Series variation

EXA FWD

Multi-fluid control pilot operated 2-port solenoid valve General purpose

1 110													
HNB/G							*	Refer	to page	328 for the dr	ry air (-2	Z).	
USB/G	ports	Model		Structure	Actuation								
FAB/G	No. of					Air	Low vacuum [1.33 x 10 ³ Pa (abs)]	Water	Kerosene	Oil [50 mm²/s or less]	Hot water	Steam	
FGB/G			AP11	Pilot operated	NC (open when energized)	•	[•	•	•	Water		
FVB FWB/G		8	AP12	(Piston drive)	NO (closed when energized)	•		•	•	•		•	
FHB			AP21		NC (open when energized)	•		•	•	•		•	
FLB			AP22		NO (closed when energized)	•		٠	•	•		●	
AB			AD11	Pilot operated	NC (open when energized)	•		•		•			
AG			AD12	(Diaphragm	NO (closed when energized)	•		٠		●			
AP/ AD APK/	2-port	12	AD21	drive)	NC (open when energized)	•		•	•	•			
APK/ ADK DryAir			AD22		NO (closed when energized)	•		•	•	●			
EX- XPLNprf			APK11	Pilot kick	NC (open when energized)	•	•	•	•	•*1		•	
XPLNprf			APK21	(Piston kick structure)	NC (open when energized)	•	•	•	•	•*1		●	
HVB/ HVL			ADK11	Pilot kick	NC (open when energized)	•	•	•	•	●	•		
S∜B/ NAB			ADK12	(Diaphragm	NO (closed when energized)	•	•	•	•	●	•		
LAD/ NAD			ADK21	drive)	NC (open when energized)	•	●	٠	•	●			
Water-	*1.20	10 mm ² /c or lass for APK11/21 Series											

*1: 20 mm²/s or less for APK11/21 Series.

FWD													
HNB/G											. <u></u>		
USB/G	ge		Port size										
FAB/G FGB/G	Page	50 flange	Rc2	40 flange	Rc1 ¹ / ₂	32 flange	Rc1 ¹ / ₄	Rc1	Rc3/4	Rc1/2	Rc3/8	Rc1/4	
FVB	252							• ^{*2}					
FWB/G	252							• ^{*2}					
FHB	262	•	●	•	●								
FLB	262	•	•	•	•	•							
AB	272							• ^{*2}					
AG	272							• ^{*2}	• ^{*2}	• ^{*2}			
AP/ AD APK/	282	•	●	•	●								
APK/ ADK	282	•	●	•	●	•							
DryAir EX- XPLNprf	292							• ^{*2}					
XPLNprf XPLNprf	300	•	•	•	•	•							
HVB/ HVL	306							• ^{*2}					
S∜B/ NAB	306							● ^{*2}	• ^{*2}	• ^{*2}			
LAD/ NAD	318	•	●	•	•	•							
Water- Rela	system.	ls on the coil	48 for detail	fer to page 2	Ret				the thread.	der column for	ach How to or	*2: Refer to ea	

EXA

NP/NAP/ NVP SNP CHB/G MXB/G

Other valves SWD/ MWD

DustColl

CVE/ CVSE

CCH/ CPE/D LifeSci

Gas-Combus Auto-Water

Outdoor SpecFld Custom

Ending

Coil selection guide

• Coil housing types and selection guide Various types are available according to the application. Refer to the structure and features to select the optimum model.

FWD	Refe	er to the s	structur	e and features to select the optin	num	mode	91.	
HNB/G	For	AP/A) *					Appearance
USB/G			130 (B)	• AC dedicated (50/60 Hz		lead		2C 6C
FAB/G	-		Thermal class 130 (B) Mold	common) • Degree of protection: IP61 or equivalent		Grommet I wire	Lead wire length 300 mm	
FGB/G	em		Therm	Cannot be used outdoors		Gro		
FVB	system		130 (B)	For DC and AC (50/60 Hz common)		al box	• Easy wiring and maintenance	2E 2G
FWB/G	Coil		Thermal class 130 (B) Mold	Degree of protection: IP61 or equivalent		DIN terminal box	 Enhanced electrical safety (by grounding the ground terminal) Indicator lamp available (Optional - 	2H 6E
FHB				Cannot be used outdoors		DIN	100 VAC, 200 VAC and 24 VDC)	6G 6H
FLB			Thermal class 130 (B) Mold	● For DC and AC (50/60 Hz common)		Ð	 Lead wire length 300 mm Conduit (CTC19) for direct piping can be attached. 	3A
AB		[al class Mold	 Degree of protection: IP65 or equivalent Cannot be used outdoors 		Lead wire		0
AG			Therm	Cannot be used outdoors				-0
AP/ AD APK/			130 (B)	● For DC and AC (50/60 Hz common)		al box	● Easy wiring	3M 3N
ADK			Thermal class 130 (B) Mold	 Degree of protection: IP21 or equivalent Cannot be used outdoors 		terminal box	 Indicator lamp available (Optional - 100 VAC, 200 VAC, 12 VDC, 24 VDC, 400 VDC) 	
DryAir EX-						H	VDC, 100 VDC)	
XPLNprf			Thermal class 130 (B) Mold	● For DC and AC (50/60 Hz common)		al box	● Easy wiring	31 3J
XPLNprf HVB/		-	nal class Mold	 Degree of protection: IP65 or equivalent Cannot be used outdoors 		HP terminal box	 Indicator lamp available (Optional - 100 VAC, 200 VAC, 12 VDC, 24 VDC, 100 VDC) 	
HVL S∜B/						ЧН		
NAB LAD/			Thermal class 180 (H) Taped	 AC dedicated (50/60 Hz common) High temperature fluids and high ambient temperatures usable Cannot be used outdoors 	Lead wire	● Lead wire length 300 mm	4A	
NAD Water-		-	nal class Taped			Lead w		0
Rela NP/NAP/		e	Thern	Degree of protection: IP00				~
NVP SNP		pen frame				terminal box		4M 4N
CHB/G							 Indicator lamp available (Optional - 100 VAC, 200 VAC) 	
MXB/G			q		ן ז ר	Ч		
Other valves			Thermal class 130 (B) mold with diode	 Diode in the coil converts AC to DC. AC dedicated (50/60 Hz common) Degree of protection: IP65 or equivalent 		wire	Lead wire length 300 mm	5A
SWD/ MWD			nal class 130 (with diode	 Perfect for places where whirring noise should be prevented. 		Lead wire	 Conduit (CTC19) for direct piping can be attached. Easy wiring 	0
DustColl				Cannot be used outdoors	 	terminal box		EM
CVE/ CVSE			Thermal class 130 (B) mold with diode	 Diode in the coil converts AC to DC. AC dedicated (50/60 Hz common) Degree of protection: IP21 or equivalent 				5M 5N
CCH/ CPE/D		-	mal class 130 with diode	 Perfect for places where whirring noise should be prevented. 		o termi	 Indicator lamp available (Optional - 100 VAC, 200 VAC) 	
LifeSci				Cannot be used outdoors	 	НР		51
Gas- Combus			Thermal class 130 (B) mold with diode	 Diode in the coil converts AC to DC. AC dedicated (50/60 Hz common) Degree of protection: IP65 or equivalent 		HP terminal box	Easy wiring	51 5J
Auto- Water			mal class 130 with diode	 Perfect for places where whirring noise should be prevented. 		o termi	 Indicator lamp available (Optional - 100 VAC, 200 VAC) 	
Outdoor			Therr	Cannot be used outdoors		보		G
SpecFld						duit	● Use a conduit (CTC19 or G1/2)	Н
Custom		l				Conduit	when using direct conduit wiring for the open frame lead wire.	0
Ending								

FAB/ FGB/ FVB FWB/ FHB FLB AB AG AP/ AD AP AD DryA EX-XPLN XPLN HVE HVL S∜E NAE LAE NAE Wate Rela NP/NA NVP SNF CHB/ MXB/ Othe valve SWE MWI DustCo CVE CVS CCH/ CPE/ LifeS Gas-Combi Auto Wate Outdo SpecF Custo

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Coil selection guide

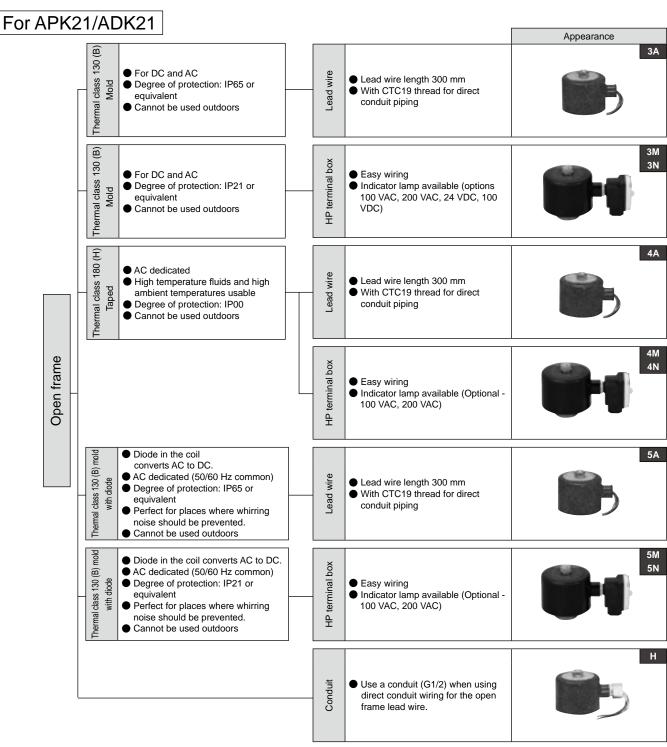
Coil housing types and selection guide Various types are available according to the application. Refer to the structure and features to select the optimum model.

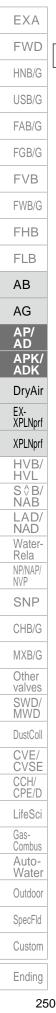
FWD For APK11/ADK1* Appearance HNB/G 2C class 130 (B) lead AC dedicated (50/60 Hz common) USB/G Degree of protection: IP61 or Mold Grommet vire Lead wire length 300 mm equivalent FAB/G Thermal (Cannot be used outdoors system FGB/G **B** box 2E Easy wiring and maintenance class 130 2G 2H FVB For DC and AC (50/60 Hz common) **DIN** terminal Enhanced electrical safety (by Coil Degree of protection: IP61 or Mold grounding the ground terminal) equivalent FWB/G Indicator lamp available (Optional -100 VAC, 200 VAC and 24 VDC) Thermal Cannot be used outdoors FHB 3A B FLB class 130 • For DC and AC (50/60 Hz common) Lead wire Lead wire length 300 mm Conduit (CTC19) for direct piping Degree of protection: IP65 or Mold equivalent AB can be attached. Themal Cannot be used outdoors AG â 3M AP AD хoq 130 3N For DC and AC (50/60 Hz common) Easy wiring terminal class ' Degree of protection: IP21 or APK ADK Indicator lamp available (optional Mold equivalent 100 VAC, 200 VAC, 12 VDC, 24 Thermal Cannot be used outdoors VDC, 100 VDC) Ę DryAir â EX-XPLNprf 31 Xoq 130 For DC and AC (50/60 Hz common) зJ Easy wiring terminal Thermal class Degree of protection: IP65 or Mold Indicator lamp available (optional **XPLNprf** equivalent 100 VAC, 200 VAC, 12 VDC, 24 Cannot be used outdoors VDC, 100 VDC) HVB/ ЧH HVL S ☆B/ Î 4A NAB AC dedicated (50/60 Hz common) 180 Lead wire High temperature fluids and high Lead wire length 300 mm LAD/ hermal class Taped ambient temperatures usable Conduit (CTC19) for direct piping NAD Cannot be used outdoors can be attached. Water- Degree of protection: IP00 Rela NP/NAP/ Open frame 4M NVP terminal box 4N Easy wiring SNP Indicator lamp available (Optional -100 VAC, 200 VAC) CHB/G ₽ MXB/G 5A Thermal class 130 (B) mold Diode in the coil converts AC to DC. AC dedicated (50/60 Hz common) Other wire Lead wire length 300 mm with diode Degree of protection: IP65 or equivalent valves Conduit (CTC19) for direct piping Lead v Perfect for places where whirring SWD/ can be attached. noise should be prevented. MWD Cannot be used outdoors DustColl 5M 130 (B) mold Diode in the coil converts AC to DC. Xoq 5N AC dedicated (50/60 Hz common) CVE. HP terminal Easy wiring with diode CVSE Degree of protection: IP21 or equivalent Indicator lamp available (Optional class ' Perfect for places where whirring CCH/ 100 VAC, 200 VAC) Thermal c noise should be prevented. CPE/D Cannot be used outdoors LifeSci blon 51 Diode in the coil converts AC to DC. terminal box Gas-5J class 130 (B) AC dedicated (50/60 Hz common) Easy wiring with diode Combus Degree of protection: IP65 or equivalent Indicator lamp available (Optional - Perfect for places where whirring Auto-100 VAC, 200 VAC) Thermal c noise should be prevented. Water ₽ Cannot be used outdoors Outdoor G н SpecFld Use a conduit (CTC19 or G1/2) Conduit when using direct conduit wiring for Custom the open frame lead wire. Ending

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Repair parts compatibility table by coil option

Cail aption and	Supported	ed Repair parts									
Coil option code	voltage	Plunger assembly	Core assembly	Coil assembly	Actuator assembly *1						
2C	AC	0	\bigcirc	\bigcirc	-						
6C *2	DC	-	-	-	0						
2E 2G 2H	AC	0	\bigcirc	\bigcirc	-						
2E 2G 2H	DC	0	\bigcirc	0	-						
6E 6G 6H *2	DC	-	-	-	0						
ЗА	AC	\bigcirc	\bigcirc	0	-						
	DC		\bigcirc	0	-						
3M 3N	AC	\bigcirc	\bigcirc	\bigcirc	-						
	DC		\bigcirc	0	-						
3I 3J	AC	\bigcirc	\bigcirc	0	-						
	DC		0	0	-						
4A	AC	0	0	0	-						
4M 4N	AC	0	0	0	-						
5A	AC	0	0	0	-						
5M 5N	AC	0	0	0	-						
5I 5J	AC	0	0	0	-						

*1 : The actuator assembly includes the coil assembly, core assembly and plunger assembly. *2 : As 6C, 6E, 6G and 6H are dedicated parts, they are provided as part of the actuator assembly.

	EXA
	FWD
	HNB/G
	USB/G
	FAB/G
	FGB/G
	FVB
	FWB/G
	FHB
	FLB
	AB
	AG
	AP/ AD
	APK/ ADK
	DryAir
	EX- XPLNprf
	XPLNprf
	HVB/ HVL
	S∜B/ NAB
	LAD/ NAD
	Water- Rela
	NP/NAP/ NVP
	SNP
	CHB/G
	MXB/G
	Other valves
	SWD/ MWD
	DustColl
	CVSE
	CCH/ CPE/D
	LifeSci
	Gas- Combus
	Auto- Water
	Outdoor
	SpecFld
	Custom
	Ending
2	51

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