ø30 Switches and Pilot Lights

# **TWN** TWND Series



Heavy duty switches & pilot lights offer both variety and reliability.











- Pilot light is not approved by EN standards.
- DC-DC convertor unit is not approved by standards.
- See website for details on approvals and standards.



Model	Features	Page
Plastic TWN Series	The all-time bestseller since first developed. Suitable for versatile applications.	B-304
Diecast Zinc TWND Series	Heavy-duty switches for tough industrial usage.	B-326

Control Boxes Emergency Stop Switches Enabling Switches Safety Products **Explosion Proof** 

Relays & Sockets Circuit Protectors Power Supplies LED Illumination Controllers Operator

Sensors AUTO-ID

Flush Silhouette

ø16 ø22

Miniature Pilot Lights

ARN CS

# ø30 TWN/TWND Selection Guide

Function	Pushbutton							
Cotogoni	Flu	sh	Exte	nded	Extended wit	h Half Shroud		
Category	Momentary,	/Maintained	Momentary	/Maintained	Momentary	/Maintained		
				Diecast Zinc		Diecast Zinc		
Shape								
Madal	ABN1	ABD1	ABN2	ABD2	ABN2G	ABGD2		
Model	AON1	AOD1	AON2	AOD2	AON2G	AOGD2		
Page	B-310	B-326	B-310	B-326	B-310	B-326		

Function		Pushbutton							
Catamani	Extended wit	h Full Shroud	Mush	room	Mushroom wi	th Full Shroud			
Category	Momentary.	/Maintained	Momentary	/Maintained	Momentary	/Maintained			
	_	Diecast Zinc		Diecast Zinc		Diecast Zinc			
Shape									
Model	ABN2F	ABFD2	ABN3	ABD3	ABN3G	ABGD3			
iviouei	A0N2F	AOFD2	AON3	AOD3	_	AOGD3			
Page	B-310	B-326	B-311	B-327	B-311	B-327			

Function	Pushbutton							
Cotogony	Jumbo M	lushroom	Jumbo Mushroom v	vith Shallow Shroud	Jumbo Mushroom	with Deep Shroud		
Category	Momo	entary	Momo	entary	Mom	entary		
		Diecast Zinc		Diecast Zinc		Diecast Zinc		
Shape								
Model	ABN4	ABD4	ABN4G	ABGD4	ABN4F	ABFD4		
Page	B-311	B-327	B-311	B-327	B-311	B-327		

Function	Pushbutton							
Category	Mushroom Pushlo	ock Turn Reset (*1)	Mushroom P	ush Turn Lock	Mushro	oom Pull		
Shape		Diecast Zinc		Diecast Zinc		Diecast Zinc		
Model	AVN3	AVD3	AJN3	AJD3	AZN3	AZD3		
Page	B-312	B-328	B-312	B-328	B-312	B-328		

Function	Pushbutton						
Category	Mushroom	Push-Pull	Pin I	_ock			
Shape	_	Diecast Zinc	_	Diecast Zinc			
Model		AYD3	_	ABD8P			
Page	1	B-328		B-327			

 $<sup>^{\</sup>star}$  1) Cannot be used as emergency stop switch based on ISO 13850 and IEC 60947-5-5.

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 ø22

Miniature Pilot Lights

ARN

# ø30 TWN/TWND Selection Guide

Function		LED Illuminated Pushbutton						
Cotogory	Exte	nded	Extended wit	h Half Shroud	Extended wit	h Full Shroud		
Category	Momentary	/Maintained	Momentary	/Maintained	Momentary	/Maintained		
Shape		Diecast Zinc		Diecast Zinc —		Diecast Zinc		
Model	ALN2 AOLN2	ALD2 AOLD2	ALGN2 AOLGN2	_	ALFN2 AOLFN2	ALFD2 AOLFD2		
Page	B-313	B-329	B-313		B-313	B-329		

Function	LED Illuminated Pushbutton							
Category	Must	nroom	Muchroom Duch	Mushroom Pushlock Turn Reset (*1)		ush Turn Lock		
Category	Momentary	/Maintained	Wushi ooni Fush	iock fulli neset ( 1)	IVIUSIIIOOIII F	usii iuiii Lock		
Shape		Diecast Zinc		Diecast Zinc		Diecast Zinc —		
Model	ALN3 AOLN3	ALD3 AOLD3	AVLN3	AVLD3	AJLN3	_		
Page	B-313	B-330	B-314	B-330	B-313			

Function		Selector Switches							
Category	Kr	nob	Le	ver	K	ey			
Shape		Diecast Zinc		Diecast Zinc		Diecast Zinc			
Model	ASN	ASD	ASN□L	ASD□L	ASN□K	ASD□K			
Page	B-316	B-331	B-317	B-332	B-318	B-333			

Function	Selector Switch			Selector P	ushbutton
Category	Key	LED Illumii	nated Knob	Ring Op	perator
Shape			Diecast Zinc		Diecast Zinc
Model	ASN□K-N024401	ASLN	ASLD	ASBN2	ASBD2
Page	B-319	B-320 B-334		B-323	B-335

Function	LED Illuminated Pilot Light						
Category		Dome	Square Extended (IP40)	Rectangular (Marking) (IP40)			
Shape		Diecast Zinc					
Model	APN1	APD1	UPQN3B	UPQN4			
Page	B-324	B-336	B-324	B-324			

 $<sup>^{\</sup>star}$  1) Cannot be used as emergency stop switch based on ISO 13850 and IEC 60947-5-5.

# **Ø30 TWN/TWND** Ratings/Specifications

## Heavy duty switches & pilot lights offer both variety and reliability. **Endures harsh environments.**

Equipped with HW-U contact blocks featuring finger-safe (IP20) structure and spring-up terminals.

**ø30 TWN Series** (plastic)

**Contact ratings** 

**Pushbuttons** Illuminated Pushbuttons

Selector Switches

Operating Voltage

Operating Voltage

Operating

Current

Operating

Current

Selector Pushbuttons

Illuminated Selector Switches

**Ratings and Specifications** 

Contact ratings by utilization category

HW-U10 (NO contact), HW-U01 (NC contact)

50/60 Hz

50/60 Hz

DC

DC



Rated insulation voltage

Rated continuous current

JIS C8201-5-1

IEC60947-5-1

Contact ratings by utilization category

DC-13 Control of electromagnets

DC-13 Control of electromagnets

• The operating current represents the classification by making and breaking currents (IEC 60947-5-1).

. Minimum applicable load: 3V AC/DC, 5 mA (applicable range may vary with operating conditions and load types)

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

• For mono-lever switches and cam switches, see the brochures of each product.

AC-12 Control of resistive loads and solid state loads

DC-12 Control of resistive loads and solid state loads

AC-12 Control of resistive loads and solid state loads

DC-12 Control of resistive loads and solid state loads

AC-15 Control of electromagnetic loads (> 72 VA)

AC-15 Control of electromagnetic loads (> 72 VA)

ø30 TWND Series (Diecast Zinc)

600V

10A

AC-15 (A600)

24V

10A

10A

10A

5A

24V

5A

5A

5A

2.5A

48V

5A

2A

48V

\_

2.5A

1A



110V

10A

5A

2.2A

1.1A

110V

5A

2.5A

1.1A

0.55A

50V

10A

7A

50V

5A

3.5A

220V

6A

ЗА

1.1A

0.6A

220V

ЗА

1.5A

0.55A

0.3A

440V

2A

1A

440V

1A

0.5A

APEM

Control Boxes

Emergency Stop Switches

Safety Products

**Explosion Proof** 

Relays & Sockets

Protectors

Controllers

AUTO-ID

Flush Silhouette

ø22

Miniature

Pilot Lights

ARN

CS

Enabling Switches

Terminal Blocks

Circuit

Power Supplies

LED Illumination

Operator

Sensors

ø16

**HW-U Contact Block** Snap-fit latch IP20 construction (To install/remove No terminal cover necessary the contact block) Terminal Terminal No. 4 No. 2 Two-way wiring Terminal Terminal Push rod Terminal screw (M3.5)**HW-U10 HW-U01** (NO contact) (NC contact)

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

- Up to 4 contacts in two decks can be mounted onto each operator. (AZN, AZD, AYD: Up to 2 contact blocks in one deck)
- · Cannot be used on operators in dark gray or light gray color.
- · Gold contact available (gold-plated silver)

Control Boxes Emergency Stop Switches Enabling Switches Safety Products

**Explosion Proof** 

Terminal Blocks

Relays & Sockets

**Power Supplies** 

LED Illumination Controllers

Circuit

Protectors

Operator

Sensors AUTO-ID

Flush Silhouette

ø16 ø22

Miniature

Pilot Lights

ARN CS

### **LED Illuminated Unit Ratings**

Unit	Ü					LED lamp	
UIIIL	Color	Rated Volta	ge	Operating Voltage		Lamp Base	Part No.
		6V AC/DC		6V AC/DC			LSTD-6*
		12V AC/DC 24V AC/DC 100/110V AC 115/120V AC (*1) 120V AC (*2)		12V AC/DC			LSTD-1*
		24V AC/DC 2		24V AC/DC			LSTD-2*
		100/110V AC		100/110V AC			
R (red)		115/120V AC (*1)		115/120V AC (*1)			
Illuminated pushbutton	G (green)	120V AC (*2)		120V AC (*2)	±10%		
Illuminated selector switch	Y (yellow) A (amber)	200/220V AC		200/220V AC	10/0	BA9S/13	
Pilot light	S (blue)	230/240V AC (*1)	50/60 Hz	230/240V AC (*1)			LOTE
	PW (pure white)	240V AC (*2)		240V AC (*2)			LSTD-6*
		380V AC		380V AC			
		400/440V AC		400/440V AC			
		480V AC		480V AC			
		110V DC		90 to 140V DC			

- See LED lamps, see LED Lamp Ratings below.
- Specify a color code in place of \*.
- R (red), G (green), A (amber), S (blue), PW (pure white)
- Use a pure white (PW) LED for yellow (Y) illumination.
- 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 TWN/TWND series cannot be guaranteed when a commercially available lamp is used.

\*1) Illuminated pushbutton, illuminated selector switch

\*2) Pilot light

### **Power Unit Terminal**

			Illuminated	d Unit			Pilot			
-	Power Unit	Full voltage adapter	Transformer		DC-DC converter	Full voltage adapter (unibody)	Transformer	DC-DC converter		
	Rated Voltage	6V, 12V, 24V AC/DC	100 to 240V AC 380V AC min.		110V DC	6V, 12V, 24V AC/DC	100 to 480V AC	110V DC		
-	Polarity	None	None	None	X1 (+) X2 (–)	None	None	X1 (+) X2 (–)		
	Shape/Terminal	X1 X2	X1 X2		X1 X2	X2 (APN1)		X1 X2		

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

### **LED Lamp Ratings (LSTD)**

LLD La.	ip mamigo	(20.5)							
Part No.			LSTD-6*	,	LST	ΓD-1∗	L	STD-2*	
Lamp Base		BA9S/13							
Rated Volta	ge	6V AC/DC			12V AC/DC		24V AC/DC		
Voltage Rar	nge	6V AC/DC ±10	)%		12V AC/DC ±10%		24V AC/DC ±10%		
	Color	R, A	G, PW	S	R, G, A, PW	S	R, G, A, PW	S	
Current Draw	DC	7mA	5.5mA	4.5mA	10mA	8mA	10mA	8mA	
Diaw	AC	8mA	8mA	7mA	11mA	9mA	11mA	9mA	
Lamp Base	Color	Same as illum	nination color (F	W: gray)			<u>.</u>		
Voltage Ma	rking	Die stamped o	Die stamped on the base						
Life (refere	nce value)	Approx. 50,00 (The luminand		50% the initial	intensity when used or	n complete D	C at 25°C.)		
			X 1 ∞———		Symbols		Example: LSTD-2PW		
				XX	LED chip	)			
Internal Circ	cuit			V N/	Rectifier				
			X 2		Zener dic	ode	Base	color	
					Resistor				
Weight		Approx. 2g							

- Specify a color code in place of \*.
- R (red), G (green), A (amber), S (blue), PW (pure white)
- Use a pure white (PW) LED for yellow (Y) illumination.

### **Specifications**

opecinications				¬ ∞
Operating Temperature			Non-illuminated: -25 to +70°C (no freezing) Illuminated: -25 to +50°C (no freezing)	& Pilot Lights
Storage Temperature			-40 to +80°C (no freezing)	†
Operating Humidity			45 to 85% RH (no condensation)	ig ,
Contact Resistance			50 mΩ maximum (initial value)	<b>.</b>
Insulation Resistance			100 MΩ minimum (500V DC megger)	-
modication registration			Between live and dead metal parts: 2,500V AC, 1 minute	
Dielectric Strength			(Full voltage and pilot lights: 2,000V AC, 1 minute) 2000V AC, (pilot lights: 6V AC/DC, 12V, 24V)	APEM
Vihyatian Dasiatanas	Damage limits		30 Hz, amplitude 1.5 mm	Switches & Pilot Lights
Vibration Resistance	Operation extremes		5 to 55 Hz, amplitude 0.5 mm	
Observation of the second	Damage limits		1000 m/s <sup>2</sup>	Control Boxe
Shock Resistance	Operation extremes		100 m/s <sup>2</sup>	Emergency
		Momentary	5,000,000	Stop Switche Enabling
	5 11 11	Maintained	500,000 (over 3 contacts: 250,000)	Switches
	Pushbutton	Push lock turn reset	500,000	Safety Produ
		Pull	500,000	
Mechanical Life		Momentary	2,500,000	Explosion Pro
(minimum operations)	Illuminated pushbutton	Maintained	500,000 (over 3 contacts: 250,000)	1
	Selector switch		500.000	Terminal Blod
	Key selector switch		500,000	Relays & Soci
	Illuminated selector swite	ch	500,000	Circuit
	Selector pushbutton		250,000	Protectors
Selection	Coloctor paoribation	Momentary	500,000 Switching frequency 1800 operations/h, duty ratio 40%	Power Suppli
	Pushbutton	Maintained	500,000 (over 3 contacts: 250,000)	
	rusiibulloii	Walitalieu	Switching frequency 900 operations/h, duty ratio 40%	LED Illuminat
		Push lock turn reset	500,000 Switching frequency 900 operations/h, duty ratio 40%	Controllers
Electrical Life		Momentary	500,000 Switching frequency 1800 operations/h, duty ratio 40%	
(minimum operations) (*1)	Illuminated pushbutton	Maintained	500,000 (over 3 contacts: 250,000)	Operator Interfaces
(	O-lastanitala		Switching frequency 900 operations/h, duty ratio 40%	
	Selector switch		500,000 Switching frequency 1200 operations/h, duty ratio 40%	Sensors
	Key selector switch		500,000 Switching frequency 1200 operations/h, duty ratio 40%	AUTO-ID
	Illuminated selector swite	cn	500,000 Switching frequency 1200 operations/h, duty ratio 40%	-
	Selector pushbutton	<b>5</b> 11 11	250,000 Switching frequency 900 operations/h, duty ratio 40%	-
		Pushbutton	ABN122: 82g ABN322: 87g	
		Illuminated pushbutton	ALN22222DN: 106g ALN21622DN: 163g	Fluck Cilk
	TWN series	Selector switch	ASN222N: 83g ASN2K22N: 120g	Flush Silhoue
		Illuminated selector switch	ASLN22222DN: 106g ASLN21622DN: 163g	ø16
Weight (approx.)		Pilot light	APN122DN: 46g APN116DN: 125g	-
. J(		Pushbutton	ABD122: 108g ABD322: 113g	ø22
		Illuminated pushbutton	ALD22222DN: 132g ALD21622DN: 189g	ø30
	TWND series	Selector switch	ASD222N: 110g ASD2K22N: 147g	-500
		Illuminated selector switch	ASLD22222DN: 133g ASLD21622DN: 190g	Miniature
		Pilot light	APD122DN: 75g APD116DN: 152g	

<sup>\*1)</sup> Load condition 220V AC 3A (AC-15)

### **Degree of Protection**

Series	Unit	Model	IEC 60529	JIS C 0920	
	Pushbutton	ABN, AON, AVN			
	Illuminated pushbutton	ALN, AOLN, AVLN			
	Selector switch	ASN, ASN□L			
TWN series	Key selector switch	ASN□K	IP65	Dust-proof/jet-proof	
I WIN Series	Illuminated selector switch	ASLN			
	Selector pushbutton	ASBN			
	Round pilot light	APN			
	Square pilot light	UPQN	IP40	_	
	Pushbutton	ABD, AOD, AVD			
	Illuminated pushbutton	ALD, AOLD, AVLD			
THAIR	Selector switch	ASD, ASD□L			
TWND series Diecast zinc	Key selector switch	ASD□K	IP65	Dustproof/jet-proof	
DIEGASI ZIIIG	Illuminated selector switch	ASLD			
	Selector pushbutton	ASBD			
	Round pilot light	APD			

<sup>•</sup> Switches/pilot lights have been tested in a test room in accordance with the degree of protection standards, by installing on an enclosure to valuate the effect on the enclosure or inside the switch or pilot light.

### For harsh environment such as torrid/frigid area

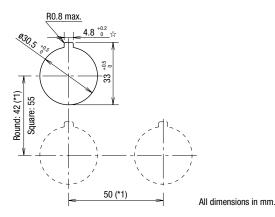
TWN/TWND series for harsh environment such as tropical/frigid area is also available (not approved by standards). Contact IDEC for details.

**▶** Download catalogs and CAD from http://asia.idec.com/downloads

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 ø22

> ARN CS

### Mounting Hole Layout/Mounting Centers



- The minimum mounting centers are applicable to pilot lights with one layer of contact blocks (one to two contact blocks). When two layers of contact blocks (four contact blocks) are mounted, determine the minimum mounting centers in consideration of convenience for wiring.
- \*1) Mushroom with shroud: 50 mm minimum
- \*1) Jumbo mushroom: 67 mm minimum
- \*1) Jumbo mushroom with shroud: 77 mm minimum

When high temperature is expected, take necessary measures such as

securing sufficient mounting centers or using a cooling fan.

• The 4.8 +0.2 mm recess is for preventing rotation and is not necessary when the nameplate or anti-rotation ring is not used.

Note: For mounting hole layout of mono-lever switches and cam switches, see IDEC's website.

APEM

Emergency Stop Switches Enabling Switches

Control Boxes

Safety Products

**Explosion Proof** 

Terminal Blocks

Relays & Sockets

Circuit Protectors

**Power Supplies** 

LED Illumination

Controllers

Operator Interfaces Sensors

AUTO-ID

Standard models

- Specify Ordering No. when ordering.
- Specify a color code in place of \*
- Pilot lights, illuminated pushbuttons, and illuminated selector switches have an LED lamp installed.
- Pilot lights are equipped with a terminal cover.
- Color codes for units without LED lamps:

**Notes for Ordering** 

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 TWN/TWND series cannot be guaranteed when a commercially available lamp is used.

- · Terminal covers, nameplates, and accessories for mono-lever swictch and cam switch are ordered separately.
- For terminal cover, nameplate and other accessories of mono-lever switches and cam switches, see IDEC's website.

## **Ordering Information**

Flush Silhouette

ø16

ø22

Miniature

Pilot Lights

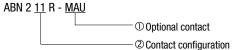
ARN

CS

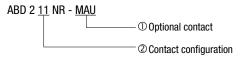
Pushbutton

When specifying gold-plated silver contact and contact configuration:

TWN series (B-310 to B-312)



TWND series (B-326 to B-328)



<Codes>

① Optional contact

MAU: Gold-plated silver

2 Contact configuration

10: 1NO

01: 1NC

11: 1NO1NC

20: 2N0 02: 2NC

2N02NC 22:

40: 4N0

04: 4NC

1N03NC 13:

31: 3N01NC

30: 3N0

3NC 03:

12: 1N02NC

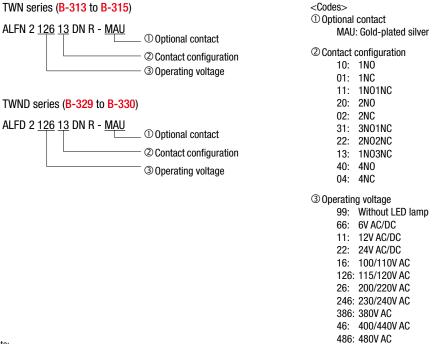
2N01NC

- Pushbutton with one or three contact blocks contains a dummy block.
- Mushroom pull pushbuttons AZN, AZD and mushroom push-pull AYD have up to two contacts in one layer.

### **Ordering Information**

### **Illuminated Pushbutton**

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



#### Note

- Odd number of contact blocks, such as 1NO, 1NC, 3NO, 2NO-1NC, 1NO-2NC, and 3NC, are not available for models of 100V AC or over.
- ullet Illuminated pushbuttons of 24V AC/DC and below with two or four contact blocks contain a dummy block.
- See B-309 for how to specify 110V DC model (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.

### **Selector Switch**

When specifying gold-plated silver contact and contact configuration:

```
TWND series (B-316 to B-319)

ASN 2 11 N - MAU

Optional contact

Codes>

ASD 2 11 N - MAU

Optional contact

Contact configuration

Optional contact

MAU: Gold-plated silver
```

#### Key removable position code (example)

	Position	Key removable position	Key removable		Part No. Example				
	LOSITION	key removable position	position code		TWN series	TWND series			
		Removable in all positions	(blank)	ASN2K20N	ASN2K20N-N024401	ASD2K20N			
	Maintained	Removal in left only	В	ASN2K20NB	ASN2K20NB-N024401	ASD2K20NB			
-position		Removable in right only	С	ASN2K20NC	ASN2K20NC-N024401	ASD2K20N			
	Spring return from right	Removal in left only	(blank)	ASN21K20N	ASN21K20N-N024401	ASD21K20N			
	Spring return from left	Removable in right only	(blank)	ASN22K20N	ASN22K20N-N024401	ASD22K20N			
		Removable in all positions	(blank)	ASN3K20N	ASN3K20N-N024401	ASD3K20N			
		Removable in left and center	В	ASN3K20NB	ASN3K20NB-N024401	ASD3K20NB			
		Removable in right and center	С	ASN3K20NC	ASN3K20NC-N024401	ASD3K20NC			
	Maintained	Removable in center only	D	ASN3K20ND	ASN3K20NC-N024401 ASN3K20ND-N024401 ASN3K20NE-N024401	ASD3K20ND			
		Removable in right and left	E	ASN3K20NE	ASN3K20NE-N024401	ASD3K20NE			
		Removal in left only	G	ASN3K20NG	ASN3K20NG-N024401	ASD3K20NE			
		Removable in right only	Н	ASN3K20NH	ASN3K20NH-N024401	ASD3K20NH			
-position		Removable in left and center	(blank)	ASN31K20N	ASN31K20N-N024401	ASD31K20N			
	Spring return from right	Removable in center only	D	ASN31K20ND	ASN31K20ND-N024401	ASD31K20ND			
		Removal in left only	G	ASN31K20NG	ASN31K20NG-N024401	ASD31K20NG			
		Removable in right and center	(blank)	ASN32K20N	ASN32K20N-N024401	ASD32K20N			
	Spring return from left	Removable in center only	D	ASN32K20ND	ASN32K20ND-N024401	ASD32K20ND			
		Removable in right only	Н	ASN32K20NH	ASN32K20NH-N024401	ASD32K20NH			
	Spring return two-way	Removable in center only	(blank)	ASN33K20N	ASN33K20N-N024401	ASD33K20N			

<sup>•</sup> The key cannot be removed in spring return positions.

Download catalogs and CAD from http://asia.idec.com/downloads

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

TWND
ARN

Control Boxes

Emergency Stop Switches

Enabling

Switches

Safety Products

**Explosion Proof** 

Terminal Blocks

Relays & Sockets

**Power Supplies** 

LED Illumination

Controllers

Operator Interfaces

Sensors

AUTO-ID

ø16

ø22

Miniature

Pilot Lights

ARN

CS

Flush Silhouette

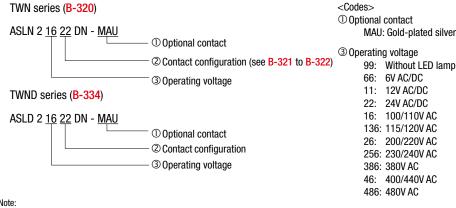
Circuit

Protectors

### **Ordering Information**

#### Illuminated Selector Switch

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



- Odd number of contact blocks, such as 1NO, 1NC, 3NO, 2NO-1NC, 1NO-2NC, and 3NC, is not available for models of 100V AC or over.
- Illuminated selector switches of 24V AC/DC and below with two or four contact blocks contain a dummy block.
- See below for how to specify 110V DC model (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.

### Pilot Light (LED)

When specifying LED operating voltage:

```
TWN series (B-324 to B-325)
                                                  <Codes>
                                                  ① Operating voltage
  APN1 26 DN R
                                                        99: Without LED lamp
                                                       66: 6V AC/DC
                       ① Operating voltage
                                                        11: 12V AC/DC
  UPQN3B 22 D R
                                                        22: 24V AC/DC
                                                        16: 100/110V AC
                       ① Operating voltage
                                                        126: 115/120V AC
                                                        26: 200/220V AC
  TWND series (B-336)
                                                        246: 230/240V AC
                                                        386: 380V AC
  APD1 26 DN R
                                                        46: 400/440V AC
                       ① Operating voltage
                                                        486: 480V AC
```

- See below for how to specify 110V DC model (DC-DC converter).
- Color codes for units without LED lamps: R (red), G (green), A (amber), Y (vellow), W (white), 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.

### DC-DC Convertor Model (110V DC)

When specifying DC-DC convertor type on illuminated pushbuttons, illuminated selector switches, and pilot lights:

### TWN series

```
ALN2 16 22D DN G
                                                    ① Operating voltage
                        ① Operating voltage
                                                          16 D: 110V DC
  ASLN2 16 11D DN Y
                        ① Operating voltage
  APN1 <u>16</u> <u>D</u> DN R
                        ① Operating voltage
TWND series
  ALD2 16 22D DN G
                        ① Operating voltage
  ASLD2 16 11D DN Y
                        ① Operating voltage
  APD1 16 D DN R
```

See 110V DC model (DC-DC converter) is not approved by standards (operating voltage: 90 to 140V DC).

① Operating voltage

• Odd number of contact blocks, such as 1NO, 1NC, 3NO, 2NO-1NC, 1NO-2NC, and 3NC, is not available for 100V DC model (DC-DC converter).

### Flush/Extended/Extended w/Half Shroud/Extended with Full Shroud

Package Quantity: 1

		·	v	,		Package Quantity: 1	
Shape	Operation	Contact	Part No. (Ordering No.)	Button Color Code	Dimensions	(All dimensions in mm.)	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
Flush		1NO	ABN110*	В			is:
ABN1		1NC	ABN101*	G			
AON1	Mamantani	1NO-1NC	ABN111*	R			
	Momentary	2N0	ABN120*	Y S	P P	anel Thickness 0.8 to 7.5	APEM
		2NC	ABN102*	w			
		2NO-2NC	ABN122*	Note	4.14		
		1NO	A0N110*	В			Control Boxes
		1NC	A0N101*	G	45.4 (1 or 2 blocks)	29.6	Emergency Stop Switches
	Maintained	1NO-1NC	A0N111*	R Y	65.4(3 or 4 blocks) 9	ø39	
	Wallitallieu	2N0	A0N120*	S			
		2NC	A0N102*	W			Safety Products
		2NO-2NC	A0N122*	Note			
Extended		1NO	ABN210*	D			Explosion Proof
ABN2 AON2		1NC	ABN201*	B G			Terminal Blocks
AUNZ	Momontory	1NO-1NC	ABN211*	R			
	Momentary	2N0	ABN220*	Υ	-11t-	anel Thickness 0.8 to 7.5	Relays & Sockets
		2NC	ABN202*	S W			
		2NO-2NC	ABN222*	VV	4-	29 59	
		1NO	A0N210*	В			Power Supplies
		1NC	A0N201*	Ğ	45.4 (1 or 2 blocks)	29.6	LED Illumination
	Maintained	1NO-1NC	A0N211*	R	65.4 (3 or 4 blocks)	ø39 	Controlloro
	Waintainea	2N0	A0N220*	Y			
		2NC	A0N202*	S W			
		2NO-2NC	A0N222*				
Extended with Half Shroud ABN2G		1NO	ABN2G10*	В			3613013
AON2G		1NC	ABN2G01*	Ğ			AUTO-ID
	Momentary	1NO-1NC	ABN2G11*	R			-
	,,	2N0	ABN2G20*	Y S	Pan	el Thickness 0.8 to 3.5	
		2NC	ABN2G02*	W			l
		2NO-2NC	ABN2G22*		4.4	4 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1	Flush Silhouette
		1NO	AON2G10*	В			ø16
		1NC	AON2G01*	G	40.9 (1 or 2 blocks) 18.		
	Maintained	1NO-1NC	AON2G11*	R	60.9 (3 or 4 blocks) 20	.5 _ ø39	ø22
		2N0	AON2G20*	Y S			ø30
		2NC 2NO-2NC	AON2G02* AON2G22*	Ŵ			
Extended with Full Shroud		1NO					Miniature
ABN2F		1NC	ABN2F10* ABN2F01*	В			Pilot Lights
AON2F		1NO-1NC	ABN2F11*	G			
	Momentary	2N0	ABN2F20*	R Y			
		2NC	ABN2F02*	Ś		anel Thickness 0.8 to 6	
		2NO-2NC	ABN2F22*	W			TWN
		1NO	AON2F10*		4	32.52	
		1NC	AON2F01*	В			TWND
		1NO-1NC	AON2F01* AON2F11*	- G	, , , , , , , , , , , , , , , , , , ,	29.6	ARN
	Maintained	2N0	AON2F11*	R Y	65.4 (3 or 4 blocks)	6.5 ø39	
		2NC	AON2F02*	S			
		ONO ONO	AONOTOO	- w			

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

2NO-2NC

- Round bezel and shroud (metal): Chrome-plated
- Pushbuttons with 1 or 3 contact blocks have a dummy block.
- See B-307 for other contact configurations and gold-plated silver contacts.
- See B-312 for bottom view.
- Terminal screws: M3.5
- · Integrated terminal cover

Note ABN1, AON1 with button color of B (black), G (green), or (R) red Supply of color buttons B, G, R has been discontinued for ABN1/AON1 without color code. When ordering, make sure to specify the required button color code.

A0N2F22\*

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 ø22

Miniature Pilot Lights

TWND

CS

### Mushroom/Mushroom w/Full Shroud/Jumbo Mushroom/Jumbo Mushroom w/Shallow Shroud/Jumbo Mushroom w/Deep Shroud

Package Quantity: 1

Shape	Operation	Contact	Part No. (Ordering No.)	Button Color Code	Dimensions	(All dimensions in mm.)		
Mushroom		1NO	ABN310*	В				
ABN3 AON3		1NC	ABN301*	G				
-   -	Momentary	1NO-1NC	ABN311*	R				
		2N0	ABN320*	Y S	Panel Thickness 0.8 to	07.5		
		2NC 2NO-2NC	ABN302* ABN322*	W				
		1NO	ADN322* AON310*		4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	29.6		
		1NC	A0N301*	В				
		1NO-1NC	A0N311*	G R	45.4 (1 or 2 blocks) 65.4 (3 or 4 blocks) 22	29.6		
	Maintained	2N0	A0N320*	Υ				
		2NC	A0N302*	S W				
		2NO-2NC	A0N322*	**				
Mushroom with Full Shroud ABN3G		1NO	ABN3G10*			6.5 29.6		
		1NC	ABN3G01*	B G R				
		1NO-1NC	ABN3G11*		4. 4. 4. 88			
	Momentary	2N0	ABN3G20*	Y S				
		2NC	ABN3G02*	W	43.9 (1 or 2 blocks) 63.9 (3 or 4 blocks) 23.5			
-		2NO-2NC	ABN3G22*					
Jumbo Mushroom ABN4		1NO	ABN410*	B G R	Panel Thickness 0.8 to 7.5	_		
_	Momentary	1NC	ABN401*					
		1NO-1NC	ABN411*		4 4 6 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
		2N0	ABN420*					
		2NC	2NC ABN402* Y 45.4(1 or 2 blocks)					
-		2NO-2NC	ABN422*		65.4 (3 or 4 blocks) 29	29.6		
Jumbo Mushroom with Shallow Shroud		1NO	ABN4G10*		Panel Thickness 0.8 to 7.5			
- ABN4G		1NC	ABN4G01*					
		1NO-1NC	ABN4G11*	B G				
-	Momentary	2N0	ABN4G20*	R Y	250 250 250			
		2NC	ABN4G02*	'	45.4 (1 or 2 blocks)			
		2NO-2NC	ABN4G22*		65.4 (3 or 4 blocks) 29	29.6		
Jumbo Mushroom with Deep Shroud		1NO	ABN4F10*		Panel Thickness 0.8 to 7.5			
- ABN4F		1NC	ABN4F01*					
		1NO-1NC	ABN4F11*	B G				
	Momentary	2N0	ABN4F20*	R	4	<b>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</b>		
		2NC	ABN4F02*	Y				
		2NO-2NC	ABN4F22*		45.4 (1 or 2 blocks) 33 33	29.6		
			(	) (In Inc. a.) NAI (co.)	<u> </u>			

- Specify a color code in place of \* in Part No. B (black), G (green), R (red), Y (yellow), S (blue), W (white)
- Round bezel and shroud (metal): Chrome-plated
- Pushbuttons with 1 or 3 contact blocks have a dummy block.
- See B-307 for other contact configurations and gold-plated silver contacts.
- See B-312 for bottom view.
- Terminal screws: M3.5
- Integrated terminal cover

### Mushroom Pushlock Turn Reset/Mushroom Push Turn Lock/Mushroom Pull

Package Quantity: 1

Shape	Contact	Part No. (Ordering No.)	Button Color Code	Dimensions (All dimensions in mm.)
Mushroom Pushlock Turn Reset (*1) AVN3	1NO	AVN310N*		
AVINO	1NC	AVN301N*		Panel Thickness 0.8 to 7.5
	1NO-1NC	AVN311N*	R Y	
	2N0	AVN320N*	Υ	
	2NC	AVN302N*		45.4 (1 or 2 blocks) 29.6
	2NO-2NC	AVN322N*		65.4 (3 or 4 blocks) 23.6
Mushroom Push Turn Lock AJN3	1NO	AJN310N*		Panel Thickness 0.8 to 7.5
AUNO	1NC	AJN301N*	B G R Y	
	1NO-1NC	AJN311N*		
	2N0	AJN320N*		
	2NC	AJN302N*		45.4 (1 or 2 blocks) 29.6 29.6 23.6
	2NO-2NC	AJN322N*		
Mushroom Pull AZN3	1NO	AZN310N*		
AZNO	1NC	AZN301N*		Panel Thickness 0.8 to 7.5
	1NO-1NC	AZN311N*	B G R	
	2N0	AZN320N*	R Y	4.4
	2NC	AZN302N*	_ r	45.4 25.1 5.5 stroke 29.6
				* *************************************

- Specify a color code in place of \* in Part No. B (black), G (green), R (red), Y (yellow)
- Round bezel (metal): Chrome-plated
- Pushbuttons with 1 or 3 contact blocks have a dummy block.
- See B-307 for other contact configurations and gold-plated silver contacts.
- . Mushroom pull has up to 2 contact blocks.
- Terminal screws: M3.5
- · Integrated terminal cover
- \*1) Pushlock turn reset switches cannot be used as emergency stop switches. When emergency stop switches are required, use XN series emergency stop switches (ISO 13850 and IEC 60947-5-5 compliant).

### **Pushbutton operation**

Pushlock Turn Reset

Button is maintained when pressed and is reset when turned clockwise.

Push Turn Lock

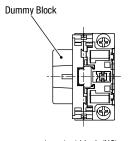
Button is locked when turned clockwise in the depressed position and is reset when turned counterclockwise.

Pulling the button operates the contacts, and releasing the button return the contacts.

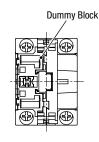
#### Pull contact operation

Contact	AZN3				
Comaci	Normal	Pull			
1NO	o <sub>r</sub> o	- - -			
2NO-2NC	ის •_•	0 0 e1e			
2N0	مړه مړه	00 00			
2NC	•••	<b>●</b> 1● <b>●</b> 1●			

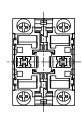
#### Bottom View (for non-illuminated pushbuttons and selector switches)



1 contact block (NO) (NC: opposite position)



3 contact blocks



2/4 contact blocks

- See B-348 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

Operator

Sensors

AUTO-ID

Flush Silhouette

ø16

ø22

Miniature

Pilot Lights

TWND

ARN

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 ø22

Miniature Pilot Lights

> TWND ARN CS

### LED Illuminated Extended/Extended with Half Shroud/Extended with Full Shroud

Package Quantity: 1

Shape	Base	Operation	Operating Voltage	Contact	Part No. (Ordering No.)	Color Code	Dimens Pag
xtended				1NO-1NC	ALN22211DN*		
LN2			24V AC/DC	2N0	ALN22220DN*		
OLN2						R	
						G	
		Momentary	100/110V AC			Y	
			Pation   Operating Voltage   Contact   Cordering No.)   Co	A S			
ull (man						S PW	
			200/220V AC			-  · <b>··</b>	
(24VAC/DC)			200/2201710				
,	BA9S						-
			24V AC/DC			$\dashv$	
The state of the s			247710750			R	
						⊢ G	
<b>1</b>		Maintained	100/110\/ AC			Ϋ́	
		Maintaineu	100/110V AC			— A	
						S	
With transformer			200/2004 40			PW	
(100/110V AC)			200/220V AC				
xtended with Half Shroud							
xtended with Hall Shroud LGN2			0.414.0700			_	
OLGN2			24V AC/DC				
						R	
						G Y	
		Momentary	100/110V AC			Ä	
						S	
					ALGN22611DN*	PW	
(24V AC/DC)			200/220V AC		ALGN22620DN*		
	BA9S			2NC	ALGN22602DN*		B-3
	D/100			2.0			
				2N0	AOLGN22220DN*	R G Y	
				2NC	AOLGN22202DN*		
			Maintained 100/110V AC	1NO-1NC	AOLGN21611DN*		
		Maintained		2N0	AOLGN21620DN*		
				2NC	AOLGN21602DN*	S	
				1NO-1NC	AOLGN22611DN*	PW	
With transformer			200/220V AC	2N0	AOLGN22620DN*		
(100/110V AC)				2NC	AOLGN22602DN*		
xtended with Full Shroud				1NO-1NC	ALFN22211DN*		
LFN2			24V AC/DC	2N0	ALFN22220DN*		
OLFN2				2NC	ALFN22202DN*	R	
				1NO-1NC	ALFN21611DN*	G	
		Momentary	100/110V AC	2N0	ALFN21620DN*	Y	
		,		2NC	ALFN21602DN*		
				1NO-1NC	ALFN22611DN*		
			200/220V AC	2NO	ALFN22620DN*	- "	
(24V AC/DC)				2NC	ALFN22602DN*		
	BA9S			1NO-1NC	AOLFN22211DN*		
			24V AC/DC	2NO	AOLFN22220DN*	_	
With transformer			24V AU/DU	2NC	AOLFN2220DN*	- В	
		Maintained	100/110// 40	1NO-1NC	AOLFN21611DN*	$ \overset{a}{Y}$	
		Maintained	100/110V AC	2NO	AOLFN21620DN*	_ A	R G Y A S PW
				2NC	AOLFN21602DN*		
		200/220V AC	1NO-1NC	AOLFN22611DN*	PW		
With transformer	With transformer (100/110V AC)			2N0	AOLFN22620DN*	1	

- Specify a color code in place of \* in Part No. R (red), G (green), Y (yellow), A (amber), S
- (blue), PW (pure white)
   Illuminated pushbuttons have an LED lamp installed.
- Round bezel (metal): Chrome-plated
- See B-308 for other operating voltage such as 6V AC/DC, 12V AC/DC, and 110V DC. • Illuminated pushbutttons of 24V AC/DC or below with 2 or 4 contact blocks have a
- $\bullet$  See  $\mbox{\sc B-308}$  for other contact configurations and gold-plated silver contacts.
- $\bullet$  See B-308 for how to specify units without LED lamps. 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.
- See B-314 for bottom view.
- Terminal screws: M3.5
- 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 Operator Interfaces Sensors AUTO-ID

Flush Silhouette

ø16 ø22

Miniature

Pilot Lights

TWND

ARN

CS

### LED Illuminated Mushroom (ø40)/Mushroom Pushlock Turn Reset/Mushroom Push Turn Lock

Package Quantity: 1

						Pa	ckage Quantity: 1	
Shape	Base	Operation	Operating Voltage	Contact	Part No. (Ordering No.)	Color Code	Dimensions Page	
Mushroom (ø40)				1NO-1NC	ALN32211DN *			
ALN3 AOLN3			24V AC/DC	2N0	ALN32220DN *			
AULINS				2NC	ALN32202DN *	R		
				1NO-1NC	ALN31611DN *			
		Momentary	100/110V AC	2N0	ALN31620DN *			
				2NC	ALN31602DN *			
				1NO-1NC	ALN32611DN *	PW		
			200/220V AC	2N0	ALN32620DN *			
(24V AC/DC)	BA9S	90		2NC	ALN32602DN *			
	BA95			1NO-1NC	AOLN32211DN *			
			24V AC/DC	2N0	AOLN32220DN *			
				2NC	A0LN32202DN *	R		
				1NO-1NC	AOLN31611DN *	G		
		Maintained	100/110V AC	2N0	AOLN31620DN *			
				2NC	A0LN31602DN *	S		
				1NO-1NC	AOLN32611DN *	PW		
With tranformer				200/220V AC	2N0	AOLN32620DN *		
(100/110V AC)					2NC	A0LN32602DN *		D 215
Mushroom Pushlock Turn Reset				1NO-1NC	AVLN32211DN *	B-	D-313	
AVLN3 (*1)			24V AC/DC	2N0	AVLN32220DN *	1		
				2NC	AVLN32202DN *	G Y A S PW B-315		
				1NO-1NC	AVLN31611DN *			
	BA9S	_	100/110V AC	2N0	AVLN31620DN *			
				2NC	AVLN31602DN *			
				1NO-1NC	AVLN32611DN *	1	— B-315	
			200/220V AC	2N0	AVLN32620DN *	1		
(24V AC/DC)				2NC	AVLN32602DN *	1		
Mushroom Push Turn Lock				1NO-1NC	AJLN32211DN *			
AJLN3			24V AC/DC	2N0	AJLN32220DN *			
				2NC	AJLN32202DN *			
				1NO-1NC	AJLN31611DN *			
	BA9S	_	100/110V AC	2N0	AJLN31620DN *			
				2NC	AJLN31602DN *			
				1NO-1NC	AJLN32611DN *	] PW		
			200/220V AC	2N0	AJLN32620DN *	]		
(24V AC/DC)				2NC	AJLN32602DN *			

- Specify a color code in place of \* in Part No. R (red), G (green), Y (yellow), A (amber), S (blue), PW (pure white)
- Illuminated pushbuttons have an LED lamp installed.
- Round bezel (metal): Chrome-plated
- See B-308 for other operating voltage such as 6V AC/DC, 12V AC/DC, and 110V DC.
- See B-308 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.
- See B-308 for how to specify units without LED lamps.

#### Illuminated pushbutton operation

Pushlock Turn Reset

Button is maintained when pressed and is reset when turned clockwise.

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.

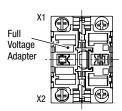
- \*1) Pushlock turn reset switches cannot be used as emergency stop switches. When emergency stop switches are required, use XN or HN series emergency stop switches (ISO 13850 and IEC 60947-5-5 compliant).
- Terminal screws: M3.5
- · Integrated terminal cover

#### Push Turn Lock

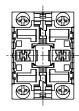
Button is locked when turned clockwise in the depressed position and is reset when turned counterclockwise.

#### Bottom View (for illuminated pushbuttons, selector switches, and pilot lights)

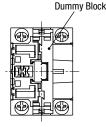
6V, 12V, 24V AC/DC



1 contact block

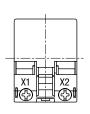


3 contact blocks

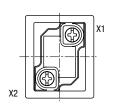


2/4 contact blocks

100/110V, 200/220V AC 240V AC or below



110V DC, 380V AC or over



DC-DC converter unit Terminal No. X1: positive Terminal No. X2: negative

• See B-348 for wiring.

Control Boxes

Safety Products

**Power Supplies** 

LED Illumination

Flush Silhouette

ø16

ø22

Miniature

Pilot Lights

TWND ARN CS

Operator Interfaces Sensors

Emergency Stop Switches

> Enabling Switches

### **Dimensions (Illuminated Pushbuttons)**

### Extended, LED illuminated (momentary/maintained)

All dimensions in mm.

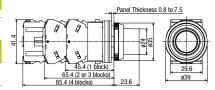
ALN2/AOLN2 (terminal screws M3.5)

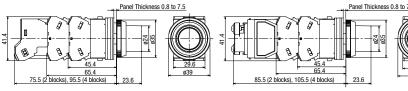
Integrated terminal cover

6, 12, 24V AC/DC · Without LED Lamp

100/110V AC, 200/220V AC (240V AC or below)

110V DC/380V AC or over



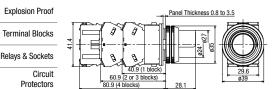


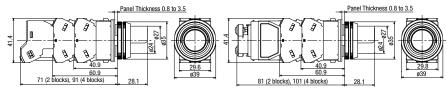
# Extended with Half Shroud, LED illuminated (momentary/maintained) ALGN2/AOLGN2 (terminal screws M3.5) Integrated terminal cover

6, 12, 24V AC/DC· Without LED Lamp

100/110V AC, 200/220V AC (240V AC or below)

110V DC/380V AC or over



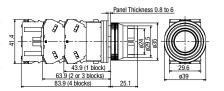


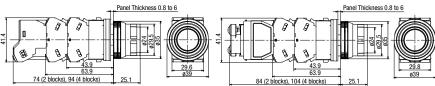
# Extended with Full Shroud, LED illuminated (momentary/maintained) ALFN2/AOLFN2 (terminal screws M3.5) Integrated terminal cover

6, 12, 24V AC/DC · Without LED Lamp

100/110V AC, 200/220V AC (240V AC or below)

110V DC/380V AC or over





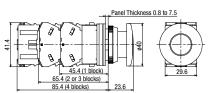
# Mushroom (ø40), LED illuminated (momentary/maintained) ALN3/AOLN3 (terminal screws M3.5) Integrated terminal cover

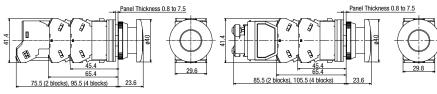
6, 12, 24V AC/DC · Without LED Lamp

100/110V AC, 200/220V AC (240V AC or below)

110V DC/380V AC or over

110V DC/380V AC or over

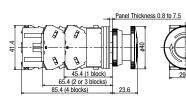


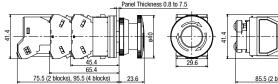


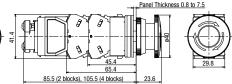
### Mushroom Pushlock Turn Reset, LED illuminated

AVLN3 (terminal screws M3.5) 6, 12, 24V AC/DC · Without LED Lamp Integrated terminal cover

100/110V AC, 200/220V AC 110V DC/380V AC or over





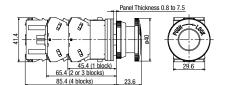


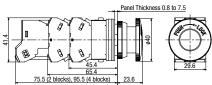
## Mushroom Push Turn Lock, LED illuminated

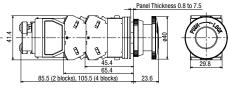
AJLN3 (terminal screws M3.5)

Integrated terminal cover

6, 12, 24V AC/DC · Without LED Lamp 100/110V AC, 200/220V AC







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

Miniature Pilot Lights

TWND

ARN

CS

### ASN Selector Switches (Knob Operator)

Package Quantity: 1

Shape	Knob Opera ASN	tor						Ô					rackage quality.
		Contact C	Configuration	n			Maintained	Spring Return from Right		Spring	, Retur	n from	Left
		Contact	Block		perator osition		1 2	1 • 2	Contact	Block		rator ition	1, 2
	Contact	Mounting Position	Contact	1	2				Mounting Position	Contact	1	2	
90°	1NO (10)	① ②	NO —	Dun	nmy Blo	ock	ASN210N	ASN2110N	① ②	NO —	•		ASN2210N
2-position	1NO-1NC (11)	① ②	NO NC	•	•		ASN211N	ASN2111N	① ②	NO NC	•	•	ASN2211N
	2NO ① ② ② ③ ③ ③ ③ ⑤ ⑥ ⑥ ⑥ ⑥ ⑥ ⑥ ⑥ ⑥ ⑥ ⑥ ⑥ ⑥ ⑥ ⑥ ⑥		NO NO		•		ASN220N	ASN2120N	① ②	NO NO	•		ASN2220N
	2NO-2NC	① ②	NO NC	•	•		ASN222N	ASN2122N	① ②	NO NC	•	•	ASN2222N
	(22)		3 NO ● 4 NC ●		AGNELLIN		3 4	NO NC	•	•			
		Contact C	Configuration				Maintained	Spring Return from Right	Spring	g Return fro	om Lef	t	Spring Return Two-way
	Contact	Contact	Block		perator osition		1 0 2	1 0 2		1 0 2			1 0 2
		Mounting Position	Contact	1	0	2	V						
	2NO (20)	① ②	NO NO	•		•	ASN320N	ASN3120N		ASN32201	V		ASN3320N
	2NC (02)	① ②	NC NC				ASN302N	ASN3102N		ASN32021	V		ASN3302N
	2NO-2NC	① ②	NO NO	•		•							
45° 3-position	(22)	3	NC NC		Un		ASN322N	ASN3122N		ASN32221	V		ASN3322N
Pooliion	4N0	① ②	NO NO	•		•							
	(40)	3	NO NO	•		•	ASN340N	ASN3140N		ASN32401	V		ASN3340N
	4NC (04)	10 NC 4NC 2 NC		ASN304N ASN3104N			ASN32041		ASN3304N				
	₹/ <sub>2</sub>	(4) (1)	NC NO	•			\$						
	√ <sub>2</sub>	ASN33SN-243					<del>-</del>						

- Knob: Black
- Round bezel (metal): Chrome-plated
- Selector switches with 1 or 3 contact blocks have a dummy block.
- Knob operator can be installed at 45-degree intervals in addition to the positions shown in the above table.
- See B-321 to B-322 for other contact configurations. Turn the operator to each position accurately.

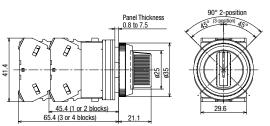
- Selector switches with \$\sigma\$ have a half contact operating current (load switching current value). Rated insulation voltage and rated current remain the same.
- See B-308 for gold-plated silver contacts.
- See B-312 for bottom view.

### **Contact Block Mounting Position**



### **Dimensions**

All dimensions in mm.



Terminal Screws: M3.5

Terminal cover: integrated

### **ASN-**□ Selector Switches (Lever Operator)

Package Quantity: 1

Lever Operator ASN□L Shape APEM Spring Return Contact Configuration Spring Return from Left Maintained from Right Control Boxes Operator Operator Contact Block Contact Block Position Position Emergency Contact Mounting Mounting Contact 2 1 Contact Enabling Position Position Switches 1N0 1 NO 1 NO ASN2L10N ASN21L10N ASN22L10N Safety Products (10)2 **Dummy Block** 2 2-position 1NO-1NC 1 NO 1 NO • **Explosion Proof** ASN2L11N ASN21L11N ASN22L11N (11)2 NC • 2 NC • Terminal Blocks • 1 1 N0 NO 2N0 ASN2L20N ASN21L20N ASN22L20N (20)2 NO 2 NO Relays & Sockets 1 NO 1 N0 Circuit 2 2 2NO-2NC NC • NC lacktriangleProtectors ASN2L22N ASN21L22N ASN22L22N (22)3 NO • 3 NO • **Power Supplies** 4 NC • 4 NC • Spring Return Spring Return LED Illumination Contact Configuration Maintained Spring Return from Left from Right Two-way Controllers **Operator** Contact Block Position Operator Contact Mounting Contact 1 2 0 Position Sensors 1 NO • 2N0 ASN3L20N ASN31L20N ASN32L20N ASN33L20N AUTO-ID (20)2 NO • 1 NO 2NC ASN3L02N ASN31L02N ASN33L02N ASN32L02N 2 N0 1 NO Flush Silhouette 2NO-2NC 2 NO ASN3L22N ASN31L22N ASN32L22N ASN33L22N (22)3 NO 45° ø16 3-position 4 NO 1 NO ø22 2 NO • 4N0 ASN3L40N ASN31L40N ASN32L40N ASN33L40N (40)3 N0 • 4 NO Miniature 1 NO Pilot Lights 4NC 2 NO ASN3L04N ASN31L04N ASN32L04N ASN33L04N (04)3 NO 4 N0 1 N0 ☆ 3S NO 2 ASN3L3SN-243 3 NO TWND

Lever: Black

ARN

CS

- Round bezel (metal): Chrome-plated
- Selector switches with 1 or 3 contact blocks have a dummy block.

4

Knob operator can be installed at 45-degree intervals in addition to the positions shown in the above table.

**Dummy Block** 

• See B-321 to B-322 for other contact configurations. Turn the operator to each position accurately.

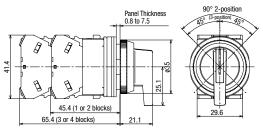
- Selector switches with 
   have a half contact operating current (load switching current value). Rated insulation voltage and rated current remain the same.
- See B-308 for gold contact.
- See B-312 for bottom view.

### **Contact Block Mounting Position**



### **Dimensions**

All dimensions in mm.



Terminal Screws: M3.5

Terminal cover: integrated

### **ASN-**□**K** Key Selector Switches

Key Selector (Key No. 0)

Package Quantity: 1

Shape	ASN□K	( - 7 7												ghts
								Coring Datum						APEM Switches &
		Contact C	onfiguratio	n			Maintained	Spring Return from Right		Spring	Returr	from l	Left	Pilot Lights
		Contact	Block		)perat Positio		1 2	1 , 2	Contact	Block		rator	2 جد 1	Control Boxes
	Contact	Mounting Position	Contact	1	2				Mounting Position	Contact	1	2		Emergency Stop Switches Enabling
	1NO	①	NO		•				1 03111011	NO	•			Switches
90°	(10)	2	_	Dur	nmy E	Block	ASN2K10N	ASN21K10N	2	_	-	_	ASN22K10N	Safety Products
2-position	1NO-1NC	①	NO		•		ASN2K11N	ASN21K11N	0	NO	•		ASN22K11N	Explosion Proof
'	(11)	2	NC	•			ASNZKTIN	ASNZIKITN	2	NC		•	ASNZZKTIN	Explosion Floor
	2N0	①	NO		•		ASN2K20N	ASN21K20N	0	NO	•		ASN22K20N	Terminal Blocks
	(20)	2	NO		•		71011212011	7101121112011	2	NO	•		7101122112011	Relays & Sockets
		①	NO NO		•	-			0	NO NO	•	-	-	Circuit
	2NO-2NC (22)	2	NC	•	•	-	ASN2K22N	ASN21K22N	3	NC	•	•	ASN22K22N	Protectors
	(22)	(3) (4)	NO NC	•	•	-			3	NO NC	•	•	-	Power Supplies
			onfiguratio	_			Maintained	Spring Return from Right		g Return fro	om Lef		Spring Return Two-way	LED Illumination
		Contact	Dlook	(	perat	or		nom rugne					I Wo way	Controllers
	Contact	Mounting	Contact	1	Positio	on 2	1 0 2	1 0 2		1 0 2			1,0,2	Operator Interfaces
		Position		•		-								Sensors
	2N0 (20)	① ②	NO NO	•		•	ASN3K20N	ASN31K20N		ASN32K20	N		ASN33K20N	AUTO-ID
	2NC	0	NC			_								
	(02)	2	NC				ASN3K02N	ASN31K02N		ASN32K02	N		ASN33K02N	
		①	NO	•										·
	2NO-2NC	2	NO			•	VCNOKOON	ACNO-LIZONI		ACNIOOVOO	NI.		ACNIGOROM	Flush Silhouette
45°	(22)	3	NC				ASN3K22N	ASN31K22N	,	ASN32K22	IN		ASN33K22N	ø16
3-position		4	NC											Ø16
		1	NO	•										ø22
	4N0	2	NO			•	ASN3K40N	ASN31K40N		ASN32K40	N		ASN33K40N	ø30
	(40)	3	NO NO	•		-								
		4	NO NO		_									Miniature
	4NO	① ②	NC NC											Pilot Lights
	4NC (04)	3	NC				ASN3K04N	ASN31K04N		ASN32K04	N		ASN33K04N	l — —
	(3.)	<u> </u>	NC				1							
		0	NO	•							-			1
	☆ 3S	2	NO			•	. ☆							TWN
	35	3	NC		•		ASN3K3SN-243	_		_			_	TWND
		4	_	Dur	nmy E	Block	]							- WIND

- Cylinder: Chrome-plated
- Round bezel (metal): Chrome-plated
- Key selector switches with 1 or 3 contact blocks have a dummy block.
- See B-321 to B-322 for other contact configurations.
- On spring-returned types, the key can be released only from the maintained position. On maintained types, the key can be released from every position. See  $\ensuremath{\text{B-308}}$ for specifying key retained positions.

### **Contact Block Mounting Position**



- 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.

- Selector switches with ☆ have a half contact operating current (load switching current value). Rated insulation voltage and rated current remain the same.
- See B-308 for gold-plated silver contacts.
- See B-312 for bottom view.

#### **Dimensions**

All dimensions in mm. 90° 2-position Panel Thickness 16.5 45.4 (1 or 2 blocks) 65.4 (3 or 4 blocks)

Terminal Screws: M3.5

Terminal cover: integrated

ARN

### **ASN-**□K Key Selector Switches

Package Quantity: 1

Key Selector (Key No. 0) ASN□K Shape APEM Spring Return **Contact Configuration** Maintained Spring Return from Left from Right Control Boxes Operator Operator Contact Block Contact Block Position Position Emergency Contact Mounting Mounting Stop Switches Contact 1 2 Contact 1 2 Position Position Enabling Switches 1N0 1 NO lacktriangleASN2K10N-ASN21K10N-1 NO ASN22K10N-Safety Products (10)N024401 N024401 N024401 2 **Dummy Block** 2 1NO-1NC 1 NO ASN2K11N-ASN21K11N-1 NO • ASN22K11N-2-position **Explosion Proof** N024401 (11)2 NC • N024401 N024401 2 NC Terminal Blocks 2N0 1 NO • ASN2K20N-ASN21K20N-1 NO • ASN22K20N-N024401 N024401 (20)2 NO • N024401 2 NO • Relays & Sockets 1 NO lacktriangle1 NO • Circuit 2NO-2NC 2 NC • ASN2K22N-ASN21K22N-2 NC • ASN22K22N-Protectors N024401 N024401 N024401 (22)3 NO • 3 NO • **Power Supplies** 4 NC 4 • NC Spring Return Spring Return LED Illumination **Contact Configuration** Maintained Spring Return from Left from Right Two-way Controllers **Operator** Contact Block Position Operator Contact Mounting Interfaces Contact 1 0 2 Position Sensors 2N0 1 NO ASN3K20N-ASN31K20N-ASN32K20N-ASN33K20N-N024401 N024401 N024401 N024401 AUTO-ID (20)2 N0 1 NC 2NC ASN3K02N-ASN31K02N-ASN32K02N-ASN33K02N-N024401 (02)N024401 N024401 N024401 2 NC 1 NO 2 N0 Flush Silhouette 2NO-2NC ASN3K22N-ASN31K22N-ASN32K22N-ASN33K22N-N024401 N024401 N024401 N024401 (22)NC 3 45° ø16 4 NC 3-position ① N0 ø22 2 N0 • 4N0 ASN3K40N-ASN31K40N-ASN32K40N-ASN33K40N-(40)N024401 N024401 N024401 N024401 3 NO • 4 NO Miniature 1 NC Pilot Lights NC 4NC 2 ASN3K04N-ASN31K04N-ASN32K04N-ASN33K04N-(04)3 NC N024401 N024401 N024401 N024401 4 NC 1 N0 2 N0 • ☆ ASN3K3SN-

243-N024401

- Cylinder: Chrome-plated
- Round bezel (metal): Chrome-plated

38

• Key selector switches with 1 or 3 contact blocks have a dummy block.

3

4

- See B-321 to B-322 for other contact configurations.
- On spring-returned types, the key can be released only from the maintained position. On maintained types, the key can be released from every position. See B-308 for specifying key retained positions.

NC

**Dummy Block** 

#### **Contact Block Mounting Position**



- 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.
- Selector switches with ☆ have a half contact operating current (load switching current value). Rated insulation voltage and rated current remain the same.
- See B-308 for gold-plated silver contacts.
- See B-312 for bottom view.

#### **Dimensions**

Panel Thickness
0.8 to 7.5

45.4 (1 or 2 blocks)
65.4 (3 or 4 blocks)
39

Terminal Screws: M3.5



All dimensions in mm.

Terminal cover: integrated

TWND

ARN

### **ASLN Illuminated Selector Switches (LED)**

Package Quantity: 1

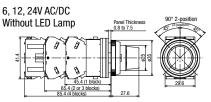
	Shape	Illuminate ASLN	ed Selector	r Switche:	s (BAS	OS E	Base	)									Lights
									(24V AC/DC)								APEM
			Contact C	onfigurati	ion				Maintained	Spring Return from Right		Sprin	g Retu	ırn fro	m Left		Switches & Pilot Lights
			Contact	t Block	Ope	erat sitic		Rated Voltage	1 0	1 - 2	Contact	Block	Opei Posi	rator		Color Code	Control Boxes
		Contact	Mounting Position	Contact	İΠ	2		Voltage	1 2		Mounting Position	Contact	1	2	1, 2	oodc	Emergency Stop Switches
	io	1NO-1NC	1)	NO		•		24V AC/DC	ASLN22211DN*	ASLN212211DN*	1 03111011	NO	•		ASLN222211DN*		Enabling Switches
	2-position	(11)	2	NC				100/110V AC	ASLN21611DN*	ASLN211611DN*	2	NC		•	ASLN221611DN*		Safety Products
	90° 2-		①	NO		•		200/220V AC 24V AC/DC	ASLN22611DN* ASLN22220DN*	ASLN212611DN* ASLN212220DN*	0	NO	•		ASLN222611DN* ASLN222220DN*	R G	Explosion Proof
	6	2N0	2	NO	_	•	1	100/110V AC	ASLN21620DN*	ASLN211620DN*	2	NO	•		ASLN221620DN*	Ϋ́	Explosion Frooi
		(20)						200/220V AC	ASLN22620DN*	ASLN212620DN*					ASLN222620DN*	Α	Terminal Blocks
			①	NO	_	•	-	24V AC/DC	ASLN22222DN*	ASLN212222DN*	①	NO	•		ASLN222222DN*	S PW	Relays & Sockets
		2NO-2NC	2	NC		_	-	100/110V AC	ASLN21622DN*	ASLN211622DN*	2	NC		•	ASLN221622DN*	PW	Circuit
		(22)	③ ④	NO NC	•	•	-	200/220V AC	ASLN22622DN*	ASLN212622DN*	(3) (4)	NO NC	•	•	ASLN222622DN*		Protectors
			Contact C						Maintained	Spring Return from Right		Return fr	rom Le		Spring Return Two-Way		Power Supplies
			Contac	+ Dlook	Оро	erat	tor	Rated		irom rugnt						Color	LED Illumination
		Contact	Mounting	1	-	sitio		Voltage	1 0 2	1 0 2		1 0	2		$\begin{vmatrix} 1 & 0 & 2 \\ 2 & 2 \end{vmatrix}$	Code	Controllers
			Position	Contact		0	2			V					V		Operator
		2N0	① ②	NO NO			•	24V AC/DC 100/110V AC	ASLN32220DN* ASLN31620DN*	ASLN312220DN* ASLN311620DN*		<u>.N322220</u> .N321620			ASLN332220DN* ASLN331620DN*		Interfaces
		(20)	<u> </u>	INO				200/220V AC	ASLN32620DN*	ASLN311620DN*		.N321620 .N322620			ASLN331620DN* ASLN332620DN*		Sensors
			1	NC				24V AC/DC	ASLN32202DN*	ASLN312202DN*		N322202			ASLN332202DN*		AUTO-ID
İ	ion	2NC (02)	2	NC		D		100/110V AC	ASLN31602DN*	ASLN311602DN*	ASL	N321602	2DN*		ASLN331602DN*		
ı	45° 3-position	(02)						200/220V AC	ASLN32602DN*	ASLN312602DN*	ASL	N322602	2DN*		ASLN332602DN*		
ı	3-6		1	NO	•			24V AC/DC	ASLN32222DN*	ASLN312222DN*	1	N322222			ASLN332222DN*	R	
	45°	2NO-2NC	2	NO		_	•	100/110V AC	ASLN31622DN*	ASLN311622DN*		N321622			ASLN331622DN*	G	Flush Silhouette
		(22)	③ ④	NC		-		200/220V AC	ASLN32622DN*	ASLN312622DN*	ASL	N322622	2DN*		ASLN332622DN*	Y	
			①	NC NO	-			24V AC/DC	ASLN32240DN*	ASLN312240DN*	ACI	N322240	DN.		ASLN332240DN*	A S	ø16
		4NO	2	NO NO			•	100/110V AC	ASLN31640DN*	ASLN312240DN* ASLN311640DN*		.N322240 .N321640			ASLN332240DN* ASLN331640DN*	PW	ø22
		(40)	3	NO	•		Ť	200/220V AC	ASLN32640DN*	ASLN312640DN*		N322640			ASLN332640DN*		
			4	NO			•	_									ø30
			①	NC				24V AC/DC	ASLN32204DN*	ASLN312204DN*	1	N322204			ASLN332204DN*		Miniature
		4NC	2	NC		_	lacksquare	100/110V AC	ASLN31604DN*	ASLN311604DN*		N321604			ASLN331604DN*		
		(04)	3	NC		_		200/220V AC	ASLN32604DN*	ASLN312604DN*	ASL	N322604	4DN*		ASLN332604DN*		Pilot Lights
L			4	NC					_						_		

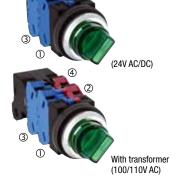
- Specify a color code in place of \* in Part No. R (red), G (green), Y (yellow), A (amber), S (blue), PW (pure white)
- Illuminated selector switches have an LED lamp installed.
- Round bezel (metal): chrome-plated
- See B-309 for other operating voltage such as 6V AC/DC, 12V AC/DC, and 110V DC.
   Illuminated selector switches of 24V AC/DC or below with 2 or 4 contact blocks have a
- dummy block.
- See B-321 to B-322 other contact configurations.

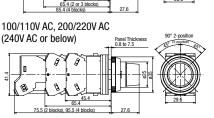
- See B-309 for how to specify units without LED lamps. When using a commercially available lamp, choose a lamp with rated voltage 5 to 30V AC/DC and 1W maximum, and with the same base and shape. Make sure of correct operation before installation. The  $\,$ operation of illuminated pushbutton switches cannot be guaranteed when a commercially available lamp is used.
- Turn the operator to each position accurately.
- See B-309 for gold-plated silver contacts.
- See B-314 for bottom view.

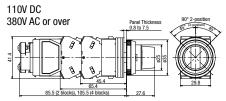
All dimensions in mm.

#### **Contact Block Mounting Position Dimensions**









Terminal Screws: M3.5

Terminal cover: integrated

TWND

ARN

Circuit Protectors **Power Supplies** LED Illumination Controllers Operator

> Sensors AUTO-ID

Flush Silhouette

ø16 ø22

Miniature Pilot Lights

> TWND ARN CS

Control Boxes Emergency Stop Switches Enabling Switches Safety Products **Explosion Proof** Terminal Blocks

## Selector Switches Contact Configuration (90° 2-position)

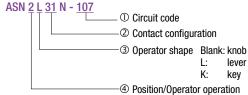
					Op	perator Opera	tion and Circ	uit	
				Maint	tained		Return	Spring	
		Cont	act	1	2	from 1	Right 2	from	Left 2
Combook		Blo	ck			\			
Contact Configuration	Circuit Code			Knob Lever	Key	Knob Lever	Key	Knob Lever	Key
				Operator	Position	Operato	r Position	Operator	Position
		Mounting	Contact	1	2	1	2	1	2
		Position							<b>Ø</b>
10	Not	①	NO		•		•	•	
10	required	2	_	Dumm	y Block	Dumm	y Block	Dumm	y Block
01	Not	①	NC	•		•			•
01	required	2		Dumm	y Block	Dumm	y Block	Dumm	y Block
	☆	①	EM			(			
2R	118	2	LB						
Zn	☆	①	EM						
	168	2	LB						

						Op	perator 0	peration	and Circ	uit		
		Cont Bloo		N	laintaine	ed 2		ring Retorn Right			ring Retu from Lef	
Contact Configuration	Circuit Code			Knob Lever	Key	Illumi- nated	Knob Lever	Key	Illumi- nated	Knob Lever	Key	Illumi- nated
				Opei	ator Po	sition	Opei	rator Pos	sition	Oper	ator Pos	ition
		Mounting Position	Contact	1		2	1		2	1		2
11	Not	①	NO			•			•	•		
- ''	required	2	NC	•			•					•
20	Not	①	NO			•			•	•		
20	required	2	NO			•			•	•		
02	Not	1	NC	•			•					•
02	required	2	NC	•			•					•
		1	NO			•			•	•		
22	Not	2	NC	•			•					•
	required	3	NO			•			•	•		
		4	NC	•			•					•
		1	NC	•			•					•
31	107	2	NO			•			•	•		
		3	NO			•			•	•		
		4	NO			•	ļ		•	•		
40		1	NO			•			•	•		
	Not	2	NO			•			•	•		
"	required	3	NO			•			•	•	_	
40		4	NO			•			•	•		

<sup>•</sup> Selector switches with 🜣 have a half contact operating current (load switching current value). Rated insulation voltage and rated current remain the same.

### **Contact Block Mounting Position**

### Part No. Development



- 2: 2-position, maintained
- 21: 2-position, spring return from right 22: 2-position, spring return from left

### Selector Switches Contact Configuration (45° 3-position)

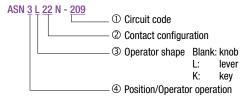
											perato	or Opera	tion an	d Circu	iit				Ę.
Contact	Circuit Code	Cont Blo		Оре	rator Pos	sition	N 1	Maintaine		Spr	ing Re om Rig	turn ıht	Spi f	ring Re from Le	turn eft	T	ing Reworks	y	t Lights
Configuration		Mounting Position	Contact	1	0	2	Knob/ Lever	Key	Illumi- nated	Knob/ Lever	Key	Illumi- nated	Knob/ Lever	Key	Illumi- nated	Knob/ Lever	Key	Illumi- nated	APEM Switches & Pilot Lights
	202	1	NO	•		Ť								√			.1		Control Boxes
	202	2	NC					ν ——			√						√		Emergency
11	203	0	NC					√			√			√			√		Stop Switches Enabling
		2	NO NO	<u> </u>	_	•				_							•		Switches
	303	① ②	NC NO		•	•					$\sqrt{}$			$\sqrt{}$			$\sqrt{}$		Safety Products
	Not	1	NO NO	•															Fundacion Ducof
20	required	2	NO			•		√			$\sqrt{}$						$\sqrt{}$		Explosion Proof
	Not	0	NC																Terminal Blocks
02	required	2	NC					√			√			√			√		Relays & Sockets
		0	NO	•															Circuit
	Not	2	NO			•		√			√			√			√		Protectors
	required	3	NC	_			ļ	•			•			•			•		Power Supplies
		(4) (1)	NC NO							-									LED Illumination
		2	NC				1												LED Illumination
	209	3	NC					√			√			_			_		Controllers
		4	NO			•													Operator
		1)	NC																Interfaces
22	210	2	NO			•		<b>√</b>			√			√			√		Sensors
	210	3	NC					V			V			V			٧		AUTO-ID
		4	NO NO			•													
		①	NC NO		•	•	1												
	310	② ③	NC		•			$\sqrt{}$			_			_			_		
		4	NO			•													Flush Silhouette
		0	NO	•		•													ø16
	011	2	NO			•		,			,			,			,		
	311	3	NC		•			V			√			V			√		ø22
		4	NC																ø30
		①	NO	•		_	-												NA include a surre
40	Not	2	NO NO			•		√			√			√			√		Miniature
	required	3	NO NO	•															Pilot Lights
		(4) (1)	NO NC																
	Not	2	NC				1												
04	required	3	NC				1	√			√			√			√		
		4	NC																TWN
		1	NO	•															TWND
3S	☆ 243	2	NO			•	],	I	_		_			_			_		
33	243	3	NC		•	<u> </u>	- '	٧											ARN
Selector switch	 	<u> </u>			ımmy Blo			<b></b>	) Datas	Linavilat			d 22424		<b>.</b>				CS

• Selector switches with 🜣 have a half contact operating current (load switching current value). Rated insulation voltage and rated current remain the same.

### **Contact Block Mounting Position**

## Part No. Development





3: 3-position, maintained

- 31: 3-position, spring return from right
- 32: 3-position, spring return from left
- 33: 3-position, spring return two-way

<sup>•</sup> On selector switches with ☆, the contact blocks may overlap each other while turning the ring or lever operator.

Control Boxes Emergency Enabling Switches Safety Products **Explosion Proof** Terminal Blocks Relays & Sockets Circuit Protectors **Power Supplies** LED Illumination Controllers

### **ASBN2 Selector Pushbuttons**

Shape	Contact Configuration	Circuit Code	Con Blo	tact ock	Left		Position	Right	Button Color Code	Ring Operator
			Mounting Position	Contact	Normal	Pushl Push	Normal	Push	5040	Part No. (Ordering No.)
Ring Operator (90°2-position)		A03	①	NO		•		•		ASBN211N-A03*
ASBN2			2	NC	•					AODILLI III AOO
	11	☆	①	NC	•		_		В	☆
	(1NO-1NC)	K04	2	EM		•			G R	ASBN211N-K04*
		G03	①	NO NO		•		Blocked	r Y	ASBN211N-G03*
			② ①	NC NO	•	•	•		·	
	20 (2NO)	D01	2	NO NO		•		•		ASBN220N-D01*
	(ZNO)		①	NO NO		•		•		
			2	NC	•					
		A08	3	NO		•		•		ASBN222N-A08*
			4	NC	•					
			①	NO		•		•		
		☆	2	NO				•		☆
		C10	3	NC	•					ASBN222N-C10*
			4	NC						
			①	NO		•				
		D10	2	NO				•		ASBN222N-D10*
		510	3	NC	•					AJDIVZZZIV-DTO**
			4	NC			•			
			①	NO		•			В	
	22	☆	2	NO				•	B G	☆
	(2NO-2NC)	E10	3	NC					R Y	ASBN222N-E10*
			4	NC				_	ī	
			①	NO NO				•		
		☆	2	NO NO		•				<b>☆</b>
		F10	3	NC NC	•		•			ASBN222N-F10*
			<ul><li>4</li><li>1</li></ul>	NO NO	•	•				
			2	NO NO		•				
		G10	3	NC	•		•	Blocked		ASBN222N-G10*
			4	NC	•					
			0	NC	•					
		☆	2	NC	•					☆
		K15	3	EM	-	•				ASBN222N-K15*
			4	EM		•				

Sensors AUTO-ID

Flush Silhouette

ø16 ø22

TWND

Miniature Pilot Lights

ARN

CS

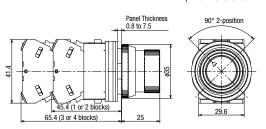
- Specify a color code in place of \* in Part No. B (black), G (green), R (red), Y (yellow)
- Bezel (metal): Chrome-plated
- Circuit code G: The pushbutton does not operate when the ring operator is turned to the right position.
- Circuit codes E and F: The right and left NC contact blocks on circuit code E or F may overlap each other while turning the ring operator. The NO and NC contact blocks on circuit code F may overlap each other while pressing the button.
- When using the selector pushbutton, do not turn the ring operator with the pushbutton depressed. Otherwise, damage or failure may be caused.
- Selector switches with 🛱 have a half contact operating current (load switching current value). Rated insulation voltage and rated current remain the same.
- See B-312 for bottom view.

## **Contact Block Mounting Position**



### **Dimensions** Ring operator (90° 2-position)

(All dimensions in mm.)



Terminal Screws: M3.5

Terminal cover: integrated

### Pilot Lights Round, Square Extended, Rectangular (Marking)

						Га	ckage Quantity: 1
Shape	Illumination	Base	Rated Voltage	Part No. (Ordering No.)	Color Code	LED Lamp Part No.	Dimensions Page
Round APN1			24V AC/DC	APN122DN*	R, G, Y, A, S, PW	LSTD-2*	
AFILI			100/110V AC	APN116DN*	R, G, Y, A, S, PW		
(24V AC/DC)	LED	BA9S	200/220V AC	APN126DN*	R, G, Y, A, S, PW	LSTD-6*	
Square Extended UPQN3B			24V AC/DC	UPQN3B22D*	R, G, Y, A, S, PW	LSTD-2*	
	LED	BA9S	100/110V AC	UPQN3B16D*	R, G, Y, A, S, PW	LSTD-6*	B-325
(24V AC/DC)			200/220V AC	UPQN3B26D*	R, G, Y, A, S, PW	LOTD-0*	
Rectangular (Marking) UPQN4			24V AC/DC	UPQN422D*	R, G, Y, A, S, PW	LSTD-2*	
	LED	BA9S	100/110V AC	UPQN416D*	R, G, Y, A, S, PW	LCTD C.	
(24V AC/DC)			200/220V AC	UPQN426D*	R, G, Y, A, S, PW	LSTD-6*	

• Specify a color code in place of \* in Part No. R (red), G (green), Y (yellow), A (amber), S (blue), PW (pure white)

- · Round bezel (metal): chrome-plated
- Square bezel (metal): chrome-plated
- Pilot lights have an LED lamp installed.
- Use a pure white (PW) LED for yellow (Y) illumination.
- On the rectangular marking pilot light, a clear lens and a color marking plate (white) are used for W (white) illumination.
- See B-346 for the marking plate size of rectangular pilot lights.
- See B-309 for other operating voltage such as 6V AC/DC, 12V AC/DC, and 110V DC.
- See B-309 for how to specify units without LED lamps. 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. When using a commercially available lamp on rectangular (marking) type, remove the reflector.
- Terminal cover is installed on pilot lights for electric shock prevention.

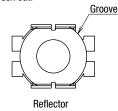
Type	Terminal Cover	Quantity
6V, 12V, 24V AC/DC	APN-PVL	1
100V/110V AC, 200/220V AC	N-VL3	1
110V DC	N-VL3	1

Note: DC-DC converter types are not approved by UL and CSA, and not CE compliant.

• See B-314 for bottom view.

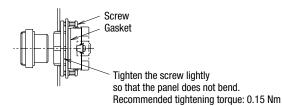
#### Reflector

- 1. The lamp housing of the square LED illuminated pilot lights has a built-in
- 2. Make sure that the reflector does not fall off when removing the lens or making plate.
- 3. When replacing the LED lamp of UPQN4 (rectangular), use a lamp holder tool
- 4. To remove the reflector, insert a flat screwdriver inside the groove of the reflector and lightly push out.



### Panel Mounting of Square Pilot Lights

- 1. Tighten the square bezel to the operator and position the bezel correctly.
- 2. Lightly tighten the screw to secure the pilot light on the panel.
- 3. After tightening, do not turn the square bezel, otherwise it may fall off.



APEM

Control Boxes Emergency 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

Miniature

Pilot Lights

TWND

ARN

Control Boxes

Emergency Stop Switches Enabling

Switches Safety Products

**Explosion Proof** 

Terminal Blocks

Relays & Sockets

**Power Supplies** LED Illumination Controllers

Circuit Protectors

Operator

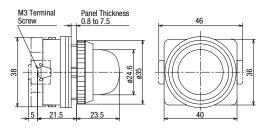
Interfaces

Sensors AUTO-ID

### **Dimensions (Pilot Light)**

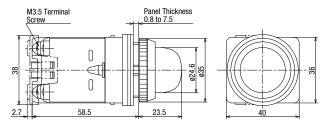
#### Round APN1

6V, 12V, 24V AC/DC (Terminal Cover: APN-PVL) Without LED Lamp



Terminal screws: M3

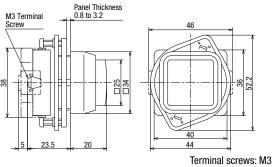
100 to 480V AC, 110V DC (Terminal Cover: N-VL3)



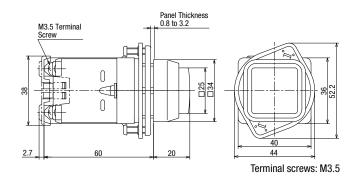
Terminal screws: M3.5

### **Square Extended UPQN3B**

6V, 12V, 24V AC/DC (Terminal Cover: APN-PVL) Without LED Lamp



100 to 480V AC, 110V DC (Terminal Cover: N-VL3)



Rectangular (Marking) Flush Silhouette UPQN4

Miniature Pilot Lights

TWND

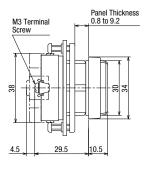
ARN

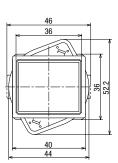
CS

ø16

ø22

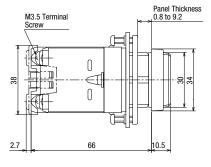
6V, 12V, 24V AC/DC (Terminal Cover: APN-PVL) Without LED Lamp

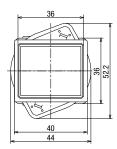




Terminal screws: M3

100 to 480V AC, 110V DC (Terminal Cover: N-VL3)





Terminal screws: M3.5

• See B-349 for wiring.

### Flush/Extended/Extended with Half Shroud/Extended with Full Shroud

Package Quantity: 1

						Package Quantity: 1	
Shape	Operation	Contact	Part No. (Ordering No.)	Button Color Code	Dimensions	(All dimensions in mm.)	ot Lights
Flush		1NO	ABD110N*	В			O,
ABD1 AOD1		1NC	ABD101N*	G			
AODI	Momentary	1NO-1NC	ABD111N*	R Y			APEM
	Womentary	2N0	ABD120N*	Š	Pan 0.8	el Thickness to 7.5 ø39	Switches &
		2NC	ABD102N*	W		, [	Pilot Lights
		2NO-2NC	ABD122N*	Note			Control Boxes
		1NO	A0D110N*	В	4 8 8		Emergency
		1NC	AOD101N*	G R	45.4 (1 or 2 blocks)	29.4	Stop Switches
	Maintained	1NO-1NC	A0D111N*	Y	65.4 (3 or 4 blocks) 9	40	Enabling Switches
		2N0	A0D120N*	S			
		2NC	A0D102N*	W			Safety Products
Extended		2NO-2NC	ADD122N*	Noto			Explosion Proof
ABD2		1NO 1NC	ABD210N*	В			Terminal Blocks
AOD2		1NO-1NC	ABD201N* ABD211N*	- G			Terriniai biocks
	Momentary	2NO	ABD211N* ABD220N*	R Y	Pan	el Thickness	Relays & Sockets
		2NC	ABD220N*	Š	10.8	to 7.5 ø39	Circuit
		2NO-2NC	ABD222N*	W			Protectors
		1NO	AOD210N*		4.14	627	Power Supplies
		1NC	A0D201N*	В	B B		LED Illumination
		1NO-1NC	A0D211N*	– G R	45.4 (1 or 2 blocks) 65.4(3 or 4 blocks)	29.4	
	Maintained	2N0	A0D220N*	Ϋ́	,	* *	Controllers
		2NC	A0D202N*	S			Operator Interfaces
		2NO-2NC	A0D222N*	W			
Extended with Half Shroud		1NO	ABGD210N*	В			Sensors
ABGD2 AOGD2		1NC	ABGD201N*	B G			AUTO-ID
AUGDZ	Momentary	1NO-1NC	ABGD211N*	u			
	Williemary	2N0	ABGD220N*	Y	Panel 0.8 to	Thickness 3.5 ø39	
		2NC	ABGD202N*	S W		5.5	-
		2NO-2NC	ABGD222N*	**		32.6.8	Flush Silhouette
		1NO	AOGD210N*	В	14		ø16
		1NC	AOGD201N*	G	40.9 (1 or 2 blocks) 18.5		
	Maintained	1NO-1NC	AOGD211N*	R	40.9 (1 or 2 blocks) 18.5 60.9 (3 or 4 blocks) 20.5	29.4	ø22
		2N0	AOGD220N*	Y S			ø30
		2NC	AOGD202N*	- W			Miniotura
Extended with Eull Chroud		2NO-2NC	AOGD222N*				Miniature
Extended with Full Shroud ABFD2		1NO	ABFD210N*	В			Pilot Lights
AOFD2		1NC	ABFD201N*	G			
	Momentary	1NO-1NC	ABFD211N*	R Y		al Thialman	
		2N0	ABFD220N*	S	Pan - 11* 0.8	el Thickness to 6 ø39	
		2NC	ABFD202N* ABFD222N*	W			TWN
		2NO-2NC 1NO	ABFD222N* AOFD210N*		4 4 4	28.25	TWND
		1NC	AOFD210N*	В			
		1NO-1NC	AOFD201N*	– G R	45.4 (1 or 2 blocks) 14	29.4	ARN
	Maintained	2N0	AOFD211N* AOFD220N*	- κ Υ	65.4 (3 or 4 blocks) 16.5	40 - 40	CS
		2NC	AOFD202N*	S			
		010 010	AOT DEUZIN	W			

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

2NO-2NC

- Round bezel (metal): Chrome-plated
- Pushbuttons with 1 or 3 contact blocks have a dummy block.
- See B-307 for other contact configurations and gold-plated silver contacts.
- See B-312 for bottom view.
- Terminal screws: M3.5
- Integrated terminal cover

### ABD1, AOD1 with button color of B (black), G (green), or (R) red

Supply of color buttons B, G, R has been discontinued for ABD1/AOD1 without color code. When ordering, make sure to specify the required button color code.

AOFD222N\*

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 ø22

Miniature Pilot Lights

TWN

ARN CS

### Mushroom/Mushroom with Full Shroud/Jumbo Mushroom/Jumbo Mushrooms with Shallow/Deep Shroud/Pin Lock

			1	1	T	Package Quantity
Shape	Operation	Contact	Part No. (Ordering No.)	Button Color Code	Dimensions	(All dimensions in mm
Mushroom		1NO	ABD310N*	В		,
ABD3 AOD3		1NC	ABD301N*	G		
7,020	Momentary	1NO-1NC 2NO	ABD311N* ABD320N*	R Y	Panel Thickness 0.8	to 7.5 29.4
		2NC	ABD302N*	S		
		2NO-2NC	ABD322N*	W	114	
		1NO	A0D310N*	. В		
		1NC 1NO-1NC	A0D301N* A0D311N*	. G R	45.4 (1 or 2 blocks)	40
	Maintained	2N0	A0D320N*	Ϋ́	65.4 (3 or 4 blocks) 22	<u> 40 </u>
		2NC	A0D302N*	S		
		2NO-2NC	A0D322N*	W		
Mushroom with Full Shroud ABGD3		1NO 1NC	ABGD310N* ABGD301N*	В		
AOGD3		1NO-1NC	ABGD301N*	. G R	Panel Thickness 0.8	to 6.5 29.4
_	Momentary	2NO	ABGD320N*	Ϋ́		
		2NC	ABGD302N*	S	4.14	<b>((</b>     <b>)</b>
		2NO-2NC	ABGD322N*	W		
		1NO 1NC	AOGD310N* AOGD301N*	В	43.9 (1 or 2 blocks) 63.9 (3 or 4 blocks) 23.5	40
	Marinet :	1NO-1NC	AOGD311N*	. G R	H 2010 H 2010 H	*******
	Maintained	2N0	AOGD320N*	Υ		
		2NC	AOGD302N*	S W		
Jumbo Mushroom		2NO-2NC	AOGD322N*	VV		29.4
ABD4		1NO	ABD410N*	-	Panel Thickness 0.8 to 7.5	
		1NC	ABD401N*	В		
	Momentary	1NO-1NC	ABD411N*	G	41.4	(
	ooa. y	2N0	ABD420N*	R Y		
		2NC	ABD402N*	'	45.4 (1 or 2 blocks)	
		2NO-2NC	ABD422N*		65.4 (3 or 4 blocks) 29	40
Jumbo Mushroom with		1NO	ABGD410N*		Panel Thickness 0.8 to 7.5	29.4
Shallow Shroud ABGD4		1NC	ABGD401N*	]		
		1NO-1NC	ABGD411N*	В		/// d   h \\
	Momentary			_ G R	665	<b>(( ) )</b>
		2N0	ABGD420N*	Y		
		2NC	ABGD402N*		45.4 (1 or 2 blocks)	
		2NO-2NC	ABGD422N*		45.4 (1 or 2 blocks) 29	40
Jumbo Mushroom with		1NO	ABFD410N*		Panel Thickness 0.8 to 7.5	29.4
Deep Shroud ABFD4		1NC	ABFD401N*	1		
ADI DT				В		
	Momentary	1NO-1NC	ABFD411N*	G	975	((
		2N0	ABFD420N*	R Y		
		2NC	ABFD402N*		45.4 (1 or 2 blocks)	
		2NO-2NC	ABFD422N*		45.4 (1 or 2 blocks) 33	40
Pin Lock (On-off Lock Type) (*1)		1NO	ABD8P10N*			
ABD8P		1NC	ABD8P01N*	В		40
		1NO-1NC	ABD8P11N*	G	a	29.4
		2NO	ABD8P20N*	R Y	Panel Thickness 0.8 to 7.5	
The state of the s	Progg	2NC 2NO-2NC	ABD8P02N* ABD8P22N*	· ·		
Pin Lock (On-lock Type) (*1)		1NO	ABD8PN10N*		14 +	
ABD8PN		1NC	ABD8PN01N*	В		
AY		1NO-1NC	ABD8PN11N*	G	45.413.000	
		2N0	ABD8PN20N*	R	45.4 (1 or 2 blocks) 65.4 (3 or 4 blocks) 27.5	
		2NC	ABD8PN02N*	Υ		*
		2NO-2NC	ABD8PN22N*			

- 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): Chrome-plated
- Pin Lock (On-lock type): Button can be locked in depressed position by inserting the pin (the button cannot be locked in reset position).
- Pushbuttons with 1 or 3 contact blocks have a dummy block.
- See B-307 for other contact configurations and gold-plated silver contacts.
- See B-342 for maintenance parts.
- \*1) The pin for ABD8P is Ø4.6 mm and is not compatible with ABN8P (old series).
- See B-312 for bottom view.
- Terminal screws: M3.5
- · Integrated terminal cover

### Pushlock Turn Reset/Push Turn Lock/Pull/Push-Pull

Package Quantity: 1

					Package Quantity: 1	
Shape	Contact	Part No. (Ordering No.)	Button Color Code	Dimensions	(All dimensions in mm.)	ot Lights
Mushroom Pushlock Turn Reset (*1) AVD3	1NO	AVD310N*				
TWD0	1NC	AVD301N*		Panel Thi	ickness 0.8 to 7.5	
	1NO-1NC	AVD311N*	R			APEM
	2N0	AVD320N*	Y			Switches & Pilot Lights
	2NC	AVD302N*		45.4 (1 or 2 blocks) 65.4 (3 or 4 blocks) 23.6	29.4	Control Boxes
	2NO-2NC	AVD322N*		55.4 (3 01 4 DIOCKS) 25.0	40 4	Emergency Stop Switches
Mushroom Push Turn Lock AJD3	1NO	AJD310N*				Enabling Switches
7000	1NC	AJD301N*		Panel Thi	ckness 0.8 to 7.5	Safety Products
	1NO-1NC	AJD311N*	B G		1 19	Explosion Proof
	2N0	AJD320N*	R Y	# B B B		l —
	2NC	AJD302N*	'	45.4 (1 or 2 blocks) 65.4 (3 or 4 blocks) 23.6	29.4	Terminal Blocks
	2NO-2NC	AJD322N*		05.4 (3 01 4 DIOCKS) 23.6	40 4	Relays & Sockets
Mushroom Pull AZD3	1NO	AZD310N*				Circuit Protectors
	4110 4110	4700441	B	Panel Thi	ckness 0.8 to 7.5	Power Supplies
	1NO-1NC	AZD311N*	G			LED Illumination
	2N0	AZD320N*	R Y	4		Controllers
	2NC	AZD302N*		45.4 25.1	5.5 stroke 29.4 40	Operator Interfaces
Mushroom Push-Pull (*2)						Sensors
AYD31	1NO-1NC	AYD3111N*		Panel Thi	ckness 0.8 to 7.5	AUTO-ID
	2N0	AYD3120N*	B G R	8	8	
			Y	5.5 stroke	29.4	Flush Silhouette
	2NC	AYD3102N*		45.4 30.7	++ <u>29.4</u> 40	ø16

- Specify a color code in place of \* in Part No. B (black), G (green), R (red), Y (yellow)
- Round bezel (metal): Chrome-plated
- Pushbuttons with 1 or 3 contact blocks have a dummy block.
- See B-307 for other contact configurations and gold-plated silver contacts.
- Mushroom pull has up to 2 contact blocks.
- \*1) Pushlock turn reset switches cannot be used as emergency stop switches. When emergency stop switches are required, use XN series emergency stop switches (ISO 13850 and IEC 60947-5-5 compliant).
- \*2) Push-Pull switches with red button cannot be used as emergency stop switches. When emergency stop switches are required, use XN series emergency stop switches (ISO 13850 and IEC 60947-5-5 compliant).
- See B-312 for bottom view.
- Terminal screws: M3.5
- Integrated terminal cover

### **Pushbutton operation**

### Pushlock Turn Reset

Button is maintained when pressed and is reset when turned clockwise.

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

Pulling the button operates the contacts, and releasing the button return the contacts.

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

#### Pull contact operation

<u>_</u>								
Contact	AZD3							
Contact	Normal	Pull						
1NO	<del>о'</del> о	9.						
2NO-2NC	ი-ი ••	<u> </u>						
2N0	9,9 9,9	9 4 9 4 9						
2NC	•	•1• •1•						

Push-Pull contact operation

Contact	AYD31							
Contact	Push	Pull						
1NO	ტ •_•	0 0 <b>11</b>						
2N0	9,9 9,9	00 00 T 00						
2NC	<u>.</u>	<b>aia aia</b>						

ø22

Miniature

Pilot Lights

TWN

ARN

Miniature

Pilot Lights

TWN

ARN

CS

### LED Illuminated Extended/Extended with Full Shroud

Package Quantity: 1

<del></del>							rackage Quartity. I
t Lights	Shape	Base	Operation	Operating Voltage	Contact	Part No. (Ordering No.)	Button Color Code
S	Extended				1NO-1NC	ALD22211DN*	
	ALD2			24V AC/DC	2N0	ALD22220DN*	
	AOLD2				2NC	ALD22202DN*	R
APEM			Momentary		1NO-1NC	ALD21611DN*	G
Switches &				100/110V AC	2N0	ALD21620DN*	Y
Pilot Lights					2NC	ALD21602DN*	A S
Control Boxes					1NO-1NC	ALD22611DN*	PW
Emergency				200/220V AC	2N0	ALD22620DN*	
Stop Switches	(24V AC/DC)	DAGE			2NC	ALD22602DN*	
Enabling Switches	(211110/20)	BA9S			1NO-1NC	A0LD22211DN*	
Safety Products	700			24V AC/DC	2N0	AOLD22220DN*	
Salety Floudicts					2NC	A0LD22202DN*	R
Explosion Proof					1NO-1NC	AOLD21611DN*	G K
			Maintained	100/110V AC	2N0	A0LD21620DN*	Y A S PW
Terminal Blocks			-		2NC	A0LD21602DN*	
Relays & Sockets					1NO-1NC	AOLD22611DN*	
Circuit	With transformer			200/220V AC	2N0	A0LD22620DN*	
Protectors	(100/110V AC)				2NC	A0LD22602DN*	
Power Supplies	Extended with Full Shroud			24V AC/DC	1NO-1NC	ALFD22211DN*	R G Y A S
	ALFD2				2N0	ALFD22220DN*	
LED Illumination	AOLFD2				2NC	ALFD22202DN*	
Controllers					1NO-1NC	ALFD21611DN*	
			Momentary	100/110V AC	2N0	ALFD21620DN*	
Operator Interfaces					2NC	ALFD21602DN*	
					1NO-1NC	ALFD22611DN*	PW
Sensors				200/220V AC	2N0	ALFD22620DN*	
AUTO-ID	(24V AC/DC)	BA9S			2NC	ALFD22602DN*	
		DAJO			1NO-1NC	AOLFD22211DN*	
	The state of the s			24V AC/DC	2N0	AOLFD22220DN*	
					2NC	AOLFD22202DN*	R
Flush Silhouette					1NO-1NC	AOLFD21611DN*	G Y
- Iddii oiiilodotte			Maintained	100/110V AC	2N0	AOLFD21620DN*	_
ø16					2NC	AOLFD21602DN*	S PW
400					1NO-1NC	AOLFD22611DN*	
ø22	With transformer			200/220V AC	2N0	AOLFD22620DN*	
ø30	(100/110V AC)				2NC	AOLFD22602DN*	
	• Chaoify a color code in place of * in Part No. P. (red)	O ( ) V (		- Coo D 200 for	. have to annaite	ite without LED Jamne When usi	

- Specify a color code in place of \* in Part No. R (red), G (green), Y (yellow), A (amber), S (blue), PW (pure white)
- Illuminated pushbuttons have an LED lamp installed.
- · Round bezel (metal): Chrome-plated
- See B-308 for other operating voltage such as 6V AC/DC, 12V AC/DC, and 110V DC.
- See B-308 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.
- See B-308 for how to specify units without LED lamps. 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.
- See B-314 for bottom view.

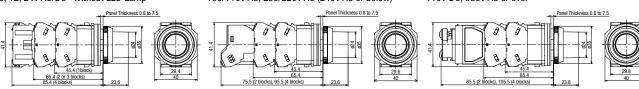
**Dimensions** 

Extended, LED illuminated (momentary/maintained) ALD2/AOLD2 (terminal screws M3.5) Integrated terminal cover

6, 12, 24V AC/DC · Without LED Lamp

100/110V AC, 200/220V AC (240V AC or below)

110V DC, 380V AC or over



#### Extended with Full Shroud, LED illuminated (momentary/maintained) ALFD2/AOLFD2 (terminal screws M3.5) Integrated terminal cover

6, 12, 24V AC/DC · Without LED Lamp 100/110V AC, 200/220V AC (240V AC or below) 110V DC, 380V AC or over Panel Thickness 0.8 to 6 74 (2 blocks), 94 (4 blocks)

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

Miniature

Pilot Lights

TWN

ARN

CS

### LED Illuminated Mushroom (ø40)/Mushroom Pushlock Turn Reset

			,			Package Quantity: 1	
Shape	Base	Operation	Operating Voltage	Contact	Part No. (Ordering No.)	Color Code	
Mushroom (ø40)				1NO-1NC	ALD32211DN*		
ALD3			24V AC/DC	2N0	ALD32220DN*		
AOLD3				2NC	ALD32202DN*		
			nentary 100/110V AC	1NO-1NC	ALD31611DN*	R G Y	
		Momentary		2N0	ALD31620DN*	Ÿ	
				2NC	ALD31602DN*	A S	
				1NO-1NC	ALD32611DN*		
			200/220V AC	2N0	ALD32620DN*		
(24V AC/DC)	BA9S			2NC	ALD32602DN*		
	DASS			1NO-1NC	A0LD32211DN*		
			24V AC/DC	2N0	AOLD32220DN*		
				2NC	A0LD32202DN*	R	
				1NO-1NC	A0LD31611DN*	R G Y A W	
		Maintained	100/110V AC	2N0	A0LD31620DN*	Υ	
			200/220V AC	2NC	A0LD31602DN*	W	
				1NO-1NC	A0LD32611DN*	S	
With transformer				2N0	A0LD32620DN*		
(100/110V AC)				2NC	A0LD32602DN*		
Mushroom Pushlock Turn Reset (*1)				1NO-1NC	AVLD32211DN*		
AVLD3			24V AC/DC	2N0	AVLD32220DN*		
				2NC	AVLD32202DN*		
				1NO-1NC	AVLD31611DN*		
	BA9S	_	100/110V AC	2N0	AVLD31620DN*	R	
				2NC	AVLD31602DN*		
				1NO-1NC	AVLD32611DN*		
(24V AC/DC)			200/220V AC	2N0	AVLD32620DN*		
(274 /10/20)				2NC	AVLD32602DN*		

- Specify a color code in place of \* in Part No. R (red), G (green), Y (yellow), A (amber), S (blue)
- Illuminated pushbuttons have an LED lamp installed.
- Round bezel (metal): Chrome-plated
- See B-308 for other operating voltage such as 6V AC/DC, 12V AC/DC, and 110V DC.
- See B-308 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.
- See B-308 for how to specify units without lamps. 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.
- \*1) Pushlock turn reset switches cannot be used as emergency stop switches. When emergency stop switches are required, use XN series emergency stop switches (ISO 13850 and IEC 60947-5-5 compliant).
- See B-314 for bottom view.

#### Illuminated pushbutton operation

**Pushlock Turn Reset** 

Button is maintained when pressed and is reset when turned clockwise.

**Dimensions** All dimensions in mm

### Mushroom, LED illuminated (momentary/maintained)

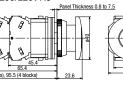
### ALD3/AOLD3 (terminal screws M3.5)

#### Integrated terminal cover

6, 12, 24V AC/DC · Without LED Lamp



100/110V AC, 200/220V AC



110V DC, 380V AC or over

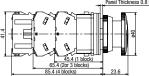
Mushroom Pushlock Turn Reset, LED illuminated

AVLD (terminal screws M3.5)

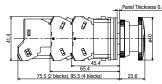
Integrated terminal cover

100/110V AC, 200/220V AC

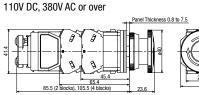
6, 12, 24V AC/DC · Without LED Lamp











Knob Operator ASD

Contact

1N0

(10)

1NO-1NC

(11)

2N0

(20)

2NO-2NC

(22)

Contact

2N0

(20)

2NC

(02)

2NO-2NC

(22)

4N0

(40)

4NC

(04)

☆ 3S

### ASD Selector Switches (Knob Operator)

**Contact Configuration** 

Contact

NO

NO

NC

NO

NO

NO

NC

NO

NC

Contact

N0

N0

NC

NC

NO

NO

NC

NC

NO

NO

NO

N0

NC

NC

NC

NC

N0

N0

NC

**Contact Configuration** 

Contact Block

Contact Block

Mounting

Position

1

2

1

2

1

2

1

2

3

4

Mounting

Position

1

2

1

2

1

2

3

4

1

2

3

4

1

2

3

4

1

2

3

4

Operator

Position

**Dummy Block** 

Operator

Position

1 0

•

•

2

•

lacktriangle

•

•

**Dummy Block** 

1 2

Package Quantity: 1

ASD2210N

ASD2211N

ASD2220N

ASD2222N

Spring Return

Two-way

ASD3320N

ASD3302N

ASD3322N

**ASD3340N** 

ASD3304N

Spring Return from Left

•

•

Contact Block

Contact

NO

NO

NC

NO

NO

NO

NC

NO

NC

Spring Return

ASD3220N

ASD3202N

ASD3222N

ASD3240N

ASD3204N

Mounting

Position

1

2

1

2

1

2

1

2

3

4

Operator

Position

Shape APEM Control Boxes Emergency Stop Switches Enabling Switches Safety Products 2-position **Explosion Proof** Terminal Blocks Relays & Sockets Circuit Protectors **Power Supplies** LED Illumination Controllers Operator Sensors AUTO-ID Flush Silhouette ø16 45° 3-position ø22 Miniature Pilot Lights

•	Knob: Black	
•	Round hezel	1

TWN

ARN

CS

- Round bezel (metal): Chrome-plated
   Selector switches with 1 or 3 central block.
- Selector switches with 1 or 3 contact blocks have a dummy block.
- Knob operator can be installed at every 45 degrees intervals in addition to the positions shown in the above table.
- See B-321 to B-322 for other contact configurations.

- Turn the operator to each position accurately.
- Selector switches with ☆ have a half contact operating current (load switching current value). Rated insulation voltage and rated current remain the same.
- See B-308 for gold-plated silver contacts.
- See B-312 for bottom view.

Spring Return

from Right

**ASD2110N** 

ASD2111N

**ASD2120N** 

ASD2122N

Spring Return

from Right

ASD3120N

ASD3102N

**ASD3122N** 

ASD3140N

ASD3104N

Maintained

ASD210N

ASD211N

ASD220N

ASD222N

Maintained

ASD320N

ASD302N

ASD322N

ASD340N

ASD304N

ASD33SN-243

### **Contact Block Mounting Position**



Panel Thickness 0.8 to 7.5

Panel Thickness 0.9 to 7.5

All dimensions in mm.

Terminal Screws: M3.5 Terminal cover: integrated

For more information, visit http://asia.idec.com

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

### ASD□L Selector Switches (Lever Operator)

Package Quantity: 1

Shape	Lever Opera ASD□L	ator											ratkaye quanuty. I
		Contact C	Configurat	ion			Maintained	Spring Return from Right		Sprir	ng Ret	urn fro	m Left
	Contact	Contact Block			perato Position		1 2	1 2	Contac	Contact Block Operator Position			1, 2
	Contact	Mounting Position	Contact	1	2				Mounting Position	Contact	1	2	
	1N0	①	NO		•		ASD2L10N	ASD21L10N	①	NO	•		ASD22L10N
90°	(10)	2	_	Dur	nmy Bl	ock	AUDZETUN	ASDZILIUN	2	_			MODEZETUN
2-position	1NO-1NC	0	NO		•		ASD2L11N	ASD21L11N	1	NO	•		ASD22L11N
	(11)	2	NC	•			AODZETTN	AODZILIIN	2	NC		•	AODZZETTN
	2N0	0	NO		•		ASD2L20N	ASD21L20N	①	NO	•		ASD22L20N
	(20)	2	NO		•		AODELEON	AODZTEZON	2	NO	•		AODELLEON
		0	NO		•				①	NO	•		[
	2NO-2NC	2	NC	•			ASD2L22N	ASD21L22N	2	NC		•	ASD22L22N
	(22)	3	NO		•				3	NO	•		
		4	NC	•	Ш				4	NC		•	
	Contact Configuration					Maintained	Spring Return from Right	Sprin	g Return fr	om Le	eft	Spring Return Two-way	
	Contact	Contact	Block	Operator Position		or 1	1 0 2	1 0 2		1 - 0	2		1, 0, 2
	Contact	Mounting Position	Contact	1	2					$\overline{}$			
	2N0	0	NO	•			ASD3L20N	ASD31L20N		ASD32L20	)N		ASD33L20N
	(20)	2	NO			•	HODOLEUM	AODOTEZON			-11		NODOULEUN
	2NC	0	NC				ASD3L02N	ASD31L02N		ASD32L02	2N		ASD33L02N
	(02)	2	NC				. 100 010111						
		0	NO	•		_							
	2NO-2NC	2	NO			•	ASD3L22N	ASD31L22N		ASD32L22	2N		ASD33L22N
45°	(22)	3	NC	_									
3-position		4	NC										
		0	NO NO	•									
	4NO	2	NO NO	_		•	ASD3L40N	ASD31L40N		ASD32L40	ON		ASD33L40N
	(40)	3	NO NO	•									
		4	NO NC			•							
		0	NC										
	4NC (04)	2	NC				ASD3L04N	ASD31L04N		ASD32L04	1N		ASD33L04N
	(04)	3	NC										
		4	NC										
		0	NO NO	•			☆						
	☆ 3S	2	NO NC			•	ASD3L3SN-243	_		_			_
	38	3	NC	P	_ <b>●</b> _	la al :							
		4		Dur	nmy Bl	ock							

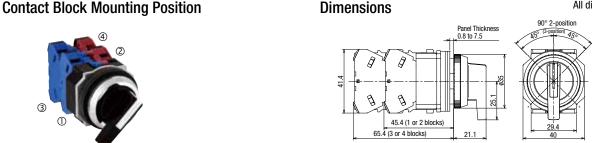
- Lever: Black

- Round bezel (metal): Chrome-plated
   Selector switches with 1 or 3 contact blocks have a dummy block.
   Knob operator can be installed at every 45 degrees intervals in addition to the positions shown in the above table.
- $\bullet$  Turn the operator to each position accurately.  $\bullet$  Selector switches with  $\thickapprox$  have a half contact operating current (load switching current value). Rated insulation voltage and rated current remain the same.

  • See B-308 for gold-plated silver contacts.
- See B-312 for bottom view.

### **Dimensions**

All dimensions in mm.



Terminal Screws: M3.5 Terminal cover: integrated

**▼** Download catalogs and CAD from http://asia.idec.com/downloads

ø16 ø22 Miniature Pilot Lights TWN

Flush Silhouette

ARN

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 ø22

Miniature Pilot Lights

TWN

ARN CS

### **ASD**□K Key Selector Switches

Package Quantity: 1

													Package Quantity: 1	
Shape	Key Selecto ASD□K	or (Key No.	0)											
		Contact (	Configurat	ion			Maintained	Spring Return from Right		Spri	ng Re	turn fro	m Left	
-	Ocatest	Contact	Block		perate Positio		1 2		Contact	Block		rator ition	2 بر1	
-	Contact	Mounting Position	Contact	1	2			1 2	Mounting Position	Contact	1	2		
_	1N0	1	NO		•		ASD2K10N	ASD21K10N	①	NO	•		ASD22K10N	
90°	(10)	2	_	Dur	nmy E	Block	ASDZKTON	ASDZIKTON	2	_	-	_	ASDZZKTUN	
2-position	1NO-1NC	1	NO		•		ASD2K11N	ASD21K11N	①	NO	•		ASD22K11N	
	(11)	2	NC	•			AODERTIN	AODZININ	2	NC		•	AODEENTIN	
	2N0	①	NO		•	-	ASD2K20N	ASD21K20N	①	NO	•		ASD22K20N	
-	(20)	2	NO NO		•				2	NO	•			
-		0	NO NO		•	-			0	NO	•	_		
	2NO-2NC	2	NC	•	-	-	ASD2K22N ASD21K22N	ASD21K22N	2	NC	_	•	ASD22K22N	
	(22)	<u>3</u>	NO NC	•	•	-			<u>3</u>	NO NC	•	•	_	
-			,	_				Spring Return					Spring Return	
	Contact Configuration  Contact Block   Operator Position					Maintained	from Right	Spring	Spring Return from Left			Two-way		
	Contact	Contact Mounting Position	Contact	Oper 1	ator Po	SITION	1 0 2	1 0 2		1,0	2		1 0 2	
-	2N0	①	NO	•			ACDOMOGNI	ACDONICON		40D001/0	ON		ACDOOMOON	
	(20)	2	NO			•	ASD3K20N	ASD31K20N		ASD32K2	UN		ASD33K20N	
	2NC	1	NC				ASD3K02N	ASD31K02N		ASD32K0	2N		ASD33K02N	
	(02)	2	NC				ASDSKUZIN	ASDSTRUZN	<u> </u>	ASDSZKU	ZIV		ASDSSKUZN	
		①	NO	•										
	2NO-2NC	2	NO			•	ASD3K22N	ASD31K22N		ASD32K2	2N		ASD33K22N	
45°	(22)	3	NC	_										
3-position		4	NC											
o poolition		0	NO NO	•										
	4NO (40)	2	NO NO	•		•	ASD3K40N	ASD31K40N		ASD32K4	ON		ASD33K40N	
	(40)	<u>3</u>	NO NO			•								
		①	NC			5								
	4NC	2	NC											
	(04)	3	NC				ASD3K04N	ASD31K04N		ASD32K0	4N		ASD33K04N	
	. ,	4	NC											
		0	NO	•										
	₹ <b>/</b> .+	2	NO			•	<u></u>							
	☆ 3S	3	NC		•		ASD3K3SN-243	_		_			_	
		4	_	Dur	nmy E	Block								

- · Cylinder: Chrome-plated
- · Round bezel (metal): Chrome-plated
- Key selector switches with 1 or 3 contact blocks have a dummy block.
- On spring-returned types, the key can be released only from the maintained position. On maintained types, the key can be released from every position. See B-308 for specifying key retained positions.
- Key selector switch is supplied with two standard keys.
  - (1) Insert the key completely before turning the key, otherwise failure will result.
- (2) Turn the operator to each position accurately.
   Different key number is available upon request. Contact IDEC.
   Selector switches with have a half contact operating current (load switching current) value). Rated insulation voltage and rated current remain the same.
- See B-308 for gold-plated silver contacts.
  See B-312 for bottom view.

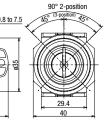
**Dimensions** 

# **Contact Block Mounting Position**





45.4 (1 or 2 blocks)



Terminal Screws: M3.5

16.5

Terminal cover: integrated

All dimensions in mm.

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

Miniature Pilot Lights

TWN

ARN

CS

### **ASLD Illuminated Selector Switches (LED)**

Illuminated Selector Switches (BA9S Base)

Package Quantity: 1

Shape	ASLD			`				(24V AC/DC)								
		Contact	Configurat	tion				Maintained	Spring Return from Right		Spri	na Re	turn f	rom Left		
		Contac		C	)pera		Operating	Mantaneu	Spring return nom rught	Contact	<u>.</u>	Оре	rator		Color	
	Contact	Mounting			Positio	on	Voltage	1 2	1 2	Mounting			ition	1 2	Code	
		Position	Contact	1	2					Position	Contact	1	2			
	1110 1110	①	NO		•		24V AC/DC	ASLD22211DN*	ASLD212211DN*	1	NO	•		ASLD222211DN*		
	1NO-1NC (11)	2	NC	•			100/110V AC	ASLD21611DN*	ASLD211611DN*	2	NC		•	ASLD221611DN*		
90°							200/220V AC	ASLD22611DN*	ASLD212611DN*					ASLD222611DN*		
2-position	2010	1	NO		•		24V AC/DC	ASLD22220DN*	ASLD212220DN*	1	NO	•		ASLD222220DN*	R G	
	2N0 (20)	2	NO		•		100/110V AC	ASLD21620DN*	ASLD211620DN*	2	NO	•		ASLD221620DN*	Ϋ́	
	(20)						200/220V AC	ASLD22620DN*	ASLD212620DN*					ASLD222620DN*	A	
		①	NO		•		24V AC/DC	ASLD22222DN*	ASLD212222DN*	①	NO	•		ASLD22222DN*	S PW	
	2NO-2NC	2	NC	•			100/110V AC	ASLD21622DN*	ASLD211622DN*	2	NC		•	ASLD221622DN*		
	(22)	3	NO		•		200/220V AC	ASLD22622DN*	ASLD212622DN*	3	NO	•		ASLD222622DN*		
		4	NC	•			_	_	_	4	NC		•	_		
	Contact Configuration					Maintained	Spring Return from Right	Spring	Return fr	om Le	eft	Spring Return Two-way				
		Contac	t Block	Opera	ator P	osition	Operating Voltage	1 0 2	1 0 2	1 0 2		1, 0	2		1, 0, 2	Color Code
	Contact	Mounting Position	Contact	1	0	2	voilago					Jour				
		1 03111011	NO	•			24V AC/DC	ASLD32220DN*	ASLD312220DN*	ASLD322220DN*		ΔSI D322220DN*		ASLD332220DN*		
	2N0	(2)	NO			•	100/110V AC	ASLD31620DN*	ASLD311620DN*		D321620			ASLD331620DN*		
	(20)						200/220V AC	ASLD32620DN*	ASLD312620DN*		D322620			ASLD332620DN*		
		①	NC		6		24V AC/DC	ASLD32202DN*	ASLD312202DN*		D322202			ASLD332202DN*		
	2NC	(2)	NC		5		100/110V AC	ASLD31602DN*	ASLD311602DN*		D321602			ASLD331602DN*		
	(02)			_	_		200/220V AC	ASLD32602DN*	ASLD312602DN*		D322602			ASLD332602DN*		
45°		①	NO	•			24V AC/DC	ASLD32222DN*	ASLD312222DN*		D322222			ASLD332222DN*		
3-position	2NO-2NC	2	NO			•	100/110V AC	ASLD31622DN*	ASLD311622DN*		D321622			ASLD331622DN*	R	
	(22)	3	NC		•		200/220V AC	ASLD32622DN*	ASLD312622DN*		D322622			ASLD332622DN*	G Y	
		(4)	NC	_			_	_	_		_			_	Α	
			-			_			<del> </del>		ASLD322240DN*		ASLD332240DN*	S		
		1	NO				24V AC/DC	ASLD32240DN*	ASLD312240DN*	i ASLI	<b>J3ZZZ4</b> U	אווענ×		AOLUGGZZ4UDIN*	DIM	
	4N0	(I) (2)	NO NO	•		•	24V AC/DC 100/110V AC	ASLD32240DN* ASLD31640DN*	ASLD312240DN* ASLD311640DN*		D322240 D321640			ASLD332240DN* ASLD331640DN*	PW	
	4NO (40)			•		•			<del> </del>	ASLI		DN*			PW	
		2	NO			•	100/110V AC	ASLD31640DN*	ASLD311640DN*	ASLI	D321640	DN*		ASLD331640DN*	. PW	
		② 3	NO NO				100/110V AC	ASLD31640DN*	ASLD311640DN*	ASLI	D321640	)DN* )DN*		ASLD331640DN*	PW	
		② ③ ④	NO NO NO				100/110V AC 200/220V AC —	ASLD31640DN* ASLD32640DN*	ASLD311640DN* ASLD312640DN* -	ASLI ASLI	D321640 D322640	DN* DN*		ASLD331640DN* ASLD332640DN* —	PW	
	(40)	② ③ ④ ①	NO NO NO				100/110V AC 200/220V AC — 24V AC/DC	ASLD31640DN* ASLD32640DN*  — ASLD32204DN*	ASLD311640DN*  ASLD312640DN*  —  ASLD312204DN*	ASLI ASLI ASLI	D321640 D322640 — D322204	DN* DN* IDN*		ASLD331640DN* ASLD332640DN*  — ASLD332204DN*	PW	

- Specify a color code in place of \* in Part No.
- R (red), G (green), Y (yellow), A (amber), S (blue). PW (pure white)
- Round bezel (metal): Chrome-plated
- · Illuminated selector switches have an LED lamp installed.
- Use a pure white (PW) LED for yellow (Y) illumination.
  See B-309 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
- See B-309 for how to specify units without LED lamps. 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 selected switches cannot be guaranteed when a commercially
- Turn the operator to each position accurately.
- See B-309 for gold-plated silver contacts.
- See B-314 for bottom view.

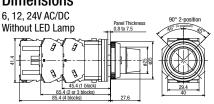
available lamp is used.

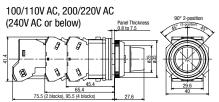
All dimensions in mm.

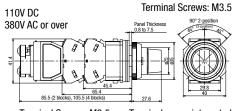
# **Contact Block Mounting Position Dimensions**











Terminal Screws: M3.5

Terminal cover: integrated

### **ASBD2 Selector Pushbuttons**

Package Quantity: 1

Shape	Contact Configuration	Circuit Code	Contact Block		Ring Position Left Right			Right	Button Color Code	Ring Operator	
			Mounting Position	Contact	Normal	Push Push	button Normal	Push	0000	Part No. (Ordering No.)	
Ring Operator (90°2-position) ASBD2	11	400	①	NO		•		•	B G	40DD044N 400	
	(1NO-1NC)	A03	2	NC	•				R Y	ASBD211N-A03*	
			0	NO		•		•			
		A08	2	NC	•					ASBD222N-A08*	
			3	NO NO		•		•		NOBBELLIN NOB	
41000			<ul><li>4</li><li>1</li></ul>	NC NO	•	•		•			
		l .	2	NO							
		☆ C10	3	NC	•					☆ ASBD222N-C10*	
			4	NC							
			①	NO		•			R		
	22	D10	2	NO				•	B G R	ASBD222N-D10*	
	(2NO-2NC)	וטוט	3	NC	•				R Y	A3DD222N-D10*	
			4	NC			•		Y		
			①	NO		•					
		☆ E10	2	NO NC				_		☆ ASBD222N-E10*	
		EIU	<u>3</u>	NC NC						ASBUZZZN-ETU*	
			①	NO				•			
		,	2	NO		•					
		☆ F10	3	NC			•			☆ ASBD222N-F10*	
		110	4	NC	•						

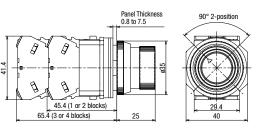
- Specify a color code in place of \* in Part No. B (black), G (green), R (red), Y (yellow)
- Bezel (metal): Chrome-plated
- Circuit codes E and F: The right and left NC contact blocks on circuit code E or F may overlap each other while turning the ring operator. The NO and NC contact blocks on circuit code F may overlap each other while pressing the button.
- When using the selector pushbutton, do not turn the ring operator with the pushbutton depressed. Otherwise, damage or failure may be caused.
- Selector switches with 🛱 have a half contact operating current (load switching current value). Rated insulation voltage and rated current remain the same.
- See B-312 for bottom view.

## **Contact Block Mounting Position**



Dimensions Ring operator (90° 2-position)

All dimensions in mm.



Terminal Screws: M3.5 Terminal cover: integrated

Pilot Light

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

ø22

030

Miniature

Pilot Lights

TWN

ARN

Control Boxes

Emergency Stop Switches

**Explosion Proof** 

Terminal Blocks Relays & Sockets Circuit Protectors **Power Supplies** 

LED Illumination Controllers

Operator Interfaces

Sensors

AUTO-ID

Flush Silhouette

Enabling

Switches Safety Products

### Pilot Lights (Round)

Package Quantity: 1

Shape	Illumination	Base	Operating Voltage	Part No. (Ordering No.)	Color Code	LED Lamp Part No.	
Round APD1			24V AC/DC	APD122DN*	R, G, Y, A, S, PW	LSTD-2*	
<b>1</b>	LED	BA9S	100/110V AC	APD116DN*	R, G, Y, A, S, PW	LCTD C.	
(24V AC/DC)			200/220V AC	APD126DN*	R, G, Y, A, S, PW	LSTD-6*	

• Specify a color code in place of \* in Part No.

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

Round bezel (metal): Chrome-plated

• Pilot lights have an LED lamp installed.

Pilot lights have an LED ramp instance.

 Use a pure white (PW) LED for yellow (Y) illumination.

 See B-309 for other operating voltage such as 6V AC/DC, 12V AC/DC, and 110V DC.

 See B-309 for how to specify units without LED lamps.

• 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 pilots lights cannot be guaranteed when a commercially available lamp is used.

• Terminal cover is installed on pilot lights for electric shock prevention.

Туре	Terminal Cover	Quantity
6V, 12V, 24V AC/DC	APN-PVL	1
100V/110V AC, 200/220V AC	N-VL3	1
110V DC	N-VL3	1

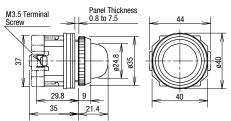
Note: DC-DC converter types are not approved by UL and CSA, and not CE compliant.

• See B-314 for bottom view.

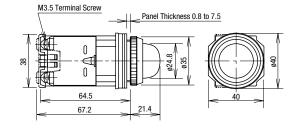
### **Dimensions**

### Round, LED illuminated

6V, 12V, 24V AC/DC · Without LED Lamp (Terminal Cover: APD-PVL)



Terminal Screws: M3.5



100 to 480V AC, 110V DC (Terminal Cover: N-VL3)

Terminal Screws: M3.5

All dimensions in mm.

Miniature

ø16

ø22

Pilot Lights

TWN

ARN CS

• See B-349 for wiring.

### Nameplates

Lights	Model	Legend	Material	Part No.	Ordering No.	Package Quantity	Dimensions (mm)
<b>3</b> 7	NA	Blank		NA O	NA-0	1	40
APEM Switches &		Aluminium 1.2 mm thick		NA-0	NA-0PN10	10	25
Pilot Lights Control Boxes		With	White letters on black background		NA-□	1	24
Emergency Stop Switches Enabling	For TWN/TWND	Legend		NA-□	NA-□PN10	10	030.5
Switches	NALO						
Safety Products	IVALO				NALO		+ 40 + -+ 1.2
Explosion Proof		5	Aluminium		NALO	'	30
Terminal Blocks		Blank	1.2 mm thick Black	NALO			1 12 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Relays & Sockets					NALOPN10	10	ø30.5
Circuit Protectors	For TWN/TWND						'

Specify a legend code in place of  $\hfill\Box$  in the Ordering No.

### Legends

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

Flush Silhouette

Sensors AUTO-ID

Power Supplies

LED Illumination

Controllers

Operator

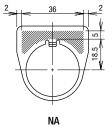
ø16

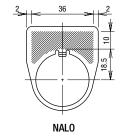
ARN

Miniature

Pilot Lights

# 616 Shape and Engraving Area622 2 36 31 2





All dimensions in mm.

### Example (when the legend height is 4 mm)

Shape		ng Area m)	Max. No. of Lines	No. of Letters on 1 Line	
	Height	Width	OI LINES		
NA	5	36	1	14	
NALO	10	36	2	14	

Accessories

21		D. 7.5	Ordering	Package	
Shape	Material	Part No.	No.	Quantity	Remarks
Locking Ring Wrench  B  A  For TWN/TWND	Nitril rubber (black)	OR-12	OR-12	1	Used to tighten the round bezel when installing the ø30 or ø25 switch onto a panel from the front.  A: TWS series (ø25)  B: TWN/TWND series (ø30)  A  B  B  B  B  B  B  B  B  B  B  B  B
Lamp Holder Tool  A  B  For TWN/TWND	Nitril rubber (black)	OR-55	OR-55	1	Used to install and remove the LED/incandescent lamps.  See B-345.     A: For BA9S base     B: For E12 base     A     OR-55     S9
Contact Block Removal Tool  For TWN	Metal (zinc-plated) Rubber (nitryl)	TW-KC1	TW-KC1	1	Used to remove transformer units.  See B-347 for how to use.  130  28
Contact Rubber Boot For momentary 1 layer of contact blocks (2 contact blocks)  For TWN	Nitril rubber (black)	OC-99	OC-99	1	Rubber boot used to prevent oil and dirt from entering into the contact block.     Temperature range:     —5 to +60°C      When inserting a cable, cut the projection on the cover to match
Anti-rotation Ring  For TWN/TWND	Metal (diecast) (zinc-plated)	OGL-11	OGL-11PN10	10	Used to prevent the operator from turning. Generally used when using no nameplates on selector switches and selector pushbuttons.     See B-345 for installation.     Cannot be used for pin lock.
Rubber Mounting Hole Plug	Nitril rubber (black) Nitril rubber (gray)	0B-13B	0B-13BPN05 0B-13PN05	_ 5	Used to plug unused ø30.5 mm mounting holes.     Degree of protection: IP40
For TWN/TWND  Plastic Mounting Hole Plug  For TWN/TWND	Plug: ABS plastic (gray) Gasket: Chloroprene rubber Locking ring: diecast zinc	0BP-11	OBP-11	1	Tightening torque: 1.2 N·m.     Degree of protection: IP65 (when there is no anti-rotation ring hole)     Supplied with a locking ring.      Gasket     M30°1.5Screw     Locking Ring
Metallic Mounting Hole Plug  For TWN/TWND	Plug: ABS plastic (gray) Gasket: Chloroprene rubber Locking ring: diecast zinc	0B-11	0B-11	1	Tightening torque: 1.2 N·m. Degree of protection: IP65 (when there is no anti-rotation ring hole) Supplied with a locking ring.  Gasket  M30 <sup>P1.5</sup> Screw  Locking Ring

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

ø22

Miniature

Pilot Lights

ARN

CS

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

Miniature Pilot Lights

ARN

### Accessories All dimensions in mm.

Shape	Material	Pa	rt No.	Ordering No.	Package Quantity	Remarks
Button Cover for Extended Pushbuttons		Black	0C-11B	0C-11B		Metallic bezels covered with a rubber boot to enhance waterproof characteristics.     Button is not included. Applicable
	Nitril rubber  Bezel:	Red	0C-11R	0C-11R	1	to extended pushbuttons only.  • Oil-proof  • Operating temperature:
	diecast zinc	Green	0C-11G	0C-11G		-5 to +60°C.
For TWN/	TWND	Yellow	0C-11Y	0C-11Y		<u> </u>
For flu pushb	uttons EPDM rubber	0C-12	1	0C-121	1	Used to cover and protect push-buttons where units are subject to water splash. Not suitable for outdoor use or where the units are subject to oil splash.
For TWN/TWND	ded	0C-12	2	0C-122	1	Part No. A B  0C-121 37 16  0C-122 37 22
Dust-proof Rubber Cover for Jumbo Mushrooms  For TWN/	Nitril rubber (black)	OC-4G	N	OC-4GN	1	Used for ABN4G and ABGD4 pushbuttons.  Panel Thickness 1.2 to 5.5  32  32  32
Padlock Cover  For TWN/	Polyarylate (gasket: nitryl rubber)	OL-KL <sup>-</sup>	1	OL-KL1	1	Used to protect pushbuttons and illuminated pushbuttons (momentary/maintained) with 24 mm max. height from the panel, and selector switches (knob operator).      Not used for the following models.      Pushbuttons     Mushroom with full shroud     Mushroom     Jumbo mushroom with shroud     Illuminated     Pushbuttons     With half shroud     With full shroud     Selector Switches     Lever operator     Key selector switch with key installed
Padlock Cover for Key Selector Switches  For TWN/	Metal Paint: red (zinc-plated brass)	HS9Z-I	PC30	HS9Z-PC30	1	Applicable model  Key selector switches ASN□K/ASD□K  See padlock cover catalog for operating instruction.  Material SPCC  16 mm flick Floring lines Shell  Material: SPCC  2 mm flick  Material: SPCC  2 mm flick  3.7  27.5  44  47  60  80.5  8
For TWN/	Metal (zinc-plated brass)	OL-C		OL-C	1	Used to protect flush pushbuttons from inadvertent operation.     Can be easily attached using the locking ring.    42.5   42.5   16.6   11.4   16.6

Accessories

		1					
Shape		Material	Part No.	Ordering No.	Package Quantity	Remarks	ot Lights
Metallic Bezel							S
		Metal (diecast zinc:	0G-11	0G-11PN02	2	Cannot be used with pin lock,	APEM
		chrome-plated)	00-11	OG-TTFNO2		selector pushbuttons, and monolever units.	Switches & Pilot Lights
							Control Boxes
ø35/ø26, height 9 For TV Plastic Bezel	WN/TWND						Emergency Stop Switches
I lastic bezer							Enabling Switches
						<ul> <li>Specify a color code in place of *.</li> <li>B (black), G (green), R (red), W (white),</li> </ul>	Safety Products
		Polycarbonate	0GP-11*	0GP-11*PN02	2	Y (yellow)  • Cannot be used with pin lock, selector	Explosion Proof
						pushbuttons, and monolever units.	Terminal Blocks
   ø35/ø26, height 9	For TWN						Relays & Sockets
Octagonal Metal Bezel	①						Circuit Protectors
	Flush W35		0G-81	OC. 91DNO2	2		Power Supplies
	(37.6)		UU-01	OG-81PN02	2		LED Illumination
	H9	Metal (diecast zinc:				Use with TWDN series diecast zinc switches and pilot lights.	Controllers
Sec. 19	2	chrome-plated)				Cannot be used with half-shrouds.	Operator Interfaces
	Extended W35		0G-82	0G-82	1		Sensors
	(37.6) H16						AUTO-ID
For TWDN   Clear Plastic Shroud for Flush Pushbu	uttons						
	4110.10						
		Aprilla (slapi)	000.40	00D 10DN00			Flush Silhouette
		Acrylic (clear)	0GP-13	0GP-13PN02	2		ø16 
							ø22
ø35, height 14  Clear Plastic Shroud for Extended Pus	For TWN					Clear plastic full shroud.	ø30
Clear Flastic Silloud for Extended Fus	SIIDULLOIIS						Miniature
							Pilot Lights
		Acrylic (clear)	0GP-14	0GP-14PN02	2		
	For TWN						TWN
Clear Plastic Shroud for Illuminated Push	nbuttons						TWND
							ARN
		Acrylic (clear)	0GP-1411	0GP-1411	1	Buttons may protrude slightly depending on the panel thickness.	CS
						on the panel unickness.	
Shroud: ø35, height 20.6							
Metal Nut Ring: height 4  Metal Nut Ring for Illuminated Pushbi	For TWN						
		Metal					
		(diecast zinc)	0L-11	OL-11PN05	5	Metal nut ring for OGP-1411 only.	
ø35, height 4	For TWN						

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

ø22

Miniature Pilot Lights

ARN

### Accessories All dimensions in mm

S	Shape		Part No.	Ordering No.	Package Quantity	Color Code *
Button for Pushbuttons	① Flush ø24.6, height 4		ABN1BN-*	ABN1BN-*PN05	5	
	② Extended ø24.6, height 9		ABN2BN-*	ABN2BN-*PN05	5	B (black), G (green), R (red), Y (yellow), S (blue), W (white)
3	③ Mushroom ø40, height 16.2	Polyacetal	ABN3BN-*	ABN3BN-*PN02	2	
4	④ Jumbo Mushroom ø65, height 23.2		ABN4BN-*	ABN4BN-*	1	B (black), G (green), R (red), Y (yellow), S (blue)
(S)	© Button for Pin Lock (ABD8P) ø23.6, height 3		ABW1B-*	ABW1B-*PN05	5	B (black), G (green), R (red), Y (yellow), S (blue), W (white)
	© Ø40 Pushlock Turn Reset (AVN3, AVD3) Ø40, height 18.5	AS resin	AVN3B-*	AVN3B-*	1	R (red),Y (yellow)
For TWN/TWND	<ul><li>Ø 440</li><li>Push Turn Lock</li><li>(AJN3, AJD3)</li><li>Ø40, height 18.5</li></ul>	AS TESTI	AJN3B-*	AJN3B-*	1	B (black), G (green), R (red), Y (yellow)
Button for Illuminated Pushbuttons	① Extended		ALN2L-*	ALN2L-*PN05	_	R (red), G (green), S (blue)
0	(ALN2, ALD2) ø24, height 18.5	AS resin	ALN2LD-*	ALN2LD-*PN05	5	Y (yellow), A (amber), W (white) Specify W for PW (pure white) illumination.
© For TWN/TWND	② ø40 Pushlock turn reset (AVLN3, AVLD3) ø40, height 18.5	Ao lesiii	AVLN3L-R	AVLN3L-RPN02	2	R (red) only
Selector Operator ①	① Knob operator ø25, height 20.5		ASNHT-*	ASNHT-*PN02		D/Haal) C/maaa) D/md)
	② Lever operator ø25, height 20.5, length 37.5	Polyacetal	ASNHL-*	ASNHL-*PN02	2	B (black), G (green), R (red)
(3) (4)	③ Color insert Width 21, depth 5, height 18		TW-HC1*	TW-HC1*PN05	5	B (black), G (green), R (red), Y (yellow), S (blue), W (white)
	Knob for illuminated selector switch	AC manin	ASLNH-*	ASLNH-*	1	G (green), R (red), S (blue)
For TWN/TWND	(ASLN, ASLD) ø25, height 28	AS resin	ASLNHD-*	ASLNHD-*	1	A (amber), W (white), Y (yellow) Specify W for PW (pure white) illumination.
Lens for Pilot Lights  ①	① Round (APN1, APD1) ø24.6, height 28, M20		APN106LN-*	APN106LN-*PN05	5	R (red), G (green), Y (yellow) A (amber), W (white), S (blue) Specify W for PW (pure white) illumination.
2	For TWN/TWND  ② Rectangular (UPQN4) Width 36, depth 30,		UPQN406L-*	UPQN406L-*PN05		R (red), G (green), C (clear), S (blue) Specify W for PW (pure white) illumination.
	height 8.5	AS resin	UPQN406LD-*	UPQN406LD-*PN05	- 5	Y (yellow), A (amber)
3	③ Square extended (UPQN3B)		ULQN06L-*	ULQN06L-*PN05		R (red), G (green), S (blue)
	□25, height 26.5		UPQN06LD-*	UPQN06LD-*PN05	- 5	Y (yellow), A (amber), W (white) Specify W for PW (pure white) illumination.
Marking Plate For TWN	Rectangular pilot lights (UPQN4) Width 29.8, depth 23.8, thickness 2	Acrylic	UPQN406N-W	UPQN406N-WPN05	5	W (white) only See B-346 for engraving area.

### Maintenance Parts

Shape	Material	Part No.	Ordering No.	Package Quantity	Remarks	iot Lights
Rubber Washer (1.5 mm-thick)				Quantity		- ts
	Rubber (synthetic soft vinyl)	0W-11	0W-11PN10	10	To tighten mounting panels	
For TWN/TWND	ø39/ø29.5, height 1.5	OW-11	OW-TITINTO	10	To lighten mounting panels	APEM
Rubber Washer (3.0 mm-thick)						Switches & Pilot Lights
	Rubber	OW 10	OW 12DN10	10	• To tighten mounting penals	Control Boxes
	(synthetic soft vinyl) ø39/ø29.5, height 3	0W-12	0W-12PN10	10	To tighten mounting panels	Emergency Stop Switches
For TWN/TWND Shroud for Pushbuttons						Enabling Switches
①	① Half shroud	ADNOC	ABN2G	1	• With put ring (a25 height 4)	Safety Products
	ø35/ø27, height 20.5	ABN2G	ABNZG	1	With nut ring (ø35, height 4)	Explosion Proof
2						Terminal Blocks
	② Full shroud	ABN2F	ABN2F	1		Relays & Sockets
3	ø35/ø28.5, height 16.5	ADNZF	ADIVZF	'		Circuit Protectors
	0					Power Supplies
4	③ Full shroud (for mushroom	ABN3G	ABN3G	1		LED Illumination
	pushbuttons) ø48, height 20	7.5.100	7.5.100			Controllers
						Operator Interfaces
©	④ Shallow shroud (for jumbo mushroom)	ABN4G	ABN4G	1		Sensors
	ø75, height 18					AUTO-ID
	⑤ Deep shroud (for jumbo mushroom)	ABN4F	ABN4F	1		
For TWN/TWND	ø75/ø69, height 33					Flush Silhouette
Shroud for Illuminated Pushbuttons	① Half shroud					ø16
0 🙆 2 🔎	(For BA9S base)	ALN2GL	ALN2GL	1	• With nut ring (ø35, height 4)	ø22
	ø35/ø27, height 25					ø30
	② Full shroud					Miniature
For TWN/TWND	(For BA9S base) ø35/ø29.5, height 22.5	ALN2FL	ALN2FL	1	• With nut ring (ø35, height 4)	Pilot Lights
Spare Key						
For Key Selector Switches	Metal				AONEKEN	
	Nickel plated brass Length 3, width 19.7,	TW-SK-0	TW-SK-0PN02	2	ASN□K□N     ASD□K□N	TWN
For TWN/TWND	thickness 1.8					TWND
Spare Key For Key Selector Switches						ARN
For key Selector Switches	Metal Nickel plated brass	ASN-SK-24401	ASN-SK-24401PN02	2	◆ ASN□K□-N024401	CS
	Length 37.5, thickness 2	A3N-3R-24401	A3N-3R-24401FN02	2	* ASNUNU-11024401	
For TWN						
Pin/Chain Kit For ABD8P						
	Pin: Nickel plated brass	ABD8P-PIN	ABD8P-PIN	1	<ul><li>Pin, chain, and plate for ABN8P</li><li>Pin (ø4.6)</li></ul>	
For TWND					\/	
Contact Block Plug						1
					Used to plug the hole in the	
100	Polyamide	HW9Z-CBPL	HW9Z-CBPLPN10	10	center of a contact block.	

For TWN/TWND

### **Maintenance Parts**

	Shape	Description	Part No.	Ordering No.	Package Quantity	Remarks
	Contact block	NO sentest	HW-U10	HW-U10	- 1	Housing color: Blue
	HW-U	NO contact	HW-U10-MAU	HW-U10-MAU	1	Push rod color: Green MAU has gold contacts
	<b>6</b>	NC contact	HW-U01	HW-U01		Housing color: Reddish purple
ĺ		NC contact	HW-U01-MAU	HW-U01-MAU	1	Push rod color: Red MAU has gold contacts
		EM contact	HW-U10R	HW-U10R		Housing color: Blue
	•	(early make)	HW-U10R-MAU	HW-U10R-MAU	1	Push rod color: Black MAU has gold contacts
		LB contact	HW-U01R	HW-U01R		Housing color: Reddish purple
	For TWN/TWND, 11g approx.	(late break)	HW-U01R-MAU	HW-U01R-MAU	1	Push rod color: White MAU has gold contacts
-	Dummy Block For TWN/TWND 3.5g approx.	Polyamide	HW-DB	HW-DBPN10	10	For HW-U contact blocks     Used when the number of contact blocks and full voltage adapters is 1 or 3.
-	Full Voltage Adapter For Illuminated Switches (*1) For TWN/TWND 12g approx.	Polyamide	HW-GA1N	HW-GA1NPN02	2	Applicable model:     Illuminated pushbuttons     Illuminated selector switches     Applicable load (LED lamp)     LSTD-6 (6V AC/DC)     LSTD-1 (12V AC/DC)     LSTD-2 (24V AC/DC)
-	Transformer Unit For Illuminated Switches (*1)	100/110V AC	HW-T16	HW-T16	1	Applicable model:     Illuminated pushbuttons
-	For TWN/TWND 66g approx.	200/220V AC	HW-T26	HW-T26	1	Illuminated selector switches • Applicable load (LED lamp) LSTD-6 (6V AC/DC)
-	Transformer Unit For Pilot Lights (*1)	100/110V AC	TWR-016B	TWR-016B	1	Mounting screws are not included.     See B-347 for mounting screws.
_	For TWN/TWND 69g approx.	200/220V AC	TWR-026B	TWR-026B	1	Applicable load (LED lamp)     LSTD-6 (6V AC/DC)

### LED Lamps (Use LED lamps for replacing incandescent lamps)

Model	Operating	Currer	nt Draw	Dort No.	Ordering No.	Color Codo	Package	Door
Model	Voltage	DC	DC	Part No.	Ordering No.	Color Code	Quantity	Base
LSTD	6V AC/DC	7mA (R, A, W)	8mA (except S)	LSTD-6*	LSTD-6*		1	
	OV AC/DC	5.5mA (G, PW) 4.5mA (S)	7mA (S)	L31D-0*	LSTD-6*PN10		10	
1	12V AC/DC	10mA (except S)	11mA (except S)	LSTD-1*	LSTD-1*	R, G, A, W, S,PW	1	BA9S /13
	8mA (S)	8mA (S)	9mA (S)	L31D-1*	LSTD-1*PN10		10	] '13
	24V AC/DC	10mA (except S)	11mA (except S)	LSTD-2*	LSTD-2*		1	
	24V AU/DU	8mA (S)	9mA (S)	L31D-2*	LSTD-2*PN10		10	
LETD	6V AC/DC	14mA (R, A, W)	17mA (R, A, W)	LETD-6*	LETD-6*		1	
	OV AU/DU	5.5mA (G, S, PW)	8mA (G, S, PW)	LEID-0*	LETD-6*PN10		10	
	12V AC/DC	6.5mA	7mA	LETD-8*	LETD-8*	R, G, A, W, S, PW	1	E12
	12V AU/DU	(10mA: at 15V)	(11mA: at 15V)	LEID-0*	LETD-8*PN10	n, u, A, w, o, rw	10	/15
9	24V AC/DC	10mA	11mA	LETD-2*	LETD-2*		1	
	24V AU/DU	TUITA	TIMA	LEID-Z*	LETD-2*PN10		10	

- Specify a color code in place of \* in Part No. R (red), G (green), A (amber), W (white), S (blue), PW (pure white)
- Use a PW (pure white) LED for Y (yellow) illumination.

### LED lamps for replacing incandescent lamps

Incandescent Lamp								
Model (mm)	Part No.	Operating Voltage	Lamp Rating	Base				
LS	LS-6	6V AC/DC	1W (6V)					
-3	LS-8	12V AC/DC	1W (18V)	BA9S				
Bulb: ø11	LS-2	18V AC/DC	1W (24V)	/13				
Length: 23	LS-3	24V AC/DC	1W (30V)					
LE	LE-6	6V AC/DC	2W (6V)					
	LE-8	12V AC/DC	2W (18V)	E12				
Bulb: ø13	LE-2	18V AC/DC	2W (24V)	/15				
Length: 34	LE-3	24V AC/DC	2W (30V)					

		Replacement	LED Lamp	
	Part No.	Color Code	Operating Voltage	Base
	LSTD-6*		6V AC/DC	
-	LSTD-1*	R, G, A, S,	12V AC/DC	BA9S
	LSTD-2*	PW	24V AC/DC	/13
	LSTD-2*		24V AC/DC	
	LETD-6*		6V AC/DC	
	LETD-8*	R, G, A, S,	12V AC/DC	E12
	LETD-2*	PW	24V AC/DC	/15
	LETD-2*		24V AC/DC	

- When using a commercially available incandescent lamp, choose a lamp with the same dimensions, operating voltage, and base.
- Specify a color code in place of \* in Part No. R (red), G (green), A (amber), S (blue), PW (pure white)
- Use a PW (pure white) LED lamp for Y (yellow) illumination.
- For 0 (orange) and C (clear) color code of incandescent lamp, use A (amber) LED lamp.

APEM

**Control Boxes** Emergency Stop Switches

Enabling Switches

Safety Products

Terminal Blocks

Circuit

Protectors **Power Supplies** 

LED Illumination

Controllers

Operator Sensors

AUTO-ID

Flush Silhouette

ø22

ø16

Miniature

Pilot Lights

ARN CS

For more information, visit http://asia.idec.com

Control Boxes Emergency Stop Switches Enabling Switches Safety Products **Explosion Proof** Terminal Blocks

Relays & Sockets Circuit Protectors

### Transformer

Shape	Operating Voltage	Voltage Range	Part No. (Ordering No.)	Applicable Load
For 6V	100/110V AC	±10%	TWR516	LSTD-6* (6V AC/DC, LED lamp)
· ·	200/220V AC	±10%	TWR526	Specify a color code in place of * in Part No. R (red), G (green), A (amber), S (blue),
	400/4440V AC	±10%	TWR546	PW (pure white)
For 24V	100/110V AC	±10%	TWR512	LSTD-2* (24V AC/DC, LED lamp)
選	200/220V AC	±10%	TWR522	Specify a color code in place of * in Part No. R (red), G (green), A (amber), S (blue),
	400/4440V AC	±10%	TWR542	PW (pure white)

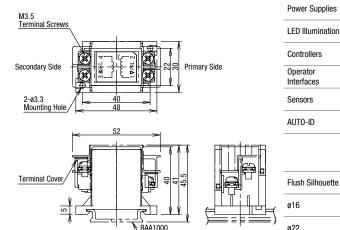
<sup>•</sup> Terminal cover (TWR-VL3) is installed on transformers as standard.

**Specifications** 

Dort No.	TWDEELC	TMDCETO		
Part No.	TWR5□6	TWR5□2		
Rated Voltage	100/110V AC, 200/220V AC,	400/440V AC (50/60 Hz)		
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 condensa	tion)		
Storage Temperature	-40 to +80°C (no freezing)	-40 to +80°C (no freezing)		
Vibration Resistance	Damage limits: 30 Hz, amplitude 1.5 mm			
VIDIALION RESISTANCE	Operating extremes: 5 to 55 Hz, amplitude 0.5 mm			
Charle Danistones	1000 m/s <sup>2</sup>			
Shock Resistance	100 m/s <sup>2</sup>			
Dielectric Strength	2500V AC, 1 minute			
Terminal Screw	M3.5			
Applicable Wire	2 mm² maximum, 2 wires maximum			
Weight	87g			

### **Dimensions**

All dimensions in mm.



Flush Silhouette

ø16

ø22

Miniature

Pilot Lights

CS

### **Accessories**

Shape	Material	Part No.	Ordering No.	Package Quantity	Dimensions (mm)
DIN 35 mm Rail  Weight: 200g approx.	Aluminum Length: 1000 mm	BAA1000	BAA1000PN10	10	12.5 1.7
DIN 35 mm Rail  Weight: 320g approx.	Steel Length: 1000 mm	BAP1000	BAP1000PN10	10	12.5 1.0 12.5 1.0 12.5 1.0 12.5 1.0 12.5 1.0 12.5 1.0 12.5 12.5 12.5 12.5 12.5 12.5 12.5 12.5
End Clip  Weight: 15g approx.	Metal (zinc-plated steel) Applicable rail: BAA1000 BAP1000	BNL6	BNL6PN10	10	M4 screw

• See H-071 for DIN rail products.



### **Safety Precautions**

- Turn off the power to the TWN/TWND 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-349). Failure to tighten terminal screws may cause overheat and
- 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.

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

ø22

Miniature

Pilot Lights

ARN

CS

TWN/TWND series Pushbutton (extended with half shroud) Illuminated pushbutton (extended with half shroud)

(			
Panel	Rubber Washer		
Thickness (mm)	1.5 mm-thick	3.0 mm-thick	
Supplied	1	1	
0.8 to 1.8	_	1	
1.8 to 3.5	1	_	

#### TWN/TWND series

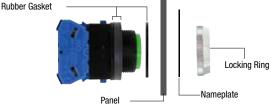
Pushbutton (extended with full shroud)

- donadion (extended man ran emeda)				
Panel	Rubber Washer			
Thickness (mm)	1.5 mm-thick	3.0 mm-thick		
Supplied	2 pieces	1		
0.8 to 2.5	2 pieces	1		
2.5 to 4.0	1	1		
4.0 to 5.5	-	1		
5.5 to 6.0	1	_		

## **Operating Instructions**

### Panel Mounting

- 1. Remove the locking ring from the operator and check that the rubber gasket is in place. For mushroom and jumbo mushroom switches, remove the button before removing the locking ring.
- 2. Adjust the thickness of the rubber washers according to the panel thickness.
- 3. Insert the switch into the panel from the back of the panel.
- 4. On the panel front, install the nameplate and locking ring. For mushroom and jumbo mushroom switches, install the button before installing the locking ring.



### Panel Thickness and Rubber Washer

Adjust the thickness of the rubber washers according to the panel thickness as shown in the tables below. Also, make sure to include the nameplate thickness when using a nameplate.



Illuminated pushbutton (extended w/full shroud)

Rubber Washer

1.5 mm-thick 3.0 mm-thick

1

#### Applicable Model

#### TWN/TWND series

(flush/extended/mushroom/jumbo mushroom) Illuminated pushbutton (extended/mushroom) Pilot light (except for square type)

Panel	Rubber Washer		
Thickness (mm)	1.5 mm-thick	3.0 mm-thick	
Supplied	2 pieces	1	
0.8 to 3.5	2 pieces	1	
3.5 to 5.0	1	1	
5.0 to 6.5	_	1	
6.5 to 7.5	1	-	

### \*1: (6.5) is for mushroom pushbuttons with full shroud

2 pieces

2 pieces

### TWND series

Pin lock pushbutton

TWN/TWND series

Thickness (mm)

Supplied

0.8 to 3.5

2.0 to 3.5

3.5 to 5.0 5.0 to 6.0 (6.5)\*

Mushroom with full shroud

Panel	Rubber Washer		
Thickness (mm)	1.5 mm-thick	3.0 mm-thick	
Supplied	2 pieces	1	
0.8 to 3.0	2 pieces	1	
3.0 to 4.5	1	1	
4.5 to 6.0	_	1	
6.0 to 7.5	1	_	

#### TWN/TWND series

Other models (excluding square)

Panel	Rubber Washer		
Thickness (mm)	1.5 mm-thick	3.0 mm-thick	
Supplied	2 pieces	1	
0.8 to 3.5	2 pieces	1	
3.5 to 5.0	1	1	
5.0 to 6.5	ı	1	
6.5 to 7.5	1	_	

### • See B-324 for square pilot lights about installing on the panel and replacing LED lamps.

The number of rubber washers shown in the dimensions of TWN/TWND series may differ from the number of rubber washers supplied.

### **Notes for Panel Mounting**

Locking ring wrench recommended torque

Tighten the bezel to a tightening torque of 3.0 to 3.5 N·m.

Locking ring wrench

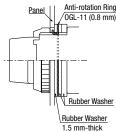
Locking ring wrench (OR-12) can be used to tighten the bezel. Use side B to tighten. Side B: For TWN/TWND series Side A: TWS series



Installing the Anti-rotation Ring (OGL-11)

Anti-rotation rings are used on selector switches or pushbuttons which rotate and used when using no nameplates. Insert a 1.5 mm-thick rubber washer between the panel and the anti-rotation ring as shown on the right.

To install, adjust the panel thickness by taking the thickness of anti-rotation ring (OGL-11) into consideration.



### Replacement of LED Lamps

Lamps can be replaced by using the lamp holder tool (OR-55) from the front of the panel. (See B-338 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.



Control Boxes

Stop Switches

Safety Products

**Explosion Proof** 

Terminal Blocks

Relays & Sockets

LED Illumination

Controllers

Operator

Interfaces

Sensors

AUTO-ID

Flush Silhouette

ø16

ø22

Miniature

Pilot Lights

Circuit

Protectors **Power Supplies** 

Emergency

Enabling

Switches

### **Operating Instructions**

### Installing/Removing the Buttons and Lenses

#### To install

#### Pushbutton button

### Flush/Extended

Push in the button to install.



Insert a flat screwdriver between the button and the bezel to remove the button (see below for details).

To remove

-Notches

#### Notches on the operating shaft

The operating shaft has four notches as shown at right. Insert a flat screwdriver (3 mm max.) into one of the notches, and tilt the screwdriver to remove the button.



Make sure to insert a flat screwdriver into one of the notches, otherwise the pushbutton may be damaged.

### Notes on button removal

To avoid damaging the bezel or the button, remove the bezel from the pushbutton before inserting a flat screwdriver.

### Mushroom/ Jumbo Mushroom

Button has threads. Turn clockwise to install the button.



Turn the button counterclockwise to remove.



#### **Illuminated Pushbutton Lens**

### Extended/Mushroom

Lens has threads. Turn clockwise to install the lens.



Turn the lens counterclockwise to remove.



**Pilot Light Lens** Round

Lens has threads. Turn clockwise to install the lens.



Turn the lens counterclockwise to remove.



A rubber gasket is installed between the lens and operator on pilot lights. Make sure that the rubber gasket is in place when installing the lens.

### Marking Plate on Pilot Lights

#### Rectangular Marking Plates (for UPQN4)

#### Removina

① Insert a flat screwdriver between the lens and bezel, and tilt the screwdriver to remove the lens.



#### **Engraving Area**

Material: Acrylic resin Size:

29.8 W × 23.8 D, thickness 2.0 mm Engraving area:

 $28 \text{ W} \times 22 \text{ D} \times 1.0 \text{ mm}$  height max.

② A white marking plate is installed in the lens which can be removed easily.

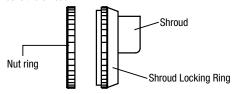


**Engraving Area** 28 29.8

### Installing the Half Shroud on Extended Pushbuttons/ **Illuminated Pushbuttons**

### **Half Shroud Parts**

A shroud is installed in the shroud locking ring. Tightening the shroud locking ring in the switch locks the shroud.

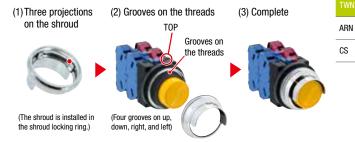


### Installing the Half Shroud

- ① Adjust the thickness of the rubber washers according to the panel thickness (see B-345).
- ② Insert the switch into the panel from the back of the panel.
- 3 Install the nut ring from the panel front to tighten the switch.
- (4) Install the half shroud on the upper side of the switch, and tighten the shroud
- (5) Make sure that the shroud is securely fastened inside the shroud locking ring.

### Tightening the Half Shroud

Align the three projections on the shroud with the groove on the switch, and tighten the shroud on the upper side of the switch. Tighten the shroud locking





- Shrouds may rattle depending on the panel thickness.
- · A gap may appear between the nut ring and the shroud locking ring depending on the panel thickness.

### **Operating Instructions**

### **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.

APEM

Switches & Pilot Lights

Control Boxes

Emergency
Stop Switches

Enabling

Safety Products

Switches

Explosion Proof

Terminal Blocks
Relays & Sockets

Circuit

**Power Supplies** 

LED Illumination

Controllers Operator

Interfaces

AUTO-ID

Flush Silhouette

ø30

Miniature

Pilot Lights

TWN
TWND

CS

**Key Selector Switches** 

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

### Installing the Operator on Selector Switches

① Install the switch with TOP 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.

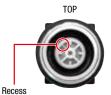


③ On illuminated models, align the operator with the switch by confirming the TOP marking on the switch and also the switch operation. Then press in the operator into the switch.



#### **Installation of Selector Operators**

The shaft of each non-illuminated selector switch has a recess to identify in which 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).





90° 2-position



45° 3-position

The non-illuminated operators can be installed in positions other than the standard position shown above.







Standard positions

#### Removal

### Removing the Operator from Selector Switches



① Insert a flat screwdriver into the recess under the color insert. Turn the screwdriver to push out the insert from the operator.



② Pull out the operator sideways as shown in the left photo to remove the operator

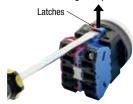
### Removing the Operator from Illuminated Selector Switches



- ① Insert a flat screwdriver (4 to 5 mm) into the recess at right or left under the operator and tilt. The operator is displaced slightly.
- ② Insert the flat screwdriver into the other recess and tilt. The operator can be removed.

### 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 HW-U contact blocks or full voltage adapters.



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.

## Transformer Units and DC-DC Converters for Pilot Lights

Unfasten the two mounting screws on the back to remove the transformer unit/ DC-DC converter.



Mounting screws

APN: M3  $\times$  6 (screw diameter ø5.5 or below) APD: M3.5  $\times$  6 (screw diameter ø5.5 or below)

### **Operating Instructions**

### **Applicable Wiring**

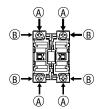
(1) Contact Block 0.3 to 3.5 mm<sup>2</sup> (solid wire 0.5 to 2.0 mm)

Pushbutton/illuminated pushbutton/selector switch/ illuminated selector switch/selector pushbutton

A and B show the wiring direction to the terminals.

<Contact Block>

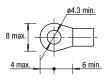
Terminal screws M3.5 (spring-up)

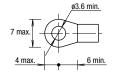


#### **Applicable Crimping Terminal**

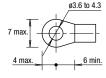
Be sure to use an insulation tube or cover on the crimping part of the crimping terminal to prevent electrical shocks.

Crimping terminal for (A)



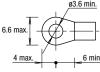


#### IP20 crimping terminal

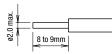


### Crimping terminal for (B)

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

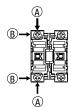
0.3 to 2 mm<sup>2</sup> (solid wire 0.5 to 1.6 mm)

#### Illuminated pushbutton/illuminated selector switch

A and B show the wiring direction to the terminals.

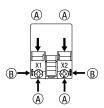
#### <Full Voltage Adapter>

Terminal screws M3.5 (spring-up)



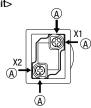
### <Transformer Unit>

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



#### <DC-DC Conver Unit/Transformer Unit>

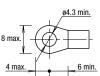
110V DC. 380V Terminal screws M3.5 (spring-up)

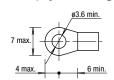


### **Applicable Crimping Terminal**

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

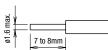
Crimping terminal for (A)





Crimping terminal for (B)

#### 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.

#### 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

ø22

Miniature

Pilot Lights

ARN

CS

Control Boxes

Emergency Stop Switches Enabling

Switches

Safety Products

Explosion Proof

Terminal Blocks

Relays & Sockets

Circuit

Protectors

**Power Supplies** 

LED Illumination

Operator Interfaces

Sensors

AUTO-ID

Flush Silhouette

ø16 ø22

### ø30 TWN/TWND Series

### **Operating Instructions**

(3) Pilot Light 0.3 to 2 mm<sup>2</sup> (solid wire 0.5 to 1.6 mm)

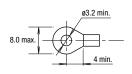
#### Applicable crimping terminal

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

#### APN1, UPQN3B, UPQN4 (6, 12, 24V AC/DC)

Terminal screws M3 (self-lifting)

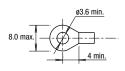
(Arrows show the wiring direction)





#### APD1 (6, 12V, 24V AC/DC)

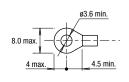
Terminal screws M3.5 (self-lifting)





#### APN1, UPQN3B, UPQN4, APD1 (100 to 480V AC or below, 110V DC)

Terminal screws M3.5 (self-lifting)





- Install the terminal cover supplied with the pilot light. 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 (Nm)	Terminal Screw
	Crimp	oing Terminal	2	1.0 to 1.3	
	Solid	ø0.5 to 1.6 mm (AWG14 to 22)	2	1.0 to 1.3	
HW-U Contact	Wire	ø1.7 to 2.0 mm (AWG12)	1	1.2 to 1.3	M3.5
Block	(AWG12)  0.3 to 2.0 mm <sup>2</sup> Stranded (AWG14 to 22)  Wire 2.1 to 3.5 mm <sup>2</sup> 1.0	1.0 to 1.3			
			1	1.2 to 1.3	
	Crimp	oing Terminal			
Illuminated Unit (*1)	Solid Wire	ø0.5 to 1.6 mm (AWG14 to 22)	2	1.0 to 1.3	M3.5
Offit ( 1)	Stranded Wire	0.3 to 2.0 mm <sup>2</sup> (AWG14 to 22)			
	Crimp	oing Terminal			
Pilot Light	Solid Wire	Ø0.5 to 1.6 mm (AWG14 to 22)	2	0.6 to 1.0 (	M3.0)
	Stranded Wire	0.3 to 2.0 mm <sup>2</sup> (AWG14 to 22)		1.0 to 1.3 (	M3.5)

<sup>\*1)</sup> Lamp terminal of illuminated pushbuttons and illuminated selector switches

# TWN

Miniature Pilot Lights

ARN

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

Miniature Pilot Lights

ARN CS

### ø30 Selector Switches / Pushbuttons Part Number Replacement List

	Old Series		New Part No. (*3)	Remarks
Model	Operator		ASN210N	11011141110
			ASN210N ASN211N	
		attor Old Part No. ASN310 ASN311 ASN320 ASN322 ASN37S ASN410 ASN411 ASN420 ASN422 ASN47S ASN4010 ASN3011 ASN3020 ASN3022 ASN307S ASN4010 ASN4011 ASN4020 ASN4011 ASN1022 ASN15S ASN17S ASN18S ASN17S ASN18S ASN27S ASN28S ASN27S ASN28S ASN27S ASN28S ASN207S ASN28S ASN207S ASN1011 ASN1022 ASN105S ASN107S ASN108S ASN1011 ASN1022 ASN105S ASN107S ASN108S ASN207S ASN108S ASN207S ASN108S ASN1011 ASN1022 ASN105S ASN107S ASN108S ASN1011 ASN1022 ASN105S ASN107S ASN108S ASN1011 ASN1022 ASN107S ASN108S ASN107S ASN108S ASN1011 ASN1022 ASN107S ASN108S ASN108S ASN107S ASN108S A	ASN220N	
			ASN222N	
			ASN22RN-118	
			ASN2110N	
			ASN2111N	
		ASN420	ASN2120N	
		ASN422	ASN2122N	
	90°	ASN47S	ASN212RN-118	
	2-position	ASN3010	ASN201N	(*2)
		ASN3011	ASN211N	(*1)
		ASN3020	ASN202N	(*2)
			ASN222N	(*1)
			ASN22RN-118	(*1)
			ASN2210N	
			ASN2211N	
			ASN2220N	
ASN			ASN2222N	
Knob			ASN222RN-168	/*O\
Operator			ASN320N ASN340N	(*2) (*2)
			ASN322N	( 2)
			ASN302N	(*1)
			ASN304N	(*1)
			ASN3220N	(*2)
			ASN3240N	(*2)
			ASN3222N	\ _/
		ASN27S	ASN3202N	(*1)
	45°	ASN28S	ASN3204N	(*1)
	3-position	ASN1011	ASN320N	(*1) (*2)
		ASN1022	ASN340N	(*1) (*2)
		ASN105S	ASN322N	(*1)
			ASN302N	
			ASN304N	
			ASN3120N	(*1) (*2)
			ASN3140N	(*1) (*2)
			ASN3122N	(*1)
			ASN3102N ASN3104N	
			ASN2L10N	
			ASN2L11N	
			ASN2L20N	
		AONOLOO	ASN2L22N	
			ASN2L2RN-118	
			ASN21L10N	
			ASN21L11N	
			ASN21L20N	
			ASN21L22N	
	90°		ASN21L2RN-118	
	2-position	ASN30L10	ASN2L01N	(*2)
			ASN2L11N	(*1)
ASN-L			ASN2L02N	(*2)
Lever			ASN2L22N	(*1)
Operator			ASN2L2RN-118	(*1)
			ASN22L10N	
			ASN22L11N	
			ASN22L20N	
			ASN22L22N	
			ASN22L2RN-168	(*2)
			ASN3L20N ASN3L40N	
			ASN3L40N ASN3L22N	(*2)
	45°		ASN3L02N	(*1)
	3-position		ASN3L04N	(*1)
	, p. 30.11011		ASN32L20N	(*2)
				/
			ASN32L40N	(*2)

	Old Cari-			
Model	Old Series Operator	Old Part No.	New Part No. (*3)	Remarks
··········	oporator	ASN2L7S	ASN32L02N	(*1)
		ASN2L8S	ASN32L04N	(*1)
		ASN10L11	ASN3L20N	(*1) (*2)
	45° 3-position	ASN10L22	ASN3L40N	(*1) (*2)
ASN-L		ASN10L5S	ASN3L22N	(*1)
Lever		ASN10L7S	ASN3L02N	
Operator		ASN10L8S	ASN3L04N	
		ASN20L11	ASN31L20N	(*1) (*2)
		ASN20L22	ASN31L40N	(*1) (*2)
		ASN20L5S ASN20L7S	ASN31L22N ASN31L02N	(*1)
		ASN20L7S	ASN31L04N	
		ASN3K10□	ASN2K10N□-N024401	
		ASN3K11□	ASN2K11N□-N024401	
		ASN3K20□	ASN2K20N□-N024401	
		ASN3K22□	ASN2K22N□-N024401	
		ASN3K7S□	ASN2K2RN□-118-N024401	
		ASN4K10	ASN21K10N-N024401	
		ASN4K11	ASN21K11N-N024401	
		ASN4K20	ASN21K20N-N024401	
		ASN4K22	ASN21K22N-N024401	
	90° 2-position	ASN4K7S	ASN21K2RN-118-N024401	(*0)
	2-position	ASN30K10□ ASN30K11□	ASN2K01N□-N024401 ASN2K11N□-N024401	(*2) (*1)
		ASN30K20□	ASN2K02N□-N024401	(*2)
		ASN30K22□	ASN2K22N□-N024401	(*1)
		ASN30K7S□	ASN2K2RN□-118-N024401	(*1)
		ASN40K10	ASN22K10N-N024401	
		ASN40K11	ASN22K11N-N024401	
		ASN40K20	ASN22K20N-N024401	
ASN-K		ASN40K22	ASN22K22N-N024401	
Key		ASN40K7S	ASN22K2RN-168-N024401	
Selector		ASN1K11	ASN3K20N - N024401	(*2)
		ASN1K22□ ASN1K5S□	ASN3K40N□-N024401 ASN3K22N□-N024401	(*2)
		ASN1K7S	ASN3K02N -N024401	(*1) (*2) (*1) (*2)
		ASN1K8S□	ASN3K04N□-N024401	(*1) (*2)
		ASN2K11□	ASN32K20N□-N024401	(*2)
		ASN2K22□	ASN32K40N□-N024401	(*2)
		ASN2K5S□	ASN32K22N□-N024401	(*1) (*2)
		ASN2K7S□	ASN32K02N□-N024401	(*1) (*2)
	45°	ASN2K8S□	ASN32K04N□-N024401	(*1) (*2)
	3-position	ASN10K11	ASN3K20N - N024401	(*1) (*2)
		ASN10K22	ASN3K40N□-N024401	(*1) (*2)
		ASN10K5S□ ASN10K7S□	ASN3K22N□-N024401 ASN3K02N□-N024401	(*1) (*2) (*2)
		ASN10K7S	ASN3K02N - N024401 ASN3K04N - N024401	(*2)
		ASN20K11□	ASN31K20N□-N024401	(*1) (*2)
		ASN20K22□	ASN31K40N□-N024401	(*1) (*2)
		ASN20K5S□	ASN31K22N□-N024401	(*1) (*2)
		ASN20K7S□	ASN31K02N□-N024401	(*2)
		ASN20K8S□	ASN31K04N□-N024401	(*2)
		ASTN3211	ASN211N	
	90°	ASTN3222	ASN222N	(*1)
	2-position	ASTN4211 ASTN4222	ASN2111N	(*1)
		ASTN4222 ASTN1122	ASN2122N ASN322N	( 1)
		ASTN1122	ASN322N-311	
		ASTN1340	ASN340N	
ASTN		ASTN1422	ASN322N-209	
Knob		ASTN1520	ASN320N	
Operator	45°	ASTN1540	ASN340N	(*1)
	3-position	ASTN1611	ASN311N-303	
		ASTN1622	ASN322N-310	
		ASTN2122	ASN3222N	
		ASTN2222 ASTN20122	ASN3222N-311	
		ASTN20122 ASTN20222	ASN3122N ASN3122N-311	
		TO HIVE UZZZ	MUNUIZZNIJII	I

ullet  $\square$ : Key removable position code. Specify the same code as the old series.

<sup>\*1)</sup> The location of contacts is different. In application for maintenance purpose, make sure of contact operation before wiring.

<sup>\*2)</sup> Contact operation is same as the old series, but contact type is different.

<sup>\*3)</sup> The knob operator is diecast zinc and has new shape. The knob operator can be installed at 45 degrees intervals.

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 ø22

Miniature Pilot Lights

ARN

### ø30 Selector Switches / Pushbuttons Part Number Replacement List

Model	Old Se Operator	Old Part No.	New Part No. (*3)	Remark
		ASTN20422	ASN3122N-209	
		ASTN20520	ASN3120N	(*1)
ASTN Knob Operator	45°	ASTN20540	ASN3140N	(*1)
	3-position	ASTN5120	ASN3320N	
	3-position	ASTN5122	ASN3322N	
		ASTN5222	ASN3322N-311	
		ASTN5111	ASN3311N-202	
	90° 2-position	ASTN32L11	ASN2L11N	
		ASTN32L22	ASN2L22N	(*1)
		ASTN42L11	ASN21L11N	
		ASTN42L22	ASN21L22N	(*1)
		ASTN11L22 ASN3L22N		
		ASTN12L22	ASN3L22N-311	
	45° 3-position	ASTN13L40	ASN3L40N	
		ASTN14L22	ASN3L22N-209	
		ASTN15L20	ASN3L20N ASN3L40N	(*1)
		ASTN15L40	(*1)	
ASTN■L		ASTN16L11	ASN3L11N-303	
Lever		ASTN16L22	ASN3L22N-310	
Operator		ASTN21L22	ASN32L22N	
		ASTN22L22	ASN32L22N-311	
		ASTN201L22	ASN31L22N	
		ASTN202L22	ASN31L22N-311	
		ASTN204L22	ASN31L22N-209	(+4)
		ASTN205L20	ASN31L20N	(*1)
		ASTN205L40	ASN31L40N	(*1)
		ASTN51L20 ASN33L20N		
		ASTN51L22	ASN33L22N	
		ASTN52L22	ASN33L22N-311	
	90° 2-position	ASTN51L11	ASN33L11N-202	
		ASTN32K11□	ASN2K11N□	(*1)
		ASTN32K22	ASN2K22N	(*1)
		ASTN42K11 ASTN42K22	ASN21K11N ASN21K22N	(*1)
		ASTN42K22 ASTN11K22□	ASN3K22N□	( ')
		ASTN11K22□	ASN3K22N□-311	
		ASTN12K22□	ASN3K40N□	
		ASTN13K40□ ASTN14K22□	ASN3K22N□-209	
		ASTN15K20□	ASN3K20N□	(*1)
		ASTN15K40□	ASN3K40N□	(*1)
ASTN■K		ASTN16K11□	ASN3K11N□-303	''
Key	45° 3-position	ASTN16K22□	ASN3K22N□-310	
Selector		ASTN21K22□		
		ASTN22K22□	ASN32K22N□ ASN32K22N□-311	
		ASTN201K22□	ASN31K22N□	
		ASTN202K22□	ASN31K22N□-311	
		ASTN204K22□	ASN31K22N□-209	
		ASTN205K20□	ASN31K20N□	(*1)
		ASTN205K40□	ASN31K40N□	(*1)
		ASTN51K20	ASN33K20N	.,
		ASTN51K22	ASN33K22N	
		ASTN52K22	ASN33K22N-311	
		ASTN51K11	ASN33K11N-202	
	45° 3-position	ASN120-T	ASN320N	
AC: -		ASN140-T	ASN340N	
ASN-T		ASN220-T	ASN3220N	
Knob		ASN240-T	ASN3240N	
Operator		ASN2020-T	ASN3120N	(*1)
		ASN2040-T	ASN3140N	(*1)
		ASN1L20-T	ASN3L20N	
ACN T		ASN1L40-T	ASN3L40N	
ASN-T	45°	ASN2L20-T	ASN32L20N	
Lever	3-position	ASN2L40-T	ASN32L40N	
Operator		ASN20L20-T	ASN31L20N	(*1)
		ASN20L40-T	ASN31L40N	(*1)

•	Specify a color	code	in place	of	* in	Part	No. B	(black)	G	(green)	, R	(red),	Υ	(yellow).	
					_					,	٠				

 <sup>—:</sup> Key removable position code. Specify the same code as the old series.

 \*1) The location of contacts is different. In application for maintenance purpose, make sure of contact operation before wiring.

Model	Old Serie Operator	es Old Part No.	New Part No. (*3)	Remarks		
Wiodoi	Operator	ASN3K10□-T	ASN2K10N□			
		ASN3K11□-T	ASN2K11N□			
		ASN3K20□-T	ASN2K20N□			
	90° 2-position	ASN3K22□-T	ASN2K22N□			
		ASN3K7S□-T	ASN2K2RN□-118			
		ASN4K10-T	ASN21K10N			
		ASN4K11-T	ASN21K11N			
		ASN4K20-T	ASN21K20N			
		ASN4K22-T	ASN21K22N			
		ASN4K7S-T	ASN21K2RN-118			
		ASN40K10-T	ASN22K10N			
		ASN40K11-T	ASN22K11N			
		ASN40K20-T	ASN22K20N			
40N <b>-</b> 1/ T		ASN40K22-T	ASN22K22N			
ASN■K-T		ASN40K7S-T	ASN22K2RN-168			
Key		ASN1K20□-T	ASN3K20N□			
Selector		ASN1K40□-T	ASN3K40N□			
		ASN1K5S□-T	ASN3K22N□			
		ASN1K7S□-T	ASN3K02N□	(*1)		
		ASN1K8S□-T	ASN3K04N□	(*1)		
		ASN2K20□-T	ASN32K20N□	` ''		
		ASN2K40□-T	ASN32K40N□			
	45°	ASN2K5S□-T	ASN32K22N□			
	3-position	ASN2K7S□-T	ASN32K02N□	(*1)		
		ASN2K8S□-T	ASN32K04N□	(*1)		
		ASN20K20□-T	ASN31K20N□	(*1)		
		ASN20K40□-T	ASN31K40N□	(*1)		
		ASN20K5S□-T	ASN31K22N□	(*1)		
		ASN20K7S□-T	ASN31K02N□	\ ''		
		ASN20K8S□-T	ASN31K04N□			
		ABN6111□	ASBN211N-A03			
		ABN6411□	ASBN211N-K04□	(*2)		
		ABN9111□	N/A	(2)		
			-			
0-1		ABN7120	ASBN220N-D01	(*1)		
Selector		ABN6122	ASBN222N-A08			
Pushbuttons		ABN6222	ASBN222N-C10	(*1)		
Ring Operator		ABN6422	ASBN222N-K15	(*2)		
Operator	90°	ABN7122□	ASBN222N-D10	(*1)		
		ABN7222□	ASBN222N-E10	(*1)		
		ABN7322□	ASBN222N-F10□	(*1)		
	2-position	ABN9122	N/A	/* <b>4</b> \		
		ABN6L111	ASBN211N-A03	(*4)		
		ABN6L411	ASBN211N-K04	(*2) (*4		
		ABN9L111	N/A	(*4) /**		
Selector		ABN6L122	ASBN222N-A08	(*1) (*4		
Pushbuttons		ABN6L222	ASBN222N-C10	(*1) (*4		
Lever		ABN6L422	ASBN222N-K15	(*2) (*4		
Operator		ABN7L122□	ASBN222N-D10	(*1) (*4		
		ABN7L222□	ASBN222N-E10□	(*1) (*4		
		ABN7L322□	ASBN222N-F10□	(*1) (*4		
		ABN9L122□	N/A	1		
		ABN8P10	ABD8P10N□	(*5)		
		ABN8P01	ABD8P01N□	(*5)		
	Pin Lock	ABN8P11	ABD8P11N□	(*5)		
	I III LUCK	ABN8P20	ABD8P20N□	(*5)		
		ABN8P02	ABD8P02N□	(*5)		
		ABN8P22	ABD8P22N□	(*5)		
		ABN8P10-TK231-1	ABD8PN10N□	(*5)		
Pushbuttons	ON Lock	ABN8P01-TK231-1	ABD8PN01N□	(*5)		
i domoditorio	Type Pin	ABN8P11-TK231-1	ABD8PN11N□	(*5)		
	Lock	ABN8P20-TK231-1	ABD8PN20N□	(*5)		
	LUCK	ABN8P02-TK231-1	ABD8PN02N□	(*5)		
		ABN8P22-TK231-1	ABD8PN22N□	(*5)		
		ATN2310□	AZN310N□			
	Mushroom	ATN2311□	AZN311N□			
	Pull	ATN2320□	AZN320N□			
		ATN2302□	AZN302N□			

<sup>\*3)</sup> The knob operator is diecast zinc and in new shape. The knob operator can be installed at 45 degrees intervals.

<sup>\*2)</sup> Contact operation is same as the old series, but contact type is different.

<sup>\*4)</sup> The new knob operator of selector pushbuttons is ring operator. The old series is lever operator.

<sup>\*5)</sup> Button material New series: plastic / Old series: metal

## **X-ON Electronics**

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Pushbutton Switches category:

Click to view products by Idec manufacturer:

Other Similar products are found below:

LW1L-M1C10V-A LW2L-A1C20M-GD LW2L-M1C20M-A 60324L M7E-HRN2 67021K512 67081K512X 701PB580 719-5504-000

MDPSSGLFS 810KSV30B FLT 2U EE 01A MML21KA3ABK MML23KA3AC05K-001 MML23KW3AA01W 8418K2 8646AB6X718UL

8646ABUL FSDWH 9001KXRK 9001T8BK 9533CD4+U574+U4922 1203MRA A22EM01S A595 12037A2ULCSA 1203A2UL

ABD122N-B 1211390004 ABN111-Y ABN400-R 1211500044 1211580012 1212MRA 1232A6NF 1241.1183.7047 1241.2511 1241.3428

1223A2ULCSA 1223MRA 1232AX2119 1241.1183.8000 1241.1183.8029 1241.2506 1241.2606 12MA6 1301940184

RELBARF6X10(PLASTIC) 13435AG 13440AD2G25X822+U4546