ø22 Switches & Pilot Lights

TW Series



General-purpose switches & pilot lights for various applications. Heavy-duty type for high-level protection against harsh environment.

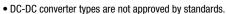












• See website for details on approvals and standards.











TW Series Selection Guide

Function	Pushbutton						
Catagory	Flush	Extended	Extended w/Full Shroud	ø29mm Mushroom	ø40mm Mushroom		
Category	Momentary/Maintained	Momentary/Maintained	Momentary/Maintained	Momentary/Maintained	Momentary/Maintained		
Shape							
Model	ABW1 AOW1	ABW2 AOW2	ABFW2 AOFW2	ABW3 AOW3	ABW4 AOW4		
Page	B-238	B-238	B-238	B-238	B-239		

Function	Pushbutton							
Category	ø40mm Mushroom w/Full Shroud	ø29mm Mushroom Pushlock Turn Reset	ø40mm Mushroom Pushlock Turn Reset	ø40mm Mushroom Push Turn Lock	ø29mm Mushroom Pushlock Key Reset			
	Momentary	Pusillock fulli neset	Pusillock fulli neset	Pusii iuiii Lock	rusillock key neset			
Shape				100				
Model	ABGW4	AVW3	AVW4	AJW4	AXW3			
Page	B-239	B-239	B-239	B-239	B-239			

Function	Pushbutton							
Category	ø40mm Mushroom ø40mm Mushroom		Square Flush	Square Extended				
Category	Pushlock Key Reset	Push Pull	Momentary/Maintained	Momentary/Maintained				
Shape								
Model	AXW4	AYW4	ABQW1 AOQW1	ABQW2 AOQW2				
Page	B-240	B-240	B-240	B-240				

F !:		D11 111 11				
Function	Pilot Light					
Category	Flush Dome (Non-marking/Marking)		Square Flush (Marking)			
Shape						
Model	APW1 APW1B	APW2	APQW1B			
Page	B-241	B-241	B-241			

Emergency Stop Switches Enabling Switches

Safety Products

Explosion Proof

Terminal Blocks

Relays & Sockets

Circuit Protectors

Power Supplies

LED Illumination

Controllers

Operator Interfaces

Sensors

AUTO-ID

Flush Silhouette

ø16

ø22

ø30

Miniature

Pilot Lights

HW

TW

TW Series Selection Guide

Function			Illuminated Pushbutton		
Category	(Name and the set (Name and the set) (Name and the set) (Name and the set)		ø29mm Mushroom Pushlock Turn Reset	ø40mm Mushroom Pushlock Turn Reset	
	Momentary/Maintained	Momentary/Maintained	Momentary/Maintained	(Non-marking/Marking)	(Non-marking/Marking)
Shape					
Part No.	ALW2, ALW2B, AOLW2, AOLW2B	ALFW2, AOLFW2 ALFW2B, AOLFW2B	ALQW2B AOLQW2B	AVLW3 AVLW3B	AVLW4 AVLW4B
Page	B-243	B-244	B-245	B-246	B-246

Function		Illuminated Selector Switch					
Category	Knob	Knob Lever Key					
Shape							
Part No.	ASW	ASW□L	ASW□K	ASLW			
Page	B-249	B-250	B-251	B-252			

APEM

Pilot Lights

Control Boxes

Emergency Stop Switches Enabling Switches

Safety Products

Explosion Proof

Terminal Blocks

Relays & Sockets

Circuit Protectors

Power Supplies

LED Illumination

Controllers

Operator Interfaces

Sensors

AUTO-ID

Flush Silhouette

ø16

ø22

ø30

Miniature Pilot Lights

HW

TW

Ø22 TW Series Switches & Pilot Lights

General-purpose switches & pilot lights for various applications. Heavy-duty type for high-level protection against harsh environment.

- Easy wiring for crimping terminal.
- UL, CSA, TÜV, CCC compliant.



Specifications and Ratings

Contact Ratings

Pushbuttons	Rated insulation voltage	600V	
Illuminated Pushbuttons	Rated continuous current	10A	
Selector Switches Illuminated Selector Switches	Contact ratings by utilization category IEC60947-5-1	AC-15 (A600) DC-13	

Contact Ratings by Utilization Category HW-U10 (NO contact), HW-U01 (NC contact)

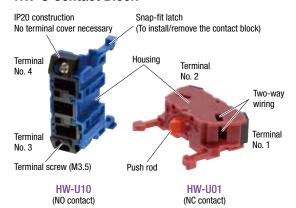
Operating Voltage			24V	48V	50V	110V	220V	440V
AC		AC-12 Control of resistive loads and solid state loads	10A	_	10A	10A	6A	2A
Operating	50/60 Hz	AC-15 Control of electromagnetic loads (> 72 VA)	10A	_	7A	5A	3A	1A
Current	DC	DC-12 Control of resistive loads and solid state loads	10A	5A	_	2.2A	1.1A	_
	DC	DC-13 Control of electromagnets	5A	2A	_	1.1A	0.6A	_

HW-U10R (EM contact/NO contact), HW-U01R (LB contact/NC contact)

Operating Voltage			24V	48V	50V	110V	220V	440V
AC	AC-12 Control of resistive loads and solid state loads	5A	_	5A	5A	3A	1A	
Operating	50/60 Hz	AC-15 Control of electromagnetic loads (> 72 VA)	5A	_	3.5A	2.5A	1.5A	0.5A
Current	DC	DC-12 Control of resistive loads and solid state loads	5A	2.5A	_	1.1A	0.55A	_
	DC	DC-13 Control of electromagnets	2.5A	1A	_	0.55A	0.3A	_

- The operating current represents the classification by making and breaking currents (IEC 60947-5-1).
- Contact materials: Silver contacts
- $\bullet \ \ \text{Minimum applicable load: 3V AC/DC, 5 mA (applicable range may vary with operating conditions and load types)}\\$

HW-U Contact Block



Part No.	HW-U10	HW-U01	HW-U10R	HW-U01R			
Contact	_/_	7	_/_	7			
Contact	1NO	1NC	EM (NO) (early make)	LB (NC) (late break)			
Contact No.	3-4	1-2	3-4	1-2			
Housing	Blue	Purple red	Blue	Purple red			
Push Rod	Green	Red	Black	White			
Weight	Approx. 11g						

- \bullet Up to 2 layers (4 blocks) can be attached. AYW: 2 blocks (1 layer) maximum.
- Gold contacts available (gold-plated silver)

APEM

Switches &

Control Boxes

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Relays & Sockets

Circuit Protectors

Power Supplies

LED Illumination

Controllers

Operator

Sensors

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Flush Silhouette

22

ø30

ø16

Miniature

Pilot Lights

HW

TW

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Emergency
Stop Switches

Enabling
Switches

Safety Products

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Protectors
Power Supplies
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Controllers
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LED Illuminated Part Specifications

Unit					LED I	amp
Offic	Rated Volta	Rated Voltage		Operating Voltage		Part No.
	6V AC/DC		6V AC/DC			LSRD-6
	12V AC/DC		12V AC/DC			LSRD-1
	24V AC/DC		24V AC/DC		BA9S/13	LSRD-2
	100/110V AC		100/110V AC			
Pilot light	115/120V AC		115/120V AC	. 100/		1000.0
Illuminated pushbutton	200/220V AC		200/220V AC	±10%		
Illuminated selector switch	230/240V AC	50/60 Hz	230/240V AC			
	380V AC		380V AC			LSRD-6
	400/440V AC		400/440V AC			
	480V AC		480V AC			
	110V DC		90 to 140V DC			

[•] See below for details on LED lamp ratings.

Illuminated Part Type and Shape

		Illumina	ited Unit		Pilot Light
Power Unit	Full voltage adapter	Transf	former	DC-DC converter	Full voltage adapter (integrated)
Rated Voltage	6, 12, 24V AC/DC	100 to 240V AC	100 to 240V AC 380V AC minimum		6, 12, 24V AC/DC
Polarity	None	None	None	X1 (+) X2 (–)	None
Shape/Terminal	X1 201 X2	X1 X2		X1 X2	X2 X2

Flush Silhouette

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ø30	

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Pilot Lights

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• Only one color is available for LSRD so there are no codes to specify the color in the part no.

LED Lamp Ratings LSRD

	Part No.		LSRD-6	LSRD-1	LSRD-2				
Ì	Lamp Base		BA9S/13						
İ	Rated Voltage	e	6V AC/DC	12V AC/DC	24V AC/DC				
Ī	Voltage Rang	je	6V AC/DC ±10%	12V AC/DC ±10%	24V AC/DC ±10%				
	Current	DC	10mA	7mA	7mA				
	Draw	AC	14mA	8mA	8mA				
•	Voltage Mark	king	Die stamped on the base						
	Life (reference	ce value)	Approx. 50,000 hours (The luminance is reduced to 50% the initial	Approx. 50,000 hours The luminance is reduced to 50% the initial intensity when used on complete DC at 25°C.)					
-	Internal Circu	uit	X1 — Noise pr	otection circuit	Example: LSRD-2				
	Weight		Approx. 2g						

Specifications

		-25 to +50°C (no freezing)		
		45 to 85% RH (no condensation)		
		-40 to +80°C (no freezing)		
		50 mΩ maximum (initial value)		
		100 MΩ minimum (500V DC megger)		
		Between live and dead metal parts: 2,500V AC, 1 minute (Full voltage and illuminated units: 2,000V AC, 1 minute)	APEN	
Operating extremes		5 to 55 Hz, amplitude 0.5 mm	Swite	
Damage limits		30 Hz, amplitude 1.5 mm	Pilot	
Operating extremes		100m/s ²	Conti	
Damage limits		1,000m/s² (*5)	Emer Stop	
	Momentary	5,000,000	Enab	
Duchbutton	Maintained	500,000 (3 contact blocks and over: 250,000)	Swite	
Pusnoutton	Push-to-lock, Turn-to-reset	500,000	Safet	
	Other	500,000	Explo	
	Momentary	5,000,000	Term	
Illuminated pushbutton	Maintained	500,000 (3 contact blocks and over: 250,000)		
	Push-to-lock, Turn-to-reset	500,000	Relay	
Selector switch		500,000	Circu Prote	
Key selector switch		500,000		
Illuminated selector switch		500,000	Powe	
	Momentary	500,000 (*1)	LED	
	Maintained	500,000 (3 contact blocks and over: 250,000) (*3)	Contr	
Pushbutton	Push-to-lock, Turn-to-reset	500,000 (*3)	Oper	
	Other	500,000	Inter	
	Momentary	500,000 (*1)	Sens	
Illuminated pushbutton	Maintained	500,000 (3 contact blocks and over: 250,000) (*3)	AUTO	
	Push-to-lock, Turn-to-reset	500,000 (*3)		
Selector switch		500,000 (*2)		
Key selector switch		500,000 (*2)		
Illuminated selector switch		250,000 (*2)	Flush	
		68g (ABW122)	ø16	
		33g (APW122D)		
			ø22	
		107g (ASW2K22)	ø30	
		90g (ASLW22222D) 95g (APW126D)	Minia	
	Damage limits Operating extremes Damage limits Pushbutton Illuminated pushbutton Selector switch Key selector switch Illuminated selector switch Pushbutton Illuminated pushbutton Selector switch Key selector switch	Damage limits Operating extremes Damage limits Momentary Maintained Push-to-lock, Turn-to-reset Other Momentary Maintained Push-to-lock, Turn-to-reset Selector switch Key selector switch Illuminated selector switch Pushbutton Momentary Maintained Push-to-lock, Turn-to-reset Other Momentary Maintained Push-to-lock, Turn-to-reset Other Illuminated pushbutton Momentary Maintained Push-to-lock, Turn-to-reset Other Momentary Maintained Push-to-lock, Turn-to-reset Selector switch Selector switch Key selector switch	-40 to +80°C (no freezing) 50 mΩ maximum (initial value) 100 MΩ minimum (500V DC megger) Between live and dead metal parts: 2,500V AC, 1 minute Full voltage and illuminated units: 2,000V AC, 1 minute) Fushbutton Pushtutton Momentary Fushbutton Momentary Fush-to-lock, Turn-to-reset Other Push-to-lock, Turn-to-reset Fushector switch Fush-to-lock, Turn-to-reset Fushbutton Momentary Fushbutton Fush-to-lock, Turn-to-reset Fushbutton Momentary Fush-to-lock, Turn-to-reset Fush-to-lock, Tu	

^{*1)} Switching frequency 1,800 operations/h, duty ratio 40%

Degree of Protection

	Unit	IEC 60529
A000	Pushbutton Pilot light Illuminated pushbutton with round lens Selector switch	IP65
(Part number that starts with "A")	Pushlock key reset pushbutton Illuminated selector switch Key selector switch	IP54

For harsh environment such as torrid/frigid area

TW series for harsh environment such as torrid/frigid area is also available (not approved by standards). Contact IDEC for details.

Control Boxes Emergency Stop Switches Enabling Switches Safety Products **Explosion Proof** Terminal Blocks Relays & Sockets Circuit Protectors Power Supplies LED Illumination Controllers Operator Sensors AUTO-ID Flush Silhouette ø16 ø30 Miniature

HW

Pilot Lights

^{*2)} Switching frequency 1,200 operations/h, duty ratio 40%

^{*3)} Switching frequency 900 operations/h, duty ratio 40%

^{*4)} Load condition 220V AC, 3A (AC-15)

^{*5)} Illuminated unit with four contact blocks with transformer and DC-DC converter types: 500 m/s²

Control Boxes

Emergency Stop Switches

Enabling

Switches

Safety Products

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Relays & Sockets

Circuit

Protectors

Power Supplies

LED Illumination

Controllers

Operator Interfaces Sensors

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ø16

ø30

HW

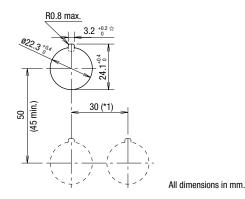
YW

Miniature

Pilot Lights

Mounting Hole Layout

Panel Cut (IEC60947-5-1)



- The minimum mounting centers are applicable to switches with one layer of contact blocks (one to two contact blocks). When two layers of contact blocks are mounted, determine the minimum mounting centers in consideration of convenience for wiring.
- 1*) ø40 mm mushroom button type: 40 mm minimum
- 1*) 2-position, 3-position lever selector switch: 39 mm minimum
- 1*) 4-position, 5-position lever selector switch: 50 mm minimum
- When high temperature is expected, take necessary measures such as securing sufficient mounting centers or using a cooling fan.
- The

 \$\psi 3.2 \text{ }\frac{\cdot 0}{0}^2\$ mm recess is for preventing rotation and is not necessary when the nameplate or anti-rotation ring is not used.

Ordering Information

Standard models

- · Specify Ordering No. when ordering.
- . Specify a button or lens color code in place of *.
- An LED lamp is installed in pilot lights, illuminated pushbuttons, and illuminated selector switches unless otherwise specified.
- · Pilot light of full voltage adapter type is equipped with a terminal cover.
- Nameplates and accessories are ordered separately. See B-256 to B-259.

Color codes for units without LED lamps:
 R (red), G (green), A (amber), Y (yellow), S (blue)
 When using a commercially available lamp, choose a lamp with rated voltage
 5 to 30V AC/DC and 1W maximum, and with the same base and shape.
 Make sure of correct operation before installation. The operation of TW series cannot be guaranteed when a commercially available lamp is used.

Pushbuttons (B-238 to B-240)

When specifying gold-plated silver contact and contact configuration:

ABW 1 <u>11</u> R - <u>MAU</u> Optional contact MAU: Gold contact Contact configuration 10: 1NO 01: 1NC 1N01NC 11: 20: 2N0 02: 2NC 22: 2N02NC 40: 4N0 04: 4NC 13: 1N03NC 31: 3N01NC 30: 3N0 03: 3NC 12: 1N02NC

- Pushbuttons with 1 or 3 contact blocks have a dummy block.
- Push-pull type AYW4 (B-240) can have a maximum of two contact blocks.

Pilot Lights (B-241)

When specifying LED operating voltage:

APW 2 126 DR
Operating voltage
99: Without LED lamp
66: 6V AC/DC
11: 12V AC/DC
22: 24V AC/DC
16: 100/110V AC
126: 115/120V AC
26: 200/220V AC
246: 230/240V AC
386: 380V AC
46: 400/440V AC

• See B-237 for how to specify 110V DC type (DC-DC converter).

Note: Color codes for units without LED lamps: R (red), G (green), A (amber), Y (yellow), S (blue)
When using a commercially available lamp, choose a lamp with rated voltage 5 to 30V AC/DC and 1W maximum, and with the same base and shape. Make sure of correct operation before installation. The operation of TW series cannot be guaranteed when a commercially available lamp is used.

486: 480V AC

2N01NC

Control Boxes

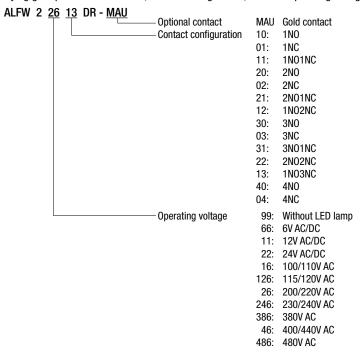
Stop Switches

Emergency

Ordering Information

Illuminated Pushbuttons (B-243 to B-246)

When specifying gold-plated silver contact, contact configuration, and LED operating voltage:



Note:

- Illuminated pushbuttons of 24V AC/DC and below with 2 or 4 contact blocks have a dummy block.
- Illuminated pushbuttons of 100V AC and over is not available with 1 or 3 contact blocks.
- See B-237 for how to specify 110V DC type (DC-DC converter).
- Color codes for units without LED lamps:

R (red), G (green), A (amber), Y (yellow), S (blue)

When using a commercially available lamp, choose a lamp with rated voltage 5 to 30V AC/DC and 1W maximum, and with the same base and shape. Make sure of correct operation before installation. The operation of TW series cannot be guaranteed when a commercially available lamp is used.

Selector Switches (B-249 to B-251)

When specifying gold-plated silver contact, key removal position, and key number:

```
ASW 2 11 - MAU Optional contact MAU: Gold-plated silver Contact arrangement codes See B-253 to B-255.
```

How to specify key removal/retained position

	Position	Removable Position	Code	Part No. Example
Maintained		Removable in all positions	_	ASW2K20
0	Maintained	Removable in left only	В	ASW2K20B
2-position		Removable in right only	С	ASW2K20C
l <u> </u>	Spring return from right	Removable in left only	_	ASW21K20
	Spring return from left	Removable in right only	_	ASW22K20
		Removable in all positions	_	ASW3K20
		Removable in left and center only	В	ASW3K20B
	Maintained	Removable in right and center only	С	ASW3K20C
		Removable in center only	D	ASW3K20D
		Removable in right and left only	E	ASW3K20E
		Removable in left only	G	ASW3K20G
2 position		Removable in right only	Н	ASW3K20H
3-position		Removable in left and center only	_	ASW31K20
	Spring return from right	Removable in center only	D	ASW31K20D
		Removable in left only	G	ASW31K20 G
		Removable in right and center only	_	ASW32K20
	Spring return from left	Removable in center only	D	ASW32K20D
		Removable in right only	Н	ASW32K20H
	Spring return two-way	Removable in center only	_	ASW33K20

[•] The key cannot be removed in a spring returned position.

Enabling Switches Safety Products **Explosion Proof** Terminal Blocks Relays & Sockets Circuit Protectors **Power Supplies** LED Illumination Controllers Operator Interfaces Sensors AUTO-ID Flush Silhouette ø16 ø30 Miniature Pilot Lights

Control Boxes

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Terminal Blocks

Relays & Sockets

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Operator Interfaces

Sensors

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Emergency

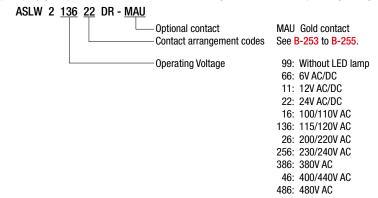
Enabling

Switches

Ordering Information

Illuminated selector switches (B-252)

When specifying gold-plated silver contact, contact configuration, and LED operating voltage:



Note

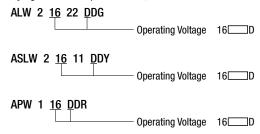
- Illuminated selector switches of 24V AC/DC and below with 2 or 4 contact blocks have a dummy block.
- Illuminated selector switches of 100V AC and over is not available with 1 or 3 contact blocks.
- See below for how to specify 110V DC type (DC-DC converter).
- · Color codes for units without LED lamps:

R (red), G (green), A (amber), Y (yellow), S (blue)

When using a commercially available lamp, choose a lamp with rated voltage 5 to 30V AC/DC and 1W maximum, and with the same base and shape. Make sure of correct operation before installation. The operation of TW series cannot be guaranteed when a commercially available lamp is used.

DC-DC Converter (110V DC)

When specifying illuminated pushbuttons, illuminated selector switches, and pilot lights:



Note:

- DC-DC converter type (110V DC) is not approved by standards (90 to 140V DC).
- . DC-DC converter type is not available with 1 or 3 contact blocks.

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Miniature

Pilot Lights

HW

TW YW

IDEC

Flush / Extended / Mushroom Pushbuttons

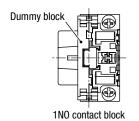
Package Quantity: 1

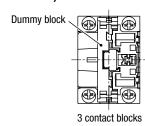
Chana	Oncustion	Comtost	Dout No.	Calar Cada	Pieroneiana (nam)	┧ 을
Shape	Operation	Contact	Part No.	Color Code	Dimensions (mm)	lot Lights
Flush		1NO	ABW110*			hts
ABW1 AOW1		1NC	ABW101*			
AUWI	Momentary	1NO-1NC 2NO	ABW111* ABW120*		Adjust ring Panel thickness 1 to 6	
		2NC	ABW120* ABW102*	В		APEM
		2NO-2NC	ABW102*	G		Switches &
		1NO	A0W110*	R Y		Pilot Lights
		1NC	A0W101*	S		Control Boxes
		1NO-1NC	A0W111*	W	49.4 (1-2 blocks) 69.4 (3-4 blocks) 13	Emergency
	Maintained	2N0	A0W120*			Stop Switches Enabling
		2NC	A0W102*			Switches
		2NO-2NC	A0W122*			Safety Products
Extended		1NO	ABW210*			T
ABW2		1NC	ABW201*			Explosion Proof
AOW2	Momentary	1NO-1NC	ABW211*			Terminal Blocks
	Womentary	2N0	ABW220*	В	Adjust ring Panel thickness 1 to 6	Relays & Sockets
		2NC	ABW202*	G	Adjusting Faller ullchiess 1 to 0	
1		2NO-2NC	ABW222*	R		Circuit Protectors
		1NO	A0W210*	Y S		Power Supplies
		1NC	A0W201*	W		
	Maintained	1NO-1NC	A0W211*		49.4 (1-2 blocks) 13 69.4 (3-4 blocks) 19.4	LED Illumination
		2N0	A0W220*			Controllers
		2NC 2NO-2NC	A0W202* A0W222*			Operator
		1NO	AUW222* ABFW210*			Interfaces
Extended with Full Shroud ABFW2		1NC	ABFW201*			Sensors
AOFW2		1NO-1NC	ABFW211*			AUTO-ID
	Momentary	2NO	ABFW220*			A010-ID
		2NC	ABFW202*	B	Adjust ring Panel thickness 1 to 6	
1		2NO-2NC	ABFW222*	- G R		
		1NO	A0FW210*	Υ	 	Flush Silhouette
		1NC	A0FW201*	S		
	Maintained	1NO-1NC	A0FW211*	W	49.4 (1-2 blocks) 69.4 (3-4 blocks) 19.8	ø16
	Wallitallieu	2N0	A0FW220*		69.4 (3-4 blocks) 19.8 19.8 29.6 4	ø22
		2NC	A0FW202*			ø30
		2NO-2NC	A0FW222*			Ø30
ø29mm Mushroom		1NO	ABW310*			Miniature
ABW3 AOW3		1NC	ABW301*			Pilot Lights
AUWS	Momentary	1NO-1NC	ABW311*			
_ =		2N0	ABW320*	В	Adjust ring Panel thickness 1 to 6	
		2NC	ABW302*	G		
		2NO-2NC 1NO	ABW322* A0W310*	R Y	44 4 68	HW
		1NC	A0W310* A0W301*	S		TW
		1NO-1NC	A0W301* A0W311*	W	49.4 (1-2 blocks) 13 29.6	TW
	Maintained	2N0	A0W320*	-	69.4 (3-4 blocks) 22.5	YW
		2NC	A0W302*			
1		0110	1.011002	-		

- Specify a color code in place of * in Part No. B: black, G: green, R: red, Y: yellow, S: blue, W: white
- Round bezel: Mat aluminum color

- Pushbuttons with 1 or 3 contact blocks have a dummy block.
- See B-235 for other contact configurations and gold-plated silver contacts.
- Pushbuttons: M3.5 Terminal screws

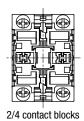
Bottom View (non-illuminated)





2NO-2NC

A0W322*



- For 1 NC contact, the contact block will mount on the opposite side.
- See B-267 for wiring.
- Integrated terminal cover



Control Boxes

Emergency
Stop Switches

Enabling
Switches

Safety Products

Explosion Proof

Terminal Blocks

Relays & Sockets

Circuit
Protectors

Power Supplies

LED Illumination

Controllers

Sensors AUTO-ID

Flush Silhouette

ø16

ø30 Miniature Pilot Lights

HW

YW

Mushroom / Pushlock Turn Reset / Push Turn Lock / Pushlock Key Reset

Package Quantity: 1

١.							Package Quantity:
	Shape	Operation	Contact	Part No.	Color Code	Dimensions (mm)	
	ø40mm Mushroom		1NO	ABW410*			
			1NC	ABW401*			
	ABW4 AOW4	Momentoni	1NO-1NC	ABW411*			
		Momentary	2N0	ABW420*		Adust ring Panel thickness 1 to 6	
			2NC	ABW402*	В		
			2NO-2NC	ABW422*	G R		
			1NO	A0W410*	Y	4 8 8	
			1NC	A0W401*	S W	49.4 (1-2 blocks) 13	29.6
		Maintainad	1NO-1NC	A0W411*	1	69.4 (3-4 blocks) 22.5	1
		Maintained	2N0	A0W420*	1		
			2NC	A0W402*	1		
			2NO-2NC	A0W422*	1		
	ø40mm Mushroom w/Full Shroud		1NO	ABGW410*		Adust ringPanel thickness 1 to 6	
	ABGW4		1NC	ABGW401*	В		
		Mamantani	1NO-1NC	ABGW411*	- G R		
		Momentary	2N0	ABGW420*	Y S	4	
			2NC	ABGW402*	W	49.4 (1-2 blocks)	29.6
			2NO-2NC	ABGW422*	1	69.4 (3-4 blocks) 23	7
	ø29mm Mushroom Pushlock Turn F	Reset (*1)	1NO	AVW310*		Adust ring, Panel thickness 1 to 6	Reset angle 75°
	AVW3		1NC	AVW301*			The sect angle 75
			1NO-1NC	AVW311*	R	4 1 4 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	
			2N0	AVW320*	Υ		
			2NC	AVW302*		49.4 (1-2 blocks) 13	29.6
			2NO-2NC	AVW322*		69.4 (3-4 blocks) 22.5	
	ø40mm Mushroom Pushlock Turn F	Reset (*1)	1NO	AVW410*		Adjust ring Panel thickness 1 to 6	Reset angle 75°
	AVW4		1NC	AVW401*			neset aligie 75
			1NO-1NC	AVW411*	R		
			2N0	AVW420*	Y	4 8 8	
			2NC	AVW402*	1	49.4 (1-2 blocks) 13	29.6
			2NO-2NC	AVW422*	1	69.4 (3-4 blocks) 22.5	-
	ø40mm Mushroom Push Turn Lock	•	1NO	AJW410*		Adjust ring Panel thickness 1 to 6	
	AJW4		1NC	AJW401*			
			1NO-1NC	AJW411*	B G		(2) (2) (2) (3) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4
	- Lac		2N0	AJW420*	R Y	4 8 8	
			2NC	AJW402*] '	49.4 (1-2 blocks) 13	29.6
			2NO-2NC	AJW422*	1	69.4 (3-4 blocks) 22.5	,
	ø29mm Mushroom Pushlock Key R	leset (*1)	1NO	AXW310R		Adjust ring Panel thickness 1 to 6	
	AXW3		1NC	AXW301R	1		
			1NO-1NC	AXW311R] _D		
			2N0	AXW320R	R		
			2NC	AXW302R	1	49.4 (1-2 blocks) 24.5 69.4 (3-4 blocks) 47	29.6
			2NO-2NC	AXW322R	1	R	Reset (unlock)

- \bullet Specify a color code in place of \ast in Part No. B (black), G (green), R (red), Y (yellow), S (blue), W (white)
- Round bezel (metal): Mat aluminum color
- Pushbuttons with one or three contact blocks contain a dummy block.
- \bullet See B-235 for other contact configurations and gold-plated silver contacts.
- Pushbuttons: terminal screws M3.5, integrated terminal cover
- See B-238 for bottom view.
- *1) AVW3, AVW4, and AXW3 pushbuttons cannot be used as emergency stop switches. When emergency stop switches are required, use XW series pushbuttons (ISO 13850 and IEC 60947-5-5 compliant).

Pushbutton operation

Push Turn Lock

Button is locked when turned clockwise in the depressed position and is reset when turned counterclockwise.



Pushlock Key Reset / Push-Pull / Square Flush / Square Extended

Package Quantity: 1

Shape	Operation	Contact	Part No.	Color Code	Dimensions (mm)
ø40mm Mushroom Pushlock Key	Reset (*1)	1NO	AXW410R		
AXW4		1NC	AXW401R	-	Adjust ring Panel thickness 1 to 6
			-		
	1NO-1NC	AXW411R	R		
	2N0	AXW420R		B B 13 13 1	
	2NC	AXW402R		49.4 (1-2 blocks) 24.5 29.6 29.6 29.6	
		2NO-2NC	AXW422R		Reset (unlock)
ø40mm Mushroom Push-Pull		1NO	AYW410*		Adjust ring Panel thickness 1 to 6
AYW4		1NC	AYW401*	B G	
		1NO-1NC	AYW411*	R Y	4 4 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1
and the second		2N0	AYW420*	S W	13 25 29.6
	,	2NC	AYW402*] "	49.4 (1-2 blocks) 25 30.5 29.6
Square Flush		1NO	ABQW110*		
ABQW1		1NC	ABQW101*		
A0QW1	Momentary	1NO-1NC	ABQW111*	B G R Y S	
_	Wiorrieritary	2N0	ABQW120*		Adjust ring Panel thickness 1 to 6
		2NC	ABQW102*		
		2NO-2NC	ABQW122*		4 4 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9
		1NO	A0QW110*		
W X		1NC	A0QW101*		
	Maintained	1NO-1NC	A0QW111*	. **	49.4 (1-2 blocks) 69.4 (3-4 blocks) 13.1
	Walitalieu	2N0	A0QW120*		
		2NC	A0QW102*		
		2NO-2NC	A0QW122*		
Square Extended		1NO	ABQW210*		
ABQW2		1NC	ABQW201*		
AOQW2	Momentary	1NO-1NC	ABQW211*		
_	ivionicitaly	2N0	ABQW220*	В	Adjust ring Panel thickness 1 to 6
Maintained		2NC	ABQW202*	G	
		2NO-2NC	ABQW222*	R	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
		1NO	A0QW210*	Υ	
		1NC	A0QW201*	S W	
		1NO-1NC	A0QW211*	, vv	49.4 (1-2 blocks) 13.1
	Iviaiiitaiiied	2N0	A0QW220*		
		2NC	A0QW202*]	
		2NO-2NC	A0QW222*]	

• Specify a color code in place of * in Part No. B (black), G (green), R (red), Y (yellow), S (blue), W (white)

- Round bezel (metal): Mat aluminum color
- Square bezel (plastic): Black
- Pushbuttons with one or three contact blocks contain a dummy block.
- See B-235 for other contact configurations and gold-plated silver contacts.
- Push-pull switch can have a maximum of two contact blocks.
- Pushbuttons: terminal screws M3.5, integrated terminal cover
- See B-238 for bottom view.
- *1) AXW4 pushbuttons with red operator cannot be used as emergency stop switches. When emergency stop switches are required, use XW series pushbuttons (ISO 13850 and IEC 60947-5-5 compliant).

Pushbutton operation

Push-Pull

2-position switches with button maintained in both depressed and reset positions.

Push-Pull contact operation

Contact		AY	W4		
Contact	Pu	ısh	Pull		
1NO	b	م	9,0		
1NC	• ₁ •		• •		
1NO-1NC	9-0	<u>•</u> •	-	•1•	
2N0	0,0	0,0	9-0	0_0	
2NC	<u>•</u> 1•	<u>•</u> ⊥•	•1•	•1•	

APEM

Control Boxes

Emergency Stop Switches Enabling Switches

Safety Products

Explosion Proof

Terminal Blocks

Relays & Sockets

Circuit Protectors

Power Supplies

LED Illumination

Controllers Operator

Interfaces Sensors

AUTO-ID

Flush Silhouette

ø16

ø30

Miniature

Pilot Lights

Round Flush / Dome / Square Flush Pilot Lights

Package Quantity: 1

ot Lights	Shape	Illumination	Rated Voltage	Part No.	Color Code
igh	Round Flush		natou ronago	1 4.1101	00.0. 0000
ts	APW1		24V AC/DC	APW122D*	
APEM					R
Switches & Pilot Lights	(24V AC/DC)	1.50	100/110/10	ADW/440D	G Y
Control Boxes		LED	100/110V AC	APW116D*	A S
Emergency Stop Switches					PW
Enabling Switches			000/0001/ 40	ADMIAGOD	
Safety Products	With transformer (100/110V AC)		200/220V AC	APW126D*	
Explosion Proof	Round Flush (Marking)				
Terminal Blocks	APW1B		24V AC/DC	APW1B22D*	
Relays & Sockets			24V A0/D0	AL WIDZZD*	
Circuit Protectors					R G
Power Supplies	(24V AC/DC)	LED	100/110V AC	APW1B16D*	Υ
LED Illumination					A S PW
Controllers					PVV
Operator Interfaces			200/220V AC	APW1B26D*	
Sensors	With transformer (100/110V AC)				
AUTO-ID	Dome APW2		24V AC/DC	APW222D*	
Flush Silhouette	(24V AC/DC)				R G
ø16	198.2	LED	100/110V AC	APW216D*	Y A
ø22					S PW
ø30			200/220V AC	APW226D*	
Miniature	With transformer (100/110V AC)		200/2204710	A WEED.	
Pilot Lights	Square Flush (Marking)				
	APQW1B		24V AC/DC	APQW1B22D*	
HW	(24)(40)(20)				R G
TW	(24V AC/DC)	LED	100/110V AC	APQW1B16D*	Y A
YW					S PW
			200/220V AC	APQW1B26D*	
	With transformer (100/110V AC)				

- Specify a color code in place of * in Part No. R (red), G (green), Y (yellow), A (amber), S (blue), PW (pure white)
- \bullet An LED lamp is installed in pilot lights unless otherwise specified.
- \bullet The PW (pure white) lens of marking type consists of a clear lens and a white marking plate.
- See B-265 for marking plate size and engraving area.
- Round bezel (metal): Mat aluminum color
- Square bezel (plastic): Black
- See B-235 for other contact configurations.
- See B-235 for other operating voltage such as 6V AC/DC, 12V AC/DC, and 110V DC.

Dimensions

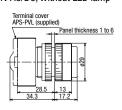
Round Flush Terminal screws: M3.5

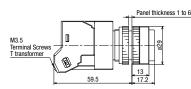
APW1/APW1B

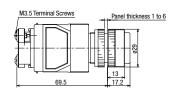
6, 12, 24V AC/DC, Without LED lamp

100/110V AC, 200/220V AC (240V AC maximum)

110V DC, 380V AC minimum





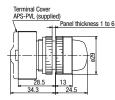




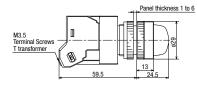
Package Quantity: 1

Dome APW2 Terminal screws: M3.5

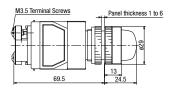
6, 12, 24V AC/DC, Without LED lamp

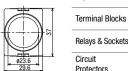


100/110V AC, 200/220V AC (240V AC maximum)



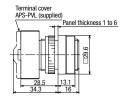
110V DC, 380V AC minimum





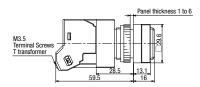
Square Flush (Marking Type) APQW1B

6, 12, 24V AC/DC, Without LED lamp

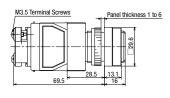




100/110V AC, 200/220V AC (240V AC maximum)



110V DC, 380V AC minimum





Bottom View

6, 12, 24V AC/DC, Without LED lamp



With terminal cover (APS-PVL)

100/110V AC, 200/220V AC (240V AC maximum) 110V DC, 380V AC minimum



Integrated terminal cover



For DC-DC Converter types, terminal X1 is \oplus , X2 is \ominus . Integrated terminal cover

• See B-268 for wiring.

APEM

Control Boxes

Emergency Stop Switches Enabling Switches

Safety Products

Explosion Proof

Terminal Blocks

Circuit Protectors

Power Supplies

LED Illumination

Controllers

Operator

Interfaces

Sensors

AUTO-ID

Flush Silhouette

ø16

ø30

Miniature

Pilot Lights

HW

Control Boxes

Emergency
Stop Switches
Enabling
Switches

Safety Products

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Protectors

Power Supplies

LED Illumination

Controllers

Operator

LED

Round Extended / Round Extended (Marking Type)

Package Quantity: 1

Round Extended ALW2 AC/DC 2NO							Package Quantity:
AUV2 AOLW2 BOOLWA AOLW2	Shape	Illumination	Operation	Rated Voltage		Part No.	Color Code
AOLW2 Momentary 100/110VAC 2W0-2WC ALW21620D* A					1NO-1NC	ALW22211D*	
Momentary				24V AC/DC	2N0	ALW22220D*	
Momentary 100/110V AC 200	AOLW2				2NO-2NC	ALW22222D*	
Momentary					1NO-1NC	ALW21611D*	
ALW262D0 S PW	/ The state of the		Momentary	100/110V AC	2N0	ALW21620D*	
C24V AC/DC LED					2NO-2NC	ALW21622D*	
C24V AC/DC					1NO-1NC	ALW22611D*	PW
Maintained 100/110V AC 24V AC/DC 2NO A0LW22211D* R R G Y AC/DC 2NO A0LW22220D* R G Y AC/DC 2NO A0LW22220D* A0LW22220D* A0LW21622D* S G Y AC/DC A0LW21622D* S G Y AC/DC A0LW2622D* A0LW26222D* A0LW2622D* A0LW26222D* A0LW2622D* A0LW26222D* A0LW2622D* A0LW262D* A0LW262D* A0LW262D* A0LW262D* A0LW262D* A0LW262D* A0LW262D* A0LW2				200/220V AC	2N0	ALW22620D*	
Maintained 24V AC/DC 2NO	(24V AC/DC)	l len			2NO-2NC	ALW22622D*	
Maintained 100/110V AC 2NO					1NO-1NC	A0LW22211D*	
Maintained 100/110V AC 2NO				24V AC/DC	2N0	A0LW22220D*	
Maintained 100/110V AC 2N0					2NO-2NC	A0LW22222D*	
Maintained 100/110V AC 2NO A0LW21620D* A S					1NO-1NC	A0LW21611D*	
S			Maintained	100/110V AC	2N0	A0LW21620D*	
With transformer (100/110V AC) Round Extended (Marking) ALW2B AOLW2B Momentary AOLW2B Momentary AOLW2B AOLW2B162D* AOLW2B262D* AOLW2B162D* AOLW2B162D* AOLW2B162D* AOLW2B162D* AOLW2B162D* AOLW2B162D* AOLW2B162D* AOLW2B162D* AOLW2B162D*					2NO-2NC	A0LW21622D*	
Round Extended (Marking) 24V AC/DC 2NO					1NO-1NC	A0LW22611D*	PW
Round Extended (Marking) ALW2B ADLW2B AOLW2B				200/220V AC	2N0	A0LW22620D*	
ALW2B AOLW2B AULW2B	(100/110V AC)				2NO-2NC	A0LW22622D*	
AOLW2B Momentary 100/110V AC 2NO					1NO-1NC	ALW2B2211D*	
Momentary 100/110V AC 2NO				24V AC/DC	2N0	ALW2B2220D*	
Momentary 100/110V AC 2NO	AOLW2B				2NO-2NC	ALW2B2222D*	
Momentary 100/110V AC 2N0					1NO-1NC	ALW2B1611D*	
2N0-2NC ALW2B1622D* S N0-1NC ALW2B2611D* PW	1		Momentary	ry 100/110V AC	2N0	ALW2B1620D*	Å
C24V AC/DC LED 200/220V AC 2NO					2NO-2NC	ALW2B1622D*	
C24V AC/DC C2NO-2NC ALW2B2622D*					1NO-1NC	ALW2B2611D*	PW
1N0-1NC				200/220V AC	2N0	ALW2B2620D*	
1N0-1NC	(24V AC/DC)	LED			2NO-2NC	ALW2B2622D*	
2N0-2NC A0LW2B2222D* R G					1NO-1NC	A0LW2B2211D*	
Maintained 100/110V AC 2NO				24V AC/DC	2N0	A0LW2B2220D*	
Maintained 100/110V AC 2NO A0LW2B1620D* A S					2NO-2NC	AOLW2B2222D*	
Maintained 100/110V AC 2NO A0LW2B1620D* A 2NO-2NC A0LW2B1622D* S					1NO-1NC	A0LW2B1611D*	
2NO-2NC AOLW2B1622D* S			Maintained	100/110V AC	2N0	A0LW2B1620D*	
					2NO-2NC	A0LW2B1622D*	
					1NO-1NC	A0LW2B2611D*	PW
With transformer 200/220V AC 2NO AOLW2B2620D*				200/220V AC	2N0	A0LW2B2620D*	
(100/110V AC) 2NO-2NC A0LW2B2622D*	(100/110V AC)				2NO-2NC	A0LW2B2622D*	

- Specify a color code in place of * in Part No. R (red), G (green), Y (yellow), A (amber), S (blue), PW (pure white)
- The PW (pure white) lens of marking type consists of a clear lens and a white marking plate.
- \bullet See $\mbox{\sc B-265}$ for marking plate size and engraving area.
- An LED lamp is installed in illuminated pushbuttons unless otherwise specified.
- Round bezel (metal): Mat aluminum color
- See B-236 for other operating voltage such as 6V AC/DC, 12V AC/DC, and 110V DC.
- \bullet See B-236 for other contact configurations and gold-plated silver contacts.
- ullet Illuminated pushbutttons of 24V AC/DC or below with 2 or 4 contact blocks have a dummy block.

HW

Pilot Lights

Sensors AUTO-ID

Flush Silhouette

ø16

ø30 Miniature

TW

LED

Round Extended with Full Shroud / Round Extended with Full Shroud (Marking Type)

						Package Quantity:	
Shape	Illumination	Operation	Rated Voltage	Contact Configuration	Part No.	Color Code	
Round Extended with Full Shroud				1NO-1NC	ALFW22211D*		
ALFW2			24V AC/DC	2N0	ALFW22220D*		
AOLFW2				2NO-2NC	ALFW22222D*	R	
				1NO-1NC	ALFW21611D*	G	
1		Momentary	100/110V AC	2N0	ALFW21620D*	Y A	
				2NO-2NC	ALFW21622D*	S	
				1NO-1NC	ALFW22611D*	PW	
			200/220V AC	2N0	ALFW22620D*		
(24V AC/DC)	LED			2NO-2NC	ALFW22622D*		
(24V A0/D0)	LED			1NO-1NC	A0LFW22211D*		
			24V AC/DC	2N0	A0LFW22220D*		
				2NO-2NC	A0LFW22222D*	R	
				1NO-1NC	A0LFW21611D*	G	
		Maintained	100/110V AC	2N0	A0LFW21620D*	Y А	
				2NO-2NC	A0LFW21622D*	S	
				1NO-1NC	A0LFW22611D*	PW	
With transformer		200,	200/220V AC	2N0	A0LFW22620D*		
(100/110V AC)					2NO-2NC	A0LFW22622D*	
Round Extended with Full Shroud		Momentary	24V AC/DC	1NO-1NC	ALFW2B2211D*		
(Marking Type)				2N0	ALFW2B2220D*		
ALFW2B				2NO-2NC	ALFW2B2222D*	R	
AOLFW2B			100/110V AC	1NO-1NC	ALFW2B1611D*	G	
				2N0	ALFW2B1620D*	— Y А	
				2NO-2NC	ALFW2B1622D*	S A	
				1NO-1NC	ALFW2B2611D*	PW	
			200/220V AC	2N0	ALFW2B2620D*		
	LED -			2NO-2NC	ALFW2B2622D*		
(24V AC/DC)	LEU			1NO-1NC	A0LFW2B2211D*		
			24V AC/DC	2N0	A0LFW2B2220D*		
				2NO-2NC	A0LFW2B2222D*	R	
				1NO-1NC	AOLFW2B1611D*	G	
		Maintained	100/110V AC	2N0	A0LFW2B1620D*	Y А	
				2NO-2NC	AOLFW2B1622D*	S A	
				1NO-1NC	A0LFW2B2611D*	PW	
With transformer			200/220V AC	2N0	A0LFW2B2620D*		
(100/110V AC)				2NO-2NC	AOLFW2B2622D*		

- Specify a color code in place of * in Part No. R (red), G (green), Y (yellow), A (amber), S (blue), PW (pure white)
- The PW (pure white) lens of marking type consists of a clear lens and a white marking plate.
- See B-265 for marking plate size and engraving area.
- An LED lamp is installed in illuminated pushbuttons unless otherwise specified.
- Round bezel (metal): Mat aluminum color
- See B-236 for other operating voltage such as 6V AC/DC, 12V AC/DC, and 110V DC.
- See B-236 for other contact configurations and gold-plated silver contacts.
- Illuminated pushbutttons of 24V AC/DC or below with 2 or 4 contact blocks have a dummy block.

APEM

Control Boxes Emergency Stop Switches Enabling Switches Safety Products

Explosion Proof

Terminal Blocks Relays & Sockets

Circuit Protectors Power Supplies

LED Illumination

Controllers Operator Interfaces

Sensors AUTO-ID

Flush Silhouette ø16

ø30

Miniature

Pilot Lights

HW

Switches Pilot Liah

Control Boxes

Emergency Stop Switches Enabling Switches

Safety Products

Explosion Proof

Terminal Blocks

Relays & Sockets

Circuit Protectors

Power Supplies

LED Illumination

Controllers

Operator Interfaces

Sensors

AUTO-ID

Flush Silhouette

ø16

ø30

Miniature

Pilot Lights

HW

YW

LED Square Extended (Marking Type)

Package Quantity: 1

Shape	Illumination	Operation	Rated Voltage	Contact Configuration	Part No.	Color Code
Square Extended (Marking Type)				1NO-1NC	ALQW2B2211D*	
ALQW2B AOLQW2B			24V AC/DC	2N0	ALQW2B2220D*	
AULQWZD				2NO-2NC	ALQW2B2222D*	R
				1NO-1NC	ALQW2B1611D*	G
		Momentary	100/110V AC	2N0	ALQW2B1620D*	YA
				2NO-2NC	ALQW2B1622D*	S
				1NO-1NC	ALQW2B2611D*	PW
			200/220V AC	2N0	ALQW2B2620D*	
(24V AC/DC)	LED			2NO-2NC	ALQW2B2622D*	
	LED			1NO-1NC	A0LQW2B2211D*	
			24V AC/DC	2N0	A0LQW2B2220D*	
THE REAL PROPERTY.				2NO-2NC	AOLQW2B2222D*	R
1				1NO-1NC	A0LQW2B1611D*	G
		Maintained	100/110V AC	2N0	AOLQW2B1620D*	Y A
		wiaintaineu		2NO-2NC	AOLQW2B1622D*	s
				1NO-1NC	A0LQW2B2611D*	PW
With transformer			200/220V AC	2N0	AOLQW2B2620D*	
(100/110V AC)				2NO-2NC	A0LQW2B2622D*	

- Specify a color code in place of * in Part No. R (red), G (green), Y (yellow), A (amber), S (blue), PW (pure white)
- The PW (pure white) lens of marking type consists of a clear lens and a white marking plate.
- See B-265 for marking plate size and engraving area.
- An LED lamp is installed in illuminated pushbuttons unless otherwise specified.
- Square bezel (plastic): Black
- See B-236 for other operating voltage such as 6V AC/DC, 12V AC/DC, and 110V DC.
- See B-236 for other contact configurations and gold-plated silver contacts.
- ullet Illuminated pushbutttons of 24V AC/DC or below with 2 or 4 contact blocks have a dummy block.

LED Mushroom ø29 / ø40 Pushlock Turn Reset

Package Quantity: 1

		v-			Pac	kage Quantity: 1	<u> </u>
SI	hape	Illumination	Rated Voltage	Contact Configuration	Part No.	Color Code	ilot Lights
ø29mm Mushroom				1NO-1NC	AVLW32211D*		ts
Pushlock Turn Reset AVLW3 (*1)			24V AC/DC	2N0	AVLW32220D*		
				2NO-2NC	AVLW32222D*		APEM
				1NO-1NC	AVLW31611D*		Switches &
		LED	100/110V AC	2N0	AVLW31620D*	R	Pilot Lights
				2NO-2NC	AVLW31622D*		Control Boxes Emergency
				1NO-1NC	AVLW32611D*		Stop Switches
(24V AC/DC)	With transformer		200/220V AC	2N0	AVLW32620D*		Enabling Switches
, ,	(100/110V AC)			2NO-2NC	AVLW32622D*		Safety Products
ø29mm Mushroom	, h.m.a\			1NO-1NC	AVLW3B2211D*		Explosion Proof
Pushlock Turn Reset (Marking AVLW3B (*1)	j type)		24V AC/DC	2N0	AVLW3B2220D*		Terminal Blocks
				2NO-2NC	AVLW3B2222D*		
				1NO-1NC	AVLW3B1611D*		Relays & Sockets
		LED	100/110V AC	2N0	AVLW3B1620D*	R	Circuit Protectors
				2NO-2NC	AVLW3B1622D*		Power Supplies
				1NO-1NC	AVLW3B2611D*		LED Illumination
(24V AC/DC)	With transformer		200/220V AC	2N0	AVLW3B2620D*		Controllers
	(100/110V AC)			2NO-2NC	AVLW3B2622D*		Operator
ø40mm Mushroom Pushlock Turn Reset				1NO-1NC	AVLW42211D*		Interfaces
AVLW4 (*1)			24V AC/DC	2N0	AVLW42220D*		Sensors
				2NO-2NC	AVLW42222D*		AUTO-ID
				1NO-1NC	AVLW41611D*		
		LED	100/110V AC	2N0	AVLW41620D*	R	
				2NO-2NC	AVLW41622D*		Flush Silhouette
				1NO-1NC	AVLW42611D*		ø16
(24V AC/DC)	With transformer		200/220V AC	2N0	AVLW42620D*		ø22
	(100/110V AC)			2NO-2NC	AVLW42622D*		
ø40mm Mushroom Pushlock Turn Reset (Marking	ı tvne)			1NO-1NC	AVLW4B2211D*		ø30
AVLW4B (*1)	, 1,00/		24V AC/DC	2N0	AVLW4B2220D*		Miniature
				2NO-2NC	AVLW4B2222D*		Pilot Lights
				1NO-1NC	AVLW4B1611D*	_	
		LED	100/110V AC	2N0	AVLW4B1620D*	R	
				2NO-2NC	AVLW4B1622D*	-	HW
			000/0001/40	1NO-1NC	AVLW4B2611D*	-	TW
(24V AC/DC)	With transformer		200/220V AC	2N0	AVLW4B2620D*	-	
	(100/110V AC)			2NO-2NC	AVLW4B2622D*		YW

- Specify a color code in place of * in Part No. R (red)
- \bullet See B-265 for marking plate size and engraving area.
- An LED lamp is installed in illuminated pushbuttons unless otherwise specified.
- Round bezel (metal): Mat aluminum color
- See B-236 for other operating voltage such as 6V AC/DC, 12V AC/DC, and 110V DC.
- See B-236 for other contact configurations and gold-plated silver contacts.
- Illuminated pushbutttons of 24V AC/DC or below with 2 or 4 contact blocks have a dummy block.]
- *1) AVLW illuminated pushbuttons cannot be used as emergency stop switches. When emergency stop switches are required, use XW or HW series pushbuttons (ISO 13850 and IEC 60947-5-5 compliant).

Emergency Stop Switches Enabling

Switches

Safety Products

Explosion Proof

Terminal Blocks

Relays & Sockets

Power Supplies

LED Illumination

Circuit

Protectors

Controllers

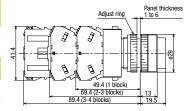
Operator Interfaces Sensors

Dimensions

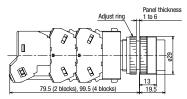
All dimensions in mm.

Round Extended

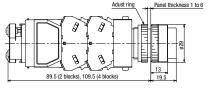
6, 12, 24V AC/DC, Without LED lamp



Terminal Screw: M3.5, integrated terminal cover 100/110V AC, 200/220V (240V AC maximum)



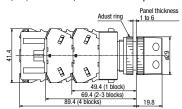
110V DC, 380V AC minimum





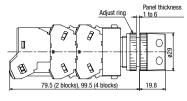
Round Extended with Full Shroud

6, 12, 24V AC/DC, Without LED lamp

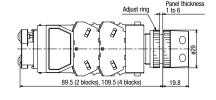


Terminal Screw: M3.5, integrated terminal cover

100/110V AC, 200/220V (240V AC maximum)



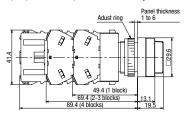
110V DC, 380V AC minimum





Square Extended

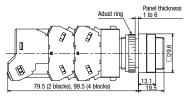
6, 12, 24V AC/DC, Without LED lamp



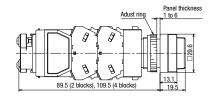
ø29mm Pushlock Turn Reset

Terminal Screw: M3.5, integrated terminal cover

100/110V AC, 200/220V (240V AC maximum)



110V DC, 380V AC minimum





Flush Silhouette

*00 G

6, 12, 24V AC/DC, Without LED lamp

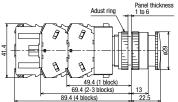
ø30

Miniature

Pilot Lights

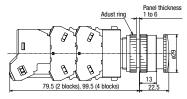
HW

YW

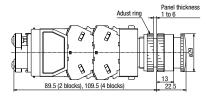


Terminal Screw: M3.5, integrated terminal cover

100/110V AC, 200/220V (240V AC maximum)



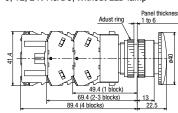
110V DC, 380V AC minimum



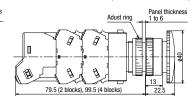


ø40mm Pushlock Turn Reset

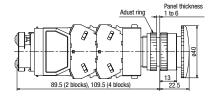
6, 12, 24V AC/DC, Without LED lamp



Terminal Screw: M3.5, integrated terminal cover 100/110V AC, 200/220V (240V AC maximum)

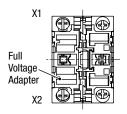


110V DC, 380V AC minimum



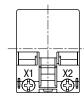


6, 12, 24V AC/DC, Without LED lamp

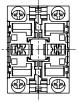


1 contact block

100/110V AC, 200/220V (240V AC maximum)

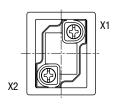


• See B-267 for wiring.

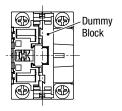


3 contact blocks

110V DC, 380V AC minimum



For DC-DC Converter types, terminal X1 is \oplus , X2 is \ominus .



2/4 contact blocks

APEM

Switches & Pilot Lights

Control Boxes

Emergency Stop Switches

Enabling Switches

Safety Products

Explosion Proof

Terminal Blocks

Relays & Sockets

Circuit

Protectors
Power Supplies

LED Illumination

Controllers

Operator

Interfaces Sensors

AUTO-ID

Flush Silhouette

ø16

ø22

ø30

Miniature

Pilot Lights

HW

TW

Control Boxes

Stop Switches

Safety Products

Explosion Proof

Terminal Blocks

Relays & Sockets

Power Supplies

LED Illumination

Controllers

Operator Interfaces

Sensors

AUTO-ID

Flush Silhouette

ø16

ø30

Miniature

Pilot Lights

Circuit Protectors

Emergency

Enabling

Switches

Selector Switches (Knob Operator)

Package Quantity: 1

ASW

Shape

Knob Operator



Contact Configuration Spring Return from Left Maintained Spring Return from Right Operator Contact Block Operator Position Contact Block Position Contact Code Mounting Mounting Contact Contact 2 1 2 Position Position 1N0 1 N0 1 N0 • ASW210 ASW2110 ASW2210 (10)2 **Dummy Block** 2 1NO-1NC 1 1 N0 • NO 2-position **ASW211** ASW2111 ASW2211 (11)2 NC 2 NC • 2N0 ① ① N0 NO. • ASW220 ASW2120 ASW2220 (20)2 NO • 2 NO • (1) • (1) NO • NO 2NO-2NC 2 2 NC NC **ASW222** ASW2122 ASW2222 (22)• • (3) NO (3) N0 4 NC 4 NC Maintained Spring Return Spring Return from Left Spring Return Contact Block **Operator Position** Contact from Right Two-way Code Mounting 1 0 2 Contact 2 0 Position N0 • 2N0 1 ASW320 ASW3120 ASW3220 ASW3320 NO (20)2 2NC 1 NC ASW302 ASW3102 ASW3202 ASW3302 (02)2 NC (1) N0 • 2NO-2NC 2 N0 **ASW322** ASW3122 ASW3222 ASW3322 (22)3 NC 4 NC 45° • 3-position 1 NO 4N0 2 NO **ASW340** ASW3140 ASW3240 ASW3340 • (40)N0 3 4 N0 NC 1 4NC 2 NC ASW304 ASW3104 ASW3204 ASW3304 (04)3 NC 4 NC 1 N0 2 N0

HW

. Knob operator: white indicator on black body

35☆

- Cylinder: Mat aluminum color
- Selector switches with one or three contact blocks contain a dummy block.
- Spring return is not available with contact code 3S.
- On the contact arrangement marked with \approx in the table above, the rated current (load switching current) is reduced to a half of the related current of the contact block. The rated insulation voltage and the rated thermal current remain unchanged.

ASW33S-243

 \bullet For models with $\not \simeq$, contacts may overlap when the operator position is changed.

NC

Dummy Block

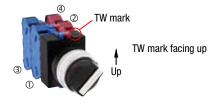
- Other contact arrangements are also available. See B-253 to B-255.
- \bullet Optional selector operators and color inserts are available.

3

4

- See B-236 for gold-plated silver contacts.
- Turn the operator to each position accurately.

Contact Block Mounting Position



Dimensions

Adust ring Panel thickness 1 to 6



All dimensions in mm.

Terminal screw: M3.5 Integrated terminal cover

• See B-238 for bottom view.

Selector Switches (Lever Operator)

Lever Operator ASW□L Package Quantity: 1

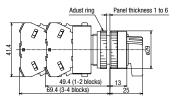
Contact Configuration Contact Contact Block Code Mounting Position 1		Code	Contac		tion										Switches & Pilot Lights
Contact Configuration		Code	Contac		tion										Pilot Lights
Contact Configuration		Code	Contac		tion				•						
Contact Configuration Contact Block		Code	Contac		tion										
Contact Contact Contact Contact Contact Contact Code Mounting Position Contact Code Co		Code		t Block				Maintained	Spring Return from		Sprir	ng Ret	urn fro	m Left	Control Boxes
Contact Code Mounting Contact		Code			Oper	ator Do	eition			Contac	t Block				
90° 2-position 1NO					Open	alui Fu	15111011	1 2	1 >2		I DIUCK	Pos	ition	1 2	l
90° 2-position 1NO			Position	Contact							Contact	1	2	<u> </u>	
90° 2-position		I 1NO		NO		•		101101.10	101104140		NO	•		10000110	Safety Products
1N0-1NC		(10)		_	Dun	nmy B	lock	ASW2L10	ASW21L10	2		-	_	ASW22L10	Explosion Proof
(11) ② NC						•		ΔSW2I 11	ΔSW21I 11			•		ΔSW22I 11	
(20) ② NO ● ASW2L20 ASW2L20 ② NO ● ASW2L20 ASW2L20 ☐ NO ● ASW2L20 ☐ ASW2L20 ☐ Relays & So ☐ Circuit Protectors ASW2L20		· ' /			•			AOWZETT	AUWZIETT				•	AOWELLIT	Terminal Blocks
							_	ASW2L20	ASW21L20		_			ASW22L20	Relays & Sockets
2N0-2NC		(20)				_					_				ł
(22) ③ NO ● ASW2L22 ASW2L22 ③ NO ● Power Supp		and and				•	-					•			
Tomo: Oddy							-	ASW2L22	ASW21L22			•		ASW22L22	
		(==)			•		-						•		Power Supplies
Contact Block Operator Position Wallitatilled Opining Neturn Opining Neturn Home Left Opining Neturn			Contact		Opera	ator Po	sition	Maintained		Spring	Return fro	m Lef	t		LED Illumination
Contact Code Mounting Contact 1 0 0 1 1 0 2 1 0 2 1 0 2 Controllers			Mounting		H.			. 0 -			. 0 -				Controllers
Position Contact 1 0 2 Operator		Code			1	0	2	1 2	1 0 2		1 2			1 2	
2N0					•			ASW3L20	ASW31L20		ASW32L20)		ASW33L20	Interfaces
(20) ② NU		. ,					_	7.01.0220	1.01101220			-			Sensors
2NC (02)					_			ASW3L02	ASW31L02		ASW32L02	2		ASW33L02	AUTO-ID
(02) ② NC ——————————————————————————————————		(02)													- A010-ID
2NO-2NC 2 NO -		2NO-2NC		_			•								
(22) ③ NC ASW3L22 ASW31L22 ASW32L22 ASW33L22			_					ASW3L22	ASW31L22		ASW32L22	-		ASW33L22	
45° (4) NC (45°)	45°	` ′													Flush Cilbanatta
3-position	3-position		①		•										Flush Silhouette
4NO ② NO • ASW3L40 ASW3L40 ASW3L40 ASW33L40 Ø16			2	_			•	ASW31.40	ASW311.40		ΔS <i>W</i> 321 <i>Δ</i> Ω)		V6/N331 4U	ø16
(4U) ③ NO ♥		(40)			•			AOVIOLTO	AOWOILTO		AUVIOZETO	,		AUVUULTU	
							•								ø22
① NC															ø30
4NC ② NC ————————————————————————————————								ASW3L04	ASW31L04		ASW32L04	ļ.		ASW33L04	
(04) (04) (04) (14) (15) (15) (15) (15) (15) (15) (15) (15		(04)													Miniature
① NO ● Pilot Lights			_												Pilot Lighte
2 NO							•	4							- IIIOL LIGITIS
3S ☆															
④ — Dummy Block		3S ☆				•			_		_			_	

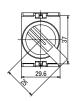
- Lever operator: white indicator on black body
- Cylinder: Mat aluminum color
- Selector switches with one or three contact blocks contain a dummy block.
- Spring return is not available with contact code 3S.
- On the contact arrangement marked with \(\frac{1}{2} \) in the table above, the rated current (load switching current) is reduced to a half of the related current of the contact block. The rated insulation voltage and the rated thermal current remain unchanged.
- Other contact arrangements are also available. See B-253 to B-255.
- Optional selector operators and color inserts are available.
- See B-236 for gold-plated silver contacts.
- Turn the operator to each position accurately.

Contact Block Mounting Position



Dimensions





All dimensions in mm.

Terminal screw: M3.5 Integrated terminal cover

• See B-238 for bottom view.

HW

W

Control Boxes Emergency Stop Switches Enabling Switches Safety Products **Explosion Proof** Terminal Blocks Relays & Sockets Circuit Protectors **Power Supplies** LED Illumination Controllers Operator Interfaces Sensors AUTO-ID

Flush Silhouette

ø16

ø30 Miniature Pilot Lights

HW

YW

Key Selector Switches

Package Quantity: 1

Key Selector Switch ASW□K (Key No. 0)

Shape



		Contact	Configura	ion			Maintained	Spring Return	Spring	Return fro	m Lef	t	
	Contact	Contact	Block	Opera	ator Po	sition	1 2	from Right	Contac	t Block		rator ition	1. 2
	Code	Mounting Position	Contact	1	2			1 2	Mounting Position	Contact	1	2	1_2
	1NO	0	NO		•		ASW2K10	ACW01V10	0	NO	•		ACM22K10
	(10)	2	_	Dur	nmy B	lock	ASWZKIU	ASW21K10	2	_	_	_	ASW22K10
90°	1NO-1NC	0	NO		•		ASW2K11	ASW21K11	0	NO	•		ASW22K11
2-position	(11)	2	NC	•			ASWZNII	ASWZIKII	2	NC		•	ASWZZNII
	2N0	0	NO		•		ASW2K20	ASW21K20	0	NO	•		ASW22K20
	(20)	2	NO		•		ASWZNZU	ASWZIKZU	2	NO	•		ASWZZNZU
		0	NO		•				0	NO	•		
	2NO-2NC	2	NC	•		1	ACWOKOO	ACW04K00	2	NC		•	ACMOOKOO
	(22)	3	NO		•		ASW2K22	ASW21K22	3	NO	•		ASW22K22
		4	NC	•					4	NC		•	
	Contact	Contact	Block	Opera	ator Po	sition	Maintained	Spring Return from Right	Spring	Return fro	m Lef	t	Spring Return
	Code	Mounting Position	Contact	1	0	2	1 0 2			1 0 2			Two-way
	2N0	0	NO	•			ASW3K20	ASW31K20		ASW32K20			ASW33K20
	(20)	2	NO			•	ASWSKZU	ASWSTRZU		ASWSZKZU	'		ASWSSKZU
	2NC	0	NC				ASW3K02	ASW31K02		ASW32K02			ASW33K02
	(02)	2	NC				ASWSKUZ	ASWSTRUZ		ASWSZRUZ			ASWSSRUZ
		0	NO	•									
	2NO-2NC	2	NO			•	ASW3K22	ASW31K22		ASW32K22			ASW33K22
	(22)	3	NC				ASWSKZZ	ASWSTRZZ		HOWOZNZZ			ASWSSRZZ
45°		4	NC										
3-position		0	NO	•									
	4N0	2	NO			•	ASW3K40	ASW31K40		ASW32K40			ASW33K40
	(40)	3	NO	•			ASWSK40	ASWSTR40		ASW3ZN4U			ASWSSK40
		4	NO			•							
		0	NC										
	4NC	2	NC				ASW3K04	ASW31K04		ASW32K04			ASW33K04
	(04)	3	NC				ASWSNU4	ASWSTRU4		MOWOZNU4			ASWSSRU4
		4	NC										
		0	NO	•									
	3S ☆	2	NO			•	☆						
	33 ⋈	3	NC		•		ASW3K3S-243	_		_			_
				D	D	ام ماد	I		1				

- · Cylinder cover: black
- Cylinder: Mat aluminum color
- On the spring-returned types, the key can be released only from the maintained position.
 On the maintained types, the key can be released from every position.
 Other key retained positions are also available. See B-236.

Dummy Block

- · Selector switches with one or three contact blocks contain a dummy block.
- On the contact arrangement marked with ☆ in the table above, the rated current (load switching current) is reduced to a half of the related current of the contact block. The rated insulation voltage and the rated thermal current remain unchanged.
- ullet For models with $\not\! \simeq$, contacts may overlap when the operator position is changed.
- Other contact arrangements are also available. See B-253 to B-255.
- See B-236 for gold-plated silver contacts.
- Key selector switch is supplied with two standard keys.
 (1) Insert the key completely before turning the key, otherwise failure may result.
 (2) Turn the operator to each position accurately.
- Different key number is available upon request. Contact IDEC.

Contact Block Mounting Position

TW mark TW mark facing up Up

Dimensions

All dimensions in mm.

Terminal screw: M3.5 Integrated terminal cover

• See B-238 for bottom view.

Control Boxes Emergency Stop Switches Enabling Switches Safety Products **Explosion Proof** Terminal Blocks Relays & Sockets Circuit Protectors Power Supplies LED Illumination Controllers Operator Interfaces Sensors AUTO-ID

Flush Silhouette

ø16

ø30

HW

YW

Miniature

Pilot Lights

LED

ASLW

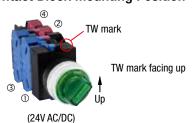
Illuminated Selector Switches

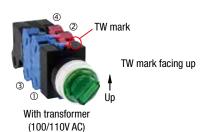
Package Quantity: 1

Shape	AGLW							(24V	AC/DC)						
		Contact C	onfigurati	on				Maintained	Spring Return		Spring F	Return	from L	eft	
	Contact	Contact	Block		perat Positio		Rated Voltage	1 2	from Right	Contac	t Block	Ope Pos		1 2	Color Code
	Code	Mounting Position	Contact	1	2				1 2	Mounting Position	Contact	1	2	1_2	
	1NO-1NC	1	NO		•		24V AC/DC	ASLW22211D*	ASLW212211D*	1	NO	•		ASLW222211D*	
90°	(11)	2	NC	•			100/110V AC	ASLW21611D*	ASLW211611D*	0	NC		•	ASLW221611D*	
2-position	(11)						200/220V AC	ASLW22611D*	ASLW212611D*					ASLW222611D*	R
	2N0	0	NO		•		24V AC/DC	ASLW22220D*	ASLW212220D*	1	NO	•		ASLW222220D*	G
	(20)	2	NO		•		100/110V AC	ASLW21620D*	ASLW211620D*	2	NO	•		ASLW221620D*	Υ
	(20)						200/220V AC	ASLW22620D*	ASLW212620D*					ASLW222620D*	A
		0	NO		•		24V AC/DC	ASLW22222D*	ASLW212222D*	1	NO	•		ASLW222222D*	S
	2NO-2NC	2	NC	•			100/110V AC	ASLW21622D*	ASLW211622D*	2	NC		•	ASLW221622D*	PW
	(22)	3	NO		•		200/220V AC	ASLW22622D*	ASLW212622D*	3	NO	•		ASLW222622D*	<u> </u>
		4	NC	•						4	NC		•		
	Contact	Contact	Block		perat Positio		Rated Voltage	Maintained	Spring Return from Right	Sprir	ng return fron	n left		Spring Return Two-way	Color
	Code	Mounting Position	Contact	1	0	2	nateu voitage	1 0 2	1 0 2		1 2			1_0^2	Code
		Position	Jointage					\vee	\(\psi\)		V				
	200	1	NO	•			24V AC/DC	ASLW32220D*	ASLW312220D*		SLW322220E			ASLW332220D*	
	2N0			•		•	100/110V AC	\vee	ASLW312220D* ASLW311620D*					ASLW332220D* ASLW331620D*	
	2N0 (20)	①	NO NO	•		•	100/110V AC 200/220V AC	ASLW32220D*	ASLW312220D*	A	SLW322220E)*			
	(20)	0 2	NO NO	•		•	100/110V AC 200/220V AC 24V AC/DC	ASLW32220D* ASLW31620D* ASLW32620D* ASLW32202D*	ASLW312220D* ASLW311620D* ASLW312620D* ASLW312202D*	A: A: A:	SLW322220E SLW321620E SLW322620E SLW322202E)*)*)*		ASLW331620D* ASLW332620D* ASLW332202D*	
	(20) 2NC	① ②	NO NO	•		•	100/110V AC 200/220V AC 24V AC/DC 100/110V AC	ASLW32220D* ASLW31620D* ASLW32620D* ASLW32202D* ASLW31602D*	ASLW312220D* ASLW311620D* ASLW312620D* ASLW312202D* ASLW311602D*	A: A: A:	SLW322220E SLW321620E SLW322620E SLW322202E SLW321602E)*)*)*)*		ASLW331620D* ASLW332620D* ASLW332202D* ASLW331602D*	
	(20)	① ② ① ②	NO NO NC NC			•	100/110V AC 200/220V AC 24V AC/DC 100/110V AC 200/220V AC	ASLW32220D* ASLW31620D* ASLW32620D* ASLW32202D* ASLW31602D* ASLW32602D*	ASLW312220D* ASLW311620D* ASLW312620D* ASLW31202D* ASLW311602D* ASLW311602D*	A: A: A: A:	SLW322220E SLW321620E SLW322620E SLW322202E SLW321602E SLW322602E)*)*)*)*)*		ASLW331620D* ASLW332620D* ASLW332202D* ASLW331602D* ASLW332602D*	
45°	(20) 2NC (02)	① ② ① ②	NO NO NC NC	•			100/110V AC 200/220V AC 24V AC/DC 100/110V AC 200/220V AC 24V AC/DC	ASLW32220D* ASLW31620D* ASLW32620D* ASLW32020D* ASLW31602D* ASLW32602D* ASLW32222D*	ASLW312220D* ASLW311620D* ASLW312620D* ASLW312620D* ASLW312602D* ASLW312602D* ASLW312622D*	A: A: A: A: A:	SLW322220E SLW321620E SLW322620E SLW322202E SLW321602E SLW322602E SLW322222E)*)*)*)*)*		ASLW331620D* ASLW332620D* ASLW332202D* ASLW331602D* ASLW332602D* ASLW332222D*	R
45° 3-position	(20) 2NC (02) 2NO-2NC	0 0 2	NO NO NC NC NO			•	100/110V AC 200/220V AC 24V AC/DC 100/110V AC 200/220V AC 24V AC/DC 100/110V AC	ASLW32220D* ASLW31620D* ASLW32620D* ASLW32622D* ASLW32602D* ASLW32602D* ASLW32602D* ASLW32602D* ASLW32622D*	ASLW312220D* ASLW311620D* ASLW311620D* ASLW31202D* ASLW311602D* ASLW311602D* ASLW311602D* ASLW311602D* ASLW311622D*	A: A: A: A: A: A:	SLW322220E SLW321620E SLW322620E SLW322202E SLW321602E SLW322602E SLW322222E SLW321622E)*)*)*)*)*)*		ASLW331620D* ASLW332620D* ASLW332202D* ASLW331602D* ASLW332602D* ASLW332222D* ASLW331622D*	G
	(20) 2NC (02)	① ② ① ② ② ③	NO NO NC NC NO NO				100/110V AC 200/220V AC 24V AC/DC 100/110V AC 200/220V AC 24V AC/DC	ASLW32220D* ASLW31620D* ASLW32620D* ASLW32020D* ASLW31602D* ASLW32602D* ASLW32222D*	ASLW312220D* ASLW311620D* ASLW312620D* ASLW312620D* ASLW312602D* ASLW312602D* ASLW312622D*	A: A: A: A: A: A:	SLW322220E SLW321620E SLW322620E SLW322202E SLW321602E SLW322602E SLW322222E)*)*)*)*)*)*		ASLW331620D* ASLW332620D* ASLW332202D* ASLW331602D* ASLW332602D* ASLW332222D*	G Y
	(20) 2NC (02) 2NO-2NC	① ② ① ② ② ③ ④	NO NO NC NC NO NO NO NC	•			100/110V AC 200/220V AC 24V AC/DC 100/110V AC 200/220V AC 24V AC/DC 100/110V AC 200/220V AC	ASLW32220D* ASLW31620D* ASLW32620D* ASLW3202D* ASLW32602D* ASLW32602D* ASLW32622D* ASLW32622D* ASLW32622D*	ASLW312220D* ASLW311620D* ASLW311620D* ASLW31202D* ASLW311602D* ASLW312602D* ASLW312222D* ASLW311622D* ASLW312622D*	A: A: A: A: A: A:	SLW322220I SLW3221620I SLW322620I SLW322620I SLW3221602I SLW322602I SLW322222I SLW322622I)*)*)*)*)*)*		ASLW331620D* ASLW332620D* ASLW332620D* ASLW331602D* ASLW33262D* ASLW332622D* ASLW332622D*	G Y A
	(20) 2NC (02) 2NO-2NC (22)	① ② ② ③ ④ ①	NO NO NC NC NO NO NC NC			•	100/110V AC 200/220V AC 24V AC/DC 100/110V AC 200/220V AC 24V AC/DC 100/110V AC 200/220V AC	ASLW32220D* ASLW31620D* ASLW32620D* ASLW3202D* ASLW31602D* ASLW32602D* ASLW32622D* ASLW3262D* ASLW3262D* ASLW3262D*	ASLW312220D* ASLW311620D* ASLW312620D* ASLW31202D* ASLW312602D* ASLW312602D* ASLW312222D* ASLW312622D* ASLW312622D* ASLW312622D*	A: A	SLW322220E SLW3221620D SLW322620E SLW322620E SLW322602E SLW322602E SLW322622E SLW322622E)*)*)*)*)*)*)*		ASLW331620D* ASLW332620D* ASLW331602D* ASLW33262DD* ASLW33262DD* ASLW332622D* ASLW332622D* ASLW33262D*	G Y A S
	(20) 2NC (02) 2NO-2NC (22) 4NO	① ② ② ③ ④ ① ②	NO N	•			100/110V AC 200/220V AC 24V AC/DC 100/110V AC 200/220V AC 24V AC/DC 100/110V AC 200/220V AC 24V AC/DC 100/110V AC	ASLW3220D* ASLW31620D* ASLW31620D* ASLW32620D* ASLW32602D* ASLW32602D* ASLW32622D* ASLW3262D* ASLW3262D* ASLW3262D* ASLW32640D* ASLW32640D*	ASLW312220D* ASLW311620D* ASLW311620D* ASLW31202D* ASLW31202D* ASLW312602D* ASLW312602D* ASLW312222D* ASLW312622D* ASLW312622D* ASLW31262D* ASLW312640D* ASLW311640D*	A: A	SLW322220I SLW321620D SLW322620I SLW322202I SLW322602I SLW322602I SLW322622I SLW322622I SLW322622I)*)*)*)*)*)*)*)*		ASLW331620D* ASLW332620D* ASLW33202D* ASLW331602D* ASLW332602D* ASLW33262D* ASLW33262D* ASLW33262D* ASLW332640D* ASLW331640D*	G Y A
	(20) 2NC (02) 2NO-2NC (22)	① ② ② ③ ④ ① ② ③ ③ ④ ① ② ③ ③ ④ ① ② ② ③ ③ ④ ① ② ② ④ ④ ① ② ② ③ ③ ④ ① ② ② ③ ③ ④ ① ② ② ③ ③ ④ ④ ② ② ④ ④ ④ ② ② ④ ④ ④ ④ ④ ④ ④	NO N	•		•	100/110V AC 200/220V AC 24V AC/DC 100/110V AC 200/220V AC 24V AC/DC 100/110V AC 200/220V AC	ASLW32220D* ASLW31620D* ASLW32620D* ASLW3202D* ASLW31602D* ASLW32602D* ASLW32622D* ASLW3262D* ASLW3262D* ASLW3262D*	ASLW312220D* ASLW311620D* ASLW312620D* ASLW31202D* ASLW312602D* ASLW312602D* ASLW312222D* ASLW312622D* ASLW312622D* ASLW312622D*	A: A	SLW322220E SLW3221620D SLW322620E SLW322620E SLW322602E SLW322602E SLW322622E SLW322622E)*)*)*)*)*)*)*)*		ASLW331620D* ASLW332620D* ASLW331602D* ASLW33262DD* ASLW33262DD* ASLW332622D* ASLW332622D* ASLW33262D*	G Y A S
	(20) 2NC (02) 2NO-2NC (22) 4NO	① ② ② ③ ④ ④	NO N	•		•	100/110V AC 200/220V AC 24V AC/DC 100/110V AC 200/220V AC 100/110V AC 200/220V AC 200/220V AC 24V AC/DC 100/110V AC 200/220V AC	ASLW32220D* ASLW31620D* ASLW31620D* ASLW3202D* ASLW31602D* ASLW3262D* ASLW3262D* ASLW3222D* ASLW3222D* ASLW3222D* ASLW3162D* ASLW32640D* ASLW32640D*	ASLW312220D* ASLW311620D* ASLW311620D* ASLW31202D* ASLW311602D* ASLW312602D* ASLW312602D* ASLW31222D* ASLW312622D* ASLW31262D* ASLW312640D* ASLW312640D*	A: A: A: A: A: A: A: A: A: A:	SLW322220D SLW321620D SLW322620D SLW32202D SLW322602D SLW322602D SLW3226222 SLW321622D SLW322622D SLW322222D SLW322640D SLW322640D)*)*)*)*)*)*)*)*		ASLW331620D* ASLW332620D* ASLW33260D* ASLW332602D* ASLW332602D* ASLW33262D* ASLW331622D* ASLW33262D* ASLW332640D*	G Y A S
	(20) 2NC (02) 2NO-2NC (22) 4NO (40)	0 2 0 2 0 2 3 4 0	NO N	•		•	100/110V AC 200/220V AC 24V AC/DC 100/110V AC 200/220V AC 24V AC/DC 100/110V AC 200/220V AC 24V AC/DC 100/110V AC 200/220V AC	ASLW32220D* ASLW31620D* ASLW32620D* ASLW32620D* ASLW31602D* ASLW32602D* ASLW32622D* ASLW32622D* ASLW32622D* ASLW32640D* ASLW32640D* ASLW32640D*	ASLW312220D* ASLW311620D* ASLW311620D* ASLW311602D* ASLW311602D* ASLW311602D* ASLW31222D* ASLW31222D* ASLW31222D* ASLW31162D* ASLW312640D* ASLW312640D* ASLW312240D* ASLW312240D*	A: A	SLW322220E SLW321620D SLW322620E SLW32202E SLW322602E SLW322602E SLW322602E SLW322622E SLW322622E SLW322640E SLW322640E)*)*)*)*)*)*)*)*		ASLW331620D* ASLW332620D* ASLW332202D* ASLW332602D* ASLW332602D* ASLW332622D* ASLW331622D* ASLW33262D* ASLW332640D* ASLW332640D* ASLW332240D*	G Y A S
	(20) 2NC (02) 2NO-2NC (22) 4NO	① ② ② ③ ④ ④	NO N	•		•	100/110V AC 200/220V AC 24V AC/DC 100/110V AC 200/220V AC 100/110V AC 200/220V AC 200/220V AC 24V AC/DC 100/110V AC 200/220V AC	ASLW32220D* ASLW31620D* ASLW31620D* ASLW3202D* ASLW31602D* ASLW3262D* ASLW3262D* ASLW3222D* ASLW3222D* ASLW3222D* ASLW3162D* ASLW32640D* ASLW32640D*	ASLW312220D* ASLW311620D* ASLW311620D* ASLW31202D* ASLW311602D* ASLW312602D* ASLW312602D* ASLW31222D* ASLW312622D* ASLW31262D* ASLW312640D* ASLW312640D*	A: A	SLW322220D SLW321620D SLW322620D SLW32202D SLW322602D SLW322602D SLW3226222 SLW321622D SLW322622D SLW322222D SLW322640D SLW322640D)*)*)*)*)*)*)*)*)*)*)*)*)*		ASLW331620D* ASLW332620D* ASLW33260D* ASLW332602D* ASLW332602D* ASLW33262D* ASLW331622D* ASLW33262D* ASLW332640D*	G Y A S

- Specify a color code in place of * in Part No. R (red), G (green), Y (yellow), A (amber), S (blue), PW (pure white)
- An LED lamp is installed in illuminated selector switches unless otherwise specified.
- Round bezel (metal): Mat aluminum color
- See B-237 for other operating voltage such as 6V AC/DC, 12V AC/DC, and 110V DC.
- Illuminated selector switches of 24V AC/DC or below with 2 or 4 contact blocks have a dummy block.
- Turn the operator to each position accurately.
- See B-253 to B-255 for other contact arrangements.
- See B-237 for gold-plated silver contacts.

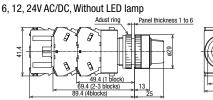
Contact Block Mounting Position





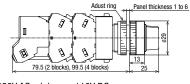
Dimensions

All dimensions in mm.



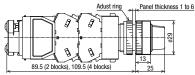


100/110V AC, 200/220V AC (240V AC maximum)





380V AC minimum, 110V DC





Terminal screw: M3.5 Integrated terminal cover

• See B-248 for bottom view.

Selector Switch Contact Arrangement

90° 2-position

=							Operator	Operati	on and	Circuit A	vailabilit	/						
t Lights									ring re			ring re						
ङ			Cont	act	l N	laintair	ned 2	f	rom rig	jht . 2	1	rom le	eft 2		()perator	Availability (*1)	
			Blo	ck			, -		$\overline{}$	>-	'		, -					
APEM	Contact Code	Circuit No.			Knob/	.,		Knob/	.,		Knob/	.,					Illumi	nated
Switches & Pilot Lights	Code	INU.			Lever	Key	Illuminated	Lever	Key	Illuminated	Lever	Key	Illuminated	Vl-		W		
Control Boxes			Mounting	Contact	1		2	1		2	1		2	Knob	Lever	Key	6V, 12V, 24V	100/110V AC
Emergency Stop Switches			Position			>			>		•	}					AC/DC	200/220V AC
Enabling Switches			①	NO		-	•			•								
Safety Products	10	_	②		Du	mmy E		Du	mmy B			mmy E	Block	×	×	×	×	_
——————————————————————————————————————			0	NC	•			•		noon	Du	y L	•					
Explosion Proof	01	_	2	_	Du	mmy E	Block	Du	mmy B	llock	Du	mmy E	Block	×	×	×	×	_
Terminal Blocks	11		①	NO			•			•	•			×	×	×	×	×
Relays & Sockets	''		2	NC	•			•					•	^	^	^	^	^
	20		①	NO			•			•	•			×	×	×	×	×
Circuit Protectors	20		2	NO			•			•	•			^	^		^	^
Power Supplies	02	_	①	NC	•			•					•	×	×	×	×	×
- Tower oupplies	- 02		2	NC	•			•					•					
LED Illumination			0	NO			•			•	•							
Controllers	22	_	2	NC	•			•			_		•	×	×	×	×	×
Operator			3	NO NO			•	_		•	•	_						
Interfaces			4	NC	•	-		•				_	•					
Sensors			① ②	NC NO			•	_		•	•		•					
AUTO-ID	31	107	3	NO NO			•				•			×	×	×	×	×
AUTU-ID			<u> </u>	NO NO			•			•	•							
			0	NO			•			•	•							
			2	NO			•			•	•							
Flush Silhouette	40	_	3	NO			•			•	•			×	×	×	×	×
			4	NO			•			•	•							
ø16	☆	☆	①	EM		-			-									
ø22	0.0	118	2	LB		\Rightarrow)		-)				×	×	×	×	×
	2R	☆	①	EM				Ì				-)	~	×	×	×	×
ø30		168	2	LB								-		×	^		^	
Miniature	• On the o	contact a	arrangeme	nt marked	d with ☆	in the	table ab	ove (con	tact co	de: 2R). tl	he rated	currer	nt (load sv	vitchina (current) i	s reduce	d to a half of the	e related

- On the contact arrangement marked with 🖈 in the table above (contact code: 2R), the rated current (load switching current) is reduced to a half of the related current of the contact block. The rated insulation voltage and the rated thermal current remain unchanged.
- ullet For models with \dot{x} , contacts may overlap when the operator is changed.

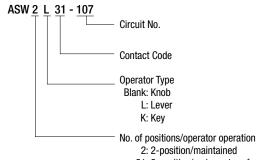
HW YW

Pilot Lights

Contact Block Mounting Position



Ordering Information



- 21: 2-position/spring return from right
- 22: 2-position/spring return from left

Control Boxes

Emergency
Stop Switches

Enabling
Switches

Safety Products

Explosion Proof

Terminal Blocks

Relays & Sockets

Circuit
Protectors

Power Supplies

LED Illumination

Controllers

Operator

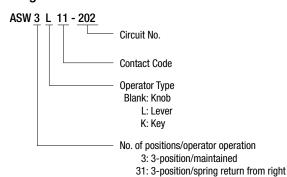
45° 3-position < Maintained / Spring Return from Right / Spring Return from Left / Spring Return Two-way>

		Cont Blo		C	perato peratio	or on	Ci	ircuit Availa	bility				railability (*1)	
Contact	Circuit												Illumi	nated
Code	No.	Mounting Position	Contact	1	0	2	Knob/ Lever	Key	Illuminated	Knob	Lever	Key	6V, 12V, 24V AC/DC	100/110V AC 200/220V AC
	202	0	NO	•				×		×	×	×	×	×
	202	2	NC								^	^	^	^
11	203	0	NC					×		×	×	×	×	×
''	200	2	NO			•							,	
	303	1	NC		•			×		×	×	×	×	×
		2	NO			•								
20		0	NO	•				×		×	×	×	×	×
		2	NO			•								
02	_	①	NC					×		×	×	×	×	×
		2	NC											
		0	NO NO	•						×	×	×	×	×
	_	2	NO NC		_			×						
		<u>3</u>	NC	_						×	×	×	×	×
		①	NC											
		2	NO							×	×	×	×	×
22	210	3	NC					×						
		4)	NO							×	×	×	×	×
		0	NC		•									
		2	NO			•				×	×	×	×	×
	310	3	NC		•			×						
		4	NO			•				×	×	×	×	×
		①	NC									~	.,	V
31	207	2	NO			•		×		×	×	×	×	×
31	207	3	NO	•				^		×	×	×	×	×
		4	NO			•					_ ^	^		^
		①	NO	•						×	×	×	×	×
40		2	NO			•		×			, î	^	^	^
"		3	NO	•				,,		×	×	×	×	×
		4	NO			•								
		1	NC							×	×	×	×	×
04	_	2	NC					×						
		3	NC							×	×	×	×	×
		4	NC											

Contact Block Mounting Position



Ordering Information



HW TW

YW

Sensors AUTO-ID

Flush Silhouette

ø16

ø30 Miniature Pilot Lights

32: 3-position/spring return from left 33: 3-position/spring return two-way

IDEC

Control Boxes

Emergency
Stop Switches

Enabling
Switches

Safety Products

Explosion Proof

Terminal Blocks

Relays & Sockets

Circuit
Protectors

Power Supplies

LED Illumination

Controllers

Operator Interfaces

Sensors

AUTO-ID

Flush Silhouette

ø16

ø30 Miniature

HW

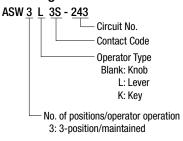
YW

Pilot Lights

45° 3-position (Maintained)

Contact	Circuit	Cont Bloo		· a	ator Ope nd Circu laintaine	ıit		(perator .	Availability	
Code	No.			Opera	ator Pos	itions				Illur	ninated
		Mounting Position	Contact	1	0	2	Knob	Lever	Key	6, 12, 24V AC/DC	100/110V AC 200/220V AC
		①	NO	•							
35☆	243	2	NO			•	×	×	×	×	
00	240	3	NC		•		^		•		
		4	_	Du	mmy Bl	ock					
		1	NO NO	•							
	234	2	LB				×	×	×	×	×
	201	3	NC		•						
		4	LB								
-A-		1	NO NO	•							
4S ☆	237	2	NO NO			•	×	×	×	×	×
.0	201	3	NC		•						
		4	NO			•					
		1	LB								
	240	2	LB				×	×	×	×	×
		3	NC		•						
		4	NO NO								

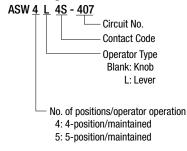
Ordering Information



45° 4-position (Maintained)

				Opera	tor Opera	tion and (Circuit		
Contact	Circuit	Cont Bloo			Maint			Ope Availa	
Code	No.				Operator	Positions			
		Mounting Position	Contact	1	2	3	4	Knob	Lever
		1	LB						
	407	2	NC		•			×	×
	407	3	NC			•			^
☆		4	NO NO				•		
4S		①	NO	•					
	411	2	NC		•			×	×
	411	3	NC			•			^
		4	NO						

Ordering Information



30° 5-position (Maintained)

				(Operator C	peration a	and Circui	t		
Contact	Circuit	Cont Bloo			١	Maintained	i			rator ability
Code	No.				Ope	rator Posit	ions			
		Mounting Position	Contact	1	2	3	4	5	Knob	Lever
		①	NO	•						
45☆	501	2	NC		•				l x	×
70	301	3	NC				•		^	^
		4	NO					•		

- On the contact arrangement marked with \(\times\) in the table above (contact code: 3S, 4S), the rated current (load switching current) is reduced to a half of the related current of the contact block. The rated insulation voltage and the rated thermal current remain unchanged.
- For models with ☆, contacts may overlap when the operator is changed.

Contact Block Mounting Position





Nameplates

 $\label{eq:all dimensions} \mbox{All dimensions in } \mbox{mm}.$

Shape	Legend	Material	Part No.	Ordering No.	Package Quantity
NWA ← 29 →				NWA-0	1
OFF 0Z	Blank	Alunimum (black)	NWA-0	NWA-0PN10	10
		(Legend: white)		NWA-□	1
0.8 mm thick	With Legend		NWA-□	NWA-□PN10	10
NWAQ ≈—29—⇒	Dienic		NIWAO O	NWAQ-0	1
OFF 22	Blank	Alunimum (black)	NWAQ-0	NWAQ-0PN10	10
24.5	With Logand	(Legend: white)	NWAQ-□	NWAQ-□	1
0.8 mm thick	With Legend		NWAQ-∟	NWAQ-□PN10	10
NWAS 45	Blank	Alunimum (black)	NWAS-0	NWAS-0	1
0.8 mm thick	Diank	Administrative (States)	WWW 0	NWAS-0PN10	10
NWAL			NII. 0	NWAL-0	1
0.8 mm thick	Blank	Alunimum (black)	NWAL-0	NWAL-0PN10	10
NWAQL 29→	Blank	Alunimum (block)	NWAQL-0	NWAQL-0	1
0.8 mm thick	DIdIIK	Alunimum (black)	IVVVAQL-U	NWAQL-0PN10	10

- \bullet Specify a legend code in place of \square in the Ordering No.
- The nameplates are used for TW series only.

Legends

Code	Legend
1	ON
2	0FF
3	START
4	STOP
31	OFF ON
35	HAND AUTO
53	HAND OFF AUTO

Switches & Pilot Lights

Control Boxes

Emergency Stop Switches

Enabling Switches

Safety Products

Explosion Proof

Terminal Blocks

Relays & Sockets

Circuit Protectors

Power Supplies

LED Illumination

Controllers

Operator Interfaces

Sensors

AUTO-ID

Flush Silhouette

ø16

ø30

Miniature

Pilot Lights

HW

TW

Control Boxes

Emergency
Stop Switches
Enabling
Switches
Safety Products

Explosion Proof
Terminal Blocks
Relays & Sockets
Circuit
Protectors
Power Supplies

LED Illumination
Controllers
Operator
Interfaces
Sensors

AUTO-ID

Flush Silhouette

ø16

ø30 Miniature Pilot Lights

HW

YW

Accessories

All dimensions in mm.

ı,							All dimensions in mm.
		Shape	Material	Part No.	Ordering No.	Package Quantity	Dimensions
M S		Locking Ring Wrench (A) (B)	Nitryl rubber	OR-14	OR-14	1	Used to tighten the round bezel when installing the TW switch onto a panel. For ø25 series For ø22 series
100L	00	Lamp Holder Tool (A) (B)	Nitryl rubber	0R-55	OR-55	1	Used to install and remove the LED lamps. See B-266 for how to install. BA9S OR-55 59
s s it s		Contact Block Removal Tool	Zinc-plated metal TW-KC1 TW-KC1 Nitryl rubber	TW-KC1	1	• Used to remove the transformer, to install/ remove the waterproof lens and pilot light lens. Can also be used to determine panel thickness (1, 1.6, 2, 2.3, 3.2, 5 mm).	
n s or s		Nut Locking Wrench	Metal (nickel-plated)	TW-KQ2	TW-KQ2	1	Used to tighten the locking nuts inside of the square bezel. This tool can be inserted into the OR-14 locking ring wrench. This tool can be inserted into the OR-14 locking ring wrench.
D	Ant	ti-rotation Ring	Metal (zinc-plated)	0GL-31	OGL-31PN10	10	Used to prevent the operator from turning. Generally used when using no nameplates on selector switches. Installed on the front of panel.
0 — e	Rut	ober Mounting Hole Plug	Nitril rubber (black)	0B-31	0B-31PN05	5	Used to plug unused
v V	Me	tallic Mounting Hole Plug	Plug: chrome-plated zinc diecast Locking ring: polyamide	LW9Z-BM	LW9Z-BM	1	Used to plug the unused ø22.2 mm mounting holes. Degree of protection: IP66 (round hole) IP40 (with anti-rotation function) Tightening torque: 1.2 N·m Gasket Locking Ring M22 P: 1 Panel Thickness 0.8 to 6
Pla		stic Mounting Hole Plug	Polyamide (black)	LW9Z-BP1	LW9Z-BP1	1	Used to plug the unused Ø22.2 mm mounting holes. Degree of protection: IP65 Tightening torque: 2.0 N·m
	Bar	rrier	Polyamide	HW-VU1	HW-VU1PN10	10	Used to prevent contact between adjacent lead wires when units are mounted closely (see B-266 for details). Barriers should always be used in close mounting.

Control Boxes

Emergency
Stop Switches

Enabling
Switches

Safety Products

Explosion Proof

Terminal Blocks

Relays & Sockets

Circuit
Protectors

Power Supplies

LED Illumination

Controllers

Operator
Interfaces

Sensors

AUTO-ID

Flush Silhouette

ø16

ø30 Miniature Pilot Lights

HW

						All dimensions in mm.
Shape		Material	Part No.	Ordering No.	Packaging Quantity	Description
Contact Rubber Boot	0	Nitryl rubber	0CW-99	OCW-99	1	Oiltight rubber boot used for the contact blocks of pushbuttons and selector switches. Temperature range: -5 to +60°C OCW-99
© For 2 layers of contact blocks (4 contact blocks)	(black)	0CW-299	0CW-299	1	0CW-299	
Button Clear Boot	For flush pushbuttons	Rubber	OC-31	OC-31	1	Used to cover and protect pushbuttons where units are subject to water splash. Not suitable for outdoor use or where the units are subject to oil splash. Cannot be used with nameplates NWA,
	For extended pushbuttons	(EPDM)	0C-32	0C-32	1	NWAQ, NWAS, NWAL, or NWAQL. 18 (0C-31) 22 (0C-32)
Button Cover	① For flush pushbuttons	Mitrul rubbor	OCW-10*	OCW-10*	1	Used to cover the bezels to enhance waterproof characteristics of pushbuttons. Button is installed in the cover. Remove the button from the pushbutton before using the button cover. Make sure to align the button with the axis on the switch. Using the button cover enhances oilproof characteristics. Specify a color code in place of * in Ordering No. B (black), G (green), R (red), Y (yellow)
2	② For extended pushbuttons	- Nitryl rubber	OCW-11*	0CW-11*	1	Operating temperature: -5 to +60°C M22 PLO 18.5 Button installed Flush Extended Extended
Padlock Cover		Polyarylate (gasket: nitryl rubber)	HW9Z-KL1	HW9Z-KL1	1	Used to protect momentary and maintained pushbuttons, illuminated pushbuttons, knob and key selector switches. Resultation Resultation
Padlock Cover for Key Selector Switches		Metal (steel)	HS9Z-PC22	HS9Z-PC22	1	Used for ASW□K key selector switches.

Control Boxes

Emergency
Stop Switches

Enabling
Switches

Safety Products

Explosion Proof

Terminal Blocks

Relays & Sockets

Circuit
Protectors

Power Supplies

LED Illumination

Controllers

Operator
Interfaces

Sensors

AUTO-ID

Flush Silhouette

ø16

ø30 Miniature Pilot Lights

HW

YW

Accessories

 $\label{eq:all dimensions} \mbox{All dimensions in } \mbox{mm}.$

	Shape		Material	Part No.	Ordering No.	Packaging Quantity		Remarks/Dimer	nsions
	Ring Adapter		Nitryl rubber	HW9Z-A25	HW9Z-25PN05	5	mounting ho • IP65 • Cannot be us	les. sed with anti-rot nel thickness: 1.	units into ø25 mm ation and nameplate. 2 to 5.5 mm
_	Plastic Bezel © @	① Flush		AW-RP1B	AW-RP1BPN05	5		①/⑦Flush	②/®Extended
-		② Extended		AW-FP1B	AW-FP1B	1		ø29 <u>_</u>	ø29 Ø29
-		3 Extended (for illuminated pushbuttons)	Polyacetal (black)	AW-FP2B	AW-FP2B	1		③/⑨ Extended (For lens)	
-	5	④ Square round (for round buttons)		AW-H1B	AW-H1B	1	Supplied with base plate	ø29 <u></u>	
_		⑤ Square		AW-Q1B	AW-Q1B	1	and locking ring	Square □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□	® Mushroom
-	Aluminum Bezel ⑦ ⑧	0.51	Aluminum	AW-R1	AW-R1PN05	5	Aluminum color	30	Ø46 ×
-		⑦ Flush		AW-R1B	AW-R1B	1	Black		
_		® Extended		AW-F1	AW-F1	1	Aluminum color		
-	•			AW-F2	AW-F2	1	Aluminum color		
_		(1) Mushroom		AW-G4	AW-G4	1	Aluminum color		
	Selector Operator	① Knob		ASWHHY-*	ASWHHY-*PN02	2	Specify a color B (black), G (gr ø23.4, H19	code in place * reen), R (red)	in Ordering No.
-	2	② Lever	Polyacetal	ASWHHL-*	ASWHHL-*PN02	2	Specify a color B (black), G (gr ø23.4, H19	lor code in place * in Ordering No. (green), R (red)	
-		③ Round		ASWHHM-B	ASWHHM-BPN02	2	Black only, ø23	3.4, H18.5	
	3		Polyacetal	TW-HC1*	TW-HC1*PN05	5	Specify a color B (black), G (gr W (white) W21, H18, D5	r code in place * reen), R (red), Y (in Ordering No. yellow), S (blue),
_	5	© Illuminated Selector	AS resin O-ring: nitryl rubber	ASLWDDY-* -K	ASLWDDY-*-K	1			in Ordering No. (amber), S (blue)
	Metal Protector		Metal (zinc coated steel)	OLW-C	OLW-C	1	Used to protect flush pushbutt from inadverte operation. Weight: 36.5g	ons 🖁 /	18.6

Maintenance Parts

						All dimensions in mm.	Pilo		
Sha	pe	Material	Part No.	Ordering No.	Packaging Quantity	Color Code	Pilot Lights		
Lens (for pilot lights) ① ②	①Round flush		APW1LD-*-K	APW1LD-*-KPN05		R (red), G (green), S (blue), A (amber), Y (yellow), W (white)	S		
	②Round flush (marking type)	AS resin ①ø23.6, H12.7	APW11LD-*-K	APW11LD-*-KPN05		R (red), G (green), S (blue), C (clear), A (amber), Y (yellow) (*1)	APEM Switches &		
3 4	③Round extended	②ø23.6, H12.7 ③ø23.6, H20.0 ④□24.7, H12.3	APW2LD-*-K	APW2LD-*-KPN05	5	R (red), G (green), S (blue), A (amber), Y (yellow), W (white)	Pilot Lights Control Boxes		
			APQW11LD-*-K	APQW11LD-*-KPN05		R (red), G (green), S (blue), C (clear), A (amber), Y (yellow) (*1)	Emergency Stop Switches Enabling Switches		
Lens (for illuminated pushbuttons)	①Round extended		ALW2LD-*-K	ALW2LD-*-KPN05		R (red), G (green), S (blue), A (amber), Y (yellow), W (white)	Safety Products Explosion Proof		
	②Round extended (marking type)	AS resin ①ø23.6, H8.6 ②ø23.6, H8.6	ALW21LD-*-K	ALW21LD-*-KPN05	5	R (red), G (green), S (blue), C (clear), A (amber), Y (yellow) (*1)	Terminal Blocks		
3 4	③Square extended	③□24.8, H9.6	ALQW21LD-*-K	ALQW21LD-*-KPN05		R (red), G (green), S (blue), C (clear), A (amber), Y (yellow) (*1)	Relays & Sockets Circuit Protectors		
			AVLW3LD-R-K	AVLW3LD-R-KPN02			Power Supplies		
④ø29 Mushroom lens	⊕ø29.0/ø23.6 H12.7	AVLW31LD-R-K	AVLW31LD-R-KPN02		Marking type				
			AVLW4LD-R-K	AVLW4LD-R-KPN02	2		LED Illumination		
	⑤ø40 Mushroom lens	⑤ø40 Mushroom lens	⑤ø40 Mushroom lens	⑤ø40.0/ø23.6 H12.7	AVLW41LD-R-K	AVLW41LD-R-KPN02		Marking type	Controllers
Button 1 2 3 4	①Round/Square round Flush		ABW1B-*	ABW1B-*PN05	5		Operator Interfaces Sensors		
	②Round/Square round Extended		ABW2B-*	ABW2B-*PN05			AUTO-ID		
	③Square Flush	Polyacetal ①ø23.6, H3 (4.8) ②ø23.6, H9.5 (11.5) ③□24.8, H1.5 (3.0) ④□24.8, H8 (9.5) ⑤ø29 H12.5	ABQW1B-*	ABQW1B-*PN05		B (black), G (green), R (red),			
6	Square Extended		ABQW2B-*	ABQW2B-*PN05		Y (yellow), S (blue), W (white)	Flush Silhouette		
	©ø29 Mushroom button unit		ABW3B-*	ABW3B-*PN02			ø16		
8	©ø40 Mushroom button unit	©ø40 H12.5 ⑦ø29.0/ø23.6, H12.7	ABW4B-*	ABW4B-*PN02	-		ø22		
9	⑦ø29 Mushroom pushlock turn reset	®ø40.0/ø23.6, H12.5 ®ø40/ø23.6, H20.2	AVW3B-*	AVW3B-*PN02	2	R (red), Y (yellow)	Ø30 Miniature		
	®ø40 Mushroom pushlock turn reset	@ø40/ø23.6, H14	AVW4B-*	AVW4B-*PN02		R (red), Y (yellow)			
10	Ø40 Mushroom push pull		AYW4B-*	AYW4B-*PN02		B (black), G (green), R (red), Y (yellow), S (blue), W (white)	Pilot Lights		
	®ø40 Mushroom Pushlock Key Reset		AXW4B-R	AXW4B-RPN02					
Marking Plate (for pilot lights)	①Round flush	Acrylic	APW2B	APW2BPN05			TW		
	②Square flush (UPQW)	⊕ 17.2, H8.5 ②□22.0, H2.6	APQW1B	APQW1BPN05			YW		
Marking Plate (for illuminated pushbuttons)	①Round extended/ Round extended with full shroud		ALW2B	ALW2BPN05	5	White See B-265 for dimensions.			
2	②Square extended	1 Acrylic ① Ø17.0, H6.4 ② □ 21.0, H4.4 - ③ Ø15.7, H3.4	ALQW2B	ALQW2BPN05					
3	③ø29 Mushroom ø40 Mushroom	- 9Ø13.7, 113.4	ALW3B	ALW3BPN05					
Waterproof Lens ① ②	①UPQW	Acrylic	APW00LN	APW00LNPN05	_	Not supplied with UPQW.			
	②ALQW	⊕ 0ø21.8, H7.1 ©ø20.6, H5.6	APW00L	APW00LPN05	5				
•	*								

^{*1)} Use a C (clear) lens for PW (pure white) illumination.

Control Boxes

Emergency
Stop Switches

Enabling
Switches

Safety Products

Explosion Proof

Terminal Blocks

Relays & Sockets

Circuit
Protectors

Power Supplies

LED Illumination

Controllers

Sensors AUTO-ID

Flush Silhouette

ø16

ø30 Miniature Pilot Lights

YW

Maintenance Parts

All dimensions in mm.

Shape	Specification	Part No.	Ordering No.	Packaging Quantity	Remarks
Contact Block	1NO	HW-U10	HW-U10	1	Housing color: Blue Push rod color: Green
HW-U	TNO	HW-U10-MAU	HW-U10-MAU	'	MAU has gold contacts
-	1NC	HW-U01	HW-U01	. 1	Housing color: Reddish purple Push rod color: Red
	TNC	HW-U01-MAU	HW-U01-MAU	'	MAU has gold contacts
3 3 4	EM contact	HW-U10R	HW-U10R	1	Housing color: Blue Push rod color: Black
	(early make contact)	HW-U10R-MAU	HW-U10R-MAU	'	MAU has gold contacts
	LB	HW-U01R	HW-U01R	. 1	Housing color: Reddish purple Push rod color: White
Weight: 11g (approx.)	(late break contact)	HW-U01R-MAU	HW-U01R-MAU	'	MAU has gold contacts
Dummy Block Weight: 3.5g (approx.)	Polyamide	HW-DB	HW-DBPN10	10	For HW-U contact blocks Used when the total number of contact blocks and full voltage adapters is odd.
Full Voltage Adapter For illuminated unit (*1) Weight: 12g (approx.)	Polyamide	HW-GA1N	HW-GA1NPN02	2	Applicable model: Illuminated pushbuttons Illuminated selector switches Applicable load (LED lamp) LSRD-6, LSTD-6 (6V AC/DC) LSRD-1, LSTD-1 (12V AC/DC) LSRD-2, LSTD-2 (24V AC/DC)
Transformer Unit (*1)	100/110V AC	HW-T16	HW-T16	1	Applicable model: Pilot lights Illuminated pushbuttons
Weight: 65g (approx.)	200/220V AC	HW-T26	HW-T26	1	Illuminated selector switches Applicable load (LED lamp) LSRD-6, LSTD-6 (6V AC/DC)
Spare Key Length 39 Width 19.7 Thickness 1.8	Metal (nickel-plated brass)	TW-SK-0	TW-SK-0PN02	2	Applicable model: Key selector switches Pushlock key reset
Contact Block Plug	Polyamide	HW9Z-CBPL	HW9Z-CBPLPN10	10	Used to plug the hole in the center of contact block.
1) For use as maintenance parts. Do not use	for expansion or remode	elling purposes.			

^{^1)} For use as maintenance parts. Do not use for expansion or ren

TW Series LED Lamps

Shape/Dimensions	Rated Voltage	Curren	t Draw	Part No.	Ordering No.	Color Code	Package	Base		
Silape/Dillielisiolis	nateu voitage	DC	AC	rait No.	rait No. Ordering No.		Quantity	Dase		
LSRD	6V AC/DC	10 mA	14 mA LSRD-6		LSRD-6	_	1			
	OV AG/DC	TOTILA	14 IIIA	LOND-0	LSRD-6PN10	_	10			
0.10	12V AC/DC	7 mA	8 mA	LSRD-1	LSRD-1	_	1	BA9S/13		
	12V AG/DG	"DO TINA OTHA		LOND-1	LSRD-1PN10	_	10	DA95/13		
	24V AC/DC 7 mA	7 m/\	8 mA	LSRD-2	LSRD-2	_	1			
	24V AG/DG	/ IIIA	IIA O IIIA		LSRD-2PN10	_	10			
LSTD	6V AC/DC	7 mA (R, A) 5.5 mA (G, PW)	8 mA (except S) 7 mA (S)	S) LSTD-6	LSTD-6*	R, G, A, S, PW	1			
(20.8)	OV AO/DO	4.5 mA (S)		7 mA (S)	7 mA (S)	7 mA (S)	L31D-0	LSTD-6*PN10	R, G, A, S, PW	10
2.4 18.4	12V AC/DC	10 mA (except S)	11 mA (except S)	LSTD-1	LSTD-1*	R, G, A, S, PW	1	BA9S/13		
Grommet (X1)	12V AG/DG	8 mA (S)	9 mA (S)	LSTD-1	LSTD-1*PN10	R, G, A, S, PW	10			
Base (X2)	24V AC/DC	10 mA (except S)	11 mA (except S)	LSTD-2	LSTD-2*	R, G, A, S, PW	1			
BA9S/13 Voltage	24V AU/DU	8 mA (S)	9 mA (S)	LOID-Z	LSTD-2*PN10	R, G, A, S, PW	10			

- Only one color is available for LSRD so there are no codes to specify the color in the part no.
- When replacing the LED with LSRD, the lens must also be replaced (see B-260).

LED lamps for replacing incandescent lamps

- \bullet Use the following replacement LED lamps to replace incandescent lamps.
- \bullet See TW series LED lamps shown above for ordering.
- \bullet LED lamps may have different brightness/color hue compared with incandescent lamps.

Incandescent Lamp								
Model (mm)	Part No.	Operating Voltage	Lamp Rating	Base				
LS	LS-6	6V AC/DC	1W (6V)					
	LS-8	12V AC/DC	1W (18V)	BA9S/13				
Bulb: ø11	LS-2	18V AC/DC	1W (24V)	DA93/13				
Length: 23	LS-3	24V AC/DC	1W (30V)					

 Only one color is available 	ole for LSRD so there a	re no codes to specify	the color in the part no.

[•] When replacing incandescent lamps to LSRD, the lens must also be replaced (see B-260).

Replacement LED Lamp						
Part No.	Operating Voltage	Base				
LSRD-6	6V AC/DC					
LSRD-1	12V AC/DC	BA9S/13				
LSRD-2	24V AC/DC	DA95/13				
LSRD-2	24V AC/DC					



Transformer

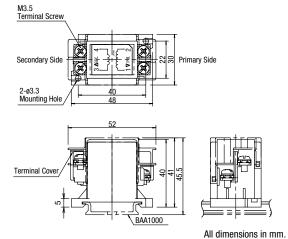
	Shape	Rated Voltage	Operating Voltage Range	Ordering No.	Applicable Load	
6V		100/110V AC	100/110V AC ±10%	TWR516		
	200/220V AC		200/220V AC ±10%	TWR526	LSRD-6, LSTD-6* (6V AC/DC, LED lamp)	
		400/440V AC	400/440V AC ±10%	TWR546	(617.6726, 222.141.14)	
24V	D. Control	100/110V AC	100/110V AC ±10%	TWR512	1000 0 1000 0	
		200/220V AC	200/220V AC ±10%	TWR522	LSRD-2, LSTD-2* (24V AC/DC, LED lamp)	
CE		400/440V AC	400/440V AC ±10%	TWR542	(= · · · · · · · · · · · · · · · · · · ·	

- Terminal cover (TWR-VL3) is installed on transformers as standard.
- Transformer is installed to one TW series unit.

Specifications

Part No.	TWR5□6	TWR5□2			
Operating Voltage	100/110V AC, 200/220V AC	, 400/440V AC (50/60Hz)			
Current Draw	2.4VA				
Rated Insulation Voltage	600V				
Insulation Resistance	100MΩ minimum (500V DC megger)				
Operating Temperature	-30 to +60°C (no freezing)				
Operating Humidity	35 to 85% RH (no condensation)				
Storage Temperature	-40 to +80°C (no freezing)				
Vibration Resistance	Damage limits: 30Hz, ampli Operating extremes: 5 to 55				
Shock Resistance	Damage limits: 1,000 m/s ² Operating extremes: 100 m.	/s²			
Dielectric Strength	2500V AC, 1 minute				
Terminal Screw	M3.5				
Applicable Wire	2mm² maximum, 2 wires m	aximum			
Weight (approx.)	87g				

Dimensions



Accessories

Shape	Material	Part No.	Ordering No.	Package Quantity	Dimensions (mm)	
DIN 35mm Rail Weight: 200g approx.	Aluminum Length: 1000mm	BAA1000	BAA1000PN10	10	12.5 12.5 12.5 17.5	
End Clip Weight: 15g approx.	Metal (zinc-plated steel) Applicable rail: BAA1000	BNL6	BNL6PN10	10	M4 Screw	

• See H-071 for DIN rail products.

Safety Precautions

- Turn off the power to the TW series switches & pilot lights before starting installation, removal, wiring, maintenance, and starting installation, removing, wiring, maintenance, and inspection of the products. Failure to turn power off may cause electrical shocks or fire hazard.
- To avoid a burn on your hand, use the lamp holder tool when replacing lamps.
- For wiring, use wires of a proper size to meet the voltage and current requirements. Tighten the terminal screws to the recommended tightening torque (see B-268). Failure to tighten terminal screws may cause overheat and fire.
- · When using a commercially available lamp, choose a lamp with rated voltage 5 to 30V AC/DC and 1W maximum, and with the same base and shape. Make sure of correct operation before installation. The operation of illuminated pushbutton switches cannot be guaranteed when a commercially available lamp is used.

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Explosion Proof

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Circuit Protectors

Power Supplies

LED Illumination

Controllers Operator

Sensors

AUTO-ID

Flush Silhouette

ø16

ø30

Miniature

Pilot Lights

HW

Operating Instructions

Panel Mounting

Panel thickness adjustment ring is used for the TW series. To attach the TW series to the panel, follow the procedures below.

Panel Thickness Adjustment

See "Adjusting Panel Thickness" below.



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ø16

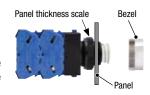
Miniature

Pilot Lights

HW

Mounting the Unit onto the Panel

After adjusting the panel thickness, attach the unit to the panel with the panel thickness scale facing up, and attach the bezel. See "2. Installing the Round/Square Bezel" for installing the bezel.



Attach a nameplate before installing the bezel.

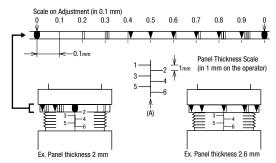
Attaching the Button, Lens, and Knob

See "3. Installing Buttons, Lenses, and Operators."



1. Adjusting Panel Thickness

The panel thickness ring provides adjustment from 1 to 6 mm in 0.1-mm increments. Set the panel thickness to line A. Rotate the ring until the desired thickness indication around the periphery is aligned with line A, as shown below.

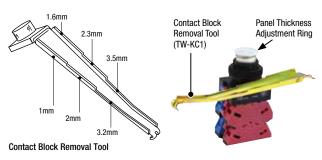


Note: When a nameplate or an anti-rotation ring is used, add 0.8 mm to the panel thickness.

Total thickness = Panel thickness + 0.8 mm (nameplate or anti-rotation ring thickness)

When the adjustment value is 1, 1.6, 2, 2.3, 3.2, or 3.5 mm.

Panel thickness can be adjusted easily to the values shown below by inserting the contact block removal tool between the adjustment ring and base.



2. Installing the Round/Square Bezel Round bezel

All round bezels are screw-in type. Be sure to use the locking ring wrench (OR-14) to tighten the bezel to a torque of 2.0 N·m.





Use side B when mounting the units closely.

Square bezel

Install the TW series on the panel from the back, and follow the instructions below.

(1) Insert the base plate from the front.

(2) Insert the lock nut. For easy installation, use the nut locking wrench.

(3) Mount the square bezel. The bezel will snap onto the base plate.









Nut Locking Wrench TW-KQ2 (optional)

Lock nut can be installed easily by using the nut locking wrench (TW-KQ2). Tightening torque is 2.0 N·m.

3. Installing Buttons, Lenses, and Operators Pushbuttons

Flush/Extended/Square

Push in the button to install.



Mushroom
Button has
threads.
Turn clockwise to
install the button.



Illuminated Pushbutton/Pilot Light Lens

Extended

Lens has threads. Turn clockwise to install the button.



Round/Flush Lens has threads. Turn clockwise to install the button.



Operating Instructions

Installing the Operator on Selector Switches

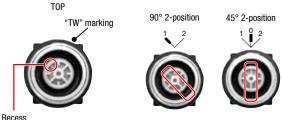
- (1) Install the switch with TW marking facing upward, so that the operator can be installed on the switch in the correct direction.
- (2) On non-illuminated models, install the color insert in the middle of operator. The color insert also serves to retain the operator.
- (3) On illuminated models, align the operator with the switch by confirming the TOP marking on the switch and also the switch operation. Then press in the operator into the switch.



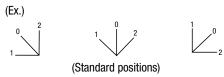
Installation of Selector Operators

The shaft of each non-illuminated selector switch has a recess to identify the direction to install the operator. Align the operator with the recess and press in the operator. Press a color insert (non-illuminated) into the operator (illuminated selector switches do not have a recess on the shaft).

Non-illuminated Selector Switches



In addition to the standard positions shown below, the non-illuminated operators can be installed 45° intervals.



Removing the Buttons and Lenses

Pushbuttons

'TW" marking

Color Insert

Flush/Extended/Square

Insert a flat screwdriver between the button and the bezel to remove the button

Extended

The lens

remove.

has threads.

Turn the lens

Square Lens

counterclockwise to

Insert a flat screwdriver between

the lens and bezel, and tilt the screwdriver to remove the lens.



Illuminated Pushbutton/Pilot Light Lens

Mushroom

The button has threads. Turn the button counterclockwise to remove.

Round/Flush

has threads.

Turn the lens

counterclockwise to

The lens

remove.



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Controllers

Operator

Sensors

AUTO-ID

🔼 Notes

- . The square lens of the illuminated pushbutton cannot be used without waterproof lens. Always use the waterproof lens.
- · Be sure to use the marking plate even when marking is not required.

Non-illuminated Selector Switches



Insert a flat screwdriver with tip width 4.5 mm maximum into the recess under the color insert. Turn the screwdriver to push out the insert from the operator.



Pull out the operator sideways as shown in the left photo to remove the operator.

HW

Illuminated Selector Switches



Insert a flat screwdriver with tip width 5 mm maximum into the recess opposite from the color insert and tilt. The operator is displaced slightly.

Interfaces

Flush Silhouette

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ø30

Miniature

Pilot Lights

Emergency Stop Switches Enabling

Switches

Safety Products

Explosion Proof

Terminal Blocks

Relays & Sockets

Power Supplies

Controllers

Operator
Interfaces

Sensors

AUTO-ID

Flush Silhouette

ø30

HW

YW

Miniature

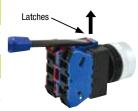
Pilot Lights

Circuit Protectors

Operating Instructions

Removing the Contact Blocks/Full Voltage Adapters

Insert a flat screwdriver (4 to 6 mm) into the snap-fit latches of the contact block or full voltage adapter and lift to remove.



 Make sure to lift both latches. Contact blocks cannot be removed by lifting one latch only.

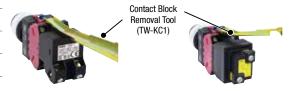
 Do not apply excessive force to the latches, otherwise damage maybe caused

Transformer Units and DC-DC Converters

Insert the end of the contact block removal tool (TW-KC1) into the snap-fit latch of the transformer units or DC-DC converter and pull the tool forward.

The contact block removable tool cannot be used to remove the contact blocks (HW-U), full voltage adapters (HW-GA1N), or dummy blocks (HW-DB).

Illuminated Pushbuttons/Illuminated Selector Switches



Pilot Lights

Contact Block
Removal Tool
(TW-KC1)

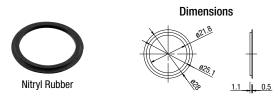
⚠ Notes on Replacing Units

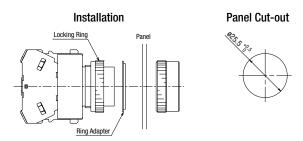
When replacing parts (contact block, dummy block, full voltage adapter, transformer) for maintenance, make sure to install the parts to the original position. Otherwise proper operation cannot be guaranteed.

Using a Ring Adapter

• HW9Z-A25

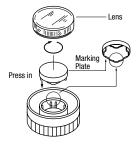
Install the ring adapter between the HW series unit and panel. Make sure that the side with ridges face the panel.





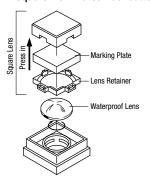
Marking Plate

 Round Pilot Lights (Marking Type)



• Square Pilot Lights (Marking Type)

• Square Illuminated Pushbuttons



Marking Plate Engraving Area

Marking is possible on all square lens. To engrave, take out the marking plate inside the lens.

Round	Round (ø29/ø40)	Square (Pilot Light)	Square (Illluminated Pushbutton)	
ø17 H4.7	ø15.7 H2.4	25 + C22 + C	10 44	

Note: The depth of the engraving must be within 0.5 mm.

Removing the Marking Plate

Pilot Lights

Insert the screwdriver into the recess of the lens.



Operating Instructions

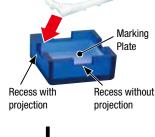
Removing the Marking Plate

Illuminated Pushbuttons

Remove the lens retainer by inserting a small flat screwdriver into a recess with a projection on the lens, and tilt lightly. Turn over the lens to remove the marking plate. Lightly tap the lens on a flat surface if necessary.

Installing the Lens Retainer

Install the marking plate into the lens, with flat surface facing the lens. Then install the lens retainer into the lens, by fitting a projection of the lens retainer into the recess with projection as shown at right.



Latch engaged

Lens retainer

Flat screwdriver

with tip width

5 mm max.

Turn over and press as shown at right so that the lens retainer is installed securely.





The square lens of the illuminated pushbutton cannot be used without waterproof lens. Always use the waterproof lens.

Be sure to use the marking plate even when it is not engraved.

• Installing Round Lens and Waterproof Lens



When installing or removing round lens of pilot lights and illuminated pushbuttons and waterproof lens of square pilot lights and illuminated pushbuttons, press the rubber part of the contact block removal tool onto the lens or waterproof lens for secure tightening and easy removal.

Replacement of LED Lamps

Lamps can be replaced by using the lamp holder tool (OR-55) from the front of the panel. (See B-257 for lamp holder tool.)

• How to Remove

To remove, slip the lamp holder tool onto the lamp head lightly. Then push slightly, and turn the lamp holder tool counterclockwise.



How to Install

To install, insert the lamp head into the lamp holder tool. Place the two pins on the lamp base to the grooves in the lamp socket. Inset the lamp and turn it clockwise.



Selector Switches

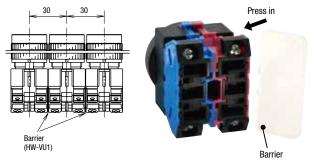
Turn the operator such as knob, lever, and key to each position accurately. Releasing halfway may cause the operator to return to the former position, or to get stuck between. On spring return two-way types, the center of operators may be misaligned slightly.

Key Selector Switches

Insert the key completely before turning. Failure to do so may cause failures.

Collective Mounting

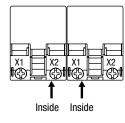
When mounting the units closely in a horizontal row on 30-mm centers, use optional barriers (HW-VU1) to prevent interconnection between adjoining terminals. The barriers can be attached simply by pressing them onto the sides of contact blocks.



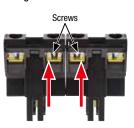
- Use a barrier (HW-VU1) between the contact blocks.
- Sufficient insulation distance cannot be obtained if barriers are not installed, or when other barriers such as HW-VG1 is used.

Notes on Wiring Transformer Type Units

When using transformer type illuminated TW series of 240V AC maximum closely in a horizontal row on 30 mm centers, insert straight the solid wires or stranded wires into inside of the terminal screw on the transformer (see figure below) to prevent short circuit between adjoining terminals.



Enlarged View of Terminal Part



When using transformer type pilot lights closely mounted in horizontal and vertical rows on 30 mm centers, keep the ambient temperature below 40°C.

APEM

Pilot Lights

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Emergency Stop Switches Enabling Switches

Safety Products

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Sensors

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AUTO-ID

Flush Silhouette

ø16

WZZ

ø30 Miniature

Pilot Lights

T HOT LIGHTO

HW

TW

Control Boxes Emergency Stop Switches

Enabling

Switches

Safety Products

Explosion Proof

Terminal Blocks

Relays & Sockets

Power Supplies LED Illumination

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Interfaces

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Miniature

Pilot Lights

Operating Instructions

Applicable Wiring

(1) Contact Block

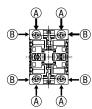
0.3 to 3.5 mm² (solid wire Ø0.5 to 2.0 mm)

Pushbutton/illuminated pushbutton/selector switch/ illuminated selector switch

(A) and (B) show the wiring direction to the terminals.

<Contact Block>

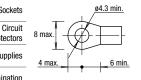
Terminal screws M3.5 (spring-up)

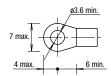


Applicable Crimping Terminal

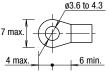
Be sure to use an insulation tube or cover on the crimping part of the crimping terminal to prevent electrical shocks.

Crimping terminal for (A)

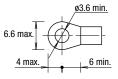




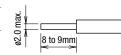
IP20 crimping terminal



Crimping terminal for ® IP20 crimping terminal



Solid wire



- . Strip the wire insulation 8 to 9 mm from the end
- Insert the wire until the insulation comes into contact with the terminal metal part.

(1)-1 IP20 Degree of Protection

The terminal of HW-U contact block has IP20 degree of protection. When IP20 is required for wiring, observe the followings. Make sure to insert the crimping terminal or wire to the terminal straight and fully.

When using a crimping terminal

Use IP20 crimping terminals.

When using a solid wire

Strip the wire insulation 8 to 9 mm from the end and insert the wire to the terminal fully.

When using a stranded wire

Strip the wire insulation 8 to 9 mm from the end and insert the wire to the terminal fully. Make sure that the wires are not loosened.

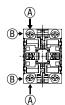
(2) Power Unit 0.3 to 2 mm² (solid wire Ø0.5 to 1.6 mm)

Illuminated pushbutton/illuminated selector switch

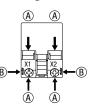
(A) and (B) show the wiring direction to the terminals.

<Full Voltage Adapter>

Terminal screws M3.5 (spring-up)

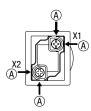


<Transformer Unit> 100/110V AC, 200/220V Terminal screws M3.5 (spring-up)



<DC-DC Conver Unit/Transformer Unit> 110V DC, 380V

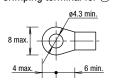
Terminal screws M3.5 (spring-up)



Applicable Crimping Terminal

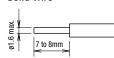
Be sure to use an insulation tube or cover on the crimping part of the crimping terminal to prevent electrical shocks.

Crimping terminal for (A)





Solid wire



- . Strip the wire insulation 7 to 8 mm from the end.
- Insert the wire until the insulation comes into contact with the terminal metal part.
- Terminal cover is integrated in the full voltage adapter and transformer unit. Note that the connection terminal is not IP20.

Operating Instructions

(3) Pilot Light

0.3 to 2 mm² (solid wire Ø0.5 to 1.6 mm)

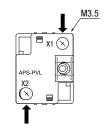
Applicable crimping terminal

Be sure to use an insulation tube or cover on the crimping part of the crimping terminal to prevent electrical shocks.

<Full Voltage Type> 6V, 12V, 24V AC/DC

Terminal screws M3.5 (self-lifting)



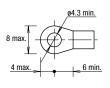


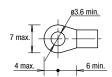
<Transformer Unit>

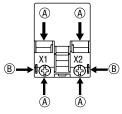
100/110V AC, 200/220V AC (240V AC maximum) Terminal screws M3.5 (spring-up)

Crimping terminal for (A)

Crimping terminal for (B)



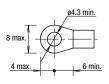


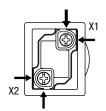


<DC-DC Converter Unit/Transformer Unit>

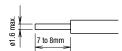
110V DC, 380V AC minimum

Terminal screws M3.5 (spring-up)





Solid wire



- Strip the wire insulation 7 to 8 mm from the end.
- Insert the wire until the insulation comes into contact with the terminal metal part.
- Install a terminal cover to 6, 12, 24V AC types. The connection terminal is not IP20.
- Terminal cover is integrated in the transformer and DC-DC converter unit. Note that the connection terminal is not IP20.
- When selecting mounting centers and crimping terminals, take sufficient insulation distance into consideration.

Cautions for Wiring

About using DC-DC Converter Unit

1. Note the polarity for wiring when connecting to the DC-DC converter.

Terminal No.	Polarity		
X1	Positive		
X2	Negative		

- 2. Incandescent lamps cannot be used in DC-DC converter unit.
- DC-DC converters are equipped with an electric circuit and noise may be heard inside the unit, which does not affect the performance of DC-DC converters.

Recommended Tightening Torque Number of Wires

Unit	Wire		Number of Wires	Recommended Tightening Torque	Terminal Screw
	Crimping Terminal		2	1.0 to 1.3	
	Solid Wire	ø0.5 to 1.6 mm (AWG14 to 22)	2	1.0 to 1.3	M3.5
HW-U Contact		ø1.7 to 2.0 mm (AWG12)	1	1.2 to 1.3	
Block	Stranded Wire	0.3 to 2.0 mm ² (AWG14 to 22)	2	1.0 to 1.3	
		2.1 to 3.5 mm ² (AWG12)	1	1.2 to 1.3	
	Crimping Terminal				
Illuminated Unit	Solid Wire	ø0.5 to 1.6 mm (AWG14 to 22)	2	1.0 to 1.3	M3.5
(*1)	Stranded Wire	0.3 to 2.0 mm ² (AWG14 to 22)			
	Crimping Terminal				
Pilot Light	Solid Wire	ø0.5 to 1.6 mm (AWG14 to 22)	2	1.0 to 1.3	M3.5
	Stranded Wire	0.3 to 2.0 mm ² (AWG14 to 22)			

*1) Lamp terminal of illuminated pushbuttons and illuminated selector switches

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Miniature

Pilot Lights

HW

TW

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1. Notes on contents of Catalogs

- (1) Rated values, performance values, and specification values of IDEC products listed in this Catalog are values acquired under respective conditions in independent testing, and do not guarantee values gained in combined conditions.
 - Also, durability varies depending on the usage environment and usage conditions
- (2) Reference data and reference values listed in Catalogs are for reference purposes only, and do not guarantee that the product will always operate appropriately in that range.
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 - i. Use of IDEC products with sufficient allowance for rating and performance
 - Safety design, including redundant design and malfunction prevention design that prevents other danger and damage even in the event that an IDEC product fails
 - Wiring and installation that ensures the IDEC product used in your system, machine, device, or the like can perform and function according to its specifications
- (4) Continuing to use an IDEC product even after the performance has deteriorated can result in abnormal heat, smoke, fires, and the like due to insulation deterioration or the like. Perform periodic maintenance for IDEC products and the systems, machines, devices, and the like in which they are used.
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 - Use in applications that require a high degree of reliability, such as provision systems for gas / waterworks / electricity, etc., systems that operate continuously for 24 hours, and settlement systems
 - iii. Use in applications where the product may be handled or used deviating from the specifications or conditions / environment listed in the Catalogs, such as equipment used outdoors or applications in environments subject to chemical pollution or electromagnetic interference If you would like to use IDEC products in the above applications, be sure to consult with an IDEC sales representative.

3. Inspections

We ask that you implement inspections for IDEC products you purchase without delay, as well as thoroughly keep in mind management/maintenance regarding handling of the product before and during the inspection.

4. Warranty

(1) Warranty period

The warranty period for IDEC products shall be one (1) year after purchase or delivery to the specified location. However, this shall not apply in cases where there is a different specification in the Catalogs or there is another agreement in place between you and IDEC.

(2) Warranty scope

Should a failure occur in an IDEC product during the above warranty period for reasons attributable to IDEC, then IDEC shall replace or repair that product, free of charge, at the purchase location / delivery location of the product, or an IDEC service base. However, failures caused by the following reasons shall be deemed outside the scope of this warranty.

- i. The product was handled or used deviating from the conditions / environment listed in the Catalogs
- ii. The failure was caused by reasons other than an IDEC product
- iii. Modification or repair was performed by a party other than IDEC
- iv. The failure was caused by a software program of a party other than IDEC
- v. The product was used outside of its original purpose
- Replacement of maintenance parts, installation of accessories, or the like was not performed properly in accordance with the user's manual and Catalogs
- vii. The failure could not have been predicted with the scientific and technical standards at the time when the product was shipped from IDFC.
- viii. The failure was due to other causes not attributable to IDEC (including cases of force majeure such as natural disasters and other disasters)
 Furthermore, the warranty described here refers to a warranty on the IDEC product as a unit, and damages induced by the failure of an IDEC product are excluded from this warranty.

5. Limitation of liability

The warranty listed in this Agreement is the full and complete warranty for IDEC products, and IDEC shall bear no liability whatsoever regarding special damages, indirect damages, incidental damages, or passive damages that occurred due to an IDEC product.

6. Service scope

The prices of IDEC products do not include the cost of services, such as dispatching technicians. Therefore, separate fees are required in the following cases.

- (1) Instructions for installation / adjustment and accompaniment at test operation (including creating application software and testing operation, etc.)
- (2) Maintenance inspections, adjustments, and repairs
- (3) Technical instructions and technical training
- (4) Product tests or inspections specified by you

The above content assumes transactions and usage within your region. Please consult with an IDEC sales representative regarding transactions and usage outside of your region. Also, IDEC provides no guarantees whatsoever regarding IDEC products sold outside your region.

IDEC CORPORATION

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