

Pushbuttons/Selectors/Pilot Lights

AH164 and AH165

General information

■ Contact ratings

Rated continuous current (A)	Rated operating current (A)					
	AC			DC		
	Voltage	AC13	AC12	Voltage	DC13	DC12
5	110V 220V	1.0 0.7	1.5 1.0	24V 110V	0.7 0.15	1 0.2

AC13, DC13: Inductive load. AC12, DC12: Resistive load

■ Specifications

- Pushbutton switch, Illuminated pushbutton switch
Selector switch, Pilot light

Item	AH164	AH165
Rated insulation voltage	250V AC/DC	
Ambient temperature	-20 to +70°C *1	-10 to +70°C *2
Humidity	45 to 85%RH (at -5 to +45°C)	
Expected life (operations)	Mechanical	Pushbutton switch Momentary action: 1 million Alternate action: 250,000 With selector ring: 250,000 With lever: 250,000 Push-lock, turn-reset: 100,000 Selector switch: 250,000
	Electrical	100,000
Dielectric strength	2,000V AC, 1 minute (Between lamp and contact terminals: 1,500V AC, 1 minute)	
Insulation resistance	100MΩ (500V DC megger)	
Operator protection	IP40	IP65

*1 For illuminated pushbutton switch and pilot light: -20 to +55°C

*2 For illuminated pushbutton switch and pilot light: -10 to +55°C

■ Specifications

- Buzzers

Item	AH164-TX	AH164-TX1
Rated insulation voltage	60V AC/DC	
Operating voltage	6V AC/DC, 12-24V AC/DC 35 to 48V AC/DC	
Sound level	80dB (0.1m) 60dB(1m)	90dB (0.1m) 70dB(1m)
Frequency	2 ±0.5kHz	2.4 to 3.3kHz
Intermittent frequency	Approx. 170Hz/minute	
Current consumption	7mA(6, 24, 48V DC) 20mA (6, 24V AC) 30mA (48V AC)	10mA (6, 24, 48V DC) 30mA (6, 24V AC) 40mA (48V AC)
Dielectric strength	1,000V AC, 1 minute	
Insulation resistance	100MΩ (500V DC megger)	
Ambient temperature	-20 to +60°C	
Humidity	45 to 85%RH (at -5 to +40°C)	
Operator protection	IP40	

Item	AH164-TX2	AH165-X
Rated insulation voltage	60V AC/DC	
Operating voltage	6V AC/DC, 12-24V AC/DC 35 to 48V AC/DC	
Sound level	70dB to 90dB (0.1m) 50dB to 70dB (1m)	60dB to 70dB (0.1m) 40dB to 60dB (1m)
Frequency	2 ±0.5kHz	2.4 to 3.3kHz
Intermittent frequency	Approx. 170Hz/minute	
Current consumption	40mA (6V DC) 20mA (24, 48V DC) 50mA (6, 24, 48V AC)	40mA (6V DC) 20mA (24, 48V AC) 50mA (6, 24, 48V AC)
Dielectric strength	1,000V AC, 1 minute	
Insulation resistance	100MΩ (500V DC megger)	
Ambient temperature	-20 to +60°C	
Humidity	45 to 85%RH (at -5 to +40°C)	
Operator protection	IP40	IP54


Illuminated Pushbuttons

AH165

Operator	Lamp	Voltage	Contact	Momentary action	Alternate action	
				Type	Type	
 SK-1103	Flat LED	24V DC	1NO+1NC 2NO+2NC 3NO+3NC	AH165-L■11E3 AH165-L■22E3 AH165-L■33E3	AH165-L5■11E3 AH165-L5■22E3 AH165-L5■33E3	
	Spot LED	24V DC	1NO+1NC 2NO+2NC 3NO+3NC	AH165-L■11E2 AH165-L■22E2 AH165-L■33E2	AH165-L5■11E2 AH165-L5■22E2 AH165-L5■22E2	
	Incandescent	24V AC/DC	1NO+1NC 2NO+2NC 3NO+3NC	AH165-L■11E AH165-L■22E AH165-L■33E	AH165-L5■11E AH165-L5■22E AH165-L5■33E	
	Neon	110V AC	1NO+1NC 2NO+2NC 3NO+3NC	AH165-L■11H1 AH165-L■22H1 AH165-L■33H1	AH165-L5■11H1 AH165-L5■22H1 AH165-L5■33H1	
				AH165-L■11M1 AH165-L■22M1 AH165-L■33M1	AH165-L5■11M1 AH165-L5■22M1 AH165-L5■33M1	
	 SK-1102	Flat LED	24V DC	1NO+1NC 2NO+2NC 3NO+3NC	AH165-SL■11E3 AH165-SL■22E3 AH165-SL■33E3	AH165-SL5■11E3 AH165-SL5■22E3 AH165-SL5■33E3
		Spot LED	24V DC	1NO+1NC 2NO+2NC 3NO+3NC	AH165-SL■11E2 AH165-SL■22E2 AH165-SL■33E2	AH165-SL5■11E2 AH165-SL5■22E2 AH165-SL5■33E2
		Incandescent	24V AC/DC	1NO+1NC 2NO+2NC 3NO+3NC	AH165-SL■11E AH165-SL■22E AH165-SL■33E	AH165-SL5■11E AH165-SL5■22E AH165-SL5■33E
Neon		110V AC	1NO+1NC 2NO+2NC 3NO+3NC	AH165-SL■11H1 AH165-SL■22H1 AH165-SL■33H1	AH165-SL5■11H1 AH165-SL5■22H1 AH165-SL5■33H1	
				AH165-SL■11M1 AH165-SL■22M1 AH165-SL■33M1	AH165-SL5■11M1 AH165-SL5■22M1 AH165-SL5■33M1	
 SK-1100		Flat LED	24V DC	1NO+1NC 2NO+2NC 3NO+3NC	AH165-TL■11E3 AH165-TL■22E3 AH165-TL■33E3	AH165-TL5■11E3 AH165-TL5■22E3 AH165-TL5■33E3
		Spot LED	24V DC	1NO+1NC 2NO+2NC 3NO+3NC	AH165-TL■11E2 AH165-TL■22E2 AH165-TL■33E2	AH165-TL5■11E2 AH165-TL5■22E2 AH165-TL5■33E2
		Incandescent	24V AC/DC	1NO+1NC 2NO+2NC 3NO+3NC	AH165-TL■11E AH165-TL■22E AH165-TL■33E	AH165-TL5■11E AH165-TL5■22E AH165-TL5■33E
	Neon	110V AC	1NO+1NC 2NO+2NC 3NO+3NC	AH165-TL■11H1 AH165-TL■22H1 AH165-TL■33H1	AH165-TL5■11H1 AH165-TL5■22H1 AH165-TL5■33H1	
				AH165-TL■11M1 AH165-TL■22M1 AH165-TL■33M1	AH165-TL5■11M1 AH165-TL5■22M1 AH165-TL5■33M1	

Illuminated Pushbuttons

AH165

Operator	Lamp	Voltage	Contact	Momentary action	Alternate action	
				Type	Type	
Rectangular head with guard  SK-1101	Flat LED	24V DC	1NO+1NC 2NO+2NC 3NO+3NC	AH165-TGL■11E3 AH165-TGL■22E3 AH165-TGL■33E3	AH165-TGL5■11E3 AH165-TGL5■22E3 AH165-TGL5■33E3	
	Incandescent	24V AC/DC	1NO+1NC 2NO+2NC 3NO+3NC	AH165-TGL■11E AH165-TGL■22E AH165-TGL■33E	AH165-TGL5■11E AH165-TGL5■22E AAH165-TGL5■33E	
				Neon	110V AC	1NO+1NC 2NO+2NC 3NO+3NC
	220V AC	1NO+1NC 2NO+2NC 3NO+3NC	AH165-TGL■11M1 AH165-TGL■22M1 AH165-TGL■33M1			
	Square head with guard  AF90-301	Flat LED	24V DC	1NO+1NC 2NO+2NC 3NO+3NC	AH165-SGL■11E3 AH165-SGL■22E3 AH165-SGL■33E3	AH165-SGL5■11E3 AH165-SGL5■22E3 AH165-SGL5■33E3
		Incandescent	24V AC/DC	1NO+1NC 2NO+2NC 3NO+3NC	AH165-SGL■11E AH165-SGL■22E AH165-SGL■33E	AH165-SGL5■11E AH165-SGL5■22E AH165-SGL5■33E
Neon					110V AC	1NO+1NC 2NO+2NC 3NO+3NC
		220V AC	1NO+1NC 2NO+2NC 3NO+3NC	AH165-SGL■11M1 AH165-SGL■22M1 AH165-SGL■33M1		

• Dimensions

Same as AH164 series illuminated pushbutton switches, see page 04/81

• Button color

Replace the □ mark by the following color code

Button color	Green	Red	White	Yellow	Blue	Orange
Code	G	R	W	Y	S	A


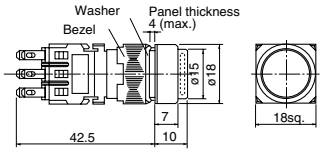

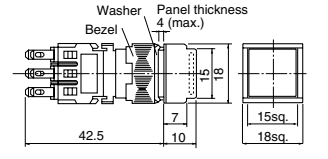

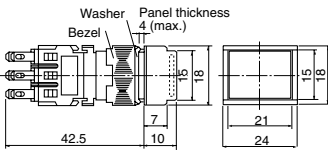

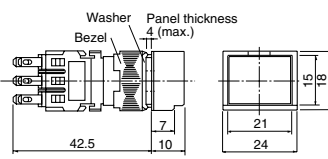

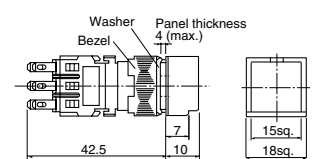

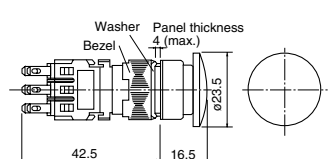

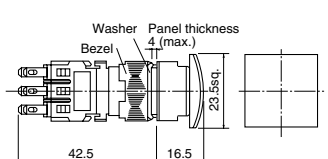

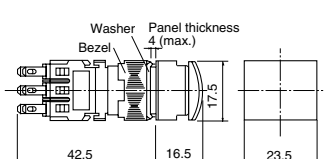
- The color tip is made of a tinted transparent material.
- A white pushbutton is fitted with a transparent color tip. (Except the neon lamp) A black pushbutton consists of a transparent color tip and an attached black legend plate.
- Pushbuttons with wire-wrap pin terminals have a depth of 47mm.

• Voltage

Code	LED	Incandescent
5	5V DC	5V
6	6V DC	—
B	12V DC	12V
E	24V DC	24V

Voltages other than above are available, see page 04/79.

Pushbuttons AH165

Operator	Contact	Momentary action	Alternate action	Dimensions, mm
		Type	Type	
 SK-1103	1NO+1NC	AH165-E■11	AH165-E5■11	
	2NO+2NC	AH165-E■22	AH165-E5■22	
	3NO+3NC	AH165-E■33	AH165-E5■33	
 SK-1102	1NO+1NC	AH165-SF■11	AH165-SF5■11	
	2NO+2NC	AH165-SF■22	AH165-SF5■22	
	3NO+3NC	AH165-SF■33	AH165-SF5■33	
 SK-1100	1NO+1NC	AH165-TF■11	AH165-TF5■11	
	2NO+2NC	AH165-TF■22	AH165-TF5■22	
	3NO+3NC	AH165-TF■33	AH165-TF5■33	
 SK-1101	1NO+1NC	AH165-TGF■11	AH165-TGF5■11	
	2NO+2NC	AH165-TGF■22	AH165-TGF5■22	
	3NO+3NC	AH165-TGF■33	AH165-TGF5■33	
 AF90-301	1NO+1NC	AH165-SGF■11	AH165-SGF5■11	
	2NO+2NC	AH165-SGF■22	AH165-SGF5■22	
	3NO+3NC	AH165-SGF■33	AH165-SGF5■33	
 SK-1136	1NO+1NC	AH165-M■11	AH165-M5■11	
	2NO+2NC	AH165-M■22	AH165-M5■22	
	3NO+3NC	AH165-M■33	AH165-M5■33	
 SK-1134	1NO+1NC	AH165-SM■11	AH165-SM5■11	
	2NO+2NC	AH165-SM■22	AH165-SM5■22	
	3NO+3NC	AH165-SM■33	AH165-SM5■33	
 SK-1135	1NO+1NC	AH165-TM■11	AH165-TM5■11	
	2NO+2NC	AH165-TM■22	AH165-TM5■22	
	3NO+3NC	AH165-TM■33	AH165-TM5■33	

• Button color


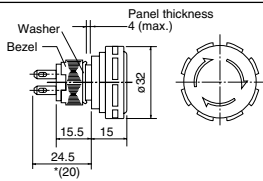

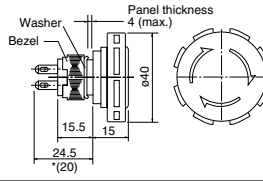


Replace the □ mark by the following color code

Color	Green	Red	Black	White	Blue	Yellow	Orange
Code	G	R	B	W	S	Y	A

- The color tip is made of a tinted transparent material.
- A white pushbutton is fitted with a transparent color tip. A black pushbutton consists of a transparent color tip and an attached black legend plate.
- Pushbuttons with wire-wrap pin terminals have a depth of 47mm.

Pushbuttons

AH165


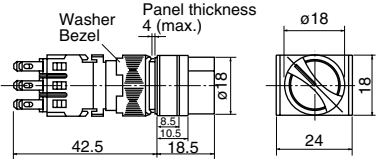

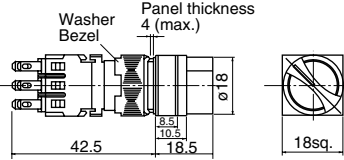

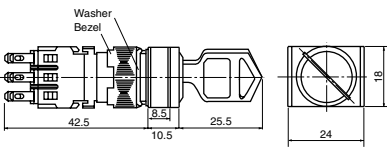


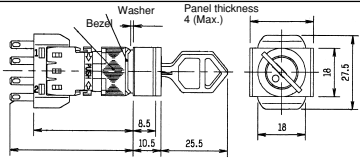

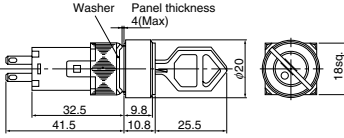
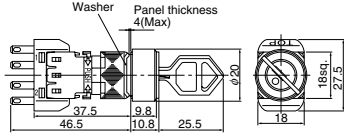
Operator	Button color	Contact	Terminal	Type	Dimensions, mm
Push-lock, turn-reset (32mm dia.)  AF91-584	Red	1NC	Solder/Tab Solder	AH165-VR01 AH165-VR01-S	
		2NC		AH165-VR02 AH165-VR02-S	
Push-lock, turn-reset (40mm dia.)  AF91-583		1NC		AH165-V1R01 AH165-V1R01-S	
		2NC		AH165-V1R02 AH165-V1R02-S	
Push-lock, turn-reset (32mm dia.)  AF97-232		1NC		AH165-V5R01 AH165-V5R01-S	
		2NC		AH165-V5R02 AH165-V5R02-S	
Push-lock, turn-reset (40mm dia.)  AF97-231		1NC		AH165-V6R01 AH165-V6R01-S	
		2NC		AH165-V6R02 AH165-V6R02-S	

* () For switch with solder terminal.

Selector Switches


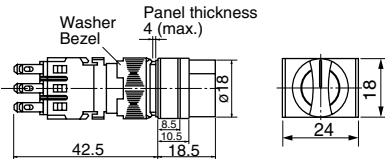

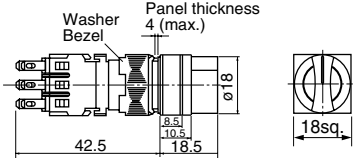

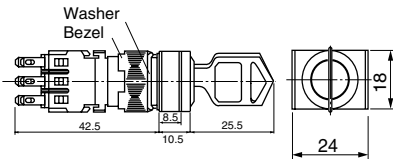

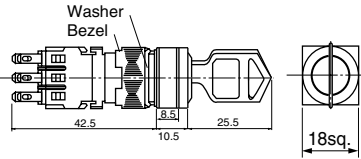
AH165

● Knob and key operated/2-position

Operator	Operation	Key removable position	Contact	Type	Dimensions, mm		
Knob with rectangular bezel  AF89-564	Maintained	—	1NO+1NC 2NO+2NC 3NO+3NC	AH165-P2B11 AH165-P2B22 AH165-P2B33			
	Spring return	—	1NO+1NC 2NO+2NC 3NO+3NC	AH165-P0B11 AH165-P0B22 AH165-P0B33			
	Knob with square bezel  AF89-563	Maintained	—	1NO+1NC 2NO+2NC 3NO+3NC		AH165-SP2B11 AH165-SP2B22 AH165-SP2B33	
Spring return		—	1NO+1NC 2NO+2NC 3NO+3NC	AH165-SP0B11 AH165-SP0B22 AH165-SP0B33			
Key with rectangular bezel  AF89-561		Maintained	⊖ A	1NO+1NC 2NO+2NC 3NO+3NC	AH165-J2A11A AH165-J2A22A AH165-J2A33A		
	⊗ B		1NO+1NC 2NO+2NC 3NO+3NC	AH165-J2B11A AH165-J2B22A AH165-J2B33A			
	⊙ D		1NO+1NC 2NO+2NC 3NO+3NC	AH165-J2D11A AH165-J2D22A AH165-J2D33A			
	Spring return	⊖ A	1NO+1NC 2NO+2NC 3NO+3NC	AH165-J0A11A AH165-J0A22A AH165-J0A33A			
		Key with square bezel  AF89-562	Maintained	⊖ A	1NO+1NC 2NO+2NC 3NO+3NC		AH165-SJ2A11A AH165-SJ2A22A AH165-SJ2A33A
				⊗ B	1NO+1NC 2NO+2NC 3NO+3NC		AH165-SJ2B11A AH165-SJ2B22A AH165-SJ2B33A
				⊙ D	1NO+1NC 2NO+2NC 3NO+3NC		AH165-SJ2D11A AH165-SJ2D22A AH165-SJ2D33A
Spring return	⊖ A		1NO+1NC 2NO+2NC 3NO+3NC	AH165-SJ0A11A AH165-SJ0A22A AH165-SJ0A33A			
Key with rectangular bezel  AF97-334	Maintained	A ⊖	2NO+2NC	AH165-JM2A22A			
		B ⊗		AH165-JM2B22A			
		D ⊙		AH165-JMD22A			
Key with round bezel  AF99-320	Maintained	A ⊖	1NO+1NC	AH165-RJM2A11A			
		B ⊗		AH165-RJM2B11A			
		D ⊙		AH165-RJM2D11A			
		A ⊖	2NO+2NC	AH165-RJM2A22A			
		B ⊗		AH165-RJM2B22A			
		D ⊙		AH165-RJM2D22A			

Selector Switches AH165


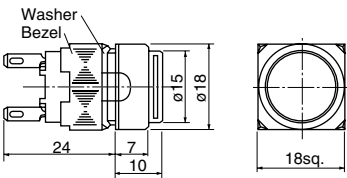

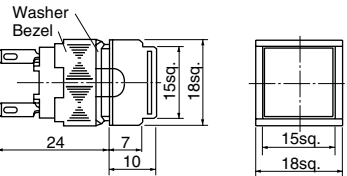

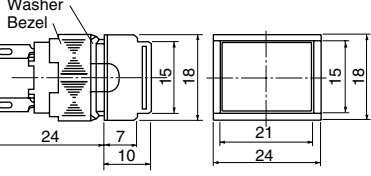

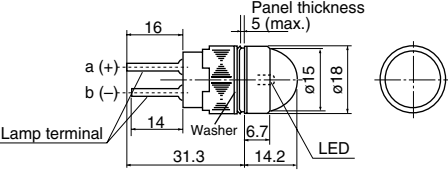
● Knob and key operated/3-position

Operator	Operation	Key removable position	Contact	Type	Dimensions, mm		
Knob with rectangular bezel  SK-1099	Maintained	—	2NO+2NC 3NO+3NC	AH165-P3B22 AH165-P3B33			
	Spring/ manual return	—	2NO+2NC 3NO+3NC	AH165-P6B22 AH165-P6B33			
	Spring/ manual return	—	2NO+2NC 3NO+3NC	AH165-P7B22 AH165-P7B33			
	Spring return	—	2NO+2NC 3NO+3NC	AH165-P1B22 AH165-P1B33			
Knob with square bezel  SK-1133	Maintained	—	2NO+2NC 3NO+3NC	AH165-SP3B22 AH165-SP3B33			
	Spring/ manual return	—	2NO+2NC 3NO+3NC	AH165-SP6B22 AH165-SP6B33			
	Spring/ manual return	—	2NO+2NC 3NO+3NC	AH165-SP7B22 AH165-SP7B33			
	Spring return	—	2NO+2NC 3NO+3NC	AH165-SP1B22 AH165-SP1B33			
Key with rectangular bezel  SK-1098	Maintained	⊖ A	2NO+2NC 3NO+3NC	AH165-J3A22A AH165-J3A33A			
		Ⓜ E	2NO+2NC 3NO+3NC	AH165-J3E22A AH165-J3E33A			
		⊖ D	2NO+2NC 3NO+3NC	AH165-J3D22A AH165-J3D33A			
		⊕ C	2NO+2NC 3NO+3NC	AH165-J3C22A AH165-J3C33A			
	Spring/ manual return	Ⓜ E	2NO+2NC 3NO+3NC	AH165-J6E22A AH165-J6E33A			
		⊖ D	2NO+2NC 3NO+3NC	AH165-J6D22A AH165-J6D33A			
	Spring/ manual return	⊖ A	2NO+2NC 3NO+3NC	AH165-J7A22A AH165-J7A33A			
		Ⓜ E	2NO+2NC 3NO+3NC	AH165-J7E22A AH165-J7E33A			
	Spring return	Ⓜ E	2NO+2NC 3NO+3NC	AH165-J1E22A AH165-J1E33A			
	Key with square bezel  SK-1132	Maintained	⊖ A	2NO+2NC 3NO+3NC		AH165-SJ3A22A AH165-SJ3A33A	
			Ⓜ E	2NO+2NC 3NO+3NC		AH165-SJ3E22A AH165-SJ3E33A	
			⊖ D	2NO+2NC 3NO+3NC		AH165-SJ3D22A AH165-SJ3D33A	
⊕ C			2NO+2NC 3NO+3NC	AH165-SJ3C22A AH165-SJ3C33A			
Spring/ manual return		Ⓜ E	2NO+2NC 3NO+3NC	AH165-SJ6E22A AH165-SJ6E33A			
		⊖ D	2NO+2NC 3NO+3NC	AH165-SJ6D22A AH165-SJ6D33A			
Spring/ manual return		⊖ A	2NO+2NC 3NO+3NC	AH165-SJ7A22A AH165-SJ7A33A			
		Ⓜ E	2NO+2NC 3NO+3NC	AH165-SJ7E22A AH165-SJ7E33A			
Spring return		Ⓜ E	2NO+2NC 3NO+3NC	AH165-SJ1E22A AH165-SJ1E33A			

- There are 6 available key types, including type A (A to F).
- Contact arrangement and operator position:
See page 04/83.

Pilot Lights

AH165

Lens	Lamp	Voltage	Type	Dimensions, mm
 SK-1139	Flat LED	24V DC	AH165-Z■E3	
	Spot LED	24V DC	AH165-Z■E2	
	Incandescent	24V AC/DC	AH165-Z■E	
	Neon	110V AC 220V AC	AH165-Z■H1 AH165-Z■M1	
 SK-1138	Flat LED	24V DC	AH165-ZS■E3	
	Spot LED	24V DC	AH165-ZS■E2	
	Incandescent	24V AC/DC	AH165-ZS■E	
	Neon	110V AC 220V AC	AH165-ZS■H1 AH165-ZS■M1	
 SK-1137	Flat LED	24V DC	AH165-ZT■E3	
	Spot LED	24V DC	AH165-ZT■E2	
	Incandescent	24V AC/DC	AH165-ZT■E	
	Neon	110V AC 220V AC	AH165-ZT■H1 AH165-ZT■M1	
 AF87-45	Spot LED	12V DC 24V AC	AH165-ZM■B2 AH165-ZM■E2	

• Lens color

Replace the mark by the following color code

Color	Green	Red	White	Yellow	Blue	Orange
Code	G	R	W	Y	S	A

- The color tip is made of a tinted transparent material.
- A white pushbutton is fitted with a transparent color tip. (Except the neon lamp) A black pushbutton consists of a transparent color tip and an attached black legend plate.
- Pilot lights with wire-wrap pin terminals have a depth of 29mm.

• Voltage

Code	LED	Incandescent
5	5V DC	5V
6	6V DC	—
B	12V DC	12V
E	24V DC	24V

Voltages other than above are available, see page 04/79.





Pushbuttons/Selectors/Pilot Lights

AH165-2

The oil-tight operators of AH165-2 series are about twice as large as the AH165 series. They are easy to operate. The contact blocks of AH165-2 series can easily be attached to or detached from the operators without the use of tools. Illuminated pushbutton switches, pushbutton switches, selector switches, and pilot lights are also available. The degree of protection for the operators conforms to IP65 (IEC).

For further information, contact FUJI.

■ Pushbutton switches (Typical)

Operator	Contact	Type
Flush head  AF87-211	1NO+1NC 2NO+2NC	AH165-2F□11 AH165-2F□22
Extended head  AF87-210	1NO+1NC 2NO+2NC	AH165-2E□11 AH165-2E□22
Mushroom head  AF87-215	1NO+1NC 2NO+2NC	AH165-2M□11 AH165-2M□22
Push-lock turn-reset  AF87-217	1NO+1NC 2NO+2NC	AH165-2VR11 AH165-2VR22






Note : Alternate types are also available.

■ Selector switches (Typical)

Operator	Contact	Type
Knob operated Maintained  AF87-208	2NO+2NC 3-position	AH165-2□P3B22
Key operated Maintained  AF87-223	2NO+2NC 3-position	AH165-2□J3■22




Note : Replace the □ mark by the button color code, and the ■ mark by the key removable position code. See page 04/79.

■ Illuminated pushbutton switches

Operator	Contact	Type
Flush head LED 24V DC  AF87-211	1NO+1NC 2NO+2NC	AH165-2FL□11E3 AH165-2FL□22E3
Extended head LED 24V DC  AF87-210	1NO+1NC 2NO+2NC	AH165-2EL□11E3 AH165-2EL□22E3
Mushroom head LED 24V DC  AF87-221	1NO+1NC 2NO+2NC	AH165-2ML□11E3 AH165-2ML□22E3
Concave square head LED 24V DC  AF87-199	1NO+1NC 2NO+2NC	AH165-2SCL□11E3 AH165-2SCL□22E3
Push-lock turn-reset LED 24V DC  AF87-219	1NO+1NC 2NO+2NC	AH165-2VLR11E3 AH165-2VLR22E3

Note : • Incandescent lamp code, 24V AC/DC: E
• Alternate types are also available.

■ Pilot lights

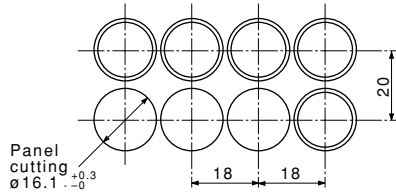
Operator	Type
Flush LED 24V DC  AF87-213	AH165-2Z□E3
Extended LED 24V DC  AF87-212	AH165-2ZE□E3
Extended square LED 24V DC  AF87-204	AH165-2SZE□E3

Pushbuttons/Selectors/Pilot Lights

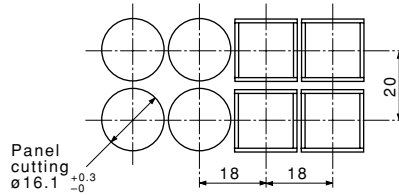
AH164 and AH165

Mounting space

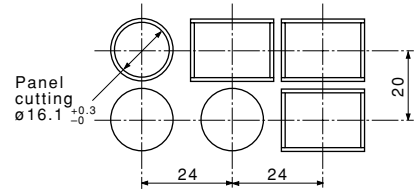
- Mounting space, mm
 - Pushbuttons and pilot lights
- Extended round head or lens



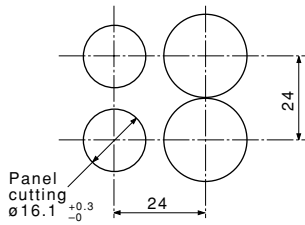
Flush square head or lens



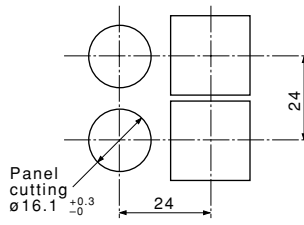
Flush rectangular head or lens



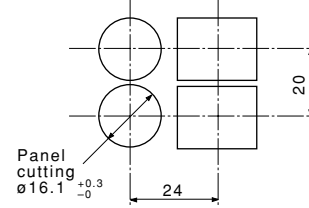
Mushroom head



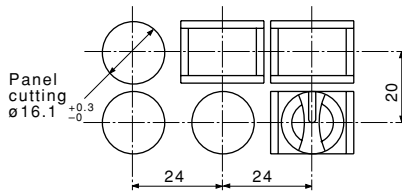
Convex square head



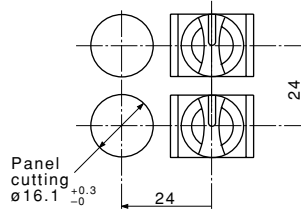
Convex rectangular head



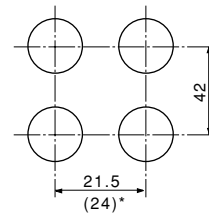
- Selector switches
- When mounting the selector switches near the pilot light



- When mounting the selector switches near each other



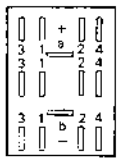
- With transformer



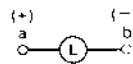
*() For switch with flush rectangular head

Terminal number

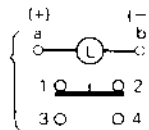
● AH164, 165



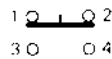
Pilot lights



Illuminated pushbuttons



Pushbuttons
Selector switches



Pushbuttons/Selectors/Pilot Lights
AH164 and 165
Mass

■ Mass, gram

AH164 series

Type	1NO	2NO	3NO
	+ 1NC	+ 2NC	+ 3NC
AH164-E, E5	8.9	9.9	10.9
SF, SF5	9.6	10.6	11.6
SGF, SGF5	9.6	10.6	11.6
TF, TF5	10.4	11.4	12.4
TGF, TGF5	10.4	11.4	12.4
M, M5	10.9	11.9	12.9
SM, SM5	12.0	13.0	14.0
TM, TM5	11.5	12.5	13.5
AH164-L, L5	11.0	12.0	13.0
SL, SL5	11.7	12.7	13.7
TL, TL5	12.5	13.5	14.5
TGL, TGL5	12.5	13.5	14.5
AH164-P2, P0	14.4	15.4	16.4
P3, P6	14.4	15.4	16.4
P7, P1	14.4	15.4	16.4
SP2, SP0	14.1	15.1	16.1
SP3, SP6	14.1	15.1	16.1
SP7, SP1	14.1	15.1	16.1
J2, J0	27.7	28.7	29.7
J3, J6	27.7	28.7	29.7
J7, J1	27.7	28.7	29.7
SJ2, SJ0	27.4	28.4	29.4
SJ3, SJ6	27.4	28.4	29.4
SJ7, SJ1	27.4	28.4	29.4
AH164-Z	6.7		
ZS	7.5		
ZT	8.2		

Without transformer

AH165 series

Type	1NO	2NO	3NO
	+ 1NC	+ 2NC	+ 3NC
AH165-E, E5	8.9	9.9	10.9
SF, SF5	9.6	10.6	11.6
SGF, SGF5	9.6	10.6	11.6
TF, TF5	10.4	11.4	12.4
TGF, TGF5	10.4	11.4	12.4
M, M5	10.9	11.9	12.9
SM, SM5	12.0	13.0	14.0
TM, TM5	11.5	12.5	13.5
V	12.3* ¹	13.9* ²	
V1	13.5* ¹	15.1* ²	
V5	17.9* ¹	18.4* ²	
V6	18.7* ¹	19.2* ²	
AH165-L, L5	11.0	12.0	13.0
SL, SL5	11.7	12.7	13.7
TL, TL5	12.5	13.5	14.5
TGL, TGL5	12.5	13.5	14.5
AH165-P2, 0P	14.9	15.9	16.9
P3, P6	14.9	15.9	16.9
P7, P1	14.9	15.9	16.9
SP2, SP0	14.3	15.3	16.3
SP3, SP6	14.3	15.3	16.3
SP7, SP1	14.3	15.3	16.3
J2, J0	28.2	29.2	30.2
J3, J6	28.2	29.2	30.2
J7, J1	28.2	29.2	30.2
SJ2, SJ0	27.6	28.6	29.6
SJ3, SJ6	27.6	28.6	29.6
SJ7, SJ1	27.6	28.6	29.6

*¹ For 1NC *² For 2NC

AH165-Z	6.7
ZS	7.5
ZT	8.2
ZM	6.1

Without transformer