ø30 Switches and Pilot Lights

# **TWN** TWND Series



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

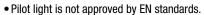












- DC-DC convertor unit is not approved by standards.
- See website for details on approvals and standards.







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						
Cotogony	Flu	sh	Exte	nded	Extended wit	h Half Shroud	
Category	Momentary	/Maintained	Momentary	/Maintained	Momentary	/Maintained	
Shape		6		Diecast Zinc		Diecast Zinc	
Model	ABN1 AON1	ABD1 AOD1	ABN2 AON2	ABD2 AOD2	ABN2G AON2G	ABGD2 AOGD2	
Page	B-310	B-326	B-310	B-326	B-310	B-326	

Function		Pushbutton						
Catamani	Extended with Full Shroud		Mush	nroom	Mushroom with Full Shroud			
Category	Momentary.	/Maintained	Momentary	/Maintained	Momentary	/Maintained		
	_	Diecast Zinc		Diecast Zinc		Diecast Zinc		
Shape								
Model	ABN2F	ABFD2	ABN3	ABD3	ABN3G	ABGD3		
Model	AON2F	AOFD2	AON3	AOD3	_	AOGD3		
Page	B-310	B-326	B-311	B-327	B-311	B-327		

Function		Pushbutton						
Cotogony	Jumbo N	lushroom	Jumbo Mushroom v	vith Shallow Shroud	Jumbo Mushroom	with Deep Shroud		
Category	Mom	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	Mushroom 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	_	B-328		B-327			

<sup>\*1)</sup> 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 with 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	Mush	room	Muchroom Duchl	ock Turn Reset (*1)	Muchroom P	ush Turn Lock	
Category	Momentary	/Maintained	Widshi odin Fushi	ock fulli neset ( 1)	IVIUSIII OOIII 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		ver	К	Key			
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 Illumir	ated Knob	Ring O <sub>l</sub>	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	Do	me	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)



ø30 TWND Series (Diecast Zinc)



APEM

Control Boxes

Emergency Enabling

Safety Products

Switches

**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

CS

# **Ratings and Specifications**

# **Contact ratings**

Pushbuttons	Rated insulation voltage	600V
Illuminated Pushbuttons	Rated continuous current	10A
Selector Switches Illuminated Selector Switches Selector Pushbuttons	Contact ratings by utilization category JIS C8201-5-1 IEC60947-5-1	AC-15 (A600) DC-13

# Contact ratings by utilization category

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

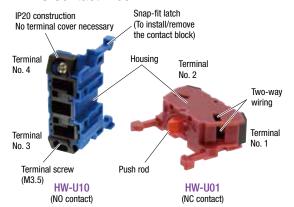
Operating Voltage	е	24V	48V	50V	110V	220V	440V	
Operating AC 50/6	AC	AC-12 Control of resistive loads and solid state loads	10A	_	10A	10A	6A	2A
	50/60 Hz	AC-15 Control of electromagnetic loads (> 72 VA)	10A	_	7A	5A	3A	1A
Current	DC	DC-12 Control of resistive loads and solid state loads	10A	5A	_	2.2A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

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

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

- The operating current represents the classification by making and breaking currents (IEC 60947-5-1).
- Silver contacts
- . Minimum applicable load: 3V AC/DC, 5 mA (applicable range may vary with operating conditions and load types)
- For mono-lever switches and cam switches, see the brochures of each product.

# **HW-U Contact Block**



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

Circuit

Protectors

Controllers Operator

> Sensors AUTO-ID

Flush Silhouette

ø16 ø22

Miniature

Pilot Lights

ARN

# **LED Illuminated Unit Ratings**

Unit						LED I	amp
UIIIL	Color	Rated Voltage		Operating Vo	ltage	Lamp Base	Part No.
	R (red) G (green) Y (yellow) A (amber)	6V AC/DC		6V AC/DC			LSTD-6*
		12V AC/DC		12V AC/DC			LSTD-1*
		24V AC/DC		24V AC/DC			LSTD-2*
		100/110V AC		100/110V AC	±10%	BA9S/13	
		115/120V AC (*1)		115/120V AC (*1)			
Illuminated pushbutton		120V AC (*2)		120V AC (*2)			
Illuminated selector switch		200/220V AC		200/220V AC	1070		
Pilot light	S (blue)	230/240V AC (*1)	50/60 Hz	230/240V AC (*1)			LCTD C.
	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	Pilot Light		
_	Power Unit	Full voltage adapter	Transfo	Transformer [		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		

 $\bullet$  Note the polarity for wiring when connecting to DC-DC converter unit.

# **LED Lamp Ratings (LSTD)**

	LED Lamp hatings (LSTD)											
Р	art No.			LSTD-6*		LST	D-1*	L	.STD-2*			
L	amp Base		BA9S/13									
R	Rated Voltage		6V AC/DC		12V AC/DC	12V AC/DC						
٧	oltage Rang	je	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			
- 1	Current Draw	DC	7mA	5.5mA	4.5mA	10mA	8mA	10mA	8mA			
	navv	AC	8mA	8mA	7mA	11mA	9mA	11mA	9mA			
L	amp Base C	Color	Same as illum	ination color (P	W: gray)							
٧	oltage Mark	ing	Die stamped on the base									
L	ife (referenc	ce value)	Approx. 50,000 hours (The luminance is reduced to 50% the initial intensity when used on complete DC at 25°C.)									
				χ₁ ⊶□−		Symbols	Exa	ample: LSTD-2PW				
					**	, LED chip		100				
Ir	nternal Circu	uit			$\vee$ $\wedge$ $ $	Rectifier (	diode					
				V a a		Zener dio	de	Page	color			
				X 2 O————————————Resistor				Base color				
٧	Veight		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.

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

# **Specifications**

Operating Temperature			Non-illuminated: -25 to +		& Pilot Lights
Storage Temperature			Illuminated: -25 to +50°C -40 to +80°C (no freezing		—
Operating Humidity			45 to 85% RH (no condens	7	<u> </u>
Contact Resistance			50 mΩ maximum (initial va	·	<b></b>
Insulation Resistance			100 MΩ minimum (500V D		_
IIISUIALIOII NESISLANCE			· · · · · · · · · · · · · · · · · · ·	etal parts: 2,500V AC, 1 minute	_
Dielectric Strength			(Full voltage and pilot light 2000V AC, (pilot lights: 6V.	ts: 2,000V AC, 1 minute)	APEM
V	Damage limits		30 Hz, amplitude 1.5 mm		Switches & Pilot Lights
Vibration Resistance	Operation extremes		5 to 55 Hz, amplitude 0.5 mm		
Obsels Desistence	Damage limits		1000 m/s <sup>2</sup>		Control Boxes
Shock Resistance	Operation extremes		100 m/s <sup>2</sup>		Emergency Stop Switches
		Momentary	5,000,000		Enabling
	D l. l	Maintained	500,000 (over 3 contacts:	250,000)	Switches
	Pushbutton	Push lock turn reset	500,000	·	Safety Products
		Pull	500,000		- Odicty i roddcis
Mechanical Life		Momentary	2,500,000		Explosion Proof
(minimum operations)	Illuminated pushbutton	Maintained	500,000 (over 3 contacts:	250,000)	Townsia at Blands
	Selector switch	•	500,000	,	Terminal Blocks
	Key selector switch		500,000		Relays & Sockets
_	Illuminated selector swite	ch	500,000		Circuit
	Selector pushbutton		250,000		Protectors
		Momentary		uency 1800 operations/h, duty ratio 40%	Power Supplies
	Pushbutton	Maintained	500,000 (over 3 contacts:		LED Illumination
		Push lock turn reset		uency 900 operations/h, duty ratio 40%	╗
		Momentary		uency 1800 operations/h, duty ratio 40%	Controllers
Electrical Life (minimum operations) (*1)	Illuminated pushbutton	Maintained	500,000 (over 3 contacts: Switching frequ	250,000) uency 900 operations/h, duty ratio 40%	Operator Interfaces
	Selector switch		500,000 Switching frequ	uency 1200 operations/h, duty ratio 40%	Sensors
	Key selector switch		500,000 Switching frequ	uency 1200 operations/h, duty ratio 40%	<u> </u>
	Illuminated selector swite	ch		uency 1200 operations/h, duty ratio 40%	AUTO-ID
	Selector pushbutton		250,000 Switching frequ	uency 900 operations/h, duty ratio 40%	
		Pushbutton	ABN122: 82g	ABN322: 87g	
		Illuminated pushbutton	ALN22222DN: 106g	ALN21622DN: 163g	╗——
	TWN series	Selector switch	ASN222N: 83g	ASN2K22N: 120g	Flush Silhouette
		Illuminated selector switch	ASLN22222DN: 106g	ASLN21622DN: 163g	-10
		Pilot light	APN122DN: 46g	APN116DN: 125g	ø16
Weight (approx.)		Pushbutton	ABD122: 108g	ABD322: 113g	ø22
		Illuminated pushbutton	ALD22222DN: 132g	ALD21622DN: 189q	
		Illuminated pushbutton	ALDELELEDIN. 10EQ		
	TWND series	Selector switch		ASD2K22N: 147g	ø30
	TWND series	<u> </u>	ASD222N: 110g ASLD22222DN: 133g	ASD2K22N: 147g ASLD21622DN: 190g	ø30 Miniature

<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 corios	Key selector switch	ASN□K	IP65	Dust-proof/jet-proof	
TWN series	Illuminated selector switch	minated selector switch ASLN			
	Selector pushbutton	ASBN			
	Round pilot light	APN			
	Square pilot light	UPQN	IP40	_	
	Pushbutton	ABD, AOD, AVD			
	Illuminated pushbutton	ALD, AOLD, AVLD			
TAME :	Selector switch	ASD, ASD□L			
TWND series Diecast zinc	Key selector switch	ASD□K	IP65	Dustproof/jet-proof	
Diecast zinc	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.

$\dashv$	Safety Products
	Explosion Proof
	Terminal Blocks
	Relays & Sockets
-	Circuit Protectors
	Power Supplies
	LED Illumination
	Controllers
	Operator Interfaces
	Sensors
	AUTO-ID
	Flush Silhouette
$\dashv$	ø16
	ø22
	ø30
	Miniature
	Pilot Lights

ARN CS

Control Boxes

Stop Switches

**Explosion Proof** Terminal Blocks

Relays & Sockets

**Power Supplies** 

LED Illumination

Controllers

Operator

Sensors

AUTO-ID

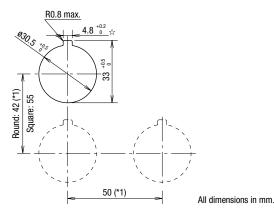
Interfaces

Circuit Protectors

Emergency

Enabling Switches Safety Products

# 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  $^{+0.2}_{-0}$  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.

# **Notes for Ordering**

#### 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:

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**

Pushbutton Flush Silhouette

> ø16 ø22

Miniature

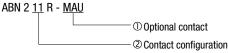
Pilot Lights

ARN

CS

When specifying gold-plated silver contact and contact configuration:

TWN series (B-310 to B-312)



TWND series (B-326 to B-328)

ABD 2 11 NR - MAU ① Optional contact ② Contact configuration <Codes> ① Optional contact

MAU: Gold-plated silver

2 Contact configuration

10: 1NO

01: 1NC

11: 1NO1NC 2N0

20: 02: 2NC

2N02NC 22:

40: 4N0

04: 4NC 13:

1N03NC 31: 3N01NC

30: 3N0

3NC 03:

12: 1N02NC

2N01NC

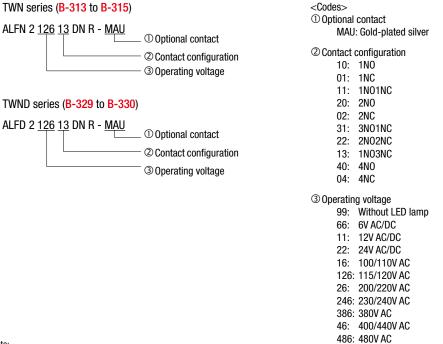
- Pushbutton with one or three contact blocks contains a dummy block.
- Mushroom pull pushbuttons AZN, AZD and mushroom push-pull AYD have up to two contacts in one layer.

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

# **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.
- 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

Optional contact

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	ASD2K20NC		
	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	ASN3K20ND-N024401	ASD3K20ND		
		Removable in right and left	E	ASN3K20NE	ASN3K20NE-N024401	ASD3K20NE		
		Removal in left only	G	ASN3K20NG	ASN3K20NG-N024401	ASD3K20NG		
		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

Pilot Lights
Control Boxes

APEM

Emergency

Enabling Switches

Safety Products

Explosion Proof

Terminal Blocks

Relays & Sockets

Circuit

Protectors
Power Supplies

LED Illumination

Controllers

Operator Interfaces

Sensors

AUTO-ID

AOTO ID

Flush Silhouette

ø16

ø22

ø30

Miniature

Pilot Lights

TWN
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

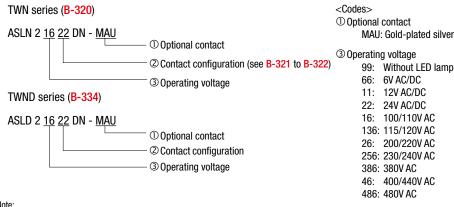
Circuit

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		,	v	Package Quantity: 1	. <del>-                                 </del>
Shape	Operation	Contact	Part No. (Ordering No.)	Button Color Code	Dimensions	(All dimensions in mm.)	t Lights
Flush		1NO	ABN110*	В			20
ABN1		1NC	ABN101*	G			
AON1	Mamantani	1NO-1NC	ABN111*	R			
	Momentary	2N0	ABN120*	Y S	- <del>1 -</del>	Panel Thickness 0.8 to 7.5	APEM
		2NC	ABN102*	W	88		Switches &
		2NO-2NC	ABN122*	Note	4		Pilot Lights
		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)	9 039	Enabling
	Maintaineu	2N0	A0N120*	S			Switches
		2NC	A0N102*	W			Safety Products
		2NO-2NC	A0N122*	Note			
Extended		1NO	ABN210*				Explosion Proof
ABN2 AON2		1NC	ABN201*	B G			Terminal Blocks
AUN2	Momentary	1NO-1NC	ABN211*	R			
	Womentary	2N0	ABN220*	Υ	Panel	Panel Thickness 0.8 to 7.5	Relays & Sockets
		2NC	ABN202*	S W			Circuit
		2NO-2NC	ABN222*	VV		1 1 2 2 2 2 1 1 1 2 2 2 1 1 1 1 1 1 1 1	Protectors
		1NO	A0N210*	D			Power Supplies
		1NC	A0N201*	B G	45.4 (1 or 2 blocks)	29.6	LED Illumination
	Maintained	1NO-1NC	A0N211*	R	65.4 (3 or 4 blocks) 1	14 ø39	
	Walitalieu	2N0	A0N220*	Y			Controllers
		2NC	A0N202*	S W			Operator Interfaces
		2NO-2NC	A0N222*	**			
Extended with Half Shroud		1NO	ABN2G10*	В			Sensors
ABN2G AON2G		1NC	ABN2G01*	G			AUTO-ID
Nonza	Momentary	1NO-1NC	ABN2G11*	R			
	Wiomichiary	2N0	ABN2G20*	Y	Panel Thickness 0.8 to 3.5	anel Thickness 0.8 to 3.5	
		2NC	ABN2G02*	S W			
		2NO-2NC	ABN2G22*	- "	4 4 4 4	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	Flush Silhouette
		1NO	AON2G10*	В			a16
		1NC	AON2G01*	G	40.9 (1 or 2 blocks) 1	B.5 29.6	ø16 
	Maintained	1NO-1NC	AON2G11*	R	60.9 (3 or 4 blocks) 2	0.5 ø39	ø22
	Mamamod	2N0	AON2G20*	Υ			ø30
		2NC	AON2G02*	S W			Ø30
		2NO-2NC	AON2G22*				Miniature
Extended with Full Shroud ABN2F		1NO	ABN2F10*	В			Pilot Lights
AON2F		1NC	ABN2F01*	G			Pilot Lights
· · · · · · · · ·	Momentary	1NO-1NC	ABN2F11*	R			
	inomontal y	2N0	ABN2F20*	Ϋ́c	_ <del>-=+ t-</del>	Panel Thickness 0.8 to 6	
		2NC	ABN2F02*	S W			TWN
		2NO-2NC	ABN2F22*	ļ	4 4 4		- I VVIV
		1NO	A0N2F10*	В	4 8 8		TWND
		1NC	A0N2F01*	G	45.4 (1 or 2 blocks)	14 29.6	ARN
	Maintained	1NO-1NC	AON2F11*	R		16.5	
		2N0	AON2F20*	Y S			CS
		2NC	A0N2F02*	⊣ 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.)	
Mushro ABN3	oom		1NO	ABN310*	В			
AON3			1NC	ABN301*	G			
		Momentary	1NO-1NC	ABN311*	R Y			
			2N0 2NC	ABN320* ABN302*	S	Panel Thickness 0.8	to 7.5	
			2NO-2NC	ABN322*	W			
			1NO	A0N310*		4 8 8	( )	
•			1NC	A0N301*	B G			
-		Maintainad	1NO-1NC	A0N311*	R	45.4 (1 or 2 blocks) 65.4 (3 or 4 blocks) 22	29.6	
		Maintained	2N0	A0N320*	Y			
			2NC	A0N302*	S W			
	Muchanoma with Full Changed		2NO-2NC	A0N322*				
	Mushroom with Full Shroud ABN3G		1NO	ABN3G10*		Panel Thickness 0.8	to 6.5 29.6	
, ibitou			1NC	ABN3G01*	В			
		Momentary	1NO-1NC	ABN3G11*	G R Y S W	4. 14 4 88		
		Womentary	2N0	ABN3G20*				
			2NC	ABN3G02*		43.9 (1 or 2 blocks) 63.9 (3 or 4 blocks) 23.5	<u> </u>	
			2NO-2NC	ABN3G22*				
Jumbo ABN4	Mushroom	Momentary	1NO	ABN410*	B G R Y	Panel Thickness 0.8 to 7.5		
1,211	A STATE OF THE STA		1NC	ABN401*		14110 1110011000 0.0 0.7 0	[	
			1NO-1NC	ABN411*		500		
			2N0	ABN420*				
			2NC	ABN402*		45.4 (1 or 2 blocks)		
			2NO-2NC	ABN422*		65.4 (3 or 4 blocks) 29	29.6	
	Mushroom with v Shroud		1NO	ABN4G10*		Panel Thickness 0.8 to 7.5	ı	
ABN4G			1NC	ABN4G01*				
			1NO-1NC	ABN4G11*	B G			
		Momentary	2N0	ABN4G20*	R	8 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9		
			2NC	ABN4G02*	Y			
			2NO-2NC	ABN4G22*		45.4 (1 or 2 blocks) 29	29.6	
	Mushroom with		1NO	ABN4F10*		Panel Thickness 0.8 to 7.5		
Deep S ABN4F	illoud		1NC	ABN4F01*		Tanot Hillorinoso o.o to 7.o		
			1NO-1NC	ABN4F11*	В			
		Momentary	2N0	ABN4F20*	G R	4 9 9		
			2NC	ABN4F02*	Y			
			2NO-2NC	ABN4F22*	-	45.4 (1 or 2 blocks) 65.4 (3 or 4 blocks) 33	29.6	
					) (In In and AM (and	<u>L</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

				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*		
AVIVS	1NC	AVN301N*		Panel Thickness 0.8 to 7.5
	1NO-1NC	AVN311N*	R	
	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*	В	
1	1NO-1NC	AJN311N*	G	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
	2N0	AJN320N*	R	
	2NC	AJN302N*	Υ	45.4 (1 or 2 blocks) 29.6 23.6
	2NO-2NC	AJN322N*		
Mushroom Pull AZN3	1NO	AZN310N*		
AZINO	1NC	AZN301N*	_	Panel Thickness 0.8 to 7.5
	1NO-1NC	AZN311N*	B G	
	2N0	AZN320N*	R	66
	2NC	AZN302N*	_	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

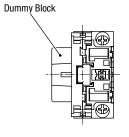
Button is locked when turned clockwise in the depressed position and is reset when turned counterclockwise.

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

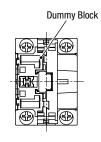
#### Pull contact operation

Contact	AZ	N3
Contact	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●

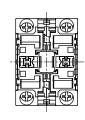
#### Bottom View (for non-illuminated pushbuttons and selector switches)



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



3 contact blocks



- 2/4 contact blocks
- See B-348 for wiring.
- Integrated terminal cover

APEM

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

Shape	Base	Operation	Operating Voltage	Contact	Part No. (Ordering No.)	Color Code	Dimens Page
Extended				1NO-1NC	ALN22211DN*		
LN2			24V AC/DC	2N0	ALN22220DN*		
OLN2				2NC	ALN22202DN*	R	
				1NO-1NC	ALN21611DN*	G	
		Momentary	100/110V AC	2N0	ALN21620DN*	<b>∀</b>	
		,		2NC	ALN21602DN*	– A S	
				1NO-1NC	ALN22611DN*	PW	
			200/220V AC	2N0	ALN22620DN*		
(24VAC/DC)				2NC	ALN22602DN*		
	BA9S			1NO-1NC	A0LN22211DN*		
			24V AC/DC	2N0	A0LN22220DN*		
				2NC	A0LN22202DN*	R	
				1NO-1NC	AOLN21611DN*	⊢ ¨G	
		Maintained	100/110V AC	2NO	AOLN21620DN*	<b>⊢</b> Υ	
		Maintainea	100/1100 A0	2NC	A0LN21602DN*	⊢ A	
				1NO-1NC	AOLN22611DN*	S PW	
With transformer			200/2201/ 40			- F VV	
(100/110V AC)			200/220V AC	2NO	AOLN22620DN*	-	
xtended with Half Shroud				2NC	AOLN22602DN*		
LGN2			0.41/ 4.0/D0	1NO-1NC	ALGN22211DN*	_	
OLGN2			24V AC/DC	2N0	ALGN22220DN*		
. 🛋				2NC	ALGN22202DN*	R	
				1NO-1NC	ALGN21611DN*	G Y	
		Momentary	100/110V AC	2N0	ALGN21620DN*	Ä	
				2NC	ALGN21602DN*	S	
				1NO-1NC	ALGN22611DN*	PW	
			200/220V AC	2N0	ALGN22620DN*		
(24V AC/DC)	BA9S			2NC	ALGN22602DN*		B-3
	Briod			1NO-1NC	AOLGN22211DN*		2.0
			24V AC/DC	2N0	AOLGN22220DN*		
				2NC	AOLGN22202DN*	R	
				1NO-1NC	AOLGN21611DN*	G	
		Maintained	100/110V AC	2N0	AOLGN21620DN*	Y A	
				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	2NO	ALFN21620DN*	- γ	
		wiomentary	100/1107 A0	2NC	ALFN21602DN*	— A	
				1NO-1NC	ALFN21602DN* ALFN22611DN*	S PW	
			200/220V AC	2NO		- F VV	
(24V AC/DC)			200/220V AU		ALFN22620DN*	_	
	BA9S			2NC	ALFN22602DN*		
_			0.4\/.4\0/\00	1NO-1NC	AOLFN22211DN*		
The state of the s			24V AC/DC	2N0	AOLFN22220DN*		
1				2NC	AOLFN22202DN*	⊢ R	
				1NO-1NC	AOLFN21611DN*	G Y	
		Maintained	100/110V AC	2N0	AOLFN21620DN*	Ä	
				2NC	AOLFN21602DN*	S	
Marilla I.				1NO-1NC	AOLFN22611DN*	PW	
With transformer (100/110V AC)			200/220V AC	2N0	AOLFN22620DN*		
LLUU/ LLUV AGI	1		- I	2NC	AOLFN22602DN*	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  $\ensuremath{\text{\textbf{B-308}}}$  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 *		
AULNS				2NC	ALN32202DN *	R	
				1NO-1NC	ALN31611DN *	G	
		Momentary	100/110V AC	2N0	ALN31620DN *	Y A	
				2NC	ALN31602DN <b>*</b>	Ŝ	
				1NO-1NC	ALN32611DN *	PW	
			200/220V AC	2N0	ALN32620DN *		
(24V AC/DC)	BA9S			2NC	ALN32602DN *		
	BA95			1NO-1NC	AOLN32211DN *		
No.			24V AC/DC	2N0	AOLN32220DN *		
				2NC	AOLN32202DN *	R	
				1NO-1NC	AOLN31611DN *	G	
		Maintained	100/110V AC	2N0	AOLN31620DN *	Y A	
				2NC	AOLN31602DN *	S	
				1NO-1NC	AOLN32611DN *	PW	
With tranformer			200/220V AC	2N0	A0LN32620DN *		
(100/110V AC)				2NC	A0LN32602DN *		B-315
Mushroom Pushlock Turn Reset				1NO-1NC	AVLN32211DN *		D-313
AVLN3 (*1)			24V AC/DC	2N0	AVLN32220DN *		
				2NC	AVLN32202DN *		
				1NO-1NC	AVLN31611DN *	]	
	BA9S	_	100/110V AC	2N0	AVLN31620DN *	R	
				2NC	AVLN31602DN *		
				1NO-1NC	AVLN32611DN *		
			200/220V AC	2N0	AVLN32620DN *		
(24V AC/DC)				2NC	AVLN32602DN *		
Mushroom Push Turn Lock				1NO-1NC	AJLN32211DN *		
AJLN3			24V AC/DC	2N0	AJLN32220DN *		
				2NC	AJLN32202DN *	R	
				1NO-1NC	AJLN31611DN *	G	
	BA9S	_	100/110V AC	2N0	AJLN31620DN *	Ϋ́	
		os — —		2NC	AJLN31602DN *	A	
				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.

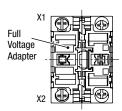
- \*1) Pushlock turn reset switches cannot be used as emergency stop switches. When emergency stop switches are required, use XN or HN series emergency stop switches (ISO 13850 and IEC 60947-5-5 compliant).
- Terminal screws: M3.5
- · Integrated terminal cover

#### Push Turn Lock

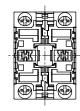
Button is locked when turned clockwise in the depressed position and is reset when turned counterclockwise.

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

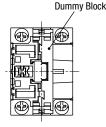
6V, 12V, 24V AC/DC



1 contact block



3 contact blocks



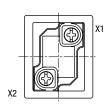
2/4 contact blocks



100/110V, 200/220V AC



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

Operator Interfaces Sensors

Emergency Stop Switches

> Enabling Switches

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

## Extended, LED illuminated (momentary/maintained)

All dimensions in mm.

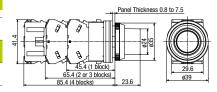
ALN2/AOLN2 (terminal screws M3.5)

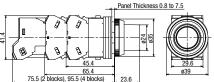
Integrated terminal cover

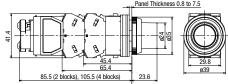
6, 12, 24V AC/DC · Without LED Lamp

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

110V DC/380V AC or over





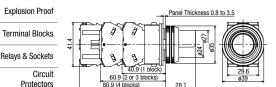


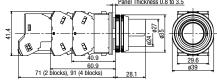
# Extended with Half Shroud, LED illuminated (momentary/maintained) ALGN2/AOLGN2 (terminal screws M3.5) Integrated terminal cover

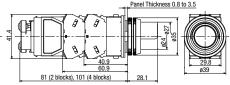
6, 12, 24V AC/DC· Without LED Lamp

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

110V DC/380V AC or over





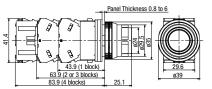


# Extended with Full Shroud, LED illuminated (momentary/maintained) ALFN2/AOLFN2 (terminal screws M3.5) Integrated terminal cover

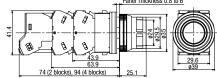
6, 12, 24V AC/DC · Without LED Lamp

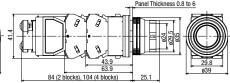
100/110V AC, 200/220V AC (240V AC or below)

110V DC/380V AC or over



Mushroom (ø40), LED illuminated (momentary/maintained)





#### Flush Silhouette

ø16

ø22

Miniature

Pilot Lights

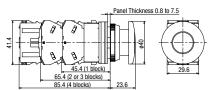
TWND ARN CS ALN3/AOLN3 (terminal screws M3.5)

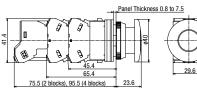
Integrated terminal cover

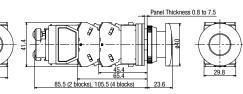
6, 12, 24V AC/DC · Without LED Lamp

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

110V DC/380V AC or over







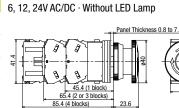
#### Mushroom Pushlock Turn Reset, LED illuminated

AVLN3 (terminal screws M3.5)

Integrated terminal cover 100/110V AC, 200/220V AC

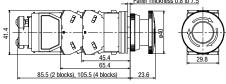
110V DC/380V AC or over

110V DC/380V AC or over







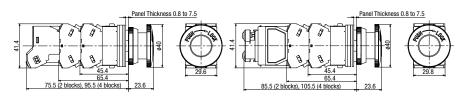


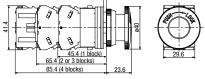
# Mushroom Push Turn Lock, LED illuminated

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	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 (20)	① ②	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 ●						AGNELLIN		3 4	NO NC			
	Contact Configuration  Contact Place Operato						Maintained	Spring Return from Right	Spring	g Return fro	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						
	2N0 (20)	① ②	NO NO	•		•	ASN320N	ASN3120N		ASN32201	V		ASN3320N
	2NC (02)	① ②	NC NC				ASN302N	ASN3102N		ASN32021	N		ASN3302N
	2NO-2NC	① ②	NO NO	•		•	AGNIGORI	4004000		4.01100001			4011000011
45° 3-position	(22)	3 4	NC NC		Un		ASN322N	ASN3122N		ASN32221	V		ASN3322N
poortion	4N0	① ②	NO NO	•		•							
	(40)	3 4	NO NO	•		•	ASN340N	ASN3140N		ASN32401	V		ASN3340N
	4NC (04)	10 NC 4NC (04) 3 NC		ASN304N		ASN32041		ASN3304N					
	(4) NC (1) NO (1) (2) NO (1) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4		ACNOCICN CAC										
	3S	3	NC —	Dum	● nmy Blo	ock	ASN33SN-243	_	_				

- 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.

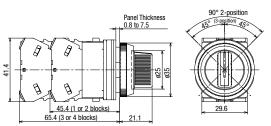
- Selector switches with \$\sigma\$ have a half contact operating current (load switching current value). Rated insulation voltage and rated current remain the same.
- See B-308 for gold-plated silver contacts.
- See B-312 for bottom view.

# **Contact Block Mounting Position**



#### **Dimensions**

All dimensions in mm.



Terminal Screws: M3.5

Terminal cover: integrated

# ASN-□ Selector Switches (Lever Operator)

Package Quantity: 1

+														rackage Quantity. I
t Lights	Shape	Lever Operati ASN□L	tor											
APEM														
Switches & Pilot Lights			Contact C	onfiguratio	n			Maintained	Spring Return from Right		Spring	Return	from Le	ft
Control Boxes			Contact	Block		Operat Positio				Contact	Block	Oper Posi	rator	
Emergency Stop Switches Enabling		Contact	Mounting Position	Contact	1	2	11	1 2	1 2	Mounting Position	Contact	1	2	1, 2
Switches		1NO	①	NO		•				1	NO	•		
Safety Products	90°	(10)	2	_	Dur	nmy B	⊥ 3lock	ASN2L10N	ASN21L10N	2	_		_	ASN22L10N
Explosion Proof	2-position	1NO-1NC	①	NO		•		ASN2L11N	ASN21L11N	1	NO	•		ASN22L11N
		(11)	2	NC	•			ASIVZLITIV	ASNZILITIV	2	NC		•	ASIVEZETTIV
Terminal Blocks		2N0 (20)	①	NO NO		•		ASN2L20N	ASN21L20N	0	NO NO	•		ASN22L20N
Relays & Sockets		(20)	② ①	NO NO			$\vdash$			② ①	NO NO	•		
Circuit		2NO-2NC	2	NC	•	Ť				2	NC		•	
Protectors		(22)	3	NO		•		ASN2L22N	ASN21L22N	3	NO	•		ASN22L22N
Power Supplies			4	NC	•					4	NC		•	
LED Illumination			Contact C	onfiguratio	n			Maintained	Spring Return from Right	Sprin	ıg Return fr	om Lef	t	Spring Return Two-way
Controllers			Contact	Block		Operat		1 0 2	1 0 4 2		: 0 بد1	2		1 - 0 - 2
Operator Interfaces		Contact	Mounting			Positio	n							
Sensors			Position	Contact	1	0	2	Ψ	· ·					Ψ
AUTO-ID		2N0	0	NO NO	•	₩	-	ASN3L20N	ASN31L20N		ASN32L20	ON		ASN33L20N
7.0.0		(20) 2NC	② ①	NO NO										
		(02)	2	NO NO				ASN3L02N	ASN31L02N		ASN32L02	2N		ASN33L02N
		(* /	0	NO	•									
Flush Silhouette		2NO-2NC	2	NO			•	ASN3L22N	ASN31L22N		ASN32L22	ONI		ASN33L22N
ø16	45°	(22)	3	NO				ASINSLZZIN	ASNSTLZZN		ASNOZLZZ	21N		ASINSSLZZIN
	3-position		4	NO			<u> </u>							
ø22			①	NO NO	•	₩								
ø30		4NO (40)	3	NO NO	•	+	•	ASN3L40N	ASN31L40N		ASN32L40	)N		ASN33L40N
Miniature		(10)	4	NO NO			•							
Williature			①	NO										
Pilot Lights		4NC	2	NO				ASN3L04N	ASN31L04N		ASN32L04	4N		ASN33L04N
		(04)	3	NO				AUTOLUTIV	AUNUILUMN		HONOZEU			AUNOULUMN
			4	NO NO			<u> </u>							
TMAL		☆	0	NO NO	•	+		☆						
TWN		☆ 3S	2	NO NO			•	ASN3L3SN-243	_		_			_

• Lever: Black

TWND

ARN

CS

- 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.

**Dummy Block** 

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

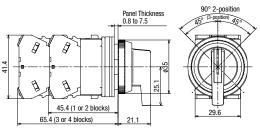
- current value). Rated insulation voltage and rated current remain the same.
- See B-308 for gold contact.
- See B-312 for bottom view.

# **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	( )												ghts
														APEM
		Contact C	onfiguratio	n			Maintained	Spring Return from Right		Spring	Return	from I	_eft	Switches & Pilot Lights
		Contact	Block		Operat Positio		1 2	1 2	Contac	Block		rator	2 جد 1	Control Boxes
	Contact	Mounting Position	Contact	1	2	""			Mounting Position	Contact	1	2		Emergency Stop Switches
	1NO	①	NO		•				1	NO	•			Enabling Switches
90°	(10)	2	_	Dur	nmy E	Block	ASN2K10N	ASN21K10N	2	_	-	_	ASN22K10N	Safety Products
2-position	1NO-1NC	①	NO		•		ASN2K11N	ASN21K11N	1)	NO	•		ASN22K11N	Explosion Proof
·	(11)	2	NC	•			ASNZKITN	ASINZTRITIV	2	NC		•	ASIVEZEKTIN	
	2NO	①	NO		•		ASN2K20N	ASN21K20N	0	NO	•		ASN22K20N	Terminal Blocks
	(20)	② ①	NO NO		•				② ①	NO NO	•			Relays & Sockets
	ONO ONO	2	NO NC	•	•				2	NO NC	•	•	-	Circuit
	2NO-2NC (22)	3	NO NO		•		ASN2K22N	ASN21K22N	3	NO NO	•		ASN22K22N	Protectors
	(/	4	NC	•	Ť				3	NC		•	-	Power Supplies
		Contact C	Configuration	n			Maintained	Spring Return from Right	Sprin	g Return fro	om Lef	t	Spring Return Two-way	LED Illumination
	Cou		Contact Block Operator											Controllers
	Contact	Mounting	Contact	1	Positio 0	on 2	1 0 2	1 0 2		1 0 2			1 0 2	Operator Interfaces
	2N0	Position	NO	•										Sensors
	(20)	2	NO NO			•	ASN3K20N	ASN31K20N		ASN32K20	N		ASN33K20N	AUTO-ID
	2NC	0	NC											i ———
	(02)	2	NC				ASN3K02N	ASN31K02N		ASN32K02	N		ASN33K02N	
		1	NO	•										
	2NO-2NC	2	NO			•	ASN3K22N	ASN31K22N		ASN32K22	N		ASN33K22N	Flush Silhouette
45°	(22)	3	NC	_			AONONEZIN	AONOTICEN		HONOLILL			AONOONEEN	ø16
3-position	-	4	NC											
		① ②	NO NO	•										ø22 
	4NO (40)	3	NO NO	•		•	ASN3K40N	ASN31K40N		ASN32K40	N		ASN33K40N	ø30
	(40)	<u> </u>	NO NO			•								Miniature
		0	NC			Š								Miniature
	4NC	2	NC											Pilot Lights
	(04)	3	NC				ASN3K04N	ASN31K04N		ASN32K04	N		ASN33K04N	
		4	NC											]
	,	①	NO	•										
	☆ 3S	2	NO			•	☆	_		_			_	TWN
		3	NC	_	•		ASN3K3SN-243							TWND
		4	-	Dur	nmy E	Block								l ———

- 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. 24401) 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

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

☆

38

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

1

2

3

4

NO

NO

NC

•

**Dummy Block** 

ASN3K3SN-

243-N024401

- 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.

#### 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

Panel Thickness 0.8 to 7.5

45.4 (1 or 2 blocks) 16.5

65.4 (3 or 4 blocks) 39

Terminal Screws: M3.5

29.6 ]

Terminal cover: integrated

All dimensions in mm. 90° 2-position

TWND

ARN

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

Package Quantity: 1

:	Shape	Illuminate ASLN	ed Selector	r Switche:	s (BA	9S E	Base	9)									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		erat sitio		Rated Voltage	4 0	1 2	Contact	Block		rator ition		Color Code	Control Boxes
		Contact	Mounting Position	Contact	-	2	JII	Voltage	1 2		Mounting Position	Contact	1	2	1, 2	Code	Emergency Stop Switches
	<u>io</u>	1110 1110	1	NO		•		24V AC/DC	ASLN22211DN*	ASLN212211DN*	1	NO	•		ASLN222211DN*		Enabling Switches
	2-position	1NO-1NC (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
ı	6	2NO (20)	2	NO		•	]	100/110V AC	ASLN21620DN*	ASLN211620DN*	2	NO	•		ASLN221620DN*	Υ	
		(20)				_		200/220V AC	ASLN22620DN*	ASLN212620DN*		NO.			ASLN222620DN*	A S	Terminal Blocks
		2NO-2NC	① ②	NO NC		•	+	24V AC/DC 100/110V AC	ASLN22222DN* ASLN21622DN*	ASLN212222DN* ASLN211622DN*	① ②	NO NC	•	•	ASLN222222DN* ASLN221622DN*	PW	Relays & Sockets
		(22)	3	NO		•	1	200/220V AC	ASLN22622DN*	ASLN212622DN*	3	NO	•		ASLN222622DN*		Circuit
L			4	NC	•		<u> </u>	_		_	4	NC		•	_		Protectors
			Contact C	onfigurati	ion				Maintained	Spring Return from Right	Spring	Return fr	rom Le	eft	Spring Return Two-Way		Power Supplies
			Contac	t Block		erat sitio		Rated Voltage	1 0 2	1 0 2		1 0	2		1, 0, 2	Color Code	LED Illumination
		Contact	Mounting Position	Contact	-	0	2	Voltage	\\	1 0 2		1 0	_			Code	Controllers Operator
		2N0	1	NO	•			24V AC/DC	ASLN32220DN*	ASLN312220DN*	ASL	N322220	DN*		ASLN332220DN*		Interfaces
		(20)	2	NO			•		ASLN31620DN*	ASLN311620DN*		N321620			ASLN331620DN*		Sensors
		, ,	•	NC		_		200/220V AC 24V AC/DC	ASLN32620DN*	ASLN312620DN*		.N322620 .N322202			ASLN332620DN*		AUTO-ID
	=	2NC	① ②	NC		5		100/110V AC	ASLN32202DN* ASLN31602DN*	ASLN312202DN* ASLN311602DN*		.N322202 .N321602			ASLN332202DN* ASLN331602DN*		AUTU-ID
ı	sitic	(02)	•	110				200/220V AC	ASLN32602DN*	ASLN312602DN*		N322602			ASLN332602DN*		
ı	45° 3-position		①	NO	•			24V AC/DC	ASLN32222DN*	ASLN312222DN*		N322222			ASLN332222DN*	R	
İ	2° 3	2NO-2NC	2	NO			•	100/110V AC	ASLN31622DN*	ASLN311622DN*	1	N321622			ASLN331622DN*	G	
ı	4	(22)	3	NC				200/220V AC	ASLN32622DN*	ASLN312622DN*	ASL	N322622	2DN*		ASLN332622DN*	Υ	Flush Silhouette
ı			4	NC				_		_					_	Α	ø16
			①	NO	•		<u> </u>	24V AC/DC	ASLN32240DN*	ASLN312240DN*		N322240			ASLN332240DN*	S PW	
		4NO	2	NO NO				100/110V AC	ASLN31640DN*	ASLN311640DN*		N321640			ASLN331640DN*	PW	ø22
		(40)	③ ④	NO NO	•		•	200/220V AC	ASLN32640DN*	ASLN312640DN*	ASL	.N322640	אעונ <u>י</u>		ASLN332640DN*		ø30
			①	NC	+	•	5	24V AC/DC	ASLN32204DN*	ASLN312204DN*	ASI	N322204	1DN*		ASLN332204DN*		
		4NC	2	NC		Đ	Г	100/110V AC	ASLN31604DN*	ASLN311604DN*		N321604			ASLN331604DN*		Miniature
		(04)	3	NC				200/220V AC	ASLN32604DN*	ASLN312604DN*	ASL	N322604	4DN*		ASLN332604DN*		Pilot Lights
			4	NC					_	_					_		

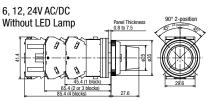
- Specify a color code in place of \* in Part No.
- R (red), G (green), Y (yellow), A (amber), S (blue), PW (pure white) • Illuminated selector switches have an LED lamp installed.
- Round bezel (metal): chrome-plated
- See B-309 for other operating voltage such as 6V AC/DC, 12V AC/DC, and 110V DC.
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

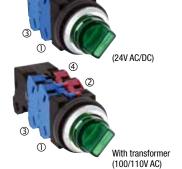
**Contact Block Mounting Position** 

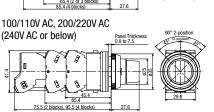
- See B-309 for how to specify units without LED lamps. When using a commercially available lamp, choose a lamp with rated voltage 5 to 30V AC/DC and 1W maximum, and with the same base and shape. Make sure of correct operation before installation. The  $\,$ operation of illuminated pushbutton switches 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.

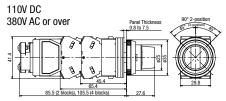
All dimensions in mm.

# **Dimensions**









Terminal Screws: M3.5

Terminal cover: integrated

TWND

ARN

Control Boxes Emergency Enabling Switches Safety Products

Terminal Blocks

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

> Sensors AUTO-ID

Flush Silhouette

ø16 ø22

Miniature Pilot Lights

> TWND ARN CS

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

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

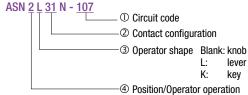
						01	perator 0	peration	and Circ	uit			
		Contact Block			Maintain	ed , 2	Sp fi	ring Ret rom Rigl	urn ht 2	Spring Return from Left			
		Blo	ck		$\searrow$			$\sim$			$\underline{\hspace{1cm}}$		
Contact Configuration	Circuit Code			Knob Lever	Key	Illumi- nated	Knob Lever	Key	Illumi- nated	Knob Lever	Key	Illumi- nated	
				0pe	rator Po	sition	Ореі	rator Pos	sition	Oper	ator Po	sition	
		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			•			•	•			
31	107	3	NO			•			•	•			
		4	NO			•			•	•			
		①	NO			•			•	•			
40	Not required		2	NO			•			•	•		
"		3	NO			•			•	•			
		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)

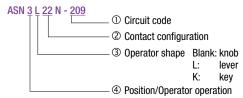
											perato	r Opera	ation an	d Circu	iit				Ę.
Contact	Circuit Code	Cont Blo		Оре	rator Pos	sition	N 1	Maintaine			ing Retom Rig	ht	f	ring Re rom Le	ft	T	ing Reworks	y	t Lights
Configuration		Mounting Position	Contact	1	0	2	Knob/ Lever	Key	Illumi- nated	Knob/ Lever	Key	Illumi- nated	Knob/ Lever	Key	Illumi- nated	Knob/ Lever	Key	Illumi- nated	APEM Switches & Pilot Lights
	202	1)	NO	•		Ť					,			√			,		Control Boxes
	202	2	NC					ν ——			√			ν			√		Emergency
11	203	0	NC					√			√			√			√		Stop Switches Enabling
		2	NO NC			•					•						•		Switches
	303	① ②	NC NO		•	•	1	$\sqrt{}$			$\sqrt{}$			√			$\sqrt{}$		Safety Products
	Not	1	NO NO	•															Explosion Proof
20	required	2	NO	_		•		√			$\sqrt{}$			√			√		Explosion Proof
00	Not	0	NC								,						,		Terminal Blocks
02	required	2	NC					-√			V			√			V		Relays & Sockets
		0	NO	•															Circuit
	Not required	2	NO NC		_	•		√			$\sqrt{}$			√			$\sqrt{}$		Protectors
	requireu	<u>3</u> <u>4</u>	NC NC		_														Power Supplies
		1	NO NO	•															LED Illumination
	000	2	NC					,			,								
2	209	3	NC					V			√		_				_		Controllers
		4	NO			•													Operator Interfaces
		0	NC				-										Sensors		
22	210	3	NO NC			_					$\sqrt{}$						$\sqrt{}$		
		<u> </u>	NO NO																AUTO-ID
		0	NC		•										-				
	24.0	2	NO			•		,											
	310	3	NC		•			√			_			_			_		Flush Cilhauatta
		4	NO			•													Flush Silhouette
		0	NO	•		•													ø16
	311	2	NO NO			•		√			√			√			√		ø22
		<u>3</u>	NC NC		-			•			-			•			•		
		1	NO NO	-															ø30
	Not	2	NO			•	1												Miniature
40	required	3	NO	•				√			√			√			√		Dilat Liebta
		4	NO			•													Pilot Lights
		①	NC																
04	Not	2	NC				-	√			<b>V</b>			√	/ √				
•	required	3	NC				-	٧			٧			٧			٧		TWN
		4	NC NO											-					
	☆	① ②	NO NO	•		•													TWND
3S	243	3	NC		•		- √	/	-		_		_			_		ARN	
		4		Du	ımmy Blo	ock													CS
Selector switch	hoo with ⊀ ho	-	toot opera					t volue	) Dotod	Lingulat	ion vol	togo on	d rotod	OURTON	t romaiı	the ee	ma		UJ

<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





<sup>3: 3-</sup>position, maintained

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

<sup>31: 3-</sup>position, spring return from right

<sup>32: 3-</sup>position, spring return from left

<sup>33: 3-</sup>position, spring return two-way

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		tact ock	Left		Position	Right	Button Color Code	Ring Operator
			Mounting Position	Contact	Normal	Push!	outton Normal	Push	oodo	Part No. (Ordering No.)
Ring Operator (90°2-position)		A03	①	NO		•		•		ASBN211N-A03*
ASBN2		7.00	2	NC	•					AODILLI III AOO
	11	☆	1	NC	•				В	☆
	(1NO-1NC)	K04	2	EM		•			G	ASBN211N-K04*
		G03	①	NO		•		Blocked	R Y	ASBN211N-G03*
			2	NC	•		•			
	20 (2NO)	D01	①	NO NO		•				ASBN220N-D01*
	(ZNU)		2	NO NO		_		•		
1			①	NO NC	•	•		•		
		A08	3	NO NO	•	•		•		ASBN222N-A08*
			<u> </u>	NC	•					
			①	NO NO		•		•		
			2	NO NO						
		☆ C10	3	NC	•					☆ ASBN222N-C10*
			4	NC						AODITEEN OTO
			0	NO		_				
			2	NO				•		
		D10	3	NC	•					ASBN222N-D10*
			4	NC			•			
			①	NO		•			В	
	22	☆	2	NO				•	G	☆
	(2NO-2NC)	E10	3	NC					R	ASBN222N-E10*
			4	NC					Υ	
			①	NO				•		
		☆	2	NO		•				☆
		F10	3	NC			•			ASBN222N-F10*
			4)	NC	•					
			1	NO NO		•				
		G10	2	NO		•		Blocked		ASBN222N-G10*
		"10	3	NC	•		•			NODITELLIT GIV
			4	NC	•		•			
			①	NC	•					
		☆	2	NC	•					☆
		K15	3	EM		•				ASBN222N-K15*
1		1	(4)	l EM	1					

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)

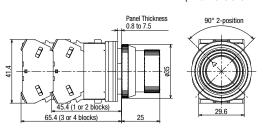
- Bezel (metal): Chrome-plated
- Circuit code G: The pushbutton does not operate when the ring operator is turned to the right position.
- Circuit codes E and F: The right and left NC contact blocks on circuit code E or F may overlap each other while turning the ring operator. The NO and NC contact blocks 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)

Package Quantity: 1

						1 0	ckage quantity: i
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*	
AFNI			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	LOID O	
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.

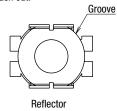
Туре	Terminal Cover	Quantity
6V, 12V, 24V AC/DC	APN-PVL	1
100V/110V AC, 200/220V AC	N-VL3	1
110V DC	N-VL3	1

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

• See B-314 for bottom view.

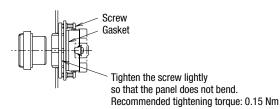
#### Reflector

- 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

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

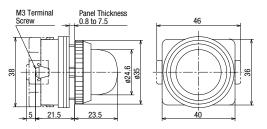
Sensors AUTO-ID

# **Dimensions (Pilot Light)**

All dimensions in mr

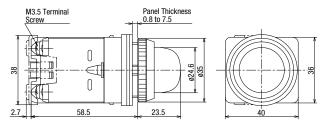
#### Round APN1

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



Terminal screws: M3

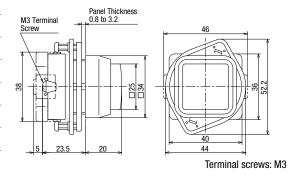
100 to 480V AC, 110V DC (Terminal Cover: N-VL3)



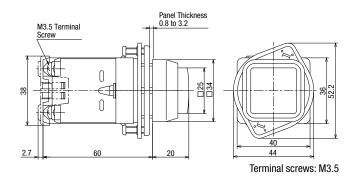
Terminal screws: M3.5

# 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)



Flush Silhouette

ø16

ø22

Miniature Pilot Lights

TWND

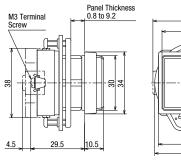
ARN

CS

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

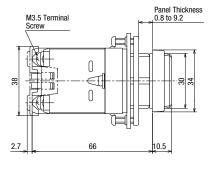
Rectangular (Marking)

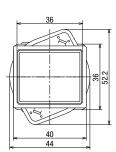
UPQN4



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

Shape							Package Quantity: 1	ı = _
Filesh   ARD   1 NO		Operation	Contact	Part No. (Ordering No.)	Button Color Code	Dimensions	(All dimensions in mm.)	ights
Momentary   Mome				ABD110N*				
Momentary   Mome			1NC	ABD101N*				
ABD120N	AODI	Momentary	1NO-1NC	ABD111N*				APEM
200   200		Momoritary			S	Par 	to 7.5 ø39	Switches &
Maintained								
Maintained   1NO-1NC						4 4 4	s 1	Control Boxes
Mointained   1NO-1NC   ADD111N-   R								
Maintained   2NO				+		45.4 (1 or 2 blocks)	29.4	_ ·
Safety Products   Safety Pro		Maintained				- 05.4 (5 01 4 blocks) - 9 -	<del>- 40 -</del>	
Extended with Half Shroud AB0220N+ AB								Safety Products
Thick								l
ADD2 ADD22NN	Extended							Explosion Proof
No - 1								Terminal Blocks
ABD220N	AOD2		1NO-1NC	ABD211N*				Dalaya & Castrata
2NC   ABD202N   W		Momentary	2N0	ABD220N*	Y	Par	el Thickness	
No			2NC	ABD202N*			107.5	
1NO			2NO-2NC	ABD222N*	VV			Power Supplies
Maintained   Maintained   1NO-1NC   A0D211N=   R   2NO   A0D220N=   2NO   A0D220N=   2NO   A0D220N=   2NO   A0D220N=   2NO   A0D220N=   2NO   ADD220N=   2NO				A0D210N*	B	4 a a	42 68	
Maintained   1NO-1NC   AOD220N-   2NO   AOD220N-   2NO-2NC   AOD220N-   2NO-2NC   AOD220N-   2NO-2NC   ABGD21N-   2NO   ABGD220N-   2NO-2NC   ABGD220N-   2NO-2NC   ABGD220N-   2NO-2NC   ABGD220N-   2NO   AOGD220N-   2NO   AOGD						45.4 (1 or 2 blocks)	294	LED Illumination
Extended with Half Shroud   AGD22N+   NO   AGD22N		Maintained					40	Controllers
Extended with Half Shroud ABGD2   1NC								Operator
Extended with Half Shroud ABGD210N=								
ABGD2 AGGD2    Momentary	Extended with Half Shroud							Sensors
A0GD2  Momentary    No-1NC   ABGD211N*   R   Y   S   W				+				AUTO-ID
Momentary   2NO   ABGD22ON*   2NC   ABGD22DN*   2NO-2NC   ABGD22DN*   2NO-2NC   ABGD22DN*   2NO   AOGD21N*   2NO   AOGD21N*   2NO   AOGD22ON*   2NO   AOGD22ON*   2NO-2NC   AOGD22ON*   2NO-2NC   AOGD22ON*   2NO-2NC   AOGD22ON*   2NO   AOFD21N*   AOFD21N*   2NO   ABFD21N*   2NO   ABFD21N*   2NO   ABFD21N*   2NO   ABFD22ON*   2NO   ABFD22ON*   2NO   ABFD22ON*   2NO   ABFD22ON*   2NO   ABFD22ON*   2NO   AOFD22ON*   2NO   AOF	AOGD2			+	R			7.0.0.0
2NC   ABGD202N*   NO   2NO-2NC   ABGD222N*   NO   AGD210N*   1NO   AOGD21N*   2NO   AOGD22N*   NO   AOGD22N*		Momentary					Panel	Thickness
No						0.8 to	3.5 ø39	
NO					W			Flush Silhouette
Maintained				AOGD210N*		1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4		g16
Maintained   1NO-1NC   AOGD211N*   2NO   AOGD220N*   2NO-2NC   AOGD222N*   2NO-2NC   AOGD222N*   2NO-2NC   AOGD222N*   2NO-2NC   ABFD21N*   2NO   ABFD220N*   2NO-2NC   ABFD220N*   2NO-2NC   ABFD220N*   2NO-2NC   ABFD220N*   2NO-2NC   ABFD22N*   2NO-2NC   AOGD22N*   2NO-2NC   AOGD			1NC	AOGD201N*				J
2NO		Maintained	1NO-1NC	AOGD211N*	R	40.9 (1 or 2 blocks) 18.5 60.9 (3 or 4 blocks) 20.5	29.4	ø22
2NC   A0GD202N*   2NO-2NC   A0GD222N*		wamameu		AOGD220N*		, i		ø30
Extended with Full Shroud  ABFD2  AOFD2  Momentary    1NO								
ABFD2 AOFD2  Momentary    Momentary	F.44.4							Miniature ————————————————————————————————————
AOFD2  Momentary    Momentary   1NC   ABFD201N*   1NO-1NC   ABFD221N*   2NO   ABFD220N*   2NC   ABFD220N*   2NO-2NC   ABFD222N*   1NO   AOFD210N*   1NC   AOFD21N*   1NO-1NC   AOFD21N*   2NO   AOFD220N*   2NO   AOFD220N*   2NO   AOFD220N*   2NO   AOFD220N*   2NO   AOFD220N*   3NO		ļ	-	В			Pilot Lights	
Momentary   2NO   ABFD220N*   Y   S   W	AOFD2				G			
2NC   ABFD202N*   S   W   2NO-2NC   ABFD222N*   1NO   AOFD210N*   1NC   AOFD201N*   1NO-1NC   AOFD211N*   2NO   AOFD220N*   2NC   AOFD202N*   S   W   AFD202N*   S		Momentary				_	and Thinkness	
Maintained   2NO   ADF   D220   N						Par 		
1NO   AOFD210N*   1NC   AOFD201N*   1NO-1NC   AOFD211N*   2NO   AOFD220N*   2NC   AOFD202N*   NW   AOFD202N*   AO								TWN
Maintained    No.				+		4	- 1 4 8 8 4 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	TWND
Maintained 1N0-1NC A0FD211N* R								
Maintained   2NO   A0FD220N*   Y   S   W     CS     CS     CS     CS     CS   C				1		45.4 (1 or 2 blocks) 14		ARN
2NC A0FD202N* S W		Maintained			Υ	<u> </u>	<del>**</del> <del>  ***  </del>	cs
2NO-2NC AOFD222N*								
			2NO-2NC	AOFD222N*	VV			

- 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
- 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.

Circuit Protectors Power Supplies LED Illumination Controllers Operator

> Sensors AUTO-ID

Flush Silhouette

ø16 ø22

Miniature Pilot Lights

TWN

ARN CS

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

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

			,	ν		Package Quantity:
Shape	Operation	Contact	Part No. (Ordering No.)	Button Color Code	Dimensions	(All dimensions in mm.)
Mushroom		1NO	ABD310N*	В		
ABD3 AOD3		1NC 1NO-1NC	ABD301N* ABD311N*	. G R		
	Momentary	2N0	ABD320N*	Y	Panel Thickness 0.8	to 7.5 29.4
		2NC	ABD302N*	S		
		2NO-2NC	ABD322N*	W	4 4 4	
		1NO	AOD310N*	В		
		1NC 1NO-1NC	A0D301N* A0D311N*	. G R	45.4 (1 or 2 blocks)	40
	Maintained	2NO	AOD320N*	Y	65.4 (3 or 4 blocks) 22	40
		2NC	AOD302N*	S		
		2NO-2NC	AOD322N*	W		
Mushroom with Full Shroud ABGD3		1NO	ABGD310N*	В		
AOGD3		1NC 1NO-1NC	ABGD301N* ABGD311N*	. G R	Panel Thickness 0.8 t	to 6.5
	Momentary	2N0	ABGD320N*	Ϋ́		
		2NC	ABGD302N*	S	4.14	
		2NO-2NC	ABGD322N*	W		
		1NO 1NC	AOGD310N*	В	43.9 (1 or 2 blocks) 63.9 (3 or 4 blocks) 23.5	
		1NO-1NC	AOGD301N* AOGD311N*	G R	00.5 (0 01 4 biotro) 1 20.0 1	<del> - 10  - </del>
	Maintained	2N0	AOGD320N*	Ϋ́		
		2NC	AOGD302N*	S		
Jumbo Mushroom		2NO-2NC	AOGD322N*	W		29.4
ABD4		1NO	ABD410N*	_	Panel Thickness 0.8 to 7.5	
		1NC	ABD401N*	В		
	Momentary	1NO-1NC	ABD411N*	G	41.4	
	Womentary	2N0	ABD420N*	R Y		
		2NC	ABD402N*	ĭ	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*			
Abdb4				В		
	Momentary	1NO-1NC	ABGD411N*	G	41.4	<del>{(</del>
		2N0	ABGD420N*	R Y		
		2NC	ABGD402N*			
		2NO-2NC	ABGD422N*		45.4 (1 or 2 blocks) 65.4 (3 or 4 blocks) 29	40
Jumbo Mushroom with		1NO	ABFD410N*		Panel Thickness 0.8 to 7.5	29.4
Deep Shroud ABFD4		1NC		1		
ADFD4			ABFD401N*	В		
	Momentary	1NO-1NC	ABFD411N*	G	972	- <del>((                 ))</del>
	,,	2N0	ABFD420N*	R Y		
		2NC	ABFD402N*	·		
		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	_	29.4
		2N0	ABD8P20N*	R Y	Panel Thickness 0.8 to 7.5	
	Progg www.9	2NC	ABD8P02N*	· '		
Pin Lock (On-lock Type) (*1)		2NO-2NC 1NO	ABD8P22N* ABD8PN10N*		41.14	
ABD8PN		1NC	ABD8PN01N*	, p		
A S		1NO-1NC	ABD8PN11N*	- B G	P#1	
		2N0	ABD8PN20N*	R	45.4 (1 or 2 blocks) 65.4 (3 or 4 blocks) 27.5	
		2NC	ABD8PN02N*	Υ		*
		2NO-2NC	ABD8PN22N*			
Chaoify a color gode in place of * in	D+ N- D /	I.) O ( D	/IV	Caa D 207 fau	other contact configurations and gold	minted allies assets

- 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*				
7400	1NC	AVD301N*		Panel Thi	ickness 0.8 to 7.5	
	1NO-1NC	AVD311N*	R			APEM
	2N0	AVD320N*	Υ	4		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*		65.4 (3 01 4 DIOCKS) 34 25.0	d le 40 sl	Emergency Stop Switches
Mushroom Push Turn Lock AJD3	1NO	AJD310N*				Enabling Switches
7650	1NC	AJD301N*		Panel Thi	ckness 0.8 to 7.5	Safety Products
	1NO-1NC	AJD311N*	B G			Explosion Proof
	2N0	AJD320N*	R	4 4 4		l —
	2NC	AJD302N*		45.4 (1 or 2 blocks) 65.4 (3 or 4 blocks) 23.6	29.4	Terminal Blocks
	2NO-2NC	AJD322N*		65.4 (3 01 4 DIOCKS) 23.6	40 40	Relays & Sockets
Mushroom Pull AZD3	1NO	AZD310N*				Circuit Protectors
	1NO-1NC	AZD311N*	В	Panel Thi	ickness 0.8 to 7.5	Power Supplies  LED Illumination
	2N0	AZD320N*	_ G R Y	4	9	Controllers
	2NC	AZD302N*		45.4 25.1	5.5 stroke 29.4 40	Operator Interfaces
Mushroom Push-Pull (*2)						Sensors
AYD31	1NO-1NC	AYD3111N*		-1 to Panel Thic	ckness 0.8 to 7.5	AUTO-ID
	2N0	AYD3120N*	B G R	8	040	
			- Y	5.5 stroke	29.4	Flush Silhouette
	2NC	AYD3102N*		5.5 stroke 45.4 30.7	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

Contact	AZD3										
Contact	Normal	Pull									
1NO	<del>о'</del> о	9.									
2NO-2NC	ტ •_•	<u></u> 0 0 •1•									
2N0	9,0 9,0	1° 1° 1°									
2NC	•	•1• •1•									

Push-Pull contact operation

Contact	AYI	031
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 Quantity. 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					1NO-1NC	ALD21611DN*	G
Switches &			Momentary	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)	BA9S			2NC	ALD22602DN*	
Enabling Switches	(24770/20)	BA95			1NO-1NC	AOLD22211DN*	
Safety Products				24V AC/DC	2N0	AOLD22220DN*	
Salety Products					2NC	A0LD22202DN*	R
Explosion Proof					1NO-1NC	AOLD21611DN*	G Y
			Maintained	100/110V AC	2N0	A0LD21620DN*	A Y
Terminal Blocks					2NC	A0LD21602DN*	S
Relays & Sockets					1NO-1NC	AOLD22611DN*	PW
Circuit	With transformer			200/220V AC	2N0	AOLD22620DN*	
Protectors	(100/110V AC)				2NC	A0LD22602DN*	
Power Supplies	Extended with Full Shroud				1NO-1NC	ALFD22211DN*	
	ALFD2			24V AC/DC	2N0	ALFD22220DN*	
LED Illumination	AOLFD2				2NC	ALFD22202DN*	R
Controllers					1NO-1NC	ALFD21611DN*	G Y
			Momentary	100/110V AC	2N0	ALFD21620DN*	— Y A
Operator Interfaces					2NC	ALFD21602DN*	\$
					1NO-1NC	ALFD22611DN*	PW
Sensors				200/220V AC	2N0	ALFD22620DN*	
AUTO-ID	(24V AC/DC)	BA9S			2NC	ALFD22602DN*	
	(2 11 116/2 5)	DASS			1NO-1NC	AOLFD22211DN*	
				24V AC/DC	2N0	AOLFD22220DN*	
					2NC	AOLFD22202DN*	R
Flush Silhouette					1NO-1NC	AOLFD21611DN*	G
i iusii siiiibuelle			Maintained	100/110V AC	2N0	AOLFD21620DN*	— Y А
ø16					2NC	AOLFD21602DN*	S
					1NO-1NC	AOLFD22611DN*	PW
ø22	With transformer			200/220V AC	2N0	AOLFD22620DN*	
ø30	(100/110V AC)				2NC	AOLFD22602DN*	
	• Specify a color code in place of * in Part No. B (red)	C (groop) V	(vollow) A (ambor)	• Coo D 200 for	r how to enocify un	its without LED lamns. When usi	na a commorcially

- 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.

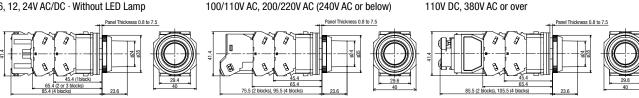
**Dimensions** 

### 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)



#### 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*	
				1NO-1NC	ALD31611DN*	R G Y
		Momentary	100/110V AC	2N0	ALD31620DN*	Ý
				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	A0LD32220DN*	
				2NC	A0LD32202DN*	R
				1NO-1NC	A0LD31611DN*	R G Y A W
		Maintained	100/110V AC	2N0	A0LD31620DN*	Y A
				2NC	A0LD31602DN*	w
				1NO-1NC	A0LD32611DN*	S
With transformer			200/220V AC	2N0	AOLD32620DN*	
(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*	
				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)

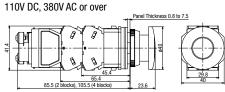
#### Integrated terminal cover

6, 12, 24V AC/DC · Without LED Lamp



100/110V AC, 200/220V AC





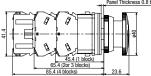
#### Mushroom Pushlock Turn Reset, LED illuminated

AVLD (terminal screws M3.5)

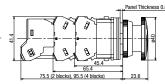
Integrated terminal cover

100/110V AC, 200/220V AC

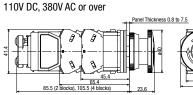
6, 12, 24V AC/DC · Without LED Lamp











**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

•

•

•

•

**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

ø22

45°

3-position

Miniature

Pilot Lights

TWN

ARN CS

- 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
- See B-321 to B-322 for other contact configurations.

- . Turn the operator to each position accurately.
- Selector switches with \$\alpha\$ 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**



All dimensions in mm. **Dimensions** 90° 2-position Panel Thickness 45.4 (1 or 2 blocks)

> 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	Configurati	ion			Maintained	Spring Return from Right		Sprir	m Left		
	Contact	Contact	Block		perato Position		1 2	1 2	Contact	Contact Block Operator Position  Mounting Position Contact 1 2		1, 2	
	Contact	Mounting Position	Contact	1	2							2	
	1NO	0	NO				ASD2L10N	ASD21L10N	1	NO	•		ASD22L10N
90°	(10)	2	_	Dur	nmy Bl	ock	AUDZETUN	AUDZILIUN	2	_	_		AODEELION
2-position	1NO-1NC	0	NO		•		ASD2L11N	ASD21L11N	1	NO	•		ASD22L11N
	(11)	2	NC	•			AUDZETTI	, ODE LETTIN	2	NC		•	710DEEE1111
	2N0	0	NO		•		ASD2L20N	ASD21L20N	①	NO	•		ASD22L20N
	(20)	2	NO		•				2	NO	•		
		0	NO NO	_	•				①	NO	•	_	
	2NO-2NC	2	NC	•			ASD2L22N	ASD21L22N	2	NC		•	ASD22L22N
	(22) <u>③</u> ④ Contact		NO NO	_	•				3	NO	•	_	
		4	NC	•	Щ			0 . 5 .	4	NC	_	•	
		Contact Configuration			Maintained	Spring Return from Right	Spring	g Return fr	om Le	eft	Spring Return Two-way		
	Contact	Contact Block		ct Block Operator Position			1 0 2	1 0 2		1, 0		1,0,2	
	Contact	Mounting Position	Contact							$\bigvee$			
	2N0	0	NO	•			ASD3L20N	ASD31L20N		ASD32L20	DN		ASD33L20N
	(20)	2	NO			•	HODOLEUM	AODOTEZON			-11		AODOULZUN
	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							J <b></b>			
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	•			$\stackrel{\wedge}{\Rightarrow}$						
	☆ 3S	2	NO NC			•	ASD3L3SN-243	_		_			_
	J 35	3	NC	P	_ <b>_</b>	la al :							
		4	_	Dur	nmy Bl	ock							

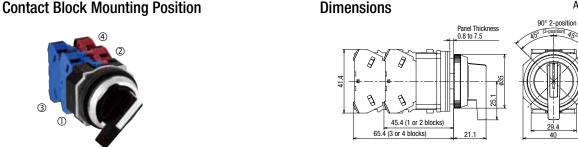
- Lever: Black

- 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 ARN

CS

Flush Silhouette

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
1	Shape	Key Selecto ASD□K	or (Key No.	0)										
_														
S S														
S			Contact (	Configurat	ion			Maintained	Spring Return from Right		Spri	ing Ret	urn fro	m Left
y s g		Contact	Contact	Block	0 F	perato Positio	or n	1 2	1 - 2	Contact	Block		rator ition	1,, 2
		Contact	Mounting Position	Contact	1	2				Mounting Position	Contact	1	2	
S		1NO	0	NO		•		ACDOMAGN	ACDO41/40N	①	NO	•		ACDOOK40N
- f	90°	(10)	2	_	Dun	nmy B	lock	ASD2K10N	ASD21K10N	2	_	_	_	ASD22K10N
_   s	2-position	1NO-1NC	0	NO		•		ACDOVIAN	ACDOLIVIAN	0	NO	•		ACDOOKIAN
S		(11)	2	NC	•			ASD2K11N	ASD21K11N	2	NC		•	ASD22K11N
s		2N0	①	NO		•		ASD2K20N	ASD21K20N	①	NO	•		VCDGGKGON
_ t		(20)	2	NO		•		ASDZKZUN	ASDZTKZUN	2	NO	•		ASD22K20N
S			①	NO		•				①	NO	•		
s		2NO-2NC	2	NC	•			ASD2K22N	ASD21K22N	2	NC		•	ASD22K22N
-		(22)	3	NO		•		ASDZKZZN	ASDZTRZZN	3	NO	•		ASDZZKZZN
n _			4	NC	•					4	NC		•	
s — r			Contact (	Configurat	tion			Maintained	Spring Return from Right	Spring	g Return f	rom Le	eft	Spring Return Two-way
r S —			Contact	Block	0per	ator Po	sition	1 0 2	1 0 - 2		1, 0	2		1 , 0 , 2
_ S		Contact	Mounting Position	Contact	1	2					$\bigvee$	,		
)		2N0	①	NO	•			VCD3N30N	ACD21V20N		vensaka	ON		VCDSSASVI
-		(20)	2	NO			•	ASD3K20N	ASD31K20N		ASD32K2	UIN		ASD33K20N
		2NC	①	NC				ASD3K02N	ASD31K02N		ASD32K0	2N		ASD33K02N
_		(02)	2	NC				AODOROZN	ASDSTRUZIV	,	AJDJZRU	ZIV		AODOOROZN
е			1	NO	•									
— 6		2NO-2NC	2	NO			•	ASD3K22N	ASD31K22N		ASD32K2	2N		ASD33K22N
_	450	(22)	3	NC				7105011211	7.0207.22.1					71020011211
2	45° 3-position		4	NC						-				
)	ο μοσιτίστι		0	NO	•									
		4NO	2	NO			•	ASD3K40N	ASD31K40N		ASD32K4	ON		ASD33K40N
е		(40)	3	NO	•		_							
_			4	NO			•							
_			0	NC	_									
		4NC	2	NC				ASD3K04N	ASD31K04N		ASD32K0	4N		ASD33K04N
		(04)	3	NC							52.10			
_			4	NC										
`			①	NO	•									
)		☆ 3S	2	NO		-	•	☆ ASD3K3SN-243	_		_			_
<u> </u>		3S	3	NC		•								
u			4	—	Dun	nmy B	lock							

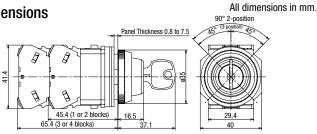
- · Cylinder: Chrome-plated
- · Round bezel (metal): Chrome-plated
- Key selector switches with 1 or 3 contact blocks have a dummy block.
- On spring-returned types, the key can be released only from the maintained position. On maintained types, the key can be released from every position. See  $\hbox{\ensuremath{B}-308}$  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**





Terminal Screws: M3.5

Terminal cover: integrated

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

## **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		
				_	)pera	tor		Mamameu	Spring Neturn Irom Night		<u> </u>	_	rator	]	Calar	
	Contact	Contac	t Block		Positi		Operating Voltage	1 2	1 • 2	Contact	Block		ition	1 2	Color Code	
	Oontact	Mounting Position	Contact	1	2					Mounting Position	Contact	1	2		Jour	
		①	NO		•		24V AC/DC	ASLD22211DN*	ASLD212211DN*	0	NO	•		ASLD222211DN*		
	1NO-1NC (11)	2	NC	•			100/110V AC	ASLD21611DN*	ASLD211611DN*	2	NC		•	ASLD221611DN*	]	
90°	(11)					_	200/220V AC	ASLD22611DN*	ASLD212611DN*		•			ASLD222611DN*		
2-position		1	NO		•		24V AC/DC	ASLD22220DN*	ASLD212220DN*	①	NO	•		ASLD222220DN*	RG	
	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	•		ASLD222222DN*	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	Configura	tion				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 1	2		1,0,2	Color Code	
	Contact	Mounting Position	Contact	1	0	2	voitage				$\bigvee$				Oodo	
		①	NO	•			24V AC/DC	ASLD32220DN*	ASLD312220DN*	ASL	D322220	DN*		ASLD332220DN*		
	2N0 (20)	2	NO			•	100/110V AC	ASLD31620DN*	ASLD311620DN*	ASL	D321620	DN*		ASLD331620DN*	1	
	(20)						200/220V AC	ASLD32620DN*	ASLD312620DN*	ASL	D322620	DN*		ASLD332620DN*	1	
		①	NC				24V AC/DC	ASLD32202DN*	ASLD312202DN*	ASL	D322202	2DN*		ASLD332202DN*	1	
	2NC (02)	2	NC				100/110V AC	ASLD31602DN*	ASLD311602DN*	ASL	D321602	2DN*		ASLD331602DN*	1	
	(02)						200/220V AC	ASLD32602DN*	ASLD312602DN*	ASL	D322602	2DN*		ASLD332602DN*	]	
45°		①	NO	•			24V AC/DC	ASLD32222DN*	ASLD312222DN*	ASL	D322222	2DN*		ASLD332222DN*		
3-position	2NO-2NC	2	NO			•	100/110V AC	ASLD31622DN*	ASLD311622DN*	ASL	D321622	2DN*		ASLD331622DN*	RG	
	(22)	3	NC				200/220V AC	ASLD32622DN*	ASLD312622DN*	ASL	D322622	2DN*		ASLD332622DN*	Y	
		4	NC				_	_	_		_			_	A	
		①	NO	•			24V AC/DC	ASLD32240DN*	ASLD312240DN*	ASL	D322240	DN*		ASLD332240DN*	S PW	
	4N0	2	NO			•	100/110V AC	ASLD31640DN*	ASLD311640DN*	ASL	D321640	)DN*		ASLD331640DN*	] '"	
	(40)	3	NO	•			200/220V AC	ASLD32640DN*	ASLD312640DN*	ASL	D322640	)DN*		ASLD332640DN*	] <b> </b>	
		4	NO			•	_		_					_	] <b> </b>	
		1	NC				24V AC/DC	ASLD32204DN*	ASLD312204DN*	ASL	D322204	IDN*		ASLD332204DN*	] <b> </b>	
	٠	2	NC				100/110V AC	ASLD31604DN*			ASLD331604DN*					
	4NC	(c)	_				100/1101/10	ASLUS TOU4DIN*	ASLUSTIOU4DN*	ASL	0321004	IDIA.		AULDOU TOUTDIN		
	4NC (04)	3	NC NC			-	200/220V AC	ASLD31604DN* ASLD32604DN*	ASLD311604DN* ASLD312604DN*		D321604			ASLD332604DN*		

- 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 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.

ARN

TWN

Flush Silhouette

ø16 ø22

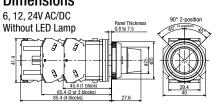
Miniature Pilot Lights

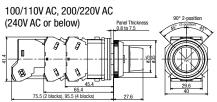
CS

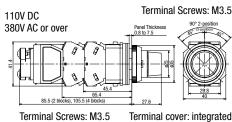
**Contact Block Mounting Position Dimensions** 

(24V AC/DC)









Terminal Screws: M3.5

#### **ASBD2 Selector Pushbuttons**

Package Quantity: 1

Shape	Contact Configuration	Circuit Code	Contact Block		Ring Posit		Position	Right	Button Color Code	Ring Operator	
			Mounting Position	Contact	Normal	Pushl Push	button Normal	Push	oodo	Part No. (Ordering No.)	
Ring Operator (90°2-position) ASBD2	11 (1NO-1NC)	A03	0	NO		•		•	B G	ASBD211N-A03*	
			2	NC	•				R Y		
	22 (2NO-2NC)	A08	①	NO		•		•		ASBD222N-A08*	
			2	NC	•						
			3	NO NC	•	•		•			
			<ul><li>4</li><li>1</li></ul>	NC NO	-	•		•	B G R Y		
		☆ C10	2	NO				•		☆ ASBD222N-C10*	
			3	NC	•						
			4	NC						l	
		D10	①	NO		•				ASBD222N-D10*	
			2	NO				•			
			3	NC	•						
			<b>4</b>	NC NO			•				
		☆ E10	2	NO NO						☆ ASBD222N-E10*	
			3	NC							
			4	NC							
		☆ F10	①	NO				•		<b>\$</b>	
			2	NO		•					
			3	NC			•			ASBD222N-F10*	
			4	NC	•						

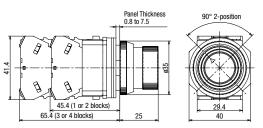
- Specify a color code in place of \* in Part No. B (black), G (green), R (red), Y (yellow)
- Bezel (metal): Chrome-plated
- Circuit codes E and F: The right and left NC contact blocks on circuit code E or F may overlap each other while turning the ring operator. The NO and NC contact blocks on circuit 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 Interfaces Sensors

AUTO-ID

Flush Silhouette

ø16

ø22

Miniature

Pilot Lights

TWN

ARN

Control Boxes

Emergency Stop Switches

**Explosion Proof** 

Terminal Blocks Relays & Sockets Circuit Protectors Power Supplies

LED Illumination Controllers

Operator

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		LED	BA9S	24V AC/DC	APD122DN*	R, G, Y, A, S, PW	LSTD-2*
	<b>(</b>			100/110V AC	APD116DN* R, G, Y, A, S, PW		LCTD Co
	(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

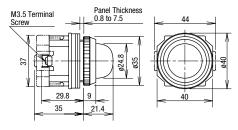
Note: DC-DC converter types are not approved by UL and CSA, and not CE compliant.

• See B-314 for bottom view.

#### **Dimensions**

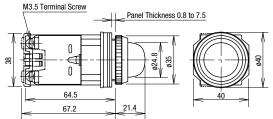
#### Round, LED illuminated

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.

ø16

ø22

Miniature

Pilot Lights

TWN

ARN CS

• See B-349 for wiring.

Control Boxes

Emergency
Stop Switches
Enabling
Switches

Safety Products

Explosion Proof

Terminal Blocks

Relays & Sockets

Circuit
Protectors

## Nameplates

	Model	Legend	Material	Part No.	Ordering No.	Package Quantity	Dimensions (mm)
	NA	Blank		NA-0	NA-0	1	. 401.2
		DIAIIK	Aluminium 1.2 mm thick		NA-0PN10	10	24.5
	$\bigcup$	With	White letters on black background	NA-□	NA-□	1	9 030.5
	For TWN/TWND	Legend			NA-□PN10	10	1 (8000)
- [	NALO	Blank	Aluminium	NALO -	NALO	1	40 1.2
: - :	For TWN/TWND	DIAIIK	Black		NALOPN10	10	930.5
. [	TOT TWIN/TWIND						

Specify a legend code in place of  $\square$  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

Power Supplies

LED Illumination

Controllers

Operator
Interfaces

Sensors

AUTO-ID

ø16

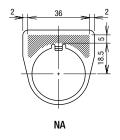
ø22

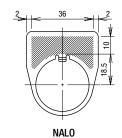
ARN

Miniature

Pilot Lights

Shape and E	ngraving <i>i</i>	\rea





All dimensions in mm.

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

Shape	Engravi (m		Max. No. of Lines	No. of Letters on	
	Height	Width	OI LIIICS	1 Line	
NA	5	36	1	14	
NALO	10	36	2	14	

Accessories

Shape	Material	Part No.	Ordering No.	Package 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  B  B  F  S9  S9  B  B  B  B  B  B  B  B  B  B  B  B  B
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)	0C-99	0C-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 the cable size.
Anti-rotation Ring  For TWN/TWND	Metal (diecast) (zinc-plated)	0GL-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  For TWN/TWND	Nitril rubber (black) Nitril rubber (gray)	0B-13B 0B-13	OB-13BPN05 OB-13PN05	5	Used to plug unused ø30.5 mm mounting holes.     Degree of protection: IP40      ### ### ########################
Plastic Mounting Hole Plug  For TWN/TWND	Plug: ABS plastic (gray) Gasket: Chloroprene rubber Locking ring: diecast zinc	0BP-11	0BP-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	OB-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** 

Relays & Sockets

Circuit Protectors

Power Supplies

LED Illumination

Controllers

Operator

Sensors

AUTO-ID

Flush Silhouette

ø16

ø22

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

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.		
	Nitril rubber Bezel:	Red	0C-11R	0C-11R	1	Button is not included. Applicable 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 flush pushbuttons	EDDM mulhbar	0C-12 <sup>-</sup>	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		
For extended pushbuttons	EPDM rubber	0C-122	2	0C-122	1	subject to oil splash.    Part No.		
Dust-proof Rubber Cover for Jumbo Mushrooms						Used for ABN4G and ABGD4 pushbuttons.     Panel Thickness 1.2 to 5.5		
For TWN/TWND	Nitril rubber (black)	OC-4G	N	OC-4GN	1	080		
Padlock Cover						Used to protect pushbuttons and illuminated pushbuttons (momentary/maintained) with 24 mm max. height from the panel,		
For TWN/TWND	Polyarylate (gasket: nitryl rubber)	OL-KL1	ı	OL-KL1	1	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  • Not used for the following models.  Panel Thickness  0.8 to 3.2  Panel Thickness  Naterproof  Rubber  Rubber  Rubber  Sasket  0.5t  Again asket  0.5t  Aga		
Padlock Cover for Key Selector Switches						Applicable model     Key selector switches ASN□K/ASD□K     See padlock cover catalog for operating instruction.  Material SPCC 32.5 32.5 32.5 32.5 32.5 32.5 32.5 32.5		
EN THAUTHAID	Metal Paint: red (zinc-plated brass)	HS9Z-I	PC30	HS9Z-PC30	1	Rivet. Stainless Steel  Materials Steel  2 mm-thick  3 3 7 27.5 4 RA		
For TWN/TWND For Flush Pushbuttons						Used to protect flush pushbuttons from inadvertent operation.     Con be assitted the locking ring.		
	Metal (zinc-plated brass)	OL-C		OL-C	1	• Can be easily attached using the locking ring.		
For TWN/TWND						'		

Accessories

Shape		Material	Part No.	Ordering No.	Package Quantity	Remarks	t Lights
Metallic Bezel							S
		Metal (diecast zinc: chrome-plated)	0G-11	0G-11PN02	2	Cannot be used with pin lock, selector pushbuttons, and monolever units.	APEM Switches & Pilot Lights Control Boxes
, ,	WN/TWND						Emergency
Plastic Bezel							Stop Switches Enabling
						Specify a color code in place of *.	Switches Safety Products
		Polycarbonate	0GP-11*	0GP-11*PN02	2	B (black), G (green), R (red), W (white), Y (yellow)	Explosion Proof
						<ul> <li>Cannot be used with pin lock, selector pushbuttons, and monolever units.</li> </ul>	Terminal Blocks
ø35/ø26, height 9	For TWN						Relays & Sockets
Octagonal Metal Bezel	①						Circuit Protectors
0	Flush		00.01	0C 01DN00			Protectors  Power Supplies
	W35 (37.6)		0G-81	0G-81PN02	2		LED Illumination
	H9	Metal (diecast zinc:				Use with TWDN series diecast zinc switches and pilot lights.	Controllers
	2	chrome-plated)				Cannot be used with half-shrouds.	Operator Interfaces
©	Extended W35		0G-82	0G-82	1		Sensors
Fau TM/DM	(37.6) H16						AUTO-ID
For TWDN Clear Plastic Shroud for Flush Pushb	outtons						
		Acrylic (clear)	0GP-13	0GP-13PN02	2		Flush Silhouette
		Tionymo (cioany		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	_		ø16 ————————————————————————————————————
ø35, height 14	For TWN						ø22
Clear Plastic Shroud for Extended Pu						Clear plastic full shroud.	ø30
							Miniature
		Acrylic (clear)	0GP-14	0GP-14PN02	2		Pilot Lights
The second of							
ø35, height 20.6	For TWN						TWN
Clear Plastic Shroud for Illuminated Pus							TWND
							ARN
		Acrylic (clear)	0GP-1411	0GP-1411	1	Buttons may protrude slightly depending	CS
		, wi yilo (oldal)	Jul 1411	oui itii	'	on the panel thickness.	
Shroud: ø35, height 20.6 Metal Nut Ring: height 4	For TWN						
Metal Nut Ring for Illuminated Pushb							
		Metal (diecast zinc)	OL-11	OL-11PN05	5	Metal nut ring for OGP-1411 only.	
ø35, height 4	For TWN						

## Accessories

Package Shape Material Part No. Ordering No. Color Code \* Quantity ① Flush ABN1BN-\* ABN1BN-\*PN05 5 **Pushbuttons** ø24.6, height 4 1 B (black), G (green), R (red), ② Extended ABN2BN-\* ABN2BN-\*PN05 5 Y (yellow), S (blue), W (white) 2 ø24.6, height 9 3 Mushroom (3) ABN3BN-\*PN02 ABN3BN-\* Polyacetal ø40, height 16.2 4 B (black), G (green), R (red), ④ Jumbo Mushroom ABN4BN-\* ABN4BN-\* 1 ø65, height 23.2 Y (yellow), S (blue) S Button for Pin Lock B (black), G (green), R (red), (ABD8P) ABW1B-\* 5 (5) ABW1B-\*PN05 Y (yellow), S (blue), W (white) ø23.6, height 3 6 6 ø40 Pushlock Turn Reset AVN3B-\* AVN3B-\* 1 R (red),Y (yellow) (AVN3, AVD3) ø40, height 18.5 7 AS resin ⑦ ø40 B (black), G (green), R (red), Push Turn Lock AJN3B-\* AJN3B-\* 1 (AJN3, AJD3) Y (yellow) For TWN/TWND ø40, height 18.5 ens for Illuminated ALN2L-\* ALN2L-\*PN05 R (red), G (green), S (blue) ① Extended (ALN2, ALD2) 5 Y (yellow), A (amber), W (white) ø24, height 18.5 ALN2LD-\*PN05 AI N2I D-\* Specify W for PW (pure white) illumination. AS resin ② ø40 Pushlock turn reset AVLN3L-R AVLN3L-RPN02 2 R (red) only (AVLN3, AVLD3) ø40, height 18.5 For TWN/TWND Selector Operator ① Knob operator ASNHT-\* ASNHT-\*PN02 ø25, height 20.5 2 B (black), G (green), R (red) 2 2 Lever operator ø25, height 20.5, length Polyacetal ASNHL-\* ASNHL-\*PN02 37.5 3 3 Color insert B (black), G (green), R (red), Width 21, depth 5, TW-HC1\* TW-HC1\*PN05 5 Y (yellow), S (blue), W (white) height 18 4 Knob for illuminated ASLNH-\* ASLNH-\* 1 G (green), R (red), S (blue) selector switch AS resin (ASLN, ASLD) A (amber), W (white), Y (yellow) ASLNHD-\* ASLNHD-\* 1 ø25, height 28 For TWN/TWND Specify W for PW (pure white) illumination. Lens for Pilot Lights ① Round (APN1, APD1) R (red), G (green), Y (yellow) ø24.6, height 28, M20 1 APN106LN-\* APN106LN-\*PN05 5 A (amber), W (white), S (blue) Specify W for PW (pure white) illumination. For TWN/TWND ② Rectangular (UPQN4) R (red), G (green), C (clear), S (blue) Width 36, depth 30, UPQN406L-\* UPQN406L-\*PN05 2 Specify C for PW (pure white) illumination. height 8.5 5 AS resin UPQN406LD-\* UPQN406LD-\*PN05 Y (yellow), A (amber) For TWN (3) 3 Square extended ULQN06L-\* ULQN06L-\*PN05 R (red), G (green), S (blue) (UPQN3B) □25, height 26.5 Y (yellow), A (amber), W (white) UPQN06LD-\* UPQN06LD-\*PN05 Specify W for PW (pure white) illumination. For TWN Marking Plate Rectangular pilot lights (UPQN4) W (white) only UPQN406N-W UPQN406N-WPN05 5 Acrylic Width 29.8, depth 23.8, See B-346 for engraving area. thickness 2 For TWN

	P
APEM	
Switches & Pilot Lights	
Control Boxes	(
Emergency Stop Switches Enabling	(
Switches Safety Products	
Explosion Proof	(
	,
Terminal Blocks	ľ
Relays & Sockets	
Circuit Protectors	(
Power Supplies	
ED Illumination	
Controllers	L
Operator Interfaces	P
Sensors	
AUTO-ID	
Flush Silhouette	S
ø16	
ø22	
ø30	
Miniature	
Pilot Lights	
TWN	
TWND	
	ш

ARN

## Maintenance Parts

						, et
Shape	Material	Part No.	Ordering No.	Package Quantity	Remarks	llot Lights
Rubber Washer (1.5 mm-thick)						S
	Rubber (synthetic soft vinyl)	0W-11	OW-11PN10	10	To tighten mounting panels	
For TWN/TWND	ø39/ø29.5, height 1.5					APEM Switches &
Rubber Washer (3.0 mm-thick)						Pilot Lights
	Rubber (synthetic soft vinyl)	0W-12	0W-12PN10	10	To tighten mounting panels	Control Boxes  Emergency
For TWN/TWND Shroud for Pushbuttons	ø39/ø29.5, height 3					Stop Switches  Enabling Switches
①	① Half shroud	ADMOO	APNOO		With mutuing (cOF beight 4)	Safety Products
	ø35/ø27, height 20.5	ABN2G	ABN2G	1	With nut ring (ø35, height 4)	Explosion Proof
<b>2</b>						Terminal Blocks
	② Full shroud	ABN2F	ABN2F	1		Relays & Sockets
3	ø35/ø28.5, height 16.5	ADIVE	ADIVE	'		Circuit Protectors
	③ Full shroud					Power Supplies
4	(for mushroom	ABN3G	ABN3G	1		LED Illumination
	pushbuttons) ø48, height 20					Controllers
						Operator Interfaces
©	Shallow shroud (for jumbo mushroom)	ABN4G	ABN4G	1		Sensors
	ø75, height 18					AUTO-ID
	© 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) ø35/ø27, height 25	ALN2GL	ALN2GL	1	• With nut ring (ø35, height 4)	ø22
	goorger, noight 20					ø30
	② Full shroud	AL NOTI	ALNOFI	1	a With put ring (a25 height 4)	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 Nickel plated brass	TW CV O	TIM CI/ ODNIGO		• ASN□K□N	7.00
	Length 3, width 19.7, thickness 1.8	TW-SK-0	TW-SK-0PN02	2	ASD□K□N	TWN
For TWN/TWND	unoration 1.0					TWND
Spare Key For Key Selector Switches	Metal					ARN
	Nickel plated brass Length 37.5,	ASN-SK-24401	ASN-SK-24401PN02	2	• ASN□K□-N024401	CS
For TWN	thickness 2					
Pin/Chain Kit						1
For ABD8P	Pin:				Pin, chain, and plate for ABN8P	
	Nickel plated brass	ABD8P-PIN	ABD8P-PIN	1	• Pin (ø4.6)	
For TWND						]
Contact Block Plug						
1	Polyamide	HW9Z-CBPL	HW9Z-CBPLPN10	10	Used to plug the hole in the center of a contact block.	

For TWN/TWND

## **Maintenance Parts**

	Shape	Description	Part No.	Ordering No.	Package Quantity	Remarks
	Contact block	NO contact	HW-U10	HW-U10		Housing color: Blue Push rod color: Green
	HW-U	NO contact	HW-U10-MAU	HW-U10-MAU	1	MAU has gold contacts
		NC contact	HW-U01	HW-U01	1	Housing color: Reddish purple Push rod color: Red
		NG COMIACI	HW-U01-MAU	HW-U01-MAU	I	MAU has gold contacts
		EM contact	HW-U10R	HW-U10R	1	Housing color: Blue Push rod color: Black
_		(early make)	HW-U10R-MAU	HW-U10R-MAU	I	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)

<sup>1)</sup> For use as maintenance parts. Do not use for expansion or remodelling purposes.

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

Model	Operating	Currer	nt Draw	Dort No.	Ordering No.	Color Code	Package	Base
Wodei	Voltage	DC	DC	Part No.	Ordering No.	Color Code	Quantity  1  10  1  10  1  10  1  10  1  10  1  1	Dase
LSTD	6V AC/DC	7mA (R, A, W) 5.5mA (G, PW)	8mA (except S)	LSTD-6*	LSTD-6*		1	
	OV AC/DC	4.5mA (S) 7mA (S)		L31D-0*	LSTD-6*PN10		10	D400
0 7	12V AC/DC	10mA (except S)	11mA (except S)	LSTD-1*	LSTD-1*	R, G, A, W, S,PW	1	BA9S /13
	12V AG/DG	8mA (S) 9mA (S)		L31D-1*	LSTD-1*PN10		10	''3
	24V AC/DC	10mA (except S)	11mA (except S)	LSTD-2*	LSTD-2*		1	
	24V AC/DC	8mA (S)	9mA (S)	L31D-2*	LSTD-2*PN10		10	
LETD	CV AC/DC	14mA (R, A, W)	17mA (R, A, W)	LETD C.	LETD-6*		1	
	6V AC/DC	5.5mA (G, S, PW)	8mA (G, S, PW)	LETD-6*	LETD-6*PN10		10	E12 /15
	12V AC/DC	6.5mA	7mA	LETD-8*	LETD-8*	D C A W C DW	1	
The state of the s	12V AC/DC	(10mA: at 15V)	(11mA: at 15V)	LEID-0*	LETD-8*PN10	R, G, A, W, S, PW	10	
	0.41/ 4.0/D.0	10mA	dd A	LETD O.	LETD-2*		1	
	24V AC/DC	TUITIA	11mA	LETD-2*	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)							
-1	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

**Explosion Proof** 

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

Power Supplies

LED Illumination Controllers

Operator Interfaces

Sensors AUTO-ID

## 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),
Han	400/4440V AC	±10%	TWR546	PW (pure white)
For 24V	100/110V AC	±10%	TWR512	LSTD-2* (24V AC/DC, LED lamp)
2	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)

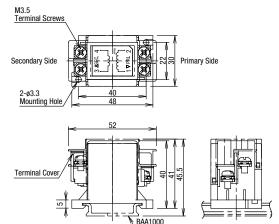
<sup>•</sup> Terminal cover (TWR-VL3) is installed on transformers as standard.

**Specifications** 

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 condensation)		
Storage Temperature	-40 to +80°C (no freezing)		
Vibration Desistance	Damage limits: 30 Hz, amplitude 1.5 mm		
Vibration Resistance	Operating extremes: 5 to 55 Hz, amplitude 0.5 mm		
Shock Resistance	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 m	aximum	
Weight	87g		

## **Dimensions**

All dimensions in mm.



Flush Silhouette

ø16

ø22

Miniature

Pilot Lights

CS

## **Accessories**

Shape	Material	Part No.	Ordering No.	Package	Dimensions (mm)
- Chapt			ordering ite.	Quantity	Zimenerene (iiii)
DIN 35 mm Rail  Weight: 200g approx.	Aluminum Length: 1000 mm	BAA1000	BAA1000PN10	10	12.5
DIN 35 mm Rail  Weight: 320g approx.	Steel Length: 1000 mm	BAP1000	BAP1000PN10	10	12.5 12.5 12.5 1.0 12.5 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
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

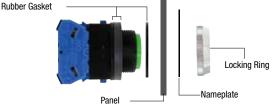
CS

ARN

# **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

Rubber Washer

1.5 mm-thick 3.0 mm-thick

1

TWN/TWND series

Thickness (mm)

Supplied

0.8 to 3.5

2.0 to 3.5

3.5 to 5.0

Pin lock pushbutton

Panel

Thickness (mm)

Supplied

0.8 to 3.0

3.0 to 4.5 4.5 to 6.0

Mushroom with full shroud

#### 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	_		

5.0 to 6.0 (6.5)\* \*1: (6.5) is for mushroom pushbuttons with full shroud

2 pieces

2 pieces

2 pieces

2 pieces

#### TWN/TWND series 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)

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	_			

## 6.0 to 7.5 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.

## **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.

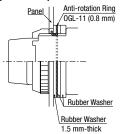
Side B: For TWN/TWND series Side A: TWS series



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.



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

## **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

ver

<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.



 $\triangle$ 

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.



 $\Lambda$ 

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)

## Removing

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



#### **Engraving Area**

Material: Acrylic resin Size:

 $29.8 \text{ W} \times 23.8 \text{ D}$ , thickness 2.0 mm Engraving area:

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

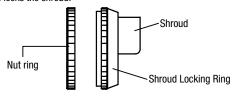
② A white marking plate is installed in the lens which can be removed easily.



## 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.

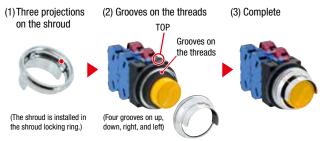


## Installing the Half Shroud

- 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 locking ring.
- (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 ring.





- 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.



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

TWN

ARN

## **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

Control Boxes Emergency Stop Switches Enabling

Safety Products

Switches

**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

## **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.

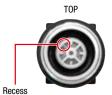


3 On illuminated models, align the operator with the switch by confirming the TOP marking on the switch and also the switch operation. Then press in the operator into the switch.



#### **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

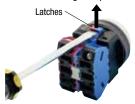
#### Removing the Operator from Illuminated Selector Switches



- 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

#### **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 × 6 (screw diameter ø5.5 or below) APD: M3.5 × 6 (screw diameter ø5.5 or below)

## **Operating Instructions**

## **Applicable Wiring**

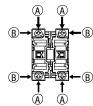
(1) Contact Block 0.3 to 3.5 mm<sup>2</sup> (solid wire 0.5 to 2.0 mm)

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

A and B show the wiring direction to the terminals.

<Contact Block>

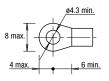
Terminal screws M3.5 (spring-up)

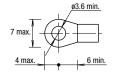


## **Applicable Crimping Terminal**

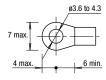
Be sure to use an insulation tube or cover on the crimping part of the crimping terminal to prevent electrical shocks.

Crimping terminal for (A)



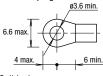


#### IP20 crimping terminal

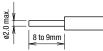


## Crimping terminal for (B)

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

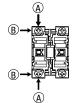
0.3 to 2 mm<sup>2</sup> (solid wire 0.5 to 1.6 mm)

#### Illuminated pushbutton/illuminated selector switch

A and B show the wiring direction to the terminals.

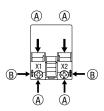
#### <Full Voltage Adapter>

Terminal screws M3.5 (spring-up)



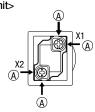
## <Transformer Unit>

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



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

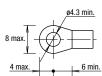
110V DC. 380V Terminal screws M3.5 (spring-up)

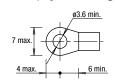


## **Applicable Crimping Terminal**

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

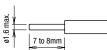
Crimping terminal for (A)





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

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)

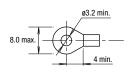
#### Applicable crimping terminal

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)

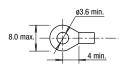
(Arrows show the wiring direction)





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

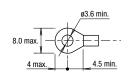
Terminal screws M3.5 (self-lifting)





#### 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	Stranded	0.3 to 2.0 mm <sup>2</sup> (AWG14 to 22)	2	1.0 to 1.3	
	Wire	2.1 to 3.5 mm <sup>2</sup> (AWG12)	1	1.2 to 1.3	
	Crimping Terminal				
Illuminated	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			
Contact Block	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

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

ASN122 ASN340N (*2 ASN15S ASN322N ASN17S ASN302N (*1 ASN18S ASN304N (*1 ASN211 ASN3220N (*2 ASN222 ASN3240N (*2 ASN25S ASN3222N ASN27S ASN3202N (*1 ASN27S ASN3202N (*1) ASN28S ASN3204N (*1) ASN1011 ASN320N (*1) ASN1011 ASN320N (*1) ASN1022 ASN340N (*1) ASN105S ASN322N (*1 ASN107S ASN302N ASN107S ASN302N ASN107S ASN302N ASN108S ASN304N ASN2011 ASN3120N (*1) ASN2022 ASN3140N (*1) ASN2022 ASN3140N (*1) ASN2023 ASN3102N (*1) ASN205S ASN3122N (*1 ASN207S ASN3102N (*1) ASN208S ASN3104N (*1) ASN208S ASN3104N (*1) ASN208S ASN3104N (*1) ASN3110 ASN2L10N (*1) ASN3111 ASN2L11N ASN3120 ASN3120N (*1)	22) 11) 12) 11) 11)
ASN310 ASN210N ASN311 ASN211N ASN320 ASN22DN ASN322 ASN222N ASN375 ASN22RN-118 ASN410 ASN2111N ASN411 ASN2111N ASN420 ASN212DN ASN422 ASN212DN ASN422 ASN212DN ASN422 ASN212DN ASN422 ASN212DN ASN4010 ASN201N (*2 ASN3010 ASN201N (*2 ASN3020 ASN202DN (*2 ASN3020 ASN202DN (*1 ASN3020 ASN202DN (*1 ASN3075 ASN22RN-118 (*1 ASN4010 ASN2210N ASN4011 ASN2211N ASN4010 ASN221DN ASN4011 ASN221N ASN4020 ASN222DN ASN4021 ASN222DN ASN4021 ASN222DN ASN4075 ASN222RN-168 ASN111 ASN32DN (*2 ASN15S ASN32DN (*1 ASN122 ASN340N (*2 ASN15S ASN32DN (*1 ASN122 ASN340N (*1 ASN122 ASN340N (*1 ASN122 ASN340N (*1 ASN121 ASN322DN ASN15S ASN322N ASN15S ASN322N ASN15S ASN322N ASN111 ASN320N (*1 ASN221 ASN340N (*1 ASN222 ASN340N (*1 ASN222 ASN340N (*1 ASN222 ASN340N (*1) ASN222 ASN340N (*1) ASN222 ASN340N (*1) ASN2022 ASN340N (*1) ASN105S ASN322N (*1) ASN105S ASN312N (*1) ASN2022 ASN340N (*1) ASN2022 ASN340N (*1) ASN2023 ASN340N (*1) ASN2024 ASN340N (*1) ASN2025 ASN3100N (*1) ASN2025 ASN3100N (*1) ASN2026 ASN3100N (*1) ASN2027 ASN3100N (*1) ASN2028 ASN3104N ASN2011 ASN211N ASN312N (*1) ASN310 ASN2110 ASN211N ASN3110 ASN211N ASN3120N ASN3101	1) 2) 1) 1) 1)
ASN320 ASN220N ASN322 ASN222N ASN375 ASN22RN-118 ASN410 ASN2110N ASN411 ASN2111N ASN420 ASN2120N ASN422 ASN2122N  90° ASN475 ASN212RN-118 2-position ASN3010 ASN201N (*2 ASN3011 ASN201N (*2 ASN3020 ASN202N (*2 ASN3022 ASN202N (*1 ASN3020 ASN202N (*2 ASN3075 ASN222N-118 (*1 ASN4010 ASN2210N ASN4011 ASN2211N ASN4011 ASN2211N ASN4011 ASN221N ASN4011 ASN2220N ASN4022 ASN2220N ASN4022 ASN222N ASN4075 ASN222RN-168  ASN111 ASN320N (*2 ASN111 ASN320N (*2 ASN155 ASN322RN ASN175 ASN302N (*1 ASN122 ASN340N (*2 ASN175 ASN302N (*1 ASN22 ASN3240N (*1 ASN22 ASN3240N (*1 ASN22 ASN320N (*1 ASN22 ASN320N (*1 ASN22 ASN320N (*1 ASN22 ASN320N (*1) ASN22 ASN320N (*1) ASN20 ASN20 ASN300N (*1) ASN1011 ASN320N (*1) ASN20 ASN300N (*1) ASN1011 ASN320N (*1) ASN1011 ASN320N (*1) ASN1011 ASN320N (*1) ASN1011 ASN320N (*1) ASN102 ASN300N (*1) ASN1011 ASN310N (*1) ASN1011 ASN310N (*1) ASN2011 ASN310N (*1) ASN202 ASN310N (*1) ASN2011 ASN310N (*1) ASN208 ASN310N (*1) ASN208 ASN310N ASN310N ASN208 ASN310N ASN208 ASN310N ASN3111 ASN211N ASN3120 ASN3111 ASN3120N ASN3111 ASN3120N ASN3111 ASN3120N ASN3111 ASN3120N ASN3120N ASN3111 ASN3120N ASN3120N ASN3120N ASN3111 ASN3120N ASN3120N ASN3111 ASN3120N ASN3120N ASN3120N ASN3111 ASN3120N ASN3120N ASN3120N ASN3111 ASN3120N ASN3120N ASN3120N ASN3111 ASN3120N ASN3120N ASN3120N ASN3120N ASN3120N ASN3120N ASN3120N ASN3120N ASN3111 ASN3120N	1) 2) 1) 1) 1)
ASN 322 ASN222N ASN37S ASN22RN-118 ASN410 ASN411 ASN2111N ASN420 ASN2120N ASN422 ASN2122N ASN37S ASN2122N ASN3422 ASN2122N ASN347S ASN212N-118 ASN3010 ASN201N (*2 ASN3011 ASN201N ASN3020 ASN202N (*1 ASN3022 ASN222N (*1 ASN307S ASN22RN-118 (*1 ASN4010 ASN2210N ASN4011 ASN2211N ASN4020 ASN2220N ASN4002 ASN2220N ASN4002 ASN222N ASN407S ASN222RN-168 ASN4022 ASN300N (*2 ASN300N (*3 ASN300N (*1 ASN300N AS	1) 2) 1) 1) 1)
ASN37S ASN22RN-118 ASN410 ASN2110N ASN411 ASN2111N ASN420 ASN2120N ASN422 ASN2122N ASN47S ASN212RN-118  2-position ASN3010 ASN201N (*2 ASN3000 ASN202N (*2 ASN3000 ASN202N (*2 ASN3000 ASN202N (*2 ASN3000 ASN202N (*3 ASN47S ASN22RN-118 (*1 ASN307S ASN22RN-118 (*1 ASN4010 ASN2210N ASN4011 ASN2211N ASN4020 ASN222N ASN4011 ASN2211N ASN4020 ASN222N ASN4022 ASN222N ASN4022 ASN222N ASN407S ASN222RN-168 ASN111 ASN320N (*2 ASN111 ASN320N (*2 ASN15S ASN302N (*1 ASN111 ASN320N (*2 ASN17S ASN302N (*1 ASN120 ASN302N (*1 ASN211 ASN3220N (*2 ASN221 ASN304N (*1 ASN211 ASN3220N (*1 ASN222 ASN3240N (*2 ASN223 ASN304N (*1) ASN205 ASN302N (*1) ASN105 ASN300N (*1) ASN1011 ASN300N (*1) ASN1011 ASN300N (*1) ASN1022 ASN340N (*1) ASN1053 ASN302N (*1) ASN1054 ASN300N (*1) ASN1055 ASN300N (*1) ASN1055 ASN300N (*1) ASN1056 ASN300N (*1) ASN1057 ASN300N (*1) ASN1058 ASN300N (*1) ASN1058 ASN300N (*1) ASN1059 ASN3120N (*1) ASN2001 ASN3120N (*1) ASN2005 ASN3100N (*1) ASN3111 ASN211N ASN3111	1) 2) 1) 1) 1)
ASN410 ASN2110N ASN411 ASN2111N ASN420 ASN2120N ASN422 ASN2122N ASN475 ASN212RN-118  2-position  ASN3010 ASN201N (*2 ASN3011 ASN211N (*1 ASN3020 ASN202N (*2 ASN3022 ASN222N (*1 ASN3075 ASN22RN-118 (*1 ASN4010 ASN2210N ASN4011 ASN2210N ASN4011 ASN2210N ASN4011 ASN2210N ASN4020 ASN2220N ASN4075 ASN222RN-168  ASN4076 ASN222N ASN4077 ASN222RN-168  ASN111 ASN320N (*2 ASN122 ASN340N (*2 ASN15S ASN322N ASN15S ASN322N ASN175 ASN302N (*1 ASN15S ASN302N (*1 ASN111 ASN320N (*2 ASN15S ASN320N (*2 ASN15S ASN322N (*1 ASN111 ASN320N (*1 ASN111 ASN320N (*1 ASN111 ASN320N (*1 ASN105 ASN304N (*1) ASN222 ASN3240N (*1 ASN222 ASN3240N (*1) ASN202 ASN320N (*1) ASN202 ASN320N (*1) ASN202 ASN320N (*1) ASN105S ASN322N (*1) ASN105S ASN320N (*1) ASN105S ASN300N (*1) ASN105S ASN300N (*1) ASN105S ASN300N (*1) ASN105S ASN3100N (*1) ASN105S ASN3100N (*1) ASN2011 ASN3120N (*1) ASN2022 ASN3140N (*1) ASN2023 ASN3102N (*1) ASN2035 ASN3122N (*1) ASN205S ASN3122N (*1) ASN205S ASN3102N ASN205S ASN3102N ASN208S ASN3102N ASN208S ASN3104N ASN2011 ASN2110 ASN2110 ASN2111 ASN2111N ASN2111 ASN2111N ASN3120 ASN2111 ASN2111N ASN3120 ASN2111 ASN2111N ASN3120 ASN2111 ASN2111N ASN3120 ASN2120N	1) 2) 1) 1) 1)
ASN411 ASN2111N ASN420 ASN2120N ASN422 ASN2122N 90° ASN47S ASN212RN-118 ASN3010 ASN201N (*2 ASN3011 ASN201N (*1 ASN3020 ASN202N (*2 ASN3022 ASN222N (*1 ASN307S ASN22RN-118 (*1 ASN4010 ASN2210N ASN4011 ASN2211N ASN4011 ASN2211N ASN4020 ASN2220N ASN4022 ASN222N ASN407S ASN222RN-168 ASN407S ASN222RN-168 ASN111 ASN320N (*2 ASN122 ASN340N (*2 ASN15S ASN322N ASN17S ASN302N (*1 ASN15S ASN322N ASN17S ASN302N (*1 ASN18S ASN304N (*1 ASN211 ASN320N (*2 ASN222 ASN3240N (*2 ASN222 ASN3240N (*2 ASN222 ASN3240N (*1) ASN222 ASN320N (*1) ASN1011 ASN320N (*1) ASN1011 ASN320N (*1) ASN1022 ASN340N (*1) ASN1011 ASN320N (*1) ASN1022 ASN340N (*1) ASN1022 ASN340N (*1) ASN105S ASN322N (*1) ASN107S ASN302N (*1) ASN107S ASN302N (*1) ASN107S ASN302N (*1) ASN107S ASN302N (*1) ASN108S ASN304N (*1) ASN107S ASN302N (*1) ASN202 ASN3140N (*1) ASN202 ASN3140N (*1) ASN2022 ASN3140N (*1) ASN2022 ASN3140N (*1) ASN203S ASN3122N (*1) ASN208S ASN3102N (*1) ASN208S ASN3102N ASN208S ASN3104N ASN2011 ASN2011 ASN2011 ASN2011 ASN2011 ASN208S ASN3104N ASN208S ASN3104N ASN208S ASN3104N ASN208S ASN3104N ASN208S ASN3104N ASN2011 ASN208S ASN3104N ASN208S ASN3104N ASN208S ASN3104N ASN3110 ASN211N ASN3120 ASN211N ASN3120 ASN2120N	1) 2) 1) 1) 1)
ASN420 ASN2120N ASN422 ASN2122N ASN47S ASN212RN-118 2-position  ASN3010 ASN201N (*2 ASN3011 ASN211N (*1 ASN3020 ASN202N (*2 ASN3022 ASN222N (*1 ASN307S ASN22RN-118 (*1 ASN4010 ASN2210N ASN4011 ASN2211N ASN4020 ASN2220N ASN4022 ASN222N ASN4022 ASN222N ASN4022 ASN222N ASN4020 ASN222N ASN4020 ASN222N ASN4022 ASN222N ASN407S ASN222RN-168 ASN111 ASN320N (*2 ASN15S ASN320N (*2 ASN15S ASN320N (*1 ASN15S ASN302N (*1 ASN17S ASN302N (*1 ASN18S ASN304N (*1 ASN211 ASN320N (*2 ASN222 ASN3240N (*2 ASN222 ASN3240N (*2 ASN222 ASN3240N (*1 ASN222 ASN320N (*1) ASN222 ASN320N (*1) ASN205 ASN322N (*1) ASN1011 ASN320N (*1) ASN1011 ASN320N (*1) ASN1022 ASN340N (*1) ASN105S ASN322N (*1) ASN105S ASN322N (*1) ASN105S ASN322N (*1) ASN107S ASN302N (*1) ASN108S ASN304N (*1) ASN107S ASN302N (*1) ASN108S ASN304N (*1) ASN2022 ASN3140N (*1) ASN2022 ASN3140N (*1) ASN2022 ASN3140N (*1) ASN2022 ASN3140N (*1) ASN205S ASN3122N (*1) ASN205S ASN3102N (*1) ASN208S ASN3102N ASN208S ASN3104N ASN2011 ASN208S ASN3104N ASN208S ASN3104N ASN208S ASN3104N ASN2011 ASN208S ASN3104N ASN3111 ASN211N ASN3120 ASN2120N	1) 2) 1) 1) 1)
ASN422 ASN2122N 2-position  ASN47S ASN212RN-118  ASN3010 ASN201N (*2 ASN3011 ASN211N (*1 ASN3020 ASN202N (*2 ASN3022 ASN222N (*1 ASN307S ASN22RN-118 (*1 ASN4010 ASN2210N ASN4011 ASN2211N ASN4020 ASN2220N ASN4022 ASN222N ASN4022 ASN222N ASN4022 ASN222N ASN407S ASN222RN-168  ASN111 ASN320N (*2 ASN111 ASN320N (*2 ASN15S ASN322N ASN17S ASN302N (*1 ASN18S ASN304N (*1 ASN211 ASN320N (*2 ASN222 ASN3240N (*2 ASN222 ASN3240N (*1 ASN222 ASN3240N (*1 ASN222 ASN320N (*1) ASN205 ASN322N (*1) ASN1011 ASN320N (*1) ASN1011 ASN320N (*1) ASN105 ASN320N (*1) ASN1011 ASN320N (*1) ASN105 ASN320N (*1) ASN1011 ASN320N (*1) ASN1011 ASN320N (*1) ASN1022 ASN340N (*1) ASN105 ASN320N (*1) ASN105 ASN320N (*1) ASN107S ASN302N (*1) ASN108 ASN304N (*1) ASN202 ASN3140N (*1) ASN2022 ASN3140N (*1) ASN205 ASN3122N (*1) ASN205 ASN3122N (*1) ASN206 ASN3102N (*1) ASN208 ASN3102N ASN208 ASN3104N (*1) ASN208 ASN3104N ASN2011 ASN2011 ASN2011 ASN2012N ASN208S ASN3104N (*1) ASN208 ASN3104N ASN2011 ASN211N ASN208 ASN3104N ASN2011 ASN2011 ASN2011 ASN2011 ASN211N ASN208 ASN3104N ASN3111 ASN211N ASN3120 ASN210N ASN2111 ASN211N ASN3120 ASN2120N	1) 2) 1) 1) 1)
ASN 2-position	1) 2) 1) 1) 1)
ASN3010 ASN201N (*2 ASN3011 ASN211N (*1 ASN3020 ASN202N (*2 ASN3022 ASN222N (*1 ASN307S ASN22RN-118 (*1 ASN4010 ASN2210N ASN4011 ASN2211N ASN4020 ASN2220N ASN4022 ASN222N ASN407S ASN222RN-168 ASN407S ASN222RN-168 ASN111 ASN320N (*2 ASN15S ASN320N (*2 ASN15S ASN322N ASN17S ASN302N (*1 ASN22 ASN340N (*1 ASN21 ASN320N (*1 ASN22 ASN320N (*1 ASN20 ASN22 ASN320N (*1 ASN20 ASN20 ASN20 (*1) ASN20 ASN20 ASN320N (*1) ASN20 ASN20 ASN320N (*1) ASN20 ASN300N (*1) ASN101 ASN300N (*1) ASN101 ASN300N (*1) ASN101 ASN300N (*1) ASN102 ASN300N (*1) ASN105 ASN300N (*1) ASN107S ASN300N (*1) ASN108 ASN300N (*1) ASN108 ASN300N (*1) ASN108 ASN300N (*1) ASN201 ASN3120N (*1) ASN201 ASN3120N (*1) ASN202 ASN3140N (*1) ASN202 ASN3140N (*1) ASN203 ASN3102N ASN208 ASN3102N ASN208S ASN3102N ASN208S ASN3104N ASN2011 ASN208S ASN3102N ASN208S ASN3104N ASN2011 ASN208S ASN3104N ASN2011 ASN208S ASN3104N ASN2011 ASN201	1) 2) 1) 1) 1)
ASN3011 ASN211N (*1 ASN3020 ASN202N (*2 ASN3022 ASN222N (*1 ASN307S ASN22RN-118 (*1 ASN4010 ASN2210N ASN4011 ASN2211N ASN4020 ASN2220N ASN4022 ASN2222N ASN407S ASN222RN-168 ASN4111 ASN320N (*2 ASN111 ASN320N (*2 ASN122 ASN340N (*1 ASN122 ASN340N (*1 ASN122 ASN340N (*1 ASN122 ASN322N ASN17S ASN302N (*1 ASN122 ASN320N (*1 ASN122 ASN320N (*1 ASN122 ASN320N (*1 ASN122 ASN320N (*1 ASN211 ASN3220N (*1 ASN222 ASN3240N (*1 ASN222 ASN3240N (*1 ASN222 ASN3240N (*1 ASN27S ASN302N (*1) ASN27S ASN302N (*1) ASN27S ASN302N (*1) ASN105S ASN320N (*1) ASN1011 ASN320N (*1) ASN1011 ASN320N (*1) ASN107S ASN302N (*1) ASN107S ASN302N (*1) ASN107S ASN302N (*1) ASN107S ASN302N (*1) ASN108S ASN304N (*1) ASN2011 ASN3120N (*1) ASN2011 ASN3120N (*1) ASN2022 ASN3140N (*1) ASN2035 ASN3102N (*1) ASN205S ASN3102N (*1) ASN208S ASN3102N ASN208S ASN3104N ASN2011 ASN208S ASN3104N ASN2011 ASN208S ASN3104N ASN208S ASN3104N ASN208S ASN3104N ASN2011 ASN211N ASN3120 ASN2120N	1) 2) 1) 1) 1)
ASN3020 ASN202N (*2 ASN3022 ASN222N (*1 ASN307S ASN22RN-118 (*1 ASN4010 ASN2210N ASN4011 ASN2211N ASN4020 ASN2220N ASN4022 ASN2222N ASN407S ASN222RN-168 ASN111 ASN320N (*2 ASN112 ASN340N (*2 ASN122 ASN340N (*1 ASN122 ASN340N (*1 ASN122 ASN340N (*1 ASN115 ASN322N ASN17S ASN302N (*1 ASN222 ASN3240N (*1 ASN222 ASN3240N (*2 ASN222 ASN3240N (*2 ASN25S ASN322N ASN27S ASN320N (*1 ASN27S ASN302N (*1) ASN27S ASN302N (*1) ASN1011 ASN320N (*1) ASN1011 ASN320N (*1) ASN1022 ASN340N (*1) ASN105S ASN322N (*1) ASN107S ASN302N (*1) ASN108S ASN304N (*1) ASN2011 ASN3120N (*1) ASN208S ASN3102N ASN208S ASN3104N ASN208S ASN3104N ASN2011 ASN3110 ASN2111 ASN2111N ASN3120 ASN2120N	2) 1) 1) 2)
ASN3022 ASN222N (*1 ASN307S ASN22RN-118 (*1 ASN4010 ASN2210N ASN4011 ASN2211N ASN4020 ASN2220N ASN4022 ASN2222N ASN407S ASN222RN-168 ASN111 ASN320N (*2 ASN111 ASN320N (*2 ASN15S ASN322N ASN15S ASN322N ASN17S ASN302N (*1 ASN122 ASN340N (*1 ASN122 ASN340N (*2 ASN15S ASN322N ASN17S ASN302N (*1 ASN222 ASN3240N (*2 ASN222 ASN3240N (*2 ASN222 ASN3240N (*2 ASN25S ASN322N ASN27S ASN320N (*1 ASN27S ASN302N (*1) ASN27S ASN302N (*1) ASN1011 ASN320N (*1) ASN1011 ASN320N (*1) ASN105S ASN320N (*1) ASN107S ASN302N (*1) ASN107S ASN302N (*1) ASN107S ASN302N (*1) ASN107S ASN302N (*1) ASN108S ASN304N (*1) ASN2011 ASN3120N (*1) ASN208S ASN3102N ASN208S ASN3104N ASN2011 ASN3110 ASN2111 ASN2L11N ASN3L20 ASN2L20N	1)
ASN307S ASN22RN-118 (*1 ASN4010 ASN2210N ASN4011 ASN2211N ASN4020 ASN2220N ASN4022 ASN2222N ASN407S ASN222RN-168 ASN111 ASN320N (*2 ASN122 ASN340N (*2 ASN15S ASN322N ASN15S ASN322N ASN15S ASN322N ASN15S ASN302N (*1 ASN11 ASN320N (*1 ASN122 ASN340N (*1 ASN22 ASN340N (*1 ASN22 ASN340N (*1 ASN222 ASN320N (*2 ASN25S ASN322N ASN27S ASN320N (*1 ASN27S ASN320N (*1) ASN27S ASN300N (*1) ASN1011 ASN320N (*1) ASN1011 ASN320N (*1) ASN105S ASN320N (*1) ASN105S ASN320N (*1) ASN107S ASN300N (*1) ASN107S ASN300N (*1) ASN107S ASN300N (*1) ASN2011 ASN3120N (*1) ASN208S ASN3102N ASN3102N ASN208S ASN3104N ASN3110 ASN2111 ASN2L11N ASN3120 ASN2L20N	2)
ASN4010 ASN2210N ASN4011 ASN2211N ASN4020 ASN2220N ASN4022 ASN2222N ASN407S ASN222RN-168 ASN111 ASN320N (*2 ASN122 ASN340N (*2 ASN15S ASN322N ASN15S ASN322N ASN15S ASN302N (*1 ASN11 ASN320N (*1 ASN11 ASN320N (*1 ASN11 ASN320N (*1 ASN15S ASN302N (*1 ASN15S ASN302N (*1 ASN15S ASN302N (*1 ASN21 ASN302N (*2 ASN22 ASN320N (*2 ASN22 ASN320N (*2 ASN25S ASN322N (*1 ASN27S ASN320N (*1) ASN27S ASN320N (*1) ASN1011 ASN320N (*1) ASN1011 ASN320N (*1) ASN105S ASN302N (*1) ASN105S ASN302N (*1) ASN105S ASN302N (*1) ASN105S ASN300N (*1) ASN105S ASN310N (*1) ASN2011 ASN310N (*1) ASN2011 ASN3120N (*1) ASN2011 ASN3120N (*1) ASN2011 ASN3120N (*1) ASN2011 ASN3120N (*1) ASN205S ASN3102N (*1) ASN205S ASN3102N (*1) ASN205S ASN3102N ASN208S ASN3102N ASN208S ASN3104N ASN2011 ASN2110 ASN2110 ASN2111 ASN2111 ASN2111 ASN2111 ASN2111 ASN2111 ASN3120 ASN2120N	2)
ASN Knob Operator  ASN Knob Operator  ASN4022 ASN2222N  ASN407S ASN222RN-168  ASN111 ASN320N (*2  ASN112 ASN320N (*2  ASN15S ASN322N  ASN17S ASN302N (*1  ASN18S ASN304N (*1  ASN211 ASN320N (*2  ASN222 ASN3240N (*2  ASN222 ASN3240N (*2  ASN25S ASN3222N  ASN27S ASN3202N (*1  ASN27S ASN3020N (*1)  ASN1011 ASN320N (*1)  ASN1011 ASN320N (*1)  ASN1011 ASN320N (*1)  ASN1022 ASN340N (*1)  ASN105S ASN322N (*1)  ASN105S ASN322N (*1)  ASN107S ASN302N (*1)  ASN107S ASN302N (*1)  ASN108S ASN304N (*1)  ASN2011 ASN3120N (*1)  ASN2022 ASN3140N (*1)  ASN2022 ASN3140N (*1)  ASN205S ASN3122N (*1)  ASN205S ASN3122N (*1)  ASN207S ASN3102N (*1)  ASN208S ASN3104N (*1)  ASN208S ASN3104N (*1)  ASN208S ASN3104N (*1)  ASN2110 ASN2L10N (*1)  ASN3L10 ASN2L10N (*1)  ASN3L11 ASN2L11N ASN3L20	-
ASN Knob Operator  ASN4022 ASN2222N  ASN407S ASN222RN-168  ASN111 ASN320N (*2  ASN122 ASN340N (*2  ASN15S ASN322N  ASN17S ASN302N (*1  ASN18S ASN304N (*1  ASN211 ASN320N (*2  ASN222 ASN3240N (*2  ASN25S ASN3222N  ASN27S ASN3202N (*1  ASN27S ASN3020N (*1)  ASN27S ASN300N (*1)  ASN1011 ASN320N (*1)  ASN1011 ASN320N (*1)  ASN1022 ASN340N (*1)  ASN1022 ASN340N (*1)  ASN105S ASN322N (*1)  ASN107S ASN302N (*1)  ASN107S ASN302N  ASN108S ASN304N  ASN2011 ASN3120N (*1)  ASN2022 ASN3140N (*1)  ASN2022 ASN3140N (*1)  ASN207S ASN3102N (*1)  ASN207S ASN3102N (*1)  ASN208S ASN3104N (*1)  ASN208S ASN3104N (*1)  ASN208S ASN3104N (*1)  ASN208S ASN3104N (*1)  ASN2110 ASN2L10N (*1)  ASN3L10 ASN2L10N (*1)  ASN3L11 ASN2L11N ASN3L20	-
ASN Knob Operator  ASN407S ASN407S ASN222RN-168  ASN111 ASN320N (*2 ASN122 ASN340N (*2 ASN15S ASN322N ASN17S ASN302N (*1 ASN18S ASN304N ASN211 ASN3220N (*2 ASN222 ASN3240N (*2 ASN222 ASN3240N ASN222 ASN322N ASN27S ASN3222N ASN27S ASN3202N (*1) ASN1011 ASN320N (*1) ASN1011 ASN320N (*1) ASN1011 ASN320N (*1) ASN105S ASN320N ASN105S ASN322N ASN107S ASN302N ASN107S ASN302N ASN107S ASN302N ASN108S ASN304N ASN2011 ASN107S ASN304N ASN2011 ASN3120N ASN2022 ASN3140N ASN2011 ASN2022 ASN3140N ASN207S ASN3102N ASN208S ASN3102N ASN208S ASN3104N ASN208S ASN3104N ASN2011 ASN2110 ASN2110 ASN2111 ASN2L11N ASN3L20 ASN2L10N	(*2) (*1) (*1) (*1) (*2) (*1) (*1) (*1) (*1) (*2) (*1) (*1) (*1) (*1) (*2) (*1) (*1) (*1) (*2) (*1) (*1)
Knob Operator  ASN407S ASN222RN-168  ASN111 ASN320N (*2 ASN122 ASN340N (*2 ASN15S ASN322N  ASN15S ASN302N (*1 ASN188 ASN304N (*1 ASN211 ASN3220N (*2 ASN222 ASN3240N (*2 ASN222 ASN3240N (*2 ASN25S ASN3222N ASN27S ASN3202N (*1 ASN27S ASN320N (*1) ASN1011 ASN320N (*1) ASN1011 ASN320N (*1) ASN1022 ASN340N (*1) ASN105S ASN322N (*1 ASN107S ASN302N ASN107S ASN302N ASN108S ASN304N ASN2011 ASN3120N (*1) ASN2011 ASN3120N (*1) ASN2022 ASN3140N (*1) ASN2022 ASN3140N (*1) ASN205S ASN3122N (*1) ASN205S ASN3122N (*1) ASN205S ASN3102N ASN207S ASN3102N ASN208S ASN3102N ASN208S ASN3104N ASN2110 ASN2L11N ASN3L10 ASN2L11N ASN3L20 ASN2L20N	-
ASN111 ASN320N (*2 ASN122 ASN340N (*2 ASN15S ASN322N ASN15S ASN302N (*1 ASN15S ASN302N (*1 ASN18S ASN304N (*1 ASN211 ASN3220N (*2 ASN222 ASN3240N (*2 ASN25S ASN3222N ASN27S ASN3202N (*1 ASN27S ASN3202N (*1 ASN1011 ASN320N (*1) ASN1011 ASN320N (*1) ASN1022 ASN340N (*1) ASN105S ASN322N (*1 ASN107S ASN302N ASN107S ASN302N ASN108S ASN304N ASN2011 ASN3120N (*1) ASN2011 ASN3120N (*1) ASN2011 ASN3120N (*1) ASN205S ASN3122N (*1) ASN205S ASN3122N (*1) ASN205S ASN3102N (*1) ASN205S ASN3102N (*1) ASN205S ASN3102N (*1) ASN208S ASN3102N (*1) ASN208S ASN3102N ASN208S ASN3102N (*1) ASN208S ASN3104N (*1) ASN3110 ASN2L11N ASN3120 ASN2L20N	-
ASN122 ASN340N (*2 ASN15S ASN322N ASN17S ASN302N (*1 ASN18S ASN304N (*1 ASN211 ASN3220N (*2 ASN222 ASN3240N (*2 ASN225 ASN3222N ASN27S ASN3202N (*1) ASN27S ASN3204N (*1) ASN1011 ASN320N (*1) ASN1011 ASN320N (*1) ASN105S ASN320N (*1) ASN105S ASN322N (*1) ASN105S ASN302N (*1) ASN108S ASN304N ASN108S ASN304N ASN2011 ASN3120N (*1) ASN2022 ASN3140N (*1) ASN2022 ASN3140N (*1) ASN2025 ASN3122N (*1 ASN205S ASN3122N (*1) ASN205S ASN3102N ASN208S ASN3104N ASN208S ASN3104N ASN3110 ASN2L10N ASN3111 ASN2L11N ASN3120 ASN2L20N	٦١
ASN17S ASN302N (*1 ASN18S ASN304N (*1 ASN111 ASN3220N (*2 ASN221 ASN3240N (*2 ASN222 ASN3240N (*2 ASN25S ASN3222N ASN27S ASN3202N (*1 ASN27S ASN3202N (*1) ASN1011 ASN320N (*1) ASN1011 ASN320N (*1) ASN105S ASN322N (*1 ASN105S ASN322N (*1 ASN107S ASN302N ASN107S ASN302N ASN108S ASN304N ASN2011 ASN3120N (*1) ASN2022 ASN3140N (*1) ASN2022 ASN3140N (*1) ASN205S ASN3122N (*1) ASN207S ASN3102N (*1) ASN207S ASN3102N (*1) ASN208S ASN3104N ASN208S ASN3104N ASN3110 ASN2L10N ASN3111 ASN2L11N ASN3120 ASN2L20N	<u>2)</u>
ASN18S ASN304N (*1 ASN211 ASN3220N (*2 ASN222 ASN3240N (*2 ASN25S ASN3222N ASN27S ASN3202N (*1 ASN27S ASN3202N (*1) ASN1011 ASN320N (*1) ASN1011 ASN320N (*1) ASN105S ASN322N (*1 ASN105S ASN322N (*1) ASN107S ASN302N ASN108S ASN304N ASN2011 ASN304N ASN2011 ASN3120N (*1) ASN2022 ASN3140N (*1) ASN2022 ASN3140N (*1) ASN2025 ASN3122N (*1) ASN207S ASN3102N (*1) ASN207S ASN3102N (*1) ASN208S ASN3102N (*1) ASN208S ASN3104N (*1) ASN3110 ASN2L10N ASN3L11 ASN2L11N ASN3L20 ASN2L20N	4.
ASN211 ASN3220N (*2 ASN222 ASN3240N (*2 ASN25S ASN3222N ASN27S ASN3202N (*1 ASN27S ASN3202N (*1) ASN1011 ASN320N (*1) ASN1022 ASN340N (*1) ASN105S ASN322N (*1 ASN107S ASN302N ASN107S ASN302N ASN108S ASN304N ASN2011 ASN3120N (*1) ASN2011 ASN3120N (*1) ASN2011 ASN3120N (*1) ASN2022 ASN3140N (*1) ASN205S ASN3122N (*1) ASN205S ASN3122N (*1) ASN205S ASN3102N (*1) ASN206S ASN3102N (*1) ASN207S ASN3102N (*1) ASN208S ASN3104N ASN2011 ASN2110 ASN2110 ASN2111 ASN2111N ASN3120 ASN2111	
ASN222 ASN3240N (*2 ASN25S ASN3222N ASN27S ASN3202N (*1 ASN27S ASN3202N (*1) ASN28S ASN3204N (*1) ASN1011 ASN320N (*1) ASN1022 ASN340N (*1) ASN105S ASN322N (*1 ASN107S ASN302N ASN108S ASN302N ASN108S ASN304N ASN2011 ASN3120N (*1) ASN2022 ASN3140N (*1) ASN2022 ASN3140N (*1) ASN205S ASN3122N (*1 ASN205S ASN3122N (*1) ASN207S ASN3102N ASN208S ASN3102N ASN208S ASN3104N ASN3110 ASN2L11N ASN3L10 ASN2L11N ASN3L20 ASN2L20N	
ASN25S ASN3222N  ASN27S ASN3202N (*1  ASN28S ASN3204N (*1)  ASN1011 ASN320N (*1)  ASN1022 ASN340N (*1)  ASN105S ASN322N (*1  ASN107S ASN302N  ASN107S ASN302N  ASN108S ASN304N  ASN2011 ASN3120N (*1)  ASN2011 ASN3120N (*1)  ASN2022 ASN3140N (*1)  ASN205S ASN3122N (*1)  ASN205S ASN3102N  ASN207S ASN3102N  ASN207S ASN3102N  ASN208S ASN3104N  ASN3110 ASN2L10N  ASN3L11 ASN2L11N  ASN3L20 ASN2L20N	
ASN27S ASN3202N (*1 ASN28S ASN3204N (*1) ASN1011 ASN320N (*1) ASN1011 ASN320N (*1) ASN1022 ASN340N (*1) ASN105S ASN322N (*1 ASN107S ASN302N ASN108S ASN304N ASN2011 ASN3120N (*1) ASN2011 ASN3120N (*1) ASN2022 ASN3140N (*1) ASN205S ASN3122N (*1) ASN205S ASN3122N (*1) ASN207S ASN3102N ASN207S ASN3102N ASN208S ASN3104N ASN3110 ASN2L10N ASN3L11 ASN2L11N ASN3L20 ASN2L20N	<u>-)</u>
45° ASN28S ASN3204N (*1)  3-position ASN1011 ASN320N (*1)  ASN1022 ASN340N (*1)  ASN105S ASN322N (*1)  ASN107S ASN302N  ASN108S ASN304N  ASN2011 ASN3120N (*1)  ASN2022 ASN3140N (*1)  ASN2022 ASN3140N (*1)  ASN205S ASN3122N (*1)  ASN207S ASN3102N  ASN208S ASN3104N  ASN3110 ASN2L10N  ASN3L11 ASN2L11N  ASN3L20 ASN2L20N	1\
ASN1011	
ASN1022 ASN340N (*1) ASN105S ASN322N (*1) ASN107S ASN302N ASN108S ASN304N ASN2011 ASN3120N (*1) ASN2022 ASN3140N (*1) ASN205S ASN3122N (*1) ASN207S ASN3102N ASN208S ASN3104N ASN3110 ASN2L10N ASN3L11 ASN2L11N ASN3L20 ASN2L20N	
ASN105S ASN322N (*1 ASN107S ASN302N ASN108S ASN304N ASN2011 ASN3120N (*1) ASN2022 ASN3140N (*1) ASN205S ASN3122N (*1 ASN207S ASN3102N ASN208S ASN3104N ASN3110 ASN2L10N ASN3L11 ASN2L11N ASN3L20 ASN2L20N	
ASN107S ASN302N ASN108S ASN304N ASN2011 ASN3120N (*1) ASN2022 ASN3140N (*1) ASN205S ASN3122N (*1) ASN207S ASN3102N ASN208S ASN3104N ASN3L10 ASN2L10N ASN3L11 ASN2L11N ASN3L20 ASN2L20N	
ASN2011 ASN3120N (*1) (*1) (*1) (*1) (*1) (*1) (*1) (*1)	.,
ASN2022 ASN3140N (*1) ASN205S ASN3122N (*1) ASN207S ASN3102N ASN208S ASN3104N ASN3L10 ASN2L10N ASN3L11 ASN2L11N ASN3L20 ASN2L20N	
ASN205S ASN3122N (*1 ASN207S ASN3102N ASN208S ASN3104N ASN3L10 ASN2L10N ASN3L11 ASN2L11N ASN3L20 ASN2L20N	(*2)
ASN207S ASN3102N ASN208S ASN3104N ASN3L10 ASN2L10N ASN3L11 ASN2L11N ASN3L20 ASN2L20N	(*2)
ASN208S ASN3104N  ASN3L10 ASN2L10N  ASN3L11 ASN2L11N  ASN3L20 ASN2L20N	1)
ASN3L10 ASN2L10N ASN3L11 ASN2L11N ASN3L20 ASN2L20N	
ASN3L11 ASN2L11N ASN3L20 ASN2L20N	
ASN3L20 ASN2L20N	
VCVIOLOGO VCVIOLOGIN	
ASN3L22 ASN2L22N	
ASN3L7S ASN2L2RN-118	
ASN4L10 ASN21L10N	
ASN4L11 ASN21L11N ASN4L20 ASN21L20N	
ASN4L20 ASN21L20N ASN4L22 ASN21L22N	
90° ASN4L7S ASN21L2RN-118	
2-position ASN30L10 ASN2L01N (*2	2)
ASN30L11 ASN2L11N (*1	
ASN30L20 ASN2L02N (*2	
ASN-L   ASN30L22   ASN2L22N (*1	
Lever Operator ASN30L7S ASN2L2RN-118 (*1	
ASN40L10 ASN22L10N	
ASN40L11 ASN22L11N	
ASN40L20 ASN22L20N	
ASN40L22 ASN22L22N	
ASN40L7S ASN22L2RN-168	
ASN1L11 ASN3L20N (*2	
ASN1L22 ASN3L40N (*2	
ASN1L5S ASN3L22N	
45° ASN1L7S ASN3L02N (*1	2)
	2)
ASN2L11 ASN32L20N (*2 ASN2L22 ASN32L40N (*2	1)
ASN2L22 ASN32L40N (*2 ASN2L5S ASN32L22N	1)

	Old Series	3	Now Part No. (*2)	Domark
Model	Operator	Old Part No.	New Part No. (*3)	Remark
		ASN2L7S	ASN32L02N	(*1)
		ASN2L8S	N2L7S	(*1)
		ASN10L11		(*1) (*2
		ASN10L22		(*1) (*2
ACM I		ASN10L5S	ASN3L22N	(*1)
ASN-L Lever	45°	ASN10L7S	ASN3L02N	
Operator	3-position	ASN10L8S	ASN3L04N	
υμεταισι		ASN20L11	ASN31L20N	(*1) (*2
		ASN20L22	ASN31L40N	(*1) (*2
		ASN20L5S	ASN31L22N	(*1)
		ASN20L7S	ASN31L02N	
		ASN20L8S	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°	ASN4K7S	ASN21K2RN-118-N024401	
	2-position	ASN30K10□	ASN2K01N□-N024401	(*2)
		ASN30K11□	ASN2K11N□-N024401	(*1)
		ASN30K20□	ASN2K02N□-N024401	(*2)
		ASN30K22□	ASN2K22N□-N024401	(*1)
		ASN30K7S□	ASN2K2RN□-118-N024401	(*1)
		ASN40K10		
		ASN40K11	ASN22K11N-N024401	
		ASN40K20	ASN22K20N-N024401	
		ASN40K22	ASN22K22N-N024401	
ASN-K		ASN40K7S		
Key			(*2)	
Selector		ASN1K22□	ASN3K40N□-N024401	(*2)
		ASN1K5S□	ASN3K22N□-N024401	(*1) (*2
		ASN1K7S□	ASN3K02N□-N024401	(*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□		(*1) (*2
	·	ASN10K22□	ASN3K40N□-N024401	(*1) (*2
		ASN10K5S□		(*1) (*2
		ASN10K7S□		(*2)
		ASN10K8S□		(*2)
		ASN20K11□		(*1) (*2
		ASN20K22□		(*1) (*2
		ASN20K5S□		(*1) (*2
		ASN20K7S□		(*2)
		ASN20K8S□		(*2)
		ASTN3211	ì	\
	90°	ASTN3222	1	(*1)
	2-position	ASTN4211		T
		ASTN4222		(*1)
		ASTN1122		'.'
		ASTN1222		
		ASTN1340		
ASTN		ASTN1422	•	
Knob		ASTN1520	1	
Operator	45°	ASTN1540		(*1)
	3-position	ASTN1540		''
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	ASTN1622	i	
		ASTN2122		
		ASTN2222		
		ASTN2222		
			LUMBIECH	1

<sup>•</sup>  $\square$ : 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 Operator

> Sensors AUTO-ID

Flush Silhouette

ø16 ø22

Miniature Pilot Lights

> ARN CS

## ø30 Selector Switches / Pushbuttons Part Number Replacement List

	ASTN Knob Operator	Operator	Old Part No. ASTN20422	New Part No. (*3) ASN3122N-209	Remarks
	Knob			ASN3122N-209	I
-	Knob				
	Knob		ASTN20520	ASN3120N	(*1)
		45°	ASTN20540	ASN3140N	(*1)
	Operator	3-position	ASTN5120	ASN3320N	
		·	ASTN5122	ASN3322N	
┇┝			ASTN5222	ASN3322N-311	
		90° 2-position	ASTN5111	ASN3311N-202	
			ASTN32L11	ASN2L11N	/*4\
-			ASTN32L22	ASN2L22N	(*1)
			ASTN42L11 ASTN42L22	ASN21L11N ASN21L22N	(*1)
-			ASTN11L22	ASN3L22N	(1)
_			ASTN11L22	ASN3L22N-311	
			ASTN13L40	ASN3L40N	
-			ASTN14L22	ASN3L22N-209	
			ASTN15L20	ASN3L20N	(*1)
-			ASTN15L40	ASN3L40N	(*1)
	ASTN■L		ASTN16L11	ASN3L11N-303	
	Lever		ASTN16L22	ASN3L22N-310	
-	Operator	450	ASTN21L22	ASN32L22N	
		45° 3-position	ASTN22L22	ASN32L22N-311	
-		3-position	ASTN201L22	ASN31L22N	
			ASTN202L22	ASN31L22N-311	
			ASTN204L22	ASN31L22N-209	
-		90° 2-position	ASTN205L20	ASN31L20N	(*1)
			ASTN205L40	ASN31L40N	(*1)
-			ASTN51L20	ASN33L20N	
_			ASTN51L22	ASN33L22N	
-			ASTN52L22	ASN33L22N-311	
_			ASTN51L11	ASN33L11N-202	
			ASTN32K11□	ASN2K11N□	/*4\
-			ASTN32K22□ ASTN42K11	ASN2K22N□ ASN21K11N	(*1)
			ASTN42K22	ASN21K11N ASN21K22N	(*1)
			ASTN11K22□	ASN3K22N□	( 1)
-			ASTN12K22□	ASN3K22N□-311	
		45° 3-position	ASTN13K40□	ASN3K40N□	
	ASTN■K		ASTN14K22□	ASN3K22N□-209	
-			ASTN15K20□	ASN3K20N□	(*1)
			ASTN15K40□	ASN3K40N□	(*1)
1			ASTN16K11□	ASN3K11N□-303	
	Key		ASTN16K22□	ASN3K22N□-310	
	Selector		ASTN21K22□	ASN32K22N□	
-			ASTN22K22□	ASN32K22N□-311	
			ASTN201K22□	ASN31K22N□	
- [			ASTN202K22□	ASN31K22N□-311	
			ASTN204K22	ASN31K22N□-209	(4.1)
			ASTN205K20	ASN31K20N	(*1)
			ASTN205K40□	ASN31K40N	(*1)
			ASTN51K20 ASTN51K22	ASN33K20N	
			ASTN51K22 ASTN52K22	ASN33K22N ASN33K22N-311	
-					
			ASTN51K11 ASN33K11N-202 ASN120-T ASN320N		
			ASN120-1 ASN140-T	ASN340N	
- [	ASN-T	45°	ASN220-T	ASN3220N	
	Knob Operator ASN-T Lever Operator	3-position  45° 3-position	ASN240-T	ASN3240N	
			ASN2020-T	ASN3120N	(*1)
			ASN2040-T	ASN3140N	(*1)
			ASN1L20-T	ASN3L20N	
			ASN1L40-T	ASN3L40N	
			ASN2L20-T	ASN32L20N	
			ASN2L40-T	ASN32L40N	
			ASN20L20-T	ASN31L20N	(*1)
			ASN20L40-T	ASN31L40N	(*1)

•	Specify a color code in place of * in Part No. B (black), G (green), R (red), Y	(yellow).
_	T: Voy removable position and Consity the same and as the old series	

 <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

Model	Old Seri Operator	es Old Part No.	New Part No. (*3)	Remark
Model	Operator	ASN3K10□-T	ASN2K10N□	
		ASN3K11□-T	ASN2K11N□	
		ASN3K20□-T	ASN2K20N□	
		ASN3K22□-T	ASN2K22N□	
	90° 2-position	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)
	3	ABN7120□	ASBN220N-D01□	
Coloator		ABN6122□	ASBN222N-A08□	(*1)
Selector Pushbuttons		ABN6222□	ASBN222N-A00□	(*1)
Ring		ABN6422□	ASBN222N-K15□	(*2)
Operator		ABN7122□	ASBN222N-N13□	(*1)
Operator		ABN7222□	ASBN222N-E10□	(*1)
		ABN7322□	ASBN222N-F10□	(*1)
	90° 2-position		N/A	( 1)
		ABN9122	ASBN211N-A03□	(* A)
		ABN6L111  ABN6L411		(*4)
		ABN6L411□	ASBN211N-K04	(*2) (*4
		ABN9L111	N/A	(*1\ /*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	/+F\
	Pin Lock	ABN8P10	ABD8P10N	(*5)
		ABN8P01	ABD8P01N□	(*5)
		ABN8P11	ABD8P11N□	(*5)
		ABN8P20	ABD8P20N□	(*5)
		ABN8P02	ABD8P02N□	(*5)
	ON Lock Type Pin Lock	ABN8P22	ABD8P22N□	(*5)
		ABN8P10-TK231-1	ABD8PN10N□	(*5)
Pushbuttons		ABN8P01-TK231-1	ABD8PN01N□	(*5)
. 3024110110		ABN8P11-TK231-1	ABD8PN11N□	(*5)
		ABN8P20-TK231-1	ABD8PN20N□	(*5)
		ABN8P02-TK231-1	ABD8PN02N□	(*5)
		ABN8P22-TK231-1	ABD8PN22N□	(*5)
	Mushroom Pull	ATN2310□	AZN310N□	
		ATN2311□	AZN311N□	
		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.

sure of contact operation before wiring.

<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