CONTACT WEFLO TECHNICAL ADVISORS FOR YOUR
NEXT VALVE & ACTUATION REQUIREMENTS

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WEFLO®

WEFLO VALVE COMPANY LTD.

ACTUATOR

Weflo is pleased to offer Electric Actuation for our valve products. Weflo customers can now order both valve and custom-made actuator, from the same source, with complete, in-house testing and packaging. This saves time and money and helps complete any project with the correct valve and actuator products.

WFM Series >>>
Multi-turn Electric Actuator

For butterfly valve, ball valve, plug valve,and other quarter turn valve applications

COMPANY PROFILE

The Weflo Valve Co., Ltd. is a world class manufacturer of valve and fluid control products. Weflo is vertically integrated. Beginning with our Automated, State-of-The-Art foundry, we control all aspects of manufacturing, allowing Weflo to offer high quality products to our customers in Commercial and Industrial sectors.

The Weflo Valve Co., Ltd. focuses on Research and Development. Our Product Engineering team is constantly working to improve designs and offer our customers the best in valve and fluid control products. All Weflo products are designed to internationally recognized Standards and Specifications. The Actuators is an extension of this process.

WEFLO PRODUCTS

- CE Certified - European Union. Australian Watermark / Oceanmark / Gasmark Certified, German VdS Certified, UK UKCA, WRAS Certified, NSF Certified,China Compulsory Product Certification, CCCF, China Special Equipment Production License,among other Approvals, Listings and Certifications.

WEFLO TESTING LABORATORY

- Accredited to ISO 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories

WEFLO QUALITY MANAGEMENT SYSTEM

- Certified to ISO 9001:2015 Quality Management System
- Certified to ISO 14001 Environmental Management System
- Certified to ISO 45001 Occupational Health and Safety Management System

CONTENT

◎ Product Overview

WFM Series - For standard control operation

BASIC

INTEGRATION

INTELLIGENT

01 WFM series multi-turn electric actuators are designed for multi-turn or linear motion valves such as gate valves, globe valves, control valves and other similar valve applications. It can also be used with a 90° worm gearbox to drive quarter turn valves such as butterfly valves, ball valves, plug valves and other similar valves.

02 The direct output torque of WFM series with a wide range from 50N.m~900N.m, and the output speed is 18~144rpm. Combine with gearbox, it can output more torque to meet the torque requirements of large diameter high torque valve applications.

03 WEFLO multi-turn WFM series can provide suitable solutions from conventional standard models for basic industrial needs to intelligent models that can perform configuration settings and intelligent feedback for various applications.

04

- Aluminum alloy housing
- Speed: 18~144rpm
- High cost performance
- Intelligent: LCD display
- Non-intrusive setting
- Standard IP67 protection

Technical Specification ◎

		BASIC	INTEGRATION	INTELLIGENT
Control	On-Off	✓	✓	✓
	Modulating	—	✓	✓
Protection	StandardI P67, IP68 optional	✓	—	—
	Standard IP68	—	✓	✓
Display	Mechanical pointer	✓	—	—
	Open/Close/Remote/Fault indicator lamp	—	✓	✓
	LCD digital position percentage display	—	✓	✓
	LCD digital torque percentage display	—	—	✓
Position Limit	Registering gear	✓	—	—
	Absolute encoder	—	✓	✓
Local Control	Open/Stop/Close botton, Local/Remote/Lock	—	✓	✓
	Remote control	—	✓	✓
Protection	Over torque	✓	✓	✓
	Motor over heat	✓	✓	✓
	Valve stall	—	✓	✓
	Loss signal	—	✓	✓
	Reverse starter	—	✓	✓
	Loss phase(3 phase only)	—	✓	✓
	Auto phase correction(3 phase only)	—	✓	✓
	Non intrusive set up	—	✓	✓
	Operational data log	—	—	✓
	Password	—	✓	✓
	Anti condensation (Heater)	Optional	✓	✓
Feedback Signal	Open and close position limit, open and close torque switch, position feedback potentiometer	✓	—	—
	1 * Collective fault feedback, 5 *potentiometer feedback contact(Contact capacity 5A@250Vac)	—	✓	✓
Control Signal	On-Off switch signal	✓	✓	✓
	Analogue signal (4-20mA, 0-10V, 2-10V)	—	✓	✓
	Modbus,Profibus,HART	—	✓	✓
Other	Non intrusive position limit set up	—	✓	✓
	Torque switch limit set up	—	—	✓
	Set up of: Deadzone,Reverse signal, Loss signal mode,(0%,100%,keep); Feedback contacts,ESD(0%,100%,Keep);	—	✓	✓
	Power loss display	—	—	✓

Note: IP68 protection level is defined as: 7m underwater, 72 hours without leakage.

◎ Technical Specification

		BASIC	INTEGRATION	INTELLIGENT
Model Range		WFM05-WFM90		WFM10-WFM90
Speed	50Hz	18, 24, 36, 48, 72rpm	18, 24, 36, 48, 72, 96, 144rpm	
	60Hz	21, 29, 43, 57, 86rpm	21, 29, 43, 57, 86, 115, 173rpm	
Ambient Temperature		-30°C~70°C		
Noise		Within 1 meter<75dB		
Cable Entries		Standard 2-NPT3/4" (2-NPT1" available) Option 3-NPT3/4" (3-NPT1" available)		Standard 2-NPT1" & 1-NPT3/4" Optional 3-NPT1" & 1-NPT1 1/2"
Ingress Protection		Standard IP67 Optional IP68	Standard IP68	
Mounting		JB2920(Standard), ISO5210(Optional A type or B type)		
Motor		Standard F class motor for heat protection up to 135°C		
Duty Cycle	On-Off	S2~15min (600 starts per hour)		
	Modulating	—	S4-25% (600 starts per hour)	
Standard Voltage (Other voltages can be customized)		3 phase：AC380V（±10%） 1 phase：AC220V Frequency：50Hz/60Hz(±5%)		
Input Signal	On-Off	Built in contacts 5A@250Vac	AC/DC 24V input; AC110/220V(optional); optical signal isolation	
	Modulating	—	Input signal: 4 ~ 20 mA; Optional:0 ~ 10 V; 2 ~ 10 V Input impedance: 150Ω (4~20 mA)	
Feedback Signal	On-Off	▪ Open stroke limit, close stroke limit ▪ Open over torque,close over torque ▪ Flash signal(contact capacity: 5 A at 250 V ac) ▪ Position feedback potentiometer	5 configurable contacts, (1 integrated fault contact) (Contact capacity 5A@250Vac)	
	Modulating	—	Input signal: 4 ~ 20 mA; Optional:0 ~ 10 V; 2 ~ 10 V Output impedance: ≤750 Ω (Repeatability and linearity within ±1 % of full valve stroke)	
Fault Signal	On-Off	Integrated fault alarm:Motor overheating, over torque contacts	Collective fault alarm: Power off, motor overheating lost phase, over torque, lose signal	
	Modulating	—	Signal Reverse, Dead zone: ≤2%	
Position Display		Mechanical Pointer	▪ LCD screen disply ▪ Position percentage display	▪ 4-level grayscale LCD screen opening indicator ▪ Position percentage display ▪ Torque percentage display

Note: WFM90 three-phase no modulating type; Single-phase 220v no modulating type.

Technical Specification ◎

WFM - 3 Phase voltage ON-OFF Control

Model	Speed(rpm) 50Hz	Speed(rpm) 60Hz	Torque (N.m)	Power (KW)	Rated Current (A)	Start Current (A)	Stall Current (A)	Handwheel Ratio	Max. Stem Diameter (mm)
WFM05	18	21	50	0.35	1.0	2.1	1.8	80:1	≤30
	24	29	50	0.35	1.0	2.4	2.1	60:1	
	36	43	50	0.35	1.0	2.5	2.1	40:1	
	48	57	50	0.35	1.3	3.2	2.8	30:1	
	72	86	40	0.35	1.3	3.8	3.4	20:1	
WFM10	18	21	100	0.35	1.3	3.6	3.2	80:1	≤30
	24	29	100	0.35	1.3	4.3	3.7	60:1	
	36	43	100	0.35	1.3	5.3	4.7	40:1	
	48	57	100	0.45	1.7	8.0	7.2	30:1	
	72	86	70	0.45	1.7	7.9	7.3	20:1	
	96	115	50	0.6	2.1	6.5	5.8	40:1	
	*144	173	40	0.6	2.1	6.9	6.1	20:1	
WFM15	18	21	150	0.45	1.5	6.3	5.5	80:1	≤30
	24	29	150	0.45	1.5	6.3	5.5	60:1	
	36	43	150	0.45	1.5	7.2	6.5	40:1	
	48	57	120	0.7	2.3	6.8	5.9	30:1	
	72	86	100	0.7	2.5	7.4	6.7	20:1	
	96	115	75	0.7	2.7	9.8	8.4	40:1	
	*144	173	60	0.7	2.7	10.4	9.3	20:1	
WFM20	18	21	200	0.75	2.2	6.9	6	80:1	≤42
	24	29	200	0.75	2.3	7.0	6.3	60:1	
	36	43	200	1.25	3.4	9.2	8.4	40:1	
	48	57	200	1.25	3.4	11.9	10.4	30:1	
	72	86	170	1.25	4.3	13.8	12.6	20:1	
	96	115	150	1.8	5.0	16.8	14.5	40:1	
	*144	173	100	1.8	5.2	14.0	12.6	20:1	
WFM30	18	21	300	0.75	2.9	11.9	10.7	80:1	≤42
	24	29	300	0.75	2.9	12.4	10.8	60:1	
	36	43	300	1.25	4.5	16	14.8	40:1	
	48	57	250	1.25	5.4	19.5	18.2	30:1	
	72	86	200	1.25	5.2	16.5	14.9	20:1	
	96	115	170	1.8	5.6	19	17.4	40:1	
	*144	173	120	1.8	5.5	18.7	16.5	20:1	
WFM40	18	21	400	1.25	4.2	15.9	14.3	80:1	≤42
	24	29	400	1.25	4.8	16.5	14.8	60:1	
	36	43	350	2	5.3	18.7	16.6	40:1	
	48	57	300	2	5.4	19.5	17.1	30:1	
	72	86	250	2	6.5	20.6	19	20:1	
	96	115	230	2.3	7	26.7	24.5	40:1	
	*144	173	150	2.3	6.9	20.3	18.7	20:1	

Note：

1. **Above torque is maximum torque of actuator.**
2. **Motor duty cycle S2-15min, 3 phase 380VAC.**
3. **RPM with"*"has higher momental force, not recommended for direct drive of valve.**

◎ Technical Specification

WFM - 3 Phase voltage ON-OFF Control

Model	Speed(rpm)		Torque (N.m)	Power (KW)	Rated Current (A)	Start Current (A)	Stall Current (A)	Handwheel Ratio	Max. Stem Diameter (mm)
	50Hz	60Hz							
WFM50	18	21	500	2.2	6.7	21.1	19.4	80:1	≤50
	24	29	500	2.2	6.7	21.1	19.6	60:1	
	36	43	500	2.2	6.7	23.9	21.8	40:1	
	48	57	500	2.4	9.9	34.3	31.7	30:1	
	72	86	400	2.4	10.4	38.3	35.4	20:1	
	96	115	300	2.8	9.8	37.3	36.2	40:1	
	*144	173	200	2.8	12	49.3	47.6	20:1	
WFM60	18	21	610	2.4	6.4	25.8	24.5	80:1	≤50
	24	29	610	2.4	6.4	25.8	22.4	60:1	
	36	43	610	2.4	8.2	29.1	27	40:1	
	48	57	550	3	12.1	41.8	39.4	30:1	
	72	86	450	3	13	47.9	45.6	20:1	
	96	115	330	4	13.1	49.7	47.3	40:1	
	*144	173	260	4	13.5	37.1	35.1	20:1	
WFM90	18	21	900	2.9	8.5	30.6	28.4	80:1	≤50
	24	29	900	2.9	10.4	37.6	34	60:1	
	36	43	750	2.9	10.6	43.3	41.7	40:1	
	48	57	600	2.9	12.4	38.9	37.2	30:1	
	72	86	480	2.9	12.4	49.9	47.5	20:1	
	96	115	350	3.5	15.1	50.1	48.1	40:1	

Note:
1. Above torque is maximum torque of actuator.
2. Motor duty cycle S2-15min, 3 phase 380VAC.
3. RPM with"*"has higher momental force, not recommended for direct drive of valve.

WFM - 1 Phase 220VAC ON-OFF Control

Model	Speed(rpm)		Torque (N.m)	Power (KW)	Rated Current (A)	Start Current (A)	Stall Current (A)	Handwheel Ratio	Max. Stem Diameter (mm)
	50Hz	60Hz							
WFM10	18	21	60	0.26	1.7	5.9	5.2	80:1	≤30
	24	29	60	0.26	2.3	7.8	6.9	60:1	
	36	43	50	0.28	2.6	8.9	7.9	40:1	
	48	57	50	0.32	2.9	9.8	8.7	30:1	
	72	86	35	0.35	3	10.1	9.1	20:1	
WFM40	18	21	150	0.6	4.3	11.8	10.7	80:1	≤42
	24	29	150	0.6	5.7	15.7	14.3	60:1	
	36	43	130	0.6	6.4	17.5	15.9	40:1	
	48	57	100	0.6	6.2	18.4	16.7	30:1	
	72	86	50	0.6	5.4	18.3	16.2	20:1	
WFM60	18	21	250	1.4	7.6	21	19.1	80:1	≤50
	24	29	250	1.4	8.9	25.8	23.5	60:1	
	36	43	180	1.4	9.3	28.8	26.5	40:1	
	48	57	150	1.4	11.1	34.6	31.7	30:1	
	72	86	110	1.4	11.7	36.2	33.5	20:1	

Note:
1. Above torque is maximum torque of actuator.
2. Motor duty cycle S2-15min, 3 phase 380VAC.

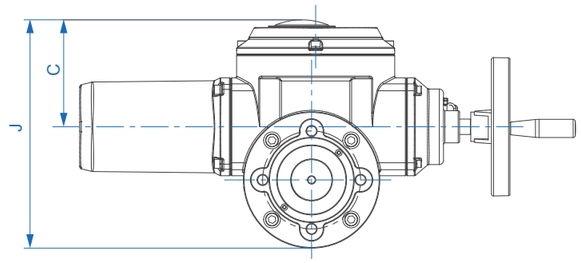
Technical Specification ◎

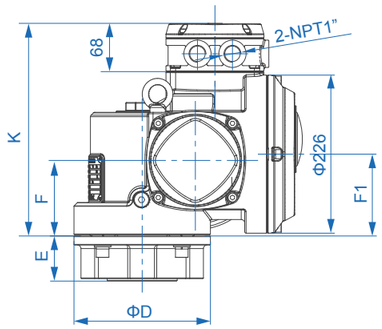
WFM - 3 Phase voltage Modulating Control

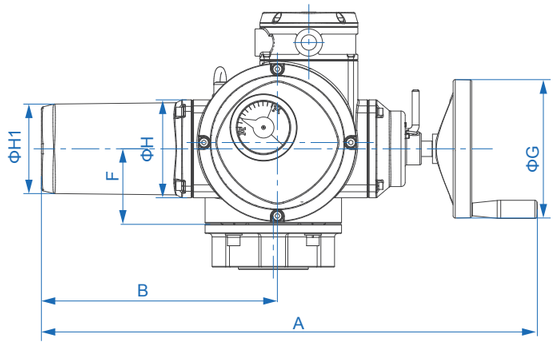
Model	Speed(rpm)		Torque (N.m)	Power (KW)	Rated Current (A)	Start Current (A)	Stall Current (A)	Handwheel Ratio	Max. Stem Diameter (mm)
	50Hz	60Hz							
WFM05	18	21	50	0.35	0.4	1.5	1.31	80:1	≤30
	24	29	50	0.35	0.6	2.0	1.75	60:1	
	36	43	50	0.35	0.9	3.0	2.63	40:1	
	48	57	50	0.35	1.2	4.0	3.51	30:1	
	72	86	40	0.35	1.4	4.8	4.21	20:1	
WFM10	18	21	100	0.35	0.9	3.0	2.63	80:1	≤30
	24	29	100	0.35	1.2	3.9	3.51	60:1	
	36	43	100	0.35	1.7	5.9	5.26	40:1	
	48	57	100	0.45	2.3	7.9	7.01	30:1	
	72	86	70	0.6	2.4	8.3	7.36	20:1	
WFM15	18	21	150	0.45	1.3	4.5	3.94	80:1	≤30
	24	29	150	0.45	1.7	5.9	5.26	60:1	
	36	43	150	0.45	2.6	8.9	7.89	40:1	
	48	57	120	0.7	3.5	11.9	10.52	30:1	
	72	86	100	0.7	3.5	11.9	10.52	20:1	
WFM20	18	21	200	0.75	1.7	5.9	5.26	80:1	≤42
	24	29	200	0.75	2.3	7.9	7.01	60:1	
	36	43	200	1.25	3.5	11.9	10.52	40:1	
	48	57	200	1.25	4.6	15.9	14.03	30:1	
	72	86	170	1.8	5.9	19.7	17.88	20:1	
WFM30	18	21	300	0.75	2.6	8.9	7.89	80:1	≤42
	24	29	300	0.75	3.5	11.9	10.52	60:1	
	36	43	300	1.25	5.2	17.4	15.78	40:1	
	48	57	250	1.25	6.9	23.1	21.04	30:1	
	72	86	200	1.8	6.9	23.4	21.04	20:1	
WFM40	18	21	400	1.25	3.5	11.9	10.52	80:1	≤42
	24	29	400	1.25	4.6	15.9	14.03	60:1	
	36	43	350	2	6.1	20.3	18.41	40:1	
	48	57	250	2	6.9	23.1	21.04	30:1	
	72	86	250	2.3	8.7	28.9	26.3	20:1	
WFM50	18	21	500	2.2	4.3	14.9	13.15	80:1	≤50
	24	29	500	2.2	5.8	19.1	17.53	60:1	
	36	43	500	2.2	8.7	28.7	26.3	40:1	
	48	57	500	2.4	11.6	31.5	28.93	30:1	
	72	86	400	2.8	13.9	36.9	33.87	20:1	
WFM60	18	21	610	2.4	5.3	18.1	16.04	80:1	≤50
	24	29	610	2.4	7.1	24.2	21.39	60:1	
	36	43	610	2.4	10.6	30.7	27.86	40:1	
	48	57	610	3	14.1	36.8	34.43	30:1	
	72	86	500	4	17.4	40.5	38.57	20:1	

Note:
1. Above torque is maximum torque of actuator.
2. Motor duty cycle S4-25%, 3 phase 380VAC.
3. For modulating model selection torque safety factor up to 1.8-2 must be considered.
4. Modulating control is only available on Intelligent model.

WFM - Basic type dimension







Dimension

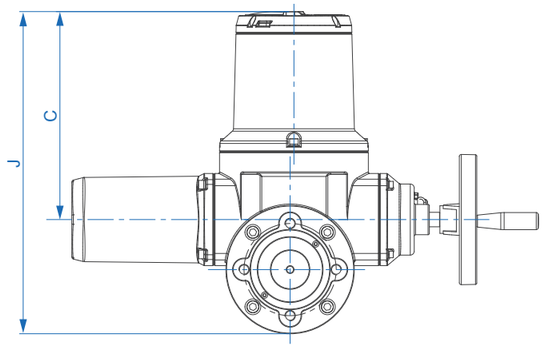
Unit: mm

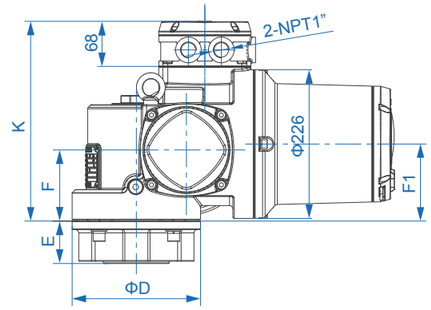
Model \ Size	A	B	C	ΦD	E			F	F1	ΦG	ΦH	ΦH1	J	K	Weight (KG)
					JB	TypeA	TypeB								
WFM05/10/15	600	280	132	145	2	50	40	111	120	100	140	98	283	307	30
WFM20/30/40	710	338	153	195	2	65	42	114	117	200	140	128	327	303	36
WFM50/60/90	760	382	160	234	2	65	42	114	118	200	161	148	382	303	47

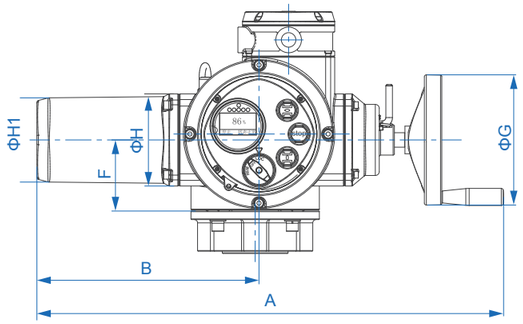
Note:

1. Above connection size is in comply to ISO5210. For special requirement can be customized.
2. A type is for rising type valve stem, B type is for non-rising type valve stem.

WFM - Integration type dimension







Dimension

Unit: mm

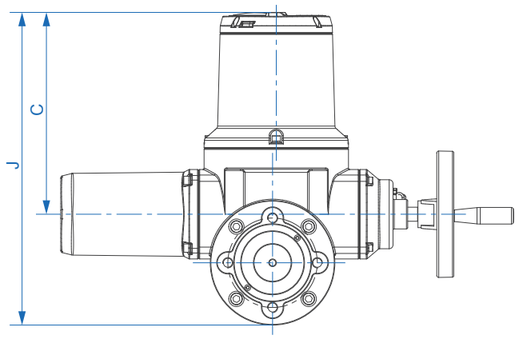
Model \ Size	A	B	C	ΦD	E			F	F1	ΦG	ΦH	ΦH1	J	K	Weight (KG)
					JB	TypeA	TypeB								
WFM05/10/15	600	280	316	145	2	50	40	111	120	100	140	98	446	307	30
WFM20/30/40	710	338	316	195	2	65	42	108	117	200	140	128	490	303	36
WFM50/60/90	760	382	332	234	2	65	42	114	118	200	161	148	545	303	47

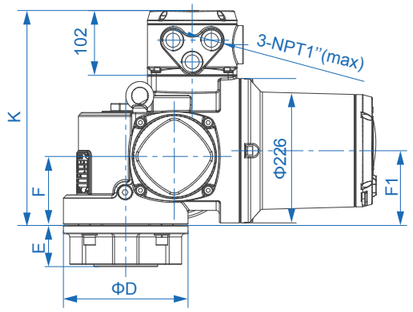
Note:

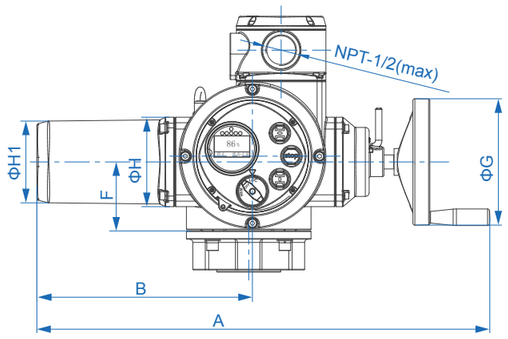
1. Above connection size is in comply to ISO5210. For special requirement can be customized.
2. A type is for rising type valve stem, B type is for non-rising type valve stem.

◎ Product Dimension

WFM - Intelligent type dimension







Dimension

Unit: mm

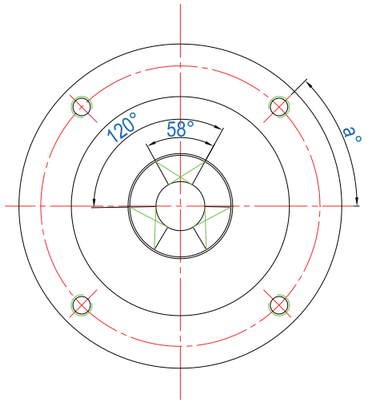
Model \ Size	A	B	C	ΦD	E			F	F1	ΦG	ΦH	ΦH1	J	K	Weight (KG)
					JB	TypeA	TypeB								
WFM10/15	600	280	316	145	2	50	40	111	120	100	140	98	446	341	30
WFM20/30/40	710	338	316	195	2	65	42	108	117	200	140	128	490	337	36
WFM50/60/90	760	382	332	234	2	65	42	114	118	200	161	148	545	337	47

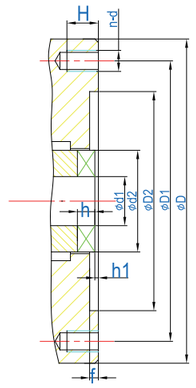
Note:

1. **Above connection size is in comply to ISO5210. For special requirement can be customized.**
2. **A type is for rising type valve stem, B type is for non-rising type valve stem.**

Product Dimension ◎

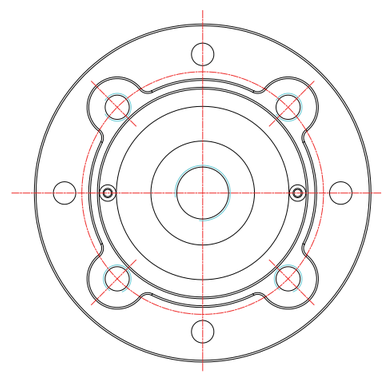
WFM - JB type output (rotary type) - JB2920

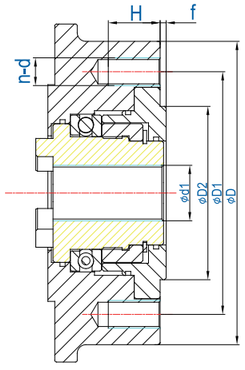




Model \ Size	Base	ΦD	ΦD1	ΦD2	h1	f	h	Φd1	Φd2	n-d	a	H
WFM05/10/15	JB2	145	120	90	2	5	8	≤Φ30	Φ45	4-M10	45°	15
WFM20/30/40	JB3	185	160	125	2	5	10	≤Φ42	Φ58	4-M12	45°	15
WFM50/60/90	JB4	225	195	150	2	5	12	≤Φ50	Φ72	4-M16	45°	30

WFM - A type output (Rising type) - ISO5210

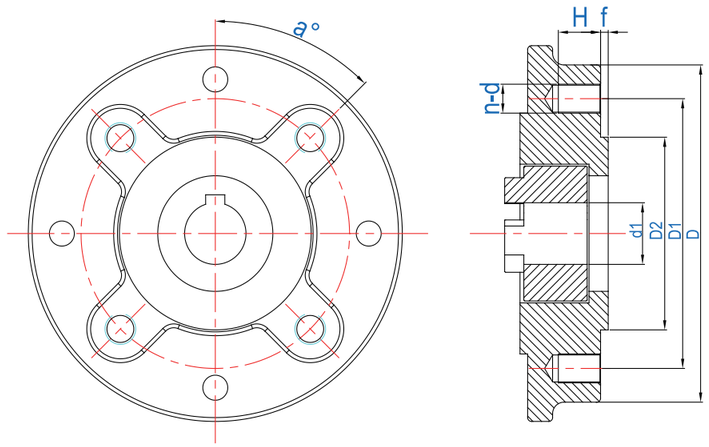




Model \ Size	Flange	ΦD	ΦD1	ΦD2	f	Φd1	n-d	a	H
WFM05/10/15	F10	120	102	70	3	≤Tr30	4-M10	45°	JB2
WFM20/30/40	F14	175	140	100	4	≤Tr42	4-M16	45°	JB3
WFM50/60/90	F16	205	165	135	5	≤Tr50	4-M20	45°	JB4

◎ Product Dimension

WFM - B type output (Rotary type) - ISO5210



Model \ Size	Flange	ΦD	ΦD1	ΦD2	f	Φd1	n-d	a	H
WFM05/10/15	F10	120	102	70	3	≤Tr30	4-M10	45°	15
WFM20/30/40	F14	175	140	100	4	≤Tr42	4-M16	45°	24
WFM50/60/90	F16	205	165	135	5	≤Tr50	4-M20	45°	30

Service ◎

Quality & Service

WEFLO professional team is ready to provide users with comprehensive services and professional technical supports at all time:

- No matter it is by phone, mail or on the website, we are standing by for your inquiry.
- Reliable lead time & delivery
- On -site installation and debugging
- Regularly follow up our products status and maintenance.
- We provide training for structure knowledgy,operation, debugging, maintenance and more
- For special requirements, we provide customized solutions.