



Direct Acting 2-Port Solenoid Valve

FFB/FFBM Series

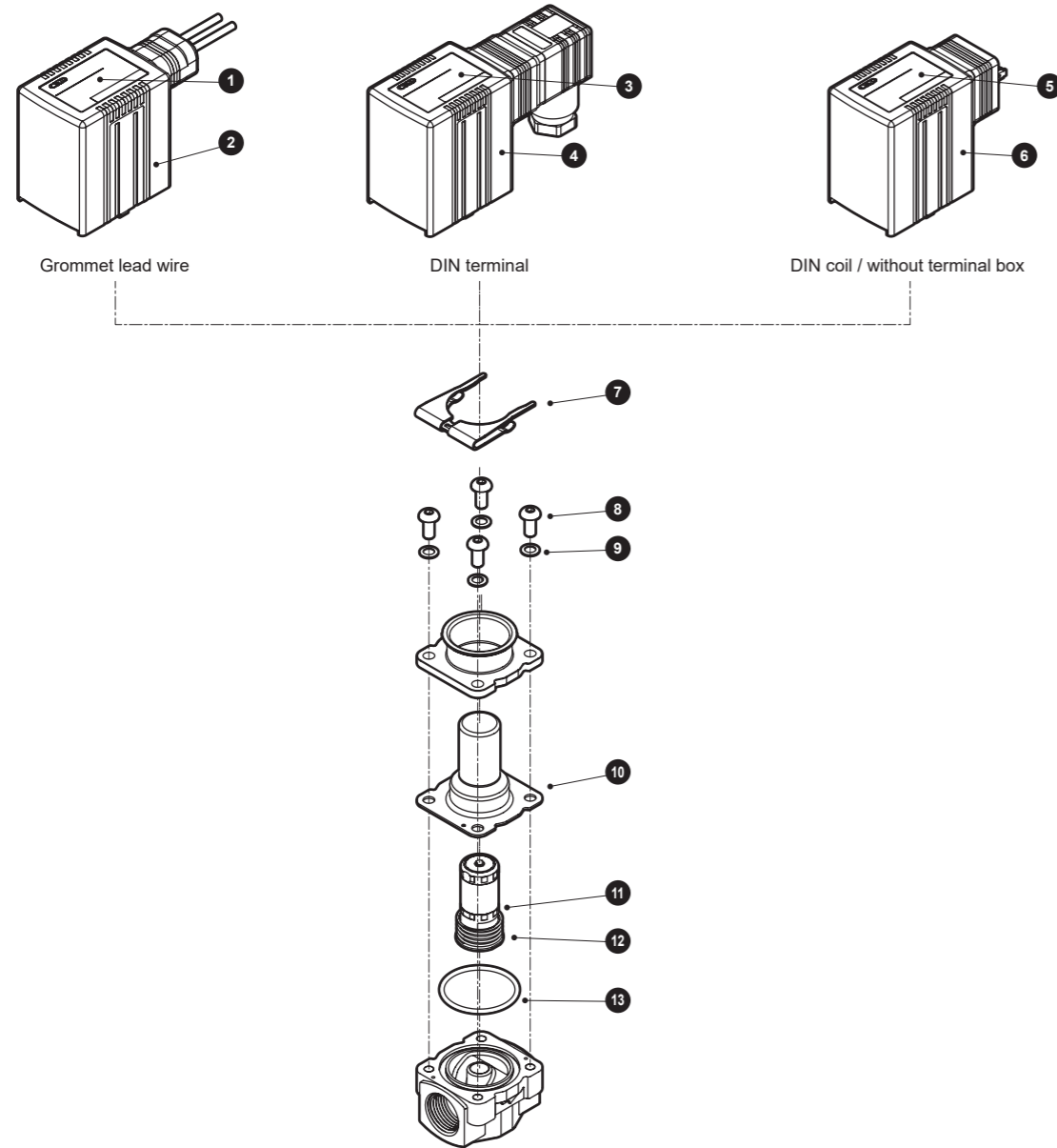
- NC (Normally Open)

FFB/FFBM Series

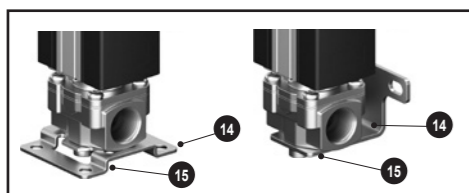
FFB-21 (Valve size 2)

NC (Normally Open)

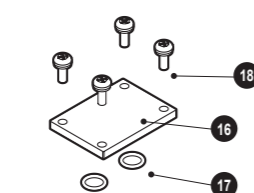
- FFB-21 (Valve size 2)
NC (Normally Open)



- Mounting Plate (for FFB)



- Masking Plate Kit (For FFBM)



• Coil Assembly

Coil Option	Voltage	Part Model No.		Part Drawing	No.	Qty.	
		Standard	With surge suppressor				
A (Lead wire)	1 (100 VAC)	FFB-23A1-COIL	-		1 2 7	1 each	
	2 (200 VAC)	FFB-23A2-COIL	-				
	3 (24 VDC)	FFB-23A3-COIL	FFB-23J3-COIL				
	4 (12 VDC)	FFB-23A4-COIL	FFB-23J4-COIL				
J (Lead wire with surge suppressor)	5 (110 VAC)	FFB-23A5-COIL	-		3 4 7	1 each	
	6 (220 VAC)	FFB-23A6-COIL	-				
	K (230 VAC)	FFB-23AK-COIL	-				
	C (DIN terminal box Pg9)	1 (100 VAC)	FFB-23C1-COIL				-
K (DIN terminal box Pg9 with surge suppressor)	2 (200 VAC)	FFB-23C2-COIL	-		5 6 7	1 each	
	3 (24 VDC)	FFB-23C3-COIL	FFB-23K3-COIL				
	4 (12 VDC)	FFB-23C4-COIL	FFB-23K4-COIL				
	5 (110 VAC)	FFB-23C5-COIL	-				
D (Compact DIN terminal box Pg9 with lamp)	6 (220 VAC)	FFB-23C6-COIL	-		5 6 7	1 each	
	K (230 VAC)	FFB-23CK-COIL	-				
	L (Compact DIN terminal box Pg9 with lamp and surge suppressor)	1 (100 VAC)	FFB-23D1-COIL				-
	2 (200 VAC)	FFB-23D2-COIL	-				
S (DIN coil / without terminal box)	3 (24 VDC)	-	FFB-23L3-COIL		5 6 7	1 each	
	4 (12 VDC)	-	FFB-23L4-COIL				
	5 (110 VAC)	FFB-23D5-COIL	-				
	6 (220 VAC)	FFB-23D6-COIL	-				
	K (230 VAC)	FFB-23DK-COIL	-				
	1 (100 VAC)	FFB-23S1-COIL	-				
	2 (200 VAC)	FFB-23S2-COIL	-				
3 (24 VDC)	FFB-23S3-COIL	-					
4 (12 VDC)	FFB-23S4-COIL	-					
5 (110 VAC)	FFB-23S5-COIL	-					
6 (220 VAC)	FFB-23S6-COIL	-					
K (230 VAC)	FFB-23SK-COIL	-					

• Mounting Plate (for FFB)

Type	Part Model No.	No.	Qty.
B (Mounting plate ①)	FFB-21-B-MOUNT-PLATE-KIT	14	1
P (Panel mounting plate)	FFG-21-P-MOUNT-PLATE-KIT	15	2

■ FFB-21 (Valve size 2)
NC (Normally Open)

● Actuator Kit

Orifice Size / Material	Part Model No.	Image	No.	Qty.
Orifice size: S (ø1.5)				
Material: A, C, H (NBR)	FFB-21SA-ACT-KIT		8	4
N, S (NBR, oil-free treatment)	FFB-21SN-ACT-KIT		9	4
D, J (FKM)	FFB-21SD-ACT-KIT		10	1
P, T (FKM, oil-free treatment)	FFB-21SP-ACT-KIT		11	1
Q, U (EPDM, oil-free treatment)	FFB-21SQ-ACT-KIT		12	1
Orifice size: 2 (ø2)			13	1
Material: A, C, H (NBR)	FFB-212A-ACT-KIT			
N, S (NBR, oil-free treatment)	FFB-212N-ACT-KIT			
D, J (FKM)	FFB-212D-ACT-KIT			
P, T (FKM, oil-free treatment)	FFB-212P-ACT-KIT			
Q, U (EPDM, oil-free treatment)	FFB-212Q-ACT-KIT			

● Clip

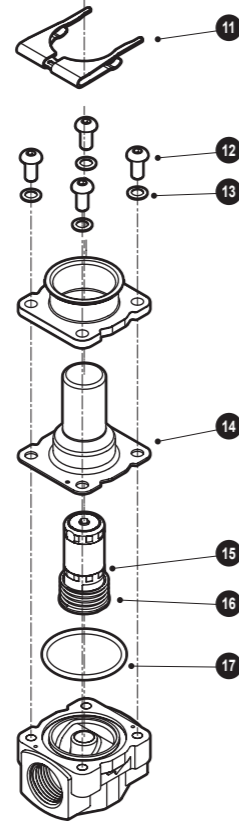
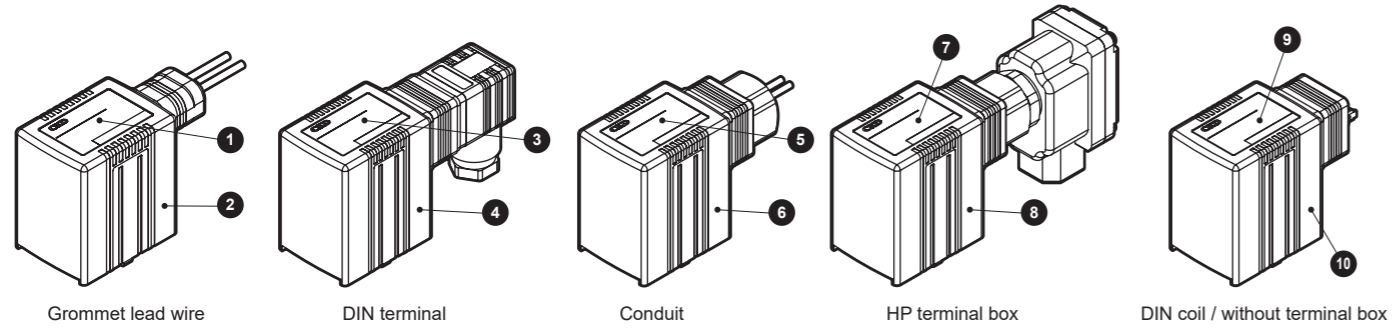
Part Model No.	Image	No.	Qty.
FFB-2-CLIP		7	1

● Masking Plate Kit (for FFBM)

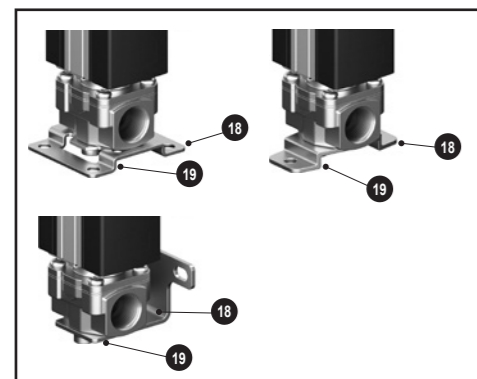
Material	Part Model No.	Image	No.	Qty.
A (Aluminum, NBR)	FFBM-21A-MP-KIT			
C, N (Brass, NBR)	FFBM-21C-MP-KIT		16	1
D, G, P (Brass, FKM)	FFBM-21D-MP-KIT		17	2
Q (Brass, EPDM)	FFBM-21Q-MP-KIT		18	4 (2)
H, S (Stainless steel, NBR)	FFBM-21H-MP-KIT			
J, M, T (Stainless steel, FKM)	FFBM-21J-MP-KIT			
U (Stainless steel, EPDM)	FFBM-21U-MP-KIT			
				*1

*1: For Material A (Aluminum, NBR), the quantity of screw 18 is (2).

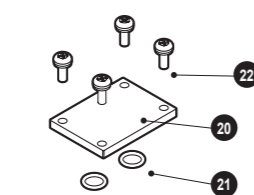
■ FFB-31 (Valve size 3)
NC (Normally Open)



■ Mounting Plate (for FFB)



■ Masking Plate Kit (For FFBM)



FFB-31 (Valve size 3)
NC (Normally Open)

● Coil Assembly

Coil Option	Voltage	Part Model No.		Part Drawing	No.	Qty.
		Standard	With surge suppressor			
A (Lead wire)	1 (100 VAC)	FFB-33A1-COIL	-		1 2 11	1 each
	2 (200 VAC)	FFB-33A2-COIL	-			
	3 (24 VDC)	FFB-33A3-COIL	FFB-33J3-COIL			
	4 (12 VDC)	FFB-33A4-COIL	FFB-33J4-COIL			
J (Lead wire with surge suppressor)	5 (110 VAC)	FFB-33A5-COIL	-		3 4 11	1 each
	6 (220 VAC)	FFB-33A6-COIL	-			
	K (230 VAC)	FFB-33AK-COIL	-			
	-	-	-			
B (With DIN terminal box G1/2)	1 (100 VAC)	FFB-33B1-COIL	-		5 6 11	1 each
	2 (200 VAC)	FFB-33B2-COIL	-			
	3 (24 VDC)	FFB-33B3-COIL	-			
	4 (12 VDC)	FFB-33B4-COIL	-			
C (DIN terminal box Pg11)	5 (110 VAC)	FFB-33B5-COIL	-		9 10 11	1 each
	6 (220 VAC)	FFB-33B6-COIL	-			
	K (230 VAC)	FFB-33BK-COIL	-			
	-	-	-			
K (DIN terminal box Pg11 with surge suppressor)	1 (100 VAC)	FFB-33C1-COIL	-		7 8 11	1 each
	2 (200 VAC)	FFB-33C2-COIL	-			
	3 (24 VDC)	FFB-33C3-COIL	FFB-33K3-COIL			
	4 (12 VDC)	FFB-33C4-COIL	FFB-33K4-COIL			
D (Compact DIN terminal box Pg11 with lamp)	5 (110 VAC)	FFB-33C5-COIL	-		1 2 11	1 each
	6 (220 VAC)	FFB-33C6-COIL	-			
	K (230 VAC)	FFB-33CK-COIL	-			
	-	-	-			
L (Compact DIN terminal box Pg9 with lamp and surge suppressor)	1 (100 VAC)	FFB-33D1-COIL	-		3 4 11	1 each
	2 (200 VAC)	FFB-33D2-COIL	-			
	3 (24 VDC)	-	FFB-33L3-COIL			
	4 (12 VDC)	-	FFB-33L4-COIL			
E (Conduit G1/2)	5 (110 VAC)	FFB-33D5-COIL	-		5 6 11	1 each
	6 (220 VAC)	FFB-33D6-COIL	-			
	K (230 VAC)	FFB-33DK-COIL	-			
	-	-	-			
M (Conduit G1/2 with surge suppressor)	1 (100 VAC)	FFB-33E1-COIL	-		1 2 11	1 each
	2 (200 VAC)	FFB-33E2-COIL	-			
	3 (24 VDC)	FFB-33E3-COIL	FFB-33M3-COIL			
	4 (12 VDC)	FFB-33E4-COIL	FFB-33M4-COIL			
F (Conduit CTC19)	5 (110 VAC)	FFB-33E5-COIL	-		3 4 11	1 each
	6 (220 VAC)	FFB-33E6-COIL	-			
	K (230 VAC)	FFB-33EK-COIL	-			
	-	-	-			
P (Conduit CTC19 with surge suppressor)	1 (100 VAC)	FFB-33F1-COIL	-		7 8 11	1 each
	2 (200 VAC)	FFB-33F2-COIL	-			
	3 (24 VDC)	FFB-33F3-COIL	FFB-33P3-COIL			
	4 (12 VDC)	FFB-33F4-COIL	FFB-33P4-COIL			
G (HP terminal box G1/2)	5 (110 VAC)	FFB-33F5-COIL	-		9 10 11	1 each
	6 (220 VAC)	FFB-33F6-COIL	-			
	K (230 VAC)	FFB-33FK-COIL	-			
	-	-	-			
Q (HP terminal box G1/2 with surge suppressor)	1 (100 VAC)	FFB-33G1-COIL	-		1 2 11	1 each
	2 (200 VAC)	FFB-33G2-COIL	-			
	3 (24 VDC)	FFB-33G3-COIL	FFB-33Q3-COIL			
	4 (12 VDC)	FFB-33G4-COIL	FFB-33Q4-COIL			
H (HP terminal box G1/2 with lamp)	5 (110 VAC)	FFB-33G5-COIL	-		3 4 11	1 each
	6 (220 VAC)	FFB-33G6-COIL	-			
	K (230 VAC)	FFB-33GK-COIL	-			
	-	-	-			
R (HP terminal box G1/2 with lamp and surge suppressor)	1 (100 VAC)	FFB-33H1-COIL	-		5 6 11	1 each
	2 (200 VAC)	FFB-33H2-COIL	-			
	3 (24 VDC)	FFB-33H3-COIL	FFB-33R3-COIL			
	4 (12 VDC)	FFB-33H4-COIL	FFB-33R4-COIL			
S (DIN coil / without terminal box)	5 (110 VAC)	FFB-33H5-COIL	-		7 8 11	1 each
	6 (220 VAC)	FFB-33H6-COIL	-			
	K (230 VAC)	FFB-33SK-COIL	-			
	-	-	-			

■ For high-temperature fluid

Coil Option	Voltage	Part Model No.		Part Drawing	No.	Qty.
		Standard	With surge suppressor			
A (Lead wire)	1 (100 VAC)	FFB-34A1-COIL	-		1 2 11	1 each
	2 (200 VAC)	FFB-34A2-COIL	-			
	3 (24 VDC)	FFB-34A3-COIL	FFB-34J3-COIL			
	4 (12 VDC)	FFB-34A4-COIL	FFB-34J4-COIL			
J (Lead wire with surge suppressor)	5 (110 VAC)	FFB-34A5-COIL	-		3 4 11	1 each
	6 (220 VAC)	FFB-34A6-COIL	-			
	K (230 VAC)	FFB-34AK-COIL	-			
	-	-	-			

■ FFB-31 (Valve size 3)
NC (Normally Open)

● Actuator Kit

Orifice Size / Material	Part Model No.		Part Drawing	No.	Qty.	
	Coil heat resistance class 3 Class 130 (B)	Coil heat resistance class 4 Class 180 (H)				
Orifice size: 2 (ø2) Material: A, C, H (NBR)	FFB-312A-ACT-KIT	-				
N, S (NBR, oil-free treatment)	FFB-312N-ACT-KIT	-				
D, J (FKM)	FFB-312D-ACT-KIT	-				
P, T (FKM, oil-free treatment)	FFB-312P-ACT-KIT	-				
Q, U (EPDM, oil-free treatment)	FFB-312Q-ACT-KIT	-				
Orifice size: 3 (ø3) Material: A, C, H (NBR)	FFB-313A-ACT-KIT	-			12	4
N, S (NBR, oil-free treatment)	FFB-313N-ACT-KIT	-			13	4
D, E, J (FKM)	FFB-313D-ACT-KIT	FFB-313E-ACT-KIT			14	1
P, F, T (FKM, oil-free treatment)	FFB-313P-ACT-KIT	FFB-313F-ACT-KIT			15	1
Q, U (EPDM, oil-free treatment)	FFB-313Q-ACT-KIT	-			16	1
Orifice size: 5 (ø5) Material: A, C, H (NBR)	FFB-315A-ACT-KIT	-		17	1	
N, S (NBR, oil-free treatment)	FFB-315N-ACT-KIT	-				
D, E, J (FKM)	FFB-315D-ACT-KIT	FFB-315E-ACT-KIT				
P, F, T (FKM, oil-free treatment)	FFB-315P-ACT-KIT	FFB-315F-ACT-KIT				
Q, U (EPDM, oil-free treatment)	FFB-315Q-ACT-KIT	-				

*1: Material options "E" and "F" are only available for coil heat resistance class 4 (Class 180 (H)).

● Clip

Part Model No.		No.	Qty.
FFB-3-CLIP		11	1

● Mounting Plate (for FFB)

Type	Part Model No.		No.	Qty.
B (Mounting plate ①)	FFB-31-B-MOUNT-PLATE-KIT			
M (Mounting plate ②)	FFB-31-M-MOUNT-PLATE-KIT		18	1
			19	2
P (Panel mounting plate)	FFB-31-P-MOUNT-PLATE-KIT			

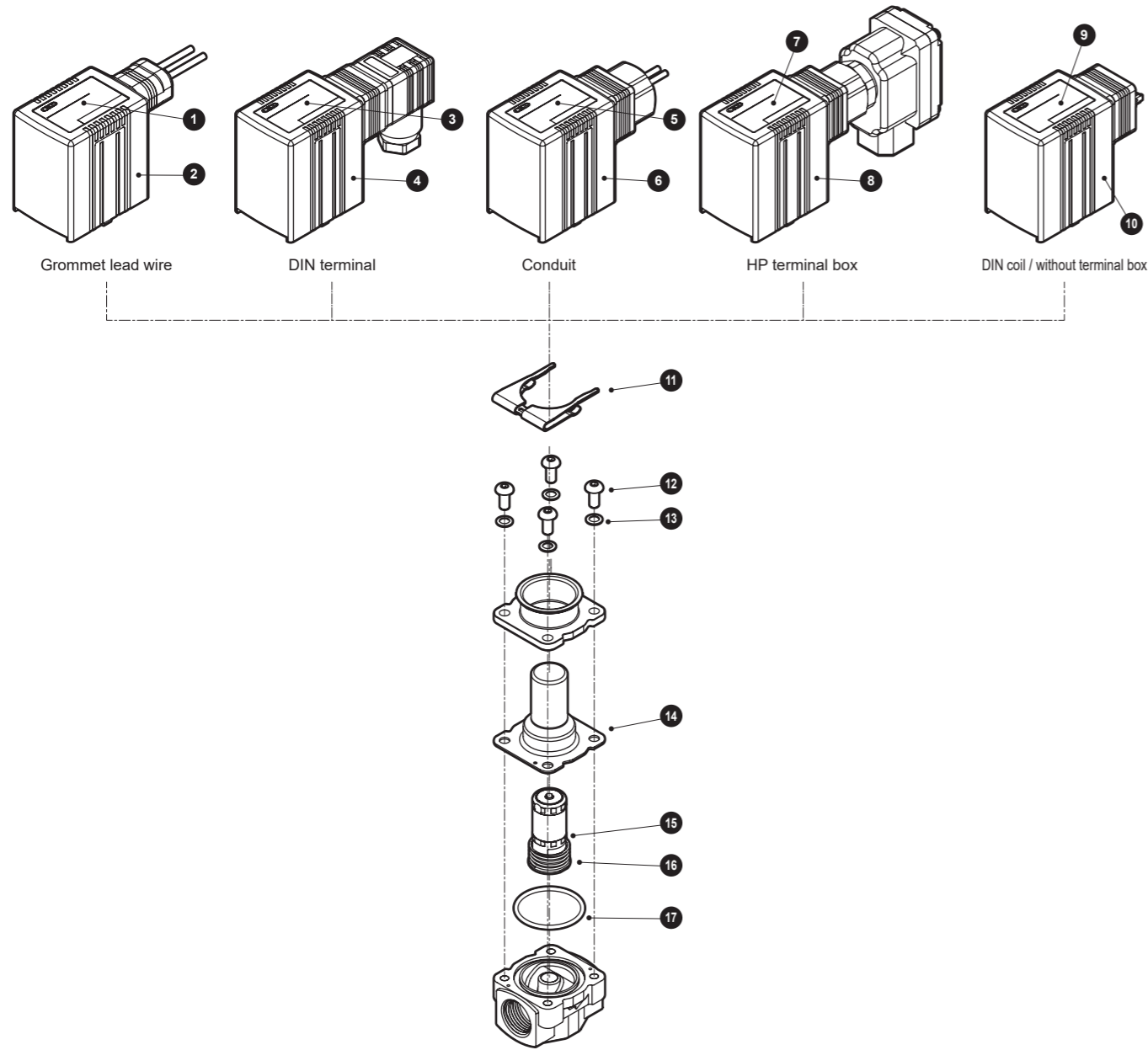
FFB-31 (Valve size 3)
NC (Normally Open)

● Masking Plate Kit (for FFBM)

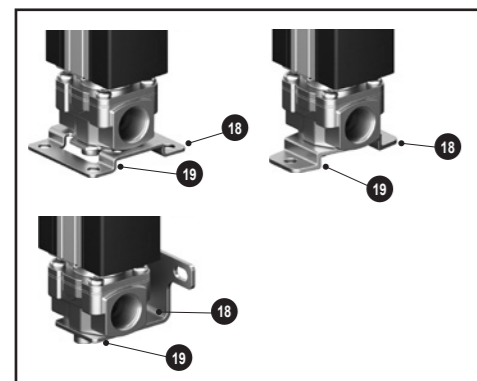
Material	Part Model No.	Part drawing	No.	Qty.
A (Aluminum, NBR)	FFBM-31A-MP-KIT			
C, N (Brass, NBR)	FFBM-31C-MP-KIT			
D, G, P (Brass, FKM)	FFBM-31D-MP-KIT		20	1
Q (Brass, EPDM)	FFBM-31Q-MP-KIT		21	2
H, S (Stainless steel, NBR)	FFBM-31H-MP-KIT		22	4 (2)
J, M, T (Stainless steel, FKM)	FFBM-31J-MP-KIT			*1
U (Stainless steel, EPDM)	FFBM-31U-MP-KIT			

*1: For Material A (Aluminum, NBR), the quantity of screw 22 is (2).

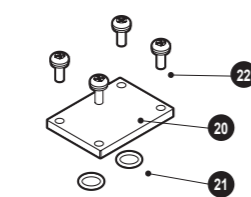
■ FFB-41 (Valve size 4) NC (Normally Open)



■ Mounting Plate (for FFB)



■ Masking Plate Kit (For FFBM)



● Coil Assembly

Coil Option	Voltage	Part Model No.		Part Drawing	No.	Qty.
		Standard	With surge suppressor			
A (Lead wire)	1 (100 VAC)	FFB-43A1-COIL	-		① ② ⑩	1 each
	2 (200 VAC)	FFB-43A2-COIL	-			
	3 (24 VDC)	FFB-43A3-COIL	FFB-43J3-COIL			
	4 (12 VDC)	FFB-43A4-COIL	FFB-43J4-COIL			
J (Lead wire with surge suppressor)	5 (110 VAC)	FFB-43A5-COIL	-		③ ④ ⑪	1 each
	6 (220 VAC)	FFB-43A6-COIL	-			
	K (230 VAC)	FFB-43AK-COIL	-			
	1 (100 VAC)	FFB-43B1-COIL	-			
	2 (200 VAC)	FFB-43B2-COIL	-			
B (With DIN terminal box G1/2)	3 (24 VDC)	FFB-43B3-COIL	-		⑤ ⑥ ⑫	1 each
	4 (12 VDC)	FFB-43B4-COIL	-			
	5 (110 VAC)	FFB-43B5-COIL	-			
	6 (220 VAC)	FFB-43B6-COIL	-			
	K (230 VAC)	FFB-43BK-COIL	-			
	1 (100 VAC)	FFB-43C1-COIL	-			
C (DIN terminal box Pg11)	2 (200 VAC)	FFB-43C2-COIL	-		③ ④ ⑩	1 each
	3 (24 VDC)	FFB-43C3-COIL	FFB-43K3-COIL			
	4 (12 VDC)	FFB-43C4-COIL	FFB-43K4-COIL			
	5 (110 VAC)	FFB-43C5-COIL	-			
K (DIN terminal box Pg11 with surge suppressor)	6 (220 VAC)	FFB-43C6-COIL	-		⑤ ⑥ ⑫	1 each
	K (230 VAC)	FFB-43CK-COIL	-			
	1 (100 VAC)	FFB-43D1-COIL	-			
	2 (200 VAC)	FFB-43D2-COIL	-			
D (Compact DIN terminal box Pg11 with lamp)	3 (24 VDC)	-	FFB-43L3-COIL		③ ④ ⑩	1 each
	4 (12 VDC)	-	FFB-43L4-COIL			
	5 (110 VAC)	FFB-43D5-COIL	-			
	6 (220 VAC)	FFB-43D6-COIL	-			
L (Compact DIN terminal box Pg9 with lamp and surge suppressor)	K (230 VAC)	FFB-43DK-COIL	-		⑤ ⑥ ⑫	1 each
	1 (100 VAC)	FFB-43E1-COIL	-			
	2 (200 VAC)	FFB-43E2-COIL	-			
	3 (24 VDC)	FFB-43E3-COIL	FFB-43M3-COIL			
E (Conduit G1/2)	4 (12 VDC)	FFB-43E4-COIL	FFB-43M4-COIL		⑦ ⑧ ⑬	1 each
	5 (110 VAC)	FFB-43E5-COIL	-			
	6 (220 VAC)	FFB-43E6-COIL	-			
	K (230 VAC)	FFB-43EK-COIL	-			
M (Conduit G1/2 with surge suppressor)	1 (100 VAC)	FFB-43F1-COIL	-		⑦ ⑧ ⑬	1 each
	2 (200 VAC)	FFB-43F2-COIL	-			
	3 (24 VDC)	FFB-43F3-COIL	FFB-43P3-COIL			
	4 (12 VDC)	FFB-43F4-COIL	FFB-43P4-COIL			
F (Conduit CTC19)	5 (110 VAC)	FFB-43F5-COIL	-		⑦ ⑧ ⑬	1 each
	6 (220 VAC)	FFB-43F6-COIL	-			
	K (230 VAC)	FFB-43FK-COIL	-			
	1 (100 VAC)	FFB-43G1-COIL	-			
P (Conduit CTC19 with surge suppressor)	2 (200 VAC)	FFB-43G2-COIL	-		⑦ ⑧ ⑬	1 each
	3 (24 VDC)	FFB-43G3-COIL	FFB-43Q3-COIL			
	4 (12 VDC)	FFB-43G4-COIL	FFB-43Q4-COIL			
	5 (110 VAC)	FFB-43G5-COIL	-			
G (HP terminal box G1/2)	6 (220 VAC)	FFB-43G6-COIL	-		⑦ ⑧ ⑬	1 each
	K (230 VAC)	FFB-43GK-COIL	-			
	1 (100 VAC)	FFB-43H1-COIL	-			
	2 (200 VAC)	FFB-43H2-COIL	-			
Q (HP terminal box G1/2 with surge suppressor)	3 (24 VDC)	FFB-43H3-COIL	FFB-43R3-COIL		⑦ ⑧ ⑬	1 each
	4 (12 VDC)	FFB-43H4-COIL	FFB-43R4-COIL			
	5 (110 VAC)	FFB-43H5-COIL	-			
	6 (220 VAC)	FFB-43H6-COIL	-			
H (HP terminal box G1/2 with lamp)	K (230 VAC)	FFB-43HK-COIL	-		⑨ ⑩ ⑪	1 each
	1 (100 VAC)	FFB-43S1-COIL	-			
	2 (200 VAC)	FFB-43S2-COIL	-			
	3 (24 VDC)	FFB-43S3-COIL	-			
R (HP terminal box G1/2 with lamp and surge suppressor)	4 (12 VDC)	FFB-43S4-COIL	-		⑨ ⑩ ⑪	1 each
	5 (110 VAC)	FFB-43S5-COIL	-			
	6 (220 VAC)	FFB-43S6-COIL	-			
	K (230 VAC)	FFB-43SK-COIL	-			
	1 (100 VAC)	FFB-43S1-COIL	-			
	2 (200 VAC)	FFB-43S2-COIL	-			
S (DIN coil / without terminal box)	3 (24 VDC)	FFB-43S3-COIL	-		⑨ ⑩ ⑪	1 each
	4 (12 VDC)	FFB-43S4-COIL	-			
	5 (110 VAC)	FFB-43S5-COIL	-			
	6 (220 VAC)	FFB-43S6-COIL	-			
	K (230 VAC)	FFB-43SK-COIL	-			
	1 (100 VAC)	FFB-43S1-COIL	-			

■ For high-temperature fluid

Coil Option	Voltage	Part Model No.		Part Drawing	No.	Qty.
		Standard	With surge suppressor			
A (Lead wire)	1 (100 VAC)	FFB-44A1-COIL	-		① ② ⑩	1 each
	2 (200 VAC)	FFB-44A2-COIL	-			
	3 (24 VDC)	FFB-44A3-COIL	FFB-44J3-COIL			
	4 (12 VDC)	FFB-44A4-COIL	FFB-44J4-COIL			
J (Lead wire with surge suppressor)	5 (110 VAC)	FFB-44A5-COIL	-		③ ④ ⑪	1 each
	6 (220 VAC)	FFB-44A6-COIL	-			
	K (230 VAC)	FFB-44AK-COIL	-			
	1 (100 VAC)	FFB-44A1-COIL	-			

FFB-41 (Valve size 4) NC (Normally Open)

■ FFB-41 (Valve size 4)
NC (Normally Open)

● Actuator Kit

Orifice Size / Material	Part Model No.		Part Drawing	No.	Qty.
	Coil heat resistance class 3 Class 130 (B)	Coil heat resistance class 4 Class 180 (H)			
Orifice size: 4 (ø4) Material: A, C, H (NBR)	FFB-414A-ACT-KIT	-		12 13 14 15 16 17	4 4 1 1 1 1
N, S (NBR, oil-free treatment)	FFB-414N-ACT-KIT	-			
D, E, J (FKM)	FFB-414D-ACT-KIT	FFB-414E-ACT-KIT			
P, F, T (FKM, oil-free treatment)	FFB-414P-ACT-KIT	FFB-414F-ACT-KIT			
Q, U (EPDM, oil-free treatment)	FFB-414Q-ACT-KIT	-			
Orifice size: 7 (ø7) Material: A, C, H (NBR)	FFB-417A-ACT-KIT	-			
N, S (NBR, oil-free treatment)	FFB-417N-ACT-KIT	-			
D, E, J (FKM)	FFB-417D-ACT-KIT	FFB-417E-ACT-KIT			
P, F, T (FKM, oil-free treatment)	FFB-417P-ACT-KIT	FFB-417F-ACT-KIT			
Q, U (EPDM, oil-free treatment)	FFB-417Q-ACT-KIT	-			

*1: Material options "E" and "F" are only available for coil heat resistance class 4 (Class 180 (H)).

● Clip

Part Model No.		No.	Qty.
FFB-4-CLIP		11	1

● Mounting Plate (for FFB)

Type	Part Model No.		No.	Qty.
B (Mounting plate ①)	FFB-41-B-MOUNT-PLATE-KIT		18 19	1 2
M (Mounting plate ②)	FFB-31-M-MOUNT-PLATE-KIT			
P (Panel mounting plate)	FFB-31-P-MOUNT-PLATE-KIT			

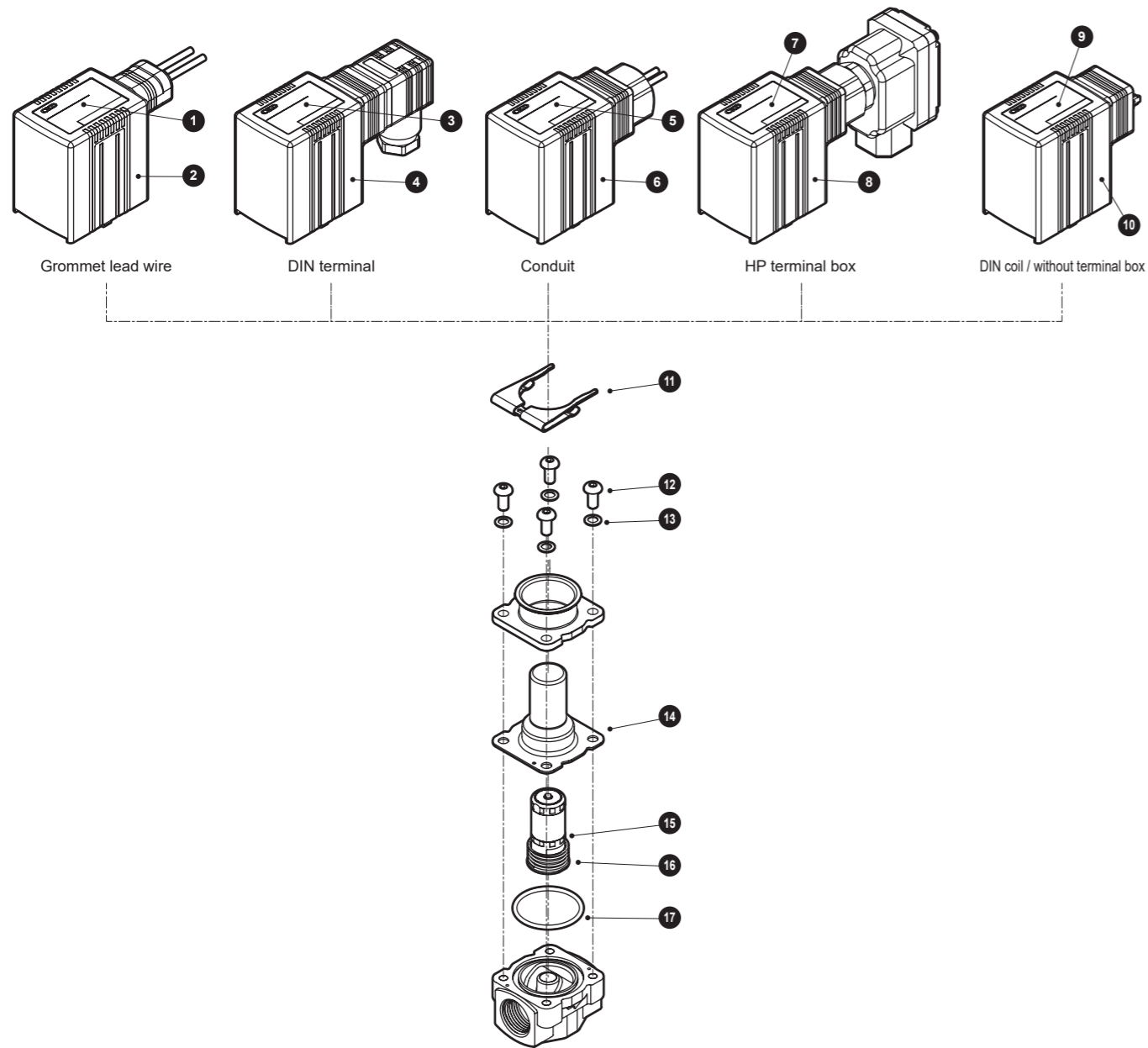
FFB-41 (Valve size 4)
NC (Normally Open)

● Masking Plate Kit (for FFBM)

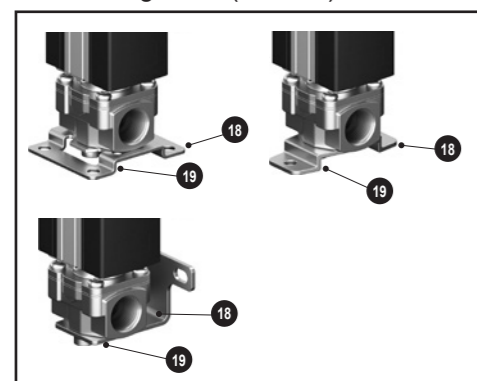
Material	Part Model No.	Part drawing	No.	Qty.
A (Aluminum, NBR)	FFBM-41A-MP-KIT		20 21 22	1 2 4 (2) *1
C, N (Brass, NBR)	FFBM-41C-MP-KIT			
D, G, P (Brass, FKM)	FFBM-41D-MP-KIT			
Q (Brass, EPDM)	FFBM-41Q-MP-KIT			
H, S (Stainless steel, NBR)	FFBM-41H-MP-KIT			
J, M, T (Stainless steel, FKM)	FFBM-41J-MP-KIT			
U (Stainless steel, EPDM)	FFBM-41U-MP-KIT			

*1: For Material A (Aluminum, NBR), the quantity of screw 22 is (2).

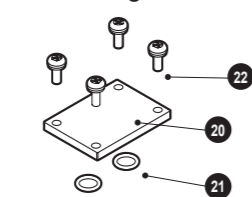
■ FFB-51 (Valve size 5)
NC (Normally Open)



■ Mounting Plate (for FFB)

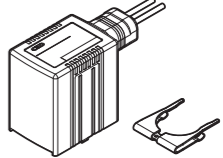

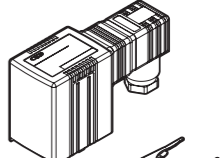

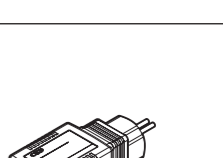
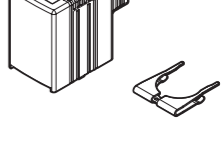
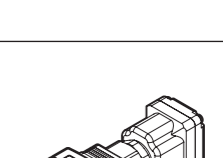
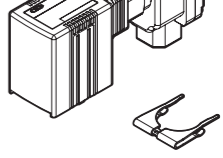
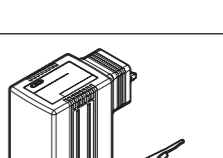
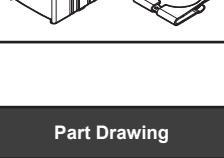
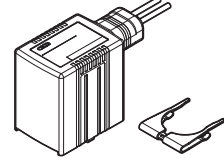



■ Masking Plate Kit (For FFBM)

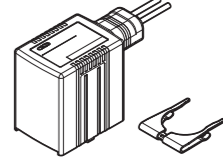



FFB-51 (Valve size 5)
NC (Normally Open)

● Coil Assembly

Coil Option	Voltage	Part Model No.		Part Drawing	No.	Qty.				
		Standard	With surge suppressor							
A (Lead wire)	1 (100 VAC)	FFB-53A1-COIL	-		1 2 11	1 each				
	2 (200 VAC)	FFB-53A2-COIL	-							
	3 (24 VDC)	FFB-53A3-COIL	FFB-53J3-COIL							
	4 (12 VDC)	FFB-53A4-COIL	FFB-53J4-COIL							
J (Lead wire with surge suppressor)	5 (110 VAC)	FFB-53A5-COIL	-		3 4 11	1 each				
	6 (220 VAC)	FFB-53A6-COIL	-							
	K (230 VAC)	FFB-53AK-COIL	-							
	B (With DIN terminal box G1/2)	1 (100 VAC)	FFB-53B1-COIL				-		3 4 11	1 each
	2 (200 VAC)	FFB-53B2-COIL	-							
3 (24 VDC)	FFB-53B3-COIL	-								
4 (12 VDC)	FFB-53B4-COIL	-								
5 (110 VAC)	FFB-53B5-COIL	-								
6 (220 VAC)	FFB-53B6-COIL	-								
C (DIN terminal box Pg11)	1 (100 VAC)	FFB-53C1-COIL	-		3 4 11	1 each				
	2 (200 VAC)	FFB-53C2-COIL	-							
	3 (24 VDC)	FFB-53C3-COIL	FFB-53K3-COIL							
	4 (12 VDC)	FFB-53C4-COIL	FFB-53K4-COIL							
K (DIN terminal box Pg11 with surge suppressor)	5 (110 VAC)	FFB-53C5-COIL	-		3 4 11	1 each				
	6 (220 VAC)	FFB-53C6-COIL	-							
	K (230 VAC)	FFB-53CK-COIL	-							
	D (Compact DIN terminal box Pg11 with lamp)	1 (100 VAC)	FFB-53D1-COIL				-		5 6 11	1 each
2 (200 VAC)	FFB-53D2-COIL	-								
3 (24 VDC)	-	FFB-53L3-COIL								
4 (12 VDC)	-	FFB-53L4-COIL								
L (Compact DIN terminal box Pg9 with lamp and surge suppressor)	5 (110 VAC)	FFB-53D5-COIL	-		5 6 11	1 each				
	6 (220 VAC)	FFB-53D6-COIL	-							
	K (230 VAC)	FFB-53DK-COIL	-							
	E (Conduit G1/2)	1 (100 VAC)	FFB-53E1-COIL				-		7 8 11	1 each
2 (200 VAC)	FFB-53E2-COIL	-								
3 (24 VDC)	FFB-53E3-COIL	FFB-53M3-COIL								
4 (12 VDC)	FFB-53E4-COIL	FFB-53M4-COIL								
M (Conduit G1/2 with surge suppressor)	5 (110 VAC)	FFB-53E5-COIL	-		7 8 11	1 each				
	6 (220 VAC)	FFB-53E6-COIL	-							
	K (230 VAC)	FFB-53EK-COIL	-							
	F (Conduit CTC19)	1 (100 VAC)	FFB-53F1-COIL				-		9 10 11	1 each
2 (200 VAC)	FFB-53F2-COIL	-								
3 (24 VDC)	FFB-53F3-COIL	FFB-53P3-COIL								
4 (12 VDC)	FFB-53F4-COIL	FFB-53P4-COIL								
P (Conduit CTC19 with surge suppressor)	5 (110 VAC)	FFB-53F5-COIL	-		9 10 11	1 each				
	6 (220 VAC)	FFB-53F6-COIL	-							
	K (230 VAC)	FFB-53FK-COIL	-							
	G (HP terminal box G1/2)	1 (100 VAC)	FFB-53G1-COIL				-		9 10 11	1 each
2 (200 VAC)	FFB-53G2-COIL	-								
3 (24 VDC)	FFB-53G3-COIL	FFB-53Q3-COIL								
4 (12 VDC)	FFB-53G4-COIL	FFB-53Q4-COIL								
Q (HP terminal box G1/2 with surge suppressor)	5 (110 VAC)	FFB-53G5-COIL	-		9 10 11	1 each				
	6 (220 VAC)	FFB-53G6-COIL	-							
	K (230 VAC)	FFB-53GK-COIL	-							
	H (HP terminal box G1/2 with lamp)	1 (100 VAC)	FFB-53H1-COIL				-		9 10 11	1 each
2 (200 VAC)	FFB-53H2-COIL	-								
3 (24 VDC)	FFB-53H3-COIL	FFB-53R3-COIL								
4 (12 VDC)	FFB-53H4-COIL	FFB-53R4-COIL								
R (HP terminal box G1/2 with lamp and surge suppressor)	5 (110 VAC)	FFB-53H5-COIL	-		9 10 11	1 each				
	6 (220 VAC)	FFB-53H6-COIL	-							
	S (DIN coil / without terminal box)	1 (100 VAC)	FFB-53S1-COIL				-		9 10 11	1 each
	2 (200 VAC)	FFB-53S2-COIL	-							
3 (24 VDC)	FFB-53S3-COIL	-								
4 (12 VDC)	FFB-53S4-COIL	-								
5 (110 VAC)	FFB-53S5-COIL	-								
6 (220 VAC)	FFB-53S6-COIL	-								
K (230 VAC)	FFB-53SK-COIL	-								

■ For high-temperature fluid

Coil Option	Voltage	Part Model No.		Part Drawing	No.	Qty.
		Standard	With surge suppressor			
A (Lead wire)	1 (100 VAC)	FFB-54A1-COIL	-		1 2 11	1 each
	2 (200 VAC)	FFB-54A2-COIL	-			
	3 (24 VDC)	FFB-54A3-COIL	FFB-54J3-COIL			
	4 (12 VDC)	FFB-54A4-COIL	FFB-54J4-COIL			
J (Lead wire with surge suppressor)	5 (110 VAC)	FFB-54A5-COIL	-		1 2 11	1 each
	6 (220 VAC)	FFB-54A6-COIL	-			
	K (230 VAC)	FFB-54AK-COIL	-			

■ FFB-51 (Valve size 5)
NC (Normally Open)

● Actuator Kit

Orifice Size / Material	Part Model No.		Part Drawing	No.	Qty.		
	Coil heat resistance class 3 Class 130 (B)	Coil heat resistance class 4 Class 180 (H)					
Orifice size: 5 (ø5) Material: A, C, H (NBR)	FFB-515A-ACT-KIT	-		12	4		
N, S (NBR, oil-free treatment)	FFB-515N-ACT-KIT	-					
D, E, J (FKM)	FFB-515D-ACT-KIT	FFB-515E-ACT-KIT					
P, F, T (FKM, oil-free treatment)	FFB-515P-ACT-KIT	FFB-515F-ACT-KIT					
Q, U (EPDM, oil-free treatment)	FFB-515Q-ACT-KIT	-					
Orifice size: 7 (ø7) *1: Excluding port size 15 (1/2). Material: A, C, H (NBR)	FFB-517A-ACT-KIT	-				13	4
N, S (NBR, oil-free treatment)	FFB-517N-ACT-KIT	-				14	1
D, E, J (FKM)	FFB-517D-ACT-KIT	FFB-517E-ACT-KIT				15	1
P, F, T (FKM, oil-free treatment)	FFB-517P-ACT-KIT	FFB-517F-ACT-KIT				16	1
Q, U (EPDM, oil-free treatment)	FFB-517Q-ACT-KIT	-				17	1
Orifice size: X (ø10) *1: Including orifice size 7 for port size 15 (1/2). Material: A, C, H (NBR)	FFB-51XA-ACT-KIT	-					
N, S (NBR, oil-free treatment)	FFB-51XN-ACT-KIT	-					
D, E, J (FKM)	FFB-51XD-ACT-KIT	FFB-51XE-ACT-KIT					
P, F, T (FKM, oil-free treatment)	FFB-51XP-ACT-KIT	FFB-51XF-ACT-KIT					
Q, U (EPDM, oil-free treatment)	FFB-51XQ-ACT-KIT	-					

*1: For orifice size 7, the actuator kit model number varies depending on the body port size.

For port sizes 08 and 10: FFB-517□-ACT-KIT (□: Select according to material)

For port size 15: FFB-51X□-ACT-KIT (□: Select according to material)

*2: Material options "E" and "F" are only available for coil heat resistance class 4 (Class 180 (H)).

● Clip

Part Model No.	No.	Qty.
FFB-5-CLIP	11	1

● Mounting Plate (for FFB)

Type	Part Model No.	No.	Qty.
B (Mounting plate ①) Material: A (Aluminum body) Other than A	FFB-51-B-MOUNT-PLATE-KIT	18	1
	FFB-41-B-MOUNT-PLATE-KIT		
M (Mounting plate ②)	FFB-51-M-MOUNT-PLATE-KIT	19	2
	P (Panel mounting plate)	FFB-51-P-MOUNT-PLATE-KIT	

FFB-51 (Valve size 5)
NC (Normally Open)

● Masking Plate Kit (for FFBM)

Material	Part Model No.	Part drawing	No.	Qty.
A (Aluminum, NBR)	FFBM-41A-MP-KIT		20	1
C, N (Brass, NBR)	FFBM-41C-MP-KIT			
D, G, P (Brass, FKM)	FFBM-41D-MP-KIT			
Q (Brass, EPDM)	FFBM-41Q-MP-KIT			
H, S (Stainless steel, NBR)	FFBM-41H-MP-KIT			
J, M, T (Stainless steel, FKM)	FFBM-41J-MP-KIT			
U (Stainless steel, EPDM)	FFBM-41U-MP-KIT			*1

*1: For Material A (Aluminum, NBR), the quantity of screw 22 is (2).