# ø30 Switches and Pilot Lights

# TWN TWND Series



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



- Pilot light is not approved by EN standards.
- DC-DC convertor unit is not approved by standards.
- $\bullet$  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
<u>, 4</u>	Diecast Zinc TWND Series	Heavy-duty switches for tough industrial usage.	B-326

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# ø30 TWN/TWND Selection Guide

Function	Pushbutton							
Catagory	Flu	sh	Extended		Extended with Half Shroud		Pilot Li	
Category	Momentary/	/Maintained	Momentary/Maintained		Momentary/Maintained		Lights	
				Diecast Zinc		Diecast Zinc	S	
Shape	Ő	Ċ	6	ő	Ő	Ő	APEM Switches & Pilot Lights	
	ABN1	ABD1	ABN2	ABD2	ABN2G	ABGD2	Control Boxes	
Model	AON1	A0D1	AON2	A0D2	AON2G	A0GD2	Emergency Stop Switches	
Page	B-310	B-326	B-310	B-326	B-310	B-326	Enabling Switches	

Function		Pushbutton						
Cotogory	Extended with Full Shroud		Full Shroud Mushroom		Mushroom with Full Shroud		Explosion Proof	
Category	Momentary	Momentary/Maintained		ary/Maintained	Momentary	y/Maintained	Terminal Blocks	
		Diecast Zinc		Diecast Zinc		Diecast Zinc		
							Relays & Sockets	
Shape							Circuit Protectors	
							Power Supplies	
							LED Illumination	
Model	ABN2F	ABFD2	ABN3	ABD3	ABN3G	ABGD3		
Widder	AON2F	A0FD2	AON3	A0D3	_	A0GD3	Controllers	
Page	B-310	B-326	B-311	B-327	B-311	B-327	Operator Interfaces	

							Sensors
Function			Push	button			
Onternet	Jumbo Mushroom Jumbo Mush		Jumbo Mushroom	with Shallow Shroud	Jumbo Mushroom	with Deep Shroud	AUTO-ID
Category	Momentary		Momentary		Momentary		
	_	Diecast Zinc		Diecast Zinc		Diecast Zinc	
							Flush Silhouette
Shape							ø16
							ø22
Model	ABN4	ABD4	ABN4G	ABGD4	ABN4F	ABFD4	ø30
Page	B-311	B-327	B-311	B-327	B-311	B-327	Miniature

Function		Pushbutton							
Category	Mushroom Pushlock Turn Reset (*1) Mushroom Push Turn Lock				Mushroom Pull				
		Diecast Zinc		Diecast Zinc		Diecast Zinc			
							TWN		
Shape							TWND		
							ARN		
Model	AVN3	AVD3	AJN3	AJD3	AZN3	AZD3	CS		
Page	B-312	B-328	B-312	B-328	B-312	B-328			

Function	Pushbutton						
Category	Mushroom Push-Pull		Pin Lock				
		Diecast Zinc		Diecast Zinc			
Shape	_	Ó	_				
Model	—	AYD3	—	ABD8P			
Page	— B-328		_	B-327			

\*1) Cannot be used as emergency stop switch based on ISO 13850 and IEC 60947-5-5.

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

# ø30 TWN/TWND Selection Guide

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Pilot	Function		LED Illuminated Pushbutton					
Ē	Catanami	Exte	Extended		th Half Shroud	Extended wit	th Full Shroud	
Lights	Category	Momentar	//Maintained	Momentary	Momentary/Maintained		/Maintained	
S S			Diecast Zinc		Diecast Zinc		Diecast Zinc	
APEM	Shape				_			
Switches & Pilot Lights								
Control Boxes		ALN2	ALD2	ALGN2		ALFN2	ALFD2	
Emergency Stop Switches	Model	AOLN2	AOLD2	AOLGN2	_	AOLFN2	A0LFD2	
Enabling	Page	B-313	B-329	B-313		B-313	B-329	
Switches			×					

Safety Products	Function		LED Illuminated Pushbutton					
Explosion Proof	Category	Mus	Mushroom		- Mushroom Pushlock Turn Reset (*1)		ush Turn Lock	
Terminal Blocks	oategory	Momentar	y/Maintained	WuShroom Tush		Widdinioonin		
Relays & Sockets			Diecast Zinc		Diecast Zinc		Diecast Zinc	
Circuit Protectors	Shape						_	
Power Supplies								
LED Illumination		ALN3	ALD3					
Controllers	Model AOLN3		ALD3 AOLD3	AVLN3	AVLD3	AJLN3	_	
Operator Interfaces	Page	B-313	B-330	B-314	B-330	B-313		

Sensors									
	Function		Selector Switches						
AUTO-ID	Category	Kn	ob	Le	Lever K		ey		
			Diecast Zinc		Diecast Zinc		Diecast Zinc		
Flush Silhouette	Shape								
ø16									
ø22				4					
ø30	Model	ASN	ASD	ASN□L	ASD□L	ASN□K	ASD□K		
Miniature	Page	B-316	B-331	B-317	B-332	B-318	B-333		

Pilot Lights	Function		Selector Switch	Selector Pushbutton		
	Category	Кеу	LED Illumir	nated Knob	Ring Op	perator
		Diecast Zinc			Diecast Zinc	
TWN						
TWND	Shape					
ARN					~	
CS	Model	ASNDK-N024401	ASLN	ASLD	ASBN2	ASBD2
	Page	B-319	B-320 B-334		B-323	B-335

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

\*1) Cannot be used as emergency stop switch based on ISO 13850 and IEC 60947-5-5.

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

# 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)





### **Ratings and Specifications**

### Contact ratings

V		
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)

HW-U10 (NO	contact), HW	-UU1 (NC contact)							AUTO-ID
Operating Voltag	ge		24V	48V	50V	110V	220V	440V	
	AC	AC-12 Control of resistive loads and solid state loads	10A	-	10A	10A	6A	2A	
Operating	50/60 Hz	AC-15 Control of electromagnetic loads (> 72 VA)	10A	-	7A	5A	3A	1A	
Current	DC	DC-12 Control of resistive loads and solid state loads	10A	5A	_	2.2A	1.1A	-	Flush Silho
		DC-13 Control of electromagnets	5A	2A	-	1.1A	0.6A	_	
									ø16

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

Operating Voltage			24V	48V	50V	110V	220V	440V	ø22
AC		AC-12 Control of resistive loads and solid state loads	5A	_	5A	5A	3A	1A	ø30
Operating 50/60 Hz		AC-15 Control of electromagnetic loads (> 72 VA)	5A	_	3.5A	2.5A	1.5A	0.5A	Miniature
Current	Current	DC-12 Control of resistive loads and solid state loads	5A	2.5A	-	1.1A	0.55A	-	Pilot Lights
	DC DC-13 Control of electromagnets			1A	-	0.55A	0.3A	-	

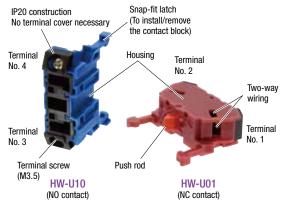
• The operating current represents the classification by making and breaking currents (IEC 60947-5-1).

· 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				
Contact	1N0	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		Appro	x. 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)



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

Silhouette

ARN CS

### ø30 TWN/TWND Series

### LED Illuminated Unit Ratings

Pilot	Linit						LED I	amp
et	Unit	Color	Rated Volta	ge	Operating Vo	oltage	Lamp Base	Part No.
Lights			6V AC/DC		6V AC/DC			LSTD-6*
hts			12V AC/DC		12V AC/DC			LSTD-1*
			24V AC/DC		24V AC/DC	AC/DC		LSTD-2*
			100/110V AC		100/110V AC	]		
APEM		R (red)	115/120V AC (*1)		115/120V AC (*1)	±10%	BA9S/13	
Switches &	Illuminated pushbutton	G (green)	120V AC (*2)		120V AC (*2)			
Pilot Lights	Illuminated selector switch	Δ (amber)	200/220V AC		200/220V AC			
Control Boxes	Pilot light	S (blue)	230/240V AC (*1)	50/60 Hz	230/240V AC (*1)			
Emergency		PW (pure white)	240V AC (*2)		240V AC (*2)			LSTD-6*
Stop Switches			380V AC		380V AC			
Enabling Switches			400/440V AC		400/440V AC			
		48			480V AC	]		
Safety Products			110V DC		90 to 140V DC			

• See LED lamps, see LED Lamp Ratings below. Explosion Proof

 Specify a color code in place of \*. Terminal Blocks

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

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

Relays & Sockets · 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

Power Supplies \*2) Pilot light LED Illumination

Protectors

Circuit

#### Controllers **Power Unit Terminal**

Operator Interfaces			Illuminated	d Unit			Pilot	Light
Sensors	Power Unit	Full voltage adapter	Transfo	rmer	DC-DC converter	Full voltage adapter (unibody)	Transformer	DC-DC converter
AUTO-ID	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 (–)
Flush Silhouette		X1						X1
ø16	Shape/Terminal		I Felle		<b>X1</b>	3 S X1		
ø22						X2		
ø30		X2	X1 X2		X2	(APN1)		X2
							^	

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

Pilot Lights

# LED Lamp Ratings (LSTD)

		•	<b>\</b> - /								
	Part No.			LSTD-6*		LS	TD-1*		LSTD-2*		
TWN	Lamp Base		BA9S/13								
	Rated Voltage		6V AC/DC		12V AC/DC	12V AC/DC					
TWND	Voltage Range		6V AC/DC ±10	\C/DC ±10%		12V AC/DC ±10%	12V AC/DC ±10%		/ 0		
ARN	<b>a</b>	Color	R, A	G, PW	S	R, G, A, PW	S	R, G, A, PW	S		
	Current Draw	DC	7mA	5.5mA	4.5mA	10mA	8mA	10mA	8mA		
CS	CS Diaw	AC	8mA	8mA	7mA	11mA	9mA	11mA	9mA		
	Lamp Base C	olor	Same as illum	Same as illumination color (PW: gray)							
	Voltage Marking Die stamped on the base										
	Life (referenc	e value)	Approx. 50,000 hours (The luminance is reduced to 50% the initial intensity when used on complete DC at 25°C.)								
				X1 °──□──		Symbols		Example: LSTD-2PW			
					× ×	, – Ki– LED chi	ip				
	Internal Circuit		Rectifier diode								
				X 2 - Resistor Base co			e color				
	Weight		Approx. 2g								

· Specify a color code in place of \*.

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

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

Switche

Specifications					hes & Pilot Lights	
Operating Temperature			Non-illuminated: -25 to +		Pii	
Storage Temperature			Illuminated: -25 to +50°C -40 to +80°C (no freezing	<u> -   원</u>		
Operating Humidity			45 to 85% RH (no conder			
Contact Resistance			43  to  35%  RH (no conder			
Insulation Resistance			$100 \text{ M}\Omega$ minimum (500V	,		
Dielectric Strength		Between live and dead m (Full voltage and pilot ligh 2000V AC, (pilot lights: 6V	APEM			
Vibration Resistance	Damage limits		30 Hz, amplitude 1.5 mm		Switches & Pilot Lights	
VIDIATION RESISTANCE	Operation extremes		5 to 55 Hz, amplitude 0.5	mm		
Shock Resistance	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	
	Pushbutton	Maintained	500,000 (over 3 contacts	: 250,000)	Switches	
	Pushbullon	Push lock turn reset	500,000		Safety Products	
		Pull	500,000			
Mechanical Life	chanical Life		2,500,000		Explosion Proof	
ninimum operations)		Maintained	500,000 (over 3 contacts: 250,000)		Terminal Blocks	
	Selector switch		500,000			
Key selector switch			500,000		Relays & Sockets	
	Illuminated selector swite	ch	500,000		Circuit	
	Selector pushbutton		250,000		Protectors	
	•	Momentary	500,000 Switching free	Switching frequency 1800 operations/h, duty ratio 40%		
	Pushbutton	Maintained	500,000 (over 3 contacts: 250,000) Switching frequency 900 operations/h, duty ratio 40%		LED Illumination	
		Push lock turn reset	500,000 Switching frequency 900 operations/h, duty ratio 40%			
Electrical Life		Momentary		uency 1800 operations/h, duty ratio 40%	Controllers	
(minimum operations) (*1)	Illuminated pushbutton	Maintained	500,000 (over 3 contacts: 250,000) Switching frequency 900 operations/h, duty ratio 40%		Operator Interfaces	
	Selector switch		500,000 Switching free	uency 1200 operations/h, duty ratio 40%	Sensors	
	Key selector switch		500,000 Switching free	uency 1200 operations/h, duty ratio 40%		
	Illuminated selector swite	ch		uency 1200 operations/h, duty ratio 40%	AUTO-ID	
	Selector pushbutton	1		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	
Weight (approx.)		Illuminated selector switch	ASLN22222DN: 106g	ASLN21622DN: 163g	ø16	
		Pilot light	APN122DN: 46g	APN116DN: 125g		
		Pushbutton	ABD122: 108g	ABD322: 113g	ø22	
		Illuminated pushbutton	ALD22222DN: 132g	ALD21622DN: 189g	ø30	
	TWND series	Selector switch	ASD222N: 110g	ASD2K22N: 147g	050	
		Illuminated selector switch Pilot light	ASLD22222DN: 133g APD122DN: 75g	ASLD21622DN: 190g APD116DN: 152g	Miniature	
(1) Load condition 220V AC				הוטרוטטווי. וטבע	Pilot Lights	

\*1) 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 corioo	Key selector switch	ASN□K	IP65	Dust-proof/jet-proof	
TWN series	Illuminated selector switch	ASLN			
	Selector pushbutton	ASBN			
	Round pilot light	APN			
	Square pilot light	UPQN	IP40	_	
	Pushbutton	ABD, AOD, AVD			
	Illuminated pushbutton	ALD, AOLD, AVLD			
-	Selector switch	ASD, ASD□L			
TWND series Diecast zinc	Key selector switch	ASD□K	IP65	Dustproof/jet-proof	
	Illuminated selector switch	ASLD			
	Selector pushbutton	ASBD			
	Round pilot light	APD			

• 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.

TWN TWND

ARN CS

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

APEM

Control Boxes

Emergency

Enabling Switches Safety Products

Stop Switches

Explosion Proof Terminal Blocks

Relays & Sockets

Power Supplies

LED Illumination

Controllers

Operator

Sensors

AUTO-ID

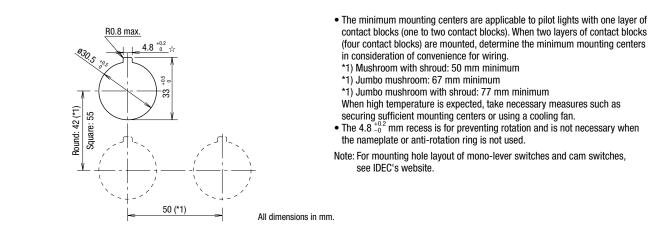
ø16

Minia Pilot Lig

Interfaces

Circuit Protectors

# Mounting Hole Layout/Mounting Centers



### 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.

Codor

silver

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

### **Ordering Information**

### Flush Silhouette Pushbutton

When specifying gold-plated silver contact and contact configuration:

Ø22	TWN series (B-310 to B-312)	<codes></codes>
ø30		① Optional contact
000	ABN 2 <u>11</u> R - MAU	MAU: Gold-plated s
ature	① Optional contact	② Contact configuration
ights	© Contact configuration	10: 1NO
	·	01: 1NC
		11: 1NO1NC
	TWND series (B-326 to B-328)	20: 2NO
TWN	TWIND Series (D-320 to D-320)	02: 2NC
IVVIN	ABD 2 <u>11</u> NR - <u>MAU</u>	22: 2NO2NC
WND	① Optional contact	40: 4NO
		04: 4NC
ARN	© Contact configuration	13: 1NO3NC
		31: 3NO1NC
CS		30: 3NO
		03: 3NC
		12: 1NO2NC
		21: 2N01NC

Note:

· Pushbutton with one or three contact blocks contains a dummy block.

• Mushroom pull pushbuttons AZN, AZD and mushroom push-pull AYD have up to two contacts in one layer.

# **Ordering Information**

### **Illuminated Pushbutton**

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

			0,
TWN series ( <mark>B-313</mark> to <mark>B-315</mark> )	<codes> ① Optional contact</codes>		
ALFN 2 126 13 DN R - MAU	MAU: Gold-plated silver		APEM
© Contact configura	ation <sup>(2)</sup> Contact configuration		Switches & Pilot Lights
③ Operating voltage	e 10: 1NO 01: 1NC		Control Boxes
TWND series (B-329 to B-330)	11: 1N01NC 20: 2NO		Emergency Stop Switches
ALFD 2 <u>126 13</u> DN R - <u>MAU</u>	02: 2NC		Enabling
	31: 3N01NC 22: 2N02NC		Switches
© Contact configura			Safety Products
③ Operating voltage	e 40: 4NO 04: 4NC		Explosion Proof
	③ Operating voltage		Terminal Blocks
	99: Without LED lamp		Relays & Sockets
	66: 6V AC/DC 11: 12V AC/DC		Circuit Protectors
	22: 24V AC/DC 16: 100/110V AC		Power Supplies
	126: 115/120V AC 26: 200/220V AC		LED Illumination
	246: 230/240V AC 386: 380V AC		Controllers
	46: 400/440V AC		Operator Interfaces
Note:	486: 480V AC		Sensors
<ul> <li>Odd number of contact blocks, such as 1N0, 1NC, 3N0, 2N0-1N0</li> <li>Illuminated pushbuttons of 24V AC/DC and below with two or fou</li> <li>Son P. 200 for how to applie 110/ DC model (DC Consuster)</li> </ul>	r contact blocks contain a dummy block.	r over.	AUTO-ID
<ul> <li>See B-309 for how to specify 110V DC model (DC-DC converter).</li> <li>Color codes for units without LED lamps:</li> </ul>			
R (red), G (green), A (amber), Y (yellow), S (blue) When using a commercially available lamp, choose a lamp with r	rated voltage 5 to 30V AC/DC and 1W maximum, and with the sa	me base and shape.	
Selector Switch			Flush Silhouette
When specifying gold-plated silver contact and cont	tact configuration.		ø16
	-		ø22
TWN series (B-316 to B-319)	TWND series (B-331 to B-333)	<codes> ① Optional contact</codes>	ø30
ASN 2 <u>11</u> N - <u>MAU</u> ① Optional contact	ASD 2 <u>11</u> N - <u>MAU</u>	MAU: Gold-plated silver	Miniature
© Contact configuration	© Contact configuration		Pilot Lights

### Key removable position code (example)

	Position	Key removable position	Key removable		Part No. Example	
	Position	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
2-position		Removable in right only	C	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	C	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
0		Removable in right only	н	ASN3K20NH	ASN3K20NH-N024401	ASD3K20NH
3-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

• The key cannot be removed in spring return positions.

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

### ø30 TWN/TWND Series

### **Ordering Information**

### Illuminated Selector Switch

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

0,	TWN series ( <mark>B-320</mark> )		<codes></codes>
APEM Switches & Pilot Lights	ASLN 2 <u>16</u> <u>22</u> DN - <u>MAU</u>	— ① Optional contact — ② Contact configuration (see <mark>B-321</mark> to <mark>B-322</mark> )	55. Without LED lamp
Control Boxes	TWND parion (P. 224)	③ Operating voltage	66: 6V AC/DC 11: 12V AC/DC
Emergency Stop Switches	TWND series ( <mark>B-334</mark> ) ASLD 2 16 22 DN - MAU		22: 24V AC/DC 16: 100/110V AC
Enabling Switches		$ \oplus$ Optional contact	136: 115/120V AC 26: 200/220V AC
Safety Products		© Contact configuration     © Constant configuration	256: 230/240V AC
Explosion Proof		— ③ Operating voltage	386: 380V AC 46: 400/440V AC
Terminal Blocks	Note:		486: 480V AC

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.

Relays & Sockets • 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). Circuit

• 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></codes>
_		① Operating voltage
	APN1 <u>26</u> DN R	99: Without LED lamp
_	① Operating voltage	66: 6V AC/DC
		11: 12V AC/DC
-	UPQN3B <u>22</u> D R	22: 24V AC/DC
	① Operating voltage	16: 100/110V AC
		126: 115/120V AC
-	TWND series ( <mark>B-336</mark> )	26: 200/220V AC
		246: 230/240V AC
_	APD1 <u>26</u> DN R	386: 380V AC
_	① Operating voltage	46: 400/440V AC
		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 (yellow), 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



<Codes> ① Operating voltage 16 🖂 D: 110V DC

### ASLN2 16 11D DN Y

① Operating voltage

### APN1 <u>16 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

① Operating voltage

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

• 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).

Protectors

Power Supplies

LED Illumination

Flush Silhouette

ø16 ø22

Miniature

Pilot Lights

ARN

CS

Controllers Operator Interfaces Sensors AUTO-ID

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

Switches & Pil

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

						Package Quantity: 1	lot
Shape	Operation	Contact	Part No. (Ordering No.)	Button Color Code	Dimensions	(All dimensions in mm.)	liot Lights
Flush		1N0	ABN110*	В			S
ABN1 AON1		1NC	ABN101*	GR			
	Momentary	1NO-1NC	ABN111*	н - Ү			APEM
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	2N0	ABN120*	S		Panel Thickness 0.8 to 7.5	
1000		2NC	ABN102*	W			Switches & Pilot Lights
		2N0-2NC	ABN122*	Note	4 - <b>e</b>		Control Boxes
		1N0 1NC	A0N110*	B	A B		Emergency
		1NO-1NC	A0N101*	G R	45.4 (1 or 2 blocks) 65.4(3 or 4 blocks)	9 ø39	Stop Switches
	Maintained	2N0	A0N111* A0N120*	- Y		++ <u>3</u> + + 100 +	Enabling
		2N0 2NC	AUN120* AON102*	S			Switches
		2NO-2NC	AON102*	W Note			Safety Products
Extended		1N0	AUN122* ABN210*				Explosion Proof
ABN2		1NC	ABN210* ABN201*	В			· · · · · · · · · · · · · · · · · · ·
AON2		1NO-1NC	ABN201* ABN211*	G			Terminal Blocks
	Momentary	2N0	ABN220*	R Y		Panel Thickness 0.8 to 7.5	Relays & Sockets
		2NC	ABN220*	S			Circuit
1	Maintained	2N0-2NC	ABN202*	W			Protectors
		1N0	AON210*	+			Power Supplies
		1NC	A0N201*	B	45.4 (1 or 2 blocks) 65.4 (3 or 4 blocks)		LED Illumination
		1N0-1NC	AON211*	– G R		29.6 14 Ø39	
		2N0	AON220*	Y			Controllers
		2NC	A0N202*	S			Operator
		2N0-2NC	A0N222*	W			Interfaces
Extended with Half Shroud		1N0	ABN2G10*				Sensors
ABN2G		1NC	ABN2G01*	B G			AUTO-ID
AON2G		1NO-1NC	ABN2G11*	R			
- 6	Momentary	2N0	ABN2G20*	Y	-++-	Panel Thickness 0.8 to 3.5	
		2NC	ABN2G02*	S	TETET		
		2N0-2NC	ABN2G22*	W	4	24 57 632 633 638 638 648 638 648 648 648 648 648 648 648 64	Flush Silhouette
		1N0	AON2G10*	D	40.9 (1 or 2 blocks) 18.5	935 935 935	
		1NC	AON2G01*	B G		18.5	ø16
	Maintained	1NO-1NC	AON2G11*	R	60.9 (3 or 4 blocks)	20.5	ø22
	Wallitaneu	2N0	AON2G20*	Y			
		2NC	AON2G02*	S W			ø30
		2N0-2NC	AON2G22*	¥*			Miniature
Extended with Full Shroud		1N0	ABN2F10*	В			Dilet Lighto
ABN2F AON2F		1NC	ABN2F01*	G			Pilot Lights
	Momentary	1NO-1NC	ABN2F11*	R			
	inonita j	2N0	ABN2F20*	Y S		Panel Thickness 0.8 to 6	
A CONTRACTOR OF A CONTRACTOR OFTA CONTRACTOR O		2NC	ABN2F02*	S W	1 BY BY		TWN
		2N0-2NC	ABN2F22*		4. <b>1 1 1 1 1 1 1 1 1 1</b>		TWN
		1N0	AON2F10*	В			TWND
		1NC	AON2F01*	G	45.4 (1 or 2 blocks)	14 29.6	ARN
	Maintained	1N0-1NC	AON2F11*	R	65.4 (3 or 4 blocks)	16.5	
		2N0	AON2F20*	Y S			CS
		2NC	AON2F02*	- W			
		2N0-2NC	AON2F22*				l

• 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

Mote 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.

# ø30 TWN Series

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

Pilot Lights						Package Quantity: 1
Ligh	Shape	Operation	Contact	Part No. (Ordering No.)	Button Color Code	Dimensions (All dimensions in mm.)
ts	Mushroom		1N0	ABN310*		
	ABN3 AON3		1NC	ABN301*	B G	
APEM		Momentary	1NO-1NC	ABN311*	R	
Switches &			2N0 2NC	ABN320* ABN302*	Y S	
Pilot Lights	1		2NO-2NC	ABN302* ABN322*	W	
Control Boxes			1N0	AON310*		
Emergency Stop Switches			1NC	A0N301*	B G	45.4 (1 or 2 blocks)
Enabling		Maintained	1NO-1NC	A0N311*	R	65.4 (3 or 4 blocks) 22
Switches			2N0	A0N320*	Y S	
Safety Products			2NC 2NO-2NC	A0N302* A0N322*	Ŵ	
Explosion Proof	Mushroom with Full Shroud		1N0	ABN3G10*		
Terminal Blocks	ABN3G		1NC	ABN3G01*	В	
Relays & Sockets			1NO-1NC	ABN3G11*	G R	
Circuit		Momentary	2N0	ABN3G20*	Y	
Protectors Power Supplies			2NC	ABN3G02*	S W	43.9 (1 or 2 blocks) 63.9 (3 or 4 blocks) 23.5
			2N0-2NC	ABN3G22*		
LED Illumination	Jumbo Mushroom	Momentary	1N0	ABN410*	BG	
Controllers	ABN4		1NC	ABN401*		
Operator Interfaces			1NO-1NC	ABN411*		
Sensors			2N0	ABN420*	R Y	
AUTO-ID			2NC	ABN402*	I	45.4 (1 or 2 blocks)
			2N0-2NC	ABN422*		65 <sup>.4</sup> (3 or 4 blocks) 29 29
	Jumbo Mushroom with Shallow Shroud		1N0	ABN4G10*		Panel Thickness 0.8 to 7.5
Flush Silhouette	ABN4G		1NC	ABN4G01*		
ø16			1NO-1NC	ABN4G11*	B G	
ø22		Momentary	2N0	ABN4G20*	R	
			2NC	ABN4G02*	. T	
ø30			2N0-2NC	ABN4G22*	-	45.4 (1 or 2 blocks) 65.4 (3 or 4 blocks) 29
Miniature	Jumbo Mushroom with		1N0	ABN4F10*		
Pilot Lights	Deep Shroud ABN4F		1NC	ABN4F01*	-	Panel Thickness 0.8 to 7.5
			1NO-1NC	ABN4F11*	В	
TWN		Momentary	2N0	ABN4F11*	G R	
TWND			2NO 2NC	ABN4F02*	Y	
ARN					{	45.4 (1 or 2 blocks) 65.4 (3 or 4 blocks) 33
	Specify a color code in place of * ir	Part No. B (blac)	2NO-2NC k). G (green). R	ABN4F22* (red). Y (vellow). S	S (blue). W (wł	
63	Bound bezel and shroud (metal): Ch	romo plotod	., a (groon), n	(100), 1 (yonow), (		

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

Shape	Contact	Part No. (Ordering No.)	Button Color Code	Dimensions	(All dimensions in mm.		
Mushroom Pushlock Turn Reset (*1) AVN3	1N0	AVN310N*					
AVINO	1NC	AVN301N*		Panel	Thickness 0.8 to 7.5		
1	1NO-1NC	AVN311N*	R				
	2N0	AVN320N*	Y				
	2NC	AVN302N*		45.4 (1 or 2 blocks)	29.6		
	2NO-2NC	AVN322N*		65.4 (3 or 4 blocks) 23.			
Mushroom Push Turn Lock	1N0	AJN310N*		, Panel Thickness 0.8 to 7.5			
AJN3	1NC	AJN301N*	B G R Y				
1	1NO-1NC	AJN311N*					
	2N0	AJN320N*					
	2NC	AJN302N*		45.4 (1 or 2 blocks) 65.4 (3 or 4 blocks) 23.1	29.6		
	2NO-2NC	AJN322N*		r			
Mushroom Pull AZN3	1N0	AZN310N*					
AZINO AZINO	1NC	AZN301N*			Thickness 0.8 to 7.5		
	1NO-1NC	AZN311N*	B G				
	2N0	AZN320N*	R	4.14			
	2NC	AZN302N*	Y	45.4 25.1	1 5.5 stroke 29.6		
Specify a color code in place of * in Part	No B (black) G (groot	a) D (rad) V (vallow)		1			

• 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.

### <u>Pull</u>

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

Pull contact operation

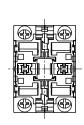
Contact	AZN3				
Contact	Normal	Pull			
1N0	ملم	٥۲			
2N0-2NC	പ്പം 🕂	0 0 1			
2N0	میہ میں	0 0 0 1 0			
2NC	•••	<u></u>			

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

Dummy Block



	/
	Ð
- [33]-]-	<b>_</b>
	働



2/4 contact blocks

• See B-348 for wiring. • Integrated terminal cover

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

3 contact blocks

**Dummy Block** 



trol Boxes rgency Switches

oling ches

ty Products

osion Proof

inal Blocks

ys & Sockets

uit ectors

er Supplies

Illumination

Controllers	

rator faces

sors AUTO-ID

Flush Silhouette ø16 ø22 Miniature Pilot Lights

TWN	
TWND	
ARN	
CS	

### ø30 TWN Series

Switches & P

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

호							Pad	ckage Quantity: 1
Pilot Lights	Shape	Base	Operation	Operating Voltage	Contact	Part No. (Ordering No.)	Color Code	Dimensions Page
	Extended				1NO-1NC	ALN22211DN*		
	ALN2 AOLN2			24V AC/DC	2N0	ALN22220DN*		
APEM	AOLINZ				2NC	ALN22202DN*	R	
Switches &					1NO-1NC	ALN21611DN*	G Y	
Pilot Lights			Momentary	100/110V AC	2N0	ALN21620DN*	- A	
Control Boxes					2NC	ALN21602DN*	S	
Emergency					1NO-1NC	ALN22611DN*	PW	
Stop Switches				200/220V AC	2N0	ALN22620DN*	-	
Enabling Switches	(24VAC/DC)	BA9S			2NC	ALN22602DN*		
	and the second s			0.01/ 0.0/00	1NO-1NC	AOLN22211DN*	-	
Safety Products				24V AC/DC	2N0	AOLN22220DN*		
Explosion Proof					2NC	A0LN22202DN*	R G	
Terminal Blocks			Maintained	100/110V AC	1NO-1NC 2N0	AOLN21611DN* AOLN21620DN*	Ŷ	
			Maintaineu	100/110V AC	2NC	AOLN21602DN*	A	
Relays & Sockets					1NO-1NC	AOLN22611DN*	_ S _ PW	
Circuit	With transformer			200/220V AC	2N0	AOLN22620DN*		
Protectors	(100/110V AC)			200/220110	2NC	AOLN22602DN*	-	
Power Supplies	Extended with Half Shroud				1NO-1NC	ALGN22211DN*		
LED Illumination	ALGN2			24V AC/DC	2N0	ALGN22220DN*	-	
	AOLGN2				2NC	ALGN22202DN*	R	
Controllers					1NO-1NC	ALGN21611DN*	G	
Operator Interfaces			Momentary	100/110V AC	2N0	ALGN21620DN*	Y A S	- B-315
		BA9S			2NC	ALGN21602DN*		
Sensors				200/220V AC	1NO-1NC	ALGN22611DN*	PW	
AUTO-ID					2N0	ALGN22620DN*	- R - G - Y - A	
	(24V AC/DC)				2NC	ALGN22602DN*		
		DA95		24V AC/DC	1NO-1NC	AOLGN22211DN*		
					2N0	AOLGN22220DN*		
Flush Silhouette					2NC	AOLGN22202DN*		
ø16				100/110V AC	1NO-1NC	AOLGN21611DN*		
			Maintained		2N0	AOLGN21620DN*		
ø22					2NC	AOLGN21602DN*	S	
ø30					1NO-1NC	AOLGN22611DN*	PW	
. Alia ia kuwa	With transformer (100/110V AC)			200/220V AC	2N0	AOLGN22620DN*	_	
Miniature					2NC	AOLGN22602DN*		
Pilot Lights	Extended with Full Shroud ALFN2			241/ 40/00	1NO-1NC	ALFN22211DN*	-	
	AOLFN2			24V AC/DC	2N0 2NC	ALFN22220DN*		
					2NC 1NO-1NC	ALFN22202DN* ALFN21611DN*	R G	
			Momentary	100/110V AC	2N0	ALFN21620DN*	Y	
TWN			womentary	TOU/TTUVAU	2NC	ALFN21602DN*	A	
TWND					1NO-1NC	ALFN22611DN*	_ S _ PW	
				200/220V AC	2N0	ALFN22620DN*	1	
ARN	(24V AC/DC)				2NC	ALFN22602DN*	1	
CS		BA9S			1NO-1NC	AOLFN22211DN*		
				24V AC/DC	2N0	AOLFN22220DN*	1	
					2NC	AOLFN22202DN*	R	
					1NO-1NC	AOLFN21611DN*	G	
			Maintained	100/110V AC	2N0	AOLFN21620DN*	A Y	
					2NC	AOLFN21602DN*	S A	
					1NO-1NC	AOLFN22611DN*	PW	
	With transformer			200/220V AC	2N0	AOLFN22620DN*		
	(100/110V AC)				2NC	AOLFN22602DN*		

• 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 dummy block.

 $\bullet$  See  $\ensuremath{\text{B-308}}$  for other contact configurations and gold-plated silver contacts.

• See B-308 for how to specify units without LED lamps. When using a commercially available lamp, choose a lamp with rated voltage 5 to 30V AC/DC and 1W maximum, and with the same base and shape.

Make sure of correct operation before installation. The operation of illuminated pushbutton switches cannot be guaranteed when a commercially available lamp is used. • See B-314 for bottom view.

• Terminal screws: M3.5

Integrated terminal cover

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

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

						Pa	ckage Quantity: 1	ilot
Shape	Base	Operation	Operating Voltage	Contact	Part No. (Ordering No.)	Color Code	Dimensions Page	<sup>p</sup> ilot Lights
Mushroom (ø40)				1NO-1NC	ALN32211DN *			<u>v</u>
ALN3			24V AC/DC	2N0	ALN32220DN *			
AOLN3				2NC	ALN32202DN *	R		
				1NO-1NC	ALN31611DN *	G		APEM
		Momentary	100/110V AC	2N0	ALN31620DN *	Y A		Switches &
				2NC	ALN31602DN *	S		Pilot Lights
				1NO-1NC	ALN32611DN *	PW		Control Boxes
			200/220V AC	2N0	ALN32620DN *			Emergency Stop Switches
(24V AC/DC)	DAOC			2NC	ALN32602DN *			Stop Switches Enabling
	BA9S			1NO-1NC	AOLN32211DN *		– B-315	Switches
Name Tak			24V AC/DC	2N0	AOLN32220DN *			Safety Products
		Maintained		2NC	AOLN32202DN *	R		
			Maintained 100/110V AC	1NO-1NC	AOLN31611DN *	G		Explosion Proof
With tranformer	N			2N0	AOLN31620DN *	Y A S PW		Terminal Blocks
				2NC	AOLN31602DN *			
			200/220V AC	1NO-1NC	AOLN32611DN *			Relays & Sockets
				2N0	AOLN32620DN *			Circuit
(100/110V AC)				2NC	AOLN32602DN *			Protectors
Mushroom Pushlock Turn Reset		_	24V AC/DC	1NO-1NC	AVLN32211DN *	_		Power Supplies
AVLN3 (*1)				2N0	AVLN32220DN *			LED Illumination
				2NC	AVLN32202DN *			
			100/110V AC	1NO-1NC	AVLN31611DN *	1		Controllers
	BA9S			2N0	AVLN31620DN *	R		Operator Interfaces
				2NC	AVLN31602DN *			
				1NO-1NC	AVLN32611DN *			Sensors
			200/220V AC	2N0	AVLN32620DN *			AUTO-ID
(24V AC/DC)				2NC	AVLN32602DN *			
Mushroom Push Turn Lock				1NO-1NC	AJLN32211DN *			
AJLN3			24V AC/DC	2N0	AJLN32220DN *			
				2NC	AJLN32202DN *	R		Flush Silhouette
				1NO-1NC	AJLN31611DN *	G		
	BA9S	—	100/110V AC	2N0	AJLN31620DN *	Y		ø16
				2NC	AJLN31602DN *	A		ø22
				1NO-1NC	AJLN32611DN *	PW		
			200/220V AC	2N0	AJLN32620DN *			ø30
(24V AC/DC)				2NC	AJLN32602DN *			Miniature

• 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.

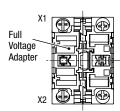
### Illuminated pushbutton operation

Pushlock Turn Reset

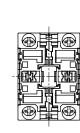
Button is maintained when pressed and is reset when turned clockwise.

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

6V, 12V, 24V AC/DC



1 contact block



3 contact blocks

See B-348 for wiring.

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

Dummy Block

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

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

110V DC, 380V AC or over



DC-DC converter unit Terminal No. X1: positive Terminal No. X2: negative Switches & Pilot Lights

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

2/4 contact blocks

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Pilot Lights

TWND

ARN

CS

# **Dimensions (Illuminated Pushbuttons)**

ess 0.8 to 7.5

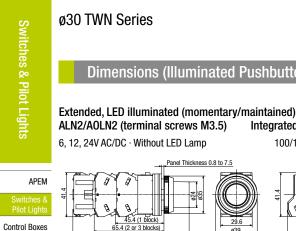
Panel Thic

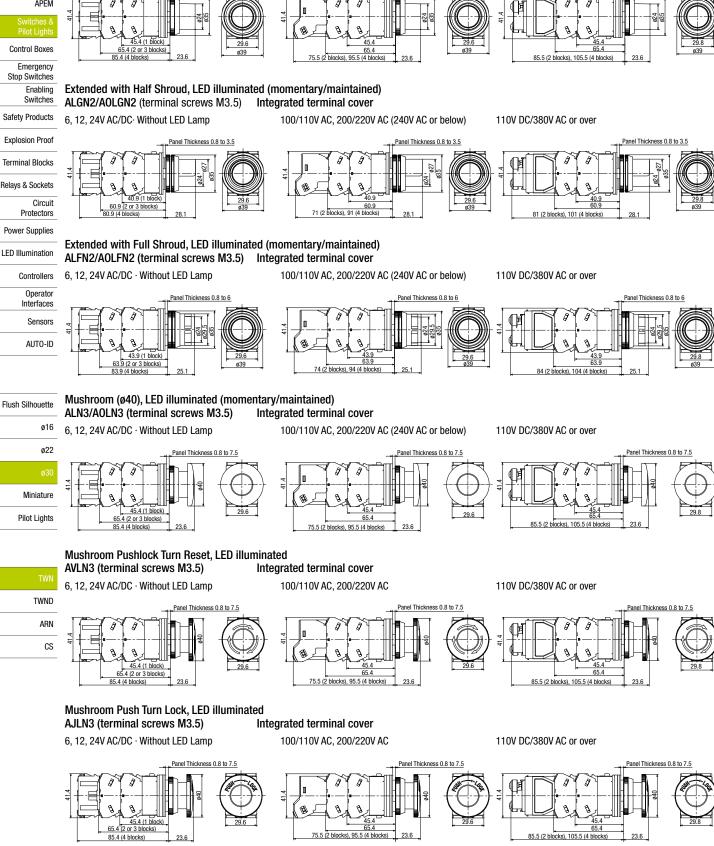
Integrated terminal cover

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

Panel Thic

ss 0.8 to 7.5





All dimensions in mm.

Panel Thickness 0.8 to 7.5

110V DC/380V AC or over

### ASN Selector Switches (Knob Operator)

Package Quantity: 1

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Open set         Contact Configuration         Maintained Position         Spring Return from Right 1         Spring Return from Right 1         Spring Return Position         Spring Return Position         Contact Elock         Operator Position         Contact Elock         Operat	Shape	Knob Opera ASN	tor						6						Lights
Contact Configuration         Maintained         Trom Right inon Right         Spring Return from Left         Position Position         Contact Block         Operator Position         Contofff         Contact Block         O								ч							APEM
Contact         Contact Block         Position Position         1         2         1         2         1         2         Contact Block         Position Position         1         2         1         2         Contact Block         Position Position         1         2         1         2         Mounting Mounting         Contact Block         Position Position         1         2         Mounting Mounting         Contact Block         Position Position         Contact Block         Position         Contact Block         Position         Contact Softward         Contact Softward <t< td=""><td></td><td></td><td>Contact C</td><td>onfiguratio</td><td>n</td><td></td><td></td><td>Maintained</td><td></td><td></td><td>Spring</td><td>g Retur</td><td>n from</td><td>Left</td><td>Switches &amp; Pilot Lights</td></t<>			Contact C	onfiguratio	n			Maintained			Spring	g Retur	n from	Left	Switches & Pilot Lights
United 90°         Mounting 100         Contact         1         2         Mounting Forthing Solution         Mounting Contact         Contact         1         2         Solution Forthing Solution         Solution Solution         So		Orinteet	Contact	Block				1 2	1 🔨 2	Contact	Block			1 2	
B0° 2-position         1N0         00         N0         0         ASN210N         ASN211N         0         N0         ASN221N         Safety Products           2-position         1N0-1NC         0         N0         0         ASN211N         ASN211N         0         N0         ASN221N         Explosion Prod           2N0         0         N0         0         ASN221N         ASN212N         0         0         ASN221N         Explosion Prod           2N0         0         N0         0         ASN22N         ASN212N         0         0         ASN222N         Explosion Prod           2N0         0         N0         0         ASN22N         ASN212N         0         0         ASN222N         Explosion Prod           2N0         0         N0         0         ASN22N         ASN212N         0         0         ASN22N         Epideas         E		Contact		Contact	1	2			$\sim$		Contact	1	2		Stop Switches Enabling
2-position         1N0-1NC (11)         0         NO         0         ASN211N         ASN211N         0         NO         ASN2211N         Epoision Prod           2NO         0         NO         0         ASN220N         ASN2120N         0         NO         0         ASN220N         ASN2120N         0         NO         0         ASN2220N         ASN2220N         ASN2120N         0         NO         0         ASN2220N         ASN2220N         ASN2220N         ASN2220N         ASN2220N         ASN2220N         ASN2220N         ASN2222N         ASN222N         ASN222N         ASN222N         ASN222N         ASN222N         ASN222N         ASN222N         ASN222N         ASN320N         ASN320N         ASN320N         ASN320N         ASN320N         ASN320N         ASN322N         ASN3320N         ASN332N	00%				Dur	-	lock	ASN210N	ASN2110N		NO —	•	_	ASN2210N	
2N0 (20)         0 (20)         N0 (20)         N0 (20)         N0 (20)         ASN220N         ASN2120N         0 (20)         N0 (20)         ASN2220N         ASN222N         ASN2120N         0 (20)         N0 (20)         ASN2220N         ASN222N         ASN2122N         0 (20)         N0 (20)         ASN222N         ASN2122N         0 (20)         N0 (20)         ASN222N         ASN2122N         ASN2122N         ASN222N         ASN222N         ASN2122N         ASN222N         ASN322N         ASN320N         ASN3320N         ASN3320N         ASN3320N         ASN3320N         ASN3320N		1NO-1NC	0	NO				ASN211N	ASN2111N	0		•		ASN2211N	Explosion Proof
Image: Second		2N0	0	NO		-		ASN220N	ASN2120N	0	NO	-		ASN2220N	Terminal Blocks
2 NO 2NO         NO         ASN222N         ASN222N         ASN2122N         ASN2122N         ASN222N         ASN2122N         ASN222N         ASN222N         ASN222N         ASN212N         ASN222N         ASN222N         ASN222N         ASN212N         ASN22N         ASN222N         ASN22N         ASN22N         ASN32ON         ASN32ON         ASN32ON         ASN332ON			0	NO		-				0	NO				
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$				NO	•	•		ASN222N	ASN2122N		NO	•	•	ASN2222N	Protectors
$45^{\circ}$ $3 \text{-position}$ $41^{\circ}$ $45^{\circ}$ $3 \text{-position}$ $45^{\circ}$ $3 \text{-position}$ $41^{\circ}$ $45^{\circ}$ $3 \text{-position}$ $45^{\circ}$ $3 \text{-position}$ $45^{\circ}$ $3 \text{-position}$ $41^{\circ}$ $41$								Maintained		-		om Lef			
45°         Contact         Mounting         Contact         1         0         2         1         0         1         0         1         0         1         0         1         0         1         0         1         0         1					0				0	oprinț				Two-way	
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		Contact	Mounting												
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		2N0	-	NO	•			A6N220N	ACN2120N		ACN22201			ACN2220N	Sensors
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		. ,					•	ASINSZUN	A3N3120N		A3N32201			ASINSSZUN	AUTO-ID
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$								ASN302N	ASN3102N		ASN32021	N		ASN3302N	
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		(02)													
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		200-200					•	-							
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	450							ASN322N	ASN3122N		ASN32221	N		ASN3322N	Flush Silhouette
$ \begin{vmatrix} 0 & NO & \bullet & \bullet \\ \hline 2 & NO & \bullet & \bullet \\ \hline 2 & NO & \bullet & \bullet \\ \hline 3 & NO & \bullet & \bullet \\ \hline 4 & NO & \bullet & \bullet \\ \hline 4 & NO & \bullet & \bullet \\ \hline 0 & NC & \bullet & \bullet \\ \hline 4 & NC & \bullet & \bullet \\ \hline 0 & NC & \bullet & \bullet \\ \hline 4 & NC & \bullet & \bullet \\ \hline 6 & NC & \bullet & \bullet \\ \hline 6 & NC & \bullet & \bullet \\ \hline 6 & NC & \bullet & \bullet \\ \hline 6 & NC & \bullet & \bullet \\ \hline 6 & NC & \bullet & \bullet \\ \hline 6 & NC & \bullet & \bullet \\ \hline 6 & NC & \bullet & \bullet \\ \hline 6 & NC & \bullet & \bullet \\ \hline 7 & NO & \bullet \\ \hline 7 & P$															ø16
$ \begin{array}{ c c c c c c c } \hline & 4 \\ \hline & 4 \\ \hline & 0 \\ \hline \hline & 0 \\ \hline & 0 \\ \hline \hline \\ \hline \hline & 0 \\ \hline \hline \hline & 0 \\ \hline \hline \\ \hline \hline \hline \\ \hline $				NO											#22
$\left  \begin{array}{c c c c c c c c c c c c c c c c c c c $								45N340N	<b>ASN3140N</b>		ASN32401	N		ASN3340N	022
$ \begin{array}{ c c c c c c c } \hline & & & & & & & & & & & & & & & & & & $		(40)							Action		701102-101			Aditoo-ton	ø30
$ \begin{array}{ c c c c c c c } \hline & & & & & & & & \\ \hline & & & & & & & \\ \hline & & & &$							•								Miniature
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$								-							
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$								ASN304N	ASN3104N		ASN32041	N		ASN3304N	Pilot Lights
$\begin{array}{ c c c c c c }\hline & & & & & & & & \\ \hline & & & & & & \\ \hline & & & &$		(04)						-							
$ \begin{array}{ c c c c c c c } & & & & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & & \\ & & & & & \\ & $															
3S     3S     NC     Image: ASN33SN-243     Image: ASN33SN-243     Image: ASN33SN-243		~						- ☆							
							-		—		_			_	TWN
			(3) (4)		Dur		lock								TWND

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.

### **Contact Block Mounting Position**

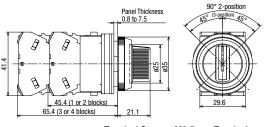


ARN current value). Rated insulation voltage and rated current remain the same. CS

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

# ø30 TWN Series

ASN-□	Selector	Switches	(Lever	Operator)	



	Lever Operator ASN□L
Shape	



40514													
APEM Switches &								Spring Return	1				
Pilot Lights			Contact C	configuratio	on		Maintained	from Right		Spring	Return	from Le	eft
Control Boxes			Contact	Block		erator sition	1 2	1 2	Contact	Block		erator	1. 2
Stop Switches Enabling		Contact	Mounting Position	Contact	t 1 2				Mounting Position	Contact	1	2	
Switches		1N0	0	NO		•			0	NO	•		
Safety Products	90°	(10)	2			y Block	ASN2L10N	ASN21L10N	2	_		_	ASN22L10N
Explosion Proof	2-position	1NO-1NC	0	NO		•			0	NO	•		
Explosion 1001		(11)	2	NC	•		ASN2L11N	ASN21L11N	2	NC		•	ASN22L11N
Terminal Blocks		2N0	0	NO	(	•		ACN011 20N	0	NO	۲		
Relays & Sockets		(20)	2	NO		•	ASN2L20N	ASN21L20N	2	NO	۲		ASN22L20N
			1	NO	(	•			1	NO	۲		
Circuit Protectors		2N0-2NC	2	NC	•		ASN2L22N	ASN21L22N	2	NC			ASN22L22N
		(22)	3	NO		•	ASINZLZZIN	ASINZTLZZIN	3	NO	۲		ASINZZLZZIN
Power Supplies			4	NC					4	NC			
LED Illumination			Contact C	Configuratio	on		Maintained	Spring Return from Right	Sprir	ng Return fr	om Lef	ft	Spring Return Two-way
Controllers			Contact	Plack		erator				1,02	,		
Operator		Contact	COMACI	DIUCK	Pos	sition		1  0  2					$1 \xrightarrow{0} 2$
Interfaces Sensors		Contact	Mounting Position	Contact	1	0 2		$\bigvee$		$\bigvee$			
		2N0	1	NO				ACN211 20N			M		
AUTO-ID		(20)	2	NO			ASN3L20N	ASN31L20N		ASN32L20	IN		ASN33L20N
		2NC	1	NO	(		ASN3L02N	ASN31L02N		ASN32L02	AN I		ASN33L02N
		(02)	2	NO			ASINGLUZIN	ASINGTLUZIN		ASINGZEUZ	.11		ASINSSLUZIN
			1	NO									
Flush Silhouette		2N0-2NC	2	NO		•	ASN3L22N	ASN31L22N		ASN32L22	AN .		ASN33L22N
ø16	45°	(22)	3	NO			ASINGLZZIN	ASINGTLEZIN		AUNJZLZZ	.11		ASINGGLZZIN
	3-position		4	NO									
ø22			0	NO	•		-						
ø30		4N0	2	NO		•	ASN3L40N	ASN31L40N		ASN32L40	N		ASN33L40N
000		(40)	3	NO	•								1010021011
Miniature			4	NO		•							
Dilot Lighto			0	NO			-						
Pilot Lights		4NC	2	NO			ASN3L04N	ASN31L04N		ASN32L04	N		ASN33L04N
		(04)	3	NO									
			4	NO									
		~~	0	NO	•	-							
TWN		☆ 3S	2	NO		•	ASN3L3SN-243	_		_			_
TWND			3	NO			-						
			4		Dumm	iy Block							L

 Lever: Black 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.

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

Turn the operator to each position accurately.

### **Contact Block Mounting Position**



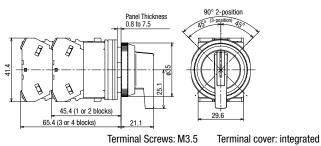
 $\bullet$  Selector switches with  $\doteqdot$  have a half contact operating current (load switching current value). Rated insulation voltage and rated current remain the same.

• See **B-308** for gold contact.

• See B-312 for bottom view.

### **Dimensions**

All dimensions in mm.



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

# ASN- K Key Selector Switches

Package Quantity: 1

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Shape	Key Selector ASN⊡K	r (Key No. 0)					Ĩ						Package Quantity: 1	ot Lights
							~	Spring Return						APEM Switches &
		Contact C	onfiguratio				Maintained	from Right		Spring	Return	from L	_eft	Pilot Lights
	Orman	Contact	Block		)perato Positio		1 2	1 2	Contact	Block		rator ition	1, 2	Control Boxes
	Contact	Mounting Position	Contact	1	2				Mounting Position	Contact	1	2		Stop Switches Enabling
	1N0	1	NO				ASN2K10N	ASN21K10N	0	NO	•		ASN22K10N	Switches
90°	(10)	2		Dur	nmy B	lock			2	—	-	-		Safety Products
2-position	1NO-1NC	0	NO		•		ASN2K11N	ASN21K11N	0	NO	•		ASN22K11N	Explosion Proof
	(11)	2 1	NC NO	•	•				2 ①	NC NO	•	•		
	2N0 (20)	 	NO		•		ASN2K20N	ASN21K20N	 	NO	•		ASN22K20N	Terminal Blocks
	(=0)	0	NO		•				0	NO	•			Relays & Sockets
	2N0-2NC	2	NC	•					2	NC	-	•		Circuit
	(22)	3	NO		•		ASN2K22N	ASN21K22N	3	NO	•		ASN22K22N	Protectors
		4	NC	•					3	NC				Power Supplies
		Contact C	onfiguratio	n			Maintained	Spring Return from Right	Spring	g Return fro	om Lef	t	Spring Return Two-way	LED Illumination
		Contact	Block		) Positio		1 0 2	1 0,2		1, 0 2			1.0.2	Controllers
	Contact	Mounting Position	Contact	1	0	2								Operator Interfaces
	2N0	1 0311011	NO	•										Sensors
	(20)	2	NO			•	ASN3K20N	ASN31K20N		ASN32K20	N		ASN33K20N	AUTO-ID
	2NC	1	NC				ASN3K02N	ASN31K02N		ASN32K02	N		ASN33K02N	
	(02)	2	NC				ASINGKUZIN	ASINGTRUZIN	· · · · ·	ASINGZRUZ			ASINSSKUZIN	
		0	NO	•										
	2NO-2NC	2	NO				ASN3K22N	ASN31K22N		ASN32K22	N		ASN33K22N	Flush Silhouette
45°	(22)	3 4	NC NC											ø16
3-position		(†) (1)	NO	•										ø22
	4N0	2	NO			•								022
	(40)	3	NO	•			ASN3K40N	ASN31K40N		ASN32K40	N		ASN33K40N	ø30
		4	NO			•								Miniature
		1	NC											
	4NC	2	NC				ASN3K04N	ASN31K04N		ASN32K04	N		ASN33K04N	Pilot Lights
	(04)	3	NC				Aditation	Adito Intern		AUNU2IIU4			Aditobiloti	
		4	NC											
	~	0	NO	•		-								TWN
	☆ 3S	2	NO NC			•	☆ ASN3K3SN-243	_		_				
		3 4	NC	Dur	∣● nmy B	lock	A0110A0011-240							TWND
Cylinder: Chi	rome-plated			Dui			• K	ey selector switch is s	upplied with ty	wo standard	kevs			ARN

Cylinder: Chrome-platedRound 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 B-308 for specifying key retained positions.

### **Contact Block Mounting Position**



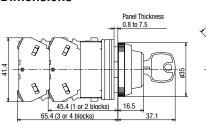
Key selector switch is supplied with two standard keys.
(1) Insert the key completely before turning the key, otherwise failure may result.
(2) Turn the operator to each position accurately.

• Different key number is available upon request. Contact IDEC.

• Selector switches with  $\precsim$  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

CS

# ø30 TWN Series

# ASN- K Key Selector Switches

Package Quantity: 1

Key Selector (Key No. 24401) ASN⊡K

APEM
Switches & Pilot Lights
Control Boxes
Emergency Stop Switches
Enabling Switches
Safety Products
Explosion Proof
Terminal Blocks
Relays & Sockets
Circuit Protectors
Power Supplies
LED Illumination
Controllers
Operator Interfaces
Sensors
AUTO-ID
Flush Silhouette
ø16
ø22
ø30
Miniature
Pilot Lights
TWND

Shape								Ø				
		Contact C	onfiguratio	n			Maintained	Spring Return from Right		Spring	Return from	n Left
		Contact	Block		perato Positio		1 2	1 2	Contact	Block	Operator Position	1, 2
	Contact	Mounting Position	Contact	1	2				Mounting Position	Contact	1 2	
	1N0	1	NO		•		ASN2K10N-	ASN21K10N-	1	NO	•	ASN22K10N-
90°	(10)	2	_	Dun	nmy B	lock	N024401	N024401	2	_		N024401
2-position	1NO-1NC	0	NO				ASN2K11N-	ASN21K11N-	0	NO	•	ASN22K11N-
	(11)	2	NC				N024401	N024401	2	NC		N024401
	2N0	1	NO		•		ASN2K20N-	ASN21K20N-	1	NO	•	ASN22K20N-
	(20)	2	NO		$\bullet$		N024401	N024401	2	NO	•	N024401
		1	NO		•				1	NO	•	
	2NO-2NC	2	NC				ASN2K22N-	ASN21K22N-	2	NC		ASN22K22N-
	(22)	3	NO				N024401	N024401	3	NO	•	N024401
		④ NC		C   •					(4)	NC		
		Contact Configuration					Maintained	Spring Return from Right Spring Return from Left				Spring Return Two-way
	Contact	Contact	Block		perato Positio		1 0 2	1 0 2		1,02		
	Contact	Mounting Position	Contact	1	0	2				$\bigvee$		
	2N0	1	NO				ASN3K20N-	ASN31K20N-	ļ	ASN32K20N	l-	ASN33K20N-
	(20)	2	NO				N024401	N024401	1	1024401		N024401
	2NC	1	NC				ASN3K02N-	ASN31K02N-	A	ASN32K02N	-	ASN33K02N-
	(02)	2	NC				N024401	N024401	1	1024401		N024401
		1	NO	•								
	2N0-2NC	2	NO				ASN3K22N-	ASN31K22N-	A	ASN32K22N	-	ASN33K22N-
45°	(22)	3	NC				N024401	N024401	1	1024401		N024401
3-position		4	NC									
		1	NO	•								
	4N0	2	NO				ASN3K40N-	ASN31K40N-	A	ASN32K40N	-	ASN33K40N-
	(40)	3	NO	•			N024401	N024401	1	1024401		N024401
		4	NO									
		1	NC									
	4NC	2	NC				ASN3K04N-	ASN31K04N-	4	ASN32K04N	-	ASN33K04N-
	(04)	3	NC				N024401	N024401	1	024401		N024401
		4	NC									
		1	NO									
	☆	2	NO				ASN3K3SN-					
	3S	3	NC		$\bullet$		ASN3K3SN- 243-N024401			_		
	1			Dur		1 1 -			1			

• Cylinder: Chrome-plated

ARN

CS

• Round bezel (metal): Chrome-plated

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

4

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

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

Dummy Block

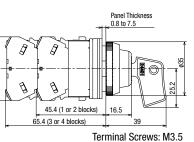
### **Contact Block Mounting Position**

# 4

• 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 3 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 cover: integrated

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

Switches &

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

Shape	Illuminated ASLN	ed Selector	Switches	s (BA9S	; Bas	;e)	1						Package Qu	iantity: 1	Pilot Lights
	1						(24V AC/DC)								APEM
		Contact C	Configuratio	ion			Maintained	Spring Return from Right		Spring	g Reti	urn frc	om Left		Switches & Pilot Lights
	Contact	Contact		Opera Posit		Rated Voltage	1 2	1 2	Contact			erator sition	1, 2	Color Code	Control Boxes
	Contact	Mounting Position	Contact						Mounting Position	J Contact		2			Emergency Stop Switches Enabling
E	1NO-1NC	0	NO		2	24V AC/DC	ASLN22211DN*	ASLN212211DN*	0	NO			ASLN222211DN*		Switches
2-position	(11)	2	NC			100/110V AC	ASLN21611DN*	ASLN211611DN*	2	NC	<u> </u>		ASLN221611DN*		Safety Products
2-p		<u> </u>				200/220V AC	ASLN22611DN*	ASLN212611DN*				'	ASLN222611DN*	R	
°06	2N0	0	NO		_	24V AC/DC	ASLN22220DN*	ASLN212220DN*	0	NO	•	Ĺ'	ASLN222220DN*	G	Explosion Proof
	(20)	2	NO		)	100/110V AC	ASLN21620DN*	ASLN211620DN*	2	NO	$\bullet$	<u> </u>	ASLN221620DN*	Y	
		<u> </u>				200/220V AC	ASLN22620DN*	ASLN212620DN*	$\vdash$			·'	ASLN222620DN*	A	Terminal Blocks
	1	0	NO		4	24V AC/DC	ASLN22222DN*	ASLN212222DN*	0	NO	•	<u> </u>	ASLN222222DN*	S PW	Relays & Sockets
	2N0-2NC	2	NC	•	_	100/110V AC	ASLN21622DN*	ASLN211622DN*	2	NC	<u> </u>	•	ASLN221622DN*	{ <sup>FW</sup> }	Circuit
	(22)	3	NO NC	•	4	200/220V AC	ASLN22622DN*	ASLN212622DN*	3 ④	NO NC	•	•	ASLN222622DN*	+	Circuit Protectors
	t	4	NU					- Optima Doturn			<u> </u>		- Daving Daturn	$\square$	
		Contact Co	Configuratio				Maintained	Spring Return from Right	Spring	g Return fro	om Le	eft	Spring Return Two-Way		Power Supplies
	Quetect	Contact		Opera Posit			1 0 2	1 0 2		1,02	2		1 0 2	Color Code	LED Illumination
	Contact -	Mounting Position	Contact							$\bigvee$					Controllers Operator
	010	0	NO		T	24V AC/DC	ASLN32220DN*	ASLN312220DN*	ASI	LN322220	JDN*		ASLN332220DN*		Interfaces
	2N0 (20)	2	NO			100/110V AC	ASLN31620DN*	ASLN311620DN*	ASI	LN321620	JDN*		ASLN331620DN*		Sensors
	(20)					200/220V AC	ASLN32620DN*	ASLN312620DN*	-	LN322620			ASLN332620DN*		
	2NC	0	NC		Ì	24V AC/DC	ASLN32202DN*	ASLN312202DN*	ASI	LN322202	2DN*		ASLN332202DN*		AUTO-ID
3-position	(02)	2	NC		,	100/110V AC	ASLN31602DN*	ASLN311602DN*		LN321602			ASLN331602DN*	1	(
) DOSI		L				200/220V AC	ASLN32602DN*	ASLN312602DN*		LN322602			ASLN332602DN*	1	1
3-1	1	0	NO		+	24V AC/DC	ASLN32222DN*	ASLN312222DN*		LN322222			ASLN332222DN*	R	í
45°	2N0-2NC	2	NO	$\vdash$			ASLN31622DN*	ASLN311622DN*	-	LN321622			ASLN331622DN*	G	Flush Silhouette
	(22)	3	NC	╞╧╋	Ŧ	200/220V AC	ASLN32622DN*	ASLN312622DN*	ASL	LN322622	<u>2DN*</u>	'	ASLN332622DN*	Y	
	⊢───	4	NC		+				1		2DM.	'		AS	ø16
		0	NO NO	+	+	24V AC/DC 100/110V AC	ASLN32240DN*	ASLN312240DN*		LN322240			ASLN332240DN*	PW	ø22
	4N0 (40)	2 3	NO	•	+	200/220V AC	ASLN31640DN* ASLN32640DN*	ASLN311640DN* ASLN312640DN*		LN321640 LN322640			ASLN331640DN* ASLN332640DN*	1	022
		4	NO		•		AOLINOZUHUDIN	ASLINGTZUHUDIN	NUL	-11322070	<u>/Div~</u>		ASLINGSZUHUDIN		ø30
	I	() ()	NC	+	Ť	24V AC/DC	ASLN32204DN*	ASLN312204DN*	AS	LN322204	4 <b>NN</b> *		ASLN332204DN*		1
	4 1		,	1 1 -	_							_		1 1	Miniature
	4NC	2	NC		<	100/110V AC	ASI N31604DN*	4SI N311604DN*	ASL	`N321604	۹NN*		ASI N331604DN* 1	1 1	·
	4NC (04)	2 3	NC NC		` <b>+</b>	100/110V AC 200/220V AC	ASLN31604DN* ASLN32604DN*	ASLN311604DN* ASLN312604DN*		LN321604 LN322604			ASLN331604DN* ASLN332604DN*	1	Pilot Lights

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

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

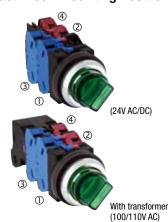
• Illuminated selector switches have an LED lamp installed.

Round bezel (metal): chrome-plated

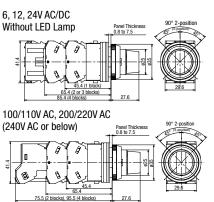
See B-309 for other operating voltage such as 6V AC/DC, 12V AC/DC, and 110V DC.
 Illuminated selector switches of 24V AC/DC or below with 2 or 4 contact blocks have a

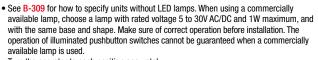
dummy block. • See B-321 to B-322 other contact configurations.

### **Contact Block Mounting Position**



# Dimensions





• Turn the operator to each position accurately.

• See B-309 for gold-plated silver contacts.

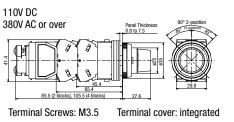
• See B-314 for bottom view.

All dimensions in mm.

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# ø30 TWN Series

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

Ŭ										
Lig						0p	perator Opera	tion and Circ	uit	
ot Lights			Cont		Maint 1	ained		Return Right	Spring from 1 مر	
			Bloo	:k						/
APEM Switches &	Contact Configuration	Circuit Code			Knob Lever	Кеу	Knob Lever	Key	Knob Lever	Key
Pilot Lights					Operator	Position	Operator	Position	Operator	Position
Control Boxes			Mounting	Contact	1	2	1	2	1	2
Emergency Stop Switches			Position	oomaor	Ś	Ø	S	Ø	®,	Ø
Enabling	10	Not	1	NO		●		•	•	
Switches	10	required	2	—	Dumm	y Block	Dumm	y Block	Dumm	y Block
Safety Products	01	Not	1	NC	•		•			•
Explosion Proof	01	required	2	_	Dumm	y Block	Dumm	y Block	Dumm	y Block
		☆	0	EM						
Terminal Blocks	00	118	2	LB						
Relays & Sockets	2R	☆	0	EM						
		168	2	LB						
Circuit Protectors										

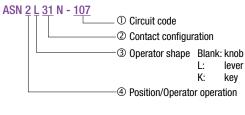
1101601013													
Power Supplies							Op	perator 0			uit		
					N	laintain	ed		ring Reti			ring Ret	
LED Illumination			- ·					f	rom Righ		1	from Lef	-
Controllers			Cont Bloo				2		1 >	2		< /	2
	Contact		DIU	ж		$\sim$	1		$\sim$			$\sim$	
Operator Interfaces	Configuration	Circuit Code			Knob	Key	Illumi-	Knob	Key	Illumi-	Knob	Key	Illumi-
	oomgaration				Lever	Кеу	nated	Lever	КСУ	nated	Lever	КСУ	nated
Sensors					Oper	ator Po	sition	Ope	rator Pos	ition	Ope	rator Pos	sition
AUTO-ID			Mounting	Contract	1		2	1		2	1		2
			Position	Contact	Š		Ď	Ś		Ď	Ś		Ì
							$\swarrow$		,	$\checkmark$			I
	11	Not	1	NO			•			•	•		
Flush Silhouette		required	2	NC	•								•
	20	Not	1	NO			•			•	•		
ø16	20	required	2	NO			•			•	•		
ø22	00	Not	1	NC	•			•					•
<u><u></u></u>	02	required	2	NC	•			•					•
ø30			1	NO			•			•	•		
Miniature		Not	2	NC	•			•					•
	22	required	3	NO			•			•	•		
Pilot Lights			4	NC	•			•					•
			1	NC	•			•					•
		107	2	NO			•			•	•		
	31	107	3	NO			•			•	•		
TWN			4	NO			•			•	•		
TWND			0	NO			•			•	•		
		Not	2	NO			•			•	•		
ARN	40 Not required		3	NO			•			•	•		
			4	NO			•			•	•		
CS	L	I	9				-	I		-			

• 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

Switches & Pilo

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

										(	Operato	or Opera	ration and Circuit						lot Lights
Contact	Circuit Code	Cont Bloo		Оре	erator Pos	sition	N 1	laintaine 0	ed _2	Spr	'ing Re om Rig	turn jht	S	pring R from L 1 < 0	eturn eft	L I	ing Re wo-wa	y	ghts
Configuration				1	0	2		$\bigvee$			$\bigvee$				/				APEM
		Mounting Position	Contact			2 Ø	Knob/ Lever	Key	Illumi- nated	Knob/ Lever	Key	Illumi- nated	Knob Leve		Illumi- nated		Key	Illumi- nated	Switches & Pilot Lights
		0	NO		U														Control Boxes
	202	2	NC					V			V			V			√		Emergency Stop Switches
11	203	① ②	NC NO					$\checkmark$			$\checkmark$			$\checkmark$			$\checkmark$		Enabling Switches
	303	0	NC NO		•	•		V			V			√			√		Safety Products
20	Not	0	NO	•		•		.1			.1								Explosion Proof
20	required	2	NO			•		V			V			V			V		Terminal Blocks
02	Not required	① ②	NC NC				-	$\checkmark$			$\checkmark$			$\checkmark$			$\checkmark$		Relays & Sockets
		0	NO	•															Circuit
	Not required	2 3	NO NC				-	$\checkmark$			$\checkmark$			$\checkmark$			$\checkmark$		Protectors
	roquirou	() (4)	NC				-												Power Supplies
		0	NO	•															LED Illumination
	209	0	NC				_	$\checkmark$			V			_			_		Controllers
	200	3	NC				-	v			v								
		(4)	NO																Operator Interfaces
		① ②	NC NO																Sensors
22	210	3	NC				-	$\checkmark$			$\checkmark$			$\checkmark$			$\checkmark$		
		4	NO			•	1												AUTO-ID
		0	NC		•														
	310	2	NO			•		V			_			_			_		
	010	3	NC		•		_	v											Flush Silhouette
		4	NO			•													
		① ②	NO NO	•		•													ø16
	311	3	NC		•	-		$\checkmark$			$\checkmark$			$\checkmark$			$\checkmark$		ø22
		4	NC																ø30
		0	NO	•															030
40	Not	2	NO			•	]	./			./			./			./		Miniature
40	required	3	NO	•				V			V			V			V		Pilot Lights
		4	NO			•													
		0	NC				-												
04	Not	2	NC				-	$\checkmark$			$\checkmark$			$\checkmark$			$\checkmark$		
	required	3 ④	NC NC					-											TWN
		(4) (1)	NO	•															
	☆	0 Q	NO			•	1												TWND
3S	243	3	NC		•		۱ ا	/	—		—			—			—		ARN
		4		Du	ummy Blo	ock													CS

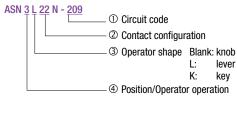
• Selector switches with 🖄 have a half contact operating current (load switching current value). Rated insulation voltage and rated current remain the same.

 $\bullet$  On selector switches with  $\updownarrow$  , the contact blocks may overlap each other while turning the ring or lever operator.

# **Contact Block Mounting Position**



### Part No. Development



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

# ASBN2 Selector Pushbuttons

Bit Processes         Shape         Contact Configuration         Contact Configuration         Contact Block         Contact Block         Contact Block         Contact Contact Block         Contact Contact Block         Contact Block         Shape Contact Minitian         Shape Co	et l		Ĩ		1		1			r			
Shape     Contact Configuration     Contact Configuration     Contact Configuration     Contact Configuration     Contact Configuration     Contact Part No. Part No. Non     Contact Part No. Non     Contact Part No. Non     Contact Part No. Non     Response Part No. Non	igh							Ring P	osition	Dialat			
APAIN Switches Description Substration Sub	Its	Shape					Left	<b>E</b>			Color	Ring Operator	
Number of Subsections         Ring Operator (90°2-position)         Ad3         0         NO         Image of Subsections         ASBN211N-A03+           Control Booses         Emergency Subsections         Image of Subsections         Image o	APEM									Duch	0000		
ADD         ADD <td>Switches &amp;</td> <td></td> <td></td> <td></td> <td></td> <td colspan="2"></td> <td></td> <td>INUITIAI</td> <td></td> <td></td> <td>(ordoning No.)</td>	Switches &								INUITIAI			(ordoning No.)	
Control codes Server Server				A03				-		•		ASBN211N-A03*	
Benegative Babling Switches Babli	Control Boxes	ASDNZ	11										
Switches         Switches         Switches				ж К04	2			•			G		
Outlook         20         NC         0         0         0         ASBN220N-D01*           Explosion Prodets         0         NO         0         0         0         ASBN220N-D01*           Terminal Blocks         Relays & Societal         0         NO         0         0         0           Circuit         Protectors         0         NO         0         0         0         ASBN222N-A08*           EBUIL         ASBN222N-F010*         0         NO         0         0         0         ASBN222N-C10*           LED Illumination         0         NO         0         0         0         0         0           Controllers         0         NO         0         0         0         0         0           Controllers         0         NO         0         0         0         0         0         0           Autro-U         22         0         NO         0         0         0         0         0         0           Genors         4         0         NO         0         0         0         0         0         0         0         0         0         0         0         0				G03				•		Blocked	R	ASBN211N-G03*	
Explosion froot         (2N0)         DU1         ①         NO         ○         ▲							•		•	Diotitu	Ŷ		
Explosion Proof       C2N0       C2       NO       O	Safety Products			D01				•				ASBN220N-D01*	
Terminal Blocks     ABB     Q     NC     I     I       Relays & Sockets     Grout     Q     NC     I     I       Orrout     Power Supplies     Q     NC     I     I       Power Supplies     Q     NC     I     I     I       LED Illumination     I     I     I     I     I       Controllers     Q     NC     I     I     I       Operator Interfaces     I     I     I     I     I       AUTO-ID     I     I     I     I     I       Ruls Silhouette     I     I     I     I     I       Piot Lights     I     I     I     I     I       Ruls Silhouette     I     I     I     I     I       R	Explosion Proof		(2NO)							-		NOBILEON BOT	
Relays & Sockets     Image: Control less in the sector of t								•		•			
Relays & Sockets         ····································	Ierminal Blocks			A08			•	-		-		ASBN222N-A08*	
Circuit Protectors Power Supplies         Image: Circuit Controllers         Image: Circuit Controllers         Image: Circuit Circuit Circuit         Image: Circuit Circuit         Image: Circuit         Image: Circ	Relays & Sockets							•		•			
Protectors $0$	Circuit					-	•			•			
Image: constraint of the second s								•					
	Power Supplies			☆		-	-						
				C10								ASBN222N-C10*	
Controllers     Operators     Operator	LED IIIUMINAUON												
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Controllers			D10				•		•			
Notation       Image: constraint of the sector of the secto												ASBN222N-D10*	
Sensors $\square$	Interfaces												
AUTO-1D22 (2NO-2NC) $\stackrel{?}{\curvearrowright}$ E10 $\stackrel{?}{\oslash}$ E10 $\stackrel{?}{\oslash}$ NC $\stackrel{?}{\frown}$ S	Sensors					-			•				
Flush Silhouette $22$ $E10$ $3$ $E10$ $NC$ $4$ $C$ $4$ <br< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>•</td><td></td><td></td><td>В</td><td></td></br<>								•			В		
Flush Silhouette     Image: Constraint of the second	AUTO-ID									_			
Flush Silhouette $\widehat{\mathbb{H}}_{\mathbb{C}}$ $\mathbb$				EIU							Ŷ	AODINZZZIN-ETU*	
Flush Silhouette $\widehat{1}$ <td></td>													
$ \begin{array}{ c c c c c c c } \hline & & & & & & & & & & & & & & & & & & $	Flush Silhouette									•			
010     010 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td></td> <td></td> <td></td> <td></td>								-					
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Winiature         Image: Winiature								-					
Miniature         ④         NC         ●         ●           Pilot Lights         ①         NC         ●         □         □           K15         ③         EM         ●         ●         □         □	ø30			G10			•	-	•	Blocked		ASBN222N-G10*	
Pilot Lights         ①         NC         ●         □         □           ☆         ②         NC         ●         □         ☆         ☆         ☆         ☆         ☆         ↓	Miniature								-				
Pilot Lignis         ②         NC         ●         □         ☆           K15         ③         EM         ●         ■         ▲         ASBN222N-K15*							•		-				
K15     ③     EM     ●     ■       ASBN222N-K15*	Pilot Lights			~^~			•						
				K15				•					
					4	EM						NODILLEIT INTO	

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

B (black), G (green), R (red), Y (yellow)

• Bezel (metal): Chrome-plated

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• 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.

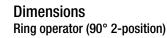
• When using the selector pushbutton, do not turn the ring operator with the pushbutton depressed. Otherwise, damage or failure may be caused.

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

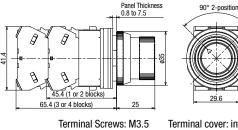
• See B-312 for bottom view.

# **Contact Block Mounting Position**





(All dimensions in mm.)



Terminal cover: integrated

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

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

						Pa	ackage Quantity: 1
Shape	Illumination	Base	Rated Voltage	Part No. (Ordering No.)	Color Code	LED Lamp Part No.	Dimensions Page
Round APN1			24V AC/DC	APN122DN*	R, G, Y, A, S, PW	LSTD-2*	
			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 U	
Rectangular (Marking) UPQN4			24V AC/DC	UPQN422D*	R, G, Y, A, S, PW	LSTD-2*	-
(24V AC/DC)	LED	BA9S	100/110V AC	UPQN416D*	R, G, Y, A, S, PW		
			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.

1

• 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. evention.

• Terminal cover is installed on pliot lights for electric shock pre-										
Туре	Terminal Cover	Quantity								
6V, 12V, 24V AC/DC	APN-PVL	1								
100V/110V AC, 200/220V AC	N-VL3	1								

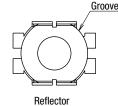
110V DC

N-VL3 Note: DC-DC converter types are not approved by UL and CSA, and not CE compliant.

• See B-314 for bottom view.

### Reflector

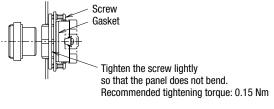
- 1. The lamp housing of the square LED illuminated pilot lights has a built-in reflector.
- 2. Make sure that the reflector does not fall off when removing the lens or making plate.
- 3. When replacing the LED lamp of UPQN4 (rectangular), use a lamp holder tool (OR-55).
- 4. To remove the reflector, 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.



PEM	
ot Lights	

ontrol Boxes mergency

top Switches nabling witches

afety Products

xplosion Proof

erminal Blocks

elavs & Sockets

ircuit rotectors

ower Supplies

LED Illumination

Controllers

Operator Interfaces

Sensors

AUTO-ID

Flush Silhouette ø16 ø22 Miniature

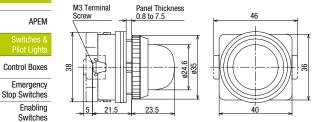
Pilot Lights

TW		
ΤW	/ND	
AR	N	
CS		

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

### Round APN1





Terminal screws: M3

52.5

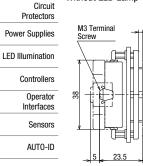
Terminal screws: M3

### Square Extended **UPQN3B**



Panel Thickness 0.8 to 3.2

0.25

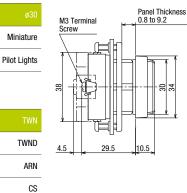


# **Rectangular (Marking)**

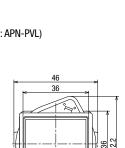
Flush Silhouette UPQN4 ø16

ø22

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



• See B-349 for wiring.



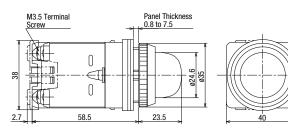
46

4



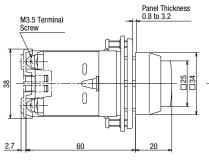
Terminal screws: M3

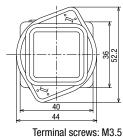
100 to 480V AC, 110V DC (Terminal Cover: N-VL3)



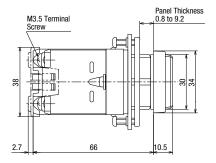
Terminal screws: M3.5

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





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



<sup>36</sup> 36 40 44

Terminal screws: M3.5

Pilot L

Safety Products

Explosion Proof

Terminal Blocks

Relays & Sockets

Switches & Pi

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

						Package Quantity: 1	li di
Shape	Operation	Contact	Part No. (Ordering No.)	Button Color Code	Dimensions	(All dimensions in mm.)	Pilot Lights
Flush		1N0	ABD110N*	В			<u> </u>
ABD1 AOD1		1NC	ABD101N*	G			
AUDT	Momentary	1NO-1NC	ABD111N*	R Y			APEM
	womentary	2N0	ABD120N*	S	Pan 0.8	el Thickness to 7.5 ø39	Switches &
		2NC	ABD102N*	W			Pilot Lights
		2N0-2NC	ABD122N*	Note			Control Boxes
		1N0	AOD110N*	В			Emergency
		1NC	AOD101N*	G R	45.4 (1 or 2 blocks)	29.4	Stop Switches
	Maintained	1NO-1NC	AOD101N*	Y	65.4 (3 or 4 blocks) 9	<u>40</u>	Enabling Switches
		2N0	AOD120N*	S			Safety Products
		2NC 2NO-2NC	AOD102N*	W Note			
Extended		1N0	AOD122N* ABD210N*				Explosion Proof
ABD2		1NC	ABD210N*	В			Terminal Blocks
A0D2		1NO-1NC	ABD2011N*	G R			
	Momentary	2N0	ABD220N*	Ŷ	Pan	el Thickness	Relays & Sockets
		2NC	ABD202N*	S		to 7.5 ø39	Circuit Protectors
		2NO-2NC	ABD222N*	W			
		1N0	A0D210N*	D		832	Power Supplies
		1NC	AOD201N*	B G	45.4 (1 or 2 blocks)		LED Illumination
	Maintained	1NO-1NC	A0D211N*	R	65.4(3 or 4 blocks) 14		Controllers
	Mantanica	2N0	AOD220N*	Y S			Operator
		2NC	A0D202N*	W			Interfaces
Estended with Helf Chroud		2NO-2NC	AOD222N*				Sensors
Extended with Half Shroud ABGD2		1N0	ABGD210N*	В			AUTO-ID
AOGD2		1NC 1NO-1NC	ABGD201N* ABGD211N*	G			AUTU-ID
	Momentary	2N0	ABGD211N* ABGD220N*	R Y	Denal	Thiskness	
		2NC	ABGD220N*	S		3.5 ø39	
1		2NO-2NC	ABGD222N*	W			Flush Silhouette
		1N0	AOGD210N*			1000 m 10000 m 1000 m 10000 m 100000 m 10000 m 10000 m 10000 m 100000 m 100000 m 10000 m 10000 m	
		1NC	AOGD201N*	B		0	ø16
		1NO-1NC	A0GD211N*	G R	40.9 (1 or 2 blocks) 18.5 60.9 (3 or 4 blocks) 20.5	29.4	ø22
	Maintained	2N0	AOGD220N*	Y	r <u>r (                                 </u>		ø30
		2NC	AOGD202N*	S W			-930-
		2NO-2NC	AOGD222N*	٧V			Miniature
Extended with Full Shroud		1N0	ABFD210N*	R			Pilot Lights
ABFD2 AOFD2		1NC	ABFD201N*	B G			
	Momentary	1NO-1NC	ABFD211N*	R			
	,	2N0	ABFD220N*	Y S	Pan 	el Thickness to 6 ø39	
		2NC	ABFD202N*	Ŵ			TWN
		2NO-2NC	ABFD222N*		, , , , , , , , , , , , , , , , , , ,		TWND
		1N0 1NC	AOFD210N* AOFD201N*	В			
		1NO-1NC	AOFD201N* AOFD211N*	G	45.4 (1 or 2 blocks) 14		ARN
	Maintained	2N0	AOFD211N* AOFD220N*	R Y	65.4 (3 or 4 blocks) 16.	b ↓ <u>• 40 </u>	CS
		2NC	AOFD202N*	S			
		2NO-2NC	AOFD202N*	W			
			NOI DELEN*				

• 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

Note 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.

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

# ø30 TWND Series

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

Switches & Pilot Lights	ø30 TWND Series							
ches								
& Pi	Mushroom/Mushroom	with Full Sr	iroud/Jumb	o Mushroom/	Jumbo Mu	shrooms with Shallow/Deep	Shroud/Pin Lock	
lot L		1			_		Package Quantity: 1	
ight	Shape	Operation	Contact	Part No. (Ordering No.)	Button Color Code	Dimensions	(All dimensions in mm.)	
S	Mushroom ABD3		1N0	ABD310N*	В			
	AOD3		1NC 1NO-1NC	ABD301N* ABD311N*	G R			
APEM		Momentary	2N0	ABD320N*	Y		29.4	
Switches & Pilot Lights			2NC 2NO-2NC	ABD302N* ABD322N*	S W			
Control Boxes			1N0	AOD310N*	В			
Emergency			1NC 1NO-1NC	AOD301N* AOD311N*	G R	45.4 (1 or 2 blocks) 65.4 (3 or 4 blocks) 22	40	
Stop Switches Enabling		Maintained	2N0	AOD320N*	Y		H- 10 H	
Switches			2NC 2NO-2NC	AOD302N* AOD322N*	S W			
Safety Products	Mushroom with Full Shroud		1N0	ABGD310N*	В			
Explosion Proof	ABGD3 AOGD3		1NC 1NO-1NC	ABGD301N* ABGD311N*	G R	Panel Thickness 0.8 to	29.4	
Terminal Blocks		Momentary	2N0	ABGD320N*	Y			
Relays & Sockets			2NC 2NO-2NC	ABGD302N* ABGD322N*	S W	848 848		
Circuit Protectors			1N0	AOGD310N*	В	43.9 (1 or 2 blocks) 63.9 (3 or 4 blocks) 23.5		
Power Supplies			1NC 1NO-1NC	AOGD301N* AOGD311N*	G R		<u>40</u>	
		Maintained	2N0	AOGD320N*	Y			
LED Illumination			2NC 2N0-2NC	AOGD302N* AOGD322N*	S W			
Controllers	Jumbo Mushroom		1N0	ABD410N*			29.4	
Operator Interfaces	ABD4		1NC	ABD401N*	р			
Sensors		Momentary	1NO-1NC	ABD411N*	B G			
AUTO-ID		womentary	2N0	ABD420N*	R Y			
			2NC	ABD402N*	•	45.4 (1 or 2 blocks) 65.4 (3 or 4 blocks) 29	40	
	Jumbo Mushroom with		2NO-2NC	ABD422N*		65.4 (3 or 4 blocks) 29 Panel Thickness 0.8 to 7.5	29.4	
Flush Silhouette	Shallow Shroud		1N0 1NC	ABGD410N*				
ø16	ABGD4		1NO-1NC	ABGD401N* ABGD411N*	В			
ø22		Momentary	2N0	ABGD420N*	G R	9855		
ø30			2NC	ABGD420N*	Y			
			2NO-2NC	ABGD422N*		45.4 (1 or 2 blocks)	40	
Miniature	Jumbo Mushroom with		1N0	ABFD410N*		Panel Thickness 0.8 to 7.5	29.4	
Pilot Lights	Deep Shroud ABFD4		1NC	ABFD401N*				
			1NO-1NC	ABFD411N*	B G			
		Momentary	2N0	ABFD420N*	R			
TWN			2NC	ABFD402N*	Y			
TWND			2NO-2NC	ABFD422N*		45.4 (1 or 2 blocks) 65.4 (3 or 4 blocks) 33	40	
ARN	Pin Lock (On-off Lock Type) (*1)		1N0	ABD8P10N*				
CS	ABD8P		1NC 1NO-1NC	ABD8P01N* ABD8P11N*	B G		40	
		2N0	ABD8P20N*	R	Panel Thickness 0.8 to 7.5			
		<b>1</b> 29	2NC	ABD8P02N*	Y			
	Pin Lock (On-lock Type) (*1)		2NO-2NC 1NO	ABD8P22N* ABD8PN10N*				
	ABD8PN		1NC	ABD8PN01N*	В			
	(AR)		1NO-1NC 2NO	ABD8PN11N* ABD8PN20N*	G R	45.4 (1 or 2 blocks)	LOX 31	
			2N0 2NC	ABD8PN20N* ABD8PN02N*	Y	65.4 (3 or 4 blocks) 27.5	$\checkmark$	
	Specify a color code in place of * in		2N0-2NC	ABD8PN22N*		other contact configurations and cold-		

• 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 insert-

ing 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).

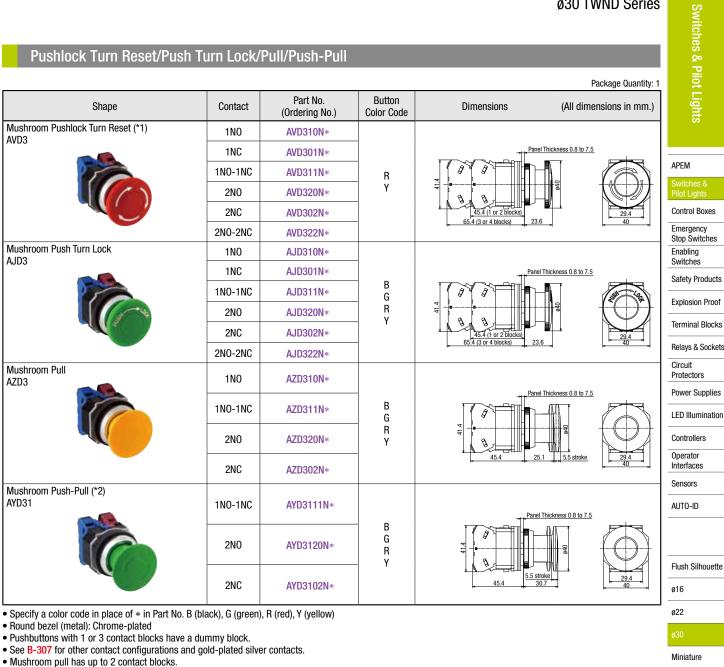
• See B-312 for bottom view.

• Terminal screws: M3.5

· Integrated terminal cover

B-327

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



\*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.

Push Turn Lock

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

#### <u>Pull</u>

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

#### Push-Pull

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

### Pull contact operation

Contract	AZD3							
Contact	Normal	Pull						
1N0	ملم	1 o 0 o						
2N0-2NC	o <sup>⊥</sup> o •⊥•	• •						
2N0	میں میں							
2NC	•••							

Push-Pull contact operation									
Contact AYD31									
Contact	Push	Pull							
1N0	<u>⊶</u> •								
2N0	میہ میں								
2NC	•_• •_•	919 919							

### B-328

Pilot Lights

TWN

ARN

CS

Switches &

# LED Illuminated Extended/Extended with Full Shroud

iot							Package Quantity:		
Pilot 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*			
Emergency				200/220V AC	2N0	ALD22620DN*			
Stop Switches	(24V AC/DC)			200,2201,10	2NC	ALD22602DN*			
Enabling Switches	(24V AC/DC)	BA9S			1NO-1NC	AOLD22211DN*			
				24V AC/DC	2N0	AOLD22220DN*	_		
afety Products				2.11.10,20	2NC	AOLD22202DN*	R		
Explosion Proof				100/110V AC	1NO-1NC	AOLD21611DN*	G		
			Maintained		2N0	AOLD21620DN*	Y A S PW		
erminal Blocks	With transformer				2NC	AOLD21602DN*			
lays & Sockets					1NO-1NC	AOLD22611DN*			
				200/220V AC	2N0	AOLD22620DN*			
Circuit Protectors	(100/110V AC)				2NC	AOLD22602DN*	_		
	Extended with Full Shroud			24V AC/DC	1NO-1NC	ALFD22211DN*	R G Y A S		
ower Supplies	ALFD2				2N0	ALFD22220DN*			
D Illumination	AOLFD2				2NC	ALFD22202DN*			
				100/110V AC	1NO-1NC	ALFD21611DN*			
Controllers			Momentary		2N0	ALFD21620DN*			
Operator			, , , , , , , , , , , , , , , , , , ,		2NC	ALFD21602DN*			
Interfaces					1NO-1NC	ALFD22611DN*	9W		
Sensors				200/220V AC	2N0	ALFD22620DN*			
AUTO-ID	(24V AC/DC)				2NC	ALFD22602DN*			
A010-1D	(24V A0/DC)	BA9S			1NO-1NC	AOLFD22211DN*			
				24V AC/DC	2N0	AOLFD22220DN*			
					2NC	AOLFD22202DN*	R		
					1NO-1NC	AOLFD21611DN*	G		
ush Silhouette			Maintained	100/110V AC	2N0	AOLFD21620DN*	Y		
ø16					2NC	AOLFD21602DN*	— A _ S		
					1NO-1NC	AOLFD22611DN*			
ø22	With transformer			200/220V AC	2N0	AOLFD22620DN*			
ø30	(100/110V AC)				2NC	AOLFD22602DN*			

Illuminated pushbuttons have an LED lamp installed.

Pilot Lights • 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 pushbuttons of 24V AC/DC or below with 2 or 4 contact blocks have a dummy block.

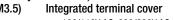
available lamp, choose a lamp with rated voltage 5 to 30V AC/DC and 1W maximum, and with the same base and shape. Make sure of correct operation before installation. The operation of illuminated pushbutton switches cannot be guaranteed when a See B-314 for bottom view.

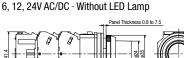
# TWN

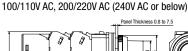
### Dimensions

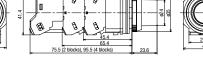
### Extended, LED illuminated (momentary/maintained) ALD2/AOLD2 (terminal screws M3.5)

ARN CS



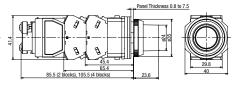




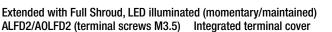


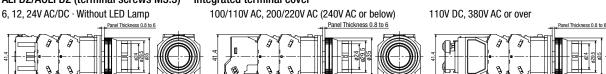
74 (2 blocks), 94 (4 blocks)



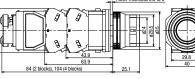


All dimensions in mm





25.1



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

						Package Quantity: 1	e e e
Shape	Base	Operation	Operating Voltage	Contact	Part No. (Ordering No.)	Color Code	ilot Lights
Mushroom (ø40)				1NO-1NC	ALD32211DN*		
ALD3			24V AC/DC	2N0	ALD32220DN*		
AOLD3				2NC	ALD32202DN*		APEM
				1NO-1NC	ALD31611DN*	R G	Switches &
		Momentary	100/110V AC	2N0	ALD31620DN*	Y	Switches & Pilot Lights
				2NC	ALD31602DN*	A S	Control Boxes
			200/220V AC	1NO-1NC	ALD32611DN*	3	
				2N0	ALD32620DN*		Emergency Stop Switches
(24V AC/DC)	BA9S			2NC	ALD32602DN*		Enabling
	DA95			1NO-1NC	AOLD32211DN*		Switches
			24V AC/DC	2N0	AOLD32220DN*		Safety Products
				2NC	AOLD32202DN*	R	Explosion Proof
				1NO-1NC	AOLD31611DN*	G	
		Maintained	100/110V AC	2N0	AOLD31620DN*	- Y - A - W - S	Terminal Blocks
				2NC	AOLD31602DN*		Relays & Sockets
			200/220V AC	1NO-1NC	AOLD32611DN*		
With transformer				2N0	AOLD32620DN*		Circuit Protectors
(100/110V AC)				2NC	AOLD32602DN*		Power Supplies
Mushroom Pushlock Turn Reset (*1)				1NO-1NC	AVLD32211DN*		
AVLD3			24V AC/DC	2N0	AVLD32220DN*		LED Illumination
				2NC	AVLD32202DN*		Controllers
				1NO-1NC	AVLD31611DN*		
	BA9S	—	100/110V AC	2N0	AVLD31620DN*	R	Operator Interfaces
				2NC	AVLD31602DN*		Sensors
				1NO-1NC	AVLD32611DN*		
(24V AC/DC)			200/220V AC	2N0	AVLD32620DN*		AUTO-ID
· · · · · · · · · · · · · · · · · · ·				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).

el Thickness 0.8 to 7.5

See B-314 for bottom view.

#### Illuminated pushbutton operation

Pushlock Turn Reset

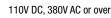
Button is maintained when pressed and is reset when turned clockwise.

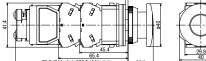


### Mushroom, LED illuminated (momentary/maintained)

ALD3/AOLD3 (terminal screws M3.5) 6, 12, 24V AC/DC · Without LED Lamp

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



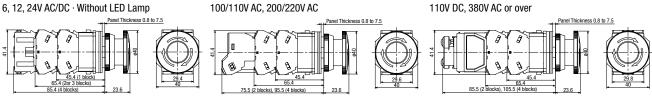




All dimensions in mm

### Mushroom Pushlock Turn Reset, LED illuminated

AVLD (terminal screws M3.5) Integrated terminal cover

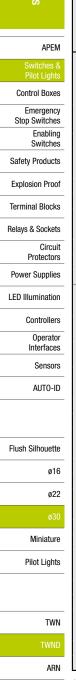


Download catalogs and CAD from http://asia.idec.com/downloads

# ø30 TWND Series

Knob Operator

# ASD Selector Switches (Knob Operator)



Shape	ASD	Contact Configuration Mointained Spring Return Spring Return from Left													
	Contact Configuration						Maintained	Spring Return from Right		Spring I	Return	from L	eft		
	Ountrat	Contact	Block	C F	)perat Positic	or n	1 2	1 2	Contact	Block	Oper Posi	rator ition	1 2		
	Contact	Mounting Position	Contact	1	2				Mounting Position	Contact	1	2			
	1N0	0	NO				ASD210N	ASD2110N	0	NO	•		ASD2210N		
90°	(10)	0		Dun	nmy E	Block			2		_	_			
2-position	1NO-1NC	0	NO		•	-	ASD211N	ASD2111N	0	NO	•		ASD2211N		
-	(11)	2	NC	•	•				2	NC		•			
	2NO (20)	0 2	NO NO		•	-	ASD220N	ASD2120N	① ②	NO NO	•		ASD2220N		
	(20)		NO		•				0	NO	•				
	2010 2010	0 2	NC	•	-	-			 	NC	•	•			
	2NO-2NC (22)	3	NO		•	1	ASD222N	ASD2122N	3	NO	•		ASD2222N		
	(/	4	NC	•		1			4	NC	-	•			
	Contact Configuration						Maintained	Spring Return from Right		Spring Retu from Left		_	Spring Return Two-way		
-	Contact	Contact	Block	C   F	)perat Positic	or In	1 0 2	1 0 2							
		Mounting Position	Contact	1	0	2		$\bigvee$					$\bigvee$		
	2N0	1	NO	٠			ASD320N	ASD3120N	ASD3220N				ASD3320N		
	(20)	2	NO				ASD320N	A2D2120N							
	2NC	1	NC				ASD302N	ASD3102N	ASD3202N						
	(02)	2	NC				ASDSUZIN	ASDSTOZN		AGDGZUZI	•		ASD3302N		
		1	NO	•			-								
	2N0-2NC	2	NO			•	ASD322N	ASD3122N		ASD3222N	J		ASD3322N		
45°	(22)	3	NC				-						AODOOZZIN		
3-position		4	NC												
		0	NO	•			-								
	4N0	2	NO			•	ASD340N	ASD3140N		ASD3240N	l		ASD3340N		
	(40)	3	NO	•			-								
		4	NO												
	410	0	NC NC				-								
	4NC (04)	2 3	NC				ASD304N	ASD3104N		ASD3204N	1		ASD3304N		
		3 ④	NC												
		0	NO	•		<u> </u>									
	_^_	 ②	NO	-		•	.								
	☆ 3S	3	NC		•		☆ ASD33SN-243	_		—			_		
		9			-		ASD335N-243								

Knob: Black

CS

• Round bezel (metal): Chrome-plated

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

4

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

Dummy Block

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

# **Contact Block Mounting Position**



• Turn the operator to each position accurately.

• 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 Panel Thickness 0.8 to 7.5 0.8 to 7.5 0.9 0<sup>2</sup> -position 0.

Terminal Screws: M3.5

Terminal cover: integrated

Package Quantity: 1

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

Switches & Pi

### ASD L Selector Switches (Lever Operator)

												Package Quantity: 1	Pilot
Shape	Lever Opera ASD⊡L	ator				_							Pilot Lights
													APEM Switches &
		Contact C	Configurati	ion		Maintained	Spring Return		Spr	ina Ret	turn fro	m Left	Pilot Lights
					perator		from Right	0		-	rator	1	Emergency
	Contact	Contact Mounting			Position			Contact Mounting		Pos	ition		Stop Switches Enabling
		Position	Contact	1	2		`	Position	Contact	1	2	· ·	Switches
	1NO (10)	① ②	NO	Dur	nmy Blo	ASD2L10N	ASD21L10N	① ②	NO	•	_	ASD22L10N	Safety Products
90°	1NO-1NC	0	NO	Dui				0	NO	•			Explosion Proof
2-position	(11)	 	NC	•		ASD2L11N	ASD21L11N	@	NC	-	•	ASD22L11N	Terminal Blocks
	2N0	0	NO	-	•			0	NO	•			
	(20)	2	NO		•	ASD2L20N	ASD21L20N	2	NO	•		ASD22L20N	Relays & Sockets
		0	NO		•			0	NO	•			Circuit Protectors
	2NO-2NC	2	NC	•		ASD2L22N	ASD21L22N	2	NC		•	ASD22L22N	Power Supplies
	(22)	3 ④	NO NC	•	•			3 (4)	NO NC	•	•		LED Illumination
		Contact C				Maintained	Spring Return	-	g Return 1	from Le	-	Spring Return	Controllers
		Contact		C	)perator		from Right					Two-way	Operator
	Contact	Mounting	Contact	1	Position 2					2			Interfaces Sensors
		Position	NO										AUTO-ID
	2N0 (20)	① ②	NO NO	•		ASD3L20N	ASD31L20N		ASD32L2	20N		ASD33L20N	AUTO-ID
	2NC	0	NC										
	(02)	2	NC			ASD3L02N	ASD31L02N		ASD32L0	)2N		ASD33L02N	
		0	NO	•									Flush Silhouette
	2NO-2NC	0	NO				ACD211.00N		10000				ø16
45°	(22)	3	NC			ASD3L22N	ASD31L22N		ASD32L2	211		ASD33L22N	Ø10
3-position		4	NC										ø22
		0	NO	•									ø30
	4N0	2	NO			ASD3L40N	ASD31L40N		ASD32L4	ON		ASD33L40N	. Aliaiata wa
	(40)	3	NO	•									Miniature
		4	NO			•							Pilot Lights
	4NC (04)	① ②	NC NC										
		3	NC			ASD3L04N	ASD31L04N		ASD32L0	4N		ASD33L04N	
		4	NC			-							
		0	NO	•				1					TWN
	-^-	2	NO	-		•							TWND
	☆ 3S	3	NC		•	ASD3L3SN-243	3 –		_			-	
		4	_	Dur	nmy Blo	ck							ARN
<ul> <li>Lever: Black</li> </ul>	k					·	• Turn the operator to ea	ach positior	accurate	elv.			CS

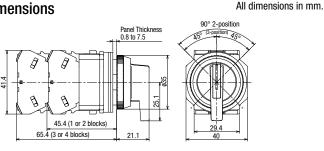
Lever: Black
Round bezel (metal): Chrome-plated
Selector switches with 1 or 3 contact blocks have a dummy block.
Knob operator can be installed at every 45 degrees intervals in addition to the positions shown in the above table.

**Contact Block Mounting Position** 



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

### Dimensions



Terminal Screws: M3.5 Terminal cover: integrated Shape

# ASD K Key Selector Switches

Package Quantity: 1

Key Selector (Key No. 0) ASD⊡K



APEM									SI)						
Switches & Pilot Lights									Carring Datum	1					
Control Boxes		Contact Configuration						Maintained	Spring Return from Right	Spring Return from Left					
Emergency Stop Switches		Orinteet	Contact	Contact Block Operato Position			1 2	1 0	Contact	Operator Position		1. 2			
Enabling Switches		Contact	Mounting Position	Contact	contact 1 2				Mounting Position	Contact	1	2			
Safety Products		1N0	0	NO		•		ASD2K10N	ASD21K10N	0	NO	٠		ASD22K10N	
Explosion Proof	90°	(10)	2			Block	ASDZKTUN	ASDZIKTUN	© — —			ASDZZKTUN			
Terminal Blocks	2-position	1NO-1NC	0	NO		•	-	ASD2K11N	ASD21K11N	0	NO	•		ASD22K11N	
		(11)	2	NC	•					2	NC		•		
Relays & Sockets		2N0	0	NO		•	-	ASD2K20N	ASD21K20N	0	NO	•		ASD22K20N	
Circuit Protectors		(20)	2	NO NO		•				2	NO NO	•			
		2NO-2NC	 	NC	•		-			 	NC	•	•		
Power Supplies		(22)	3	NO	-	•	1	ASD2K22N	ASD21K22N	3	NO	•	-	ASD22K22N	
LED Illumination		( )	(4) NC ●				4	NC	•	•					
Controllers		Contact Configuration						Maintained	Spring Return from Right	Spring Return from Left			eft	Spring Return Two-way	
Operator Interfaces			Contact	Contact Block Operator Position		1 0 2	1 0 2		1, 0	2		1 - 0 - 2			
Sensors		Contact	Contact Mounting Position Contact 1 2		2										
AUTO-ID		2N0	0	NO	•			ASD3K20N	ASD31K20N		ASD32K2		ASD33K20N		
		(20)	2	NO			•	ASDSKZON	ASDSTREON	AODJENEUN				NODUNEUN	
		2NC			ASD3K02N ASD31K02N		ASD32K02N				ASD33K02N				
		(02)	2	NC						A COULT				NODOTIVEN	
Flush Silhouette			① ②	NO NO	•										
ø16		2N0-2NC (22)	3	NC				ASD3K22N	ASD31K22N		ASD32K2	2N		ASD33K22N	
ø22	45°	(22)	4	NC		5									
022	3-position		0	NO	•		-								
ø30		4N0	2	NO			•								
Miniature		(40)	3	NO	•			ASD3K40N	ASD31K40N		ASD32K4	ON		ASD33K40N	
			4	NO											
Pilot Lights			0	NC											
		4NC	2 3	NC				ASD3K04N	ASD31K04N		ASD32K0	4N		ASD33K04N	
		(04)		NC				AUDUNUMN	AUDU HUM		RODUZINU			RODONUMI	
TWN			4	NC											
I VVIN			0	NO	•										
TWND		☆ 3S	2	NO			•	ASD3K3SN-243	—		_			_	
ARN		35	3	NC	D	•									
			4	Dummy Block		SIOCK									

Cylinder: Chrome-plated

• Round bezel (metal): Chrome-plated

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

• On spring-returned types, the key can be released only from the maintained position. On maintained types, the key can be released from every position. See B-308 for specifying key retained positions.

**Contact Block Mounting Position** 



• Key selector switch is supplied with two standard keys.

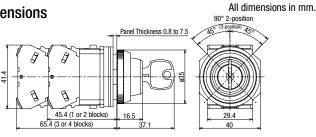
(1) Insert the key completely before turning the key, otherwise failure will result.

(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



Terminal Screws: M3.5

Terminal cover: integrated

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

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### ASLD Illuminated Selector Switches (LED)

Package Quantity: 1

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Shape	Illuminat ASLD	ed Select	or Switch	hes	(BA9S	Bas	9)	Ŕ							Quantity: 1	t Lights
		Contract	Orafiaura					(24V AC/DC)			Cori	ng Do	turn f	rom Left		Switches &
			Configura	-	Operat	tor		Maintained	Spring Return from Right			-	rator		Calar	Pilot Lights
	Contact	Contac	t Block		Positio		Operating Voltage	1 2		Contact	Block		ition	1 2	Color Code	Control Boxes
		Mounting Position	Contact	1	2					Mounting Position	Contact	1	2			Emergency Stop Switches
	1NO-1NC	1	NO		•		24V AC/DC	ASLD22211DN*	ASLD212211DN*	0	NO	•		ASLD222211DN*		Enabling Switches
	(11)	2	NC	$\bullet$		]	100/110V AC	ASLD21611DN*	ASLD211611DN*	2	NC		•	ASLD221611DN*		
90° 2-position							200/220V AC	ASLD22611DN*	ASLD212611DN*					ASLD222611DN*	R	Safety Products
2-рознон	2N0	1	NO		•	-	24V AC/DC	ASLD22220DN*	ASLD212220DN*	0	NO	•		ASLD222220DN*	G	Explosion Proof
	(20)	2	NO		•		100/110V AC	ASLD21620DN*	ASLD211620DN*	0	NO	•		ASLD221620DN*	Y	
				-		1	200/220V AC	ASLD22620DN*	ASLD212620DN*			-	1	ASLD222620DN*	A S	Terminal Blocks
		0	NO	-	•		24V AC/DC	ASLD22222DN*	ASLD212222DN*	0	NO	•		ASLD222222DN*	PW	Relays & Sockets
	2NO-2NC (22)	2	NC	•	-	-	100/110V AC	ASLD21622DN*	ASLD211622DN*	2	NC		•	ASLD221622DN*		Circuit
	(22)	3	NO NC	•	•	-	200/220V AC	ASLD22622DN*	ASLD212622DN*	3	NO NC	•	•	ASLD222622DN*		Protectors
		4							Spring Return from	4		<u> </u>	-	Spring Return		Power Supplies
	Contact Configuration Contact Block Operator Position		Operating	Maintained	Right	Spring Return norn Lent Two-v				Two-way	Color	LED Illumination				
	Contact	Contac Mounting		+ ·		1	Voltage	1 0 2	1 0 2			2		$\begin{pmatrix} 1 \\ \end{pmatrix} \begin{pmatrix} 0 \\ \end{pmatrix} \begin{pmatrix} 2 \\ \end{pmatrix}$	Code	0tll
		Position	Contact	1	0	2		$\bigvee$			$\bigvee$			$\bigvee$		Controllers
		1	NO				24V AC/DC	ASLD32220DN*	ASLD312220DN*	ASL	D322220	)DN*		ASLD332220DN*		Operator Interfaces
	2N0 (20)	2	NO				100/110V AC	ASLD31620DN*	ASLD311620DN*	ASL	D321620	)DN*		ASLD331620DN*		
	(20)						200/220V AC	ASLD32620DN*	ASLD312620DN*	ASL	D322620	)DN*		ASLD332620DN*		Sensors
	2NC	1	NC				24V AC/DC	ASLD32202DN*	ASLD312202DN*	ASL	D322202	2DN*		ASLD332202DN*		AUTO-ID
	(02)	2	NC				100/110V AC	ASLD31602DN*	ASLD311602DN*	ASL	D321602	2DN*		ASLD331602DN*		
				-		-	200/220V AC	ASLD32602DN*	ASLD312602DN*	-	D322602			ASLD332602DN*		
45°		1	NO	•	_		24V AC/DC	ASLD32222DN*	ASLD312222DN*		D322222			ASLD332222DN*	R	
3-position	2NO-2NC	2	NO			•	100/110V AC	ASLD31622DN*	ASLD311622DN*		D321622			ASLD331622DN*	G	Flush Silhouette
	(22)	3	NC			<b>P</b>	200/220V AC	ASLD32622DN*	ASLD312622DN*	ASL	D322622	2DN*		ASLD332622DN*	Y	ø16
		4	NC				_		—						A S	
		0	NO	•	-		24V AC/DC	ASLD32240DN*	ASLD312240DN*		D322240			ASLD332240DN*	PW	ø22
	4N0	2	NO		_	•	100/110V AC	ASLD31640DN*	ASLD311640DN*	-	D321640			ASLD331640DN*		ø30
	(40)	3	NO	•			200/220V AC	ASLD32640DN*	ASLD312640DN*	ASL	D322640	)DN*		ASLD332640DN*		000
		(1) (1)	NO NC	-			 24V AC/DC	ASLD32204DN*		ACU		DN				Miniature
	4110	 	NC NC				24V AC/DC 100/110V AC	ASLD32204DN* ASLD31604DN*	ASLD312204DN* ASLD311604DN*		D322204			ASLD332204DN* ASLD331604DN*		Pilot Lights
	4NC (04)	3	NC				200/220V AC	ASLD31604DN* ASLD32604DN*	ASLD311604DN*		D321604 D322604			ASLD331604DN* ASLD332604DN*		
	(04)	(4)	NC				200/220V AU	ASLD32604DIN*	MOLUO12004UIN*	ASL	JJZZ004	אוטי		MOLDO02004DIN*		
	1	9	NU													

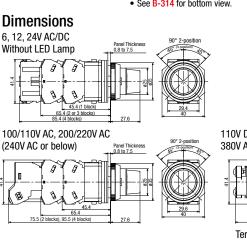
· Specify a color code in place of \* in Part No.

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 dummy block.

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

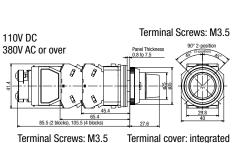




• See B-309 for how to specify units without LED lamps. When using a commercially available lamp, choose a lamp with rated voltage 5 to 30V AC/DC and 1W maximum, and with the same base and shape. Make sure of correct operation before installation. The operation of illuminated selected switches cannot 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.



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

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All dimensions in mm.

# **ASBD2 Selector Pushbuttons**

vilot											Package Quantity: 1	
Pilot Lights	Shape	Contact Configuration	Circuit Code			Left Right				t Button Color Code	Ring Operator	
APEM				Mounting Position	Contact	Normal	Pushl Push	outton Normal	Push	Code	Part No. (Ordering No.)	
Switches & Pilot Lights	Ring Operator (90°2-position) ASBD2			0	NO		•		•	В		
Control Boxes	ASDUZ	11 (1NO-1NC)	A03							G R	ASBD211N-A03*	
Emergency Stop Switches				2	NC	•				Y		
Enabling Switches				0	NO		•		•			
			A08	2	NC	•					ASBD222N-A08*	
Safety Products				3	NO		•		•			
Explosion Proof				4	NC	•	-		-			
Terminal Blocks				0	NO NO		•		•			
			C10 ☆	2 3	NC	•			•		☆ ASBD222N-C10∗	
Relays & Sockets				010	() (4)	NC						A3DD222N-010*
Circuit Protectors				0	NO		•			в		
Power Supplies		22	D10	2	NO					B G R	ACREACEN DIA	
		(2N0-2NC)	DIO	3	NC					R	ASBD222N-D10*	
LED Illumination				4	NC					Y		
Controllers				0	NO		•					
Operator			\$	2	NO				•		\$	
Interfaces			E10	3	NC						ASBD222N-E10*	
Sensors				4	NC							
				0	NO				•			
AUTO-ID			☆ F10	2	NO		•				*	
			F10	3	NC			•			ASBD222N-F10*	
	• Chaoifu a color codo in place of « ir			4	NC							

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

• Bezel (metal): Chrome-plated Flush Silhouette

Miniature

Pilot Lights

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• 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. ø16

• When using the selector pushbutton, do not turn the ring operator with the pushbutton depressed. Otherwise, damage or failure may be caused.

ø22 • Selector switches with 🖄 have a half contact operating current (load switching current value). Rated insulation voltage and rated current remain the same.

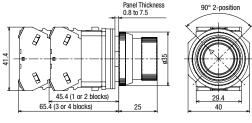
• See B-312 for bottom view.

### **Contact Block Mounting Position**



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

All dimensions in mm.



Terminal Screws: M3.5

Terminal cover: integrated

Switches &

### Pilot Lights (Round)

						Package Quantity: 1	ᅙ
Shape	Illumination	Base	Operating Voltage	Part No. (Ordering No.)	Color Code	LED Lamp Part No.	Lights
Round APD1			24V AC/DC	APD122DN*	R, G, Y, A, S, PW	LSTD-2*	
	LED	BA9S	100/110V AC	100/110V AC APD116DN* R, G, Y, A, S, PW			APEM
(24V AC/DC)			200/220V AC APD126DN* R.		R, G, Y, A, S, PW	LSTD-6*	Switches & Pilot Lights
(24V AC/DC)			200/2201710				Control Boxes

• 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.

- Philotinghts have an EED 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

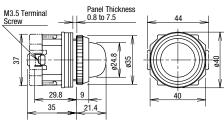
Note: DC-DC converter types are not approved by UL and CSA, and not CE compliant.

• See B-314 for bottom view.

### Dimensions

### Round, LED illuminated

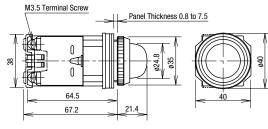
6V, 12V, 24V AC/DC · Without LED Lamp (Terminal Cover: APD-PVL)



Terminal Screws: M3.5

• See B-349 for wiring.

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



Terminal Screws: M3.5

ø22
Miniature
Pilot Lights

Flush Silhouette

ø16

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ARN	
CS	

Emergency

Enabling

Switches Safety Products

Stop Switches

Explosion Proof

Terminal Blocks Relays & Sockets Circuit Protectors Power Supplies

LED Illumination Controllers

Operator Interfaces

Sensors

AUTO-ID

All dimensions in mm.

## **Nameplates**

Lights	Model	Legend	Material	Part No.	Ordering No.	Package Quantity	Dimensions (mm)	
	NA				NA-0	1	. 40 .	
APEM Switches &		Blank	Aluminium 1.2 mm thick White letters on black background	NA-0	NA-0PN10	10		
Pilot Lights Control Boxes		With		NA-🗆	NA-□	1	₽	
Emergency Stop Switches	For TWN/TWND	Legend			NA-□PN10	10	ø30.5	
Enabling Switches	NALO							
Safety Products					NALO	1	<u>+ 40</u> −	
Explosion Proof		Diank	Aluminium		NALO	1		
Terminal Blocks		Blank	1.2 mm thick Black	NALO				
Relays & Sockets					NALOPN10	10	ø30.5	
Circuit Protectors	For TWN/TWND							

1.2

1.2

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

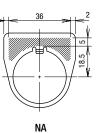
#### Legends LED Illumination

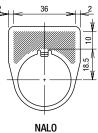
□: Code	Legend
1	ON
2	0FF
3	START
4	STOP
31	OFF ON
35	HAND AUTO
53	Hand Off Auto

#### Shape and Engraving Area ø16



ARN CS





All dimensions in mm.

Example (when the legend height is 4 mm)

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

Power Supplies

Controllers Operator Interfaces Sensors AUTO-ID

Flush Silhouette

## Accessories

#### All dimensions in mm.

	1	1		1		e e
Shape	Material	Part No.	Ordering No.	Package Quantity	Remarks	ilot Lights
Locking Ring Wrench	Nitril rubber (black)	0R-12	0R-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)	APEM Switches & Pilot Lights Control Boxes Emergency Stop Switches
Lamp Holder Tool A B For TWN/TWND	Nitril rubber (black)	0R-55	0R-55	1	• Used to install and remove the LED/incandescent lamps. See B-345. A: For BA9S base B: For E12 base A 	Enabling Switches Safety Products Explosion Proof Terminal Blocks Relays & Sockets
Contact Block Removal Tool	Metal (zinc-plated) Rubber (nitryl)	TW-KC1	TW-KC1	1	• Used to remove transformer units. See B-347 for how to use.	Circuit Protectors Power Supplies LED Illumination Controllers Operator Interfaces
Contact Rubber Boot For momentary 1 layer of contact blocks (2 contact blocks)	Nitril rubber (black)	0C-99	0C-99	1	<ul> <li>Rubber boot used to prevent oil and dirt from entering into the contact block.</li> <li>Temperature range:         <ul> <li>5 to +60°C</li> <li>Image: Image: Image:</li></ul></li></ul>	Sensors AUTO-ID Flush Silhouette ø16 ø22
Anti-rotation Ring For TWN/TWND	Metal (diecast) (zinc-plated)	0GL-11	OGL-11PN10	10	<ul> <li>Used to prevent the operator from turning. Generally used when using no nameplates on selector switches and selector pushbuttons.</li> <li>See B-345 for installation.</li> <li>Cannot be used for pin lock.</li> </ul>	030 Miniature Pilot Lights
Rubber Mounting Hole Plug	Nitril rubber (black) Nitril rubber (gray)	0B-13B 0B-13	0B-13BPN05 0B-13PN05	. 5	<ul> <li>Used to plug unused ø30.5 mm mounting holes.</li> <li>Degree of protection: IP40</li> </ul>	TWN TWND ARN
Plastic Mounting Hole Plug	Plug: ABS plastic (gray) Gasket: Chloroprene rubber Locking ring: diecast zinc	0BP-11	0BP-11	1	<ul> <li>Tightening torque: 1.2 N·m.</li> <li>Degree of protection: IP65 (when there is no anti-rotation ring hole)</li> <li>Supplied with a locking ring.</li> </ul>	CS
Metallic Mounting Hole Plug	Plug: ABS plastic (gray) Gasket: Chloroprene rubber Locking ring: diecast zinc	0B-11	0B-11	1	<ul> <li>Tightening torque: 1.2 N·m.</li> <li>Degree of protection: IP65 (when there is no anti-rotation ring hole)</li> <li>Supplied with a locking ring.</li> </ul>	

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## Accessories

ē										
ilot Lights	Shape		Material	Par	rt No.	Ordering No.	Package Quantity	Remarks		
, and a second se	Button Cover for Exte Pushbuttons	nded		Black	0C-11B	0C-11B		Metallic bezels covered with a rubber boot to enhance waterproof characteristics.		
APEM			Nitril rubber	Red	0C-11R	0C-11R		Button is not included. Applicable     to extended pushbuttons only.		
Switches & Pilot Lights			Bezel:	neu	00-111	00-111	1	<ul> <li>Oil-proof</li> <li>Operating temperature:</li> </ul>		
Control Boxes Emergency			diecast zinc	Green	0C-11G	0C-11G		-5 to +60°C.		
Stop Switches Enabling Switches	Fc	or TWN/TWND		Yellow	0C-11Y	0C-11Y		M30 P1.5_		
Safety Products		<b>F</b> (1 )						Used to cover and protect push- buttons where units are subject		
Explosion Proof		For flush pushbuttons		0C-121	I	0C-121	1	to water splash. Not suitable for outdoor use or where the units are		
Terminal Blocks		_	EPDM rubber					subject to oil splash.		
Relays & Sockets Circuit		For extended pushbuttons		0C-122	2	0C-122	1	Part No.         A         B           0C-121         37         16           0C-122         37         22		
Protectors Power Supplies	For TWN/TWND Dust-proof Rubber Co	·						Used for ABN4G and ABGD4     Panel Thickness		
LED Illumination	for Jumbo Mushroom							pushbuttons.		
Controllers			Nitril rubber (black)	OC-4GI	N	OC-4GN	1			
Operator Interfaces										
Sensors	Fc Padlock Cover	or TWN/TWND						Used to protect pushbuttons and illuminated pushbuttons		
AUTO-ID								(momentary/maintained) with 24 mm max. height from the panel, and selector switches (knob operator).		
Flush Silhouette ø16 ø22 ø30 Miniature	Ø		Polyarylate (gasket: nitryl rubber)	OL-KL1		OL-KL1	1	• Not used for the following models.   Pushbuttons   Mushroom with full shroud   Jumbo mushroom with shroud   Illuminated   Outside diameter: #50   Pushbuttons   Inside diameter: #44   With half shroud   With full shroud   With full shroud   With full shroud   With full shroud   Selector Switches		
Pilot Lights	Fc	or TWN/TWND						Lever operator Key selector switch with key installed		
TWN TWND ARN CS	Padlock Cover for Key Selector Switche	s	Metal Paint: red (zinc-plated brass)	HS9Z-F	PC30	HS9Z-PC30	1	• Applicable model Key selector switches ASN□K/ASD□K See padlock cover catalog for operating instruction. Materia:SPC Brief Samethick Summittick Materia:SPC Summittick Materia:SPC Summittick Materia:SPC Summittick Summitti		
	For Flush Pushbutton	S						<ul> <li>Used to protect flush pushbuttons from inadvertent operation.</li> <li>Can be easily attached using the locking ring.</li> </ul>		
	Fr	or TWN/TWND	Metal (zinc-plated brass)	OL-C		OL-C	1	seture dusing the locking ing.		

Metallic Bezel

Shape

Package Quantity

Ordering No.

All dimensions in mm.	Switches & Pilot Light
d with pin lock, outtons, and monolever	APEM Switches & Pilot Lights Control Boxe
	Emeraencv

		Metal (diecast zinc:	0G-11	0G-11PN02	2	<ul> <li>Cannot be used with pin lock, selector pushbuttons, and monolever</li> </ul>	APEM
		chrome-plated)	10 m			units.	Switches & Pilot Lights
ø35/ø26, height 9	For TWN/TWND						Control Boxes
Plastic Bezel							Emergency Stop Switches
							Enabling Switches
						<ul> <li>Specify a color code in place of *.</li> <li>B (black), G (green), R (red), W (white),</li> </ul>	Safety Products
		Polycarbonate	0GP-11*	0GP-11*PN02	2	Y (yellow) • Cannot be used with pin lock, selector	Explosion Proof
						pushbuttons, and monolever units.	Terminal Blocks
ø35/ø26, height 9	For TWN						Relays & Sockets
Octagonal Metal Bezel	0						Circuit Protectors
0	Flush						Power Supplies
	W35 (37.6)		0G-81	0G-81PN02	2		LED Illumination
	H9	Metal (diecast zinc:				Use with TWDN series diecast zinc	Controllers
	0	chrome-plated)				<ul><li>switches and pilot lights.</li><li>Cannot be used with half-shrouds.</li></ul>	Operator
2	Extended W35		0G-82	0G-82	1		Interfaces
	(37.6)		00-02	00-02			Sensors
For TWDN H16							AUTO-ID
Clear Plastic Shroud for Flush	Pushbuttons						
				OGP-13PN02	2		Flush Silhouette
		Acrylic (clear)	0GP-13				ø16
							ø22
ø35, height 14	For TWN						
Clear Plastic Shroud for Extend	ded Pushbuttons					Clear plastic full shroud.	ø30
							Miniature
1		Acrylic (clear)	0GP-14	0GP-14PN02	2		Pilot Lights
	9						
	<b>F T</b> \A/A						TWN
ø35, height 20.6 Clear Plastic Shroud for Illuminat	For TWN ed Pushbuttons						
							TWND
							ARN
	3	Acrylic (clear)	0GP-1411	0GP-1411	1	<ul> <li>Buttons may protrude slightly depending on the panel thickness.</li> </ul>	CS
Shroud: ø35, height 20.6 Metal Nut Ring: height 4	For TWN						
Metal Nut Ring for Illuminated							
		Metal	0L-11	0L-11PN05	5	<ul> <li>Metal nut ring for OGP-1411 only.</li> </ul>	
		(diecast zinc)	02.11				
ø35, height 4	For TWN						
		1	1		1		

Part No.

Material

# Accessories

ot Lights	Shape		Material Part No Ordering No			Package	Color Code *	
yhts		nape	Material	Part No.	Ordering No.	Quantity	Color Code *	
	Button for Pushbuttons	<ol> <li>Flush ø24.6, height 4</li> </ol>		ABN1BN-*	ABN1BN-*PN05	5		
APEM Switches & Pilot Lights		② Extended ø24.6, height 9		ABN2BN-*	ABN2BN-*PN05	5	B (black), G (green), R (red), Y (yellow), S (blue), W (white)	
Control Boxes Emergency	3	③ Mushroom ø40, height 16.2	Polyacetal	ABN3BN-*	ABN3BN-*PN02	2		
Stop Switches Enabling Switches	4	④ Jumbo Mushroom ø65, height 23.2		ABN4BN-*	ABN4BN-*	1	B (black), G (green), R (red), Y (yellow), S (blue)	
Safety Products Explosion Proof	0	⑤ Button for Pin Lock (ABD8P) ø23.6, height 3		ABW1B-*	ABW1B-*PN05	5	B (black), G (green), R (red), Y (yellow), S (blue), W (white)	
Terminal Blocks Relays & Sockets Circuit		© ø40 Pushlock Turn Reset (AVN3, AVD3) ø40, height 18.5	<b>10</b>	AVN3B-*	AVN3B-*	1	R (red),Y (yellow)	
Protectors Power Supplies LED Illumination	For TWN/TWND	<ul> <li>Ø40</li> <li>Push Turn Lock</li> <li>(AJN3, AJD3)</li> <li>Ø40, height 18.5</li> </ul>	AS resin	AJN3B-*	AJN3B-*	1	B (black), G (green), R (red), Y (yellow)	
Controllers	Lens for Illuminated Pushbuttons	① Extended		ALN2L-*	ALN2L-*PN05		R (red), G (green), S (blue)	
Interfaces Sensors	0	(ALN2, ALD2) ø24, height 18.5	AS resin	ALN2LD-*	ALN2LD-*PN05	5	Y (yellow), A (amber), W (white) Specify W for PW (pure white) illumination.	
AUTO-ID	<sup>2</sup> For TWN/TWND	② ø40 Pushlock turn reset (AVLN3, AVLD3) ø40, height 18.5	AUTUSII	AVLN3L-R	AVLN3L-RPN02	2	R (red) only	
Flush Silhouette ø16	Selector Operator	① Knob operator ø25, height 20.5		ASNHT-*	ASNHT-*PN02			
ø22 ø30		<ul> <li>② Lever operator</li> <li>ø25, height 20.5, length</li> <li>37.5</li> </ul>	Polyacetal	ASNHL-*	ASNHL-*PN02	2	B (black), G (green), R (red)	
Miniature Pilot Lights	3	③ Color insert Width 21, depth 5, height 18		TW-HC1*	TW-HC1*PN05	5	B (black), G (green), R (red), Y (yellow), S (blue), W (white)	
		④ Knob for illuminated selector switch	<b>10</b> menin	ASLNH-*	ASLNH-*	1	G (green), R (red), S (blue)	
TWN	For TWN/TWND	(ASLN, ASLD) ø25, height 28	AS resin	ASLNHD-*	ASLNHD-*	1	A (amber), W (white), Y (yellow) Specify W for PW (pure white) illumination.	
ARN CS	Lens for Pilot Lights	① Round (APN1, APD1) ø24.6, height 28, M20 For TWN/TWND		APN106LN-*	APN106LN-*PN05	5	R (red), G (green), Y (yellow) A (amber), W (white), S (blue) Specify W for PW (pure white) illumination.	
	2	② Rectangular (UPQN4) Width 36, depth 30, height 8.5		UPQN406L-*	UPQN406L-*PN05	-	R (red), G (green), C (clear), S (blue) Specify C for PW (pure white) illumination.	
		For TWN	AS resin	UPQN406LD-*	UPQN406LD-*PN05	- 5	Y (yellow), A (amber)	
	<sup>3</sup>	③ Square extended (UPQN3B)		ULQN06L-*	ULQN06L-*PN05	F	R (red), G (green), S (blue)	
	)	□25, height 26.5 For TWN		UPQN06LD-*	UPQN06LD-*PN05	5	Y (yellow), A (amber), W (white) Specify W for PW (pure white) illumination.	
	Marking Plate For TWN	Rectangular pilot lights (UPQN4) Width 29.8, depth 23.8, thickness 2	Acrylic	UPQN406N-W	UPQN406N-WPN05	5	W (white) only See <mark>B-346</mark> for engraving area.	

## Maintenance Parts

All dimensions in mm.

			1			iot
Shape	Material	Part No.	Ordering No.	Package Quantity	Remarks	Pilot Lights
Rubber Washer (1.5 mm-thick)	Dukhar					
$\bigcirc$	Rubber (synthetic soft vinyl)	OW-11	OW-11PN10	10	• To tighten mounting panels	APEM
For TWN/TWND	ø39/ø29.5, height 1.5					APEM Switches &
Rubber Washer (3.0 mm-thick)						Pilot Lights
$\bigcirc$	Rubber (synthetic soft vinyl)	0W-12	OW-12PN10	10	• To tighten mounting panels	Control Boxes Emergency
For TWN/TWND	ø39/ø29.5, height 3					Stop Switches Enabling
Shroud for Pushbuttons						Switches
0	① Half shroud	ABN2G	ABN2G	1	With nut ring (ø35, height 4)	Safety Products
9	ø35/ø27, height 20.5					Explosion Proof
2						Terminal Blocks
	© Full shroud	ABN2F	ABN2F	1		Relays & Sockets
3	ø35/ø28.5, height 16.5					Circuit Protectors
	③ Full shroud				-	Power Supplies
() ()	(for mushroom	ABN3G	ABN3G	1		LED Illumination
	pushbuttons) ø48, height 20					Controllers
					-	Operator Interfaces
5	④ Shallow shroud (for jumbo mushroom)	ABN4G	ABN4G	1		Sensors
	ø75, height 18					AUTO-ID
					-	
	<ul> <li>Deep shroud</li> <li>(for jumbo mushroom)</li> </ul>	ABN4F	ABN4F	1		
For TWN/TWND	ø75/ø69, height 33					Flush Silhouette
Shroud for Illuminated Pushbuttons						ø16
	① Half shroud (For BA9S base)	ALN2GL	ALN2GL	1	• With nut ring (ø35, height 4)	ø22
	ø35/ø27, height 25					ø30
99	② Full shroud					Miniature
For TWN/TWND	(For BA9S base) ø35/ø29.5, height 22.5	ALN2FL	ALN2FL	1	With nut ring (ø35, height 4)	Pilot Lights
<b>0</b> <i>K</i>	055/029.5, neight 22.5					
Spare Key For Key Selector Switches	Metal					
	Nickel plated brass Length 3, width 19.7,	TW-SK-0	TW-SK-0PN02	2	• ASN□K□N ASD□K□N	TWN
For TWN/TWND	thickness 1.8					TWND
Spare Key						ARN
For Key Selector Switches	Metal					CS
The second	Nickel plated brass Length 37.5,	ASN-SK-24401	ASN-SK-24401PN02	2	● ASN□K□-N024401	
For TWN	thickness 2					
Pin/Chain Kit						
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						
	Polyamide	HW9Z-CBPL	HW9Z-CBPLPN10	10	Used to plug the hole in the     contact block	
					center of a contact block.	
For TWN/TWND						

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## **Maintenance Parts**

-+							
t Lights	Shape	Description	Part No.	Ordering No.	Package Quantity	Remarks	
05	Contact block	NO contrat	HW-U10	HW-U10		Housing color: Blue	
	HW-U	NO contact	HW-U10-MAU	HW-U10-MAU	1	Push rod color: Green MAU has gold contacts	
APEM		NC contact	HW-U01	HW-U01	1	Housing color: Reddish purple Push rod color: Red	
Switches &		NG COMACI	HW-U01-MAU	HW-U01-MAU	I	MAU has gold contacts	
Pilot Lights		EM contact	HW-U10R	HW-U10R		Housing color: Blue Push rod color: Black	
Control Boxes		(early make)	HW-U10R-MAU	HW-U10R-MAU	1	MAU has gold contacts	
Emergency Stop Switches		LB contact	HW-U01R	HW-U01R	- 1	Housing color: Reddish purple Push rod color: White	
Enabling Switches	For TWN/TWND, 11g approx.	(late break)	HW-U01R-MAU	HW-U01R-MAU	1	MAU has gold contacts	
Safety Products	Dummy Block					<ul> <li>For HW-U contact blocks</li> </ul>	
Explosion Proof	For TWN/TWND	Polyamide	HW-DB	HW-DBPN10	10	• Used when the number of contact blocks and full voltage adapters is 1 or 3.	
Terminal Blocks	3.5g approx.						
Relays & Sockets Circuit Protectors	Full Voltage Adapter For Illuminated Switches (*1)	Polyamide	HW-GA1N	HW-GA1NPN02	2	Applicable model: Illuminated pushbuttons Illuminated selector switches Applicable load (LED lamp)	
Power Supplies	For TWN/TWND 12g approx.					LSTD-6 (6V AC/DC) LSTD-1 (12V AC/DC) LSTD-2 (24V AC/DC)	
LED Illumination	Transformer Unit					Applicable model:	
Controllers	For Illuminated Switches (*1)	100/110V AC	HW-T16	HW-T16	1	Illuminated pushbuttons	
Operator Interfaces	For TWN/TWND	200/220V AC	HW-T26	HW-T26	1	Illuminated selector switches • Applicable load (LED lamp)	
Sensors	66g approx.	200/2201110	1111 120	1111 120		LSTD-6 (6V AC/DC)	
AUTO-ID	Transformer Unit For Pilot Lights (*1)	100/110V AC	TWR-016B	TWR-016B	1	<ul> <li>Mounting screws are not included.</li> <li>See B-347 for mounting screws.</li> </ul>	
	For TWN/TWND 69g approx.	200/220V AC	TWR-026B	/R-026B TWR-026B		Applicable load (LED lamp) LSTD-6 (6V AC/DC)	

\*1) For use as maintenance parts. Do not use for expansion or remodelling purposes. Flush Silhouette

ø16

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

010	<u> </u>		<u></u>		• •	,	,	,	
ø22	Model	Operating	Curren	t Draw	Part No.	Ordering No.	Color Code	Package	Base
ØZZ	WIDGOI	Voltage	DC	DC	Tarrivo.	ordening No.		Quantity	Dast
ø30	LSTD	6V AC/DC	7mA (R, A, W) 5.5mA (G, PW)	8mA (except S)	LSTD-6*	LSTD-6*		1	
Miniature		OV AC/DC	4.5mA (S)	S) 7mA (S)		LSTD-6*PN10		10	
Pilot Lights	1.7	12V AC/DC	10mA (except S)	11mA (except S)	LSTD-1*	LSTD-1*	R, G, A, W, S, PW	1	BA9S /13
		12V AC/DC	8mA (S)	9mA (S)	LOID-I*	LSTD-1*PN10		10	
		24V AC/DC	10mA (except S)	11mA (except S)	LSTD-2*		1		
		24V AC/DC	8mA (S)	9mA (S)	LSID-2*	LSTD-2*PN10		10	
TWN	LETD	6V AC/DC	14mA (R, A, W)	17mA (R, A, W)	LETD-6*	LETD-6*		1	
		6V AC/DC	5.5mA (G, S, PW)	8mA (G, S, PW)	LEID-0*	LETD-6*PN10		10	
TWND		12V AC/DC	6.5mA	7mA	LETD-8*	LETD-8*	R, G, A, W, S, PW	1	E12
ARN	W.	TZV AC/DC	(10mA: at 15V)	(11mA: at 15V)	LEID-0*	LETD-8*PN10	n, u, A, W, S, FW	10	/15
		24V AC/DC	10mA	11mA		LETD-2*		1	
CS	-	24V AG/DG	TUINA		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

	ncandesce	ent Lamp			Replacement LED Lamp				<ul> <li>When usi incandes</li> </ul>
Model (mm)	Part No.	Operating Voltage	Lamp Rating	Base	Part No.	Color Code	Operating Voltage	Base	with the voltage,
LS	LS-6	6V AC/DC	1W (6V)		LSTD-6*		6V AC/DC		<ul> <li>Specify a</li> </ul>
-it o	LS-8	12V AC/DC	1W (18V)	BA9S	LSTD-1*	R, G, A, S,	12V AC/DC	BA9S	Part No. R (red), (
Bulb: Ø11	LS-2	18V AC/DC	1W (24V)	/13	LSTD-2*	PW	24V AC/DC	/13	PW (pure
Length: 23	LS-3	24V AC/DC	1W (30V)		LSTD-2*		24V AC/DC		• Use a PV
LE	LE-6	6V AC/DC	2W (6V)		LETD-6*		6V AC/DC		(yellow)
	LE-8	12V AC/DC	2W (18V)	E12	LETD-8*	R, G, A, S,	12V AC/DC	E12	• For 0 (or
Bulb: ø13	LE-2	18V AC/DC	2W (24V)	/15	LETD-2*	PW	24V AC/DC	/15	of incan
Length: 34	LE-3	24V AC/DC	2W (30V)		LETD-2*		24V AC/DC		LED lam

- sing a commercially available scent lamp, choose a lamp same dimensions, operating
- and base. a color code in place of \* in
- . G (green), A (amber), S (blue), re white)
- W (pure white) LED lamp for Y illumination.
- range) and C (clear) color code idescent lamp, use A (amber) ۱p.

All dimensions in mm.

## Transformer

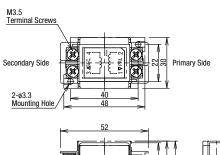
Shape	Operating Voltage	Voltage Range	Part No. (Ordering No.)	Applicable Load	t Lights
For 6V	100/110V AC	±10%	TWR516	LSTD-6* (6V AC/DC, LED lamp)	
	200/220V AC	±10%	TWR526	Specify a color code in place of $*$ in Part No. R (red), G (green), A (amber), S (blue), PW (pure white)	APEM Switches &
	400/4440V AC	±10%	TWR546		Pilot Lights Control Boxes
For 24V	100/110V AC	±10%	TWR512	LSTD-2* (24V AC/DC, LED lamp) Specify a color code in place of * in Part No. R (red), G (green), A (amber), S (blue),	Emergency Stop Switches
					Enabling Switches
	200/220V AC	±10%	TWR522		Safety Products
	400/4440V AC	±10%	TWR542	PW (pure white)	Explosion Proof
Terminal cover (TWD VI 2) is install					Terminal Blocks

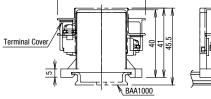
• Terminal cover (TWR-VL3) is installed on transformers as standard.

## **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	$100M\Omega$ minimum (500V DC	megger)	
Operating Temperature	–30 to 60°C (no freezing)		
Operating Humidity	35 to 85% RH (no condensa	tion)	
Storage Temperature	-40 to +80°C (no freezing)		
Vibration Resistance	Damage limits: 30 Hz, amplitude 1.5 mm		
VIDIATION RESISTANCE	Operating extremes: 5 to 55 Hz, amplitude 0.5 mm		
Chaol Desistance	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 mm <sup>2</sup> maximum, 2 wires m	aximum	
Weight	87g		







Flush Silhouette

ø16 ø22

Miniature

Relays & Sockets Circuit Protectors

Power Supplies

LED Illumination Controllers

Operator Interfaces

Sensors AUTO-ID

## Accessories

Shape	Material	Part No.	Ordering No.	Package Quantity	Dimensions (mm)	Pilot Lights
DIN 35 mm Rail Weight: 200g approx.	Aluminum Length: 1000 mm	BAA1000	BAA1000PN10	10		TWN TWND ARN CS
DIN 35 mm Rail Weight: 320g approx.	Steel Length: 1000 mm	BAP1000	BAP1000PN10	10		
End Clip Weight: 15g approx.	Metal (zinc-plated steel) Applicable rail: BAA1000 BAP1000	BNL6	BNL6PN10	10		

• See H-071 for DIN rail products.

Operator

Interfaces

Sensors

AUTO-ID



- 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 fire

## **Operating Instructions**

**ø30 TWN/TWND Series** 

**Safety Precautions** 

#### 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.
- Rubber Gasket





Rubber Gasket

Illuminated pushbutton (extended w/full shroud)

2 pieces

2 pieces

1

1

2 pieces

2 pieces

1

1

2 pieces

2 pieces

1

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

Rubber Washer

1.5 mm-thick 3.0 mm-thick

Rubber Washer

1.5 mm-thick 3.0 mm-thick

Rubber Washer

.5 mm-thick 3.0 mm-thick

1

1

1

1

1

1

1

**TWN/TWND** series

Panel Thickness (mm)

Supplied

0.8 to 3.5

2.0 to 3.5

3.5 to 5.0

5.0 to 6.0 (6.5)\*

**TWND** series

Pin lock pushbutton

Panel

Thickness (mm)

Supplied

0.8 to 3.0

3.0 to 4.5

4.5 to 6.0

6.0 to 7.5

Panel Thickness (mm)

Supplied

0.8 to 3.5

3.5 to 5.0

5.0 to 6.5

6.5 to 7.5

TWN/TWND series

Other models (excluding square)

Mushroom with full shroud

## 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.



#### TWN/TWND series

ø16 Pushbutton (flush/extended/mushroom/jumbo mushroom) ø22 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	-		



CS

Miniature

Pilot Lights

TWN/TWND series Pushbutton (extended with half shroud)

Illuminated pushbutton (extended with half shroud) ARN

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	_	

• See B-324 for square pilot lights about installing on the panel and replacing LED lamps. The number of rubber washers shown in the dimensions of TWN/TWND series may differ from the number of rubber washers supplied.

## Notes for Panel Mounting

lamp is used.

Locking ring wrench recommended torque

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

When using a commercially available lamp, choose a lamp with rated voltage

pushbutton switches cannot be guaranteed when a commercially available

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

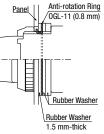
Locking ring wrench Locking ring wrench (OR-12) can be used to tighten the bezel. Use side B to tighten. Side B: For TWN/TWND series Side A: TWS series



## 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.



APEM

Control Boxes

Stop Switches

Safety Products

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Terminal Blocks

**Relavs & Sockets** 

LED Illumination

Controllers

Operator

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Flush Silhouette

ø16

ø22

Miniature

Pilot Lights

Circuit

Protectors Power Supplies

Emergency

Enabling

Switches

## **Operating Instructions**

## Installing/Removing the Buttons and Lenses

To install

Pushbutton button

Flush/Extended Push in the button to install.

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

To remove



#### Notches on the operating shaft

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



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

#### Notes on button removal

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

#### Mushroom/

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

Turn the button counterclockwise to remove.

#### Illuminated Pushbutton Lens

Extended/Mushroom Lens has threads. Turn clockwise to install the lens.

Turn the lens counterclockwise to remove.



#### Pilot Light Lens Round

Lens has threads. Turn clockwise to install the lens.



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

## Marking Plate on Pilot Lights

#### Rectangular Marking Plates (for UPQN4)

#### Removina

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



#### **Engraving Area**

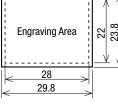
Material: Acrylic resin Size: 29.8 W × 23.8 D, thickness 2.0 mm Engraving area:  $28 \text{ W} \times 22 \text{ D} \times 1.0 \text{ mm}$  height max.



② A white marking plate is installed

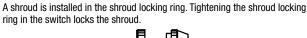
easily

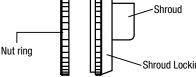
in the lens which can be removed



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

#### Half Shroud Parts



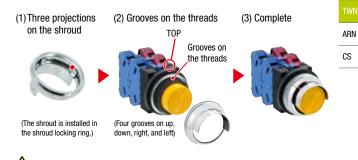


#### Installing the Half Shroud

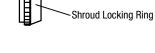
- ① Adjust the thickness of the rubber washers according to the panel thickness (see B-345).
- ② Insert the switch into the panel from the back of the panel.
- ③ Install the nut ring from the panel front to tighten the switch.
- ④ Install the half shroud on the upper side of the switch, and tighten the shroud locking ring.
- <sup>(5)</sup> 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.



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



## **Operating Instructions**

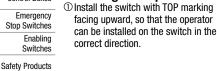
#### Selector Switches

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.

#### **Key Selector Switches**

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

#### Installing the Operator on Selector Switches Control Boxes





Color Insert

TOP" marking

2 On non-illuminated models, install the Terminal Blocks color insert in the middle of operator. The color insert also serves to retain Relavs & Sockets the operator. Circuit Protectors

> 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

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





45° 3-position

Standard positions

## Removal

#### Removing the Operator from Selector Switches



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



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

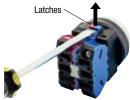
#### Removing the Operator from Illuminated Selector Switches



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

#### **Removing the Contact Blocks/Full Voltage Adapters**

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



- Make sure to lift both latches. Contact blocks cannot be removed by lifting one latch only.
- · Do not apply excessive force to the latches, otherwise damage maybe caused.

#### **Transformer Units and DC-DC Converters**

Insert the end of the contact block removal tool (TW-KC1) into the snap-fit latch of the transformer units or DC-DC converter and pull the tool forward. The contact block removable tool cannot be used to remove the HW-U contact blocks or full voltage adapters.



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

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

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



Mounting screws APN: M3 × 6 (screw diameter ø5.5 or below) APD: M3.5 × 6 (screw diameter ø5.5 or below)

APEM

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Power Supplies

LED Illumination

Controllers

Operator

Interfaces

Sensors

AUTO-ID

Flush Silhouette

ø16

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ARN

CS

APEM

Control Boxes Emergency Stop Switches

Enabling

Switches

Safety Products

Explosion Proof

Terminal Blocks

Relays & Sockets

Power Supplies

LED Illumination

Controllers Operator

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Sensors

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Miniature

Pilot Lights

Circuit

Protectors

## **Operating Instructions**

## **Applicable Wiring**

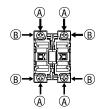
(1) Contact Block 0.3 to 3.5 mm<sup>2</sup> (solid wire 0.5 to 2.0 mm)

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

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

<Contact Block>

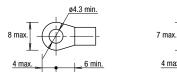
Terminal screws M3.5 (spring-up)



#### **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 ø3.6 min.







 Strip the wire insulation 8 to 9 mm from the end. Insert the wire until the insulation comes into contact

3.6 min.

6 min

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.

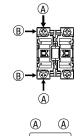


## Illuminated pushbutton/illuminated selector switch

 $\textcircled{\sc B}$  and  $\textcircled{\sc B}$  show the wiring direction to the terminals.

<Full Voltage Adapter> Terminal screws M3.5

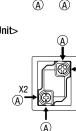
(spring-up)



<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)

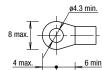


#### **Applicable Crimping Terminal**

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

(B

Crimping terminal for (A)



ø3.6 min





Crimping terminal for (B)

4 ma

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.

ARN	
CS	

#### **Operating Instructions**

#### (3) Pilot Light

Switches & Pilot Lights

Control Boxes

Emergency

Enabling

Switches

Stop Switches

Safety Products

Explosion Proof

Terminal Blocks

Relays & Sockets

Power Supplies

LED Illumination

Controllers

Operator Interfaces

Sensors

AUTO-ID

Circuit

Protectors

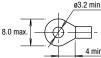
nt 0.3 to 2 mm<sup>2</sup> (solid wire 0.5 to 1.6 mm)

#### Applicable crimping terminal

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

APEM APN1, UPQN3B, UPQN4 (6, 12, 24V AC/DC) Terminal screws M3 (self-lifting)

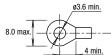
(Arrows show the wiring direction)



- ----

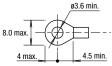


APD1 (6, 12V, 24V AC/DC) Terminal screws M3.5 (self-lifting)





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	
	Crimping 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	2 1.0 to 1.3		
	Wire	Wire 2.1 to 3.5 mm <sup>2</sup>	1.2 to 1.3			
	Crimping Terminal					
Illuminated Unit (*1)	Solid Wire	ø0.5 to 1.6 mm (AWG14 to 22)	2	1.0 to 1.3	M3.5	
	Stranded Wire	0.3 to 2.0 mm <sup>2</sup> (AWG14 to 22)				
	Crim	oing Terminal				
Pilot Light	Solid Wire			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)	

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

t Lights
APEM
Switches & Pilot Lights
Control Boxes
Emergency Stop Switches
Enabling Switches
Safety Products
Explosion Proof
Terminal Blocks
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Operator Interfaces
Sensors
AUTO-ID
Flush Silhouette
ø16
ø22
ø30
Miniature
Pilot Lights
TWN

## ø30 Selector Switches / Pushbuttons Part Number Replacement List

	Old Series	3	New Dert Ne (*2)	Demoder	
Model	Operator	Old Part No.	New Part No. (*3)	Remarks	
		ASN310	ASN210N		
		ASN311	ASN211N		
		ASN320	ASN220N		
		ASN322	ASN222N		
		ASN37S	ASN22RN-118		
		ASN410	ASN2110N		
		ASN411	ASN2111N		
		ASN420	ASN2120N		
		ASN422	ASN2122N		
	90°	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		
ASN		ASN4022	ASN2222N		
Knob		ASN407S	ASN222RN-168		
Operator		ASN111	ASN320N	(*2)	
oporator		ASN122	ASN340N	(*2)	
		ASN15S	ASN322N		
		ASN17S	ASN302N	(*1)	
		ASN18S	ASN304N	(*1)	
		ASN211	ASN3220N	(*2)	
		ASN222	ASN3240N	(*2)	
		ASN25S	ASN3222N		
		ASN27S	ASN3202N	(*1)	
	45° 3-position	ASN28S	ASN3204N	(*1)	
		ASN1011	ASN320N	(*1) (*2)	
		ASN1022	ASN340N	(*1) (*2)	
		ASN105S	ASN322N	(*1)	
		ASN107S	ASN302N		
		ASN108S	ASN304N		
		ASN2011	ASN3120N	(*1) (*2)	
		ASN2022	ASN3140N	(*1) (*2)	
		ASN205S	ASN3122N	(*1)	
		ASN207S	ASN3102N		
		ASN208S	ASN3104N		
		ASN3L10	ASN2L10N		
		ASN3L11	ASN2L11N		
		ASN3L20	1		
			ASN2L11N		
		ASN3L20	ASN2L11N ASN2L20N		
		ASN3L20 ASN3L22	ASN2L11N ASN2L20N ASN2L22N		
		ASN3L20 ASN3L22 ASN3L7S	ASN2L11N ASN2L20N ASN2L22N ASN2L22N-118		
		ASN3L20 ASN3L22 ASN3L7S ASN4L10	ASN2L11N ASN2L20N ASN2L22N ASN2L2RN-118 ASN21L10N		
		ASN3L20 ASN3L22 ASN3L7S ASN4L10 ASN4L11	ASN2L11N ASN2L20N ASN2L22N ASN2L2RN-118 ASN21L10N ASN21L11N		
	90°	ASN3L20 ASN3L22 ASN3L7S ASN4L10 ASN4L11 ASN4L20	ASN2L11N ASN2L20N ASN2L22N ASN2L2RN-118 ASN21L10N ASN21L11N ASN21L20N ASN21L22N		
	90° 2-position	ASN3L20 ASN3L22 ASN3L7S ASN4L10 ASN4L11 ASN4L20 ASN4L22 ASN4L7S	ASN2L11N ASN2L20N ASN2L22N ASN2L2RN-118 ASN21L10N ASN21L11N ASN21L20N ASN21L22N ASN21L2RN-118	(*2)	
		ASN3L20 ASN3L22 ASN3L7S ASN4L10 ASN4L11 ASN4L20 ASN4L22 ASN4L22 ASN4L7S ASN30L10	ASN2L11N ASN2L20N ASN2L22N ASN2L2RN-118 ASN21L10N ASN21L11N ASN21L20N ASN21L22N ASN21L2RN-118 ASN2L01N	(*2)	
		ASN3L20           ASN3L22           ASN3L7S           ASN4L10           ASN4L11           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN4L21           ASN4L22           ASN4L7S           ASN30L10           ASN30L11	ASN2L11N ASN2L20N ASN2L22N ASN2L2RN-118 ASN21L10N ASN21L11N ASN21L20N ASN21L22N ASN21L22N ASN21L2RN-118 ASN2L01N ASN2L11N	(*1)	
ASN-L		ASN3L20           ASN3L22           ASN3L7S           ASN4L10           ASN4L11           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN4L21           ASN4L21           ASN4L22           ASN4L7S           ASN30L10           ASN30L20	ASN2L11N ASN2L20N ASN2L22N ASN2L2RN-118 ASN21L10N ASN21L11N ASN21L20N ASN21L22N ASN21L2RN-118 ASN2L01N ASN2L11N ASN2L02N	(*1) (*2)	
Lever		ASN3L20           ASN3L22           ASN3L7S           ASN4L10           ASN4L10           ASN4L22           ASN4L20           ASN4L22           ASN4L22           ASN4L23           ASN4L20           ASN4L20           ASN4L21           ASN4L22           ASN4L7S           ASN30L10           ASN30L20           ASN30L22	ASN2L11N ASN2L20N ASN2L22N ASN2L2RN-118 ASN21L10N ASN21L10N ASN21L20N ASN21L22N ASN21L22N ASN21L2RN-118 ASN2L01N ASN2L01N ASN2L02N ASN2L22N	(*1) (*2) (*1)	
		ASN3L20           ASN3L22           ASN3L7S           ASN4L10           ASN4L10           ASN4L22           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN4L21           ASN4L22           ASN4L7S           ASN30L10           ASN30L20           ASN30L22           ASN30L7S	ASN2L11N ASN2L20N ASN2L22N ASN2L2RN-118 ASN21L10N ASN21L10N ASN21L20N ASN21L22N ASN21L2RN-118 ASN2L01N ASN2L01N ASN2L02N ASN2L22N ASN2L22N	(*1) (*2)	
Lever		ASN3L20           ASN3L22           ASN3L7S           ASN4L10           ASN4L10           ASN4L22           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN4L21           ASN4L22           ASN4L7S           ASN30L10           ASN30L20           ASN30L22           ASN30L7S           ASN40L10	ASN2L11N           ASN2L20N           ASN2L22N           ASN2L2RN-118           ASN21L10N           ASN21L10N           ASN21L20N           ASN2L01N           ASN2L02N           ASN2L22N           ASN2L22N           ASN2L22N           ASN2L210N	(*1) (*2) (*1)	
Lever		ASN3L20           ASN3L22           ASN3L7S           ASN4L10           ASN4L10           ASN4L22           ASN4L20           ASN4L22           ASN4L22           ASN4L23           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN40L10           ASN30L20           ASN30L7S           ASN40L10           ASN40L11	ASN2L11N ASN2L20N ASN2L22N ASN2L2RN-118 ASN21L10N ASN21L10N ASN21L20N ASN21L20N ASN21L2RN-118 ASN2L01N ASN2L01N ASN2L02N ASN2L02N ASN2L22N ASN2L22N ASN2L2RN-118 ASN2L10N ASN22L11N	(*1) (*2) (*1)	
Lever		ASN3L20           ASN3L22           ASN3L7S           ASN4L10           ASN4L10           ASN4L10           ASN4L22           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN30L10           ASN30L20           ASN30L22           ASN30L7S           ASN40L10           ASN40L11           ASN40L20	ASN2L11N ASN2L20N ASN2L22N ASN2L2RN-118 ASN21L10N ASN21L10N ASN21L20N ASN21L22N ASN21L2RN-118 ASN2L01N ASN2L02N ASN2L02N ASN2L22N ASN2L22N ASN2L22N ASN2L22N ASN2L22N ASN2L210N ASN22L11N ASN22L11N	(*1) (*2) (*1)	
Lever		ASN3L20           ASN3L22           ASN3L7S           ASN4L10           ASN4L10           ASN4L10           ASN4L22           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN4120           ASN30L10           ASN30L10           ASN30L20           ASN30L7S           ASN40L10           ASN40L10           ASN40L20           ASN40L20	ASN2L11N ASN2L20N ASN2L22N ASN2L2RN-118 ASN21L10N ASN21L10N ASN21L20N ASN21L20N ASN21L22N ASN21L2RN-118 ASN2L01N ASN2L02N ASN2L02N ASN2L22N ASN2L22N ASN2L2RN-118 ASN22L10N ASN22L11N ASN22L11N ASN22L20N ASN22L22N	(*1) (*2) (*1)	
Lever		ASN3L20           ASN3L22           ASN3L7S           ASN4L10           ASN4L10           ASN4L10           ASN4L10           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN30L10           ASN30L10           ASN30L20           ASN30L22           ASN40L10           ASN40L10           ASN40L10           ASN40L20           ASN40L20	ASN2L11N ASN2L20N ASN2L22N ASN2L2RN-118 ASN21L10N ASN21L10N ASN21L20N ASN21L22N ASN21L2RN-118 ASN2L01N ASN2L02N ASN2L22N ASN2L22N ASN2L22N ASN22L10N ASN22L10N ASN22L10N ASN22L20N ASN22L22N	(*1) (*2) (*1) (*1)	
Lever		ASN3L20 ASN3L22 ASN3L7S ASN4L10 ASN4L11 ASN4L20 ASN4L22 ASN4L22 ASN30L10 ASN30L10 ASN30L10 ASN30L20 ASN30L22 ASN30L7S ASN40L10 ASN40L11 ASN40L20 ASN40L22 ASN40L7S ASN40L7S ASN1L11	ASN2L11N           ASN2L20N           ASN2L22N           ASN2L2RN-118           ASN21L10N           ASN21L10N           ASN21L2RN-118           ASN21L20N           ASN21L20N           ASN21L20N           ASN21L22N           ASN21L2RN-118           ASN2L1N           ASN2L02N           ASN2L1N           ASN2L22N           ASN2L1N           ASN2L22N           ASN2L22N           ASN2L22N           ASN2L22N           ASN2L22N           ASN2L22N           ASN22L10N           ASN22L10N           ASN22L20N           ASN22L20N           ASN22L22N           ASN22L20N           ASN22L20N           ASN22L20N           ASN22L20N           ASN22L20N	(*1) (*2) (*1) (*1) (*2)	
Lever		ASN3L20           ASN3L22           ASN3L7S           ASN4L10           ASN4L10           ASN4L10           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN30L10           ASN30L10           ASN30L20           ASN30L20           ASN30L20           ASN40L10           ASN40L10           ASN40L11           ASN40L120           ASN40L12           ASN40L13           ASN40L14           ASN40L12           ASN40L13	ASN2L11N           ASN2L20N           ASN2L22N           ASN2L2RN-118           ASN21L10N           ASN21L10N           ASN21L2RN-118           ASN21L20N           ASN21L20N           ASN21L20N           ASN21L22N           ASN21L2RN-118           ASN2L01N           ASN2L1N           ASN2L22N           ASN2L22N           ASN2L1N           ASN2L22N           ASN2L22N           ASN2L22N           ASN2L22N           ASN2L22N           ASN2L22N           ASN22L10N           ASN22L11N           ASN22L20N           ASN22L20N           ASN22L20N           ASN22L20N           ASN22L20N           ASN22L20N           ASN22L20N           ASN3L20N           ASN3L40N	(*1) (*2) (*1) (*1)	
Lever	2-position	ASN3L20           ASN3L22           ASN3L7S           ASN4L10           ASN4L10           ASN4L10           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN30L10           ASN30L10           ASN30L20           ASN30L20           ASN30L20           ASN40L10           ASN40L10           ASN40L10           ASN40L20           ASN40L22           ASN40L22           ASN40L22           ASN40L22           ASN40L22           ASN40L22           ASN40L7S           ASN1L11           ASN1L22           ASN1L23	ASN2L11N           ASN2L20N           ASN2L22N           ASN2L2RN-118           ASN21L10N           ASN21L10N           ASN21L1N           ASN21L2N           ASN21L20N           ASN21L20N           ASN21L22N           ASN21L2N-118           ASN2L1N           ASN2L1N           ASN2L2N           ASN2L1N           ASN2L2N           ASN2L1N           ASN2L2N           ASN22L10N           ASN22L2N           ASN22L2N           ASN22L2N           ASN22L2N           ASN22L2N           ASN3L20N           ASN3L40N           ASN3L2N	(*1) (*2) (*1) (*1) (*1) (*2) (*2)	
Lever	2-position	ASN3L20           ASN3L22           ASN3L7S           ASN4L10           ASN4L10           ASN4L10           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN4010           ASN30L20           ASN30L20           ASN30L22           ASN30L7S           ASN40L10           ASN40L10           ASN40L20           ASN40L21           ASN40L22           ASN40L22           ASN40L23           ASN40L20           ASN40L22           ASN40L23           ASN40L7S           ASN1L11           ASN1L25           ASN1L7S	ASN2L11N           ASN2L20N           ASN2L22N           ASN2L2RN-118           ASN21L10N           ASN21L10N           ASN21L10N           ASN21L2N           ASN21L20N           ASN21L20N           ASN21L20N           ASN21L20N           ASN21L2N-118           ASN2L1N           ASN2L2N           ASN2L1N           ASN2L2N           ASN3L40N           ASN3L02N	(*1) (*2) (*1) (*1) (*1) (*2) (*2) (*2) (*1)	
Lever	2-position	ASN3L20           ASN3L22           ASN3L7S           ASN4L10           ASN4L10           ASN4L10           ASN4L10           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN4L21           ASN30L10           ASN30L10           ASN30L20           ASN30L22           ASN30L7S           ASN40L10           ASN40L20           ASN40L20           ASN40L20           ASN40L20           ASN40L20           ASN40L20           ASN40L20           ASN40L7S           ASN1111           ASN1L22           ASN1L7S           ASN1L7S           ASN1L7S	ASN2L11N           ASN2L20N           ASN2L22N           ASN2L2RN-118           ASN21L10N           ASN21L10N           ASN21L1N           ASN21L2RN-118           ASN21L20N           ASN21L20N           ASN21L20N           ASN21L20N           ASN21L2N-118           ASN2L0N           ASN2L2N           ASN2L1N           ASN2L2N           ASN2L2N           ASN2L2N           ASN2L2N           ASN2L2N           ASN2L2N           ASN22L2N           ASN22L2N           ASN22L2N           ASN22L2N           ASN22L2N           ASN2L2N           ASN2L2N           ASN2L2N           ASN2L2N           ASN2L2N           ASN2L2N           ASN3L0N           ASN3L0N           ASN3L0N	(*1) (*2) (*1) (*1) (*1) (*2) (*2) (*2) (*1) (*1)	
Lever	2-position	ASN3L20           ASN3L22           ASN3L7S           ASN4L10           ASN4L10           ASN4L10           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN4L20           ASN4010           ASN30L20           ASN30L20           ASN30L22           ASN30L7S           ASN40L10           ASN40L10           ASN40L20           ASN40L21           ASN40L22           ASN40L22           ASN40L23           ASN40L20           ASN40L22           ASN40L23           ASN40L7S           ASN1L11           ASN1L25           ASN1L7S	ASN2L11N           ASN2L20N           ASN2L22N           ASN2L2RN-118           ASN21L10N           ASN21L10N           ASN21L10N           ASN21L2N           ASN21L20N           ASN21L20N           ASN21L20N           ASN21L20N           ASN21L2N-118           ASN2L1N           ASN2L2N           ASN2L1N           ASN2L2N           ASN3L40N           ASN3L02N	(*1) (*2) (*1) (*1) (*1) (*2) (*2) (*2) (*1)	

	Old Series	3			Ĩ
Model	Operator	Old Part No.	New Part No. (*3)	Remarks	Lig
		ASN2L7S	ASN32L02N	(*1) (*1)	hts
		ASN2L8S ASN10L11	ASN32L04N ASN3L20N	(*1) (*2)	
		ASN10L22	ASN3L40N	(*1) (*2)	
ASN-L		ASN10L5S	ASN3L22N	(*1)	APEM
Lever	45° 3-position	ASN10L7S ASN10L8S	ASN3L02N ASN3L04N		Switches &
Operator	3-00510011	ASN20L11	ASN3L04N ASN31L20N	(*1) (*2)	Pilot Lights
		ASN20L22	ASN31L40N	(*1) (*2)	Control Box
		ASN20L5S	ASN31L22N	(*1)	Emergency Stop Switch
		ASN20L7S ASN20L8S	ASN31L02N ASN31L04N		Enabling
		ASN3K10	ASN2K10N□-N024401		Switches
		ASN3K11	ASN2K11N□-N024401		Safety Prod
		ASN3K20	ASN2K20N		Explosion P
		ASN3K22□ ASN3K7S□	ASN2K22N□-N024401 ASN2K2RN□-118-N024401		
		ASN4K10	ASN21K10N-N024401		Terminal Bl
		ASN4K11	ASN21K11N-N024401		Relays & So
		ASN4K20	ASN21K20N-N024401		Circuit
	90°	ASN4K22 ASN4K7S	ASN21K22N-N024401 ASN21K2RN-118-N024401		Protectors
	2-position	ASN30K10	ASN2K01N□-N024401	(*2)	Power Supp
		ASN30K11	ASN2K11N□-N024401	(*1)	LED Illumin
		ASN30K20	ASN2K02N□-N024401 ASN2K22N□-N024401	(*2) (*1)	
		ASN30K7S	ASN2K2RN□-118-N024401	(*1)	Controllers
		ASN40K10	ASN22K10N-N024401		Operator Interfaces
		ASN40K11	ASN22K11N-N024401		Sensors
		ASN40K20 ASN40K22	ASN22K20N-N024401 ASN22K22N-N024401		
ASN-K		ASN40K7S	ASN22K2RN-168-N024401		AUTO-ID
Key Selector		ASN1K11	ASN3K20N□-N024401	(*2)	
			ASN3K40N	(*2)	
		ASN1K5S□ ASN1K7S□	ASN3K22N□-N024401 ASN3K02N□-N024401	(*1) (*2) (*1) (*2)	Flush Silhou
		ASN1K8S□	ASN3K04N - N024401	(*1) (*2)	
		ASN2K11	ASN32K20N□-N024401	(*2)	ø16
		ASN2K22□ ASN2K5S□	ASN32K40N□-N024401 ASN32K22N□-N024401	(*2) (*1) (*2)	ø22
		ASN2K7S	ASN32K02N□-N024401	(*1) (*2)	-00
	45°	ASN2K8S□	ASN32K04N□-N024401	(*1) (*2)	ø30
	3-position		ASN3K20N□-N024401 ASN3K40N□-N024401	(*1) (*2)	Miniature
		ASN10K22	ASN3K22N -N024401	(*1) (*2) (*1) (*2)	Pilot Lights
		ASN10K7S	ASN3K02N□-N024401	(*2)	
		ASN10K8S	ASN3K04N	(*2)	
		ASN20K11	ASN31K20N□-N024401 ASN31K40N□-N024401	(*1) (*2) (*1) (*2)	
		ASN20K22	ASN31K22N -N024401	(*1) (*2)	TWN
		ASN20K7S□	ASN31K02N□-N024401	(*2)	TWND
		ASN20K8S	ASN31K04N - N024401	(*2)	
	90°	ASTN3211 ASTN3222	ASN211N ASN222N	(*1)	ARN
	2-position	ASTN4211	ASN2111N		CS
		ASTN4222	ASN2122N	(*1)	
		ASTN1122 ASTN1222	ASN322N ASN322N-311		
		ASTN1222 ASTN1340	ASN340N		
ASTN		ASTN1422	ASN322N-209		
Knob Operator		ASTN1520	ASN320N	(#4)	
oporator	45° 3-position	ASTN1540 ASTN1611	ASN340N ASN311N-303	(*1)	
	0 0001001	ASTN1611 ASTN1622	ASN322N-310		
		ASTN2122	ASN3222N		
		ASTN2222	ASN3222N-311		
		ASTN20122 ASTN20222	ASN3122N ASN3122N-311		
		TOTALULL	I NONOTEEN OTT		

 $\bullet$   $\Box$  : Key removable position code. Specify the same code as the old series.

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

\*2) Contact operation is same as the old series, but contact type is different.
\*3) The knob operator is diecast zinc and has new shape. The knob operator can be installed at 45 degrees intervals.



# Switches & Pilo

## ø30 Selector Switches / Pushbuttons Part Number Replacement List

i i i i i i i i i i i i i i i i i i i	Old Series				
lot Light	Model	Operator	Old Part No.	New Part No. (*3)	Remarks
ght i		oporator	ASTN20422	ASN3122N-209	
ία.			ASTN20520	ASN3120N	(*1)
	ASTN	450	ASTN20540	ASN3140N	(*1)
APEM Switches &	Knob	45° 3-position 90° 2-position	ASTN5120	ASN3320N	
	Operator		ASTN5122	ASN3322N	
			ASTN5222	ASN3322N-311	
Pilot Lights			ASTN5111	ASN3311N-202	
Control Boxes			ASTN32L11	ASN2L11N	(*1)
Emergency			ASTN32L22 ASTN42L11	ASN2L22N ASN21L11N	(*1)
Stop Switches			ASTN42L11 ASTN42L22	ASN21L22N	(*1)
Enabling		45° 3-position	ASTN11L22	ASN3L22N	
Switches			ASTN12L22	ASN3L22N-311	
Safety Products			ASTN13L40	ASN3L40N	
Explosion Proof Terminal Blocks			ASTN14L22	ASN3L22N-209	
			ASTN15L20	ASN3L20N	(*1)
			ASTN15L40	ASN3L40N	(*1)
	ASTN∎L		ASTN16L11	ASN3L11N-303	
Relays & Sockets	Lever		ASTN16L22	ASN3L22N-310	
Circuit	Operator		ASTN21L22	ASN32L22N	
Protectors			ASTN22L22	ASN32L22N-311 ASN31L22N	
Power Supplies			ASTN201L22 ASTN202L22	ASN31L22N ASN31L22N-311	
			ASTN202L22 ASTN204L22	ASN31L22N-209	
LED Illumination			ASTN205L20	ASN31L20N	(*1)
Controllers			ASTN205L40	ASN31L40N	(*1)
			ASTN51L20	ASN33L20N	
Operator Interfaces			ASTN51L22	ASN33L22N	
			ASTN52L22	ASN33L22N-311	
Sensors			ASTN51L11	ASN33L11N-202	
AUTO-ID		90° 2-position	ASTN32K11	ASN2K11N	(1.1)
			ASTN32K22	ASN2K22N	(*1)
			ASTN42K11	ASN21K11N	(*1)
		45° 3-position	ASTN42K22 ASTN11K22	ASN21K22N ASN3K22N	(1)
Florels O'lls anothe			ASTN12K22	ASN3K22N□-311	
Flush Silhouette	ASTN■K Key Selector		ASTN13K40	ASN3K40N	
ø16			ASTN14K22	ASN3K22N□-209	
			ASTN15K20□	ASN3K20N	(*1)
ø22 ø30			ASTN15K40□	ASN3K40N	(*1)
			ASTN16K11	ASN3K11N□-303	
			ASTN16K22	ASN3K22N□-310	
Miniature			ASTN21K22	ASN32K22N	
Pilot Lights			ASTN22K22	ASN32K22N -311	
			ASTN201K22	ASN31K22N□ ASN31K22N□-311	
			ASTN202K22	ASN31K22N□-311	
			ASTN205K20	ASN31K20N	(*1)
TWN			ASTN205K40□	ASN31K40N	(*1)
			ASTN51K20	ASN33K20N	
THUD			ASTN51K22	ASN33K22N	
TWND			ASTN52K22	ASN33K22N-311	
ARN			ASTN51K11	ASN33K11N-202	
	ASN-T Knob Operator	45° 3-position	ASN120-T	ASN320N	
CS			ASN140-T	ASN340N	
			ASN220-T ASN240-T	ASN3220N	
			ASN240-1 ASN2020-T	ASN3240N ASN3120N	(*1)
			ASN2020-1 ASN2040-T	ASN3120N ASN3140N	(*1)
			ASN1L20-T	ASN3L20N	
	4011 -	45° 3-position	ASN1L40-T	ASN3L40N	
	ASN-T Lever Operator		ASN2L20-T	ASN32L20N	
			ASN2L40-T	ASN32L40N	
			ASN20L20-T	ASN31L20N	(*1)
			ASN20L40-T	ASN31L40N	(*1)

Madal	Old Serie		New Part No. (*3)	Remarks
Model	Operator	Old Part No. ASN3K10□-T	ASN2K10N	
		ASN3K10□-T	ASN2K11N	
ASN■K-T Key Selector		ASN3K20□-T	ASN2K1IN ASN2K20N	
		ASN3K20	ASN2K22N	
	90° 2-position		ASN2K2RN□-118	
		ASN3K7SD-T		
		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	
		ASN40K22-T	ASN22K22N	
		ASN40K7S-T	ASN22K2RN-168	
		ASN1K20 -T		
		ASN1K40 -T	ASN3K40N	-
		ASN1K5S -T	ASN3K22N	4.0
		ASN1K7SD-T	ASN3K02N	(*1)
		ASN1K8S -T	ASN3K04N	(*1)
		ASN2K20 -T	ASN32K20N	
	45° 3-position	ASN2K40□-T	ASN32K40N	
		ASN2K5S□-T	ASN32K22N	
		ASN2K7S□-T	ASN32K02N	(*1)
		ASN2K8S□-T	ASN32K04N	(*1)
		ASN20K20□-T	ASN31K20N	(*1)
		ASN20K40□-T	ASN31K40N	(*1)
		ASN20K5SD-T	ASN31K22N	(*1)
		ASN20K7SD-T	ASN31K02N	
		ASN20K8SD-T	ASN31K04N	
		ABN6111	ASBN211N-A03	
		ABN6411	ASBN211N-K04	(*2)
		ABN9111	N/A	
	90° 2-position	ABN7120□	ASBN220N-D01	
Selector		ABN6122	ASBN222N-A08	(*1)
Pushbuttons		ABN6222	ASBN222N-C10	(*1)
Ring		ABN6422	ASBN222N-K15	(*2)
Operator		ABN7122	ASBN222N-D10	(*1)
		ABN7222	ASBN222N-E10	(*1)
		ABN7322	ASBN222N-F10	(*1)
		ABN9122	N/A	
		ABN6L111	ASBN211N-A03	(*4)
		ABN6L411	ASBN211N-K04	(*2) (*4)
		ABN9L111	N/A	
Colorton		ABN6L122	ASBN222N-A08	(*1) (*4)
Selector		ABN6L222	ASBN222N-C10	(*1) (*4)
Pushbuttons Lever Operator		ABN6L422	ASBN222N-K15	(*2) (*4)
		ABN7L122	ASBN222N-RTS	(*1) (*4)
		ABN7L222	ASBN222N-E10	(*1) (*4)
		ABN7L322	ASBN222N-E10	(*1) (*4)
		ABN9L122	N/A	(1)(4)
		ABN8P10	ABD8P10N	(*5)
	Pin Lock			
		ABN8P01		(*5)
		ABN8P11		(*5)
		ABN8P20	ABD8P20N	(*5)
		ABN8P02	ABD8P02N	(*5)
		ABN8P22		(*5)
		ABN8P10-TK231-1	ABD8PN10N	(*5)
Pushbuttons	ON Lock Type Pin Lock Mushroom Pull	ABN8P01-TK231-1	ABD8PN01N	(*5)
		ABN8P11-TK231-1	ABD8PN11N	(*5)
		ABN8P20-TK231-1	ABD8PN20N	(*5)
		ABN8P02-TK231-1	ABD8PN02N	(*5)
		ABN8P22-TK231-1	ABD8PN22N	(*5)
		ATN2310	AZN310N	
		ATN2311	AZN311N	
		ATN2320	AZN320N	
			AZN302N	

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

45 degrees intervals.

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

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