ø30 Switches and Pilot Lights

# **TWN** TWND Series



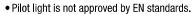
Heavy duty switches & pilot lights offer both variety and reliability.











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









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

# ø30 TWN/TWND Selection Guide

Function	Pushbutton							
Cotomony	Flu	sh	Exte	ended	Extended wit	th Half Shroud		
Category	Momentary/	Maintained	Momentary	y/Maintained	Momentary	/Maintained		
Shape				Diecast Zinc		Diecast Zinc		
Model	ABN1 AON1	ABD1 AOD1	ABN2 AON2	ABD2 AOD2	ABN2G AON2G	ABGD2 AOGD2		
Page	B-310	B-326	B-310	B-326	B-310	B-326		

Function	Pushbutton						
Cotogomy	Extended wi	th Full Shroud	Mus	shroom	Mushroom w	ith Full Shroud	
Category	Momentary	/Maintained	Momentar	y/Maintained	Momentary	/Maintained	
		Diecast Zinc	_	Diecast Zinc		Diecast Zinc	
Shape							
	ABN2F	ABFD2	ABN3	ABD3	ABN3G	ABGD3	
Model	AON2F	AOFD2	AON3	AOD3	_	AOGD3	
Page	B-310	B-326	B-311	B-327	B-311	B-327	

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

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

Function	Pushbutton					
Category	Mushroom	Push-Pull	Pin I	Lock		
Shape	_	Diecast Zinc	_	Diecast Zinc		
Model	<u> </u>	AYD3	_	ABD8P		
Page	-	B-328	_	B-327		

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



Switches & Pilot Lights

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# ø30 TWN/TWND Selection Guide

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

Stup Switches							
Enabling	Page	B-313	B-329	B-313		B-313	B-329
Switches							
Safety Products	Function			LED Illuminat	ed Pushbutton		
Explosion Proof	Category	Mush	room	Muchroom Duchle	ock Turn Reset (*1)	Muchroom P	uch Turn Lock
Terminal Blocks	Galegory	Momentary	/Maintained	Widshiroom Fushiid	JCK TUITI NESEL ( 1)	Mushroom Push Turn Lock	
			Diecast Zinc		Diecast Zinc	_	Diecast Zinc
Relays & Sockets							
Circuit Protectors	Shape						_
Power Supplies							
LED Illumination		ALN3	ALD3				
Controllers	Model			AVLN3	AVLD3	AJLN3	_
		AOLN3	AOLD3				
Operator Interfaces	Page	B-313	B-330	B-314	B-330	B-313	

Sensors								
AUTO ID	Function		Selector Switches					
AUTO-ID	Category	Kn	ob	Le	ver	K	еу	
			Diecast Zinc		Diecast Zinc		Diecast Zinc	
				- 0				
Flush Silhouette	Shape							
ø16	5.m.p.s							
ø22								
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	

Function		Selector Switch	Selector P	ushbutton	
Category	Key	LED Illumir	ated Knob	Ring O <sub>l</sub>	perator
Shape			Diecast Zinc		Diecast Zinc
Model	ASN□K-N024401	ASLN	ASLD	ASBN2	ASBD2
Page	B-319	B-320	B-334	B-323	B-335

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

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

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# 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)





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Terminal Blocks

Relays & Sockets

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Protectors

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Miniature
Pilot Lights

# **Ratings and Specifications**

#### **Contact ratings**

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

# Contact ratings by utilization category HW-U10 (NO contact), HW-U01 (NC contact)

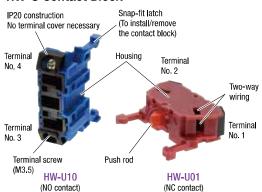
Operating Voltage	e	24V	48V	50V	110V	220V	440V	
	AC	AC-12 Control of resistive loads and solid state loads	10A	_	10A	10A	6A	2A
Operating	50/60 Hz	AC-15 Control of electromagnetic loads (> 72 VA)	10A	_	7A	5A	3A	1A
Current	DC	DC-12 Control of resistive loads and solid state loads	10A	5 <b>A</b>	_	2.2A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

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

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

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

#### **HW-U Contact Block**



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

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

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#### ø30 TWN/TWND Series

**LED Illuminated Part Specifications** 

Unit		LED lamp				
UIIIL	Rated Voltage		Operating Vo	oltage	Lamp Base	Part No.
	6V AC/DC		6V AC/DC			LSRD-6
	12V AC/DC		12V AC/DC			LSRD-1
	24V AC/DC		24V AC/DC	]		LSRD-2
	100/110V AC		100/110V AC		BA9S/13	
	115/120V AC (*1)		115/120V AC (*1)	. 100/		LCDD C
Illuminated pushbutton	120V AC (*2)		120V AC (*2)			
Illuminated selector switch	200/220V AC		200/220V AC	±10%		
Pilot light	230/240V AC (*1)	50/60 Hz	230/240V AC (*1)			
	240V AC (*2)		240V AC (*2)			LSRD-6
	380V AC		380V AC	]		
	400/440V AC		400/440V AC			
	480V AC		480V AC			
	110V DC		90 to 140V DC			

Explosion Proof

See LED lamps, see LED Lamp Ratings below.
 \*1) Illuminated pushbutton, illuminated selector switch

\*2) Pilot light

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Illuminated Part Type and Shape

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

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

LED Lamp Patings (LCDD)

X1

LED Lam	Lamp Ratings (LSRD) <sup>12</sup>							
Part No.		LSRD-6	LSRD-1	LSRD-2				
Lamp Base		BA9S/13						
Rated Voltage 6V AC/DC			12V AC/DC	24V AC/DC				
Voltage Rang	e	6V AC/DC ±10%	12V AC/DC ±10%	24V AC/DC ±10%				
Current	DC	10mA	7mA	7mA				
Draw	AC	14mA	8mA	8mA				
Voltage Mark	ing	Die stamped on the base						
Life (reference value)  Approx. 50,000 hours (The luminance is reduced to 50% the initial intensity when used on complete DC at 25°C.)								
Internal Circu	it	X1 — Noise	od current circuit protection circuit ier circuit er protection circuit	Example: LSRD-2				
Weight		Approx. 2g						

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

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

Flush Silhouette

#### **Specifications**

Specifications				₽ 20
Operating Temperature			Non-illuminated: -25 to +70°C (no freezing)   Illuminated: -25 to +50°C (no freezing)	& Pilot Lights
Storage Temperature			-40 to +80°C (no freezing)	<b>⊣</b>
Operating Humidity			45 to 85% RH (no condensation)	igh
Contact Resistance			50 mΩ maximum (initial value)	ङ
Insulation Resistance			100 MΩ minimum (500V DC megger)	
			Between live and dead metal parts: 2,500V AC, 1 minute	
Dielectric Strength			(Full voltage and pilot lights: 2,000V AC, 1 minute)	APEM
	Domogo limito		2000V AC, (pilot lights: 6V AC/DC, 12V, 24V)  30 Hz, amplitude 1.5 mm	Switches &
Vibration Resistance	Damage limits Operation extremes		5 to 55 Hz, amplitude 0.5 mm	Pilot Lights
	Damage limits		1000 m/s <sup>2</sup>	Control Boxes
Shock Resistance Operation extremes			1000 m/s <sup>2</sup>	Emergency
		Momentary	5,000,000	Stop Switche
		Maintained	500,000 (over 3 contacts: 250,000)	Enabling Switches
	Pushbutton	Push lock turn reset	500,000 (over 5 contacts: 250,000)	
		Pull	500,000	Safety Produc
Mechanical Life	Momentary		2,500,000	Explosion Pro
(minimum operations)	Illuminated pushbutton	Maintained	500,000 (over 3 contacts: 250,000)	╡
(	Selector switch	Mantanoa	500,000	Terminal Bloc
Key selector switch			500,000	Relays & Sock
	Illuminated selector swite	ch	500,000	Circuit
	Selector pushbutton	**	250,000	Protectors
	Coloctor patributtori	Momentary	500,000 Switching frequency 1800 operations/h, duty ratio 40%	Power Suppli
	Pushbutton	Maintained	500,000 (over 3 contacts: 250,000)	
	rusiibuttoii		Switching frequency 900 operations/h, duty ratio 40%	LED Illuminat
		Push lock turn reset	500,000 Switching frequency 900 operations/h, duty ratio 40%	Controllers
Electrical Life	Illiano in a ta di acception them	Momentary	500,000 Switching frequency 1800 operations/h, duty ratio 40%	
(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 frequency 1200 operations/h, duty ratio 40%	Sensors
	Key selector switch		500,000 Switching frequency 1200 operations/h, duty ratio 40%	
	Illuminated selector swite	 r.h	500,000 Switching frequency 1200 operations/h, duty ratio 40%	AUTO-ID
	Selector pushbutton	,,,	250,000 Switching frequency 900 operations/h, duty ratio 40%	_
		Pushbutton	ABN122: 82g ABN322: 87g	1
		Illuminated pushbutton	ALN22222DN: 106q ALN21622DN: 163q	T
	TWN series	Selector switch	ASN222N: 83g ASN2K22N: 120g	Flush Silhoue
		Illuminated selector switch	ASLN22222DN: 106g ASLN21622DN: 163g	
Mainh (annua)		Pilot light	APN122DN: 46g APN116DN: 125g	ø16 ——————
Weight (approx.)		Pushbutton	ABD122: 108g ABD322: 113g	ø22
		Illuminated pushbutton	ALD22222DN: 132g ALD21622DN: 189g	
	TWND series	Selector switch	ASD222N: 110g ASD2K22N: 147g	ø30
		Illuminated selector switch	ASLD22222DN: 133g ASLD21622DN: 190g	Miniature
		Pilot light	APD122DN: 75g APD116DN: 152g	
*4)     -  000\/ 40				Pilot Lights

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

# **Degree of Protection**

Series	Unit	Model	IEC 60529	JIS C 0920	
	Pushbutton	ABN, AON, AVN			
	Illuminated pushbutton	ALN, AOLN, AVLN			
	Selector switch ASN, ASN□L				
TWN series	Key selector switch	ASN□K	IP65	Dust-proof/jet-proof	
I WIN SELLES	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			
TAMES .	Selector switch	ASD, ASD□L			
TWND series Diecast zinc	Key selector switch	ASD□K	IP65	Dustproof/jet-proof	
DIEGAST ZITIC	Illuminated selector switch	ASLD			
	Selector pushbutton	ASBD			
	Round pilot light	APD			

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

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

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





Control Boxes

Stop Switches

**Explosion Proof** Terminal Blocks

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Interfaces

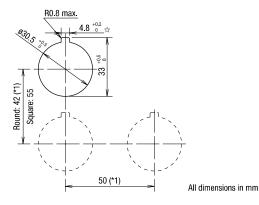
Circuit Protectors

Emergency

Enabling Switches Safety Products

#### ø30 TWN/TWND Series

# Mounting Hole Layout/Mounting Centers



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

When high temperature is expected, take necessary measures such as securing sufficient mounting centers or using a cooling fan.

• The 4.8 <sup>+0.2</sup> mm recess is for preventing rotation and is not necessary when

the nameplate or anti-rotation ring is not used.

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

#### **Notes for Ordering**

#### Standard models

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

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

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

- Terminal covers, nameplates, and accessories for mono-lever 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**

TWN series (B-310 to B-312)

# Flush Silhouette

# Pushbutton

When specifying gold-plated silver contact and contact configuration:

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Miniature Pilot Lights ABN 2 <u>11</u> R - <u>MAU</u> ① Optional contact 2 Contact configuration

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TWND series (B-326 to B-328) ABD 2 11 NR - MAU ① Optional contact ② Contact configuration <Codes> ① Optional contact

MAU: Gold-plated silver

2 Contact configuration

10: 1NO

01: 1NC

11: 1N01NC

20: 2NO 02: 2NC

22: 2N02NC

40: 4NO

04: 4NC

1N03NC 13: 31: 3N01NC

30: 3N0

03: 3NC

12: 1NO2NC

21: 2N01NC

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

# **Ordering Information**

#### **Illuminated Pushbutton**

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

TWN series (B-313 to B-315) ① Optional contact ALFN 2 126 13 DN R - MAU MAU: Gold-plated silver ① Optional contact 2 Contact configuration ② Contact configuration 10: 1NO ③ Operating voltage 01: 1NC 1N01NC 11: TWND series (B-329 to B-330) 20: 2N0 02: 2NC ALFD 2 <u>126</u> <u>13</u> DN R - <u>MAU</u> 3N01NC 31. ① Optional contact 22: 2N02NC 2 Contact configuration 13: 1NO3NC 4N0 40: ③ Operating voltage 04: 4NC ③ Operating voltage 99: Without LED lamp 66: 6V AC/DC 11: 12V AC/DC 22: 24V AC/DC 16: 100/110V AC 126: 115/120V AC 26: 200/220V AC 246: 230/240V AC 386: 380V AC 46: 400/440V AC 486: 480V AC

#### Note:

- Odd number of contact blocks, such as 1NO, 1NC, 3NO, 2NO-1NC, 1NO-2NC, and 3NC, are not available for models of 100V AC or over.
- Illuminated pushbuttons of 24V AC/DC and below with two or four contact blocks contain a dummy block.
- See B-309 for how to specify 110V DC model (DC-DC converter).
- Color codes for units without LED lamps:

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

When using a commercially available lamp, choose a lamp with rated voltage 5 to 30V AC/DC and 1W maximum, and with the same base and shape.

#### **Selector Switch**

When specifying gold-plated silver contact and contact configuration:

TWN series (B-316 to B-319)

ASN 2 11 N - MAU

© Contact configuration

TWND series (B-331 to B-333)

ASD 2 11 N - MAU

© Optional contact

© Contact configuration

TWND series (B-331 to B-333)

ASD 2 11 N - MAU

© Optional contact

MAU: Gold-plated silver

Key removable position code (example)

	Position	Kou romovable 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	С	ASN3K20NC	ASN3K20NC-N024401	ASD3K20NC		
	Maintained	Removable in center only	D	ASN3K20ND	ASN3K20ND-N024401	ASD3K20ND		
		Removable in right and left	E	ASN3K20NE	ASN3K20NE-N024401	ASD3K20NE		
		Removal in left only	G	ASN3K20NG	ASN3K20NG-N024401	ASD3K20NG		
O monition		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	ASN31K20N <b>D-</b> N024401	ASD31K20ND		
		Removal in left only	G	ASN31K20NG	ASN31K20NG-N024401	ASD31K20NG		
		Removable in right and center	(blank)	ASN32K20N	ASN32K20N-N024401	ASD32K20N		
	Spring return from left	Removable in center only	D	ASN32K20ND	ASN32K20ND-N024401	ASD32K20ND		
		Removable in right only	Н	ASN32K20NH	ASN32K20NH-N024401	ASD32K20NH		
	Spring return two-way	Removable in center only	(blank)	ASN33K20N	ASN33K20N-N024401	ASD33K20N		

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



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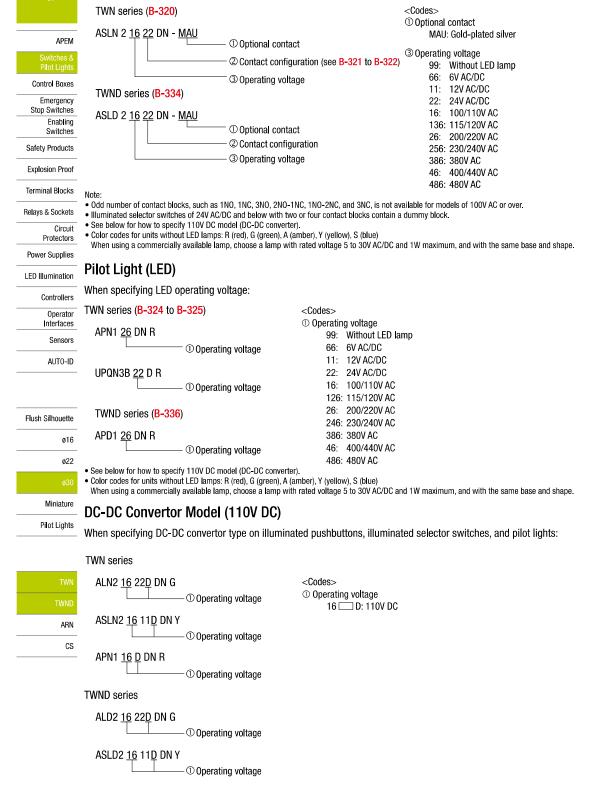
Pilot Lights

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# **Ordering Information**

#### **Illuminated Selector Switch**

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



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

① Operating voltage

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

APD1 16 D DN R

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

Package Quantity: 1

Shape				D	D. //		Package Quantity: 1	ı Ž _
ROBIT   TRUE	Shape	Operation	Contact	Part No. (Ordering No.)	Button Color Code	Dimensions	(All dimensions in mm.)	.igh:
100-100			1NO					ે
Momentary   100-100C   ABM102-1   Y   Y   Y   Y   Y   Y   Y   Y   Y			1NC	ABN101*				
ABIN   Color   Competitions   Competition	AUN1		1NO-1NC	ABN111*				
2NC		Momentary	2N0	ABN120*			Panel Thickness 0.8 to 7.5	APEM
ADMITION			2NC	ABN102*				
NO			2NO-2NC	ABN122*	Note			
Maintained   100-110C   AON1111+   Y			1NO	A0N110*	В			
Maintained   Mai				AON101*		45.4 (1 or 2 blocks)	(s) 29.6	
ANN		Maintained				65.4(3 or 4 blocks)	9 039	
No.		Walitaliou						Switches
Extended ARN/2								Safety Products
ARIVA ADVICE ADVICE TO THE PROPERTY OF THE PRO					Note			Evalueian Proof
No-Inc					В			
Momentary   2NO   ABN220*   2NO   ABN220*   2NO   ABN222*   2NO   ABN222*   2NO   ABN222*   2NO   ABN222*   2NO   ABN222*   2NO   ABN221*   2NO   ABN221*   2NO   ABN221*   2NO   ABN221*   2NO   ABN2610*   2NO					G			Terminal Blocks
2   2   2   3   3   3   2   3   3   3		Momentary					Densi Thistoness O.O. to 7.5	Relays & Sockets
ANN-2NC							Parier Mickiess 0.8 to 7.5	l
No								
TINC								Power Supplies
Maintained   1NO-1NC   AON221*   2NO   AON222*   2NO-2NC   AON222*   2NO-2NC   AON222*   2NO-2NC   AON222*   2NO-2NC   AON222*   2NO-2NC   AON2601*   1NO-1NC   ABN2601*   2NO   ABN2602*   2NO-2NC   ABN2602*   2NO-2NC   ABN2602*   2NO-2NC   AON2601*   1NO   AON2601*   1NO   AON2601*   1NO   AON2601*   1NO   AON2601*   1NO   AON2601*   1NO   AON2601*   2NO   AON2602*   2NO   AO								LED III
Maintained   2NO   AON220*   Y   S   W   Controllers								LED IIIUMINAUON
Extended with Half Shroud ADN222   NO AD		Maintained						Controllers
Extended with Half Shroud ABN2G10* INC ABN2G20* INC ABN2G			2NC	A0N202*				
ABN2G   NO			2NO-2NC	A0N222*	√ W			
AON2G  Momentary    No			1NO	ABN2G10*	D			Sensors
Momentary			1NC	ABN2G01*				AUTO-ID
ABN2620*   Y   S   W	AUNZU	Momentary		ABN2G11*				
A		Wildingillary						
ABN2622*   TNO								
Maintained  Mainta						4		Flush Silhouette
Maintained   1NO-1NC   AON2G01*   2NO   AON2G02*   2NO   2NO   AON2G02*   AO					В			g16
Maintained   2NO					G		<del>4                                    </del>	
2NC   A0N2G02*   S   W		Maintained				60.9 (3 or 4 blocks)	20.5	ø22
Extended with Full Shroud  ABN2F1  AON2F  Momentary  INO ABN2F01* 1NC ABN2F01* 2NO ABN2F20* 2NC ABN2F02* 2NC ABN2F22*  INO AON2F10* ABN2F22*  INO AON2F10* B G R Y Y S W  Miniature  Pilot Lights  Pilot Lights  Pilot Lights  Pilot Lights  TWN  TWN  TWN  TWND  ARN  CS  CS								ø30
Extended with Full Shroud  ABN2F10*  1NC								
ABN2F AON2F    Momentary	Extended with Full Shroud							Miniature
AON2F    Momentary								Pilot Lights
Momentary   2NO	A0N2F							
2NC   ABN2F02*   S   W     2NO-2NC   ABN2F22*     1NO   AON2F10*   1NC   AON2F01*   1NO-1NC   AON2F11*   2NO   AON2F20*   2NC   AON2F02*   S   W		Momentary						
2NO-2NC   ABN2F22*   W   TWND   TWN					S		Panel Thickness 0.8 to 6	
NO   AON2F10*   TWND   TWND   AON2F10*   TWND   AON2F11*   AON2F11*   AON2F11*   AON2F20*   AON2F20*   AON2F02*   AON2F					W			TWN
Maintained						14	4 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	TWND
Maintained   1N0-1NC   A0N2F11*   R			1NC	AON2F01*				
2NO AON2F20* Y S CS CS		Maintained		A0N2F11*				ARN
ZNO POPELOZ.		waiiiaiiied			Υ			cs
2NO-2NC   AON2F22*   "								
			2NO-2NC	AON2F22*	**			J

- 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

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

#### ø30 TWN Series

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

Package Quantity: 1

$\equiv$				Part No.	Button		Package Quantity: 1
ot Lights	Shape	Operation	Contact	(Ordering No.)	Color Code	Dimensions	(All dimensions in mm.)
· · ·	Mushroom ABN3		1 <b>N</b> O	ABN310*	В		
	AON3		1NC	ABN301*	G		
APEM		Momentary	1NO-1NC 2NO	ABN311* ABN320*	R Y		
Switches &			2NC	ABN302*	S	Panel Thickness 0.8 to	s 0.8 to 7.5
Pilot Lights			2NO-2NC	ABN322*	W		
Control Boxes			1NO	A0N310*	В	4 8 8	
Emergency Stop Switches			1NC	A0N301*	G	45.4 (1 or 2 blocks)	29.6
Enabling Switches		Maintained	1NO-1NC 2NO	A0N311*	R Y	65.4 (3 or 4 blocks) 22	, , , , , , , , , , , , , , , , , , ,
Safety Products			2NC	A0N320* A0N302*	S		
			2NO-2NC	A0N322*	W		
Explosion Proof	Mushroom with Full Shroud		1NO	ABN3G10*		Panel Thickness 0.8 to	65 . 29.6
Terminal Blocks	ABN3G		1NC	ABN3G01*	В	Tallet Hillchiess U.S U	
Relays & Sockets			1NO-1NC	ABN3G11*	G R	4 4 4 1	
Circuit		Momentary	2N0	ABN3G20*	Υ		
Protectors			2NC	ABN3G02*	S W	43.9 (1 or 2 blocks) 63.9 (3 or 4 blocks) 23.5	
Power Supplies			2NO-2NC	ABN3G22*			
LED Illumination	Jumbo Mushroom ABN4		1NO	ABN410*			
Controllers	ADIV4	Momentary	1NC	ABN401*		Panel Thickness 0.8 to 7.5	F
Operator Interfaces			1NO-1NC	ABN411*	B G R Y		
Sensors			2N0	ABN420*			
AUTO-ID			2NC	ABN402*		45.4 (1 or 2 blocks)	
			2NO-2NC	ABN422*		65,4 (3 or 4 blocks) 29	29.6
	Jumbo Mushroom with Shallow Shroud		1 <b>N</b> O	ABN4G10*		Panel Thickness 0.8 to 7.5	1
Flush Silhouette	ABN4G		1NC	ABN4G01*			
ø16			1NO-1NC	ABN4G11*	B G		
		Momentary	2N0	ABN4G20*	R		
ø22			2NC	ABN4G02*	Y		
ø30			2NO-2NC	ABN4G22*		45.4 (1 or 2 blocks) 65.4 (3 or 4 blocks) 29	29.6
Miniature	Jumbo Mushroom with		1NO	ABN4F10*			
Pilot Lights	Deep Shroud ABN4F		1NC	ABN4F01*		Panel Thickness 0.8 to 7.5	
					В		[]
TWN		Momentary	1NO-1NC	ABN4F11*	G R	414	<del>((                                    </del>
TWND			2N0	ABN4F20*	Ϋ́		
			2NC	ABN4F02*		45.4 (1 or 2 blocks) 65.4 (3 or 4 blocks) 33	29.6
ARN	Specify a color code in place of * in	Dart No. D. (L.)	2NO-2NC	ABN4F22*	N (la la cas) NAV ( . 1		<del> </del>

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

  - Round bezel and shroud (metal): Chrome-plated

    Pushbuttons with 1 or 3 contact blocks have a dummy block.

    See B-307 for other contact configurations and gold-plated silver contacts.
  - See B-312 for bottom view.
  - Terminal screws: M3.5
  - · Integrated terminal cover

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

Package Quantity: 1

Shape	Contact	Part No. (Ordering No.)	Button Color Code	Dimensions (All dimensions in mm.)
Mushroom Pushlock Turn Reset (*1) AVN3	1NO	AVN310N*		
AVINS	1NC	AVN301N*		Panel Thickness 0.8 to 7.5
	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) 23.6
Mushroom Push Turn Lock AJN3	1NO	AJN310N*		Panel Thickness 0.8 to 7.5
AJINS	1NC	AJN301N*	B G R	
	1NO-1NC	AJN311N*		
100	2N0	AJN320N*		
	2NC	AJN302N*	_ '	45.4 (1 or 2 blocks) 29.6 65.4 (3 or 4 blocks) 23.6
	2NO-2NC	AJN322N*		
Mushroom Pull AZN3	1NO	AZN310N*		
AZINS	1NC	AZN301N*	] _	Panel Thickness 0.8 to 7.5
	1NO-1NC	AZN311N*	B G	
	2N0	AZN320N*	R	4 9 9
	2NC	AZN302N*	Υ	45.4 25.1 5.5 stroke 29.6

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

#### Pushbutton operation

#### Pushlock Turn Reset

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

#### Push Turn Lock

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

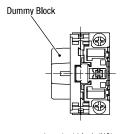
#### <u>Pul</u>

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

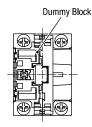
# Pull contact operation

Contact	AZ	N3
Contact	Normal	Pull
1NO	<del>0</del> 0	- - -
2NO-2NC	ტ •••	<u></u> • • • • •
2N0	مړه مړه	00 00 4 00
2NC	•	<b>ĕ16 €16</b>

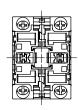
# Bottom View (for non-illuminated pushbuttons and selector switches)



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



3 contact blocks



See B-348 for wiring.Integrated terminal cover

2/4 contact blocks

APFM

#### Switches &

Control Boxes

Emergency Stop Switches Enabling Switches

Safety Products

Explosion Proof

Terminal Blocks

Relays & Sockets

Circuit

Protectors

Power Supplies

LED Illumination

Controllers
Operator

Sensors

AUTO-ID

Flush Silhouette

ø16

ø22

ø30

Miniature

Pilot Lights

WN

TWND

CS



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

Package Quantity: 1

Shape	<u> </u>		,					Pa	ckage Quantity: 1
December   Alice   A	Lights	Shape	Base	Operation	Operating Voltage	Contact		Color Code	
AGEN CONTROLOR SERVICE CONTROL OF THE CONTROL OF TH	0,					1NO-1NC	ALN22211DN*		
Price   Pric					24V AC/DC	2N0	ALN22220DN*		
Momentary   100/110V AC   290		AULIN2				2NC	ALN22202DN*		
Control Bosso						1NO-1NC	ALN21611DN*		
Control Board   CANAC/OC    BASS				Momentary	100/110V AC	2N0	ALN21620DN*		
This illnown color   This il						2NC	ALN21602DN*		
Sociations   Cavitations   C		4				1NO-1NC	ALN22611DN*		
Canaria State					200/220V AC	2N0	ALN22620DN*		
Milestrate   Series   Poducido   Septendado   Poducido   Septendado   Poducido   Septendado   Poducido   Septendado   Poducido   Septendado   Poducido		(24VAC/DC)	RAGS			2NC	ALN22602DN*		
Processor Proof   Profit   Processor   Proof   Processor   Proce	Switches		DASS			1N0-1NC	A0LN22211DN*		
Table   Tabl	Safety Products				24V AC/DC		AOLN22220DN*		
The content of the	Explosion Proof								
Reduce & Stocks   Maintaines							A0LN21611DN*		
Relays & Schools	Terminal Blocks			Maintained	100/110V AC		A0LN21620DN*	1	
Circuit   Proteins   Provent Supplies	Relays & Sockets							S	
Provisions (100/110V AC) (100/10V AC) (100/110V AC) (100/1	Circuit	With transformer						PW	
Extended with Half Shroud ALGN22 ALGN2222000h					200/220V AC				
ALGN2   ACIGN2   ALGN222020N+   R   C   ALGN222020N+   R   C   ALGN222020N+   R   C   ALGN222020N+   R   C   ALGN2262020N+   C   ALGN226200N+   C   ALGN226110N+   C   ALGN226110N+   C   ALGN226110N+   C   ALGN226120N+   C   ALGN226200N+   ALGN226200N+   C   ALGN226200N+   ALGN2	Power Supplies	· , , , , , , , , , , , , , , , , , , ,							
Controlled								_	
Controllers   Operator   Into-Trocks   Comparator   Into-Trock	LED Illumination				24V AC/DC				
Content   Cont	Controllers								
Momentary   100/110V AC   2NC	Operator								
AUTO-ID				Momentary	100/110V AC			- A	
AUTO-ID	Sensors								
C24V AC/DC   BA9S	AUTO ID				000/0001/ 40			PW	
BA9S	A010-ID	(24)(AC/DC)			200/220V AC			-	
Flush Silhouette		(247 A0/80)	BA9S						B-315
Flush Silhouette		_			24// AC/DC			-	
Maintained   100/110V AC   2NO	Flush Silhouette				24V AG/DG			D	
Maintained   100/110V AC   2NO									
SO	ø16			Maintained	100/110V AC			- Υ	
With transformer (100/110V AC)   200/220V AC   2NO	022			Wantancu	100/1101/40				
With transformer (100/110V AC)   200/220V AC   2NO   A0LGN22620DN*									
Miniature	ø30	With transformer			200/220V AC			- · · · ·	
Pilot Lights	Miniature	(100/110V AC)						1	
ALFN2 AOLFN2 ALFN2 AOLFN2 ALFN2 AOLFN2 AOLFN2 AOLFN2 AOLFN2 ALFN22202DN* R G Y ALFN22202DN* R G Y ARN  CS  Momentary  Momentary  100/110V AC  2NO ALFN22602DN* 2NC ALFN21602DN* S 1NO-1NC ALFN22611DN* PW  200/220V AC 2NO ALFN22602DN* 2NC ALFN22602DN* 2NC ALFN22602DN* 2NC AOLFN22202DN* R G 1NO-1NC AOLFN22220DN* 2NC AOLFN22202DN* R G 1NO-1NC AOLFN22220DN* AOLFN22202DN* CS  Maintained  100/110V AC 2NO AOLFN22202DN* A S 1NO-1NC AOLFN21611DN* Y A A COMMENTATION AOLFN21611DN* Y A COMMENTATION AOLFN2		Extended with Full Shroud							
AOLF-N2	Pilot Lights				24V AC/DC			1	
TWN   TWND   ARN   CS   BA9S   Momentary   100/110V AC   2N0   ALFN21611DN*   Y A S S S S S S S S S S S S S S S S S S		AOLFN2						R	
TWN   TWND   ARN   (24V AC/DC)   BA9S   Momentary   100/110V AC   2NO   ALFN21620DN*   S   PW						1NO-1NC	ALFN21611DN*	G	
TWND	TWN			Momentary	100/110V AC				
TWND	TWIN					2NC	ALFN21602DN*		
ARN (24V AC/DC)  BA9S  BA9S    24V AC/DC   2NC   AUFN222602DN*	TWND					1NO-1NC	ALFN22611DN*		
BA9S   2NC   ALFN22602DN*	ADN	(2.4)( 4.2 (7.2))			200/220V AC	2N0	ALFN22620DN*		
24V AC/DC		(24V AC/DC)	BAOS			2NC	ALFN22602DN*		
Maintained   2NC   A0LFN22202DN*   R G   1NO-1NC   A0LFN21611DN*   Y A   2NO   A0LFN21620DN*   A   S   2NO-1NC   A0LFN22611DN*   S   PW   200/220V AC   2NO   A0LFN22620DN*   PW   200/220V AC   2NO   A0LFN22620DN*   A0LFN22620DN*   C   2NO   A0LFN2262	CS		DASS			1NO-1NC	AOLFN22211DN*		
Maintained   100/110V AC   2NO   A0LFN21611DN*   A   S		The same of			24V AC/DC		AOLFN22220DN*	_	
Maintained   100/110V AC   2NO   AOLFN21620DN*   A   S							AOLFN22202DN*		
Waintained   100/110V AC   2NO   A0LFN21620DN*   A   S						1NO-1NC	AOLFN21611DN*		
2NC   A0LFN21602DN*   S				Maintained	100/110V AC			1	
With transformer 200/220V AC 2NO AOLFN22620DN*								S	
(100/110V AC)		With transformer						_  PW	
2NC AOLFN22602DN*					200/220V AC			4	
		(1007.1007.10)				2NC	AOLFN22602DN*		

- $\bullet$  Specify a color code in place of  $\ast$  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 pushbuttons of 24V AC/DC or below with 2 or 4 contact blocks have a dummy block.
- See B-308 for other contact configurations and gold-plated silver contacts.
   See B-314 for bottom view.
   Terminal screws: M3.5

- Integrated terminal cover

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

Package Quantity: 1

Shape	Base	Operation	Operating Voltage	Contact	Part No. (Ordering No.)	Color Code	Dimensions Page
Mushroom (ø40)				1NO-1NC	ALN32211DN *		1 ago
ALN3			24V AC/DC	2NO	ALN32220DN *	1	
AOLN3				2NC	ALN32202DN *	R	
				1NO-1NC	ALN31611DN *	G	
		Momentary	100/110V AC	2N0	ALN31620DN *	Y	
		,		2NC	ALN31602DN *	A S	
				1NO-1NC	ALN32611DN *	PW	
			200/220V AC	2N0	ALN32620DN *		
(24V AC/DC)				2NC	ALN32602DN *		
	BA9S			1NO-1NC	AOLN32211DN *		
			24V AC/DC	2N0	A0LN32220DN *		
				2NC	A0LN32202DN *	R	
				1NO-1NC	AOLN31611DN *	G	
		Maintained	100/110V AC	2N0	A0LN31620DN *	Y	
				2NC	AOLN31602DN *	A S	
				1NO-1NC	AOLN32611DN *	PW	
With tranformer			200/220V AC	2N0	AOLN32620DN *		
(100/110V AC)				2NC	A0LN32602DN *		D 015
Mushroom Pushlock Turn Reset				1NO-1NC	AVLN32211DN *		B-315
AVLN3 (*1)			24V AC/DC	2N0	AVLN32220DN *		
				2NC	AVLN32202DN *		
				1NO-1NC	AVLN31611DN *		
	BA9S	_	100/110V AC	2N0	AVLN31620DN *	R	
				2NC	AVLN31602DN *	1	
				1NO-1NC	AVLN32611DN *		
			200/220V AC	2N0	AVLN32620DN *	1	
(24V AC/DC)				2NC	AVLN32602DN *		
Mushroom Push Turn Lock				1NO-1NC	AJLN32211DN *		
AJLN3			24V AC/DC	2N0	AJLN32220DN *		
				2NC	AJLN32202DN *	R	
				1NO-1NC	AJLN31611DN *	G	
	BA9S	_	100/110V AC	2N0	AJLN31620DN *	Υ	
				2NC	AJLN31602DN *	A	
				1NO-1NC	AJLN32611DN *	PW	
			200/220V AC	2N0	AJLN32620DN *	]	
(24V AC/DC)				2NC	AJLN32602DN *		

- Specify a color code in place of \* in Part No. R (red), G (green), Y (yellow), A (amber), S (blue), PW (pure white)
- · Illuminated pushbuttons have an LED lamp installed.
- Round bezel (metal): Chrome-plated
- See B-308 for other operating voltage such as 6V AC/DC, 12V AC/DC, and 110V DC.
- See B-308 for other contact configurations and gold-plated silver contacts.
- Illuminated pushbutttons of 24V AC/DC or below with 2 or 4 contact blocks have a dummy block.
- \*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

#### Illuminated pushbutton operation

Pushlock Turn Reset

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

#### Push Turn Lock

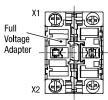
Button is locked when turned clockwise in the depressed position and is reset when turned counterclockwise.

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

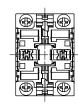
Full

6V, 12V, 24V AC/DC

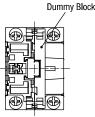
• See B-348 for wiring.



1 contact block



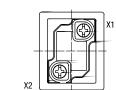
3 contact blocks



2/4 contact blocks



100/110V, 200/220V AC



110V DC, 380V AC or over

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

Control Boxes

APFM

Emergency Stop Switches Enabling Switches

Safety Products

**Explosion Proof** 

Terminal Blocks

Relays & Sockets Circuit Protectors

Power Supplies

LED Illumination

Controllers Operator

Sensors AUTO-ID

Flush Silhouette

ø16

ø22

Miniature

Pilot Lights

TWND

ARN

CS

IDEC

# **Dimensions (Illuminated Pushbuttons)**

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

ALN2/AOLN2 (terminal screws M3.5)

Integrated terminal cover

6, 12, 24V AC/DC · Without LED Lamp

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

110V DC/380V AC or over

APEM

Control Boxes

Emergency Stop Switches Enabling Switches

Safety Products

Explosion Proof

Terminal Blocks

Relays & Sockets Circuit Protectors

Power Supplies

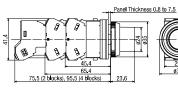
LED Illumination

Controllers

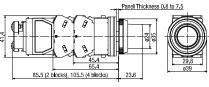
Operator Interfaces Sensors

AUTO-ID









All dimensions in mm.

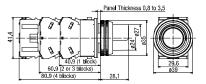
# Extended with Half Shroud, LED illuminated (momentary/maintained)

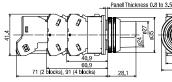
ALGN2/AOLGN2 (terminal screws M3.5) Integrated terminal cover

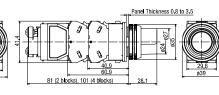
6, 12, 24V AC/DC· Without LED Lamp

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

110V DC/380V AC or over





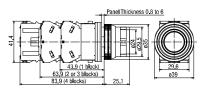


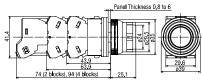
#### Extended with Full Shroud, LED illuminated (momentary/maintained) ALFN2/AOLFN2 (terminal screws M3.5) Integrated terminal cover

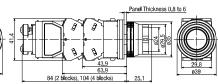
6, 12, 24V AC/DC · Without LED Lamp

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

110V DC/380V AC or over







Flush Silhouette

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

6, 12, 24V AC/DC · Without LED Lamp

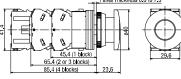
100/110V AC, 200/220V AC (240V AC or below)

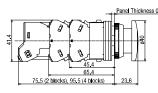
110V DC/380V AC or over

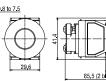


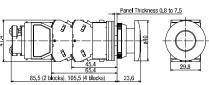
Pilot Lights

ø16









#### Mushroom Pushlock Turn Reset, LED illuminated

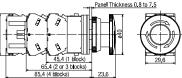
AVLN3 (terminal screws M3.5)

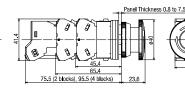
Integrated terminal cover 100/110V AC, 200/220V AC

110V DC/380V AC or over

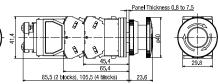


CS







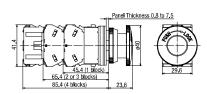


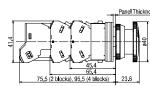
#### Mushroom Push Turn Lock, LED illuminated AJLN3 (terminal screws M3.5)

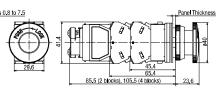
6, 12, 24V AC/DC · Without LED Lamp

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

110V DC/380V AC or over









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

#### ASN Selector Switches (Knob Operator)

Package Quantity: 1

Shape	Knob Opera ASN	tor				d.	Ô					rablegy dealing.
		Contact C	Configuratio	n		Maintained	Spring Return from Right		Spring	Retur	n from	Left
		Contact	Block		perator Position	1 2	1 • 2	Contact	Block		rator ition	1, 2
	Contact	Mounting Position	Contact	1	2			Mounting Position	Contact	1	2	
90°	1NO (10)	① ②	NO —	Dun	my Block	ASN210N	ASN2110N	① ②	NO —	•		ASN2210N
2-position	1NO-1NC (11)	0	NO NC	•	•	ASN211N	ASN2111N	0	NO NC	•	•	ASN2211N
	2NO (20)	0	NO NO		•	ASN220N	ASN2120N	0	NO NO	•		ASN2220N
	2NO-2NC (22)	① ② ③ ④	NO NC NO	•	•	ASN222N	ASN2122N	① ② ③ ④	NO NC NO	•	•	ASN2222N
			Configuration	_	<u>                                     </u>	Maintained	Spring Return from Right		g Return fro	om Lef	_	Spring Return Two-way
	Contact	Contact	Block	0 F	perator Position	1 0 2	1 0 - 2		1 0 2			1 0 2
	Contact	Mounting Position	Contact	1	0 2				$\bigvee$			
	2N0 (20)	① ②	NO NO	•	•	ASN320N	ASN3120N		ASN32201	V		ASN3320N
	2NC (02)	① ②	NC NC	_		ASN302N	ASN3102N		ASN3202N	N		ASN3302N
	2NO-2NC	0	NO NO	•	•							
45° 3-position	(22)	3 4	NC NC	_		ASN322N	ASN3122N		ASN32221	N		ASN3322N
o-position	4N0	0	NO NO	•	•							
	(40)	3	NO NO	•	•	ASN340N	ASN3140N		ASN32401	N		ASN3340N
	4NC (04)	① ② ③	NC NC NC			ASN304N ASN3104N ASN3204N					ASN3304N	
	☆ 200	(4) (1) (2)	NC NO NO	•	•	ASN33SN-243	_					_
	3S	3 4	NC —	Dum	●   nmy Block							

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

- Selector switches with \$\simeq\$ 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.

TWND ARN CS

Flush Silhouette

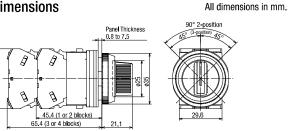
ø16 ø22

Miniature Pilot Lights

# **Contact Block Mounting Position**



#### **Dimensions**



Terminal Screws: M3.5

Terminal cover: integrated

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

Package Quantity: 1

Lever Operator ASN□L Shape

APEM								•						
Switches & Pilot Lights			Contact C	Configuration	n			Maintained	Spring Return from Right		Spring	Return	from Le	ft
Control Boxes Emergency			Contact	Block		perat Positio		1 2	1 2	Contact	Block	Opei Posi	rator ition	2 جد 1
Stop Switches Enabling		Contact	Mounting Position	Contact	1	2				Mounting Position	Contact	1	2	
Switches		1NO	①	NO		•				①	NO	•		
Safety Products	90°	(10)	2	_	Dun	nmy B	lock	ASN2L10N	ASN21L10N	2	_	-	_	ASN22L10N
Explosion Proof	2-position	1NO-1NC	0	NO		•		ASN2L11N	ASN21L11N	1	NO	•		ASN22L11N
<u> </u>		(11)	2	NC	•			ASNZLITN	ASNZILITIN	2	NC		•	AGIVEZETTIV
Terminal Blocks		2N0	0	NO		•		ASN2L20N	ASN21L20N	0	NO	•		ASN22L20N
Relays & Sockets		(20)	2	NO NO		•				2	NO NO	•		
Circuit		0110 0110	0	NO NC		•	-			0	NO NC	•		
Protectors		2NO-2NC (22)	3	NO NO	•	•		ASN2L22N	ASN21L22N	3	NO NO	•	•	ASN22L22N
Power Supplies		(22)	(4)	NC	•		1			4)	NC		•	
LED Illumination				Configuration	_			Maintained	Spring Return from Right		ng Return fr	rom Lef	t	Spring Return Two-way
Controllers			Contact	Block		perat		1 0 2	1 0 2		: 0 جد1	2		1.0.2
Operator Interfaces		Contact		1		Positio	n							
Sensors			Mounting Position	Contact	1	0	2	V						
AUTO-ID		2N0	0	NO	•			ASN3L20N	ASN31L20N		ASN32L20	ON		ASN33L20N
		(20)	2	NO NO			•							
		2NC (02)	① ②	NO NO				ASN3L02N	ASN31L02N		ASN32L02	2N		ASN33L02N
		(02)	0	NO NO	•						-			
Flush Silhouette		2NO-2NC	2	NO			•							
	45°	(22)	3	NO				ASN3L22N	ASN31L22N		ASN32L22	2N		ASN33L22N
ø16 	3-position		4	NO										
ø22			①	NO	•							-		
*20		4N0	2	NO			•	ASN3L40N	ASN31L40N		ASN32L40	ΩN		ASN33L40N
ø30		(40)	3	NO NO	•			ASNOCTON	AGNOTETON		AUNUZETO	JIN		AUNUULTUN
Miniature			4	NO			•							
Pilot Lights			0	NO NO										
		4NC	2	NO NO			<u> </u>	ASN3L04N	ASN31L04N		ASN32L04	4N		ASN33L04N
		(04)	<u>3</u>	NO NO										
			①	NO NO	-									
TWN		☆ 3S	2	NO NO			•							
TWIN		3S	3	NO NO		•		ASN3L3SN-243	_		_			_
TWND		l		140	<del>-</del>	_								

TWND

CS

ARN • Lever: Black

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

4

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

**Dummy Block** 

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

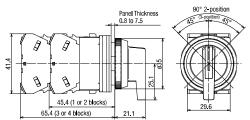
- $\bullet$  Selector switches with  $\not \simeq$  have a half contact operating current (load switching current value). Rated insulation voltage and rated current remain the same.
- See B-308 for gold contact.
- See B-312 for bottom view.

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



#### **Dimensions**

All dimensions in mm.



Terminal Screws: M3.5

Terminal cover: integrated

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

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

Package Quantity: 1

	Key Selector (Key No. 0) ASN□K	
Shape		

		Contact C	onfiguratio	n			Maintained	Spring Return from Right		Spring	Return	from L	_eft
	0	Contact	Block	(	Operat Positic	or on	1 2	1 2	Contact	Block		rator ition	1, 2
	Contact	Mounting Position	Contact	1	2				Mounting Position	Contact	1	2	
	1N0	0	NO		•		ASN2K10N	ASN21K10N	0	NO	•		ASN22K10N
90°	(10)	2	_	Dur	nmy E	Block	ASINZKTUN	ASINZTRTUN	2	_	_	_	ASINZZKTUN
2-position	1NO-1NC	0	NO		•		ASN2K11N	ASN21K11N	①	NO	•		ASN22K11N
	(11)	2	NC	•			AUNZKITN	ASIVETRITIV	2	NC		•	ASNZZKTIN
	2N0	0	NO		•		ASN2K20N	ASN21K20N	①	NO	•		ASN22K20N
	(20)	2	NO		•		AUNZIZUN	ASIVETICEON	2	NO	•		ASINZZINZOW
		0	NO		•	_			1	NO	•		
	2N0-2NC	2	NC	•		_	ASN2K22N	ASN21K22N	2	NC		•	ASN22K22N
	(22)	3	NO		•		AUNZINZZIN	ASIVETREEN	3	NO	•		ASIVEZIVEZIV
		4	NC	•					3	NC		•	
		Contact C	onfiguratio				Maintained	Spring Return from Right	Spring	g Return fro	om Lef	t	Spring Return Two-way
	Contact	Contact	Block		Operat Positic		1 0 2	1 0 2		1, 0 2			1 0 2
	Comaci	Mounting Position	Contact	1	0	2				$\vee$			
	2N0	1	NO	•			ASN3K20N	ASN31K20N		ASN32K20	M		ASN33K20N
	(20)	2	NO			•	ASINSKZUN	ASINSTRZUN	,	ASNOZNZU	IN		ASINSSINZUIN
	2NC	0	NC				ASN3K02N	ASN31K02N		ASN32K02	M		ASN33K02N
	(02)	2	NC				ASNSKUZN	ASINS I RUZIV	'	HONOZNUZ	IN		ASNOSKUZN
		0	NO	•									
	2NO-2NC	2	NO			•	ASN3K22N	ASN31K22N		ASN32K22	M		ASN33K22N
45°	(22)	3	NC				ASNONZZIN	AONOTRZZN		HONOZINZZ	IN		ASNOSKZZN
3-position		4	NC										
, i		1	NO	•									
	4N0	2	NO			•	ASN3K40N	ASN31K40N		ASN32K40	M		ASN33K40N
	(40)	3	NO	•			ASNSK40N	AONOTRADIN		HONOZI(40	IN		ASNOSK4UN
		4	NO			•							
		1	NC										
	4NC	2	NC				ASN3K04N	ASN31K04N		ASN32K04	M		ASN33K04N
	(04)	3	NC				ASNSKU4N	ASINSTRU4IN		ASN3ZNU4	IV		ASINSSKU4IN
		4	NC										
		0	NO	•							-		
	☆ 3S	2	NO			•	☆						
	33	3	NC		•		ASN3K3SN-243	_		_			_

- Cylinder: Chrome-plated
- 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**



- Key selector switch is supplied with two standard keys.
  (1) Insert the key completely before turning the key, otherwise failure may result,
  (2) Turn the operator to each position accurately.
- Different key number is available upon request, Contact IDEC.
- Selector switches with ☆ have a half contact operating current (load switching current value). Rated insulation voltage and rated current remain the same.
- See B-308 for gold-plated silver contacts.
- See B-312 for bottom view.

#### **Dimensions**

Panel Thickness 0.8 to 7.5 45.4 (1 or 2 blocks) 16.5 65.4 (3 or 4 blocks)

Terminal Screws: M3.5

All dimensions in mm.



Terminal cover: integrated

IDEC

B-318

Circuit Protectors Power Supplies

LED Illumination

Controllers Operator

Sensors AUTO-ID

Flush Silhouette ø16

ø22

Miniature Pilot Lights

TWND

ARN

CS

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

**Contact Configuration** 

Contact

N0

NO

NC

N0

NO

N0

NC

NO

NC

Contact

NO

NO

NC

NC

NO

N0

NC

NC

NO

NO

N0

N0

NC

NC

NC

NC

NO

N0

NC

**Contact Configuration** 

Contact Block

Contact Block

Mounting

Position

1

2

1

2

1

2

1

2

3

4

Mounting

Position

2

1

2

1

2

3

4

1

2

3

4

1

2

3

4

1

2

3

4

Operator

Position

2

**Dummy Block** 

•

lacktriangle

Operator

Position

0 2

•

•

1

lacktriangle

1

•

•

Dummy Block

Package Quantity: 1

ASN22K10N-

ASN22K11N-

ASN22K20N-

ASN22K22N-

Spring Return

Two-way

ASN33K20N-

ASN33K02N-

ASN33K22N-

ASN33K40N-

ASN33K04N-

N024401

N024401

N024401

N024401

N024401

N024401

N024401

N024401

N024401

Spring Return from Left

Contact Block

Contact

NO

NO

NC

NO

N0

NO

NC

NO

NC

Spring Return from Left

ASN32K20N-

ASN32K02N-

ASN32K22N-

ASN32K40N-

ASN32K04N-

N024401

N024401

N024401

N024401

N024401

Mounting

Position

1

2

1

2

1

2

1

2

3

4

Operator

Position

•

•

•

•

lacktrian

•

2

lacktriangle

Key Selector (Key No. 24401) ASN□K

Contact

1N0

(10)

1NO-1NC

(11)

2N0

(20)

2NO-2NC

(22)

Contact

2N0

(20)

2NC

(02)

2NO-2NC

(22)

4N0

(40)

4NC

(04)

3S

☆

Shape

2-position

Maintained

ASN2K10N-

ASN2K11N-

ASN2K20N-

ASN2K22N-

N024401

Maintained

ASN3K20N-

ASN3K02N-

ASN3K22N-

ASN3K40N-

ASN3K04N-

ASN3K3SN-

243-N024401

N024401

N024401

N024401

N024401

N024401

N024401

N024401

N024401

Spring Return

from Right

ASN21K10N-

ASN21K11N-

ASN21K20N-

ASN21K22N-

N024401

N024401

N024401

N024401

Spring Return

from Right

ASN31K20N-

ASN31K02N-

ASN31K22N-

ASN31K40N-

ASN31K04N-

N024401

N024401

N024401

N024401

N024401

Pilot Lights

Control Boxes

Emergency
Stop Switches

Enabling
Switches

Safety Products

APFM

Explosion Proof

Terminal Blocks

Relays & Sockets

Circuit Protectors

LED Illumination
Controllers

Operator Interfaces Sensors

AUTO-ID

Flush Silhouette ø16

45°

3-position

ø30

Miniature Pilot Lights

ø22

TWN

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

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



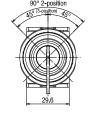
- Key selector switch is supplied with two standard keys.
- Insert the key completely before turning the key, otherwise failure may result.
   Turn the operator to each position accurately.
- Different key number is available upon request. Contact IDEC.
- Selector switches with ☆ have a half contact operating current (load switching current value). Rated insulation voltage and rated current remain the same.
- See B-308 for gold-plated silver contacts.
- See B-312 for bottom view.

#### **Dimensions**

Panel Thickness
0.8 to 7.5

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

Terminal Screws: M3.5



All dimensions in mm.

Terminal cover: integrated

APFM

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

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

Illuminated Selector Switches (BA9S Base)

Package Quantity: 1

Shape	, NOEN							(24V AC/DC)							
		Contact Co	onfigurati	ion				Maintained	Spring Return from Right		Spring	g Retu	ırn fro	m Left	
	Contact	Contact	Block		oerat ositio		Rated Voltage	1 2	1 ,2	Contact	Block		rator ition	1 2	Color Code
	Contact	Mounting Position	Contact	1	2					Mounting Position	Contact	1	2		
<u>.</u> <u></u>	1NO-1NC	0	NO		•		24V AC/DC	ASLN22211DN*	ASLN212211DN*	0	NO	•		ASLN222211DN*	
2-position	(11)	2	NC	•			100/110V AC	ASLN21611DN*	ASLN211611DN*	2	NC		•	ASLN221611DN*	
2-p	(11)						200/220V AC	ASLN22611DN*	ASLN212611DN*					ASLN222611DN*	R
06	2NO	1	NO		•		24V AC/DC	ASLN22220DN*	ASLN212220DN*	1	NO	•		ASLN222220DN*	G
0,	(20)	2	NO		•		100/110V AC	ASLN21620DN*	ASLN211620DN*	2	NO	•		ASLN221620DN*	Υ
	(20)						200/220V AC	ASLN22620DN*	ASLN212620DN*					ASLN222620DN*	Α
		0	NO		•		24V AC/DC	ASLN22222DN*	ASLN212222DN*	①	NO	•		ASLN222222DN*	S
	2NO-2NC	2	NC	•			100/110V AC	ASLN21622DN*	ASLN211622DN*	2	NC		•	ASLN221622DN*	PW
	(22)	3	NO		•		200/220V AC	ASLN22622DN*	ASLN212622DN*	3	NO	•		ASLN222622DN*	
		4	NC	•						4	NC		•		
		Contact Co	onfigurati	ion				Maintained	Spring Return from Right	Spring	Return fr	om L	eft	Spring Return Two-Way	
	Contact	Contact	t Block		pera ositi		Rated Voltage	1 0 2	1 0 2		1 0 3	2		1 0 2	Color Code
	Contact	Mounting Position	Contact	1	0	2					$\overline{}$				
	2NO	0	NO	•			24V AC/DC	ASLN32220DN*	ASLN312220DN*	ASL	N322220	)DN*		ASLN332220DN*	
	(20)	2	NO			•	100/110V AC	ASLN31620DN*	ASLN311620DN*	ASL	N321620	)DN*		ASLN331620DN*	
	(20)						200/220V AC	ASLN32620DN*	ASLN312620DN*	ASL	N322620	DN*		ASLN332620DN*	
	2NC	1	NC				24V AC/DC	ASLN32202DN*	ASLN312202DN*	ASL	N322202	2DN*		ASLN332202DN*	
3-position	(02)	2	NC				100/110V AC	ASLN31602DN*	ASLN311602DN*	ASL	N321602	2DN*		ASLN331602DN*	
osit	(02)						200/220V AC	ASLN32602DN*	ASLN312602DN*	ASL	N322602	2DN*		ASLN332602DN*	
		①	NO	•			24V AC/DC	ASLN32222DN*	ASLN312222DN*	ASL	N322222	2DN*		ASLN332222DN*	R
45°	2NO-2NC	2	NO			•	100/110V AC	ASLN31622DN*	ASLN311622DN*	ASL	N321622	2DN*		ASLN331622DN*	G
	(22)	3	NC				200/220V AC	ASLN32622DN*	ASLN312622DN*	ASL	N322622	2DN*		ASLN332622DN*	Y
			1		_	1	1			1					

- Specify a color code in place of \* in Part No.
   R (red), G (green), Y (yellow), A (amber), S (blue), PW (pure white)
- Illuminated selector switches have an LED lamp installed.

1

2

3

4

1

2

3

4

Round bezel (metal): chrome-plated

4NO (40)

4NC

(04)

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

NC

NO •

NO

NO |

ИО

NC

NC

NC

NC

24V AC/DC

100/110V AC

200/220V AC

24V AC/DC

100/110V AC

200/220V AC

ASLN32240DN\*

ASLN31640DN\*

ASLN32640DN\*

ASLN32204DN\*

ASLN31604DN\*

ASLN32604DN\*

- 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.

ASLN322240DN\*

ASLN321640DN\*

ASLN322640DN\*

ASLN322204DN\*

ASLN321604DN\*

ASLN322604DN\*

- Turn the operator to each position accurately.
- See B-309 for gold-plated silver contacts.
- See B-314 for bottom view.

ASLN312240DN\*

ASLN311640DN\*

ASLN312640DN\*

ASLN312204DN\*

ASLN311604DN\*

ASLN312604DN\*

TWN

TWND

Flush Silhouette

ø16

ø22

Miniature

Pilot Lights

PW

ARN

All dimensions in mm.

ASLN332240DN\*

ASLN331640DN\*

ASLN332640DN\*

ASLN332204DN\*

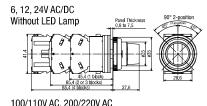
ASLN331604DN\*

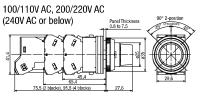
ASLN332604DN\*

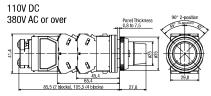
CS

# **Contact Block Mounting Position Dimensions**









Terminal Screws: M3.5 Terminal cover: integrated

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

Flush Silhouette

ø22

Miniature Pilot Lights

> TWND ARN CS

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

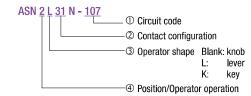
					Op	perator Opera	tion and Circ	uit	
				Maint	ained	Spring			Return
		Cont	art	1	2	from	Right	from	Left
		Bloo				1	>2	1<	/
Contact Configuration	Circuit Code			Knob Lever	Key	Knob Lever	Key	Knob Lever	Key
				Operator	Position	Operator	Position	Operator	Position
-		Mounting Position	Contact	1	2	1	2	1	2
10	Not	①	NO		•		•	•	
. 10	required	2	_	Dumm	y Block	Dumm	y Block	Dumm	y Block
. 01	Not	0	NC	•		•			•
01	required	2	_	Dumm	y Block	Dumm	y Block	Dumm	y Block
	☆	0	EM						
2R	118	2	LB						
Zh Zh	☆	①	EM						
-	168	2	LB					(	

							perator 0					
				l N	1aintair	ned		ring Ret			ring Re	
		Cont	oot		1	2	TI TI	rom Righ	1t 2	1	from Le	eπ 2
		Blo			\ /	, -		\ >	2		<u>'</u>	, -
Contact		Dio			$\stackrel{\sim}{-}$							
Configuration	Circuit Code			Knob	Key	Illumi-	Knob	Key	Illumi-	Knob	Key	Illumi-
				Lever	,	nated	Lever	,	nated	Lever	,	nated
				Opei	rator Po	sition	Oper	rator Pos	sition	Opei	ator Po	sition
		Mounting	Contact	1		2	1		2	1		2
		Position			,	<b>Ø</b>		,	Ø			Ø
	Not	0	NO	·	_	•			Š	Ď		_~
11	required	2	NC	•			•					•
	Not	0	NO		$\neg$	•			•	•		
20	required	2	NO			•			•	•		
	Not	0	NC	•	$\neg$		•					•
02	required	2	NC	•			•					•
		0	NO			•			•	•	Î	
22	Not	2	NC	•			•					•
22	required	3	NO			•			•	•		
		4	NC	•			•					•
		①	NC	•			•					•
31	107	2	NO			•			•	•		
31	107	3	NO			•			•	•		
		4	NO		$\perp$	•			•	•		
		0	NO			•			•	•		
40	Not	2	NO			•			•	•		
40	required	3	NO			•			•	•		
		4	NO			•			•	•		

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

# **Contact Block Mounting Position**

# Part No. Development



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

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

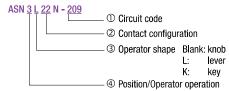
										0	perato	r Opera	ition an	d Circu	iit				Lig
Contact	Circuit Code	Cont Blo		Оре	erator Pos	sition	N 1	laintaine 0	ed 2	Spr	ing Retom Righ	urn ht	Spr f	ring Rerom Le	turn ft		ring Ret Two-wa	y	t Lights
Configuration		Mounting Position	Contact	1	0	2	Knob/ Lever	Key	Illumi- nated	Knob/ Lever	Key	Illumi- nated	Knob/ Lever	Key	Illumi- nated	Knob/ Lever	Key	Illumi- nated	APEM Switches & Pilot Lights
	200	0	NO	•		_		,						,			,		Control Boxes
	202	2	NC				<u> </u>	√			√			√			√		Emergency
11	203	1	NC					√			V			√			√		Stop Switches Enabling
• •		2	NO		_	•	-	· ·			v						· ·		Switches
	303	0	NC		•		-	√			√			√			√		Safety Products
	N-4	2	NO NO	•		•	-												
20	Not required	① ②	NO NO	_		•	-	$\sqrt{}$			$\checkmark$			√			√		Explosion Proof
	Not	①	NC			<b>-</b>	$\vdash$			_									Terminal Blocks
02	required	2	NC				1	√			√			√			√		Relays & Sockets
		0	NO	•															
	Not	2	NO			•	1	,			,			,			,		Circuit Protectors
	required	3	NC				]	√			√			V			√		Power Supplies
		4	NC				<u> </u>												- Tower Supplies
		0	NO	•															LED Illumination
	209	2	NC				-	√			√			_			_		Controllers
		3	NC				-	•			•								Operator
		(4) (1)	NO NC	 	_	<u> </u>	-												Interfaces
		2	NO NO	<u> </u>			1												Sensors
22	210	3	NC			<b>-</b>	1	√			$\sqrt{}$			√			√		
		4	NO				1												AUTO-ID
		0	NC		•														
	040	2	NO			•	1	,											
	310	3	NC		•			√			_			_			_		Floris Otheroste
		4	NO			•													Flush Silhouette
		0	NO	•		•													ø16
	311	2	NO NO			•	-	√			V			√			V		ø22
		3	NC		•		-	*			٧			٠			٧		ΨZZ
		4	NC																ø30
		0	NO NO	•		•	ł												Miniature
40	Not required	② ③	NO NO	•		_	1	$\sqrt{}$			√			√			√		
	roquirou	<u> </u>	NO	_		•	1												Pilot Lights
		0	NC				$\vdash$												
0.	Not	2	NC				1	,			,			,			,		
04	required	3	NC				1	√			V			√			√		
		4	NC																TWN
		①	NO	•															TWND
3S	☆ 243	2	NO			•	,	1	_		_			_			_		
00	243	3	NC		•	<u> </u>	↓ '	,											ARN
Calantan avvital		(4)		<u> </u>	ımmy Blo	ock	Ь			in a color									cs

- Selector switches with 🛱 have a half contact operating current (load switching current value). Rated insulation voltage and rated current remain the same.
- ullet On selector switches with  $\dot{lpha}$ , the contact blocks may overlap each other while turning the ring or lever operator.

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

# 3

# 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**

ot Lights	Shape	Contact Configuration	Circuit Code	Con Blo	tact ock	Left	Ring P	osition Righ	t Button Color Code	Ring Operator
APEM				Mounting Position	Contact	Normal	Pushb Push	outton Normal Pus		Part No. (Ordering No.)
Switches & Pilot Lights	Ring Operator (90°2-position)		A03	①	NO		•	•		ASBN211N-A03*
Control Boxes	ASBN2			2	NC	•			_	
Emergency		11 (1NO-1NC)	☆ K04	① ②	NC EM	•	•		B G	☆ ASBN211N-K04*
Stop Switches Enabling		(,		0	NO		•		R	
Switches			G03	2	NC	•		Block	ed Y	ASBN211N-G03*
Safety Products		20	D01	①	NO		•			ASBN220N-D01*
Explosion Proof		(2NO)	D01	2	NO			•		A3DIVZZUN=D01*
	1			①	NO		•	•		
Terminal Blocks			A08	2	NC	•				ASBN222N-A08*
Relays & Sockets				3	NO NO		•	•		
Circuit				<ul><li>④</li><li>①</li></ul>	NC NO	•	•	•		
Protectors				2	NO NO				-	
Power Supplies			☆ C10	3	NC	•				☆ ASBN222N-C10*
LED Illumination			0.0	4	NC					7.02.1.22.1
Controllers				①	NO		•			
			D10	2	NO			•		ACRNOCON D40
Operator Interfaces			D10	3	NC	•				ASBN222N-D10*
Sensors				4	NC			•		
				1	NO		•		В	
AUTO-ID		22	☆	2	NO			•	G	☆
		(2NO-2NC)	E10	3	NC				R Y	ASBN222N-E10*
				4	NC				_ '	
Flush Silhouette				①	NO NO		•	•		
			☆ F10	② ③	NC NC		•	•	_	☆ ASBN222N-F10*
ø16			FIU	4	NC					ASDNZZZN=F1U*
ø22				0	NO NO		•			
				2	NO		•			
ø30			G10	3	NC	•		Block	ed	ASBN222N-G10*
Miniature				4	NC	•		•		
Pilot Lights				①	NC	•				
i not Lights			☆	2	NC	•				☆
			K15	3	EM		•			ASBN222N-K15*
		D. I.M.		4	EM		•			

TWND

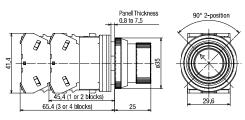
- Specify a color code in place of \* in Part No. B (black), G (green), R (red), Y (yellow)
- Bezel (metal): Chrome-plated
- Circuit code G: The pushbutton does not operate when the ring operator is turned to the right position.
  Circuit codes E and F: The right and left NC contact blocks on circuit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

# **Contact Block Mounting Position**



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

(All dimensions in mm.)



Terminal Screws: M3.5

Terminal cover: integrated

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

Package Quantity: 1

					·	1 0	ckage Quantity: 1
Shape	Shape Illumination		Rated Voltage	ated Voltage Part No. (Ordering No.)		LED Lamp Part No.	Dimensions Page
Round APN1			24V AC/DC	APN122DN*	R, G, Y, A, S, PW	LSRD-2	
AFILI			100/110V AC	APN116DN*	R, G, Y, A, S, PW		
(24V AC/DC)	LED	BA9S	200/220V AC	APN126DN*	R, G, Y, A, S, PW	LSRD-6	
Square Extended UPQN3B		BA9S	24V AC/DC	UPQN3B22D*	R, G, Y, A, S, PW	LSRD-2	
	LED		100/110V AC	UPQN3B16D*	R, G, Y, A, S, PW	LSRD-6	B-325
(24V AC/DC)			200/220V AC	UPQN3B26D*	R, G, Y, A, S, PW	LOND=0	
Rectangular (Marking) UPQN4			24V AC/DC	UPQN422D*	R, G, Y, A, S, PW	LSRD-2	
	LED	BA9S	100/110V AC	UPQN416D*	R, G, Y, A, S, PW	LCDD 6	
(24V AC/DC)			200/220V AC	UPQN426D*	R, G, Y, A, S, PW	LSRD-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.
- 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.
- Terminal cover is installed on pilot lights for electric shock prevention.

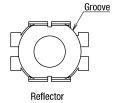
Type	Terminal Cover	Quantity
6V, 12V, 24V AC/DC	APN-PVL	1
100V/110V AC, 200/220V AC	N-VL3	1
110V DC	N-VL3	1

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

• See B-314 for bottom view.

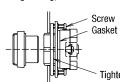
#### Reflector

- The lamp housing of the square LED illuminated pilot lights has a built-in reflector.
- 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).
- 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.



Tighten the screw lightly so that the panel does not bend. Recommended tightening torque: 0.15 Nm

APEM

Switches &

Emergency Stop Switches Enabling Switches

Safety Products

Explosion Proof
Terminal Blocks

Relays & Sockets
Circuit

Protectors

Power Supplies

LED Illumination

Controllers

Operator Interfaces

Sensors

AUTO-ID

Flush Silhouette

ø16

ø22

Miniature

Pilot Lights

TWN

TWND

ARN

CS

Control Boxes

Explosion Proof

Terminal Blocks

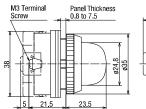
Emergency Stop Switches Enabling Switches Safety Products

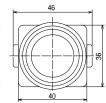
#### ø30 TWN Series

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

#### Round APN1

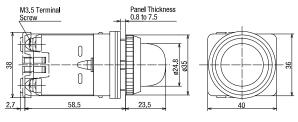
6V, 12V, 24V AC/DC (Terminal Cover: APN-PVL) Without LED Lamp





Terminal screws: M3

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



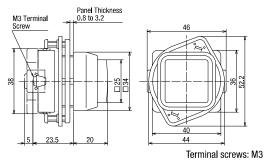
Terminal screws: M3.5

#### Square Extended **UPQN3B**

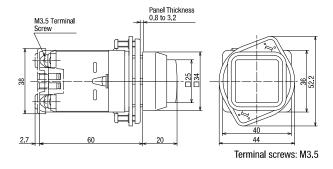
Relays & Sockets Circuit Protectors Power Supplies LED Illumination Controllers Operator Interfaces

> Sensors AUTO-ID

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



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



Flush Silhouette ø22

# Rectangular (Marking) UPQN4

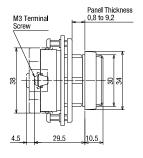
6V, 12V, 24V AC/DC (Terminal Cover: APN-PVL) Without LED Lamp

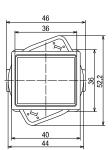
Miniature Pilot Lights

TWND

ARN

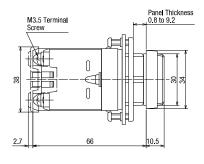
CS

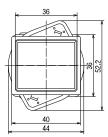




Terminal screws: M3

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





Terminal screws: M3.5

• See B-349 for wiring.

Control Boxes

Emergency
Stop Switches

Enabling
Switches

Safety Products

Explosion Proof

Terminal Blocks

Relays & Sockets

Circuit
Protectors

Power Supplies

LED Illumination

Controllers

Operator
Interfaces

Sensors

AUTO-ID

Flush Silhouette

ø16 ø22

Miniature
Pilot Lights

TWN

ARN

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

Package Quantity: 1

Shape	Operation	Contact	Part No. (Ordering No.)	Button Color Code	Dimensions	(All dimensions in mm.)
Flush		1NO	ABD110N*	В		
ABD1		1NC	ABD101N*	G		
AOD1	Monard	1NO-1NC	ABD111N*	R Y		
_	Momentary	2N0	ABD120N*	S	Pan o s	el Thickness to 7.5 ø39
		2NC	ABD102N*	<u>w</u>		333
		2NO-2NC	ABD122N*	Note		
		1NO	AOD110N*	В	4	
		1NC	A0D101N*	G	45 A(1 or 2 blocks)	
	Maintained	1NO-1NC	A0D111N*	- R - Y	45.4 (1 or 2 blocks) 65.4 (3 or 4 blocks) 9	29.4
	wamamed	2N0	A0D120N*	S		
		2NC	A0D102N*	W		
		2NO-2NC	A0D122N*	Note		
Extended		1NO	ABD210N*			
ABD2 AOD2		1NC	ABD201N*	B G		
AUDZ	Momenton	1NO-1NC	ABD211N*	R		
	Momentary	2N0	ABD220N*	γ γ	Pan	el Thickness to 7.5 ø39
		2NC	ABD202N*	S		1000
		2NO-2NC	ABD222N*	W		
		1NO	A0D210N*			
		1NC	A0D201N*	B G		
	Mointain	1NO-1NC	A0D211N*	R	45.4 (1 or 2 blocks) 65.4(3 or 4 blocks) 14	29.4
	Maintained	2N0	A0D220N*	Υ		•
		2NC	A0D202N*	S		
		2NO-2NC	A0D222N*	- W		
Extended with Half Shroud		1NO	ABGD210N*	_		
ABGD2		1NC	ABGD201N*	B G		
AOGD2	NA	1NO-1NC	ABGD211N*	R		
	Momentary	2N0	ABGD220N*	Υ	Panel	Thickness
		2NC	ABGD202N*	S	0.8 to	3.5 ø39
		2NO-2NC	ABGD222N*	- W		
		1NO	AOGD210N*		[	626.8
		1NC	AOGD201N*	B G		182
	D. A. a. i. a. i. a. a. a. i.	1NO-1NC	AOGD211N*	R	40.9 (1 or 2 blocks) 18.5 60.9 (3 or 4 blocks) 20.5	
	Maintained	2N0	AOGD220N*	Υ Υ	# · · · · · · · · · · · · · · · · · · ·	
		2NC	AOGD202N*	S		
		2NO-2NC	AOGD222N*	- W		
Extended with Full Shroud		1NO	ABFD210N*	-		
ABFD2		1NC	ABFD201N*	B G		
AOFD2	Marrantan	1NO-1NC	ABFD211N*	R		
	Momentary	2N0	ABFD220N*	Y	Pan	el Thickness
		2NC	ABFD202N*	S	0.8	to 6 ø39
		2NO-2NC	ABFD222N*	- W		
		1NO	AOFD210N*	_	<u> </u>	458282 53829
		1NC	A0FD201N*	B		
		1NO-1NC	A0FD211N*	G R	45.4 (1 or 2 blocks) 14 65.4 (3 or 4 blocks) 16.5	
	Maintained	2N0	AOFD220N*	Ϋ́	<u>k</u> (0 or 1 blooms) <u>1,</u> 10.	<del>'</del>
		2NC	A0FD202N*	S		
		2NO-2NC	Δ0FD222N*	⊢ w		

- 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.

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

ij							Package Quantity: 1	
ilot Lights	Shape	Operation	Contact	Part No. (Ordering No.)	Button Color Code	Dimensions	(All dimensions in mm.)	
0,	Mushroom		1NO	ABD310N*	В			
	ABD3 AOD3		1NC 1NO-1NC	ABD301N* ABD311N*	G R			
APEM		Momentary	2N0	ABD311N*	Υ	Panel Thickness 0.8	to 7.5 29.4	
Switches &			2NC	ABD302N*	S			
Pilot Lights			2NO-2NC	ABD322N*	W	14	<del>{}</del>	
Control Boxes			1NO 1NC	A0D310N* A0D301N*	B G			
Emergency Stop Switches		Maintained	1NO-1NC	A0D311N*	R	45.4 (1 or 2 blocks) 65.4 (3 or 4 blocks) 22	40	
Enabling		Maintaineu	2NO	A0D320N*	Y S			
Switches			2NC 2NO-2NC	A0D302N* A0D322N*	W			
Safety Products	Mushroom with Full Shroud		1NO	ABGD310N*	В			
Explosion Proof	ABGD3 AOGD3		1NC	ABGD301N*	G	Panel Thickness 0.81	0 6.5	
Terminal Blocks	AUGDS	Momentary	1NO-1NC 2NO	ABGD311N* ABGD320N*	R Y			
			2NC	ABGD302N*	S	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$		
Relays & Sockets			2NO-2NC	ABGD322N*	W	4 8 8		
Circuit Protectors			1NO 1NC	AOGD310N* AOGD301N*	В	43.9 (1 or 2 blocks) 63.9 (3 or 4 blocks) 23.5		
Power Supplies		Marketon of	1NO-1NC	AOGD301N*	G R	000 (0 01 + 100010)   s c 2000 s	*****	
LED Illumination		Maintained	2N0	AOGD320N*	] Y			
			2NC 2NO-2NC	AOGD302N*	S W			
Controllers	Jumbo Mushroom		1NO	AOGD322N* ABD410N*			29.4	
Operator Interfaces	ABD4		1NC	ABD410N*		Panel Thickness 0.8 to 7.5		
Sensors			1NO-1NC	ABD411N*	В			
		Momentary	2NO	ABD420N*	G R	965	<del>(                                      </del>	
AUTO-ID			2NC	ABD402N*	Υ			
			2NO-2NC	ABD402N*	<u> </u> 	45.4 (1 or 2 blocks)	40	
	Jumbo Mushroom with		1NO	ABGD410N*		Panel Thickness 0.8 to 7.5	29.4	
Flush Silhouette	Shallow Shroud		1NC	ABGD401N*				
ø16	ABGD4				В			
		Momentary	1NO-1NC	ABGD411N*	G R	4 14 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
ø22			2N0	ABGD420N*	Ϋ́			
ø30			2NC	ABGD402N*		45.4 (1 or 2 blocks)		
Miniature			2NO-2NC	ABGD422N*		65.4 (3 or 4 blocks) 29	40	
Pilot Lights	Jumbo Mushroom with Deep Shroud		1NO	ABFD410N*		Panel Thickness 0.8 to 7.5	29.4	
	ABFD4		1NC	ABFD401N*				
			1NO-1NC	ABFD411N*	B G			
		Momentary	2N0	ABFD420N*	R	4 B B		
TWN			2NC	ABFD402N*	Y			
TWND			2NO-2NC	ABFD422N*	<u>.</u>	45.4 (1 or 2 blocks) 65.4 (3 or 4 blocks) 33		
ARN	Pin Lock (On-off Lock Type) (*1)		1NO	ABD8P10N*			<del> - 10 + </del>	
	ABD8P		1NC	ABD8P01N*	В			
			1NO-1NC	ABD8P11N*	G		29.4	
			2N0	ABD8P20N*	R Y	Panel Thickness 0.8 to 7.5		
	A Property of the Party of the	-09 -09	2NC 2NO-2NC	ABD8P02N* ABD8P22N*	'			
	Pin Lock (On-lock Type) (*1)		1NO	ABD8PN10N*		414	/ <b>//((:\:\)</b>	
	ABD8PN ABD8PN		1NC	ABD8PN01N*	В			
	12 12 1		1NO-1NC	ABD8PN11N*	G	45.4 (1 or 2 blocks)		
			2N0 2NC	ABD8PN20N*	R Υ	65.4 (3 or 4 blocks) 27.5	$\checkmark$	
			2NO-2NC	ABD8PN02N* ABD8PN22N*	· .			
	- Chaoife a calor code in place of a in	Dort No. D. (blook	c) C (groop) D			other centeet configurations and gold		

- Specify a color code in place of \* in Part No. B (black), G (green), R (red), Y (yellow), S (blue), W (white)
- Round bezel (metal): Chrome-plated
- Pin Lock (On-lock type): Button can be locked in depressed position by inserting the pin (the button cannot be locked in reset position).
- Pushbuttons with 1 or 3 contact blocks have a dummy block.
- See B-307 for other contact configurations and gold-plated silver contacts.
- See B-342 for maintenance parts.
- \*1) The pin for ABD8P is ø4.6 mm and is not compatible with ABN8P (old series).
- See B-312 for bottom view.
- Terminal screws: M3.5
- Integrated terminal cover



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

Package Quantity: 1

Shape	Contact	Part No. (Ordering No.)	Button Color Code	Dimensions (A	All dimensions in mm.)
Mushroom Pushlock Turn Reset (*1) AVD3	1NO	AVD310N*			
AVDS	1NC	AVD301N*		Panel Thickness	s 0.8 to 7.5
	1NO-1NC	AVD311N*	R		
	2N0	AVD320N*	Υ	2 B B B	
	2NC	AVD302N*		45.4 (1 or 2 blocks) 65.4 (3 or 4 blocks) 23.6	29.4
	2NO-2NC	AVD322N*		00.7 (0.01 7 BB00(0)   s c 2010   s	<del> </del>
Mushroom Push Turn Lock AJD3	1NO	AJD310N*			
A000	1NC	AJD301N*		Panel Thickness	0.8 to 7.5
	1NO-1NC	AJD311N*	B G R	8 8	34 12 V
	2N0	AJD320N*	R Y		
	2NC	AJD302N*	'	45.4 (1 or 2 Dlocks) 65.4 (3 or 4 blocks) 23.6	29,4
	2NO-2NC	AJD322N*		4 00.4 (0 01 4 0100 kg) sle 20.0 s	- 40 s
Mushroom Pull AZD3	1NO	AZD310N*		Panel Thickness	0.0.8 to 7.5
	1NO-1NC	AZD311N*	B G		
	2N0	AZD320N*	G R Y	4 4	
	2NC	AZD302N*		45.4 25.1 5	5 stroke 29.4 40
Mushroom Push-Pull (*2) AYD31	1NO-1NC	AYD3111N*		Panel Thickness	0.8 to 7.5
	2N0	AYD3120N*	B G R Y	8	
	2NC	AYD3102N*	·	5.5 stroke 45.4 30.7	29.4

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

#### **Pushbutton operation**

#### Pushlock Turn Reset

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

#### 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

Contact	AZD3							
Contact	Normal	Pull						
1N0	<del>م'</del> ہ	٥٢						
2NO-2NC	ი ••	°° •••						
2N0	99 99	°F °F						
2NC	<u>••</u> ••	919 919						

Push-Pull c	ontact operation
	AYD31

Contact	AYD31							
Contact	Push	Pull						
1N0	ტ •_•	00 11						
2N0	مم مم	00 00 T						
2NC	4	<b>616 616</b>						

APEM

Switches &

Control Boxes

Emergency Stop Switches Enabling Switches

Safety Products

Explosion Proof

Terminal Blocks

Relays & Sockets

Circuit Protectors

Power Supplies

LED Illumination

Controllers
Operator

Interfaces
Sensors

AUTO-ID

Flush Silhouette

ø16

ø22

30

Miniature

Pilot Lights

TWN

TWND

.....

ARN

CS

Extended

Shape

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

Base

Operation

Package Quantity: 1 Button

Color Code

Part No.

(Ordering No.)

ALD22211DN\*

	ALI AO
APEM	no
Switches & Pilot Lights	
Control Boxes	
Emergency Stop Switches	
Enabling Switches	
afety Products	
xplosion Proof	
rminal Blocks	
lays & Sockets	
Circuit Protectors	
ower Supplies	Ext ALI
D Illumination	A0
Controllers	
Operator	
Interfaces	
Sensors	
AUTO-ID	
ush Silhouette	
ø16	
ø22	

• 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-314 for bottom view.

ALD2 24V AC/DC 2N0 ALD22220DN\* LD2 R 2NC ALD22202DN\* G 1NO-1NC ALD21611DN\* Υ Momentary 100/110V AC 2N0 ALD21620DN\* Α 2NC ALD21602DN\* 1NO-1NC ALD22611DN\* PW 200/220V AC 2N0 ALD22620DN\* 2NC ALD22602DN\* BA9S 1NO-1NC AOLD22211DN\* 24V AC/DC 2N0 AOLD22220DN\* 2NC AOLD22202DN\* R G 1NO-1NC AOLD21611DN\* Maintained 100/110V AC 2N0 AOLD21620DN\* Α 2NC AOLD21602DN\* S 1NO-1NC AOLD22611DN\* PW With transformer 200/220V AC 2N0 AOLD22620DN\* (100/110V AC) 2NC AOLD22602DN\* tended with Full Shroud 1NO-1NC ALFD22211DN\* 24V AC/DC 2N0 ALFD22220DN\* LFD2 R 2NC ALFD22202DN\* G 1NO-1NC ALFD21611DN\* Υ 100/110V AC 2N0 Momentary ALFD21620DN\* 2NC ALFD21602DN\* 1NO-1NC ALFD22611DN\* PW 200/220V AC 2N0 ALFD22620DN\* 2NC ALFD22602DN\* (24V AC/DC) BA9S 1NO-1NC AOLFD22211DN\* 24V AC/DC 2N0 AOLFD22220DN\* R 2NC AOLFD22202DN\* G 1NO-1NC AOLFD21611DN\* Maintained 100/110V AC 2N0 AOLFD21620DN\* Α 2NC AOLFD21602DN\* 1NO-1NC AOLFD22611DN\* PW With transformer 200/220V AC 2N0 AOLFD22620DN\* (100/110V AC) 2NC AOLFD22602DN\*

Operating

Voltage

Contact

1NO-1NC

TWN

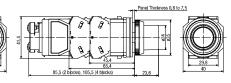
Extended, LED illuminated (momentary/maintained) ALD2/AOLD2 (terminal screws M3.5)

6, 12, 24V AC/DC · Without LED Lamp

**Dimensions** 

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

110V DC, 380V AC or over

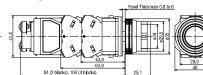


All dimensions in mm

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

6, 12, 24V AC/DC · Without LED Lamp

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



IDEC

B-329

ARN CS

Miniature

Pilot Lights

110V DC, 380V AC or over

APFM

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

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

Package Quantity: 1

Shape	Base	Operation	Operating Voltage	Contact	Part No. (Ordering No.)	Color Code
Mushroom (ø40)				1NO-1NC	ALD32211DN*	
ALD3			24V AC/DC	2N0	ALD32220DN*	
AOLD3				2NC	ALD32202DN*	
				1NO-1NC	ALD31611DN*	R G Y
		Momentary	100/110V AC	2NO	ALD31620DN*	
				2NC	ALD31602DN*	A S
				1NO-1NC	ALD32611DN*	
			200/220V AC	2N0	ALD32620DN*	
(24V AC/DC)	BA9S			2NC	ALD32602DN*	
	DA95			1NO-1NC	A0LD32211DN*	
		Maintained	24V AC/DC	2N0	A0LD32220DN*	
				2NC	AOLD32202DN*	R
				1NO-1NC	A0LD31611DN*	R G Y
			100/110V AC 200/220V AC	2N0	A0LD31620DN*	
				2NC	A0LD31602DN*	A W S
				1NO-1NC	A0LD32611DN*	S
With transformer (100/110V AC)				2N0	A0LD32620DN*	
(100/110V AC)				2NC	A0LD32602DN*	
Mushroom Pushlock Turn Reset (*1)				1NO-1NC	AVLD32211DN*	
AVLD3			24V AC/DC	2N0	AVLD32220DN*	
				2NC	AVLD32202DN*	
				1NO-1NC	AVLD31611DN*	
	BA9S	_	100/110V AC	2N0	AVLD31620DN*	R
				2NC	AVLD31602DN*	
				1NO-1NC	AVLD32611DN*	]
(24V AC/DC)			200/220V AC	2N0	AVLD32620DN*	
(=				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.
- \*1) Pushlock turn reset switches cannot be used as emergency stop switches. When emergency stop switches are required, use XN series emergency stop switches (ISO 13850 and IEC 60947-5-5 compliant).
- See B-314 for bottom view.

#### Illuminated pushbutton operation

Pushlock Turn Reset

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

Flush Silhouette

ø16

ø22

Miniature

Pilot Lights

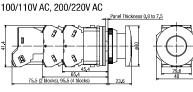
TWN

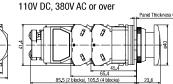
**Dimensions** 

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

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

6, 12, 24V AC/DC · Without LED Lamp





ARN CS

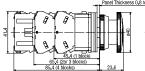
#### Mushroom Pushlock Turn Reset, LED illuminated

AVLD (terminal screws M3.5)

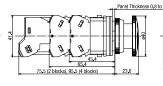
Integrated terminal cover

100/110V AC, 200/220V AC

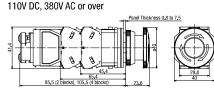
6, 12, 24V AC/DC · Without LED Lamp











# ASD Selector Switches (Knob Operator)

Package Quantity: 1

t Lights	Shape	Knob Operat ASD	or											Tablego Godini,	
APEM Switches &			Contact Configuration Maintained Spring Return Spring Return from Let										eft		
Pilot Lights						perat	or		from Right		• •		rator	1	
Control Boxes		Contact	Contact	Block		Positio		1 2	1 >2	Contact	Block		ition	1, 2	
Stop Switches Enabling		Oomact	Mounting Position	Contact	1	2				Mounting Position	Contact	1	2		
Switches		1NO	0	NO		•		ASD210N	ASD2110N	0	NO	•		ASD2210N	
Safety Products	90°	(10)	2	_	Dun	nmy B	lock	NODETON	7,00211011	2	_	-	_	AODELTON	
Explosion Proof	2-position	1NO-1NC (11)	① ②	NO NC	•	•	-	ASD211N	ASD2111N	① ②	NO NC	•	•	ASD2211N	
		2NO	0	NO NO	•	•				0	NO NO	•			
Terminal Blocks		(20)	2	NO NO			1	ASD220N	ASD2120N	2	NO	•		ASD2220N	
Relays & Sockets			0	NO		•				0	NO	•			
Circuit		2NO-2NC	2	NC	•		1	ACDOON	10D0100N	2	NC		•	ACDOGGON	
Protectors		(22)	3	NO		•	]	ASD222N	ASD2122N	3	NO	•		ASD2222N	
Power Supplies			4	NC	•					4	NC		•		
LED Illumination			Contact Configuration					Maintained	Spring Return from Right	Spring Return from Left			Spring Return Two-way		
Controllers			Contact	Contact Block Operator			1 0 2	1 0-2	2 0 ج			1 - 0 - 2			
Operator Interfaces		Contact	Mounting Position	Contact	F	Positio 0	2								
Sensors		2N0	①	NO	•										
AUTO-ID		(20)	2	NO			•	ASD320N	ASD3120N		ASD32201	N		ASD3320N	
		2NC	0	NC				4000001	40004004						
		(02)	2	NC				ASD302N	ASD3102N		ASD32021	V		ASD3302N	
			①	NO	•										
Flush Silhouette		2NO-2NC	2	NO			•	ASD322N	ASD3122N		ASD32221	d		ACDOGGAN	
ø16	45°	(22)	3	NC				AODOZZIV	AODOTZZN		AUDUZZZI	•		ASD3322N	
	3-position		4	NC	_										
922			0	NO NO	•										
ø <b>3</b> 0		4NO (40)	3	NO NO	•		•	ASD340N	ASD3140N		ASD32401	N		ASD3340N	
Miniature		(40)	<u> </u>	NO NO											
Dilet I inha-			0	NC			5								
Pilot Lights		4NC	2	NC											
		(04)	3	NC				ASD304N	ASD3104N		ASD32041	V		ASD3304N	
			4	NC											
TWN			①	NO	•										
-11111		☆	2	NO			•	<b>\$</b>	_		_				
TWND		38	3	NC		•	Щ	ASD33SN-243						_	
ARN	- Knah, Black		4	_	Dun	nmy B	Block		rn the energter to one						

- 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 every 45 degrees intervals in addition to the positions shown in the above table.

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

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

# **Contact Block Mounting Position**



# All dimensions in mm. **Dimensions** 90° 2-position Panel Thickness 0.8 to 7.5 45.4 (1 or 2 blocks) 65.4 (3 or 4 blocks)

Terminal Screws: M3.5

Terminal cover: integrated

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

Flush Silhouette

ø16 ø22

Miniature Pilot Lights

TWN

ARN CS

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

Lever Operator

Package Quantity: 1

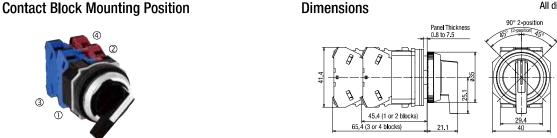
Shape	ASD□L							Ç						
		Contact C	Configurati	ion			Maintained	Spring Return from Right		Spri	ing Re	turn fro	m Left	
		Pos		perat Positio	or n	1 2	1 2	Contact	Block	Ope Pos	rator ition	1, 2		
	Contact	Mounting Position	Contact	1	2				Mounting Position	Contact	1	2		
	1N0	①	NO		•		ASD2L10N	ASD21L10N	0	NO	•		ASD22L10N	
90°	(10)	2	_	Dun	nmy B	lock	NODZETON	NODETETON	2	_	-		NODELETON	
2-position	1NO-1NC	0	NO.		•		ASD2L11N	ASD21L11N	0	NO	•		ASD22L11N	
	(11)	2	NC	•	_				2	NC		•		
	2N0	0	NO NO		•		ASD2L20N	ASD21L20N	0	NO	•		ASD22L20N	
	(20)	2	NO NO		•				2	NO NO	•			
		0	NO NC		•				0	NO NC	•			
	2NO-2NC (22)	3	NC NO	•	•	-	ASD2L22N	ASD21L22N	3	NC NO	•	•	ASD22L22N	
	(22)	<u> </u>	NC NC	•		-			4	NC		•		
			Configurati	_			Maintained	Spring Return from Right		g Return f	rom L		Spring Return Two-way	
		Contact	Block		perat Positio		1 0 2	1 0 4 2		1, 0	2		1, 0, 2	
	Contact	Mounting Position	Contact	1	2									
	2N0	1	NO	•			ASD3L20N	ASD31L20N	ASD32L20N				ASD33L20N	
	(20)	2	NO.			•	ASDSLZUN	ASDSTLZUN	ASD32L2UN				ASDSSLZUN	
	2NC	1	NC				ASD3L02N	ASD31L02N		ASD32L0	2N		ASD33L02N	
	(02)	2	NC				7100000011	71050120211		, lobollo			710000000011	
		1	NO.	•										
	2NO-2NC	2	NO NO		_	•	ASD3L22N	ASD31L22N		ASD32L2	2N		ASD33L22N	
45°	(22)	3	NC	_										
3-position		4	NC NO											
	4010	0	NO NO	•		•								
	4NO (40)	② ③	NO NO	•		_	ASD3L40N	ASD31L40N		ASD32L4	ON		ASD33L40N	
	(40)	4	NO NO			•								
		①	NC						1					
	4NC	2	NC		5									
	(04)	3	NC				ASD3L04N	ASD31L04N		ASD32L0	4N		ASD33L04N	
	` '	4	NC	•										
		0	NO	•	Ė									
	<>	2	NO			•	<b>☆</b>							
	☆ 3S	3	NC		•		ASD3L3SN-243	_		_	-			
		4	_	Dun	nmy B	lock								

- 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.
- 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**

All dimensions in mm.



Terminal Screws: M3.5 Terminal cover: integrated

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

Flush Silhouette

ø22

Miniature Pilot Lights

TWN

ARN

CS

# ASD K Key Selector Switches

Package Quantity: 1

Key Selector (Key No. 0) ASD□K Shape

		Contact (	Configurat	ion			Maintained	Spring Return from Right		Spring Return from Left				
		Contact Block Operator Position						Contact Block Operator						
	Contact	Mounting Position			1 2		1 2	1 2	Mounting Position Contact		1	2		
	1NO	0	NO		•		ACDOMACN	ACDO4K40N	0	NO	•		ACDOOKTON	
90°	(10)	2	_	Dur	nmy B	lock	ASD2K10N	ASD21K10N	2	_	-		ASD22K10N	
2-position	1NO-1NC	①	NO		•		ASD2K11N	ASD21K11N	1	NO	•		ASD22K11N	
	(11)	2	NC	•			ASDZKTIN	ASDZIKITN	2	NC		•	ASDZZKTIN	
	2N0	①	NO		•		ASD2K20N	ASD21K20N	1	NO	•		ASD22K20N	
	(20)	2	NO		•		ASDZKZUN	ASDZTRZUN	2	NO	•		ASDZZKZUN	
		①	NO		•				1	NO	•			
	2NO-2NC	2	NC	•			ASD2K22N	ASD21K22N	2	NC		•	ASD22K22N	
	(22)	3	NO		•		AGDZRZZN	ASUZTRZZN	3	NO	•			
		4	NC	•					4	NC		•		
	Contact Configuration						Maintained	Spring Return from Right	Spring Return from Left			Spring Return Two-way		
		Contact	t Block	Oper	ator Po	sition	1 0 2	1 0 - 2		0 ـ 1		2 يە0 ج 1		
	Contact	Mounting Position	Contact	1	2		$\bigvee$							
	2N0	0	NO	•			ASD3K20N	ASD31K20N		ASD32K2	ΩN		ASD33K20N	
	(20)	2	NO			•	AODSINZOIN	AODOTRZON	AODOZINZON			710200112011		
	2NC	1	NC				ASD3K02N	ASD31K02N	ASD32K02N				ASD33K02N	
	(02)	2	NC				AODOROZIV	AODOTROZII		AUDUZIKU	214		AODOGNOZIV	
	2NO-2NC	1	NO	•			ASD3K22N							
		2	NO			•		ASD31K22N		ASD32K2	ASD33K22N			
	(22)	3	NC				AODORZZIV	AODOTREZIV		ASDSZKZZN			AODOGREZIV	
45°		4	NC											
3-position		①	NO	•										
	4N0	2	NO			•	ASD3K40N	ASD31K40N		ASD32K4	ΩN		ASD33K40N	
	(40)	3	NO	•			AODSKION	AODOTRAON		AUDUZINA	UIV		AODSSIGNOR	
		4	NO			•								
		0	NC											
	4NC	2	NC				VCD3KUVN	ASD31K04N		ASD32K0	4N		VCDSSKUVN	
	(04)	3	NC				ASD3K04N	ASDSTRU4N		ASDSZKU	411		ASD33K04N	
		4	NC											
		0	NO	•										
	_	2	NO			•	VCD5K3CN 343							
	☆ 3S	3	NC		•		ASD3K3SN-243	_		_			_	

- 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.

Dummy Block

- Key selector switch is supplied with two standard keys.
   (1) Insert the key completely before turning the key, otherwise failure will result.
- (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.

# **Contact Block Mounting Position**



# All dimensions in mm. **Dimensions** 90° 2-position Panel Thickness 0.8 to 7.5 45.4 (1 or 2 blocks) 65.4 (3 or 4 blocks)

Terminal Screws: M3.5

Terminal cover: integrated

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

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

Package Quantity: 1

Shape	Illuminat ASLD	ted Select	or Switch	nes (I	BA9S	Base	e)	(24V AC/DC)		
		Contact	Configurat	tion				Maintained	Spring Return from Right	Ī
	011	Contac	t Block	Operator Position			Operating Voltage	1 2	12	
	Contact	Mounting Position	Contact	1	1 2		voltage			
		0	•			24V AC/DC	ASLD22211DN*	ASLD212211DN*	Ī	

	Contact Configuration							Maintained	Spring Return from Right						
	0 1 1	Contac	Block		perato Positio		Operating Voltage	1 2	1 2	Contact	Block		rator ition	1, 2	Color Code
	Contact	Mounting Position	Contact	1	2		voltage			Mounting Position	Contact	1	2		Code
		0	NO		•		24V AC/DC	ASLD22211DN*	ASLD212211DN*	0	NO	•		ASLD222211DN*	
	1NO-1NC (11)	2	NC	•			100/110V AC	ASLD21611DN*	ASLD211611DN*	2	NC		•	ASLD221611DN*	
90°	(11)				200/220V AC	ASLD22611DN*	ASLD212611DN*					ASLD222611DN*			
2-position		①	NO		•		24V AC/DC	ASLD22220DN*	ASLD212220DN*	0	NO	•		ASLD222220DN*	RG
	2N0 (20)	2	NO		•		100/110V AC	ASLD21620DN*	ASLD211620DN*	2	NO	•		ASLD221620DN*	] Ÿ [
	(20)						200/220V AC	ASLD22620DN*	ASLD212620DN*					ASLD222620DN*	A
		①	NO		•		24V AC/DC	ASLD22222DN*	ASLD212222DN*	0	NO	•		ASLD222222DN*	S PW
	2NO-2NC	2	NC	•			100/110V AC	ASLD21622DN*	ASLD211622DN*	2	NC		•	ASLD221622DN*	'"
	(22)	3	NO				200/220V AC	ASLD22622DN*	ASLD212622DN*	3	NO	•		ASLD222622DN*	
		4	NC	•			_	_	_	4	NC		•	_	
	Contact Configuration						Maintained	Spring Return from Right	Spring Return from Left		eft	Spring Return Two-way			
	Contact		Contact Block Operator Position		Operating Voltage	1 0 2	1 0 2	1 0 2				1, 0, 2	Color Code		
		Mounting Position	Contact	1	0	2	voltage	1 0 2							Code
	2NO (20)	0	NO	•			24V AC/DC	ASLD32220DN*	ASLD312220DN*	ASLI	D322220	DN∗		ASLD332220DN*	
		2	NO			•	100/110V AC	ASLD31620DN*	ASLD311620DN*	ASLI	D321620	DN∗		ASLD331620DN*	
							200/220V AC	ASLD32620DN*	ASLD312620DN*	ASLI	D322620	DN*		ASLD332620DN*	
	0110	①	NC				24V AC/DC	ASLD32202DN*	ASLD312202DN*	ASLI	D322202	:DN*		ASLD332202DN*	
	2NC (02)	2	NC				100/110V AC	ASLD31602DN*	ASLD311602DN*	ASLI	D321602	:DN*		ASLD331602DN*	
	(02)						200/220V AC	ASLD32602DN*	ASLD312602DN*	ASLI	D322602	:DN*		ASLD332602DN*	
45°		1	NO	•			24V AC/DC	ASLD32222DN*	ASLD312222DN*	ASLI	D322222	:DN*		ASLD332222DN*	_
3-position	2NO-2NC	2	NO			•	100/110V AC	ASLD31622DN*	ASLD311622DN*	ASLI	D321622	:DN*		ASLD331622DN*	RG
	(22)	3	NC				200/220V AC	ASLD32622DN*	ASLD312622DN*	ASLI	D322622	:DN*		ASLD332622DN*	Υ
		4	NC				_	_	_		_			_	A S
		①	NO	•			24V AC/DC	ASLD32240DN*	ASLD312240DN*	ASLI	D322240	DN*		ASLD332240DN*	PW
	4N0	2	NO			•	100/110V AC	ASLD31640DN*	ASLD311640DN*	ASLI	D321640	DN*		ASLD331640DN*	'''
	(40)	3	NO	•			200/220V AC	ASLD32640DN*	ASLD312640DN*	ASLI	D322640	DN*		ASLD332640DN*	
		4	NO			•		_	_		_			_	]
		0	NC				24V AC/DC	ASLD32204DN*	ASLD312204DN*	ASLI	D322204	DN*		ASLD332204DN*	]
	4NC	2	NC				100/110V AC	ASLD31604DN*	ASLD311604DN*	ASLI	D321604	DN*		ASLD331604DN*	]
	(04)	3	NC				200/220V AC	ASLD32604DN*	ASLD312604DN*	ASLI	D322604	DN*		ASLD332604DN*	]
		4	NC				_	_	_		_			_	]

- Specify a color code in place of \* in Part No.
- R (red), G (green), Y (yellow), A (amber), S (blue). PW (pure white)
  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.
- Turn the operator to each position accurately.
  See B-309 for gold-plated silver contacts.
- See B-314 for bottom view.

TWN

Miniature Pilot Lights

Flush Silhouette

ø16 ø22

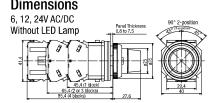
ARN

CS

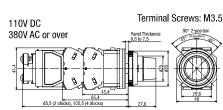
**Contact Block Mounting Position Dimensions** 











Terminal Screws: M3.5 Terminal cover: integrated

All dimensions in mm.

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

#### **ASBD2 Selector Pushbuttons**

Package Quantity: 1

	Shape	Contact Configuration	Circuit Code	Con Blo		Left	Ring F	osition	Right	Button Color Code	Ring Operator	
				Mounting Position Contact Pushbutton Normal Push Normal Push		5545	Part No. (Ordering No.)					
	Ring Operator (90°2-position) ASBD2	11	A03	0	NO		•		•	B G R	ASBD211N-A03*	
-		(1NO-1NC)	7.00	2	NC	•				R Y	7.655217117.66	
-				①	NO		•		•		ASBD222N-A08*	
-			A08	2	NC	•						
			7.00	3	NO		•		•			
				4	NC	•						
-				0	NO NO		•		•			
_			☆ C10	3	NO NC				•		☆ ASBD222N-C10*	
			610	4	NC NC		_			B G R	ASBUZZZN=C10*	
-				0	NO		▔					
-		22		2	NO				•			
_		(2NO-2NC)	D10	3	NC	•					ASBD222N-D10*	
				4	NC			•		Υ		
-				①	NO		•					
-			₹^?	2	NO				•		☆	
-			☆ E10	3	NC						ASBD222N-E10*	
-				4	NC							
-				0	NO				•			
_			☆ F10	2	NO NO		•	_			<b>A</b>	
			F10	3	NC			•			ASBD222N-F10*	
				4	NC							

Flush Silhouette

ø16

ø30

Miniature

Pilot Lights

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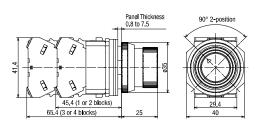
- Specify a color code in place of \* in Part No. B (black), G (green), R (red), Y (yellow)
- Bezel (metal): Chrome-plated
- Circuit codes E and F: The right and left NC contact blocks on circuit code E or F may overlap each other while turning the ring operator. The NO and NC contact blocks on circuit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

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



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

All dimensions in mm.



Terminal Screws: M3.5

Terminal cover: integrated

Control Boxes

Emergency Stop Switches Enabling Switches Safety Products **Explosion Proof** Terminal Blocks Relays & Sockets Circuit

Protectors

Controllers

Operator

Interfaces

Sensors

AUTO-ID

Power Supplies LED Illumination

# Pilot Lights (Round)

Dankaga	Quantity: 1	
rachauc	Qualitity. I	

Shape	Illumination	Base	Operating Voltage	Part No. (Ordering No.)	Color Code	LED Lamp Part No.
Round APD1			24V AC/DC	APD122DN*	R, G, Y, A, S, PW	LSRD-2
	LED	BA9S	100/110V AC	APD116DN*	R, G, Y, A, S, PW	LSRD-6
(24V AC/DC)			200/220V AC	APD126DN*	R, G, Y, A, S, PW	LSKD-0

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

- Specify a color code in place of \* in Part No.
   R (red), G (green), Y (yellow), A (amber), S (blue), PW (pure white)
   Pound bezel (metal): Chrome-plated
   Pilot lights have an LED lamp installed.
   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.
   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

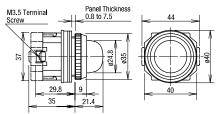
Note: DC-DC converter types are not approved by UL and CSA, and not CE compliant.

• See B-314 for bottom view.

#### **Dimensions**

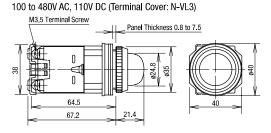
#### Round, LED illuminated

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



Terminal Screws: M3.5

All dimensions in mm.



Terminal Screws: M3.5

ø22

ø16

Miniature

Flush Silhouette

Pilot Lights

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• See B-349 for wiring.

### ø30 TWN/TWND Series

### Nameplates

Model

Legend

Blank

With

Legend

Blank

Material

Aluminium 1.2 mm thick

background

Aluminium

Black

1.2 mm thick

White letters on black

Part No.

NA-0

NA-□

NAL<sub>0</sub>

Ordering No.

NA-OPN10

NA
PN10

NALOPN10

NA-□

NALO

NA-0

NA APEM Control Boxes Emergency Stop Switches Enabling Switches NALO Safety Products Explosion Proof Terminal Blocks Relays & Sockets

> For TWN/TWND Specify a legend code in place of  $\square$  in the Ordering No.

For TWN/TWND

### Legends

Circuit

Protectors

Power Supplies

LED Illumination Controllers Operator Interfaces Sensors AUTO-ID

□: Code	Legend
1	ON
2	0FF
3	START
4	ST0P
31	OFF ON
35	HAND AUTO
53	HAND OFF AUTO

**Shape and Engraving Area** 

Flush Silhouette

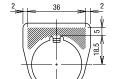
ø22

Miniature

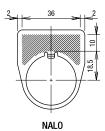
Pilot Lights



CS



NA



All dimensions in mm.

Package

Quantity

1

10

1

10

1

10

Dimensions (mm)

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

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

APEM

Control Boxes

Emergency
Stop Switches

Enabling
Switches

Safety Products

Explosion Proof

Terminal Blocks

Relays & Sockets

Circuit
Protectors

Power Supplies

LED Illumination

Controllers

Operator
Interfaces

Sensors

AUTO-ID

Flush Silhouette

ø16 ø22

Miniature
Pilot Lights

ARN

### Accessories

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

Accessories All dimensions in mm.

Button Cove Pushbuttons	S
6	APEM
	Switches & Pilot Lights
	Control Boxes
	Emergency Stop Switches
	Enabling Switches
	Safety Products
	Explosion Proof
	Terminal Blocks
	Relays & Sockets
For TWI	Circuit Protectors
Dust-proof F	Power Supplies
for Jumbo N	LED Illumination
4	Controllers
•	Operator Interfaces
D II 1 0	Sensors
Padlock Cov	AUTO-ID
	Flush Silhouette
1	ø16
4	ø22
	ø30
	Miniature
	Pilot Lights
Padlock Cov Key Selector	
	TWN
	TWND
	ARN
1	CS

Shape	Material	Pa	rt No.	Ordering	Package	Remarks
Button Cover for Extended	Matorial			No.	Quantity	Metallic bezels covered with a
Pushbuttons	Nitril rubber	Black Red	0C-11B 0C-11R	0C-11B 0C-11R		rubber boot to enhance waterproof characteristics.  • Button is not included. Applicable to extended pushbuttons only.
	Bezel: diecast zinc	Green	0C-11G	0C-11G	1	Oil-proof     Operating temperature:     -5 to +60°C.
For TWN/TWND		Yellow	0C-11Y	0C-11Y		
For flush pushbuttons	EDDM rubbor	0C-12 <sup>-</sup>	1	0C-121	1	Used to cover and protect push- buttons where units are subject to water splash. Not suitable for outdoor use or where the units are
For TWN/TWND For TWN/TWND	EPDM rubber	0C-12	2	0C-122	1	Subject to oil splash.    Part No.
Dust-proof Rubber Cover for Jumbo Mushrooms  For TWN/TWND	Nitril rubber (black)	OC-4G	N	OC-4GN	1	Used for ABN4G and ABGD4 pushbuttons.  Panel Thickness 1.2 to 5.5    32  32
Padlock Cover  Polyarylate			OL-KL1	1	Used to protect pushbuttons and illuminated pushbuttons (momentary/maintained) with 24 mm max. height from the panel, and selector switches (knob operator).      Not used for the following models.      Pushbuttons     Mushroom with full shroud     Mushroom Jumbo mushroom with shroud     Illuminated     Pushbuttons     With half shroud     With full shroud     Selector Switches     Lever operator     Key selector switch with key installed	
Padlock Cover for Key Selector Switches  For TWN/TWND	Metal Paint: red (zinc-plated brass)	HS9Z-I	PC30	HS9Z-PC30	1	Applicable model     Key selector switches ASN□K/ASD□K     See padlock cover catalog for operating instruction.      Material SPCC     1.6 mm-hick     Red pant     Red p
For Flush Pushbuttons						Used to protect flush pushbuttons from inadvertent operation.     Can be easily attached using the locking ring.
For TWN/TWND	Metal (zinc-plated brass)			OL-C	1	42.5 Wounting Centers 25 On min. 1.6.6 1.1.4 1.1
L LANIA LANIA LANIA		<u> </u>		l		

Shape  Metallic Bezel			Meterial Park No. Ordania No. Package			ot Li	
		Material	Part No.	Ordering No.	Quantity	Remarks	ot Lights
Metallic Bezel		Metal				a Connect has used with the last	APEM
		(diecast zinc: chrome-plated)	0G-11	OG-11PN02	2	Cannot be used with pin lock, selector pushbuttons, and monolever units.	Switches & Pilot Lights
ø35/ø26, height 9 For	TWN/TWND						Control Boxes  Emergency
Plastic Bezel							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	OGP-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 W35		0G-81	0G-81PN02	2	Specify a color code in place of *.     B (black), G (green), R (red), W (white), Y (yellow)	Power Supplies
	(37.6) H9	Metal				• Use with TWDN series discost zinc	LED Illumination
		(diecast zinc:				switches and pilot lights.	Controllers
2	② Extended	chrome-plated)				• cannot be used with han-shrouds.	Operator Interfaces
	W35 (37.6)		0G-82	0G-82	1		Sensors
For TWDN (37.6) H16 Clear Plastic Shroud for Flush Pushbuttons							AUTO-ID
Clear Plastic Shroud for Flush Push	buttons						
							Flush Silhouette
		Acrylic (clear)	0GP-13	0GP-13PN02	2		ø16
41 10							ø22
p35, height 14 For TV						Clear plastic full shroud	ø30
Clear Plastic Shroud for Extended F	Pushbuttons					oroai piaodo fall official,	Miniature
							Pilot Lights
		Acrylic (clear)	OGP-14	0GP-14PN02	2		
ø35, height 20.6	For TWN						TWN
Clear Plastic Shroud for Illuminated Pu	ushbuttons						TWND
9							ARN
		Acrylic (clear)	0GP-1411	0GP-1411	1	Buttons may protrude slightly depending	CS
		, (,				on the panel thickness,	
Shroud: ø35, height 20.6 Metal Nut Ring: height 4	For TWN						
Metal Nut Ring for Illuminated Push	nbuttons						
		Metal (diecast zinc)	OL-11	OL-11PN05	5	Metal nut ring for OGP-1411 only.	

ø35, height 4

For TWN

Accessories All dimensions in mm.

	F
APEM	
Switches & Pilot Lights	
Control Boxes	
Emergency Stop Switches	
Enabling Switches	
Safety Products	l
Explosion Proof	
Terminal Blocks	
Relays & Sockets	
Circuit Protectors	
Power Supplies	
LED Illumination	
Controllers	Ļ
Operator Interfaces	<u>ا</u> ا
Sensors	
AUTO-ID	
	L
Flush Silhouette	5
ø16	
ø22	
ø30	
Miniature	l
Pilot Lights	
TWN	
TWND	h
ARN	
CS	

S	Shape	Material	Part No.	Ordering No.	Package Quantity	Color Code *
Button for Pushbuttons	① Flush ø24.6, height 4		ABN1BN-*	ABN1BN-*PN05	5	
	② Extended ø24.6, height 9		ABN2BN-*	ABN2BN-*PN05	5	B (black), G (green), R (red), Y (yellow), S (blue), W (white)
3	③ Mushroom ø40, height 16.2	Polyacetal  AS resin  Polyacetal  AS resin  AS resin	ABN3BN-*	ABN3BN-*PN02	2	
4	④ Jumbo Mushroom ø65, height 23,2		ABN4BN-*	ABN4BN-*	1	B (black), G (green), R (red), Y (yellow), S (blue)
\$	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)
	© ø40 Pushlock Turn Reset (AVN3, AVD3) ø40, height 18.5	40	AVN3B-*	AVN3B-*	1	R (red),Y (yellow)
For TWN/TWND	② ø40 Push Turn Lock (AJN3, AJD3) ø40, height 18.5	AS resin	AJN3B-*	AJN3B-*	1	B (black), G (green), R (red), Y (yellow)
Lens for Illuminated Pushbuttons	① Extended (ALN2, ALD2) ø24, height 18.5	•••	ALN2LD-*-K	ALN2LD-*-KPN05	5	R (red), G (green), S (blue), Y (yellow), A (amber), W (white) Specify W for PW (pure white) illumination.
② For TWN/TWND	② ø40 Pushlock turn reset (AVLN3, AVLD3) ø40, height 18.5	AS resin	AVLN3L-R-K	AVLN3L-R-KPN02	2	R (red) only
Selector Operator ①	① Knob operator ø25, height 20.5		ASNHT-*	ASNHT-*PN02		
2	② Lever operator ø25, height 20.5, length 37.5		ASNHL-*	ASNHL-*PN02	2	B (black), G (green), R (red)
(3) (4)	3 Color insert Width 21, depth 5, height 18		TW-HC1*	TW-HC1*PN05	5	B (black), G (green), R (red), Y (yellow), S (blue), W (white)
For TWN/TWND	Knob for illuminated selector switch (ASLN, ASLD)     Ø25, height 28	AS resin	ASLNHD-*-K	ASLNHD-*-K	1	G (green), R (red), S (blue), A (amber), W (white), Y (yellow) Specify W for PW (pure white) illumination.
Lens for Pilot Lights	① Round (APN1, APD1) ø24.8, height 28, M20		APN106LN-*-K	APN106LN-*-KPN05	5	R (red), G (green), Y (yellow) A (amber), W (white), S (blue)
	For TWN/TWND					Specify W for PW (pure white) illumination.
2	② Rectangular (UPQN4) Width 36, depth 30, height 8.5	AS resin	UPQN406LD-*-K	UPQN406LD-*-KPN05	5	R (red), G (green), Y (yellow), A (amber), C (clear), S (blue) Specify C for PW (pure white) illumination.
3	For TWN  ③ Square extended (UPQN3B) □25, height 26.5 For TWN		UPQN06LD-*-K	UPQN06LD-*-KPN05	5	R (red), G (green), S (blue), Y (yellow), A (amber), W (white) Specify W for PW (pure white) illumination.
Marking Plate For TWN	Rectangular pilot lights (UPQN4) Width 29.8, depth 23.8, thickness 2	Acrylic	UPQN406N-W	UPQN406N-WPN05	5	W (white) only See B-346 for engraving area.

Maintenance Parts All dimensions in mm.

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

### **Maintenance Parts**

ghts	Shape	Description	Part No.	Ordering No.	Quantity	Remarks	
0,	Contact block		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	1	Housing color: Blue Push rod color: Black	
Control Boxes		(early make)	HW-U10R-MAU	HW-U10R-MAU	I	MAU has gold contacts	
Emergency Stop Switches		LB contact	HW-U01R	HW-U01R	1	Housing color: Reddish purple	
Enabling Switches	For TWN/TWND, 11g approx.	(late break)	HW-U01R-MAU	HW-U01R-MAU	'	Push rod color: White MAU has gold contacts	
Safety Products	Dummy Block					• For HW-U contact blocks	
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	Full Voltage Adapter For Illuminated Switches (*1)					Applicable model:     Illuminated pushbuttons	
Circuit Protectors		Dobrowido	HW-GA1N	HW-GA1NPN02		Illuminated selector switches	
Power Supplies		Polyamide	HW-GAIN	HW-GATNPNUZ	2	Applicable load (LED lamp)     LSRD-6, LSTD-6 (6V AC/DC)	
	For TWN/TWND 12g approx.					LSRD-1, LSTD-1 (12V AC/DC)	
LED Illumination	Transformer Unit					LSRD-2, LSTD-2 (24V AC/DC)	
Controllers	For Illuminated Switches (*1)	100/110V AC	HW-T16	HW-T16	1	Applicable model:     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.	200/220V AC	1100-120	11W-120	'	LSRD-6, LSTD-6 (6V AC/DC)	
AUTO ID	Transformer Unit	100/110V AC	TWR-016B	TWR-016B	1	Mounting screws are not included.	
AUTO-ID	For Pilot Lights (*1)					See B-347 for mounting screws.	
	For TWN/TWND	200/220V AC	TWR-026B	TWR-026B	1	Applicable load (LED lamp)     LSRD-6, LSTD-6 (6V AC/DC)	
	*1) For use as maintenance parts. Do not use	for overencian as	adallina numasa-			, , ,	

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

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

Model	Operating	Currei	nt Draw	Dowt No.	Oudovina No	Color Code	Package	Daga
Model	Voltage	DC	DC	Part No.	Ordering No.	Color Code	Quantity	Base
LSRD	CV AC/DC	101	1.4	LCDD C	LSRD-6		1	
	6V AC/DC	10mA	14mA	LSRD-6	LSRD-6PN10		10	
12V AC/DC	7mA	Om A	LSRD-1	LSRD-1		1	BA9S	
	/IIIA	8mA	LOND-1	LSRD-1PN10	_	10	/13	
	24V AC/DC	7mA	8mA	LSRD-2	LSRD-2		1	
	24V AC/DC				LSRD-2PN10		10	
LSTD	6V AC/DC	7mA (R, A)	8mA (except S)	LSTD-6*	LSTD-6*		1	
	OV AC/DC	6V AC/DC 5.5mA (G, PW) 7	7mA (S)	L31D=0*	LSTD-6*PN10		10	BA9S - /13
10 7	12V AC/DC	10mA (except S)	11mA (except S)	LSTD-1*	LSTD-1*	R, G, A, S, PW	1	
	12V AC/DC	8mA (S)	9mA (S)	LS1D-1*	LSTD-1*PN10		10	
	24V AC/DC	10mA (except S)	11mA (except S)	LSTD-2*	LSTD-2*		1	
24	24V AG/DG	8mA (S)	9mA (S)	LS1D-2*	LSTD-2*PN10		10	

- Only one color is available for LSRD so there are no codes to specify the color in the part no.
  Specify a color code in place of \* in Part No. R (red), G (green), A (amber), S (blue), PW (pure white)
  Use a PW (pure white) LED for Y (yellow) illumination.
- When replacing the LED with LSRD, the lens must also be replaced (see B-341).

### **Maintenance Parts**

### LED lamps for replacing incandescent lamps

	·	<u> </u>	<u> </u>						
Incandescent Lamp									
	Model (mm)	Part No.	Operating Voltage	Lamp Rating	Base				
LS	)	LS-6	6V AC/DC	1W (6V)		1			
	-1 0)	LS-8	12V AC/DC	1W (18V)	BA9S	l			
	Bulb: ø11	LS-2	18V AC/DC	1W (24V)	/13	l			
	Length: 23	LS-3	24V AC/DC	1W (30V)					

	Replacement LED Lamp			
	Part No.   Color Code		Operating Voltage	Base
	LSRD-6		6V AC/DC	
<b>&gt;</b>	LSRD-1		12V AC/DC	BA9S
	LSRD-2	_	24V AC/DC	/13
	LSRD-2		24V AC/DC	

- Only one color is available for LSRD so there are no codes to specify the color in the part no.
- When replacing incandescent lamps to LSRD, the lens must also be replaced (see B-341).

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

#### APEM

Control Boxes

Emergency Stop Switches Enabling Switches

Safety Products

**Explosion Proof** 

Terminal Blocks

Relays & Sockets Circuit

Protectors Power Supplies

LED Illumination

Controllers Operator

Sensors

AUTO-ID

Flush Silhouette

ø16

ø22

Miniature Pilot Lights

Transformer

Shape	Operating Voltage	Voltage Range	Part No. (Ordering No.)	Applicable Load
For 6V	100/110V AC	±10%	TWR516	LSRD-6, 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),
AP.	400/440V AC	±10%	TWR546	PW (pure white)
For 24V	100/110V AC	±10%	TWR512	LSRD-2, LSTD-2* (24V AC/DC, LED lamp)
	200/220V AC	±10%	TWR522	Specify a color code in place of * in Part No. R (red), G (green), A (amber), S (blue),
	400/440V AC	±10%	TWR542	PW (pure white)

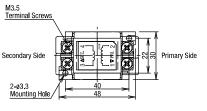
• Terminal cover (TWR-VL3) is installed on transformers as standard.

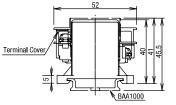
**Specifications** 

•		
Part No.	TWR5□6	TWR5□2
Rated Voltage	100/110V AC, 200/220V AC,	400/440V AC (50/60 Hz)
Current Draw	2.4VA	
Rated Insulation Voltage	600V	
Insulation Resistance	100MΩ minimum (500V DC	megger)
Operating Temperature	-30 to 60°C (no freezing)	
Operating Humidity	35 to 85% RH (no condensation)	
Storage Temperature	-40 to +80°C (no freezing)	
Vibration Resistance	Damage limits: 30 Hz, amplitude 1.5 mm	
Vibration Resistance	Operating extremes: 5 to 55 Hz, amplitude 0.5 mm	
Shock Resistance	1000 m/s <sup>2</sup>	
Shock Resistance	100 m/s <sup>2</sup>	
Dielectric Strength	2500V AC, 1 minute	
Terminal Screw	M3.5	
Applicable Wire	2 mm² maximum, 2 wires maximum	
Weight	87g	

## **Dimensions**

All dimensions in mm.









ARN

CS

## Accessories

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

#### ø30 TWN/TWND Series

### Safety Precautions

- Turn off the power to the TWN/TWND switches & pilot lights before starting installation, removal, wiring, maintenance, and starting installation, removing, wiring, maintenance, and inspection of the products. Failure to turn power off may cause electrical shocks or fire hazard.
- To avoid a burn on your hand, use the lamp holder tool when replacing lamps.
- For wiring, use wires of a proper size to meet the voltage and current requirements. Tighten the terminal screws to the recommended tightening torque (see B-349). Failure to tighten terminal screws may cause overheat and

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

### APFM

Control Boxes

Emergency Stop Switches Enabling Switches

Safety Products

Explosion Proof

Terminal Blocks

Relays & Sockets Circuit Protectors

Power Supplies

LED Illumination

Controllers Operator Interfaces

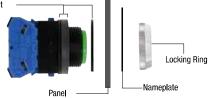
Sensors

AUTO-ID

### **Operating Instructions**

### Panel Mounting

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



### 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.



### Flush Silhouette

Pilot light (except for square type)

ø30

Miniature

Pilot Lights

ARN

CS

### Applicable Model

# TWN/TWND series

(flush/extended/mushroom/jumbo mushroom) Illuminated pushbutton (extended/mushroom)

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	_	

#### TWN/TWND series

Pushbutton (extended with half shroud) Illuminated pushbutton (extended with half shroud)

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

#### TWN/TWND series

Pushbutton (extended with full shroud)

ĺ			
	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	_

### TWN/TWND series

Illuminated pushbutton (extended w/full shroud) Mushroom with full shroud

Panel	Rubber Washer		
Thickness (mm)	1.5 mm-thick	3.0 mm-thick	
Supplied	2 pieces	1	
0.8 to 3.5	2 pieces	1	
2.0 to 3.5	1	1	
3.5 to 5.0	_	1	
5.0 to 6.0 (6.5)*1	1	_	

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

#### TWND series

Pin lock pushbutton

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

#### TWN/TWND series

Other models (excluding square)

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

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

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

### Notes for Panel Mounting

Locking ring wrench recommended torque

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

#### Locking ring wrench

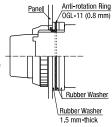
Locking ring wrench (OR-12) can be used to tighten the bezel. Use side B to tighten. Side B: For TWN/TWND series Side A: TWS series



### Installing the Anti-rotation Ring (OGL-11)

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

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



#### Replacement of LED Lamps

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

#### How to Remove

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



#### How to Install

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



### **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.



Turn the lens counterclockwise to remove.



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

#### Marking Plate on Pilot Lights

#### Rectangular Marking Plates (for UPQN4)

#### Removing

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



#### **Engraving Area**

Material: Acrylic resin Size:

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

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

**Illuminated Pushbuttons** 

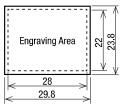
ring in the switch locks the shroud.

Nut ring

**Half Shroud Parts** 

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





Shroud

**Shroud Locking Ring** 

# APFM

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AUTO-ID

Flush Silhouette

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Pilot Lights

### **Tightening the Half Shroud**

Installing the Half Shroud

(see B-345).

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

① Adjust the thickness of the rubber washers according to the panel thickness

(4) Install the half shroud on the upper side of the switch, and tighten the shroud

(5) Make sure that the shroud is securely fastened inside the shroud locking ring,

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.

Installing the Half Shroud on Extended Pushbuttons/

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





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

### **Operating Instructions**

#### **Selector Switches**

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

APFM

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

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**Key Selector Switches** 

### Installing the Operator on Selector Switches

① Install the switch with TOP marking facing upward, so that the operator can be installed on the switch in the correct direction.



@ On non-illuminated models, install the color insert in the middle of operator. The color insert also serves to retain the operator.



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

Installation of Selector Operators



# Flush Silhouette

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Miniature

Pilot Lights







90° 2-position



45° 3-position

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

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).





Standard positions

### Removal

#### Removing the Operator from Selector Switches



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



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

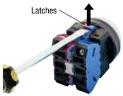
### Removing the Operator from Illuminated Selector Switches



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

### Removing the Contact Blocks/Full Voltage Adapters

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



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



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

#### Transformer Units and DC-DC Converters for Pilot Lights Unfasten the two mounting screws on the back to remove the transformer unit/ DC-DC converter.



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

## **Operating Instructions**

### **Applicable Wiring**

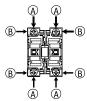
(1) Contact Block 0.3 to 3.5 mm<sup>2</sup> (solid wire 0.5 to 2.0 mm)

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

A and B show the wiring direction to the terminals.

#### <Contact Block>

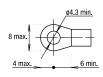
Terminal screws M3.5 (spring-up)

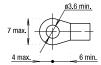


#### **Applicable Crimping Terminal**

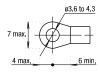
Be sure to use an insulation tube or cover on the crimping part of the crimping terminal to prevent electrical shocks.

Crimping terminal for  ${\Bbb A}$ 





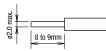
#### IP20 crimping terminal



# Crimping terminal for ®



#### Solid wire



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

#### (1)-1 IP20 Degree of Protection

The terminal of HW-U contact block has IP20 degree of protection. When IP20 is required for wiring, observe the followings.

Make sure to insert the crimping terminal or wire to the terminal straight and fully.

### When using a crimping terminal

Use IP20 crimping terminals.

### When using a solid wire

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

#### When using a stranded wire

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

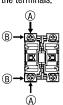
### (2) Power Unit 0.3 to 2 mm<sup>2</sup> (solid wire 0.5 to 1.6 mm)

#### Illuminated pushbutton/illuminated selector switch

A and B show the wiring direction to the terminals.

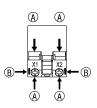
### <Full Voltage Adapter>

Terminal screws M3.5 (spring-up)



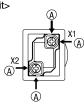
### <Transformer Unit>

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



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

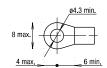
110V DC, 380V Terminal screws M3.5 (spring-up)



### **Applicable Crimping Terminal**

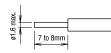
Be sure to use an insulation tube or cover on the crimping part of the crimping terminal to prevent electrical shocks.

Crimping terminal for (A)





#### 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.

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#### Flush Silhouette

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### TWN TWND

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#### ø30 TWN/TWND Series

### **Operating Instructions**

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

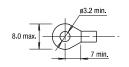
#### Applicable crimping terminal

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

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

Terminal screws M3 (self-lifting)

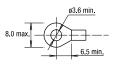
(Arrows show the wiring direction)





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

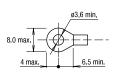
Terminal screws M3.5 (self-lifting)





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

Terminal screws M3.5 (self-lifting)





- Install the terminal cover supplied with the pilot light. The connection terminal
- When selecting mounting centers and crimping terminals, take sufficient insulation distance into consideration.

### **Cautions for Wiring**

### About using DC-DC Converter Unit

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

Terminal No.	Polarity
X1	Positive
X2	Negative

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

### Recommended Tightening Torque Number of Wires

Unit		Wire	Number of Wires	Recommended Tightening Torque (Nm)	Terminal Screw
	Crimp	oing Terminal	2	1.0 to 1.3	<b>M</b> 3.5
HW-U Contact Block	Solid	ø0.5 to 1.6 mm (AWG14 to 22)	2	1.0 to 1.3	
	Wire	ø1.7 to 2.0 mm (AWG12)	1	1.2 to 1.3	
	Stranded Wire	0.3 to 2.0 mm <sup>2</sup> (AWG14 to 22)	2	1.0 to 1.3	
		2.1 to 3.5 mm <sup>2</sup> (AWG12)	1	1.2 to 1.3	
	Crimp	oing Terminal		1.0 to 1.3	M3.5
Illuminated Unit (*1)	Solid Wire	Ø0.5 to 1.6 mm (AWG14 to 22)	2		
	Stranded Wire	0.3 to 2.0 mm <sup>2</sup> (AWG14 to 22)			
Pilot Light	Crimp	oing Terminal			
	Solid Ø0.5 to 1.6 mm Wire (AWG14 to 22)		2	0.6 to 1.0 (M3.0)	
	Stranded Wire	0.3 to 2.0 mm <sup>2</sup> (AWG14 to 22)		1.0 to 1.3 (M3.5)	

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

## Flush Silhouette ø16 ø22

ø30

Miniature Pilot Lights

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Flush Silhouette

ø16 ø22

Miniature Pilot Lights

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## ø30 Selector Switches / Pushbuttons Part Number Replacement List

	Old Series	3	Now Part No. (40)	Dom: 1
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	(+0)
Operator		ASN111	ASN320N	(*2)
		ASN122	ASN340N	(*2)
		ASN15S	ASN322N	
		ASN17S	ASN302N	(*1)
		ASN18S	ASN304N	(*1)
		ASN211	ASN3220N	(*2)
		ASN222	ASN3240N	(*2)
		ASN25S	ASN3222N	
		ASN27S	ASN3202N	(*1)
	45°	ASN28S	ASN3204N	(*1)
	3-position	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	\ ''
		ASN2073	ASN3104N	
		ASN3L10	ASN2L10N	
		ASN3L11	ASN2L11N	
		ASN3L20	ASN2L20N	
		ASN3L22	ASN2L22N	
		ASN3L7S	ASN2L2RN-118	
		ASN4L10	ASN21L10N	
		ASN4L11	ASN21L11N	
		ASN4L20	ASN21L20N	
	90°	ASN4L22	ASN21L22N	
		ASN4L7S	ASN21L2RN-118	
	2-position	ASN30L10	ASN2L01N	(*2)
		ASN30L11	ASN2L11N	(*1)
ACALI		ASN30L20	ASN2L02N	(*2)
ASN-L		ASN30L22	ASN2L22N	(*1)
Lever		ASN30L7S	ASN2L2RN-118	(*1)
Operator		ASN40L10	ASN22L10N	T
		ASN40L11	ASN22L11N	
		ASN40L20	ASN22L20N	
		ASN40L22	ASN22L22N	
		ASN40L7S	ASN22L2RN-168	
		ASN1L11	ASN3L20N	(*2)
		ASN1L22	ASN3L40N ASN3L22N	(*2)
		ACMILI TO	L ASNIKI 22NI	1
	450	ASN1L5S		14.01
	45°	ASN1L7S	ASN3L02N	(*1)
	45° 3-position	ASN1L7S ASN1L8S	ASN3L02N ASN3L04N	(*1)
		ASN1L7S ASN1L8S ASN2L11	ASN3L02N ASN3L04N ASN32L20N	(*1) (*2)
		ASN1L7S ASN1L8S	ASN3L02N ASN3L04N	(*1)

Model	Old Series Operator	Old Part No.	New Part No. (*3)	Remarks
model	oporator	ASN2L7S	ASN32L02N	(*1)
		ASN2L8S	ASN32L04N	(*1)
		ASN10L11	ASN3L20N	(*1) (*2)
		ASN10L22	ASN3L40N	(*1) (*2)
ASN-L		ASN10L5S	ASN3L22N	(*1)
Lever	45°	ASN10L7S	ASN3L02N	
Operator	3-position	ASN10L8S	ASN3L04N	
Operator		ASN20L11	ASN31L20N	(*1) (*2)
		ASN20L22	ASN31L40N	(*1) (*2)
		ASN20L5S	ASN31L22N	(*1)
		ASN20L7S	ASN31L02N	\ ' <i>'</i>
		ASN20L73	ASN31L04N	
				-
		ASN3K10□	ASN2K10N□-N024401	
		ASN3K11□	ASN2K11N□-N024401	
		ASN3K20□	ASN2K20N□-N024401	
		ASN3K22□	ASN2K22N□-N024401	
		ASN3K7S□	ASN2K2RN□-118-N024401	
		ASN4K10	ASN21K10N-N024401	
		ASN4K11	ASN21K11N-N024401	
		ASN4K11	ASN21K20N-N024401	
		ASN4K22	ASN21K22N-N024401	
	90°	ASN4K7S	ASN21K2RN-118-N024401	
	2-position	ASN30K10□	ASN2K01N□-N024401	(*2)
		ASN30K11□	ASN2K11N□-N024401	(*1)
		ASN30K20□	ASN2K02N□-N024401	(*2)
		ASN30K22□	ASN2K22N□-N024401	(*1)
		ASN30K7S□	ASN2K2RN□-118-N024401	(*1)
				(1)
		ASN40K10	ASN22K10N-N024401	-
		ASN40K11	ASN22K11N-N024401	
		ASN40K20	ASN22K20N-N024401	
40111/		ASN40K22	ASN22K22N-N024401	
ASN-K		ASN40K7S	ASN22K2RN-168-N024401	
Key		ASN1K11□	ASN3K20N□-N024401	(*2)
Selector		ASN1K22□	ASN3K40N□-N024401	(*2)
		ASN1K5S□	ASN3K22N□-N024401	(*1) (*2)
		ASN1K7S□	ASN3K02N□-N024401	(*1) (*2)
				(*1) (*2)
		ASN1K8S	ASN3K04N - N024401	
		ASN2K11□	ASN32K20N□-N024401	(*2)
		ASN2K22□	ASN32K40N□-N024401	(*2)
		ASN2K5S□	ASN32K22N□-N024401	(*1) (*2)
		ASN2K7S□	ASN32K02N□-N024401	(*1) (*2)
	45°	ASN2K8S□	ASN32K04N□-N024401	(*1) (*2)
	3-position	ASN10K11□	ASN3K20N□-N024401	(*1) (*2)
	·	ASN10K22□	ASN3K40N□-N024401	(*1) (*2)
		ASN10K5S□	ASN3K22N□-N024401	(*1) (*2)
		ASN10K7S□	ASN3K02N□-N024401	(*2)
		ASN10K7S		
			ASN3K04N - N024401	(*2)
		ASN20K11□	ASN31K20N□-N024401	(*1) (*2)
		ASN20K22□	ASN31K40N□-N024401	(*1) (*2)
		ASN20K5S□	ASN31K22N□-N024401	(*1) (*2)
		ASN20K7S□	ASN31K02N□-N024401	(*2)
		ASN20K8S□	ASN31K04N□-N024401	(*2)
		ASTN3211	ASN211N	<u> </u>
	90°	ASTN3222	ASN222N	(*1)
	2-position			<del>  ( ')</del>
	2-h09(()()	ASTN4211	ASN2111N	(4-d)
		ASTN4222	ASN2122N	(*1)
		ASTN1122	ASN322N	
		ASTN1222	ASN322N-311	
		ASTN1340	ASN340N	
ASTN		ASTN1422	ASN322N-209	
Knob		ASTN1520	ASN320N	1
Operator	45°	ASTN1540	ASN340N	(*1)
				+ ( ')
	3-position	ASTN1611	ASN311N-303	-
		ASTN1622	ASN322N-310	
		ASTN2122	ASN3222N	
		ASTN2222	ASN3222N-311	
			ASN3122N	
		ASTN20122	I AGNOTZZN	

 $<sup>\</sup>bullet$   $\square$  : Key removable position code. Specify the same code as the old series.

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

\*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.

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

ᅙ		Old Co	rion		
$\equiv$	Model	Old Se Operator		New Part No. (*3)	Remarks
igh	Wodel	Operator	Old Part No.	ACNOTOON OOO	
ts			ASTN20422	ASN3122N-209	(*1)
	ACTAL		ASTN20520	ASN3120N ASN3140N	(*1)
	ASTN	45°	ASTN20540	ASN3320N	( ')
	Knob Operator	3-position	ASTN5120		
APEM	Operator		ASTN5122	ASN3322N	
Switches &			ASTN5222	ASN3322N-311	
Pilot Lights			ASTN5111	ASN3311N-202	
			ASTN32L11	ASN2L11N	
Control Boxes		90°	ASTN32L22	ASN2L22N	(*1)
Emergency		2-position	ASTN42L11	ASN21L11N	
Stop Switches			ASTN42L22	ASN21L22N	(*1)
Enabling			ASTN11L22	ASN3L22N	
Switches			ASTN12L22	ASN3L22N-311	
Safety Products			ASTN13L40	ASN3L40N	
			ASTN14L22	ASN3L22N-209	
Explosion Proof			ASTN15L20	ASN3L20N	(*1)
			ASTN15L40	ASN3L40N	(*1)
Terminal Blocks	ASTN■L		ASTN16L11	ASN3L11N-303	
	Lever		ASTN16L22	ASN3L22N-310	
Relays & Sockets	Operator	450	ASTN21L22	ASN32L22N	
Circuit		45°	ASTN22L22	ASN32L22N-311	
Protectors		3-position	ASTN201L22	ASN31L22N	
			ASTN202L22	ASN31L22N-311	
Power Supplies			ASTN204L22	ASN31L22N-209	
I ED III			ASTN205L20	ASN31L20N	(*1)
Terminal Blocks Relays & Sockets Circuit Protectors Power Supplies LED Illumination Controllers Operator Interfaces Sensors AUTO-ID Flush Silhouette ø16 ø22 ø30 Miniature			ASTN205L40	ASN31L40N	(*1)
Controllere			ASTN51L20	ASN33L20N	\ ' <i>'</i>
Controllers			ASTN51L22	ASN33L22N	
			ASTN52L22	ASN33L22N-311	
Interfaces			ASTN51L11	ASN33L11N-202	
Sensors			ASTN31E11 ☐	ASN2K11N□	
		90°	ASTN32K11□ ASTN32K22□	ASN2K11N□ ASN2K22N□	(*1)
AUTO-ID		2-position	ASTN42K11	ASN21K11N	( 1)
		2 position	ASTN42K12	ASN21K11N ASN21K22N	(*1)
					( 1)
			ASTN11K22	ASN3K22N□	
			ASTN12K22	ASN3K22N□-311	
Flush Silhouette			ASTN13K40	ASN3K40N□	
			ASTN14K22	ASN3K22N□-209	(+4)
Interfaces Sensors AUTO-ID  Flush Silhouette  ø16 ø22			ASTN15K20□	ASN3K20N□	(*1)
			ASTN15K40	ASN3K40N□	(*1)
ø22	ASTN■K		ASTN16K11□	ASN3K11N□-303	
<b>620</b>	Key		ASTN16K22□	ASN3K22N□-310	
030	Selector	45°	ASTN21K22□	ASN32K22N□	
Ministuro		3-position	ASTN22K22□	ASN32K22N□-311	
Williature			ASTN201K22□	ASN31K22N□	
Pilot Lights			ASTN202K22□	ASN31K22N□-311	
			ASTN204K22□	ASN31K22N□-209	
			ASTN205K20□	ASN31K20N□	(*1)
			ASTN205K40□	ASN31K40N□	(*1)
			ASTN51K20	ASN33K20N	
TWN			ASTN51K22	ASN33K22N	
			ASTN52K22	ASN33K22N-311	
TWND			ASTN51K11	ASN33K11N-202	
			ASN120-T	ASN320N	
ARN	AON T		ASN140-T	ASN340N	
	ASN-T	45°	ASN220-T	ASN3220N	
CS	Knob	3-position	ASN240-T	ASN3240N	
	Operator		ASN2020-T	ASN3120N	(*1)
			ASN2040-T	ASN3140N	(*1)
			ASN1L20-T	ASN3L20N	
			ASN1L40-T	ASN3L40N	
	ASN-T	45°	ASN2L20-T	ASN32L20N	
	Lever	3-position	ASN2L40-T	ASN32L40N	
	Operator	S poolitori	ASN20L20-T	ASN31L20N	(*1)
			ASN20L20-T	ASN31L40N	(*1)
			1101120L40-1	AUTOTE TON	/ /

<ul> <li>Specify a color</li> </ul>	code i	n place	of *	in	Part No.	B (black), G	(green)	, R (red), '	Y (yellow).

	Old Seri		New Part No. (*3)	Remarks
Model	Operator	Old Part No.	. ,	Hemans
		ASN3K10□-T	ASN2K10N□	
		ASN3K11□-T	ASN2K11N□	
		ASN3K20□-T	ASN2K20N□	
		ASN3K22□-T	ASN2K22N□	
		ASN3K7S□-T	ASN2K2RN□-118	
		ASN4K10-T	ASN21K10N	
	90°	ASN4K11-T	ASN21K11N	
	2-position	ASN4K20-T	ASN21K20N	
	-	ASN4K22-T	ASN21K22N	1
		ASN4K7S-T	ASN21K2RN-118	$\perp$
		ASN40K10-T	ASN22K10N	
		ASN40K11-T	ASN22K11N	
		ASN40K20-T	ASN22K20N	
ASN■K-T		ASN40K22-T	ASN22K22N	
Key		ASN40K7S-T	ASN22K2RN-168	
Selector		ASN1K20□-T	ASN3K20N□	
20.00.0		ASN1K40□-T	ASN3K40N□	
		ASN1K5S□-T	ASN3K22N□	
		ASN1K7S□-T	ASN3K02N□	(*1)
		ASN1K8S□-T	ASN3K04N□	(*1)
		ASN2K20□-T	ASN32K20N□	
	45°	ASN2K40□-T	ASN32K40N□	
	3-position	ASN2K5S□-T	ASN32K22N□	
	о розили	ASN2K7S□-T	ASN32K02N□	(*1)
		ASN2K8S□-T	ASN32K04N□	(*1)
		ASN20K20□-T	ASN31K20N□	(*1)
		ASN20K40□-T	ASN31K40N□	(*1)
		ASN20K5S□-T	ASN31K22N□	(*1)
		ASN20K7S□-T	ASN31K02N□	
		ASN20K8S□-T	ASN31K04N□	
		ABN6111□	ASBN211N-A03□	
		ABN6411□	ASBN211N-K04□	(*2)
		ABN9111□	N/A	
		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)
	90°	ABN7322□	ASBN222N-F10□	(*1)
	2-position	ABN9122□	N/A	
		ABN6L111□	ASBN211N-A03□	(*4)
		ABN6L411□	ASBN211N-K04□	(*2) (*4)
		ABN9L111□	N/A	
Selector		ABN6L122□	ASBN222N-A08□	(*1) (*4)
Pushbuttons		ABN6L222□	ASBN222N-C10□	(*1) (*4)
Lever		ABN6L422□	ASBN222N-K15□	(*2) (*4)
Operator		ABN7L122□	ASBN222N-D10□	(*1) (*4)
		ABN7L222□	ASBN222N-E10□	(*1) (*4)
		ABN7L322□	ASBN222N-F10□	(*1) (*4)
		ABN9L122□	N/A	
		ABN8P10	ABD8P10N□	(*5)
		ABN8P01	ABD8P01N□	(*5)
	Pin Lock	ABN8P11	ABD8P11N□	(*5)
	I III LOCK	ABN8P20	ABD8P20N□	(*5)
		ABN8P02	ABD8P02N□	(*5)
		ABN8P22	ABD8P22N□	(*5)
		ABN8P10-TK231-1	ABD8PN10N□	(*5)
Pushbuttons	ON Lock	ABN8P01-TK231-1	ABD8PN01N□	(*5)
i uoributturio	ON Lock Type Pin	ABN8P11-TK231-1	ABD8PN11N□	(*5)
	Lock	ABN8P20-TK231-1	ABD8PN20N□	(*5)
	LUCK	ABN8P02-TK231-1	ABD8PN02N□	(*5)
		ABN8P22-TK231-1	ABD8PN22N□	(*5)
		ATN2310□	AZN310N□	
			4700440	
	Mushroom	ATN2311□	AZN311N□	
	Mushroom Pull	ATN2311□ ATN2320□	AZN311N□ AZN320N□	

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

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

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

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

### **Ordering Terms and Conditions**

Thank you for using IDEC Products.

By purchasing products listed in our catalogs, datasheets, and the like (hereinafter referred to as "Catalogs") you agree to be bound by these terms and conditions. Please read and agree to the terms and conditions before placing your order.

#### 1. Notes on contents of Catalogs

- (1) Rated values, performance values, and specification values of IDEC products listed in this Catalog are values acquired under respective conditions in independent testing, and do not guarantee values gained in combined conditions.
  - Also, durability varies depending on the usage environment and usage conditions.
- (2) Reference data and reference values listed in Catalogs are for reference purposes only, and do not guarantee that the product will always operate appropriately in that range.
- (3) The specifications / appearance and accessories of IDEC products listed in Catalogs are subject to change or termination of sales without notice, for improvement or other reasons.
- (4) The content of Catalogs is subject to change without notice.

#### 2. Note on applications

- If using IDEC products in combination with other products, confirm the applicable laws / regulations and standards,
  - Also, confirm that IDEC products are compatible with your systems, machines, devices, and the like by using under the actual conditions. IDEC shall bear no liability whatsoever regarding the compatibility with IDEC products.
- (2) The usage examples and application examples listed in Catalogs are for reference purposes only. Therefore, when introducing a product, confirm the performance and safety of the instruments, devices, and the like before use. Furthermore, regarding these examples, IDEC does not grant license to use IDEC products to you, and IDEC offers no warranties regarding the ownership of intellectual property rights or non-infringement upon the intellectual property rights of third parties.
- (3) When using IDEC products, be cautious when implementing the following.
  - i. Use of IDEC products with sufficient allowance for rating and performance
  - Safety design, including redundant design and malfunction prevention design that prevents other danger and damage even in the event that an IDEC product fails
  - Wiring and installation that ensures the IDEC product used in your system, machine, device, or the like can perform and function according to its specifications
- (4) Continuing to use an IDEC product even after the performance has deteriorated can result in abnormal heat, smoke, fires, and the like due to insulation deterioration or the like. Perform periodic maintenance for IDEC products and the systems, machines, devices, and the like in which they are used.
- (5) IDEC products are developed and manufactured as general-purpose products for general industrial products. They are not intended for use in the following applications, and in the event that you use an IDEC product for these applications, unless otherwise agreed upon between you and IDEC, IDEC shall provide no guarantees whatsoever regarding IDEC products.
  - Use in applications that require a high degree of safety, including nuclear power control equipment, transportation equipment (railroads / airplanes / ships / vehicles / vehicle instruments, etc.), equipment for use in outer space, elevating equipment, medical instruments, safety devices, or any other equipment, instruments, or the like that could endanger life or human health
  - Use in applications that require a high degree of reliability, such as provision systems for gas / waterworks / electricity, etc., systems that operate continuously for 24 hours, and settlement systems
  - iii. Use in applications where the product may be handled or used deviating from the specifications or conditions / environment listed in the Catalogs, such as equipment used outdoors or applications in environments subject to chemical pollution or electromagnetic interference If you would like to use IDEC products in the above applications, be sure to consult with an IDEC sales representative.

#### 3. Inspections

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

#### 4. Warranty

(1) Warranty period

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

(2) Warranty scope

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

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

#### 5. Limitation of liability

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

### 6. Service scope

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

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

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

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