

# Diaphragm Separator Series 1830

- Application** Mounting to Bourdon tube pressure gauges or to pressure transmitters for indirect pressure measurement of perishable, aggressive, highly viscous or crystallizing media, or media containing solid particles, which should not enter the measuring element. On the one hand to safeguard the measuring element, on the other hand to protect the media which are liable to decompose, because media lodging in the Bourdon tube will not be exchanged.
- Execution** The separator is inseparately fixed with the pressure measuring instrument to a hydraulic measuring unit; either directly, via a cooling element<sup>2)</sup> or via a capillary tube of stainless steel.
- Type of construction** Diaphragm separator. Separation element concentrically corrugated and welded to body. For direct mounting to the measuring point or by means of a transition flange (see reverse).
- Temperature of medium** -10 up to 50°C, other temperature limits (up to 300°C) on request.



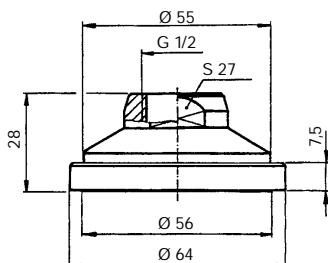
## Selection chart

Type	Material							Ident. number		Ordering code
Diaphragm separator	Separator body (not in contact with medium)			Separation element						
	stainless steel 1.4571			stainless steel 1.4571				J 70729.0103		1833
	stainless steel 1.4571			Monel				J 70729.0104		1834
	stainless steel 1.4571			Tantalum				J 70729.0105		1835
	stainless steel 1.4571			Titanium				J 70729.0106		1836
	stainless steel 1.4571			Hastelloy C 276				J 70729.0107		1837
stainless steel 1.4571			Teflon-PFA-coated stainless steel 1.4571				J 70729.0108		1838 <sup>1)</sup>	
Capillary tube	Length [m]	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	
	Ordering code	1205	1210	1215	1220	1225	1230	1235	1240	
Additional metallic protection hose for capillary tube										1299
Temperature of medium (e.g. 100°C)										9007 / 0100
Ordering example:	<b>DRO 100/811.133/075 / 1833 / 0300 / 1210 / 1299 / 9007 / 0100</b>									
	↑ Temperature of medium 100°C ↑ Metallic protection hose ↑ Capillary tube 1 m ↑ Adaptive transition flange ordering code ↑ Separator ordering code ↑ Pressure gauge (see data-sheet D 1.131)									

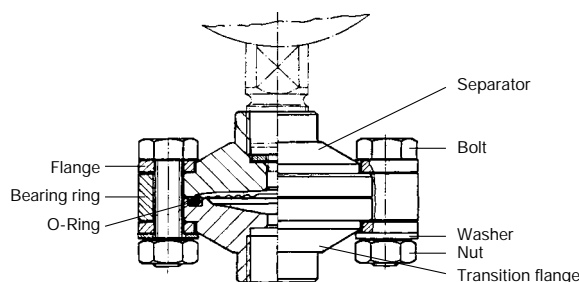
<sup>1)</sup> Up to max. 260°C

<sup>2)</sup> Cooling elements see data-sheet D1.290

## Dimensions



## Example of mounting



## Pressure ranges (directive values)

Mounting on pressure gauge	NS 63	NS 80	NS 100	NS 160	NS 96 x 96	ED 518
Pressure ranges [bar]	on request	1.6 ... 250	1.6 ... 250	2.5 ... 250	on request	<sup>3)</sup>

<sup>3)</sup> On request: Electronic pressure transmitters can be used for pressures  $\geq 250$  mbar without impairing the accuracy. Please fill in page D1.201 so that we can properly access your needs.

Mounting sets (for fixing transition flange to separator) and transition flanges, on reverse.

Design and specifications subject to change without notice

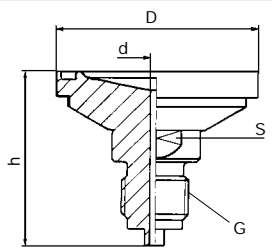
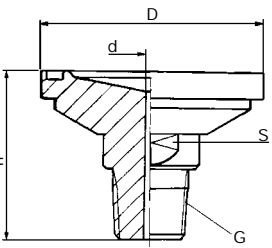
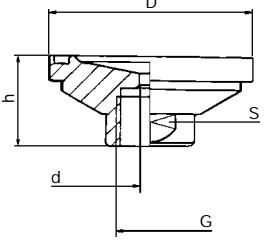
K.H.W 70794 Filderstadt

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## Mounting Sets (for fixing the transition flange to the separator)

Permitted Pressure	Includes	Ident. Number	Material	Ident. Number of complete Mounting Set
≤ 25 bar	1 O-Ring 2 Flanges 4 Bolts M10 x 35 DIN 933 4 Washers 10.5 DIN 125 4 Nuts M10 DIN 934	J70732.0001 J70731.0001 N01653.1318 N01903.0019 N02204.1800	Viton 70 Shore Stainl. steel 1.4301 Stainl. steel A2 – 70 Stainl. steel A2 Stainl. steel A2	J 70729.0123
≤ 100 bar	1 O-Ring 2 Flanges 1 Bearing ring 4 Bolts M10 x 35 DIN 933 4 Washers 10.5 DIN 125 4 Nuts M10 DIN 934	J70732.0001 J70731.0053 J65263.0013 N01653.1318 N01903.0019 N02204.1800	Viton 70 Shore Stainl. steel 1.4301 Stainl. steel 1.4301 Stainl. steel A2 – 70 Stainl. steel A2 Stainl. steel A2	J 70729.0223
≤ 250 bar	1 O-Ring 2 Flanges 1 Bearing ring 8 Bolts M10 x 35 DIN 933 8 Washers M10.5 DIN 125 8 Nuts M10 DIN 934	J70732.0001 J70731.0063 J65263.0013 N01653.1318 N01903.0019 N02204.0067	Viton 70 Shore Stainl. steel 1.4301 Stainl. steel 1.4301 Stainl. steel A2 – 70 Stainl. steel A2 Stainl. steel A2	J 70729.0323

## Transition Flanges

Dimensions	D [mm]	d [mm]	S [mm]	h [mm]	G [mm]	Material	Ident. Number	Ordering Code
	64	3.5	27	51	G1/2 A	Stainl. steel 1.4571	J 70731.0023	0300
		10		48		Stainl. steel 1.4571 coated with Teflon PFA	J 70731.0213	0300/0399
	64	3.5	27	48	1/2-14 NPT	Stainl. steel 1.4571	J 70731.0033	0388
		10		48		Stainl. steel 1.4571 coated with Teflon PFA	J 70731.0313	0388/0399
	64	7	27	28	G1/2 (inside)	Stainl. steel 1.4571	J 70731.0013	0392
						Stainl. steel 1.4571 coated with Teflon PFA	J 70731.0113	0392/0399

Other transition flanges on request (e.g. according to DIN 2501 or ANSI 16.5)