

## Wafer type butterfly valve, with lever and worm gear / handwheel article 830-GGG

**Diameter DN 50 (2") up to DN 300 (12")**

Soft seated wafer butterfly valve for general, industrial applications. Compact, low weight design and easy mounting between DIN and ANSI flanges thanks the centering alignment lugs. Disc centric in body, 100% both sides bi-directional tight shutt off. The split shaft allows favorable flow design with low pressure loss and a high KV-value.

**Installation between flanges according to DIN EN 1092-1, form B PN 10 / PN 16 and ASME B16.5, class 150**

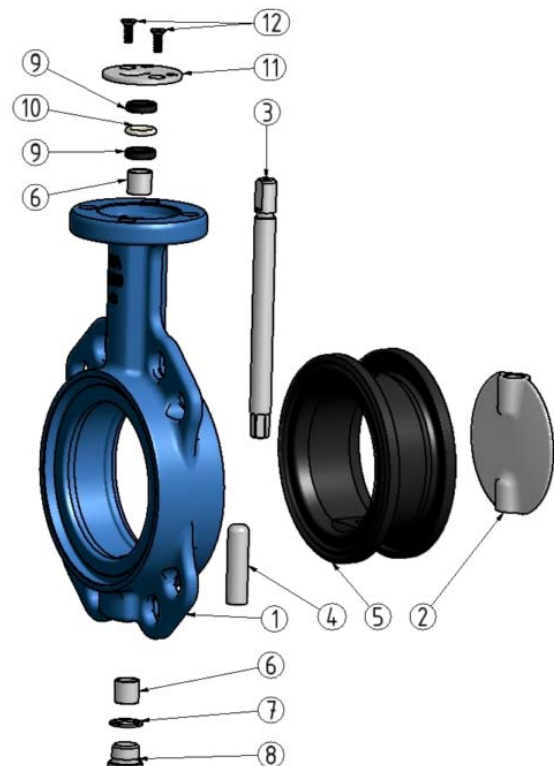
Useable as open / close valve as well as for control or dosing of the flow rate.



- Face to face dimension: EN 558/20, DIN 3202 K-1, API 609
- Design pressure: 16,0 bar DN 50 up to DN 200  
10,0 bar DN 250 up to DN 300
- Elastomer rubber liner exchangeable
- Housing outside powder coating min. 250 µm, Ral 5017
- Marking EN 19, MSS SP-25
- Integrated flange seal **-no additional sealing required-**
- Body with long neck for insulation purposes and dew point barrier as condensation water protection
- Anti-blow out actuator shaft in PTFE bearing bushings guided, low operating moments, no slip stick effect
- Top flange and shaft according to ISO 5211

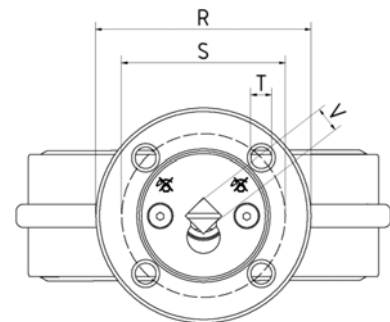
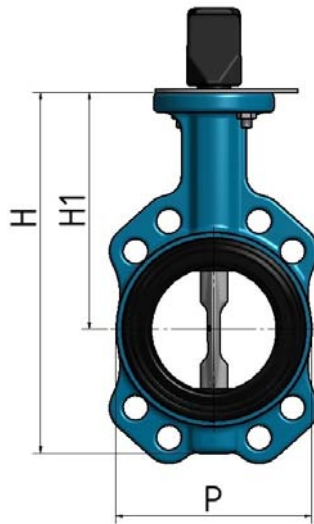
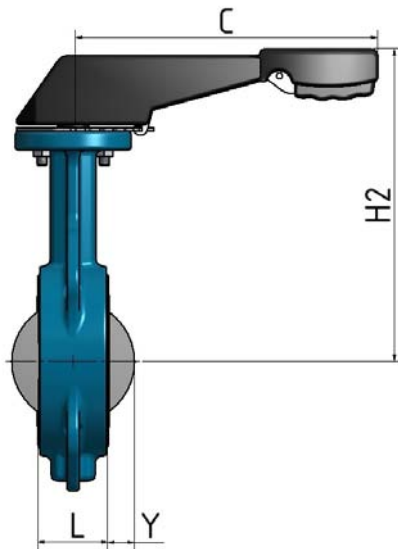
	PED 97/23/EC
	ambient -15°C ... +60°C
	<u>medium with</u> liner EPDM -20° C up to +110° C liner NBR 0° C up to + 90° C

1	Body	Ductile cast iron ASTM A536 60-40-18
2	Disc	Stainless steel ASTM A351, CF8M
3	Upper shaft	Stainless steel ASTM A276, Gr. 420
4	Lower shaft	Stainless steel ASTM A276, Gr. 420
5	Elastomer liner	optionally EPDM or NBR
6	Bearing	Steel / PTFE
7	Sealing ring	Copper
8	Screw	POM
9	Pressure ring	Hard PVC
10	O-Ring	EPDM or NBR
11	Fixing Plate	Polyamide PA6
12	Countersunk screws	Stainless steel A2

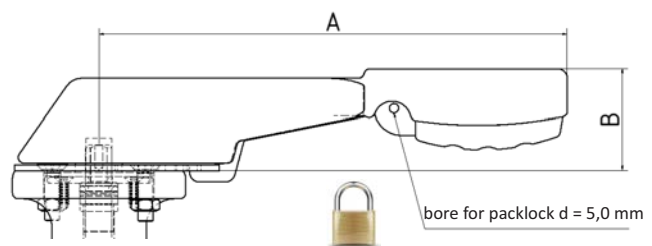
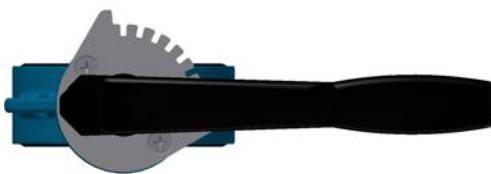


## Wafer type butterfly valve, with lever article 830-GGG

Diameter DN 50 (2") up to DN 200 (8")



Diameter	P (mm)	L (mm)	Y (mm)	H (mm)	H1 (mm)	C (mm)	H2 (mm)	R (mm)	S (mm)	T (mm)	V (mm)	ISO 5211 Mounting flange	Weight (kg)
DN 50 (2")	92	43	3,5	188	125	195	185	67	50	7	9	F05	2,9
DN 65 (2 1/2")	115	46	9,0	226	150	195	210	67	50	7	9	F05	3,4
DN 80 (3")	130	46	16,0	240	157	195	217	67	50	7	9	F05	4,4
DN 100 (4")	148	52	23,0	278	182	240	247	92	70	9	11	F07	5,7
DN 125 (5")	181	56	33,0	314	201	240	266	92	70	9	14	F07	6,7
DN 150 (6")	206	56	46,0	340	214	390	284	92	70	9	14	F07	9,9
DN 200 (8")	261	60	69,0	400	245	390	315	92	70	9	17	F07	13,9



Diameter	Article-Numbers	
	Liner EPDM	Liner NBR
DN 50 (2")	281.2633.3.21-HH	281.2634.3.21-HH
DN 65 (2 1/2")	281.2633.3.24-HH	281.2634.3.24-HH
DN 80 (3")	281.2633.3.25-HH	281.2634.3.25-HH
DN 100 (4")	281.2633.3.27-HH	281.2634.3.27-HH
DN 125 (5")	281.2633.3.28-HH	281.2634.3.28-HH
DN 150 (6")	281.2633.3.29-HH	281.2634.3.29-HH
DN 200 (8")	281.2633.3.31-HH	281.2634.3.31-HH

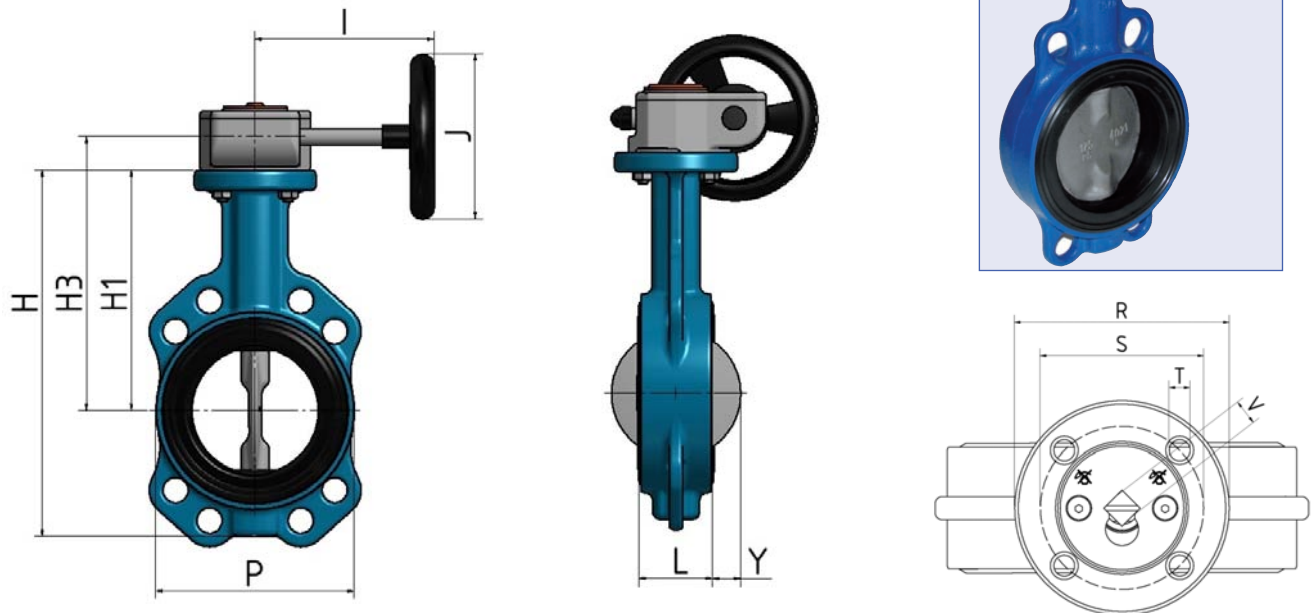
diameter	lever type	A (mm)	B (mm)	kg
DN 50 (2")	LBA1	195,0	60,0	0,4
DN 65 (2 1/2")				
DN 80 (3")				
DN 100 (4")	LBA2	240,0	65,0	0,7
DN 125 (5")				
DN 150 (6")	LBA3	390,0	70,0	0,9
DN 200 (8")				

remark: addition -HH = Lever addition -FW = free shaft

830-GGG\_HH\_GH\_ENG\_2021\_Rev.0

## Wafer type butterfly valve, with worm gear / handwheel article 830-GGG

Diameter DN 50 (2") up to DN 300 (12")



Diameter	P (mm)	L (mm)	Y (mm)	H (mm)	H1 (mm)	H3 (mm)	I (mm)	J (mm)	R (mm)	S (mm)	T (mm)	V (mm)	ISO 5211 Mounting flange	Weight (kg)
DN 50 (2")	92	43	3,5	188	125	146	118,0	100	67	50	7	9	F05	3,43
DN 65 (2 1/2")	115	46	9,0	226	150	171	118,0	100	67	50	7	9	F05	3,93
DN 80 (3")	130	46	16,0	240	157	178	118,0	100	67	50	7	9	F05	4,93
DN 100 (4")	148	52	23,0	278	182	211	126,5	160	92	70	9	11	F07	5,93
DN 125 (5")	181	56	33,0	314	201	230	126,5	160	92	70	9	14	F07	6,93
DN 150 (6")	206	56	46,0	340	214	243	126,5	160	92	70	9	14	F07	9,93
DN 200 (8")	261	60	69,0	400	245	274	126,5	160	92	70	9	17	F07	14,62
DN 250 (10")	316	68	90,0	478	283	232	165,0	250	130	102	11	22	F10	26,62
DN 300 (12")	372	78	110,0	528	308	257	165,0	250	130	102	11	22	F10	35,62

Diameter	Article-Numbers	
	Liner EPDM	Liner NBR
DN 50 (2")	281.2633.3.21-GH	281.2634.3.21-GH
DN 65 (2 1/2")	281.2633.3.24-GH	281.2634.3.24-GH
DN 80 (3")	281.2633.3.25-GH	281.2634.3.25-GH
DN 100 (4")	281.2633.3.27-GH	281.2634.3.27-GH
DN 125 (5")	281.2633.3.28-GH	281.2634.3.28-GH
DN 150 (6")	281.2633.3.29-GH	281.2634.3.29-GH
DN 200 (8")	281.2633.3.31-GH	281.2634.3.31-GH
DN 250 (10")	281.2633.3.33-GH	281.2634.3.33-GH
DN 300 (12")	281.2633.3.34-GH	281.2634.3.34-GH

remark: addition -GH = worm gear / hand wheel addition -FW = free shaft

## Wafer type butterfly valve, article 830-GGG with worm gear / handwheel X-Series

**Diameter DN 50 (2") up to DN 300 (12")**

For actuation of valves with a 90° rotation (OPEN / CLOSE) or for precise positioning in a throttle position. Primarily used at butterfly valves and ball valves with larger nominal sizes with torques more than 180 Nm. The X-Series is available in three sizes up to a maximum torque of 600 Nm.

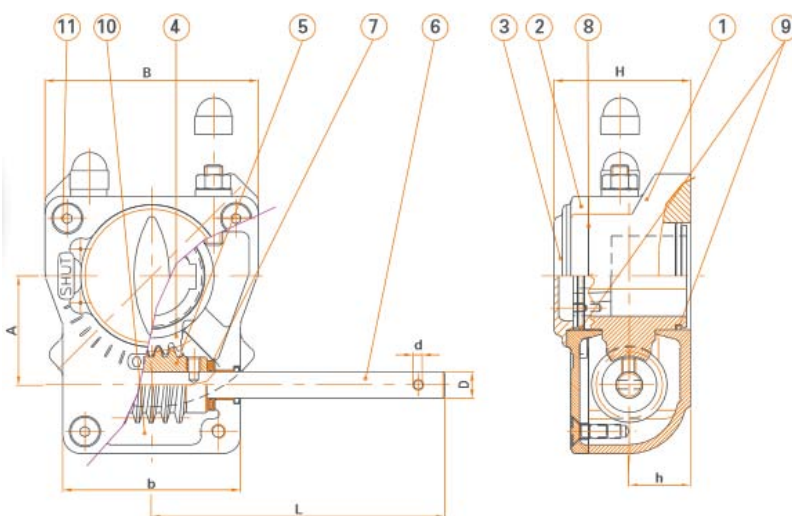
**Valve connection according to ISO 5211 F05 / F07 / F10 / F12**

Insert for the valve shaft optionally designed with square, double D or keyway.

Thanks the aluminum die-cast housing, the "X" series is a low weight, yet robustly designed and suitable for general industrial use. All models of this series are equipped with high-performance bearings and powder-coated housing.

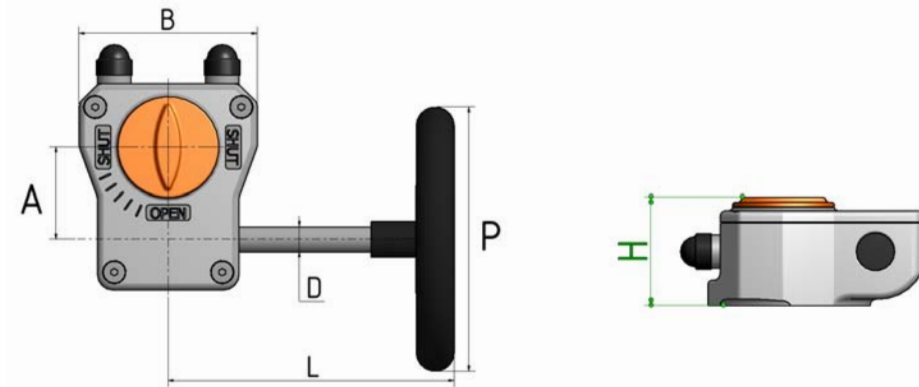


- Input shaft of the handwheel is made of stainless steel
- Housing screws made of stainless steel
- Axial needle bearings
- Protection class IP 67
- Life-long maintenance-free (permanent grease filling)
- Stroke adjustment end positions -5° up to +95°
- Temperature range -25° C up to +110° C
- Gear cover with mechanical position indicator



Pos.	Description	Material
1	Body	Aluminium alloy
2	Coverplate	Aluminium alloy
3	Position Indicator	Plastic PA
4	Quadrant	Ductile-iron GGG40
5	Worm	Carbon steel C45-K
6	Shaft	Stainless steel
7	Axial needle bearing	
8	Gasket	Nitrile
9	O-rings	Nitrile
10	Grease	Complex EP-0
11	Fasteners	Stainless steel

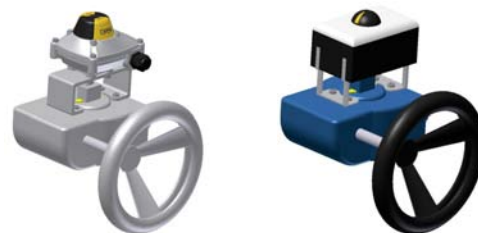
**Wafer type butterfly valve, article 830-GGG  
with worm gear / handwheel X-Series  
Diameter DN 50 (2") up to DN 300 (12")**



X-series, the low weight										
article	order-no.:	torque	A (mm)	B (mm)	L (mm)	H (mm)	D (mm)	P (mm)	ISO 5211	weight (kg)
X-21	303.8500.P100	200 Nm	43,5	84	118,0	51,25	12,0	100	F05/F07	1,1
X-41	303.8501.P160	400 Nm	52,5	112	126,5	63,5	12,0	160	F07/F10	1,95
X-61	303.8502.P250	600 Nm	61,25	120	165,0	77,0	15,0	250	F10/F12	3,2

**Limit switch construction**

Gear cover with interface according to VDI / VDE 3845 for easy mounting of limit switch boxes, suitable to gearbox size X-41 and X-61



**Handwheel lockable**

fixed (gearing side) and follower hole flange (handwheel shaft) enable locking in every position over the entire swing path



**Operating-variants:**

pneumatic actuator



electrical actuator



electrical actuator



DN 50 up to DN 100

DN 125 up to DN 300

## Wafer type butterfly valve, article 830-GGG Diameter DN 50 (2") up to DN 300 (12")



DN 50 (2")



DN 65 (2 1/2") - DN 100 (4")



DN 125 (5") - DN 200 (8")



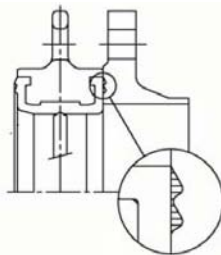
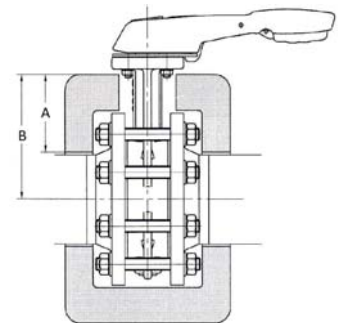
DN 250 (10") - DN 300 (12")

### Flow characteristics / Operating torques Nm (fluid: water) / Insulation

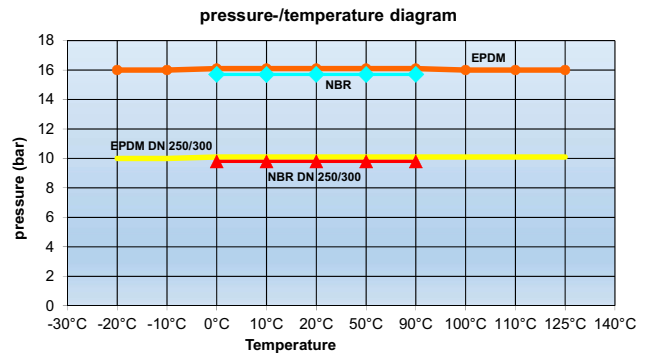
Diameter	Flow characteristics			Operation torques Nm		
	KV	CV	Zeta	up to 6,0 bar	up to 10,0 bar	up to 16,0 bar
DN 50	91	106	1,18	12	13	13
DN 65	206	239	0,66	18	18	20
DN 80	436	506	0,34	25	26	28
DN 100	660	766	0,36	39	41	44
DN 125	1300	1508	0,22	65	69	75
DN 150	2100	2436	0,18	91	97	110
DN 200	4100	4756	0,15	180	190	210
DN 250	6090	7065	0,17	275	315	
DN 300	9570	11100	0,14	390	440	

Remark: when using non-lubricating media (e.g., air / gas) the torque increases by 40%

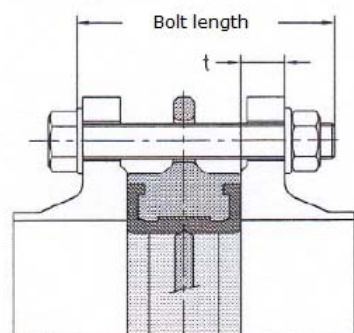
Diameter	Insulation according to the heating and installation system ordinance IV (12/94)	
	A	B
DN 50	50	107,5
DN 65	65	125,0
DN 80	80	140,0
DN 100	100	160,0
DN 125	100	175,0
DN 150	100	192,5
DN 200	100	220,0
DN 250	100	252,5
DN 300	100	280,0



Liner with integrated sealing strip, no additional flange gaskets required



### Bolt length for mounting between DIN and ANSI flanges



size	pressure range PN 6		pressure range PN 10		pressure range PN 16		pressure range cl 150	
	Flange thickness "t"	Bolt length	Flange thickness "t"	Bolt length	Flange thickness "t"	Bolt length	Flange thickness "t"	Bolt length
DN 50	14	100,0	18	110,0	18	110,0	0,75"	4"
DN 65	14	100,0	18	110,0	18	110,0	0,88"	4 1/2"
DN 80	16	100,0	20	110,0	20	110,0	0,94"	5"
DN 100	16	110,0	20	120,0	20	120,0	0,94"	5"
DN 125	18	120,0	22	130,0	22	130,0	0,94"	5 1/2"
DN 150	18	120,0	22	130,0	22	130,0	1"	5 1/2"
DN 200	20	130,0	24	140,0	24	140,0	1.12"	6"
DN 250	22	140,0	26	150,0	26	150,0	1.19"	6 1/2"
DN 300	22	150,0	26	160,0	28	180,0	1.25"	6 1/2"

830-GGG\_HH\_GH\_ENG\_2021\_Rev.0

## Wafer type butterfly valve, article 830-GGG

Possibilities for end position monitoring, actuated by hand lever. Mechanical or inductive end limit switches open assembled or in limit switch box. Optional signaling CLOSE and / or OPEN (1- or 2-switches)

### Bernstein-limit switch, type I88-SU1Z Riw K

1 switch



2 switch



switching capacity	max. 10 A, 250V AC
protection class	IP 65
temperature range	-30° C up to +80° C
mechanical life	10 x 10 <sup>6</sup>
cable entrance	M20 x 1,5
connection	clamp 2,5 mm <sup>2</sup>
housing material	PA 6 self-extinguishing
mounting bracket	stainless steel/plastic
article-no.:	1-fold: 208.8716HKE 2-fold: 208.8716HKZ

### Mounting kit for the assembly of inductive initiators (e.g., IFM, P + F, TURCK, etc.) including mounting and adjustment



1 switch



2 switch



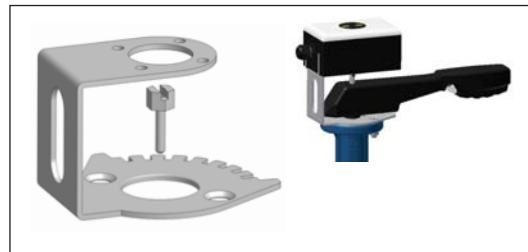
article-No. 1-fold	article-No. 2-fold
327.9586.5-1F05	327.9586.5-2F05
327.9586.5-1F07	327.9586.5-2F07

### limit switch box, article 41-ES OPEN / CLOSED Honeywell, ZM1



switching capacity	max. 5 A, 250 V AC
protection class	IP 67
temperature range	-25° C up to +85° C
switching accuracy	<1°
cable entrance	M20 x 1,5
connection	clamp 2,5 mm <sup>2</sup>
housing material	aluminium
mounting bracket	stainless steel
article-No.:	179.8705HEZ

### Mounting kit for assembly of limit switch boxes including mounting and adjustment



size (butterfly valve)	article-No.:
DN 50 (2") ... DN 80 (3")	327.9580.F05VM
DN 100 (4") ... DN 200 (8")	327.9580.F07VM