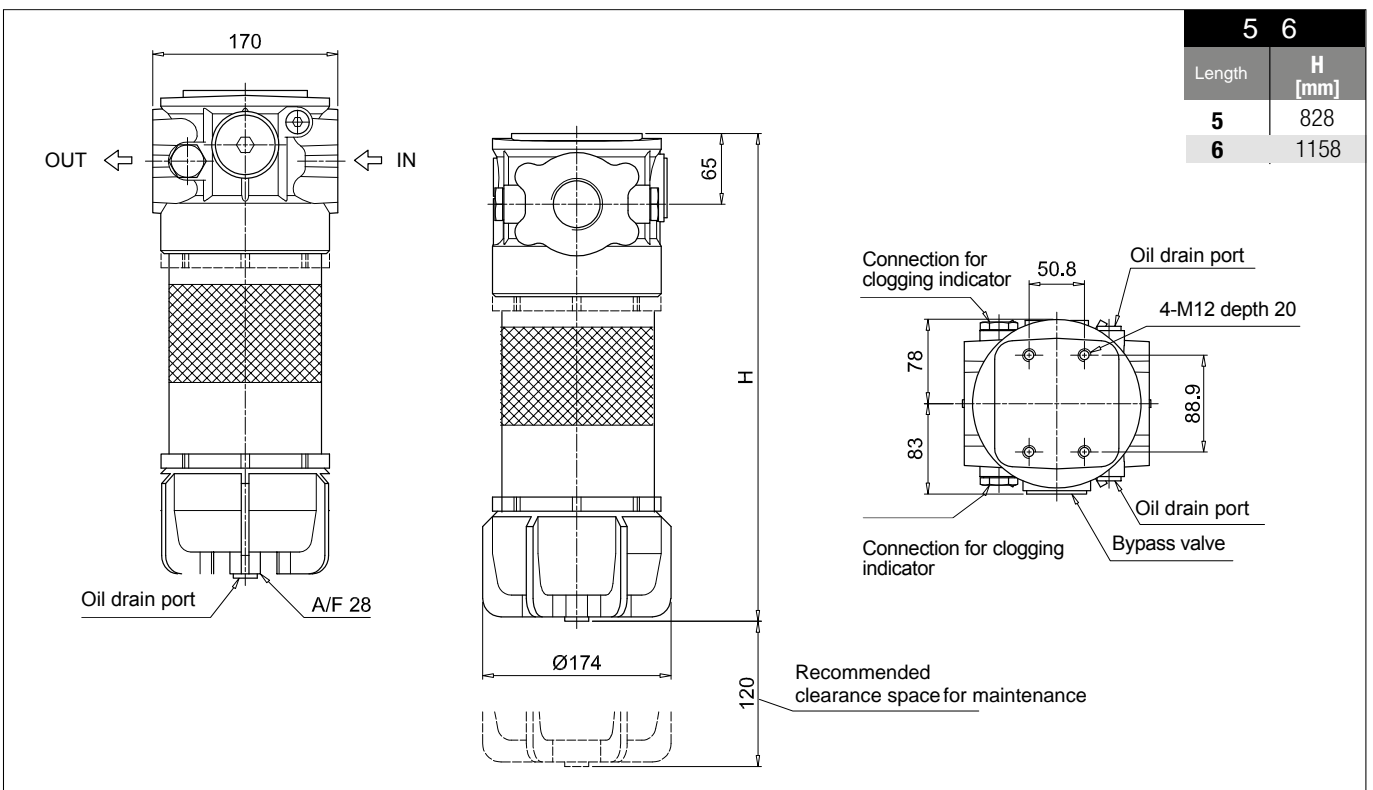


DIMENSIONS

PHZS400

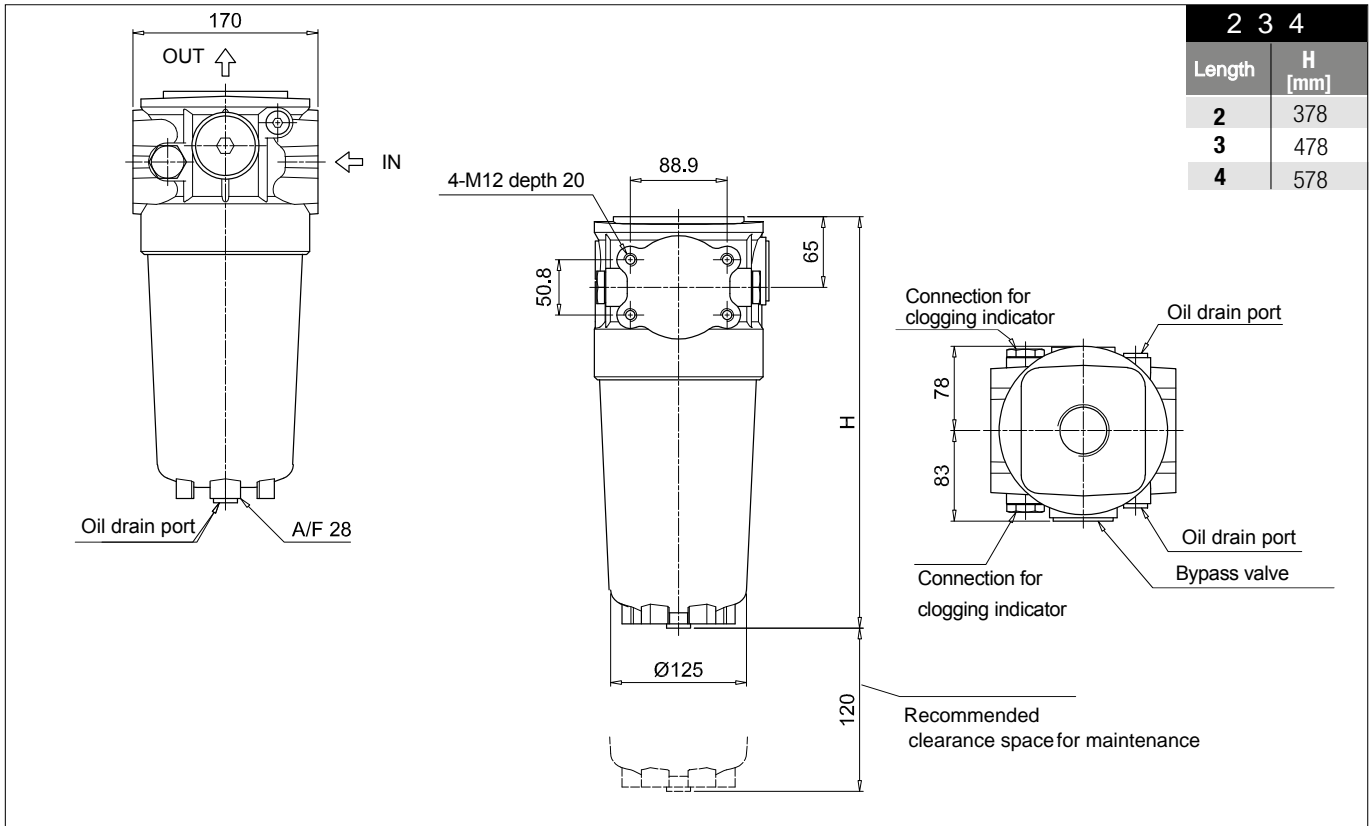


PHZS400



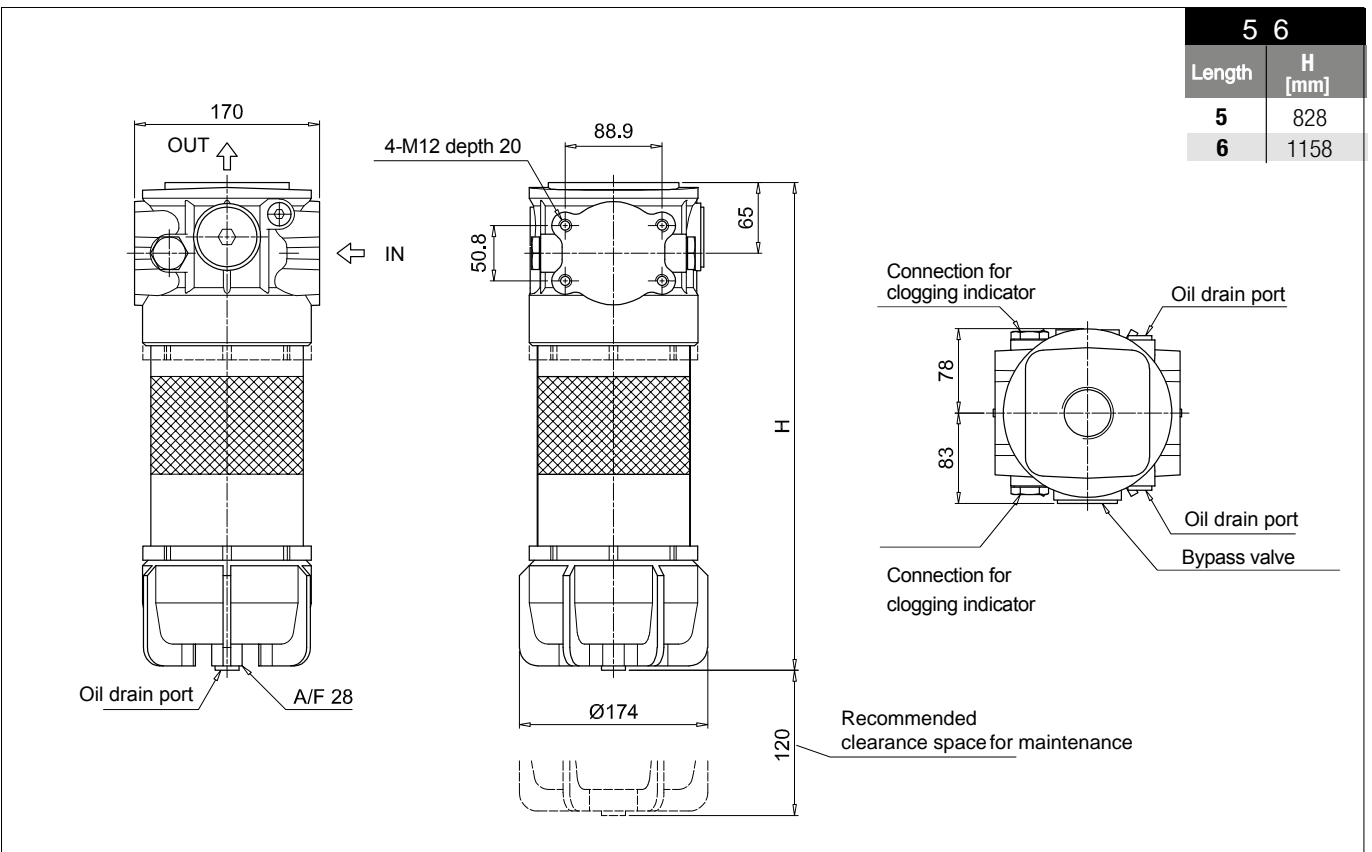
DIMENSIONS

PHZS401

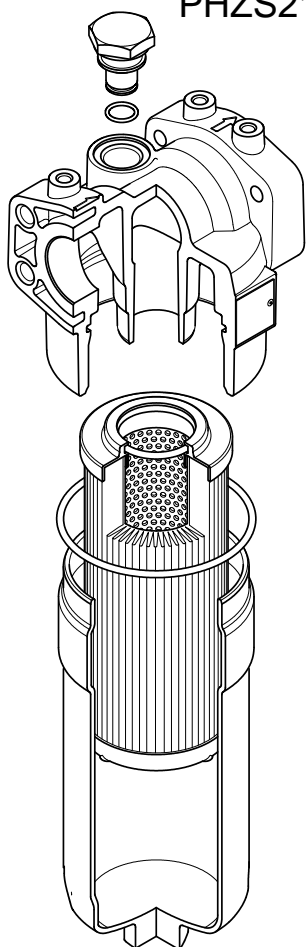


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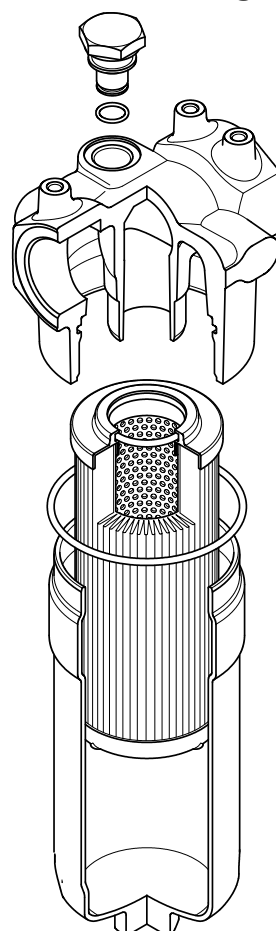
PHZS401



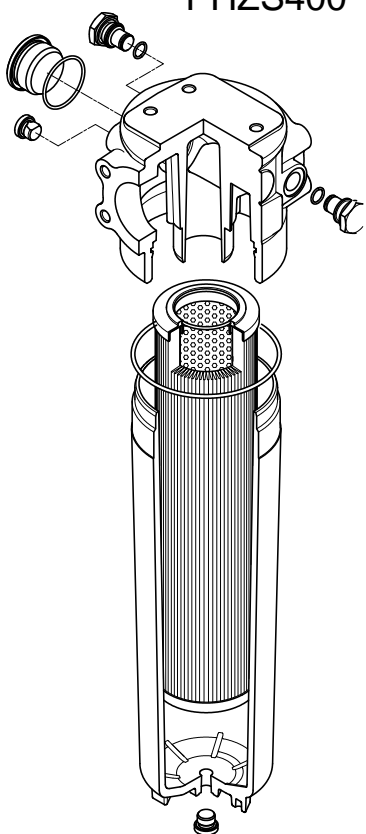
PHZS210



PHZS211



PHZS400



PHZS401

