

 Aliaxis



FK DN 40÷400

PP-H

Butterfly valve

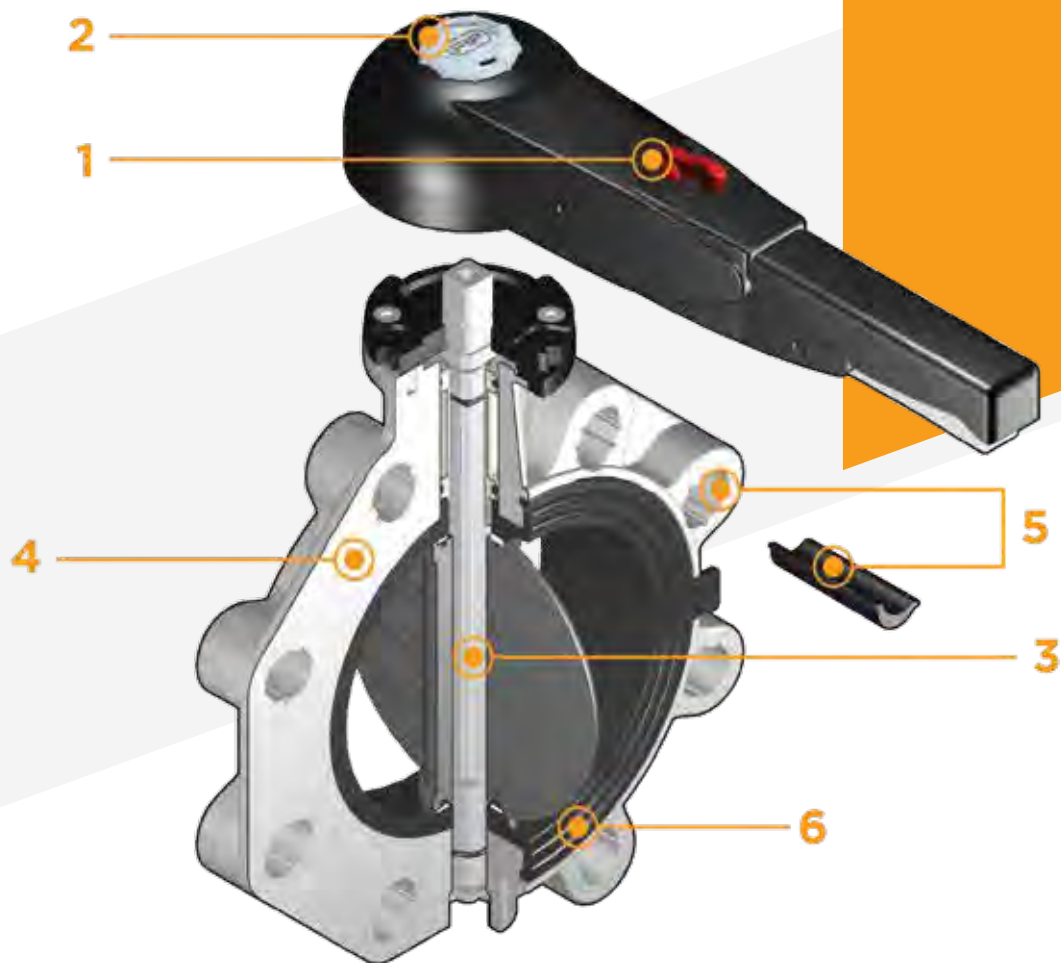
FK DN 40÷400

The FK is a butterfly valve for shutting off or regulating flow, with structural characteristics that make it ideal for industrial applications requiring high performance and longterm reliability. This valve is also equipped with the customisable Labelling System.

BUTTERFLY VALVE

- Interchangeable Disk in PP-H with through shaft, available in different thermoplastic materials: PVC-U, PVC-C, ABS, PVDF
- Overall dimensions of the valve in accordance with standard ISO 5752 (DN 40÷200 Medium series 25, DN 250÷ 300 Long Series 16) and DIN 3202 K2 and ISO 5752 (DN DN 65÷200 K2, DN 250÷300 K3)
- Can also be installed as an end line valve, bottom discharge valve or tank dump valve
- **Special Lug version** PN 10 fully drilled according to DIN 2501 or ANSI B16.5 cl.150 **with molded-in AISI 316 stainless steel threaded inserts**
- **Valve material compatibility** (PP-H) with water conveyance, drinking water and other food substances according to current **regulations**
- Possibility of installing a manual reducer or pneumatic and/or electric actuators by applying an ISO standard drilling PP-GR flanges. DN 40 ÷ 200 valve equipped with plate with rack in PP-GR. For actuated versions with flange drilled according to ISO 5211 F05, F07, F10. DN 250÷300 valve, fitted with one-piece top flange in high mechanical strength PP-GR with mounting flange for internal components drilled according to standard ISO 5211 F10 (excluding DN 350÷400), F12, F14.
- Possibility to have handle with integrated LSQT limit micro switch, even as a retrofit in existing installations

Technical specifications	
Construction	Bi-directional centric butterfly valve
Size range	DN 40 ÷ 400
Nominal pressure	Wafer version DN 40 ÷ 250: PN 10 with water at 20° C DN 300: PN 8 with water at 20° C DN 350: PN 7 with water at 20° C DN 400: PN 6 with water at 20° C Lug version DN 65÷200: PN 10 with water at 20° C DN 250÷300: PN 6 with water at 20° C
Temperature range	0 °C ÷ 100 °C
Coupling standards	Flanging system: EN ISO 15494, DIN 2501, ISO 7005-1, EN 1092-1, ANSI B16.5 Cl.150, JIS B 2220
Reference standards	Construction criteria: EN ISO 16136, EN ISO 15494 Test methods and requirements: ISO 9393 Actuator couplings: ISO 5211
Valve material	Body: PP-GR Disk: PP-H Stem: AISI steel 316
Seal material	Liner: EPDM, FKM
Control options	Manual control (DN 40÷200); Gearbox, pneumatic actuator, electric actuator



1 Ergonomic handle in HIPVC equipped with **locking and unlocking device, release, quick operation and graduated adjustment** in 10 intermediate positions (DN 40÷200). The operating range, starting from the first few degrees of valve opening, also guarantees extremely low pressure drops.

2 Customisable Labelling System: integrated module in the handle, made of a transparent protection plug and a customisable tag holder using the LSE set (available as an accessory). The **customisation** lets you **identify the valve**

3 **on the system** according to specific needs.

3 STAINLESS steel square section stem completely isolated from the fluid complying with standard ISO 5211:
 DN 40÷65: 11 mm
 DN 80÷100: 14 mm
 DN 125÷150: 17 mm
 DN 200: 22 mm
 DN 250÷400: 27 mm

4 Body in polypropylene based **compound reinforced with fibreglass (PP-GR) resistant to UV rays** and characterised by **high mechanical strength.**

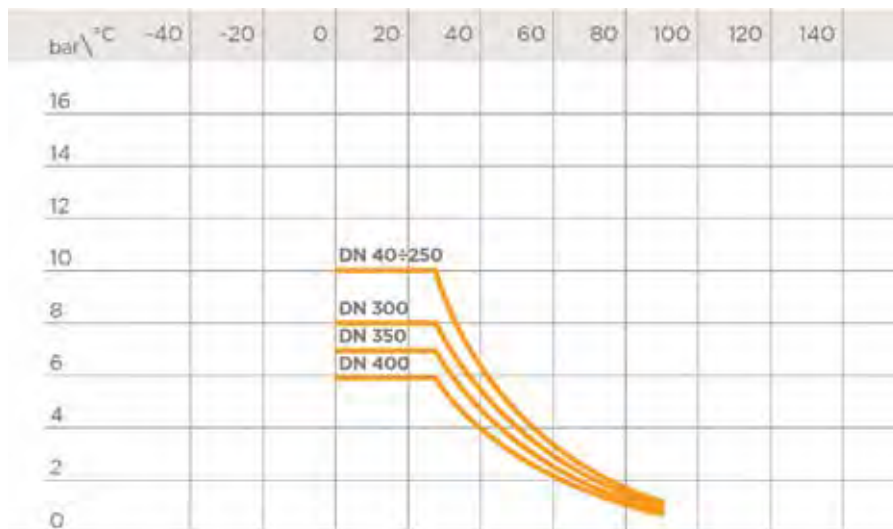
5 Drilling pattern using **oval slots** that allow coupling to flanges according to numerous international standards. The special **self-centring inserts in ABS** supplied for DN 40÷200 guarantee the **correct axial alignment** of the valve during installation. For DN 250÷400 valves, the drilling pattern for the selfcentring system is of the traditional type according to DIN and ANSI standards.

6 Interchangeable liner with the dual function of forming a hydraulic seal and isolating the body from the fluid.

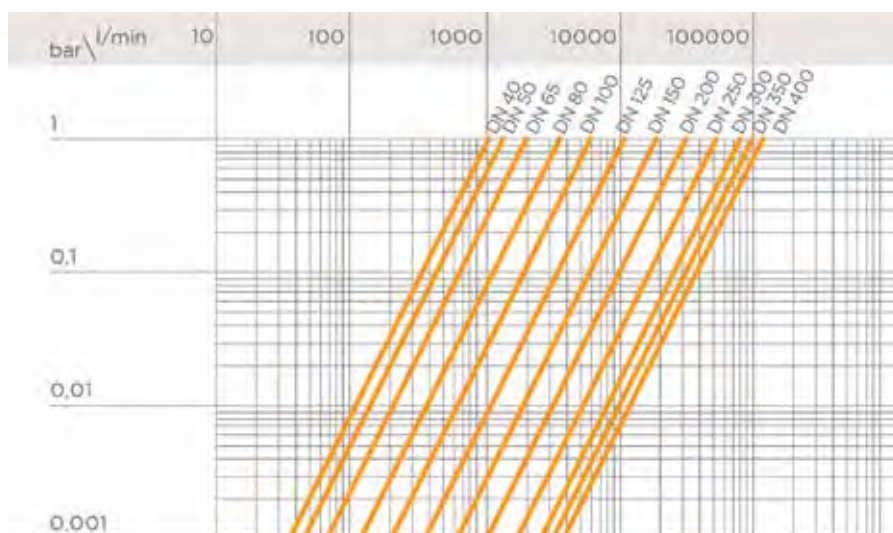
TECHNICAL DATA

PRESSURE VARIATION ACCORDING TO TEMPERATURE

For water and harmless fluids to which the material is classified as CHEMICALLY RESISTANT. In other cases, a reduction of the nominal PN pressure is required (25 years with safety factor).



PRESSURE DROP GRAPH



K_v100 FLOW COEFFICIENT DN 40÷200

The K_v100 flow coefficient is the Q flow rate of litres per minute of water at a temperature of 20°C that will generate $\Delta p = 1$ bar pressure drop at a certain valve position. The Kv100 values shown in the table are calculated with the valve completely open.

DN	40	50	65	80	100	125	150	200
Kv100 l/min	1000	1285	1700	3550	5900	9850	18700	30500

K_v100 FLOW COEFFICIENT DN 250÷400

The K_v100 flow coefficient is the Q flow rate of litres per minute of water at a temperature of 20°C that will generate Δp= 1 bar pressure drop at a certain valve position. The K_v100 values shown in the table are calculated with the valve completely open.

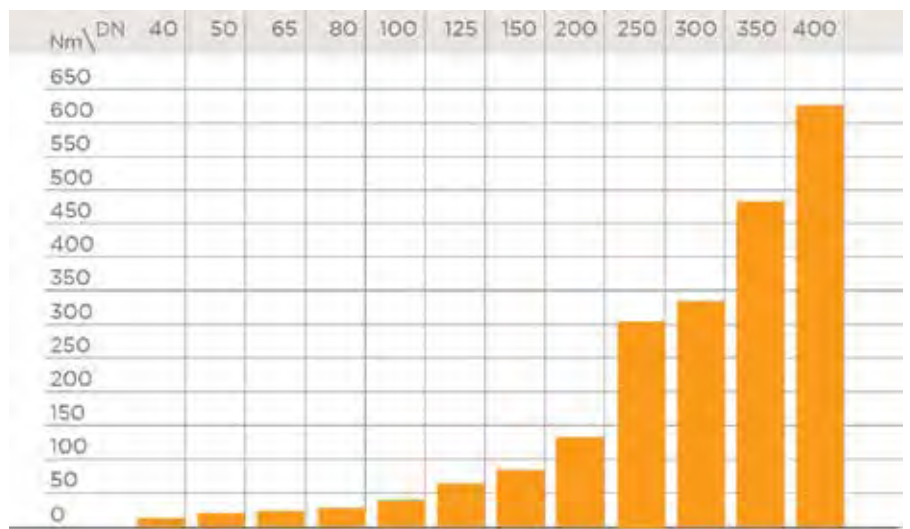
DN	250	300	350	400
Kv100 l/min	53200	81600	94100	124900

RELATIVE FLOW COEFFICIENT GRAPH

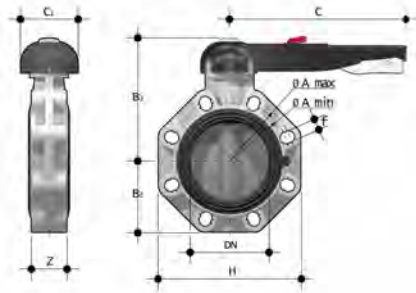
The relative flow coefficient is the flow rate through the valve as a function of the degree of valve opening.
Horizontal axis: Percentage opening of the disk
Vertical axis: Relative flow coefficient



OPERATING TORQUE AT MAXIMUM WORKING PRESSURE



DIMENSIONS



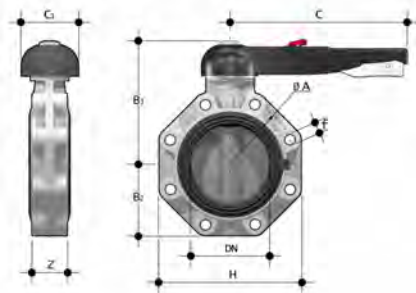
FKOM/LM

Hand operated Butterfly valve

d - Size	DN	PN	A min	A max	B ₂	B ₃	C	C ₁	H	U	Z	g	EPDM code	FKM code
50 - 1"1/2	40	10	99	109	60	137	175	100	132	4	33	800	FKOMLM050E	FKOMLM050F
63 - 2"	50	10	115	125,5	70	143	175	100	147	4	43	980	FKOMLM063E	FKOMLM063F
75 - 2"1/2	65	10	128	144	80	164	175	110	165	4	46	1370	FKOMLM075E	FKOMLM075F
90 - 3"	80	10	145	160	93	178	175	100	185	12	49	1770	FKOMLM090E	FKOMLM090F
110 - 4"	100	10	165	190	107	192	272	110	211	8	56	2120	FKOMLM110E	FKOMLM110F
125/140 - 5"	125	10	204	215	120	212	330	110	240	8	64	3000	FKOMLM140E	FKOMLM140F
160*/180* - 6"	150	10	230	242	134	225	330	110	268	8	70	3750	FKOMLM160E	FKOMLM160F
200*/225* - 8"	200	10	280	298	161	272	420	122	323	8	71	6650	FKOMLM225E	FKOMLM225F

Note: NBR liners are available for d75÷225

* The special chamfered stubs QBM from d160 to d315 are available for installation on pipes in PP-H SDR 11 and 17.6



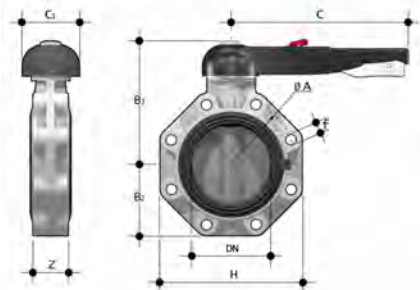
FKOM/LM LUG ISO-DIN

Hand operated Butterfly valve, version Lug ISO-DIN

d	DN	PN	ØA	B ₂	B ₃	C	C ₁	f	H	U	Z	g	EPDM code	FKM code
75	65	10	145	80	164	175	110	M16	165	4	46	1770	FKOLMLM075E	FKOLMLM075F
90	80	10	160	93	178	175	100	M16	185	12	49	2570	FKOLMLM090E	FKOLMLM090F
110	100	10	180	107	192	272	110	M16	211	8	56	2920	FKOLMLM110E	FKOLMLM110F
125/140	125	10	210	120	212	330	110	M16	240	8	64	4600	FKOLMLM140E	FKOLMLM140F
160*/180*	150	10	240	134	225	330	110	M20	268	8	70	5350	FKOLMLM160E	FKOLMLM160F
200*/225*	200	10	295	161	272	420	122	M20	323	8	71	8250	FKOLMLM225E	FKOLMLM225F

Note: NBR liners are available for d75÷225

* The special chamfered stubs QBM from d160 to d315 are available for installation on pipes in PP-H SDR 11 and 17.6

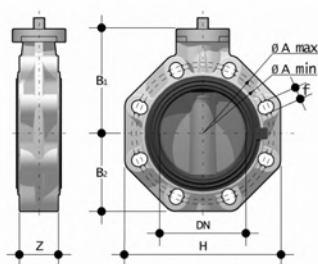


FKOM/LM LUG ANSI

Hand operated Butterfly valve, version Lug ANSI

d	DN	PN	øA	B ₂	B ₃	C	C ₁	f	H	U	Z	g	EPDM code	FKM code
2" 1/2	65	10	140	119	80	175	110	5/8"	165	4	46	1770	FKOALMLM212E	FKOALMLM212F
3"	80	10	152	133	93	175	100	5/8"	185	12	49	2570	FKOALMLM300E	FKOALMLM300F
4"	100	10	191	147	107	272	110	5/8"	211	8	56	2920	FKOALMLM400E	FKOALMLM400F
5"	125	10	216	167	120	330	110	3/4"	240	8	64	4600	FKOALMLM500E	FKOALMLM500F
6"	150	10	241	180	134	330	110	3/4"	268	8	70	5350	FKOALMLM600E	FKOALMLM600F
8"	200	10	298	227	161	420	122	3/4"	323	8	71	8250	FKOALMLM800E	FKOALMLM800F

Note: NBR liners are available for d 2 1/2" ÷ 8"



FKOM/FM

Butterfly valve with bare shaft

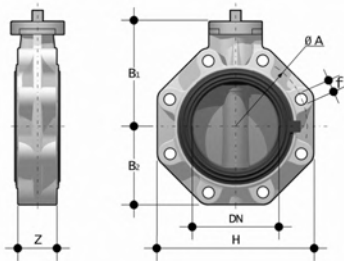
d - Size	DN	PN	A _{min}	A _{max}	øA	B ₁	B ₂	f	H	U	Z	g	EPDM code	EPDM code
50 - 1"1/2	40	10	99	109	-	106	60	19	132	4	33	474	FKOMFM050E	FKOMFM050F
63 - 2"	50	10	115	126	-	112	70	19	147	4	43	654	FKOMFM063E	FKOMFM063F
75 - 2"1/2	65	10	128	144	-	119	80	19	165	4	46	900	FKOMFM075E	FKOMFM075F
90 - 3"	80	10	145	160	-	133	93	19	185	12	49	1300	FKOMFM090E	FKOMFM090F
110 - 4"	100	10	165	190	-	147	107	19	211	8	56	1650	FKOMFM110E	FKOMFM110F
125/140 - 5"	125	10	204	215	-	167	120	23	240	8	64	2450	FKOMFM140E	FKOMFM140F
160*/180 - 6"	150	10	230	242	-	180	134	23	268	8	70	3200	FKOMFM160E	FKOMFM160F
200*/225* - 8"	200	10	280	298	-	227	161	23	323	8	71	5900	FKOMFM225E	FKOMFM225F
250*/280*	**250	10	-	-	350	248	210	22	405	12	114	11800	FKOMFM280E	FKOMFM280F
315*	**300	8	-	-	400	305	245	22	475	12	114	18700	FKOMFM315E	FKOMFM315F
355*	**350	7	-	-	460	330	280	22	530	16	129	23315	FKOMFM355E	FKOMFM355F
400*	**400	6	-	-	515	350	306	26	594	16	169	30310	FKOMFM400E	FKOMFM400F
10"	***250	10	-	-	362	248	210	25,4	405	12	114	11800	FKOAMFM810E	FKOAMFM810F
12"	***300	8	-	-	432	305	245	25,4	475	12	114	18700	FKOAMFM812E	FKOAMFM812F
14"	***350	7	-	-	476	330	280	28,5	530	12	129	23315	FKOAMFM814E	FKOAMFM814F
16"	***400	6	-	-	540	350	306	28,5	594	16	169	30310	FKOAMFM816E	FKOAMFM816F

Note: NBR liners are available for d75÷225

* The special chamfered stubs QBM from d160 to d315 are available for installation on pipes in PP-H SDR 11 and 17.6

**ISO-DIN

***ANSI B.16.5 150



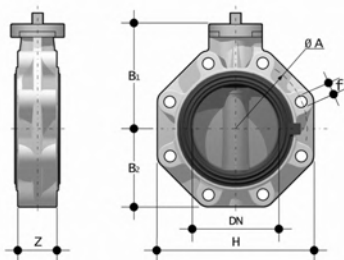
FKOM/FM LUG ISO-DIN

Butterfly valve with bare shaft, version Lug ISO-DIN

d	DN	PN	ØA	B ₁	B ₂	f	H	U	Z	g	EPDM code	FKM code
75	65	10	145	119	80	M16	165	4	46	1300	FKOLMFM075E	FKOLMFM075F
90	80	10	160	133	93	M16	185	12	49	2100	FKOLMFM090E	FKOLMFM090F
110	100	10	180	147	107	M16	211	8	56	2450	FKOLMFM110E	FKOLMFM110F
125/140	125	10	210	167	120	M16	240	8	64	4050	FKOLMFM140E	FKOLMFM140F
160*/180	150	10	240	180	134	M20	268	8	70	4800	FKOLMFM160E	FKOLMFM160F
200*/225*	200	10	295	227	161	M20	323	8	71	7500	FKOLMFM225E	FKOLMFM225F

Note: NBR liners are available for d75÷225

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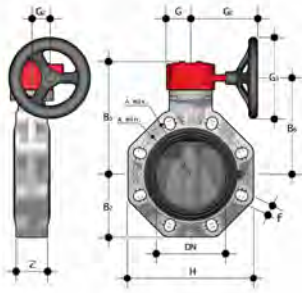


FKOM/FM LUG ANSI

Butterfly valve with bare shaft, version Lug ANSI

d	DN	PN	ØA	B ₁	B ₂	f	H	U	Z	g	EPDM code	FKM code
2" 1/2	65	10	139,7	119	80	5/8"	165	4	46	1300	FKOALMFM212E	FKOALMFM212F
3"	80	10	152,4	133	93	5/8"	185	12	49	2100	FKOALMFM300E	FKOALMFM300F
4"	100	10	190,5	147	107	5/8"	211	8	56	2450	FKOALMFM400E	FKOALMFM400F
5"	125	10	215,9	167	120	3/4"	240	8	64	4050	FKOALMFM500E	FKOALMFM500F
6"	150	10	241,3	180	134	3/4"	268	8	70	4800	FKOALMFM600E	FKOALMFM600F
8"	200	10	298,4	227	161	3/4"	323	8	71	7500	FKOALMFM800E	FKOALMFM800F
10"	250	6	362	248	210	7/8"	405	12	114	16600	FKOALMFM810E	FKOALMFM810F
12"	300	6	432	305	245	7/8"	475	12	114	23500	FKOALMFM812E	FKOALMFM812F

Note: NBR liners are available for d 2" 1/2÷ 8"

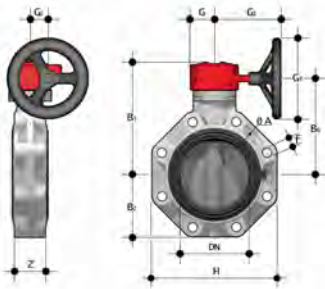


FKOM/RM

Gearbox operated Butterfly valve

d	DN	PN	A _{min}	A _{max}	øA	B ₂	B ₅	B ₆	G	G ₁	G ₂	G ₃	H	U	Z	g	EPDM code	FKM code
75 - 2"1/2	65	10	128	144	-	80	174	146	48	135	39	125	165	4	46	2300	FKOMRM075E	FKOMRM075F
90 - 3"	80	10	145	160	-	93	188	160	48	135	39	125	185	12	49	2700	FKOMRM090E	FKOMRM090F
110 - 4"	100	10	165	190	-	107	202	174	48	135	39	125	211	8	56	3050	FKOMRM110E	FKOMRM110F
125/140 - 5"	125	10	204	215	-	120	222	194	48	144	39	200	240	8	64	4350	FKOMRM140E	FKOMRM140F
160*/180 - 6"	150	10	230	242	-	134	235	207	48	144	39	200	268	8	70	5100	FKOMRM160E	FKOMRM160F
200*/225 - 8"	200	10	280	298	-	161	287	256	65	204	60	200	323	8	71	9200	FKOMRM225E	FKOMRM225F
250*/280*	**250	10	-	-	350	210	317	281	88	236	76	250	405	12	114	18400	FKOMRM280E	FKOMRM280F
315*	**300	8	-	-	350	245	317	281	88	236	76	250	405	12	114	25450	FKOMRM315E	FKOMRM315F
355*	**350	7	-	-	460	280	438	390	88	361	80	300	530	16	129	31725	FKOMRM355E	FKOMRM355F
400*	**400	6	-	-	515	306	438	390	88	361	80	300	594	16	169	38760	FKOMRM400E	FKOMRM400F
10"	***250	10	-	-	350	210	317	281	88	236	76	250	405	12	114	18450	FKOAMRM810E	FKOAMRM810F
12"	***300	8	-	-	400	245	374	338	88	236	76	250	475	12	114	25450	FKOAMRM812E	FKOAMRM812F
14"	***350	7	-	-	476	280	438	390	88	361	80	300	530	12	129	31765	FKOAMRM814E	FKOAMRM814F
16"	***400	6	-	-	540	306	438	390	88	361	80	300	594	16	169	38760	FKOAMRM816E	FKOAMRM816F

Note: NBR liners are available for d75÷225
 *The special chamfered stubs QBM from d160 to d315 are available for installation on pipes in PP-H SDR 11 and 17.6
 **ISO-DIN
 ***ANSI B.16.5 150

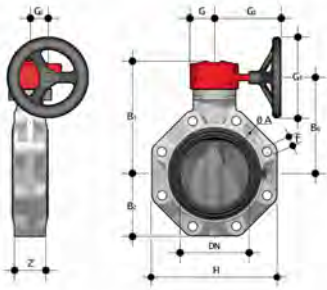


FKOM/RM LUG ISO-DIN

Gearbox operated Butterfly valve, version Lug ISO-DIN

d	DN	PN	øA	B ₂	B ₅	B ₆	f	G	G ₁	G ₂	G ₃	H	U	Z	g	EPDM code	FKM code
75	65	10	145	80	174	146	M16	48	135	39	125	165	4	46	2700	FKOLMRM075E	FKOLMRM075F
90	80	10	160	93	188	160	M16	48	135	39	125	185	12	49	3500	FKOLMRM090E	FKOLMRM090F
110	100	10	180	107	202	174	M16	48	135	39	125	211	8	56	3850	FKOLMRM110E	FKOLMRM110F
125/140	125	10	210	120	222	194	M16	48	144	39	200	240	8	64	5950	FKOLMRM140E	FKOLMRM140F
160*/180	150	10	240	134	235	207	M20	48	144	39	200	268	8	70	6700	FKOLMRM160E	FKOLMRM160F
200*/225*	200	10	295	161	256	256	M20	65	204	60	200	323	8	71	10800	FKOLMRM225E	FKOLMRM225F

Note: NBR liners are available for d75÷225
 * The special chamfered stubs QBM from d160 to d315 are available for installation on pipes in PP-H SDR 11 and 17.6



FKOM/RM LUG ANSI

Gearbox operated Butterfly valve, version Lug ANSI

d	DN	PN	øA	B ₂	B ₅	B ₆	f	G	G ₁	G ₂	G ₃	H	U	Z	g	EPDM code	FKM code
2" 1/2	65	10	140	80	174	146	5/8"	48	135	39	125	165	4	46	2700	FKOALMRM212E	FKOALMRM212F
3"	80	10	152	93	188	160	5/8"	48	135	39	125	185	12	49	3500	FKOALMRM300E	FKOALMRM300F
4"	100	10	191	107	202	174	5/8"	48	135	39	125	211	8	56	3850	FKOALMRM400E	FKOALMRM400F
5"	125	10	216	120	222	194	3/4"	48	144	39	200	240	8	64	5950	FKOALMRM500E	FKOALMRM500F
6"	150	10	241	134	235	207	3/4"	48	144	39	200	268	8	70	6700	FKOALMRM600E	FKOALMRM600F
8"	200	10	298	161	287	256	3/4"	65	204	60	200	323	8	71	10800	FKOALMRM800E	FKOALMRM800F
10"	250	6	362	210	317	281	7/8"	88	236	76	250	405	12	114	23200	FKOALMRM810E	FKOALMRM810F
12"	300	6	432	245	374	338	7/8"	88	236	76	250	475	12	114	30250	FKOALMRM812E	FKOALMRM812F

Note: NBR liners are available for d 2 1/2"÷ 8"