ø30 Switches and Pilot Lights

TWN TWND Series



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



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



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

ø30 TWN/TWND Selection Guide

Function	Pushbutton						
Catamami	Flu	sh	Ext	ended	Extended wi	th Half Shroud	
Category	Momentary/	Maintained	Momentar	y/Maintained	Momentary	y/Maintained	
Shape		6	*	Diecast Zinc		Diecast Zinc	
Model	ABN1 AON1	ABD1 AOD1	ABN2 AON2	ABD2 AOD2	ABN2G AON2G	ABGD2 AOGD2	
Page	B-310	B-326	B-310	B-326	B-310	B-326	

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

Function	Pushbutton						
Cotogony	Jumbo N	Nushroom	Jumbo Mushroom	with Shallow Shroud	Jumbo Mushroom	with Deep Shroud	
Category	Momentary		Mom	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 Pushl	ock Turn Reset (*1)	Mushroom P	ush Turn Lock	Mushroom Pull		
Shape		Diecast Zinc		Diecast Zinc	6	Diecast Zinc	
Model	AVN3	AVD3	AJN3	AJD3	AZN3	AZD3	
Page	B-312	B-328	B-312	B-328	B-312	B-328	

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

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

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

Function		LED Illuminated Pushbutton						
Category	Mushroom Momentary/Maintained		Mushroom Pushlock Turn Reset (*1)		Mushroom P	ush Turn Lock		
Shape		Diecast Zinc		Diecast Zinc		Diecast Zinc —		
Model	ALN3 AOLN3	ALD3 AOLD3	AVLN3	AVLD3	AJLN3	_		
Page	B-313	B-330	B-314	B-330	B-313			

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

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

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

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

ø30 TWN/TWND Ratings/Specifications

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

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

ø30 TWN Series (plastic)



ø30 TWND Series (Diecast Zinc)



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Ratings and Specifications

Contact ratings

Pushbuttons	Rated insulation voltage	600V
Illuminated Pushbuttons	Rated continuous current	10A
Selector Switches Illuminated Selector Switches Selector Pushbuttons	IIS 1:82111-5-1	AC-15 (A600) DC-13

Contact ratings by utilization category

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

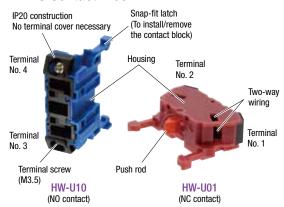
Operating Voltage			24V	48V	50V	110V	220V	440V
	AC	AC-12 Control of resistive loads and solid state loads	10A	_	10A	10A	6A	2A
Operating	50/60 Hz	AC-15 Control of electromagnetic loads (> 72 VA)	10A	_	7A	5A	3A	1A
Current	DC	DC-12 Control of resistive loads and solid state loads	10A	5A	_	2.2A	1.1A	_
	DC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

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

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

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

HW-U Contact Block



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

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

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LED Illuminated Part Specifications

Unit	Unit					amp
Offic	Rated Voltage		Operating Vo	ltage	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			
	115/120V AC (*1)		115/120V AC (*1)	100/	BA9S/13	LODD 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	1		
	480V AC		480V AC			
	110V DC		90 to 140V DC			

Illuminated Part Type and Shape

	l art Typo and t		Pilot Light				
		Illuminate	u OIIIL		FIIUL	Ligiti	
Power Unit	Full voltage adapter	Transfo	Transformer [Full voltage adapter (unibody)	Transformer	DC-DC converter
Rated Voltage	6V, 12V, 24V AC/DC	100 to 240V AC	380V AC min.	110V DC	6V, 12V, 24V AC/DC	100 to 480V AC	110V DC
Polarity	None	None	None	X1 (+) X2 (-)	None	None	X1 (+) X2 (–)
Shape/Terminal	X1 X2	X1 X2		X1 X2	(APN1)		X1 X2

[·] Note the polarity for wiring when connecting to DC-DC converter unit.

Х1

LED Lamp Ratings (LSRD)

LED Lam	Ratings	(LSRD)	X2	
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	e 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	d current circuit protection circuit er 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.

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

^{*2)} Pilot light

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Specifications

Specifications							
Operating Temperature			Non-illuminated: -25 to +70°C (no freezing) Illuminated: -25 to +50°C (no freezing)				
Storage Temperature			-40 to +80°C (no freezing)				
Operating Humidity			45 to 85% RH (no condensation)				
Contact Resistance			50 mΩ maximum (initial value)				
Insulation Resistance			100 MΩ minimum (500V DC megger)				
Dielectric Strength			Between live and dead metal parts: 2,500V AC, 1 minute (Full voltage and pilot lights: 2,000V AC, 1 minute) 2000V AC, (pilot lights: 6V AC/DC, 12V, 24V)				
(ibration Pagistance Damage limits			30 Hz, amplitude 1.5 mm				
Vibration Resistance	Operation extremes		5 to 55 Hz, amplitude 0.5 mm				
Ohaala Daalatawaa	Damage limits		1000 m/s ²				
Shock Resistance	Operation extremes		100 m/s ²				
		Momentary	5,000,000				
	Rughbutton Maintained		500,000 (over 3 contacts: 250,000)				
	Pushbutton Push lock turn reset		500,000				
		Pull	500,000				
Mechanical Life Momentary		Momentary	2,500,000				
(minimum operations) Illuminated pushbutton Maintained		Maintained	500,000 (over 3 contacts: 250,000)				
	Selector switch		500,000				
	Key selector switch		500,000				
	Illuminated selector switch	ch	500,000				
	Selector pushbutton		250,000				
	·	Momentary	500,000 Switching frequency 1800 operations/h, duty ratio 40%				
	Pushbutton	Maintained	500,000 (over 3 contacts: 250,000) Switching frequency 900 operations/h, duty ratio 40%				
		Push lock turn reset	500,000 Switching frequency 900 operations/h, duty ratio 40%				
		Momentary	500,000 Switching frequency 1800 operations/h, duty ratio 40%				
Electrical Life (minimum operations) (*1)	Illuminated pushbutton	Maintained	500,000 (over 3 contacts: 250,000) Switching frequency 900 operations/h, duty ratio 40%				
	Selector switch		500,000 Switching frequency 1200 operations/h, duty ratio 40%				
	Key selector switch		500,000 Switching frequency 1200 operations/h, duty ratio 40%				
	Illuminated selector switch	ch	500,000 Switching frequency 1200 operations/h, duty ratio 40%				
	Selector pushbutton		250,000 Switching frequency 900 operations/h, duty ratio 40%				
		Pushbutton	ABN122: 82g ABN322: 87g				
		Illuminated pushbutton	ALN22222DN: 106g ALN21622DN: 163g				
	TWN series	Selector switch	ASN222N: 83g ASN2K22N: 120g				
		Illuminated selector switch	ASLN22222DN: 106g ASLN21622DN: 163g				
Mainh ()		Pilot light	APN122DN: 46g APN116DN: 125g				
Weight (approx.)		Pushbutton	ABD122: 108g ABD322: 113g				
		Illuminated pushbutton	ALD22222DN: 132g ALD21622DN: 189g				
	TWND series	Selector switch	ASD222N: 110g ASD2K22N: 147g				
		Illuminated selector switch	ASLD22222DN: 133g ASLD21622DN: 190g				
		Pilot light	APD122DN: 75g APD116DN: 152g				

^{*1)} Load condition 220V AC 3A (AC-15)

Degree of Protection

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

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

For harsh environment such as torrid/frigid area

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

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	LED Illumination
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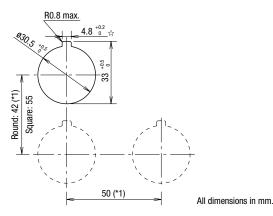
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Emergency

Enabling Switches Safety Products

Mounting Hole Layout/Mounting Centers



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

When high temperature is expected, take necessary measures such as

securing sufficient mounting centers or using a cooling fan. • The $4.8^{+0.2}_{-0}$ mm recess is for preventing rotation and is not necessary when the nameplate or anti-rotation ring is not used.

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

Notes for Ordering

Standard models

- Specify Ordering No. when ordering.
- Specify a color code in place of *
- Pilot lights, illuminated pushbuttons, and illuminated selector switches have an LED lamp installed.
- Pilot lights are equipped with a terminal cover.
- Color codes for units without LED lamps:
- R (red), G (green), A (amber), Y (yellow), S (blue)

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

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

Ordering Information

Pushbutton Flush Silhouette

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Miniature

Pilot Lights

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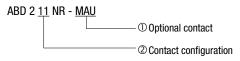
CS

When specifying gold-plated silver contact and contact configuration:

ø22 TWN series (B-310 to B-312)



TWND series (B-326 to B-328)



<Codes> ① Optional contact

MAU: Gold-plated silver

2 Contact configuration

10: 1NO

01: 1NC

11: 1NO1NC

20: 2N0 02: 2NC

2N02NC 22:

40: 4N0

04: 4NC

1N03NC 13:

31: 3N01NC

30: 3N0

3NC 03:

12: 1N02NC

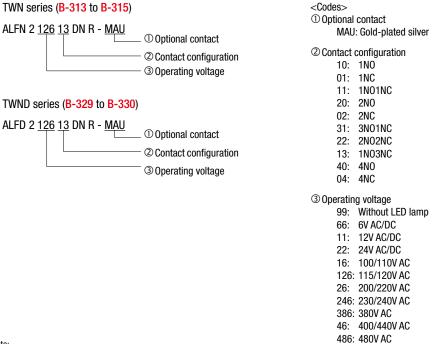
2N01NC

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

Ordering Information

Illuminated Pushbutton

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



Note

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

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

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

Selector Switch

When specifying gold-plated silver contact and contact configuration:

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

ASN 2 11 N - MAU

Optional contact

Codes>

ASD 2 11 N - MAU

Optional contact

Contact configuration

Optional contact

MAU: Gold-plated silver
```

Key removable position code (example)

	Position	Key removable position	Key removable	Part No. Example				
1 0310011		key removable position	position code		TWND series			
		Removable in all positions	(blank)	ASN2K20N	ASN2K20N-N024401	ASD2K20N		
	Maintained	Removal in left only	В	ASN2K20NB	ASN2K20NB-N024401	ASD2K20NB		
-position		Removable in right only	С	ASN2K20NC	ASN2K20NC-N024401	ASD2K20NC		
	Spring return from right	Removal in left only	(blank)	ASN21K20N	ASN21K20N-N024401	ASD21K20N		
	Spring return from left	Removable in right only	(blank)	ASN22K20N	ASN22K20N-N024401	ASD22K20N		
		Removable in all positions	(blank)	ASN3K20N	ASN3K20N-N024401	ASD3K20N		
		Removable in left and center	В	ASN3K20NB	ASN3K20NB-N024401	ASD3K20NB		
		Removable in right and center	С	ASN3K20NC	ASN3K20NC-N024401	ASD3K20NC		
	Maintained	Removable in center only	D	ASN3K20ND	ASN3K20ND-N024401	ASD3K20ND		
		Removable in right and left	E	ASN3K20NE	ASN3K20NE-N024401	ASD3K20NE		
		Removal in left only	G	ASN3K20NG	ASN3K20NG-N024401	ASD3K20NG		
		Removable in right only	Н	ASN3K20NH	ASN3K20NH-N024401	ASD3K20NH		
-position		Removable in left and center	(blank)	ASN31K20N	ASN31K20N-N024401	ASD31K20N		
	Spring return from right	Removable in center only	D	ASN31K20ND	ASN31K20ND-N024401	ASD31K20ND		
		Removal in left only	G	ASN31K20NG	ASN31K20NG-N024401	ASD31K20NG		
		Removable in right and center	(blank)	ASN32K20N	ASN32K20N-N024401	ASD32K20N		
	Spring return from left	Removable in center only	D	ASN32K20ND	ASN32K20ND-N024401	ASD32K20ND		
		Removable in right only	Н	ASN32K20NH	ASN32K20NH-N024401	ASD32K20NH		
	Spring return two-way	Removable in center only	(blank)	ASN33K20N	ASN33K20N-N024401	ASD33K20N		

 $[\]bullet$ The key cannot be removed in spring return positions.



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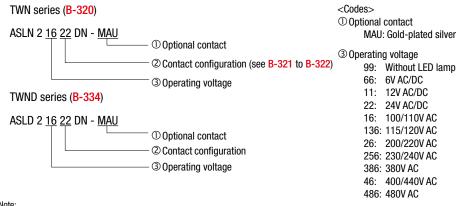
Circuit

Protectors

Ordering Information

Illuminated Selector Switch

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



- Odd number of contact blocks, such as 1NO, 1NC, 3NO, 2NO-1NC, 1NO-2NC, and 3NC, is not available for models of 100V AC or over.
- Illuminated selector switches of 24V AC/DC and below with two or four contact blocks contain a dummy block.
- See below for how to specify 110V DC model (DC-DC converter).
- Color codes for units without LED lamps: R (red), G (green), A (amber), Y (yellow), S (blue) When using a commercially available lamp, choose a lamp with rated voltage 5 to 30V AC/DC and 1W maximum, and with the same base and shape.

Pilot Light (LED)

When specifying LED operating voltage:

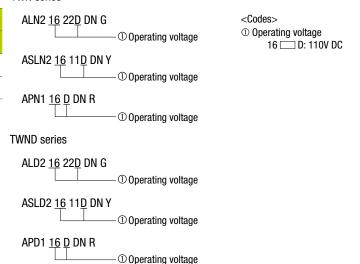
```
TWN series (B-324 to B-325)
                                                  <Codes>
                                                  ① Operating voltage
  APN1 26 DN R
                                                       99: Without LED lamp
                                                 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

- See below for how to specify 110V DC model (DC-DC converter).
- Color codes for units without LED lamps: R (red), G (green), A (amber), Y (vellow), S (blue) When using a commercially available lamp, choose a lamp with rated voltage 5 to 30V AC/DC and 1W maximum, and with the same base and shape.

DC-DC Convertor Model (110V DC)

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

TWN series



- See 110V DC model (DC-DC converter) is not approved by standards (operating voltage: 90 to 140V DC).
- Odd number of contact blocks, such as 1NO, 1NC, 3NO, 2NO-1NC, 1NO-2NC, and 3NC, is not available for 100V DC model (DC-DC converter).

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

Package Quantity: 1

		v	,	,		Package Quantity: 1	→
Shape	Operation	Contact	Part No. (Ordering No.)	Button Color Code	Dimensions	(All dimensions in mm.)	t Lights
Flush		1NO	ABN110*	В			85
ABN1		1NC	ABN101*	G			
AON1	Momentary	1NO-1NC	ABN111*	R Y			
	Momentary	2N0	ABN120*	S	-+ +	Panel Thickness 0.8 to 7.5	APEM
		2NC	ABN102*	W			Switches & Pilot Lights
		2NO-2NC	ABN122*	Note	4.		
		1NO	A0N110*	В			Control Boxes
		1NC	A0N101*	G	45.4 (1 or 2 blocks)	29.6	Emergency Stop Switches
	Maintained	1NO-1NC	A0N111*	R Y	65.4(3 or 4 blocks)	9 039	Enabling
	Mantanoa	2N0	A0N120*	Š			Switches
		2NC	A0N102*	W			Safety Products
		2NO-2NC	A0N122*	Note			Explosion Proof
Extended ABN2		1NO	ABN210*	В			
AON2		1NC	ABN201*	G			Terminal Blocks
	Momentary	1NO-1NC	ABN211*	R			Relays & Sockets
	,	2N0	ABN220*	Y S		Panel Thickness 0.8 to 7.5	Circuit
		2NC 2NO-2NC	ABN202*	- w			Protectors
		1NO	ABN222*		4 4 - 1	835	Power Supplies
		1NC	A0N210* A0N201*	В			
		1NO-1NC	A0N201* A0N211*	G	45.4 (1 or 2 blocks) 65.4 (3 or 4 blocks)	14 29.6 039	LED Illumination
	Maintained	2N0	A0N211* A0N220*	R Y		* * *******	Controllers
		2NC	A0N202*	S			Operator
		2NO-2NC	A0N222*	W			Interfaces
Extended with Half Shroud		1NO	ABN2G10*				Sensors
ABN2G		1NC	ABN2G01*	В			AUTO-ID
AON2G		1NO-1NC	ABN2G11*	G R		A010-10	
	Momentary	2N0	ABN2G20*	⊢ '' Υ	Pa	nel Thickness 0.8 to 3.5	
		2NC	ABN2G02*	S		8958	
		2NO-2NC	ABN2G22*	W			Flush Silhouette
		1NO	AON2G10*			83.6 83.6	
		1NC	A0N2G01*	B G		3.5	ø16
	Maintained	1NO-1NC	A0N2G11*	R	P	0.5 039	ø22
	Maintained	2N0	AON2G20*	Υ			
		2NC	AON2G02*	S W			ø30
		2NO-2NC	AON2G22*	**			Miniature
Extended with Full Shroud		1NO	ABN2F10*	В			Pilot Lights
ABN2F AON2F		1NC	ABN2F01*	G			Pilot Lights
	Momentary	1NO-1NC	ABN2F11*	R			
	momortum y	2N0	ABN2F20*	Y		Panel Thickness 0.8 to 6	
		2NC	ABN2F02*	S W			TWN
		2NO-2NC	ABN2F22*		4 4 4	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	-10010
U (1NO	AON2F10*	В			TWND
		1NC	AON2F01*	G	45.4 (1 or 2 blocks)	14 29.6	ARN
	Maintained	1NO-1NC	AONOFOO	R		039	-
		2N0	AON2F20*	Y S			CS
		2NC	AON2F02*	– w			

A0N2F22*

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

2NO-2NC

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

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

Control Boxes

Emergency
Stop Switches
Enabling
Switches
Safety Products

Explosion Proof
Terminal Blocks
Relays & Sockets
Circuit
Protectors
Power Supplies

LED Illumination
Controllers
Operator

Sensors AUTO-ID

Flush Silhouette

ø16 ø22

Miniature Pilot Lights

TWND

CS

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

Package Quantity: 1

Shape	Operation	Contact	Part No. (Ordering No.)	Button Color Code	Dimensions	(All dimensions in mm.)	
Mushroom ABN3		1NO	ABN310*	В			
AON3		1NC	ABN301*	G			
	Momentary	1NO-1NC	ABN311*	R Y			
		2N0 2NC	ABN320*	S	Panel Thickness 0.8	to 7.5	
		2NO-2NC	ABN302* ABN322*	W			
		1NO	ADN322* AON310*		4 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	()	
		1NC	A0N301*	B G			
	Maintainad	1NO-1NC	A0N311*	R	45.4 (1 or 2 blocks) 65.4 (3 or 4 blocks) 22	29.6	
	Maintained	2N0	A0N320*	Y			
		2NC	A0N302*	S W			
		2NO-2NC	A0N322*				
Mushroom with Full Shroud ABN3G		1NO	ABN3G10*		Panel Thickness 0.8	to 6.5 29.6	
7 Ibnod		1NC	ABN3G01*	B G			
	Momentary	1NO-1NC	ABN3G11*	R	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	(
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	2N0	ABN3G20*	Y S			
		2NC	ABN3G02*	W	43.9 (1 or 2 blocks) 63.9 (3 or 4 blocks) 23.5	7	
Lumba Maraharana		2NO-2NC	ABN3G22*				
Jumbo Mushroom ABN4		1NO	ABN410*		Panel Thickness 0.8 to 7.5		
	Momentary	1NC	ABN401*	B G R Y		/ [
		1NO-1NC	ABN411*		4.14 8655		
		2N0	ABN420*				
		2NC	ABN402*		45.4 (1 or 2 blocks) 65.4 (3 or 4 blocks) 29	29.6	
		2NO-2NC	ABN422*		03.4 (3 01 4 DIUCKS) 29 29	29.0	
Jumbo Mushroom with Shallow Shroud		1NO	ABN4G10*		Panel Thickness 0.8 to 7.5	-	
ABN4G		1NC	ABN4G01*			F	
		1NO-1NC	ABN4G11*	B G	8 8		
	Momentary	2N0	ABN4G20*	R Y	4 B B S S S		
		2NC	ABN4G02*		45.4 (1 or 2 blocks)		
		2NO-2NC	ABN4G22*		65.4 (3 or 4 blocks) 29	29.6	
Jumbo Mushroom with Deep Shroud		1NO	ABN4F10*		Panel Thickness 0.8 to 7.5	,	
ABN4F		1NC	ABN4F01*				
	Momentani	1NO-1NC	ABN4F11*	B G			
	Momentary	2N0	ABN4F20*	R Y	14 B B 50 50 60 60 60 60 60 60 60 60 60 60 60 60 60		
		2NC	ABN4F02*		45.4 (1 or 2 blocks)		
					65.4 (3 or 4 blocks) 33		

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

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

Package Quantity: 1

Shape	Contact	Part No. (Ordering No.)	Button Color Code	Dimensions (All dimensions in mm.)
Mushroom Pushlock Turn Reset (*1) AVN3	1NO	AVN310N*		
AVINO	1NC	AVN301N*		Panel Thickness 0.8 to 7.5
	1NO-1NC	AVN311N*	R	
	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
AJNS	1NC	AJN301N*		
	1NO-1NC	AJN311N*	B G R	
	2N0	AJN320N*	R Y	
	2NC	AJN302N*	1	45.4 (1 or 2 blocks) 29.6 29.6 29.6
	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 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
	2NC	AZN302N*] Y	45.4 25.1 5.5 stroke 29.6
				H

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

Pushbutton operation

Pushlock Turn Reset

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

Push Turn Lock

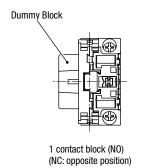
Button is locked when turned clockwise in the depressed position and is reset when turned counterclockwise.

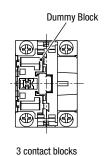
Pulling the button operates the contacts, and releasing the button return the contacts.

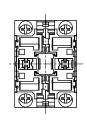
Pull contact operation

0	AZ	N3
Contact	Normal	Pull
1NO	o _r o	٥٢
2NO-2NC	ტ •1•	0 10 ■■
2N0	مړه مړه	0 0 V
2NC	•••	●1● ●1●

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







2/4 contact blocks

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

APEM

Control Boxes

Emergency Stop Switches Enabling

Switches

Safety Products

Explosion Proof

Terminal Blocks

Relays & Sockets

Circuit Protectors

Power Supplies

LED Illumination

Controllers Operator

Interfaces Sensors

AUTO-ID

Flush Silhouette

ø16

ø22

Miniature

Pilot Lights

TWND

ARN

CS

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

> Sensors AUTO-ID

Flush Silhouette

ø16 ø22

Miniature Pilot Lights

> TWND ARN CS

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

Shap	е	Base	Operation	Operating Voltage	Contact	Part No. (Ordering No.)	Color Code	Dimens Page
Extended					1NO-1NC	ALN22211DN*		
LN2				24V AC/DC	2N0	ALN22220DN*		
OLN2					2NC	ALN22202DN*	R	
					1NO-1NC	ALN21611DN*	G	
1			Momentary	100/110V AC	2N0	ALN21620DN*	Y	
			,		2NC	ALN21602DN*	– A S	
all 6					1NO-1NC	ALN22611DN*	PW	
				200/220V AC	2N0	ALN22620DN*		
(24VAC/	DC)			200/2207710	2NC	ALN22602DN*		
•	,	BA9S			1NO-1NC	A0LN22211DN*		
_				24V AC/DC	2N0	AOLN22220DN*		
The same				247710750	2NC	AOLN22202DN*	R	
N.					1NO-1NC	AOLN21611DN*	⊢ ï	
U. C.			Maintained	100/110V AC	2NO	AOLN21611DN* AOLN21620DN*	Y	
			Maintaineu	100/110V AC	2NC	AOLN21602DN*	— A	
4							S PW	
With trans	former			200/2201/40	1NO-1NC	AOLN22611DN*	— PVV	
(100/110				200/220V AC	2NO	AOLN22620DN*		
xtended with Half S					2NC	AOLN22602DN*		
xtended with Hall S LGN2	Stiroud			0.41/4.0/20	1NO-1NC	ALGN22211DN*	_	
OLGN2				24V AC/DC	2N0	ALGN22220DN*	_	
_					2NC	ALGN22202DN*	R	
					1NO-1NC	ALGN21611DN*	G Y	
			Momentary	100/110V AC	2N0	ALGN21620DN*	Ä	
					2NC	ALGN21602DN*	S	
all (1NO-1NC	ALGN22611DN*	PW	
-				200/220V AC	2N0	ALGN22620DN*		
(24V AC	/DC)	BA9S			2NC	ALGN22602DN*		B-3
		DASS			1NO-1NC	AOLGN22211DN*		D 0
				24V AC/DC	2N0	AOLGN22220DN*		
					2NC	AOLGN22202DN*	R	
					1NO-1NC	AOLGN21611DN*	G	
			Maintained	100/110V AC	2N0	AOLGN21620DN*	Y A	
-44					2NC	AOLGN21602DN*	S	
					1NO-1NC	AOLGN22611DN*	PW	
With trans				200/220V AC	2N0	AOLGN22620DN*		
(100/110	V AC)				2NC	AOLGN22602DN*		
xtended with Full S	Shroud				1NO-1NC	ALFN22211DN*		
LFN2				24V AC/DC	2NO	ALFN22220DN*		
OLFN2				211710/20	2NC	ALFN22202DN*	R	
					1NO-1NC	ALFN21611DN*	⊢ G	
0			Momentary	100/110V AC	2NO	ALFN21611DN* ALFN21620DN*	- Ϋ́	
			wioiiieiilaiy	100/110V AC	2NC		— A	
					1NO-1NC	ALFN21602DN*	S PW	
				200/2201/40		ALFN22611DN*	— PVV	
(24V AC	/DC)			200/220V AC	2N0	ALFN22620DN*		
,	•	BA9S			2NC	ALFN22602DN*		
				0.014.075.5	1NO-1NC	AOLFN22211DN*		
				24V AC/DC	2N0	AOLFN22220DN*	_	
					2NC	AOLFN22202DN*	R	
					1NO-1NC	AOLFN21611DN*	G Y	
			Maintained	100/110V AC	2N0	AOLFN21620DN*	_	
					2NC	AOLFN21602DN*	S	
					1NO-1NC	AOLFN22611DN*	PW	
With trans (100/110				200/220V AC	2N0	AOLFN22620DN*		
(100/110	v AU)	1			2NC	AOLFN22602DN*	1	

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

 • Illuminated pushbuttons have an LED lamp installed.

- Round bezel (metal): Chrome-plated

 See B-308 for other operating voltage such as 6V AC/DC, 12V AC/DC, and 110V DC.
- Illuminated pushbutttons of 24V AC/DC or below with 2 or 4 contact blocks have a 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



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

Flush Silhouette

ø16 ø22

Miniature

Pilot Lights

TWND

CS

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

Package Quantity: 1

						Pa	ckage Quantity: 1
Shape	Base	Operation	Operating Voltage	Contact	Part No. (Ordering No.)	Color Code	Dimensions Page
Mushroom (ø40)				1NO-1NC	ALN32211DN *		
ALN3 AOLN3			24V AC/DC	2N0	ALN32220DN *		
AULINS				2NC	ALN32202DN *	R	
				1NO-1NC	ALN31611DN *	G	
		Momentary	100/110V AC	2N0	ALN31620DN *	Y	
				2NC	ALN31602DN *	S	
				1NO-1NC	ALN32611DN *	PW	
			200/220V AC	2N0	ALN32620DN *		
(24V AC/DC)	BA9S			2NC	ALN32602DN *		
	BA95			1NO-1NC	AOLN32211DN *		
			24V AC/DC	2N0	AOLN32220DN *		
				2NC	A0LN32202DN *	R	
				1NO-1NC	AOLN31611DN *	G	
		Maintained	100/110V AC	2N0	AOLN31620DN *	Y A	
				2NC	AOLN31602DN *	S	
				1NO-1NC	AOLN32611DN *	PW	
With tranformer			200/220V AC	2N0	AOLN32620DN *		
(100/110V AC)				2NC	AOLN32602DN *		B-315
Mushroom Pushlock Turn Reset				1NO-1NC	AVLN32211DN *		D-010
AVLN3 (*1)			24V AC/DC	2N0	AVLN32220DN *		
				2NC	AVLN32202DN *		
				1NO-1NC	AVLN31611DN *		
	BA9S	_	100/110V AC	2N0	AVLN31620DN *	R	
				2NC	AVLN31602DN *		
				1NO-1NC	AVLN32611DN *	1	
			200/220V AC	2N0	AVLN32620DN *]	
(24V AC/DC)				2NC	AVLN32602DN *		
Mushroom Push Turn Lock				1NO-1NC	AJLN32211DN *		
AJLN3			24V AC/DC	2N0	AJLN32220DN *		
				2NC	AJLN32202DN *	R	
				1NO-1NC	AJLN31611DN *	G	
	BA9S	_	100/110V AC	2N0	AJLN31620DN *	Ϋ́	
				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

6V, 12V, 24V AC/DC

Pushlock Turn Reset

Button is maintained when pressed and is reset when turned clockwise. $\label{eq:constraint}$

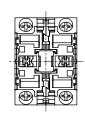
Push Turn Lock

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

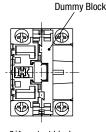
Bottom View (for illuminated pushbuttons, selector switches, and pilot lights)

Full Voltage Adapter X2

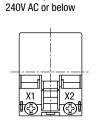
1 contact block



3 contact blocks

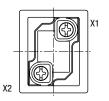


2/4 contact blocks



100/110V, 200/220V AC

110V DC, 380V AC or over



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

• See B-348 for wiring



Dimensions (Illuminated Pushbuttons)

Extended, LED illuminated (momentary/maintained)

All dimensions in mm.

ALN2/AOLN2 (terminal screws M3.5)

Integrated terminal cover

6, 12, 24V AC/DC · Without LED Lamp

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

Panel Thickness 0.8 to 7.5

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

85.5 (2 blocks), 105.5 (4 blocks)

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

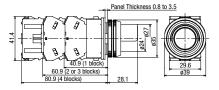
ALGN2/AOLGN2 (terminal screws M3.5) Integrated terminal cover

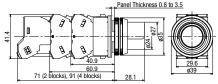
6, 12, 24V AC/DC· Without LED Lamp

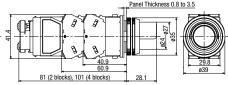
100/110V AC, 200/220V AC (240V AC or below)

110V DC/380V AC or over

110V DC/380V AC or over





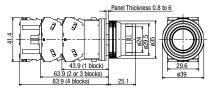


Extended with Full Shroud, LED illuminated (momentary/maintained) ALFN2/AOLFN2 (terminal screws M3.5) Integrated terminal cover

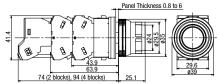
6, 12, 24V AC/DC · Without LED Lamp

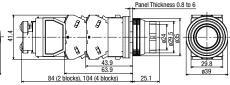
100/110V AC, 200/220V AC (240V AC or below)

110V DC/380V AC or over



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





Flush Silhouette

ALN3/AOLN3 (terminal screws M3.5) ø16

Miniature

Pilot Lights

TWND ARN CS

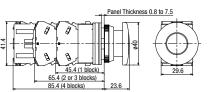
ø22

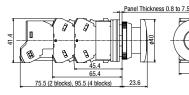
6, 12, 24V AC/DC · Without LED Lamp

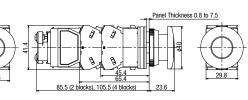
Integrated terminal cover

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

110V DC/380V AC or over



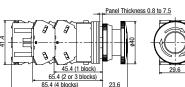




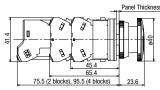
Mushroom Pushlock Turn Reset, LED illuminated

AVLN3 (terminal screws M3.5) 6, 12, 24V AC/DC · Without LED Lamp Integrated terminal cover 100/110V AC, 200/220V AC

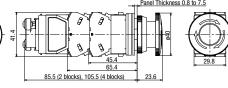
110V DC/380V AC or over









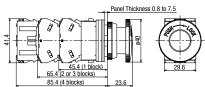


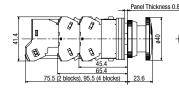
Mushroom Push Turn Lock, LED illuminated

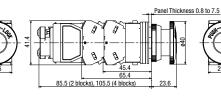
AJLN3 (terminal screws M3.5) 6, 12, 24V AC/DC · Without LED Lamp Integrated terminal cover

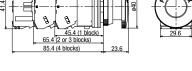
100/110V AC, 200/220V AC

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 Interfaces Sensors AUTO-ID

Flush Silhouette

ø16 ø22

Miniature
Pilot Lights

TWND

ARN

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ASN Selector Switches (Knob Operator)

Package Quantity: 1

Shape	Knob Opera ASN	tor					Ô					raukaye quaniity. I
		Contact C	Configuratio	on		Maintained	Spring Return from Right		Spring	Retur	n from	Left
		Contact	Block	Oper Posi		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 —	Dummy		ASN210N	ASN2110N	① ②	NO —	•		ASN2210N
2-position	1NO-1NC (11)	0	NO NC	•		ASN211N	ASN2111N	0	NO NC	•	•	ASN2211N
	2NO (20)	0 2	NO NO		_	ASN220N	ASN2120N	0	NO NO	•		ASN2220N
	2NO-2NC	0 2	NO NO NC	•	_			0	NO NO NC	•	•	
	(22)	3	NO NC	•)	ASN222N	ASN2122N	3	NO NC	•	•	ASN2222N
		Contact C	Configuration	on		Maintained	Spring Return from Right	Spring	g Return fro	om Lef	t	Spring Return Two-way
	Contact	Contact Mounting		Oper Posi	tion	1 0 2	1 0 2		1 0 2			1 0 2
		Position	Contact	1 0	2		<u> </u>					
	2N0 (20)	① ②	NO NO	•	•	ASN320N	ASN3120N		ASN3220N	N		ASN3320N
	2NC (02)	① ②	NC NC			ASN302N	ASN3102N		ASN3202N	N		ASN3302N
	2NO-2NC	① ②	NO NO	•	•	ASN322N	ASN3122N		ASN3222N	ı		ASN3322N
45° 3-position	(22)	③ ④	NC NC			ASNSZZN	ASNS 122N		ASNOZZZI	V		ASNOSZZN
,	4N0	① ②	NO NO	•	•	AONE CON	AONE : ser		AONGO			401105 1511
	(40)	3	NO NO	•	•	ASN340N	ASN3140N		ASN3240N	V		ASN3340N
	4NC	① ②	NC NC			ASN304N	ASN3104N		ASN3204N	J		ASN3304N
	(04)	3 4	NC NC			ASIVSU4IV	A3113 TU411		A3N32U4I	•		A3N33U4N
	 ☆ 3S	① ② ③	NO NO NC	•	•	☆ ASN33SN-243	_		_			_
		4	NC —	Dummy	.	-						

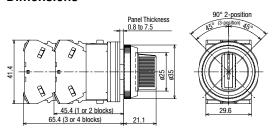
- Knob: Black
- Round bezel (metal): Chrome-plated
- Selector switches with 1 or 3 contact blocks have a dummy block.
- Knob operator can be installed at 45-degree intervals in addition to the positions shown in the above table.
- See B-321 to B-322 for other contact configurations.
 Turn the operator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

Contact Block Mounting Position

- 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



IDEC

ASN-□ Selector Switches (Lever Operator)

Package Quantity: 1

Lever Operator ASN□L Shape APEM Spring Return Contact Configuration Spring Return from Left Maintained from Right Control Boxes Operator Operator Contact Block Contact Block Position Position Emergency Contact Stop Switches Mounting Mounting Contact 2 1 Contact Enabling Position Position Switches 1N0 1 NO 1 NO ASN2L10N ASN21L10N ASN22L10N Safety Products (10)2 **Dummy Block** 2 90° 2-position 1NO-1NC 1 NO 1 NO • **Explosion Proof** ASN2L11N ASN21L11N ASN22L11N (11)2 NC • 2 NC • Terminal Blocks • 1 1 N0 NO 2N0 ASN2L20N ASN21L20N ASN22L20N (20)2 NO 2 NO Relays & Sockets 1 NO 1 NO Circuit 2 2 2NO-2NC NC • NC • Protectors ASN2L22N ASN21L22N ASN22L22N (22)3 NO • 3 NO • **Power Supplies** 4 NC • 4 NC • Spring Return Spring Return LED Illumination Contact Configuration Maintained Spring Return from Left from Right Two-way Controllers **Operator** Contact Block Position Operator Contact Interfaces Mounting Contact 1 2 0 Position Sensors 1 NO • 2N0 ASN3L20N ASN31L20N ASN32L20N ASN33L20N AUTO-ID (20)2 NO • 1 N0 2NC ASN3L02N ASN31L02N ASN33L02N ASN32L02N (02)2 NO 1 NO Flush Silhouette 2NO-2NC 2 NO ASN3L22N ASN31L22N ASN32L22N ASN33L22N (22)3 NO 45° ø16 3-position 4 N0 1 N0 ø22 2 NO • 4N0 ASN3L40N ASN31L40N ASN32L40N ASN33L40N (40)3 N0 • 4 NO Miniature 1 NO Pilot Lights 4NC 2 N0 ASN3L04N ASN31L04N ASN32L04N ASN33L04N (04)3 NO 4 N0 1 N0 ☆ 3S NO 2 ASN3L3SN-243 3 NO TWND

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

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

Dummy Block

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

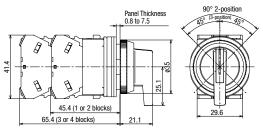
- Selector switches with \$\simeq\$ have a half contact operating current (load switching current value). Rated insulation voltage and rated current remain the same.
- See B-308 for gold contact.
- See B-312 for bottom view.

Contact Block Mounting Position



Dimensions

All dimensions in mm.



Terminal Screws: M3.5

Terminal cover: integrated

ASN-□K Key Selector Switches

Package Quantity: 1

Shape	Key Selector ASN□K	(Key No. 0)											tunago auntig.
		Contact C	onfiguratio	n			Maintained	Spring Return from Right		Spring	Return	from L	eft
	Contact	Contact	Block		perat Positio		1 2	1 2	Contact	Block		rator ition	1, 2
	Contact	Mounting Position	Contact	1	2				Mounting Position	Contact	1	2	
	1NO	1	NO		•		ASN2K10N	ASN21K10N	1	NO	•		ASN22K10N
90°	(10)	2		Dun	nmy E	Block	710HERTON	HONETHON	2				HONELINION
2-position	1NO-1NC	1	NO		•		ASN2K11N	ASN21K11N	1	NO	•		ASN22K11N
	(11)	2	NC	•			AUNZINTIN	AONE INTIN	2	NC		•	AUNZZIVITIN
	2N0	①	NO		•		ASN2K20N	ASN21K20N	1	NO	•		ASN22K20N
	(20)	2	NO		•		MOINZINZUIN	MOINZ INZUIN	2	NO	•		MONZZNZUN
		①	NO		•				①	NO	•		
	2NO-2NC	2	NC	•			ACNOVOON	ACNO4KOON	2	NC		•	ACNIGOVOON
	(22)	3	NO		•	1	ASN2K22N	ASN21K22N	3	NO	•		ASN22K22N
		4)	NC	•		1			3	NC		•	
		Contact C	onfiguratio	n			Maintained	Spring Return from Right	Spring	g Return fro	om Lef	t	Spring Return Two-way
	0	Contact	Block		perat Positio		1 0 2	1 0 2		1 0 2			1 , 0 , 2
	Contact	Mounting Position	Contact	1	0	2				\bigvee			
	2N0	①	NO	•			400000000	AGNIGALIGANI		1011001100			1011001/0011
	(20)	2	NO			•	ASN3K20N	ASN31K20N	1	ASN32K20	N		ASN33K20N
	2NC	①	NC										
	(02)	2	NC				ASN3K02N	ASN31K02N		ASN32K02	N		ASN33K02N
		0	NO	•									
	2NO-2NC	2	NO			•							
450	(22)	3	NC				ASN3K22N	ASN31K22N		ASN32K22	N		ASN33K22N
45°	` ′	4	NC										
3-position		0	NO	•									
	4NO	2	NO	<u> </u>		•	•						
	(40)	3	NO	•		_	ASN3K40N	ASN31K40N		ASN32K40	N		ASN33K40N
	`.,	<u> </u>	NO			•							
		①	NC			_							
	ANC	2	NC		5								
	4NC (04)		NC NC				ASN3K04N	ASN31K04N		ASN32K04	N		ASN33K04N
	(04)	3											
		4	NC										
	√ ~	①	NO NO	•		<u> </u>							
	\$ 3\$	2	NO			•	☆	_		_			_
		3	NC				ASN3K3SN-243						
		4		Dun	nmy E	Block							

- 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-308for specifying key retained positions.

Contact Block Mounting Position



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

Different key number is available upon request. Contact IDEC.

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

Dimensions

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

Terminal Screws: M3.5

Terminal cover: integrated

IDEC

Control Boxes

Emergency Stop Switches Enabling Switches Safety Products

Explosion Proof

Terminal Blocks Relays & Sockets

Circuit Protectors Power Supplies

LED Illumination Controllers

Operator Interfaces Sensors

AUTO-ID

Flush Silhouette

ø22

Miniature

Pilot Lights

TWND

ARN

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ASN-□**K** Key Selector Switches

Package Quantity: 1

Key Selector (Key No. 24401) ASN□K Shape APEM Spring Return **Contact Configuration** Maintained Spring Return from Left from Right Control Boxes Operator Operator Contact Block Contact Block Position Position Emergency Contact Mounting Mounting Stop Switches Contact 1 2 Contact 1 2 Position Position Enabling Switches 1N0 1 NO lacktriangleASN2K10N-ASN21K10N-1 NO ASN22K10N-Safety Products (10)N024401 N024401 N024401 2 **Dummy Block** 2 90° 1NO-1NC 1 NO ASN2K11N-ASN21K11N-1 NO • ASN22K11N-2-position **Explosion Proof** N024401 (11)2 NC • N024401 N024401 2 NC Terminal Blocks 2N0 1 NO • ASN2K20N-ASN21K20N-1 NO • ASN22K20N-N024401 N024401 (20)2 NO • NO24401 2 NO • Relays & Sockets 1 NO • 1 NO • Circuit 2NO-2NC 2 NC • ASN2K22N-ASN21K22N-2 NC • ASN22K22N-Protectors N024401 N024401 N024401 (22)3 NO 3 NO • **Power Supplies** 4 NC 4 • NC Spring Return Spring Return LED Illumination **Contact Configuration** Maintained Spring Return from Left from Right Two-way **Operator** Controllers Contact Block Position Operator Contact Mounting Interfaces Contact 1 0 2 Position Sensors 2N0 1 NO ASN3K20N-ASN31K20N-ASN32K20N-ASN33K20N-N024401 N024401 N024401 N024401 AUTO-ID (20)2 N0 1 NC 2NC ASN3K02N-ASN31K02N-ASN32K02N-ASN33K02N-N024401 N024401 (02)N024401 N024401 2 NC 1 NO 2 NΩ Flush Silhouette 2NO-2NC ASN3K22N-ASN31K22N-ASN32K22N-ASN33K22N-N024401 N024401 N024401 N024401 (22)NC 3 45° ø16 4 NC 3-position ① N0 ø22 2 N0 • 4N0 ASN3K40N-ASN31K40N-ASN32K40N-ASN33K40N-(40)N024401 N024401 N024401 N024401 3 NO • 4 NO Miniature NC 1 Pilot Lights NC 4NC 2 ASN3K04N-ASN31K04N-ASN32K04N-ASN33K04N-(04)3 NC N024401 N024401 N024401 N024401 4 NC

TWND

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

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

1

2

3

4

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

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• 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.

N0

N0

NC

•

Dummy Block

ASN3K3SN-

243-N024401

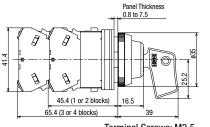
Contact Block Mounting Position



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

Dimensions

All dimensions in mm.



Terminal Screws: M3.5



Terminal cover: integrated

ASLN Illuminated Selector Switches (LED)

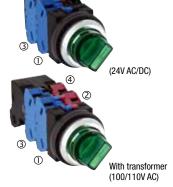
Package Quantity: 1

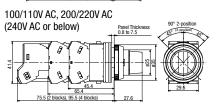
Shape	ASLN	ed Selector	Switches	s (BA	A9S	Base	e)	(24V AC/DC)							-	APEM
		Contact C	onfigurati	on				Maintained	Spring Return from Right		Sprin	g Retu	ırn fro	om Left		Switche Pilot Lig
		Contact	Block		pera ositi		Rated Voltage	1 2	1 + 2	Contact	Block		rator ition	1 2	Color	Control
	Contact	Mounting Position	Contact		2					Mounting Position	Contact	1	2			Stop Sw Enabling
등	4110 4110	①	NO		•		24V AC/DC	ASLN22211DN*	ASLN212211DN*	0	NO	•		ASLN222211DN*		Switche
l ilis	1NO-1NC	2	NC	•		7	100/110V AC	ASLN21611DN*	ASLN211611DN*	2	NC		•	ASLN221611DN*]	Safety P
2-p	(11)						200/220V AC	ASLN22611DN*	ASLN212611DN*					ASLN222611DN*	R	- Jaiety I
90° 2-position	2N0	①	NO		•		24V AC/DC	ASLN22220DN*	ASLN212220DN*	①	NO	•		ASLN222220DN*	G	Explosio
0,	(20)	2	NO		•		100/110V AC	ASLN21620DN*	ASLN211620DN*	2	NO	•		ASLN221620DN*	Υ	I
	(20)						200/220V AC	ASLN22620DN*	ASLN212620DN*					ASLN222620DN*	Α	Termina
		0	NO		•		24V AC/DC	ASLN22222DN*	ASLN212222DN*	0	NO	•		ASLN222222DN*	S	Relays 8
	2NO-2NC	2	NC	•		4	100/110V AC	ASLN21622DN*	ASLN211622DN*	2	NC		•	ASLN221622DN*	PW	I
	(22)	3	NO		•	4	200/220V AC	ASLN22622DN*	ASLN212622DN*	3	NO	•		ASLN222622DN*		Circuit Protecto
		4	NC	•			_			4	NC		•			1
		Contact C	onfigurati	on				Maintained	Spring Return from Right	Spring	Return f	om L	eft	Spring Return Two-Way		Power S
		Contac	t Block		pera 'ositi		Rated Voltage	1 0 2	1 0 2		1, 0	2		1 0 2	Color Code	LED Illui
	Contact	Mounting Position	Contact	1	0	2		\bigvee								Controll
		1 0311011	NO	•			24V AC/DC	ASLN32220DN*	ASLN312220DN*	ASI	N322220	DN*		ASLN332220DN*		Operato Interface
	2N0	2	NO	Ť		•	100/110V AC	ASLN31620DN*	ASLN311620DN*		N321620			ASLN331620DN*	1	Sensors
	(20)						200/220V AC	ASLN32620DN*	ASLN312620DN*	+	N322620			ASLN332620DN*	1	56118018
	0110	①	NC				24V AC/DC	ASLN32202DN*	ASLN312202DN*		N322202			ASLN332202DN*	1	AUTO-ID
io	2NC (02)	2	NC				100/110V AC	ASLN31602DN*	ASLN311602DN*	ASL	N321602	2DN*		ASLN331602DN*]	
45° 3-position	(02)						200/220V AC	ASLN32602DN*	ASLN312602DN*		N322602			ASLN332602DN*]	
3-p		1	NO	•			24V AC/DC	ASLN32222DN*	ASLN312222DN*	ASL	N32222	2DN*		ASLN332222DN*	R	
ည်	2NO-2NC	2	NO			•	100/110V AC	ASLN31622DN*	ASLN311622DN*	ASL	N321622	2DN*		ASLN331622DN*	G	Flush Si
4	(22)	3	NC				200/220V AC	ASLN32622DN*	ASLN312622DN*	ASL	N322622	2DN*		ASLN332622DN*	Υ	Flusii Si
		4	NC				_		_					_	Α	ø16
		1	NO	•			24V AC/DC	ASLN32240DN*	ASLN312240DN*		N322240			ASLN332240DN*	S	ļ ——
	4N0	2	NO.			•	100/110V AC	ASLN31640DN*	ASLN311640DN*		N321640			ASLN331640DN*	PW	ø22
	(40)	3	NO	•	1	-	200/220V AC	ASLN32640DN*	ASLN312640DN*	ASL	N322640	DN*		ASLN332640DN*		ø30
		4	NO		<u> </u>	•	<u> </u>		<u> </u>					_		V30
		0	NC	_	L	-	24V AC/DC	ASLN32204DN*	ASLN312204DN*		N322204			ASLN332204DN*	-	Miniatur
	4NC	2	NC			\perp	100/110V AC	ASLN31604DN*	ASLN311604DN*		N321604			ASLN331604DN*	-	l
	(04)	3	NC		╚	7	200/220V AC	ASLN32604DN*	ASLN312604DN*	ASL	N322604	#NU!		ASLN332604DN*	-	Pilot Lig
		4	NC			1		_	_		_			_		1

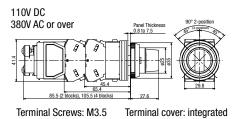
- Specify a color code in place of * in Part No.
- R (red), G (green), Y (yellow), A (amber), S (blue), PW (pure white)
- Illuminated selector switches have an LED lamp installed.
- Round bezel (metal): chrome-plated
- See B-309 for other operating voltage such as 6V AC/DC, 12V AC/DC, and 110V DC.
 Illuminated selector switches of 24V AC/DC or below with 2 or 4 contact blocks have a
- dummy block.
- See B-321 to B-322 other contact configurations.
- Turn the operator to each position accurately.
- See B-309 for gold-plated silver contacts.
- See B-314 for bottom view.

Contact Block Mounting Position Dimensions

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







Control Boxes Emergency Stop Switches Enabling Switches

Safety Products

Explosion Proof Terminal Blocks

Relays & Sockets Circuit

Protectors Power Supplies

LED Illumination

Controllers Operator nterfaces

Sensors

AUTO-ID

Flush Silhouette

ø16

Miniature

Pilot Lights

TWND

ARN

All dimensions in mm.

CS

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

Flush Silhouette

ø16 ø22

Miniature Pilot Lights

> TWND ARN CS

Selector Switches Contact Configuration (90° 2-position)

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

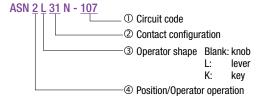
						Or	perator 0	peration	and Circ	uit		
		Cont Blo		N	Maintai	ned 2		ring Ret rom Rigl			ring R from L	
Contact Configuration	Circuit Code			Knob Lever	Key	Illumi- nated	Knob Lever	Key	Illumi- nated	Knob Lever	Key	Illumi- nated
				Ope	rator P	osition	Opei	rator Pos	sition	Opei	rator F	osition
		Mounting Position	Contact	1	,	2	1	,	2	1	,	2
11	Not	①	NO			•			•	•		
11	required	2	NC	•			•					•
20	Not	①	NO			•			•	•		
20	required	2	NO			•			•	•		
02	Not	①	NC	•			•					•
02	required	2	NC	•			•					•
		①	NO			•			•	•		
22	Not	2	NC	•			•					•
	required	3	NO			•			•	•		
		4	NC	•			•					•
		1	NC	•			•					•
31	107	2	NO			•			•	•		
"	107	3	NO			•			•	•		
		4	NO			•			•	•		
		①	NO			•			•	•		
40	Not	2	NO			•			•	•		
40	required	3	NO			•			•	•		
		4	NO			•			•	•		

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

Contact Block Mounting Position

Part No. Development





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

Selector Switches Contact Configuration (45° 3-position)

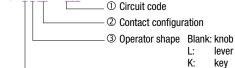
										(perato	r Opera	ition an	d Circu	ıit				:: Ei
Contact	Circuit Code	Cont Blo		Оре	erator Pos	sition		Maintaine		fr	ring Ret om Rig	ht	İ	ring Re from Le	eft	T	ing Ref	y	Lights
Configuration	Oncore code							$\overline{}$			$\overline{}$	Ι		$\overline{}$	T		$\overline{}$		APEM
		Mounting Position	Contact	1		2	Knob/ Lever	Key	Illumi- nated	Knob/ Lever	Key	Illumi- nated	Knob/ Lever	Key	Illumi- nated	Knob/ Lever	Key	Illumi- nated	Switches & Pilot Lights
		1	NO	•	U														Control Boxes
	202	2	NC					√			√			√			√		Emergency
11	203	1	NC					√			√			√			V		Stop Switches Enabling
''	200	2	NO NO			•					v						v		Switches
	303	① ②	NC NO		•	•					$\sqrt{}$			$\sqrt{}$			$\sqrt{}$		Safety Products
	Not	1	NO NO	•															Explosion Proof
20	required	2	NO NO			•		√			√			√			√		Explosion Proof
02	Not	0	NC					.1			.1			.,			.1		Terminal Blocks
02	required	2	NC					√			√			√			√		Relays & Sockets
		0	NO NO	•			-												Circuit
	Not required	3	NO NC		_		<u> </u> 	$\sqrt{}$			$\sqrt{}$			$\sqrt{}$			$\sqrt{}$		Protectors
	Toquirou	4	NC				1												Power Supplies
		0	NO	•											-				LED Illumination
	209	2	NC					./			√						_		Controlloro
	203	3	NC				_	V			٧								Controllers
		4	NO NO																Operator Interfaces
		① ②	NC NO																Sensors
22	210	3	NC			—					√			√			√		
		4	NO			•	1												AUTO-ID
		1	NC		•														
	310	2	NO			•		$\sqrt{}$			_			_			_		
		3	NC		•			•											Flush Silhouette
		4	NO NO	•		•													
		2	NO NO			•		,			,			,					ø16
	311	3	NC		•			√			√			√			√		ø22
		4	NC																ø30
		①	NO	•			_												
40	Not	2	NO NO			•		√			√			√			√		Miniature
	required	<u>3</u>	NO NO	•			1												Pilot Lights
		0	NC			—													
04	Not	2	NC					,			,			,			,		
04	required	3	NC					√			√			√			V		TMM
		4	NC						1										TWN
	☆	0	NO NO	•															TWND
3S	243	3	NO NC		•	•	-	V	_		_			_			_		ARN
		4	INC	Dı	ummy Blo	ock													-
Selector switch	hoe with ⊀ ha		tact onora				ı curron	t valuo) Dated	Linculat	ion vol	taga an	d ratod	curron	ıt romai	n tho co	mo		CS

• Selector switches with $\stackrel{1}{>}$ 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 ASN 3 L 22 N - 209 O Circ





④ Position/Operator operation 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

[•] On selector switches with x, the contact blocks may overlap each other while turning the ring or lever operator.

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

ASBN2 Selector Pushbuttons

						Ring P	osition			
Shape	Contact Configuration	Circuit Code		tact ock	Left			Right	Button Color Code	Ring Operator
			Mounting Position	Contact	Normal	Pushl Push	button	Push	Code	Part No. (Ordering No.)
Ring Operator (90°2-position)		400	①	NO		•		•		
ASBN2		A03	2	NC	•					ASBN211N-A03*
	11	☆	①	NC	•				В	☆
	(1NO-1NC)	K04	2	EM		•			G	ASBN211N-K04*
		G03	1	NO		•		Blocked	R	ASBN211N-G03*
		400	2	NC	•		•	Dioonou	Υ	AODINZTTI UOO
	20	D01	①	NO		•				ASBN220N-D01*
	(2NO)	501	2	NO				•		AODITECTIVE DOT
			1	NO		•		•		
		A08	2	NC	•			_		ASBN222N-A08*
			3	NO		•		•		
			4	NC	•					
			①	NO NO		•	_	•		
		☆ C10	2	NO NO				•		☆
		C10	3	NC						ASBN222N-C10*
			41	NC NO		_				
			2	NO NO		_		•		
		D10	3	NC	•		_			ASBN222N-D10*
			4	NC		_	-			
			0	NO		_			_	
	22	,	2	NO NO				•	B G	
	(2NO-2NC)	☆ E10	3	NC					R	☆ ASBN222N-E10*
	(=====,		4	NC					Y	AODITEEN ETO
			0	NO				•		
		☆	2	NO		•				☆
		F10	3	NC			•			ASBN222N-F10*
			4	NC	•					
			①	NO		•				
		010	2	NO		•		Dia .		ACDMOORN 040
		G10	3	NC	•		•	Blocked		ASBN222N-G10*
			4	NC	•		•			
			①	NC	•					
		☆	2	NC	•					☆
		K15	3	EM		•				ASBN222N-K15*
			4	EM		•				

TWND

Miniature Pilot Lights

ARN

Flush Silhouette

ø16 ø22

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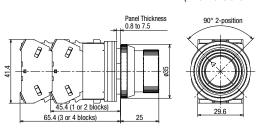
- Specify a color code in place of * in Part No. B (black), G (green), R (red), Y (yellow)
- Bezel (metal): Chrome-plated
- Circuit code G: The pushbutton does not operate when the ring operator is turned to the right position.
- Circuit codes E and F: The right and left NC contact blocks on circuit 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

Shape	Illumination	Base	Rated Voltage	Part No. (Ordering No.)	Color Code	LED Lamp Part No.	Dimensions Page
Round APN1			24V AC/DC	APN122DN*	R, G, Y, A, S, PW	LSRD-2	
AFNI			100/110V AC	APN116DN*	R, G, Y, A, S, PW		
(24V AC/DC)	LED	BA9S	200/220V AC	APN126DN*	R, G, Y, A, S, PW	LSRD-6	
Square Extended UPQN3B			24V AC/DC	UPQN3B22D*	R, G, Y, A, S, PW	LSRD-2	
	LED	BA9S	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	LSND-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	LODD	
(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.

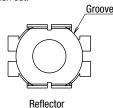
Type	Terminal Cover	Quantity
6V, 12V, 24V AC/DC	APN-PVL	1
100V/110V AC, 200/220V AC	N-VL3	1
110V DC	N-VL3	1

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

• See B-314 for bottom view.

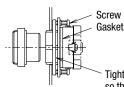
Reflector

- 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).
- 4. To remove the reflector, insert a flat screwdriver inside the groove of the reflector and lightly push out.



Panel Mounting of Square Pilot Lights

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



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

Miniature

Pilot Lights

TWN

TWND

ARN CS

Control Boxes

Emergency Stop Switches Enabling

Switches
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Relays & Sockets

Power Supplies

LED Illumination

Controllers

Circuit

Protectors

Operator

Interfaces

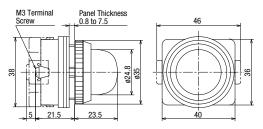
Sensors AUTO-ID

Dimensions (Pilot Light)

All dimensions in mr

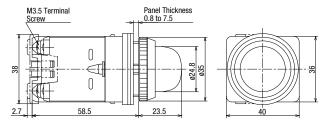
Round APN1

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



Terminal screws: M3

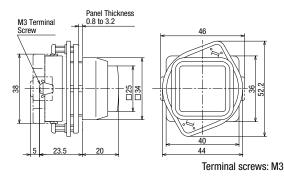
100 to 480V AC, 110V DC (Terminal Cover: N-VL3)



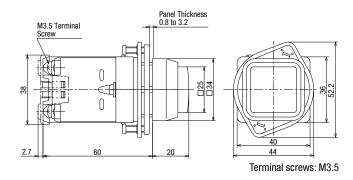
Terminal screws: M3.5

Square Extended UPQN3B

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



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



Flush Silhouette

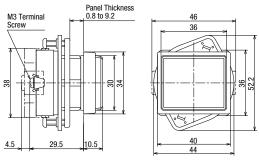
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Miniature
Pilot Lights

TWND
ARN
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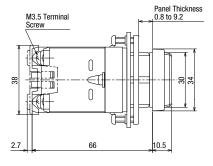
Rectangular (Marking) UPQN4

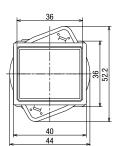
6V, 12V, 24V AC/DC (Terminal Cover: APN-PVL) Without LED Lamp



Terminal screws: M3

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





Terminal screws: M3.5

• See B-349 for wiring.

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

Package Quantity: 1

						Package Quantity: 1	, ≝ _
Shape	Operation	Contact	Part No. (Ordering No.)	Button Color Code	Dimensions	(All dimensions in mm.)	ot Lights
Flush		1NO	ABD110N*	В			
ABD1 AOD1		1NC	ABD101N*	G R			
7.051	Momentary	1NO-1NC	ABD111N*	Ϋ́			APEM
		2N0	ABD120N*	S	-	Panel Thickness 0.8 to 7.5	Switches &
		2NC	ABD102N*	W			Pilot Lights
		2NO-2NC	ABD122N*		± 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Control Boxes
		1NO 1NC	AOD110N*	B G			Emergency
		1NO-1NC	AOD101N* AOD111N*	R	45.4 (1 or 2 blocks) 65.4 (3 or 4 blocks)	29.4	Stop Switches
	Maintained	2NO	AODTTIN* AODTON*	Y	<u> </u>	- 40 	Enabling Switches
		2NC	AOD120N*	S W			Safety Products
		2NO-2NC	A0D102N*	Note			
Extended		1NO	ABD210N*	_			Explosion Proof
ABD2		1NC	ABD201N*	B G			Terminal Blocks
AOD2	Mamantani	1NO-1NC	ABD211N*	R			Relays & Sockets
	Momentary	2N0	ABD220N*	Υ		Panel Thickness _0.8 to 7.5 ø39	l
		2NC	ABD202N*	S W			Circuit Protectors
		2NO-2NC	ABD222N*	VV			Power Supplies
		1NO	A0D210N*	В	4 A A		
		1NC	A0D201N*	G	45.4 (1 or 2 blocks)	294	LED Illumination
	Maintained	1NO-1NC	A0D211N*	R	65.4(3 or 4 blocks)	14 40 40	Controllers
		2N0	AOD220N*	Y S			Operator
		2NC 2NO-2NC	AOD202N* AOD222N*	W			Interfaces
Extended with Half Shroud		1NO	AUDZZZN* ABGD210N*				Sensors
ABGD2		1NC	ABGD210N*	В			AUTO-ID
AOGD2		1NO-1NC	ABGD201N*	- G R			
	Momentary	2NO	ABGD220N*	Ϋ́	ļ ,	Panel Thickness	
		2NC	ABGD202N*	S		Panel Thickness 0.8 to 3.5	
		2NO-2NC	ABGD222N*	W			Flush Silhouette
		1NO	AOGD210N*	D	4:14	832 83 83 83 83 83 83 83 83 83 83 83 83 83	ø16
		1NC	AOGD201N*	B G			
	Maintained	1NO-1NC	AOGD211N*	R	40.9 (1 or 2 blocks) 60.9 (3 or 4 blocks)	18.5 20.5 29.4 40	ø22
	wamameu	2N0	AOGD220N*	Y			ø30
		2NC	AOGD202N*	S W			
Francisco de la Constancia de la Constan		2NO-2NC	AOGD222N*				Miniature
Extended with Full Shroud ABFD2		1NO	ABFD210N*	В			Pilot Lights
AOFD2		1NC	ABFD201N*	G			
	Momentary	1NO-1NC 2NO	ABFD211N*	R Y		Denal Thistones	
		2NC	ABFD220N* ABFD202N*	Ś	- 1	Panel Thickness 0.8 to 6 039	
		2NO-2NC	ABFD202N*	W			TWN
		1NO	AOFD210N*		4	1 1 1 2 2 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1	TWND
		1NC	AOFD201N*	В	BBB		
		1NO-1NC	A0FD211N*	- G R	45.4 (1 or 2 blocks) 65.4 (3 or 4 blocks)	14 16.5 29.4 40	ARN
	Maintained	2NO	A0FD220N*	Υ	20.7 (0 01 7 DIOGRA)	 	cs
		2NC	AOFD202N*	S			
		2NO-2NC	A0FD222N*	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

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.

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

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Miniature Pilot Lights

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

						Package Quantity:
Shape	Operation	Contact	Part No. (Ordering No.)	Button Color Code	Dimensions	(All dimensions in mm.)
Mushroom ABD3		1NO	ABD310N*	. В		
AOD3		1NC 1NO-1NC	ABD301N* ABD311N*	. G R		
	Momentary	2N0	ABD311N*	Υ	Panel Thickness 0.8	3 to 7.5 29.4
		2NC	ABD302N*	S		
		2NO-2NC	ABD322N*	W	4 4 4	
		1NO	A0D310N*	. В		
		1NC 1NO-1NC	AOD301N* AOD311N*	. G R	45.4 (1 or 2 blocks) 65.4 (3 or 4 blocks) 22	40
	Maintained	2NO	AOD320N*	Ϋ́	22 J	k 10 4
		2NC	A0D302N*	S		
Muchan and with Full Changed		2NO-2NC	ADDRESS ADDRES	W		
Mushroom with Full Shroud ABGD3		1NO 1NC	ABGD310N* ABGD301N*	В		
AOGD3		1NO-1NC	ABGD301N*	. G R	Panel Thickness 0.8	to 6.5
_	Momentary	2N0	ABGD320N*	Υ		
		2NC	ABGD302N*	S W	4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
		2NO-2NC 1NO	ABGD322N*			
		1NC	AOGD310N* AOGD301N*	B G	43.9 (1 or 2 blocks) 63.9 (3 or 4 blocks) 23.5	40
	Maintained	1NO-1NC	AOGD311N*	R	, , , , , , , , , , , , , , , , , , , ,	
	Maintained	2N0	AOGD320N*	Υ		
		2NC	AOGD302N*	S W		
Jumbo Mushroom		2NO-2NC 1NO	AOGD322N* ABD410N*			29.4
ABD4		1NC	_		Panel Thickness 0.8 to 7.5	
			ABD401N*	В		
	Momentary	1NO-1NC	ABD411N*	_ G R	4.14	(
		2N0	ABD420N*	Ϋ́		
		2NC	ABD402N*		45.4 (1 or 2 blocks)	
Lumba Masharan with		2NO-2NC	ABD422N*		65.4 (3 or 4 blocks) 29 Panel Thickness 0.8 to 7.5	40
Jumbo Mushroom with Shallow Shroud		1NO	ABGD410N*		Fallet Hillokiless U.O to 7.5	29.4
ABGD4		1NC	ABGD401N*	_		
		1NO-1NC	ABGD411N*	B G		// 1 h W
	Momentary	2N0	ABGD420N*	R	# # # # # # # # # # # # # # # # # # #	
		2NC	ABGD402N*	Y		1
					45.4 (1 or 2 blocks)	
lumbo Muobrases with		2NO-2NC	ABGD422N*		65.4 (3 or 4 blocks) 29 Panel Thickness 0.8 to 7.5	40
Jumbo Mushroom with Deep Shroud		1NO	ABFD410N*	_	Taner minutiess 0.0 to 7.3	23.4
ABFD4		1NC	ABFD401N*			
		1NO-1NC	ABFD411N*	B G	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	
	Momentary	2N0	ABFD420N*	R	4 8 8	
		2NC	ABFD402N*	Y		<u></u>
		2NO-2NC	ABFD422N*		45.4 (1 or 2 blocks) 65.4 (3 or 4 blocks) 33	40
Pin Lock (On-off Lock Type) (*1)	•	1NO	ABD8P10N*			
ABD8P		1NC	ABD8P01N*	В		40
		1NO-1NC	ABD8P11N*	G	•	29.4
		2N0 2NC	ABD8P20N*	R Y	Panel Thickness 0.8 to 7.5	
and the same	P.09	2NO-2NC	ABD8P02N* ABD8P22N*	-		
Pin Lock (On-lock Type) (*1)		1NO	ABD8PN10N*		41.4	/ //((C.\2001)
ABD8PN		1NC	ABD8PN01N*	В		
1 8		1NO-1NC 2NO	ABD8PN11N*	G	45.4 (1 or 2 blocks)	
	No.		ABD8PN20N*	R	45.4 (1 or 2 blocks) 65.4 (3 or 4 blocks) 27.5	\
		2NC	ABD8PN02N*	Y		
		2NO-2NC	ABD8PN22N*			

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



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

Package Quantity: 1

Shape	Contact	Part No. (Ordering No.)	Button Color Code	Dimensions (All dimensions in mm.)
Mushroom Pushlock Turn Reset (*1) AVD3	1NO	AVD310N*		
AVES	1NC	AVD301N*		Panel Thickness 0.8 to 7.5
	1NO-1NC	AVD311N*	R Y	
	2N0	AVD320N*	Υ	
	2NC	AVD302N*		45.4 (1 or 2 blocks) 65.4 (3 or 4 blocks) 23.6
	2NO-2NC	AVD322N*		00.4 (3 0) 4 0000KS) spc 25.50 spc 40 spc
Mushroom Push Turn Lock AJD3	1NO	AJD310N*		
AJUS	1NC	AJD301N*		Panel Thickness 0.8 to 7.5
	1NO-1NC	AJD311N*	B G	B B B B B B B B B B B B B B B B B B B
	2N0	AJD320N*	R Y	
	2NC	AJD302N*	T T	45.4 (1 or 2 blocks)
	2NO-2NC	AJD322N*		65.4 (3 or 4 blocks) 23.6
Mushroom Pull AZD3	1NO	AZD310N*		Panel Thickness 0.8 to 7.5
	1NO-1NC	AZD311N*	B G	
	2N0	AZD320N*	R Y	11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	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	
	2NC	AYD3102N*	- I	45.4 5.5 stroke 29.4 40

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

Pushbutton operation

Pushlock Turn Reset

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

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

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

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

Pull contact operation

Contact	AZD3								
Contact	Normal	Pull							
1NO	о' о	9.							
2NO-2NC	ტ •_•	<u></u> 00 •1•							
2N0	9,0 9,0	1° 1° 1°							
2NC	•-	•1• •1•							

Push-Pull contact operation

0	AYI	031
Contact	Push	Pull
1NO	ტ •_•	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
2N0	مړه مړه	90 0 40 40
2NC	<u>.</u>	aia aia

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

TWN

ARN

CS

LED Illuminated Extended/Extended with Full Shroud

Package Quantity: 1

Lights	Shape	Base	Operation	Operating Voltage	Contact	Part No. (Ordering No.)	Button Color Code
0,	Extended				1NO-1NC	ALD22211DN*	
	ALD2			24V AC/DC	2N0	ALD22220DN*	7
	AOLD2				2NC	ALD22202DN*	R
APEM					1NO-1NC	ALD21611DN*	G
Switches &			Momentary	100/110V AC	2N0	ALD21620DN*	— Y — А
Pilot Lights					2NC	ALD21602DN*	S
Control Boxes					1NO-1NC	ALD22611DN*	PW
Emergency				200/220V AC	2N0	ALD22620DN*	
Stop Switches	(24V AC/DC)	BA9S			2NC	ALD22602DN*	
Enabling Switches	(2177.6,20)	DA95			1NO-1NC	A0LD22211DN*	
Safety Products				24V AC/DC	2N0	A0LD22220DN*	
Salety Floudicts					2NC	A0LD22202DN*	R
Explosion Proof					1NO-1NC	A0LD21611DN*	G Y
			Maintained	100/110V AC	2N0	A0LD21620DN*	_
Terminal Blocks					2NC	A0LD21602DN*	_ s l
Relays & Sockets					1NO-1NC	A0LD22611DN*	PW
Circuit	With transformer			200/220V AC	2N0	A0LD22620DN*	
Protectors	(100/110V AC)				2NC	A0LD22602DN*	
Power Supplies	Extended with Full Shroud				1NO-1NC	ALFD22211DN*	
точног оцирнос	ALFD2			24V AC/DC	2N0	ALFD22220DN*	
LED Illumination	AOLFD2				2NC	ALFD22202DN*	R
Controlloro					1NO-1NC	ALFD21611DN*	G
Controllers			Momentary	100/110V AC	2N0	ALFD21620DN*	— Y А
Operator Interfaces					2NC	ALFD21602DN*	_ s
					1NO-1NC	ALFD22611DN*	PW
Sensors				200/220V AC	2N0	ALFD22620DN*	
AUTO-ID	(24V AC/DC)	BA9S			2NC	ALFD22602DN*	
	(211116/20)	DASS			1NO-1NC	AOLFD22211DN*	
				24V AC/DC	2N0	AOLFD22220DN*	╛
					2NC	AOLFD22202DN*	R
Flush Silhouette					1NO-1NC	AOLFD21611DN*	G
riusii siiilouette			Maintained	100/110V AC	2N0	AOLFD21620DN*	— Y — А
ø16					2NC	AOLFD21602DN*	$\begin{bmatrix} & A \\ S & \end{bmatrix}$
					1NO-1NC	AOLFD22611DN*	PW
ø22	With transformer			200/220V AC	2N0	AOLFD22620DN*	_
ø30	(100/110V AC)				2NC	AOLFD22602DN*	
	 Specify a color code in place of * in Part No. B (red). ((groon) V (vollow) A (ambor)	• Soo R-308 for	r other contact con	figurations and gold-plated silver	contacte

- 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.

Extended, LED illuminated (momentary/maintained)

- · 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.

Dimensions

TWN

CS

Miniature

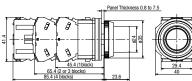
Pilot Lights

6, 12, 24V AC/DC · Without LED Lamp ARN

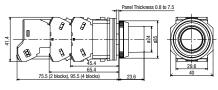
Integrated terminal cover

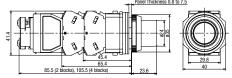
100/110V AC, 200/220V AC (240V AC or below)

110V DC, 380V AC or over



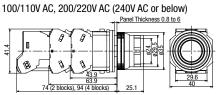
ALD2/AOLD2 (terminal screws M3.5)

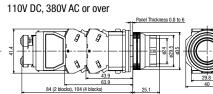




Extended with Full Shroud, LED illuminated (momentary/maintained) ALFD2/AOLFD2 (terminal screws M3.5) Integrated terminal cover

6, 12, 24V AC/DC · Without LED Lamp







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

LED Illuminated Mushroom (ø40)/Mushroom Pushlock Turn Reset

Package Quantity: 1

						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*	ן ^א G
		Momentary	100/110V AC	2N0	ALD31620DN*	_ Ÿ
				2NC	ALD31602DN*	R G Y A S
				1NO-1NC	ALD32611DN*	3
			200/220V AC	2N0	ALD32620DN*	
(24V AC/DC)	BA9S			2NC	ALD32602DN*	
	DASO			1NO-1NC	AOLD32211DN*	
			24V AC/DC	2N0	AOLD32220DN*	
				2NC	A0LD32202DN*	_ R
				1NO-1NC	A0LD31611DN*	R G Y A W S
		Maintained	100/110V AC	2N0	AOLD31620DN*	_ Y A
				2NC	AOLD31602DN*	_ W
				1NO-1NC	A0LD32611DN*	S
With transformer			200/220V AC	2N0	AOLD32620DN*	_
(100/110V AC)				2NC	A0LD32602DN*	
Mushroom Pushlock Turn Reset (*1)				1NO-1NC	AVLD32211DN*	
AVLD3			24V AC/DC	2N0	AVLD32220DN*	_ \
				2NC	AVLD32202DN*	
				1NO-1NC	AVLD31611DN*	
	BA9S	_	100/110V AC	2N0	AVLD31620DN*	R
				2NC	_ 1	
(24V AC/DC)				1NO-1NC	AVLD32611DN*	
			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

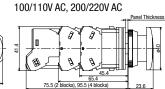
TWN

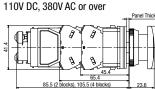
Dimensions

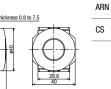
Mushroom, LED illuminated (momentary/maintained)

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

6, 12, 24V AC/DC · Without LED Lamp





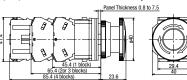


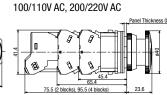
Mushroom Pushlock Turn Reset, LED illuminated

AVLD (terminal screws M3.5)

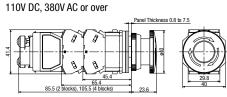
Integrated terminal cover

6, 12, 24V AC/DC · Without LED Lamp









ASD Selector Switches (Knob Operator)

Package Quantity: 1

Knob Operator ASD Shape APEM Spring Return **Contact Configuration** Spring Return from Left Maintained from Right Operator Operator Contact Block Contact Block Control Boxes Position Position Contact Emergency Mounting Mounting Contact 1 2 Stop Switches Contact Position Position Enabling 1 NO NO 1N0 1 • Switches **ASD2110N** ASD210N ASD2210N (10)2 2 **Dummy Block** Safety Products 90° NO NO 1NO-1NC 1 1 2-position ASD211N ASD2111N ASD2211N **Explosion Proof** (11)2 NC 2 NC 1 NO 1 NO 2N0 Terminal Blocks ASD220N **ASD2120N** ASD2220N (20)2 NO 2 NO • Relays & Sockets 1 NO 1 NO Circuit 2 NC 2 NC 2NO-2NC ASD222N ASD2122N ASD2222N Protectors (22)3 NO 3 NO **Power Supplies** 4 NC 4 NC Spring Return Spring Return Spring Return LED Illumination **Contact Configuration** Maintained from Right Two-way Controllers Operator Contact Block Operator Position Contact Interfaces Mounting Contact 2 1 0 Position Sensors 1 N0 • 2N0 ASD320N ASD3120N ASD3220N ASD3320N AUTO-ID (20)2 N0 • 1 NC 2NC ASD302N ASD3102N ASD3202N ASD3302N (02)2 NC 1 NO Flush Silhouette NO 2 • 2NO-2NC ASD322N **ASD3122N** ASD3222N ASD3322N (22)3 NC ø16 45° 4 NC 3-position ø22 1 NO 2 NO • 4N0 ASD340N ASD3140N ASD3240N ASD3340N (40)3 NO • Miniature 4 N0 • 1 NC Pilot Lights 2 NC 4NC ASD304N ASD3104N ASD3204N ASD3304N (04)3 NC 4 NC 1 N0 TWN

ASD33SN-243

Knob: Black

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Round bezel (metal): Chrome-plated

☆ 3S

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

2

3

4

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

N0

NC

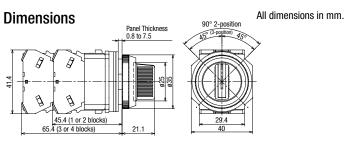
Dummy Block

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

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

Contact Block Mounting Position





Terminal Screws: M3.5 Terminal cover: integrated

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

Flush Silhouette

ø16 ø22

Miniature Pilot Lights

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ASD□L Selector Switches (Lever Operator)

Package Quantity: 1

Shape	Lever Oper: ASD□L	ator											rackage quality. I	
		Contact C	Configurat	ion			Maintained	Spring Return from Right		Spring Return from Left Operator				
	Contact	Contact			Operator Position		1 2	1 >2				rator ition	1, 2	
	Contact	Mounting Position	Contact	1	2				Mounting		1	2		
	1N0	①	NO		•		ASD2L10N	ASD21L10N	1	NO	•		ASD22L10N	
90°	(10)	② — Dummy Block		ck	ASDZETON	ASDZILION	2	_			ASDZZLIUN			
2-position	1NO-1NC	0	NO		•		ASD2L11N	ASD21L11N	1	NO	•		ASD22L11N	
	(11)	2	NC	•			AUDELTIN	AUDZIETIN	2	NC		•	AUDELETTIV	
	2N0	0	NO		•		ASD2L20N	ASD21L20N	1	NO	•		ASD22L20N	
	(20)	2	NO		•		AODELEON	AUDZIEZUN	2	NO	•		AODELECTI	
		0	NO		•				①	NO NO	•		_	
	2NO-2NC	2	NC	•	_		ASD2L22N	ASD21L22N	2	NC		•	ASD22L22N	
	(22)	3	NO	_	•				3	NO	•			
		4	NC	•					4	NC		•		
		Contact C	Configurat				Maintained	Spring Return from Right	Sprin	g Return fi	rom L	eft	Spring Return Two-way	
	Contact		act Block Operator				1 0 2	1 0 2		1, 0	2		1 , 0 , 2	
	Contact	Mounting Position	Contact	1	2					\bigvee				
	2N0	0	NO NO	•			ASD3L20N	ASD31L20N		ASD32L20	ON		ASD33L20N	
	(20)	2	NO NO			•								
	2NC (02)	0	NC		\rightarrow		ASD3L02N	ASD31L02N		ASD32L02	2N		ASD33L02N	
	(02)	② ①	NC NO	-		-			+					
	2010 2010	2	NO NO	•		•								
	2NO-2NC (22)	3	NC				ASD3L22N	ASD31L22N		ASD32L2	2N		ASD33L22N	
45°	(,	4	NC											
3-position		①	NO	•										
	4NO	2	NO			•								
	(40)	3	NO	•			ASD3L40N	ASD31L40N		ASD32L40	ON		ASD33L40N	
	` -'	4	NO			•								
		0	NC											
	4NC	2	NC											
	(04)	3	NC				ASD3L04N	ASD31L04N		ASD32L04	4N		ASD33L04N	
		4	NC											
		0	NO	•										
	│	2	NO			•	<u></u>							
	☆ 3S	3	NC		•	ASD3L3SN-243 — —			_					
④ — Dummy Blo					ck									

- Lever: Black

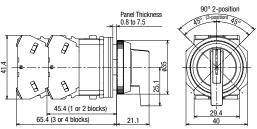
- Round bezel (metal): Chrome-plated
 Selector switches with 1 or 3 contact blocks have a dummy block.
 Knob operator can be installed at every 45 degrees intervals in addition to the positions shown in the above table.
- Turn the operator to each position accurately.
 Selector switches with ☆ have a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

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 Circuit Protectors **Power Supplies** LED Illumination Controllers Operator Interfaces Sensors AUTO-ID

Flush Silhouette

ø16 ø22

Miniature Pilot Lights

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ASD□K Key Selector Switches

Package Quantity: 1

														Package Quantity: 1
1	Shape	Key Selecto ASD⊡K	or (Key No.	0)										
S			Contact (Configurat	ion			Maintained	Spring Return from Right		Spri	ng Ret	urn fro	m Left
y s g		0	Contact	Block	Operator Position			1 2	1 2	Contact	Contact Block			1 2
		Contact	Mounting Position	Position		2				Mounting Position Contact		1	2	
S		1NO	①	NO		•		AODOKAON	AODOJIKAON	1	NO	•		AODOOKAON
f	90°	(10)	2	_	Dun	nmy E	Block	ASD2K10N	ASD21K10N	2	_	_	_	ASD22K10N
	2-position	1NO-1NC	0	NO		•				①	NO	•		
S	Z position	(11)	2	NC	•		1	ASD2K11N	ASD21K11N	2	NC		•	ASD22K11N
_		2N0	0	NO	<u> </u>	•				0	NO	•		
S		(20)	2	NO		•	1	ASD2K20N	ASD21K20N	2	NO	•		ASD22K20N
t		(20)	0	NO		•				0	NO	•		
S		0110 0110	2	NC	•		1			2	NC		•	
S		2NO-2NC (22)					-	ASD2K22N	ASD21K22N			_		ASD22K22N
1		(22)	3	NO NO		•	-			3	NO NO	•		
_			4	NC	•				0 : 0 :	4	NC		•	0 : 0 !
s r				Configurat				Maintained	Spring Return from Right	Spring	g Return f	rom Le	eft	Spring Return Two-way
S			Contact	Block	0per	ator Po	sition	1 0 2	1 0 2		1, 0	2		1 , 0 , 2
s		Contact	Mounting Position	Contact	1	2				\bigvee				
_ D		2N0	①	NO	•									
_		(20)	2	NO	_		•	ASD3K20N	ASD31K20N		ASD32K2	ON		ASD33K20N
		2NC	0	NC			<u> </u>							
		(02)	2	NC		5		ASD3K02N	ASD31K02N		ASD32K0	2N		ASD33K02N
-		(02)	0	NO	•									
е					_									
6		2NO-2NC	2	NO NC				ASD3K22N	ASD31K22N		ASD32K2	2N		ASD33K22N
_	45°	(22)	3	NC										
2	3-position		4	NC										
)	- pooluon		0	NO NO	•		-							
		4NO	2	NO			•	ASD3K40N	ASD31K40N		ASD32K4	ON		ASD33K40N
е		(40)	3	NO	•									
_			4	NO			•							
o 			①	NC										
		4NC	2	NC				ASD3K04N	ASD31K04N		ASD32K0	4N		ASD33K04N
		(04)	3	NC				AODOROHN	MODO I NUMIN	1	HUUUZKU	714		AGDGGRU4N
-			4	NC			L							
V			0	NO	•									
		~~	2	NO			•	\$ \$						
		☆ 3S	3	NC		•		ASD3K3SN-243	_		_			_
V			4	_	Dun	nmy E	Block							
_ !														

- · Cylinder: Chrome-plated
- · Round bezel (metal): Chrome-plated
- Key selector switches with 1 or 3 contact blocks have a dummy block.
- On spring-returned types, the key can be released only from the maintained position. On maintained types, the key can be released from every position. See $\hbox{\ensuremath{B}-308}$ for specifying key retained positions.
- Key selector switch is supplied with two standard keys.
 (1) Insert the key completely before turning the key, otherwise failure will result.

- (2) Turn the operator to each position accurately.

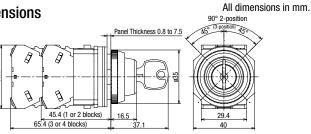
 Different key number is available upon request. Contact IDEC.

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

Contact Block Mounting Position







Terminal Screws: M3.5

Terminal cover: integrated

ASLD Illuminated Selector Switches (LED)

Illuminated Selector Switches (BA9S Base)

Package Quantity: 1

Shape	ASLD			•				(24V AC/DC)								
		Contact	Configurat	tion				Maintained	Spring Return from Right		Sprii	ng Re	turn f	rom Left		1
		Contac		С)pera		Operating	Wantaneu	Spring recurring it	Contact		Оре	rator		Color	l
	Contact	Mounting			Positio	on	Voltage	1 2	1 2	Mounting		Pos	ition	1 2	Code	l
		Position	Contact	1	2					Position	Contact	1	2			
	4110 4110	1	NO		•		24V AC/DC	ASLD22211DN*	ASLD212211DN*	1	NO	•		ASLD222211DN*]
	1NO-1NC (11)	2	NC	•			100/110V AC	ASLD21611DN*	ASLD211611DN*	2	NC		•	ASLD221611DN*		
90°							200/220V AC	ASLD22611DN*	ASLD212611DN*					ASLD222611DN*		
2-position	2N0	①	NO		•		24V AC/DC	ASLD22220DN*	ASLD212220DN*	1	NO	•		ASLD222220DN*	R	
	(20)	2	NO		•		100/110V AC	ASLD21620DN*	ASLD211620DN*	2	NO	•		ASLD221620DN*	Υ	1
	(==)						200/220V AC	ASLD22620DN*	ASLD212620DN*					ASLD222620DN*	A S	
		①	NO		•		24V AC/DC	ASLD22222DN*	ASLD212222DN*	1	NO	•		ASLD222222DN*	PW	ľ
	2NO-2NC	2	NC	•			100/110V AC	ASLD21622DN*	ASLD211622DN*	2	NC		•	ASLD221622DN*		١.
	(22)	3	NO		•		200/220V AC	ASLD22622DN*	ASLD212622DN*	3	NO	•		ASLD222622DN*		
		4	NC	•			_		_	4	NC		•			'
		Contact	Configura	tion				Maintained	Spring Return from Right	Spring	Return fro	om Le	eft	Spring Return Two-way		
	_	Contac	t Block	Opera	ator Po	osition	Operating Voltage	1 0 2	1 0 2		1, 0 2	2		1,0,2	Color Code	١.
	Contact	Mounting Position	Contact	1	0	2	Tomage	1 0 2					0000			
		1	NO	•			24V AC/DC	ASLD32220DN*	ASLD312220DN*	ASLI	D322220	DN*		ASLD332220DN*]
	2N0 (20)	2	NO			•	100/110V AC	ASLD31620DN*	ASLD311620DN*	ASLI	D321620	DN*		ASLD331620DN*		
	(20)						200/220V AC	ASLD32620DN*	ASLD312620DN*	ASLI	D322620	DN*		ASLD332620DN*		١.
	0110	①	NC				24V AC/DC	ASLD32202DN*	ASLD312202DN*	ASLI	D322202	2DN*		ASLD332202DN*		
	2NC (02)	2	NC				100/110V AC	ASLD31602DN*	ASLD311602DN*	ASLI	D321602	2DN*		ASLD331602DN*		-
	(02)						200/220V AC	ASLD32602DN*	ASLD312602DN*	ASLI	D322602	DN*		ASLD332602DN*		l
45°		①	NO	•			24V AC/DC	ASLD32222DN*	ASLD312222DN*	ASLI	D322222	DN*		ASLD332222DN*		Ι.
3-position	2NO-2NC	2	NO			•	100/110V AC	ASLD31622DN*	ASLD311622DN*	ASLI	D321622	DN*		ASLD331622DN*	R	
	(22)	3	NC				200/220V AC	ASLD32622DN*	ASLD312622DN*	ASLI	D322622	DN*		ASLD332622DN*	Ϋ́	-
		4	NC				_	_	_					_	A	l
		①	NO	•			24V AC/DC	ASLD32240DN*	ASLD312240DN*	ASLI	D322240	DN*		ASLD332240DN*	S PW	
	4N0	2	NO			•	100/110V AC	ASLD31640DN*	ASLD311640DN*	ASLI	D321640	DN*		ASLD331640DN*] '	1
	(40)	3	NO	•			200/220V AC	ASLD32640DN*	ASLD312640DN*	ASLI	D322640	DN*		ASLD332640DN*]	
		4	NO			•	_		_					_		Ι΄
		①	NC				24V AC/DC	ASLD32204DN*	ASLD312204DN*	ASLI	D322204	IDN*		ASLD332204DN*]	.
	4NC	2	NC				100/110V AC	ASLD31604DN*	ASLD311604DN*	ASLI	D321604	DN*		ASLD331604DN*]	
	(04)	3	NC	1		-	200/220V AC	ASLD32604DN*	ACL DOLOGO ADAL	ACLI				ACL DODGCO ADM.	1	1
	(04)	4	NC		_		200/220V AC	A3LD32004DN*	ASLD312604DN*	ASLD322604DN*				ASLD332604DN*	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)
 Round bezel (metal): Chrome-plated
 Illuminated selector switches have an LED lamp installed.

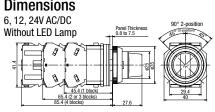
- Use a pure white (PW) LED for yellow (Y) illumination.
 See B-309 for other operating voltage such as 6V AC/DC, 12V AC/DC, and 110V DC.
- Illuminated selector switches of 24V AC/DC or below with 2 or 4 contact blocks have a dummy block.
- Turn the operator to each position accurately.
- See B-309 for gold-plated silver contacts. • See B-314 for bottom view.

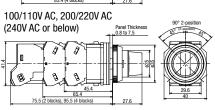
All dimensions in mm.

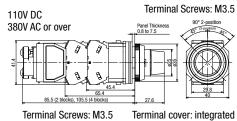
Contact Block Mounting Position Dimensions











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Control Boxes

Emergency Stop Switches Enabling Switches

Safety Products **Explosion Proof**

Terminal Blocks

Relays & Sockets Circuit Protectors

Power Supplies

LED Illumination

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Miniature

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ASBD2 Selector Pushbuttons

Package Quantity: 1

Shape	Contact Configuration	Circuit Code	Con Blo		Left	Ring F	Position	Right	Button Color Code	Ring Operator			
			Mounting Position	Contact	Normal	Push Push	button Normal	Push	0000	Part No. (Ordering No.)			
Ring Operator (90°2-position) ASBD2	11	A03	0	NO		•		•	B G	ACREOMAN ACC			
	(1NO-1NC)	AU3	2	NC	•				R Y	ASBD211N-AU3*			
			0	NO		•		•					
		A08	2	NC	•					ASBD222N-A08*			
						3	NO NO		•		•		7.055===1.7.00
4000			4	NC NO	•	•		•					
			2	NO									
		☆ C10	3	NC	•					☆ ASBD222N-C10*			
			4	NC				7.055					
			①	NO		•			R	ASBD222N-D10* ASBD222N-E10*			
	22	D10	2	NO				•	B G R	ΛCBD222N_D10 *			
	(2NO-2NC)	D10	3	NC	•				R Y	A3DD222N-D10*			
			4	NC			•		ĭ				
			0	NO NO		•							
		☆ E10	3	NO NC				_		ACDD222N E10∗			
		EIU	4	NC						A3DDZZZN-E1U*			
			0	NO				•					
		-^-	2	NO		•				☆			
		☆ F10	3	NC			•			ASBD222N-F10*			
			4	NC	•								

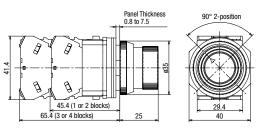
- Specify a color code in place of * in Part No. B (black), G (green), R (red), Y (yellow)
- Bezel (metal): Chrome-plated
- Circuit codes E and F: The right and left NC contact blocks on circuit code E or F may overlap each other while turning the ring operator. The NO and NC contact blocks on circuit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

Contact Block Mounting Position



Dimensions Ring operator (90° 2-position)

All dimensions in mm.



Terminal Screws: M3.5 Terminal cover: integrated

Enabling

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Safety Products **Explosion Proof** Terminal Blocks Relays & Sockets Circuit

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Power Supplies LED Illumination

Pilot Lights (Round)

Package Quantity: 1

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

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

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

Round bezel (metal): Chrome-plated

• 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.

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

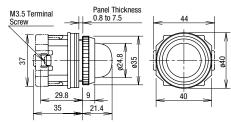
Note: DC-DC converter types are not approved by UL and CSA, and not CE compliant.

• See B-314 for bottom view.

Dimensions

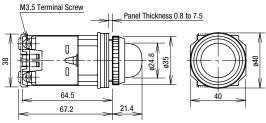
Round, LED illuminated

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



Terminal Screws: M3.5

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



Terminal Screws: M3.5

All dimensions in mm.

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Miniature

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Pilot Lights

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• See B-349 for wiring.

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Flush Silhouette

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Miniature Pilot Lights

Nameplates

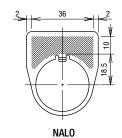
	Model	Legend	Material	Part No.	Ordering No.	Package Quantity	Dimensions (mm)	
	NA	Blank		NA O	NA-0	1	. 401.2	
1			Al:	Aluminium 1.2 mm thick	NA-0	NA-OPN10	10	245
S	\bigcup	bl	White letters on black With background	black	NA-	NA-□	1	9 030.5
<i>y</i> s 	For TWN/TWND	Legend		NA-□	NA-□PN10	10	1 (8000)	
8 	NALO	Aluminium	Aluminium		NALO	1	40 1.2	
s s t	For TWN/TWND	DIAIIK	Black	NALO	NALOPN10	10	030.5	

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

Legends

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

Shape and Engraving Area



All dimensions in mm.

Example (when the legend height is 4 mm)

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Shape	Engravi (m	ng Area 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	

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Miniature
Pilot Lights

ARN

Accessories

Ob.	8.6-1	Doub M	Ordering	Package	2
Shape	Material	Part No.	No.	Quantity	Remarks
Locking Ring Wrench B A For TWN/TWND	Nitril rubber (black)	OR-12	OR-12	1	Used to tighten the round bezel when installing the ø30 or ø25 switch onto a panel from the front. A: TWS series (ø25) B: TWN/TWND series (ø30) A B B B B B B B B B B B B
Lamp Holder Tool A For TWN/TWND	Nitril rubber (black)	OR-55	OR-55	1	Used to install and remove the LED/incandescent lamps. See B-345. A: For BA9S base B: For E12 base A OR-55 B B 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 8
Contact Rubber Boot For momentary 1 layer of contact blocks (2 contact blocks) For TWN	Nitril rubber (black)	0C-99	OC-99	1	Rubber boot used to prevent oil and dirt from entering into the contact block. Temperature range: —5 to +60°C When inserting a cable, cut the projection on the cover to match the cable size.
Anti-rotation Ring For TWN/TWND	Metal (diecast) (zinc-plated)	0GL-11	OGL-11PN10	10	Used to prevent the operator from turning. Generally used when using no nameplates on selector switches and selector pushbuttons. See B-345 for installation. Cannot be used for pin lock.
Rubber Mounting Hole Plug	Nitril rubber (black)	0B-13B	0B-13BPN05	5	Used to plug unused ø30.5 mm mounting holes. Degree of protection: IP40
For TWN/TWND	(gray)	0B-13	0B-13PN05		034
Plastic Mounting Hole Plug For TWN/TWND	Plug: ABS plastic (gray) Gasket: Chloroprene rubber Locking ring: diecast zinc	OBP-11	0BP-11	1	Tightening torque: 1.2 N·m. Degree of protection: IP65 (when there is no anti-rotation ring hole) Supplied with a locking ring. Gasket M30°1.5Screw Locking Ring
Metallic Mounting Hole Plug For TWN/TWND	Plug: ABS plastic (gray) Gasket: Chloroprene rubber Locking ring: diecast zinc	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 ^{P1.5} Screw Locking Ring

Control Boxes

Emergency Stop Switches Enabling

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Circuit

Protectors

Accessories All dimensions in mm.

Ordering Package Shape Material Part No. Remarks Quantity No. **Button Cover for Extended** Metallic bezels covered with a Black 0C-11B 0C-11B **Pushbuttons** rubber boot to enhance waterproof characteristics. • Button is not included. Applicable Nitril rubber Red 0C-11R 0C-11R to extended pushbuttons only. • Oil-proof 1 Operating temperature: Bezel: −5 to +60°C. diecast zinc **0C-11G** 0C-11G Green Yellow **0C-11Y 0C-11Y** For TWN/TWND · Used to cover and protect push-For flush buttons where units are subject 0C-121 0C-121 1 to water splash. Not suitable for pushbuttons outdoor use or where the units are EPDM rubber subject to oil splash. Part No. Α B For extended 0C-122 0C-122 1 37 0C-121 16 pushbuttons OC-122 37 22 For TWN/TWND Used for ABN4G and ABGD4 **Dust-proof Rubber Cover** Panel Thickness for Jumbo Mushrooms pushbuttons. Nitril rubber OC-4GN OC-4GN 1 (black) For TWN/TWND Padlock Cover · 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** 82.5 Mushroom with full shroud Mushroom Polyarylate Jumbo mushroom with shroud 0L-KL1 0L-KL1 (gasket: 1 **Illuminated** Outside diameter: ø50 nitryl rubber) **Pushbuttons** With half shroud With full shroud Selector Switches Lever operator Rubber Key Hole ø8 Key selector switch with For TWN/TWND key installed Padlock Cover for Applicable model **Key Selector Switches** Key selector switches ASN□K/ASD□K See padlock cover catalog for operating instruction. Metal Paint: red HS9Z-PC30 HS9Z-PC30 1 (zinc-plated brass) For TWN/TWND For Flush Pushbuttons Used to protect flush pushbuttons from inadvertent operation. · Can be easily attached using the locking ring. Metal (zinc-plated 0L-C OL-C 1 brass) For TWN/TWND

Accessories All dimensions in mm.

Shape		Material	Part No.	Ordering No.	Package	Remarks	ilot Lights
Metallic Bezel		Matorial	Tuit No.	ordornig ito.	Quantity	Homano	hts
Metallic Bezel							
		 Metal	1			Cannot be used with pin lock,	APEM
		(diecast zinc:	0G-11	0G-11PN02	2	selector pushbuttons, and monolever	Switches &
		chrome-plated)				units.	Pilot Lights Control Boxes
ø35/ø26, height 9	WN/TWND						Emergency
Plastic Bezel							Stop Switches Enabling
						Specify a color code in place of *.	Switches
		Deliveenhenete	00D 11.	00D 44 . DN00		B (black), G (green), R (red), W (white),	Safety Products
		Polycarbonate	0GP-11*	0GP-11*PN02	2	Y (yellow) • Cannot be used with pin lock, selector	Explosion Proof
						pushbuttons, and monolever units.	Terminal Blocks
ø35/ø26, height 9	For TWN						Relays & Sockets
Octagonal Metal Bezel	①						Circuit Protectors
	Flush W35		0G-81	0G-81PN02			Power Supplies
	(37.6)		00-01	0G-01PN02	2		LED Illumination
	H9	Metal (diecast zinc:				Use with TWDN series diecast zinc switches and pilot lights.	Controllers
	2	chrome-plated)				Cannot be used with half-shrouds.	Operator
2	Extended W35		0G-82	0G-82	1		Interfaces Sensors
	(37.6) H16						AUTO-ID
For TWDN							AUTU-ID
Clear Plastic Shroud for Flush Pushb	uttons						
							Flush Silhouette
		Acrylic (clear)	0GP-13	0GP-13PN02	2		ø16
							ø22
ø35, height 14	For TWN						ø30
Clear Plastic Shroud for Extended Pu	shbuttons					Clear plastic full shroud.	
							Miniature
		Acrylic (clear)	0GP-14	0GP-14PN02	2		Pilot Lights
		/ Not yillo (olout)	oui 14	001 141 1102			
ø35, height 20.6 Clear Plastic Shroud for Illuminated Pus	For TWN						TWN
Clear Flastic Silloud for illuminated Fus	SIIDULLOI 15						TWND
							ARN
		Acrylic (clear)	0GP-1411	0GP-1411	1	Buttons may protrude slightly depending on the panel thickness.	CS
						on the panel unckness.	
Shroud: ø35, height 20.6							
Metal Nut Ring: height 4	For TWN						
Metal Nut Ring for Illuminated Pushb	υιττοπέ						
		Metal (diecast zinc)	0L-11	0L-11PN05	5	Metal nut ring for OGP-1411 only.	
		, , ,					
ø35, height 4	For TWN						
,		L	L			1	



Control Boxes

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Flush Silhouette

ø16 ø22

Miniature Pilot Lights

ARN

Accessories All dimensions in m

	Shape		Material Part No.		Ordering No. Package Quantity		Color Code *
	Button for Pushbuttons	① Flush ø24.6, height 4		ABN1BN-*	ABN1BN-*PN05	5	
	2	② Extended ø24.6, height 9		ABN2BN-*	ABN2BN-*PN05	5	B (black), G (green), R (red), Y (yellow), S (blue), W (white)
	3	③ Mushroom ø40, height 16.2	Polyacetal	ABN3BN-*	ABN3BN-*PN02	2	
-	4	④ Jumbo Mushroom ø65, height 23.2		ABN4BN-*	ABN4BN-*	1	B (black), G (green), R (red), Y (yellow), S (blue)
	(S)	© Button for Pin Lock (ABD8P) ø23.6, height 3		ABW1B-*	ABW1B-*PN05	5	B (black), G (green), R (red), Y (yellow), S (blue), W (white)
-		© ø40 Pushlock Turn Reset (AVN3, AVD3) ø40, height 18.5	- AS resin	AVN3B-*	AVN3B-*	1	R (red),Y (yellow)
	For TWN/TWND	Ø 40 Push Turn Lock (AJN3, AJD3) ø40, height 18.5	Ao Iesiii	AJN3B-*	AJN3B-*	1	B (black), G (green), R (red), Y (yellow)
	Lens for Illuminated Pushbuttons ①	① Extended (ALN2, ALD2) ø24, height 18.5	- AS resin	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	ASTESIII	AVLN3L-R-K	AVLN3L-R-KPN02	2	R (red) only
	Selector Operator	① Knob operator ø25, height 20.5		ASNHT-*	ASNHT-*PN02	0	B (black), G (green), R (red)
	2	© Lever operator ø25, height 20.5, length 37.5	Polyacetal	ASNHL-*	ASNHL-*PN02	2	b (black), G (green), R (red)
	34	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	4 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	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	© 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	③ Square extended (UPQN3B) □25, height 26.5		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	llot Lights
Rubber Washer (1.5 mm-thick)				Quantity		ts
	Rubber (synthetic soft vinyl) ø39/ø29.5, height 1.5	0W-11	OW-11PN10	10	To tighten mounting panels	APEM
For TWN/TWND Rubber Washer (3.0 mm-thick)						Switches & Pilot Lights
Transor Traction (etc Intill Union)	Rubber	0W-12	01// 4001/40	10	To tick to a second or	Control Boxes
	(synthetic soft vinyl) ø39/ø29.5, height 3	OVV-12	OW-12PN10	10	To tighten mounting panels	Emergency Stop Switches
For TWN/TWND Shroud for Pushbuttons						Enabling Switches
①	① Half shroud	ABN2G	ABN2G	1	• With put ring (a25 height 4)	Safety Products
	ø35/ø27, height 20.5	ADNZU	ADNZU	'	With nut ring (ø35, height 4)	Explosion Proof
2						Terminal Blocks
	② Full shroud	ABN2F	ABN2F	1		Relays & Sockets
3	ø35/ø28.5, height 16.5	ADIVE	ADNEI			Circuit Protectors
	③ Full shroud					Power Supplies
4	(for mushroom	ABN3G	ABN3G	1		LED Illumination
	pushbuttons) ø48, height 20					Controllers
						Operator Interfaces
S	Shallow shroud (for jumbo mushroom)	ABN4G	ABN4G	1		Sensors
	ø75, height 18					AUTO-ID
	© Danie abassad					
	⑤ Deep shroud (for jumbo mushroom)	ABN4F	ABN4F	1		
For TWN/TWND	ø75/ø69, height 33					Flush Silhouette
Shroud for Illuminated Pushbuttons	① Half shroud					ø16
0 🙆 2 🔎	(For BA9S base) ø35/ø27, height 25	ALN2GL	ALN2GL	1	• With nut ring (ø35, height 4)	ø22
	\$33/\$27, Height 23					ø30
	② Full shroud	ALNOFI	ALNOSI		MEN 1 : (25 1 : 11 4)	Miniature
For TWN/TWND	(For BA9S base) ø35/ø29.5, height 22.5	ALN2FL	ALN2FL	1	With nut ring (ø35, height 4)	Pilot Lights
Spare Key						
For Key Selector Switches	Metal Nickel plated brass				◆ ASN□K□N	
	Length 3, width 19.7,	TW-SK-0	TW-SK-0PN02	2	ASD K	TWN
For TWN/TWND	thickness 1.8					TWND
Spare Key For Key Selector Switches	Metal					ARN
	Nickel plated brass	ASN-SK-24401	ASN-SK-24401PN02	2	ASN□K□-N024401	CS ————————————————————————————————————
For TWN	Length 37.5, thickness 2					
Pin/Chain Kit						
For ABD8P	a.				Di li	
	Pin: Nickel plated brass	ABD8P-PIN	ABD8P-PIN	1	Pin, chain, and plate for ABN8PPin (ø4.6)	
For TWND						
Contact Block Plug						
	Polyamide	HW9Z-CBPL	HW9Z-CBPLPN10	10	Used to plug the hole in the	
	rolyamido	111102 0012	TIWOZ OBI EL NIO	10	center of a contact block.	
For TWN/TWND						

Maintenance Parts

Lights	Shape	Description	Part No.	Ordering No.	Package Quantity	Remarks	
o,	Contact block	NO control	HW-U10	HW-U10		Housing color: Blue Push rod color: Green	
	HW-U	NO contact	HW-U10-MAU	HW-U10-MAU	1	MAU has gold contacts	
APEM		NC contact	HW-U01	HW-U01	1	Housing color: Reddish purple Push rod color: Red	
Switches &		NC contact	HW-U01-MAU	HW-U01-MAU	'	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	'	MAU has gold contacts	
Emergency Stop Switches		LB contact	HW-U01R	HW-U01R		Housing color: Reddish purple	
Enabling Switches	For TWN/TWND, 11g approx.	(late break)	HW-U01R-MAU	HW-U01R-MAU	1	Push rod color: White MAU has gold contacts	
Safety Products Explosion Proof	Dummy Block For TWN/TWND	Polyamide	HW-DB	HW-DBPN10	10	For HW-U contact blocks Used when the number of contact blocks and full voltage adapters is 1 or 3.	
Terminal Blocks	3.5g approx.						
Relays & Sockets	Full Voltage Adapter For Illuminated Switches (*1)					Applicable model: Illuminated pushbuttons	
Circuit Protectors		Polyamide	HW-GA1N	HW-GA1NPN02	2 2	Illuminated selector switches • Applicable load (LED lamp) LSRD-6, LSTD-6 (6V AC/DC) LSRD-1, LSTD-1 (12V AC/DC) LSRD-2, LSTD-2 (24V AC/DC)	
Power Supplies	For TWN/TWND 12g approx.						
LED Illumination	Transformer Unit					Applicable model:	
Controllers	For Illuminated Switches (*1)	100/110V AC	HW-T16	HW-T16	1	Illuminated pushbuttons	
Operator Interfaces	For TWN/TWND					Illuminated selector switches • Applicable load (LED lamp)	
Sensors	66g approx.	200/220V AC	HW-T26	HW-T26	1	LSRD-6, LSTD-6 (6V AC/DC) • For transformers with other primary	
AUTO-ID	Transformer Unit					voltages, please contact IDEC.	
	For Pilot Lights (*1)	100/110V AC	TWR-016B	TWR-016B	1	Mounting screws are not included. See B-347 for mounting screws. Applicable lead (LED lemp).	
Flush Silhouette	For TWN/TWND 69g approx.		TWR-026B	TWR-026B	1	Applicable load (LED lamp) LSRD-6, LSTD-6 (6V AC/DC) For transformers with other primary voltages, please contact IDEC.	
ø16	*1) For use as maintenance parts. Do not use	for expansion or rem	odelling purposes.				

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

LED Lamps (Use LED lamps for replacing incandescent lamps)

Model	Operating	Currer	t Draw	Part No.	Ordering No.	Color Code	Package	Base
Iviodei	Voltage	DC	DC	Part No.	Ordering No.	Color Code	Quantity	base
LSRD	6V AC/DC	10mA	14mA	LSRD-6	LSRD-6		1	
	OV AC/DC	TUIIIA	14IIIA	LOND-0	LSRD-6PN10		10	
200	12V AC/DC	7mA	0 4	LSRD-1	LSRD-1		1	BA9S
C	12V AG/DG	TIIIA	8mA		LSRD-1PN10	_	10	/13
	24V AC/DC	7mA	8mA	LSRD-2	LSRD-2		1	
	24V AG/DG	TIIIA	OIIIA	LOND-2	LSRD-2PN10		10	
LSTD	7mA (R, A) 5.5mA (G, P) 4.5mA (S)	1 ' ' '	8mA (except S)	LSTD-6*	LSTD-6*	R, G, A, S, PW	1	BA9S /13
		, , ,	7mA (S)	L91Ω-0*	LSTD-6*PN10		10	
	12V AC/DC	10mA (except S)	11mA (except S)	LSTD-1*	LSTD-1*		1	
	8mA (S)		9mA (S)	LSTD-1*	LSTD-1*PN10		10	,13
	24V AC/DC	10mA (except S)	11mA (except S)	LSTD-2*	LSTD-2*	_	1	.
	24V AU/DU	8mA (S)	9mA (S)	L51D-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.
- $\bullet \ \, \text{Specify a color code in place of} * \ \, \text{in Part No. R (red), G (green), A (amber), S (blue), PW (pure \ white)} \\$
- 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).

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Miniature Pilot Lights

> ARN CS

Maintenance Parts

All dimensions in mm.

LED lamps for replacing incandescent lamps

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

• 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).

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

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

APEM

Switches & Pilot Lights

Control Boxes

Emergency Stop Switches Enabling Switches

Safety Products

Explosion Proof

Terminal Blocks

Relays & Sockets
Circuit

Protectors
Power Supplies

- Ower oupplies

LED Illumination
Controllers

Operator Interfaces

Sensors

AUTO-ID

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Miniature
Pilot Lights

Flush Silhouette

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),
100	400/440V AC	±10%	TWR546	PW (pure white)
For 24V	100/110V AC	±10%	TWR512	LSRD-2, LSTD-2* (24V AC/DC, LED lamp)
-1	200/220V AC ±10%		TWR522	Specify a color code in place of * in Part No.
	400/440V AC	±10%	TWR542	R (red), G (green), A (amber), S (blue), PW (pure white)

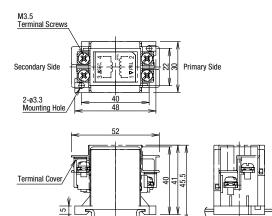
• Terminal cover (TWR-VL3) is installed on transformers as standard.

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		
VIDIATION RESISTANCE	Operating extremes: 5 to 55 Hz, amplitude 0.5 mm		
Charle Basistanas	1000 m/s ²		
Shock Resistance	100 m/s ²		
Dielectric Strength	2500V AC, 1 minute		
Terminal Screw	erminal Screw M3.5		
Applicable Wire	2 mm² maximum, 2 wires maximum		
Weight	87g		

Dimensions

All dimensions in mm.



TWND

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CS

Accessories

10000001100						
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 12.5 1.7	
End Clip Weight: 15g approx.	Metal (zinc-plated steel) Applicable rail: BAA1000	BNL6	BNL6PN10	10	M4 screw	

• See H-071 for DIN rail products.

Safety Precautions

- Turn off the power to the TWN/TWND switches & pilot lights before starting installation, removal, wiring, maintenance, and starting installation, removing, wiring, maintenance, and inspection of the products. Failure to turn power off may cause electrical shocks or fire hazard.
- To avoid a burn on your hand, use the lamp holder tool when replacing lamps.
- For wiring, use wires of a proper size to meet the voltage and current requirements. Tighten the terminal screws to the recommended tightening torque (see B-349). Failure to tighten terminal screws may cause overheat and
- When using a commercially available lamp, choose a lamp with rated voltage 5 to 30V AC/DC and 1W maximum, and with the same base and shape. Make sure of correct operation before installation. The operation of illuminated pushbutton switches cannot be guaranteed when a commercially available lamp is used.

APEM

Control Boxes

Emergency

Stop Switches Enabling Switches

Safety Products

Explosion Proof

Terminal Blocks

Relays & Sockets

Circuit Protectors

Power Supplies LED Illumination

Controllers

Operator

Interfaces Sensors

AUTO-ID

Flush Silhouette

ø16

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Miniature

Pilot Lights

ARN

CS

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 Locking Ring Nameplate

Panel Thickness and Rubber Washer

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



Illuminated pushbutton (extended w/full shroud)

Rubber Washer

1.5 mm-thick 3.0 mm-thick

1

Applicable Model

TWN/TWND series

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

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

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

2 pieces

2 pieces

TWND series

Pin lock pushbutton

TWN/TWND series

Panel Thickness (mm)

Supplied

0.8 to 3.5

2.0 to 3.5

3.5 to 5.0

Mushroom with full shroud

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

TWN/TWND series

TWN/TWND series

Illuminated pushbutton

Panel

Thickness (mm)

Supplied 0.8 to 1.8 1.8 to 3.5

(extended with half shroud)

Pushbutton (extended with full shroud)

Pushbutton (extended with half shroud)

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

TWN/TWND series

Other models (excluding square)

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

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

Notes for Panel Mounting

Locking ring wrench recommended torque

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

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

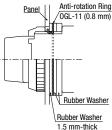
Side A: TWS series



Installing the Anti-rotation Ring (OGL-11)

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

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



Replacement of LED Lamps

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

How to Remove

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



How to Install

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



Operating Instructions

Installing/Removing the Buttons and Lenses

To install

Pushbutton button

Flush/Extended

Push in the button to install.



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

To remove

ver ss).

<Notches

Notches on the operating shaft

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



 \triangle

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

Notes on button removal

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

Mushroom/ Jumbo Mushroom

Button has threads. Turn clockwise to install the button.



Turn the button counterclockwise to remove.



Illuminated Pushbutton Lens

Extended/Mushroom

Lens has threads. Turn clockwise to install the lens.



Turn the lens counterclockwise to remove.



Pilot Light Lens Round

Lens has threads. Turn clockwise to install the lens.



Turn the lens counterclockwise to remove.



 Λ

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.

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



Engraving Area

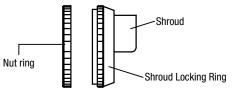
Engraving Area

Solve Solv

Installing the Half Shroud on Extended Pushbuttons/ Illuminated Pushbuttons

Half Shroud Parts

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



Installing the Half Shroud

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

Tightening the Half Shroud

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





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

APEM

Pilot Lights

Control Boxes

Emergency Stop Switches Enabling

Switches

Safety Products

Explosion Proof

Terminal Blocks
Relays & Sockets

Circuit Protectors

Power Supplies

LED Illumination

Controllers Operator

Interfaces

Sensors

AUTO-ID

Flush Silhouette

ø16

ø22

Miniature

Pilot Lights

TWN

ARN

CS

Operating Instructions

Selector Switches

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

APEM

Control Boxes Emergency Stop Switches

Enabling Switches Safety Products

Explosion Proof

Terminal Blocks

Relays & Sockets Circuit Protectors

Power Supplies

LED Illumination Controllers

> Operator Interfaces

> Sensors AUTO-ID

Key Selector Switches

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

Installing the Operator on Selector Switches

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



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



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



Flush Silhouette

ø16 ø22

Miniature

Pilot Lights

ARN

CS

Installation of Selector Operators

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



90° 2-position

45° 3-position







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







Standard positions

Removal

Removing the Operator from Selector Switches



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



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

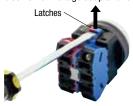
Removing the Operator from Illuminated Selector Switches



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

Removing the Contact Blocks/Full Voltage Adapters

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



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

Transformer Units and DC-DC Converters

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



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

Transformer Units and DC-DC Converters for Pilot Lights

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



Mounting screws

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

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

Operating Instructions

Applicable Wiring

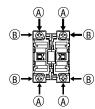
(1) Contact Block 0.3 to 3.5 mm2 (solid wire 0.5 to 2.0 mm)

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

A and B show the wiring direction to the terminals.

<Contact Block>

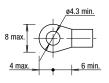
Terminal screws M3.5 (spring-up)

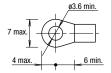


Applicable Crimping Terminal

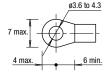
Be sure to use an insulation tube or cover on the crimping part of the crimping terminal to prevent electrical shocks.

Crimping terminal for (A)



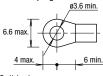


IP20 crimping terminal

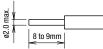


Crimping terminal for (B)

IP20 crimping terminal



Solid wire



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

(1)-1 IP20 Degree of Protection

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

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

When using a crimping terminal

Use IP20 crimping terminals.

When using a solid wire

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

When using a stranded wire

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

(2) Power Unit

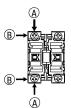
0.3 to 2 mm² (solid wire 0.5 to 1.6 mm)

Illuminated pushbutton/illuminated selector switch

A and B show the wiring direction to the terminals.

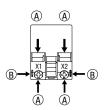
<Full Voltage Adapter>

Terminal screws M3.5 (spring-up)



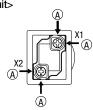
<Transformer Unit>

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



<DC-DC Conver Unit/Transformer Unit>

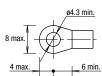
110V DC. 380V Terminal screws M3.5 (spring-up)

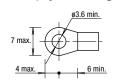


Applicable Crimping Terminal

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

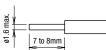
Crimping terminal for (A)





Crimping terminal for (B)

Solid wire



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

APEM

Control Boxes

Emergency Stop Switches Enabling Switches

Safety Products

Explosion Proof Terminal Blocks

Relays & Sockets

Circuit Protectors

Power Supplies

LED Illumination

Controllers

Operator Interfaces

Sensors

AUTO-ID

Flush Silhouette

ø16

ø22

Miniature

Pilot Lights

ARN

CS

Control Boxes

Emergency Stop Switches Enabling

Switches

Safety Products

Explosion Proof

Terminal Blocks

Relays & Sockets
Circuit

Power Supplies

LED Illumination

Operator Interfaces Sensors

AUTO-ID

Flush Silhouette

ø16 ø22

Protectors

ø30 TWN/TWND Series

Operating Instructions

(3) Pilot Light 0.3 to 2 mm² (solid wire 0.5 to 1.6 mm)

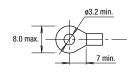
Applicable crimping terminal

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

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

Terminal screws M3 (self-lifting)

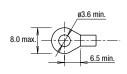
(Arrows show the wiring direction)





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

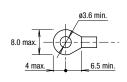
Terminal screws M3.5 (self-lifting)





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

Terminal screws M3.5 (self-lifting)





- Install the terminal cover supplied with the pilot light. The connection terminal is not IP20.
- When selecting mounting centers and crimping terminals, take sufficient insulation distance into consideration.

Cautions for Wiring

About using DC-DC Converter Unit

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

Terminal No.	Polarity
X1	Positive
X2	Negative

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

Recommended Tightening Torque Number of Wires

Unit		Wire	Number of Wires	Recommended Tightening Torque (Nm)	Terminal Screw	
	Crimp	oing Terminal	2	1.0 to 1.3		
	Solid	ø0.5 to 1.6 mm (AWG14 to 22)	2	1.0 to 1.3		
HW-U Contact	Wire	ø1.7 to 2.0 mm (AWG12)	1	1.2 to 1.3	M3.5	
Block	Stranded	0.3 to 2.0 mm ² (AWG14 to 22)	2	1.0 to 1.3		
	Wire	2.1 to 3.5 mm ² (AWG12)	1	1.2 to 1.3		
	Crimping Terminal					
Illuminated	Solid Wire	ø0.5 to 1.6 mm (AWG14 to 22)	2	1.0 to 1.3	M3.5	
Unit (*1)	Stranded Wire	0.3 to 2.0 mm ² (AWG14 to 22)				
	Crimping Terminal					
Pilot Light	Solid Wire	70.00		0.6 to 1.0 (M3.0)		
	Stranded Wire	0.3 to 2.0 mm ² (AWG14 to 22)		1.0 to 1.3 (M3.5)	

^{*1)} Lamp terminal of illuminated pushbuttons and illuminated selector switches

Pilot Lights

Miniature

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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

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ø30 Selector Switches / Pushbuttons Part Number Replacement List

Model Operator Old Part No. ASN310		014 0		1	
ASN311 ASN211N ASN320 ASN222N ASN322 ASN222N ASN375 ASN22RN-118 ASN410 ASN2110N ASN411 ASN2111N ASN420 ASN2120N ASN421 ASN212N ASN422 ASN2122N ASN322 ASN2122N ASN3020 ASN2021N ASN3011 ASN211N ASN3010 ASN201N ASN3011 ASN211N ASN3022 ASN222N ASN3022 ASN222N ASN3022 ASN222N ASN3020 ASN222N ASN3020 ASN222N ASN4011 ASN2211N ASN4011 ASN2211N ASN4011 ASN2211N ASN4011 ASN221N ASN4021 ASN221N ASN4021 ASN222N ASN4022 ASN222N ASN4022 ASN222N ASN4022 ASN222N ASN4023 ASN222N ASN4021 ASN220N ASN4021 ASN220N ASN4021 ASN220N ASN4021 ASN320N ASN111 ASN320N C*2 ASN125 ASN302N ASN15S ASN302N ASN15S ASN302N ASN15S ASN302N ASN15S ASN302N ASN16S ASN302N ASN25S ASN322N ASN25S ASN3222N ASN25S ASN3222N ASN16S ASN302N ASN1020 ASN220N ASN1020 ASN221N ASN1020 ASN302N ASN2011 ASN3120N ASN2011 ASN3120N ASN2011 ASN3120N ASN2020 ASN3122N ASN2020 ASN310N ASN2020 ASN310N ASN2020 ASN310N ASN2020 ASN310N ASN2020 ASN2122N ASN2020 ASN2122N ASN2020 ASN2122N ASN3020 ASN2122N ASN3020 ASN2122N ASN3020 ASN2122N ASN3020 ASN2122N ASN3020 ASN2122N ASN3011 ASN2111N ASN3111 ASN2111N ASN3120 ASN2111N ASN3120 ASN2121N ASN3011 ASN2111N ASN3120 ASN2122N ASN3011 ASN2111N ASN3120 ASN2122N ASN3011 ASN2111N ASN3011 ASN2111N ASN3010 ASN2111N ASN3011 ASN2111N ASN3011 ASN2111N ASN3011 ASN2111N ASN3011 ASN2111N ASN3011 ASN2111N ASN30120 ASN2122N ASN30120 ASN2122N ASN30121 ASN3012N ASN3011 ASN2121N ASN30120 ASN2122N ASN3011 ASN2111N ASN30120 ASN2122N ASN30120 ASN2122N ASN30120 ASN2122N ASN30120 ASN2122N ASN30120 ASN2122N ASN30120 ASN2122N ASN3011 ASN3120N ASN2111 ASN3120N ASN2111 ASN3120N ASN2111 ASN3120N ASN2	Model		Old Part No.	, ,	Remarks
ASN320 ASN220N ASN322 ASN222N ASN375 ASN22110N ASN410 ASN2110N ASN411 ASN2111N ASN421 ASN2120N ASN422 ASN2122N ASN321 ASN2212N ASN3011 ASN211N (*1) ASN3011 ASN211N (*1) ASN3011 ASN211N (*1) ASN3011 ASN211N (*1) ASN3020 ASN222N (*1) ASN3075 ASN222N (*1) ASN3075 ASN222N (*1) ASN3075 ASN222N (*1) ASN4010 ASN2210N ASN4010 ASN2211N ASN4010 ASN2211N ASN4010 ASN221N ASN4011 ASN2211N ASN4011 ASN221N ASN4022 ASN2222N ASN4022 ASN2222N ASN4022 ASN2222N ASN4022 ASN2222N ASN4022 ASN2222N ASN111 ASN320N (*2) ASN111 ASN320N (*2) ASN15S ASN302N (*1) ASN115 ASN300N (*2) ASN15S ASN302N (*1) ASN16S ASN300N (*2) ASN25S ASN3220N (*2) ASN25S ASN3220N (*1) ASN211 ASN300N (*2) ASN25S ASN3220N (*1) ASN221 ASN340N (*1) ASN211 ASN320N (*1) ASN222 ASN3240N (*1) ASN222 ASN3240N (*1) ASN223 ASN300N (*1) ASN105S ASN302N (*1) ASN211 ASN2211N (*1) ASN2111 ASN2211N (*1) ASN2120 ASN2120N (*2) ASN205S ASN3104N (*1) ASN2121 ASN212N (*1) ASN3011 ASN2111N (*1) ASN3012 ASN2122N (*1) ASN3012 ASN2122N (*1) ASN3012 ASN2122N (*1) ASN3011 ASN2111N (*1) ASN3012 ASN2122N (*1) ASN3012 ASN2122N (*1) ASN3011 ASN2111N (*1) ASN3011 ASN2111N (*1) ASN3011 ASN2111N (*1) ASN3012 ASN2122N					
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90° 2-position				†	
2-position				ASN2122N	
ASN			ASN47S	ASN212RN-118	
ASN3020 ASN202N (*2) ASN3022 ASN222N (*1) ASN307S ASN22RN-118 (*1) ASN4010 ASN2210N ASN4011 ASN2211N ASN4020 ASN2220N ASN4022 ASN222N ASN407S ASN2222N ASN407S ASN2222N ASN407S ASN2222N ASN407S ASN2222N ASN407S ASN222N ASN111 ASN320N (*2) ASN112 ASN300N (*2) ASN122 ASN330N (*1) ASN123 ASN302N (*1) ASN18S ASN302N (*1) ASN18S ASN302N (*1) ASN211 ASN3220N (*2) ASN222 ASN3240N (*2) ASN255 ASN3222N ASN27S ASN322N ASN27S ASN320N (*1) ASN208 ASN300N (*1)(*2) ASN106S ASN300N (*1)(*2) ASN106S ASN300N (*1)(*2) ASN105S ASN300N (*1)(*2) ASN108S ASN300N (*1)(*2) ASN108 ASN300N (*1)(*2) ASN207S ASN3120N (*1) ASN101 ASN2011 ASN3120N (*1)(*2) ASN208S ASN310N (*1)(*2) ASN208S ASN310N (*1)(*2) ASN208S ASN310N (*1) ASN3011 ASN2111N (*1) ASN3011 ASN2111N (*1) ASN3012 ASN212N-118 (*1) ASN3011 ASN2111N (*1) ASN3011 ASN2111N (*1) ASN3011 ASN2111N (*1) ASN3012 ASN212N-118 (*1) ASN3011 ASN2111N (*1) ASN3012 ASN212N-118 (*1) ASN3012 ASN212N-1		2-position	ASN3010	ASN201N	(*2)
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ASN					-
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ASN Knob Operator ASN4020 ASN4022 ASN4022 ASN4022 ASN4022 ASN222N ASN407S ASN222R1-168 ASN111 ASN320N (*2) ASN122 ASN340N (*2) ASN15S ASN322N ASN17S ASN302N (*1) ASN211 ASN3220N (*2) ASN222 ASN3240N (*2) ASN222 ASN322N ASN222 ASN322N ASN222 ASN322N ASN222 ASN322N ASN223 ASN223 ASN223 ASN224 ASN25S ASN322N ASN25S ASN322N ASN25S ASN320N (*1) ASN205 ASN1011 ASN320N (*1) (*2) ASN1011 ASN320N (*1) (*2) ASN105S ASN304N ASN2011 ASN105S ASN304N ASN2011 ASN3120N (*1) (*2) ASN2022 ASN3140N (*1) (*2) ASN2025 ASN3140N (*1) (*2) ASN208S ASN3104N ASN3110 ASN3110 ASN3110 ASN3110 ASN2111N ASN3100 ASN3111 ASN2111N ASN3110 ASN2111N ASN3110 ASN2111N ASN3110 ASN2111N ASN3110 ASN2111N ASN3110 ASN2111N ASN3120 ASN2122N ASN317S ASN2122N ASN317S ASN2122N ASN317S ASN2122N ASN317S ASN2122N ASN317S ASN2122N ASN317S ASN2122N ASN3111 ASN2111N ASN3110 ASN2111N ASN3110 ASN2111N ASN3110 ASN2111N ASN3110 ASN2111N ASN3111 ASN3111 ASN2111N ASN3111 ASN2111N ASN3111 ASN2111N ASN3111 AS					
ASN Knob Operator ASN4022				+	
ASN					
ASN111 ASN320N (*2) ASN122 ASN340N (*2) ASN15S ASN322N ASN17S ASN302N (*1) ASN211 ASN3220N (*2) ASN222 ASN3240N (*2) ASN222 ASN3240N (*2) ASN223 ASN322N (*1) ASN225 ASN322N (*1) ASN25S ASN322N (*1) ASN26S ASN322N (*1) ASN26S ASN320N (*1) ASN1011 ASN320N (*1) (*2) ASN1052 ASN340N (*1) (*2) ASN1052 ASN340N (*1) (*2) ASN1053 ASN302N ASN1053 ASN302N (*1) ASN107S ASN302N ASN304N (*1) (*2) ASN108S ASN3120N (*1) (*2) ASN2011 ASN3120N (*1) (*2) ASN2022 ASN3140N (*1) (*2) ASN2022 ASN3140N (*1) (*2) ASN205S ASN3122N (*1) ASN205S ASN3122N (*1) ASN205S ASN310N ASN207S ASN212N (*1) ASN207S ASN211 ASN2110N ASN2110N ASN311 ASN2110N ASN311 ASN2110N ASN311 ASN2110N ASN311 ASN2110N ASN311 ASN2110N ASN311 ASN212N ASN3122 ASN2122N ASN3122 ASN2122N ASN3122 ASN2122N ASN3111 ASN2111N (*1) ASN410 ASN2111N ASN2111N (*1) ASN411 ASN2111N (*1) ASN412 ASN2112N (*1) ASN3010 ASN210N (*2) ASN3011 ASN210N (*2) ASN3011 ASN212N (*1) ASN30120 ASN212N (*1) ASN30111 ASN2111N (*1) ASN30120 ASN212N (*1) ASN30121 ASN212N (*1) ASN30122 ASN2122N (*1) ASN30123 ASN2122N (*1) ASN4011 ASN2121N (*2) ASN4011 ASN3120N (*2) ASN4012 ASN2122N (*1) ASN4011 ASN3120N (*2) ASN115S ASN3102N (*1) ASN115S ASN3102N (*1) ASN211 ASN3120N (*2) ASN115S ASN3102N (*1) ASN211 ASN3120N (*2) ASN115S ASN3104N (*1) ASN2111 ASN3120N (*2) ASN115S ASN3104N (*1) ASN2111 ASN3120N (*2) ASN115S ASN3104N (*1) ASN2121 ASN3120N (*2)	1				
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ASN-L Lever Operator ASN-L Lever ASN-L-L-L-L-L-L-L-L-L-L-L-L-L-L-L-L-L-L-L				†	(*2)
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3-position ASN1L8S ASN3L04N (*1) ASN2L11 ASN32L20N (*2) ASN2L22 ASN32L40N (*2)		45°		 	(*1)
ASN2L11 ASN32L20N (*2) ASN2L22 ASN32L40N (*2)					
ASN2L22 ASN32L40N (*2)		,			
				<u> </u>	

	Old Carias			
Model	Old Series Operator	Old Part No.	New Part No. (*3)	Remarks
		ASN2L7S	ASN32L02N	(*1)
		ASN2L8S	ASN32L04N	(*1)
		ASN10L11	ASN3L20N	(*1) (*2)
	450	ASN10L22	ASN3L40N	(*1) (*2)
ASN-L		ASN10L5S	ASN3L22N	(*1)
Lever	45° 3-position	ASN10L7S ASN10L8S	ASN3L02N ASN3L04N	
Operator	э-розион	ASN20L11	ASN31L20N	(*1) (*2)
		ASN20L11	ASN31L40N	(*1) (*2)
		ASN20L5S	ASN31L22N	(*1)
		ASN20L7S	ASN31L02N	
		ASN20L8S	ASN31L04N	
		ASN3K10□	ASN2K10N□-N024401	
		ASN3K11□	ASN2K11N□-N024401	
		ASN3K20□	ASN2K20N□-N024401	
		ASN3K22□	ASN2K22N□-N024401	
		ASN3K7S□	ASN2K2RN -118-N024401	
		ASN4K10 ASN4K11	ASN21K10N-N024401 ASN21K11N-N024401	
		ASN4K11	ASN21K11N-N024401 ASN21K20N-N024401	
		ASN4K22	ASN21K22N-N024401	
	90°	ASN4K7S	ASN21K2RN-118-N024401	
	2-position	ASN30K10□	ASN2K01N□-N024401	(*2)
		ASN30K11□	ASN2K11N□-N024401	(*1)
		ASN30K20□	ASN2K02N□-N024401	(*2)
		ASN30K22□	ASN2K22N□-N024401	(*1)
		ASN30K7S□	ASN2K2RN□-118-N024401	(*1)
		ASN40K10	ASN22K10N-N024401	
		ASN40K11	ASN22K11N-N024401	
		ASN40K20 ASN40K22	ASN22K20N-N024401 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)
		ASN1K8S□	ASN3K04N□-N024401	(*1) (*2)
		ASN2K11□	ASN32K20N□-N024401	(*2)
		ASN2K22□	ASN32K40N□-N024401	(*2)
		ASN2K5S	ASN32K22N□-N024401	(*1) (*2)
	450	ASN2K7S□ ASN2K8S□	ASN32K02N□-N024401 ASN32K04N□-N024401	(*1) (*2) (*1) (*2)
	45° 3-position	ASN10K11	ASN3K20N -N024401	(*1) (*2)
	o position	ASN10K22□	ASN3K40N□-N024401	(*1) (*2)
		ASN10K5S□	ASN3K22N□-N024401	(*1) (*2)
		ASN10K7S□	ASN3K02N□-N024401	(*2)
		ASN10K8S□	ASN3K04N□-N024401	(*2)
		ASN20K11□	ASN31K20N□-N024401	(*1) (*2)
		ASN20K22□	ASN31K40N□-N024401	(*1) (*2)
		ASN20K5S	ASN31K22N□-N024401	(*1) (*2)
		ASN20K7S	ASN31K02N - N024401	(*2)
		ASN20K8S□ ASTN3211	ASN31K04N□-N024401 ASN211N	(*2)
	90°	ASTN3211 ASTN3222	ASN222N	(*1)
	2-position	ASTN3222 ASTN4211	ASN2111N	''
		ASTN4222	ASN2122N	(*1)
		ASTN1122	ASN322N	
		ASTN1222	ASN322N-311	
AOTE		ASTN1340	ASN340N	
ASTN		ASTN1422	ASN322N-209	
Knob Operator	.=.	ASTN1520	ASN320N	(4.4)
	45° 3-position	ASTN1540	ASN340N	(*1)
Operator			ASN311N-303	
Operator	3-position	ASTN1611		
Operator	3-position	ASTN1622	ASN322N-310	
Operator	3-position	ASTN1622 ASTN2122	ASN322N-310 ASN3222N	
Operator	3-position	ASTN1622	ASN322N-310	

[•] \square : Key removable position code. Specify the same code as the old series.

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

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

ø30 Selector Switches / Pushbuttons Part Number Replacement List

ᅙ		Old Sei	rige		
	Model	Operator	Old Part No.	New Part No. (*3)	Remarks
gh:	IVIOGOI	Operator	ASTN20422	ASN3122N-209	
ळ			ASTN20520	ASN3120N	(*1)
	ASTN		ASTN20540	ASN3140N	(*1)
	Knob	45°	ASTN5120	ASN3320N	
APEM	Operator	3-position	ASTN5122	ASN3322N	
			ASTN5222	ASN3322N-311	
Switches & Pilot Lights			ASTN5111	ASN3311N-202	
			ASTN32L11	ASN2L11N	
Control Boxes		90°	ASTN32L22	ASN2L22N	(*1)
Emergency		2-position	ASTN42L11	ASN21L11N	(1.4)
Stop Switches			ASTN42L22	ASN21L22N	(*1)
Enabling Switches			ASTN11L22	ASN3L22N	
			ASTN12L22	ASN3L22N-311	
Safety Products			ASTN13L40 ASTN14L22	ASN3L40N ASN3L22N-209	
Evaluation Broof			ASTN15L20	ASN3L20N	(*1)
Explosion Proof			ASTN15L20	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	
Power Supplies			ASTN202L22	ASN31L22N-311	
			ASTN204L22	ASN31L22N-209	
LED Illumination			ASTN205L20	ASN31L20N	(*1)
			ASTN205L40	ASN31L40N	(*1)
Controllers			ASTN51L20	ASN33L20N	
Operator			ASTN51L22 ASTN52L22	ASN33L22N ASN33L22N-311	
Interfaces			ASTN52L22 ASTN51L11	ASN33L11N-202	
Sensors			ASTN31E11 ASTN32K11□	ASN2K11N□	
		90°	ASTN32K22□	ASN2K22N□	(*1)
AUTO-ID		2-position	ASTN42K11	ASN21K11N	(1 /
		·	ASTN42K22	ASN21K22N	(*1)
			ASTN11K22□	ASN3K22N□	
			ASTN12K22□	ASN3K22N□-311	
Flush Silhouette			ASTN13K40□	ASN3K40N□	
			ASTN14K22□	ASN3K22N□-209	(1.4)
ø16			ASTN15K20□	ASN3K20N□	(*1)
*00	ACTNI T I/		ASTN15K40□	ASN3K40N	(*1)
ø22	ASTN■K		ASTN16K11□ ASTN16K22□	ASN3K11N□-303 ASN3K22N□-310	
ø30	Key Selector		ASTN10K22□	ASN32K22N□-510	
	00100101	45°	ASTN22K22□	ASN32K22N□-311	
Miniature		3-position	ASTN201K22□	ASN31K22N□	
Dilettinte			ASTN202K22□	ASN31K22N□-311	
Pilot Lights			ASTN204K22□	ASN31K22N□-209	
			ASTN205K20□	ASN31K20N□	(*1)
			ASTN205K40□	ASN31K40N□	(*1)
			ASTN51K20	ASN33K20N	
TWN			ASTN51K22	ASN33K22N	
			ASTN52K22	ASN33K22N-311	
TWND			ASTN51K11 ASN120-T	ASN33K11N-202 ASN320N	
ARN			ASN120-1 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	
	ASN-T		ASN1L40-T	ASN3L40N	
	Lever	45°	ASN2L20-T	ASN32L20N	
	Operator	3-position	ASN2L40-T	ASN32L40N	45.43
	.,		ASN20L20-T	ASN31L20N	(*1)
			ASN20L40-T	ASN31L40N	(*1)

•	Specify a color	r code in place of	* in Part No. B (bl	lack), G (green), I	R (red), Y (yellow).
			0 16 11		

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

Old Series			Nov. Dowl No. (±0)	Domorka
Model	Operator	Old Part No.	New Part No. (*3)	Remarks
		ASN3K10□-T	ASN2K10N□	
ASN■K-T Key Selector	90° 2-position	ASN3K11□-T	ASN2K11N□	
		ASN3K20□-T	ASN2K20N□	
		ASN3K22□-T	ASN2K22N□	
		ASN3K7S□-T	ASN2K2RN□-118	
		ASN4K10-T	ASN21K10N	
		ASN4K11-T	ASN21K11N	-
		ASN4K20-T	ASN21K20N	
		ASN4K22-T	ASN21K22N	
		ASN4K7S-T ASN40K10-T	ASN21K2RN-118	
		ASN40K10-1 ASN40K11-T	ASN22K10N ASN22K11N	
		ASN40K11-1 ASN40K20-T	ASN22K11N ASN22K20N	
		ASN40K20-T	ASN22K22N	
		ASN40K7S-T	ASN22K2RN-168	
		ASN1K20□-T	ASN3K20N□	
	45° 3-position	ASN1K40□-T	ASN3K40N□	
		ASN1K5S□-T	ASN3K22N□	
		ASN1K7S□-T	ASN3K02N□	(*1)
		ASN1K8S□-T	ASN3K04N□	(*1)
		ASN2K20□-T	ASN32K20N□	
		ASN2K40□-T	ASN32K40N□	
		ASN2K5S□-T	ASN32K22N□	
	o position	ASN2K7S□-T	ASN32K02N□	(*1)
		ASN2K8S□-T	ASN32K04N□	(*1)
		ASN20K20□-T	ASN31K20N□	(*1)
		ASN20K40□-T	ASN31K40N□	(*1)
		ASN20K5S□-T	ASN31K22N□	(*1)
		ASN20K7S□-T	ASN31K02N□	
		ASN20K8S□-T	ASN31K04N□	-
Selector Pushbuttons Ring Operator		ABN6111	ASBN211N-A03	(*0)
		ABN6411	ASBN211N-K04□	(*2)
	90° - 2-position	ABN9111	N/A	
		ABN7120□	ASBN220N-D01	(*1)
		ABN6122□ ABN6222□	ASBN222N-A08□ ASBN222N-C10□	(*1)
		ABN6422□	ASBN222N-K15	(*2)
		ABN7122□	ASBN222N-R13□ ASBN222N-D10□	(*1)
		ABN7222□	ASBN222N-E10□	(*1)
		ABN7322□	ASBN222N-F10□	(*1)
		ABN9122□	N/A	''
Selector Pushbuttons Lever Operator		ABN6L111□	ASBN211N-A03□	(*4)
		ABN6L411□	ASBN211N-K04□	(*2) (*4)
		ABN9L111□	N/A	
		ABN6L122□	ASBN222N-A08□	(*1) (*4)
		ABN6L222□	ASBN222N-C10□	(*1) (*4)
		ABN6L422□	ASBN222N-K15□	(*2) (*4)
		ABN7L122□	ASBN222N-D10□	(*1) (*4)
		ABN7L222□	ASBN222N-E10□	(*1) (*4)
		ABN7L322□	ASBN222N-F10□	(*1) (*4)
		ABN9L122□	N/A	(A) = 1
Pushbuttons	Pin Lock	ABN8P10	ABD8P10N□	(*5)
		ABN8P01	ABD8P01N□	(*5)
		ABN8P11	ABD8P11N□	(*5)
		ABN8P20	ABD8P20N□	(*5) (*5)
		ABN8P02 ABN8P22	ABD8P02N□ ABD8P22N□	(*5) (*5)
	ON Lock Type Pin Lock	ABN8P10-TK231-1	ABD8PN10N□	(*5)
		ABN8P01-TK231-1	ABD8PN01N□	(*5)
		ABN8P11-TK231-1	ABD8PN11N□	(*5)
		ABN8P20-TK231-1	ABD8PN20N□	(*5)
		ABN8P02-TK231-1	ABD8PN02N□	(*5)
		ABN8P22-TK231-1	ABD8PN22N□	(*5)
	Mushroom Pull	ATN2310□	AZN310N□	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
		ATN2311□	AZN311N□	
		ATN2320□	AZN320N□	
		ATN2302□	AZN302N□	
*3) The knob operator is diecast zinc and in new shape. The knob operator can be installed at				

The knob operator is diecast zinc and in new shape. The knob operator can be installed at 45 degrees intervals.

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^{*1)} The location of contacts is different. In application for maintenance purpose, make sure of contact operation before wiring.
*2) Contact operation is same as the old series, but contact type is different.

 $^{^{\}star}4)~$ The new knob operator of selector pushbuttons is ring operator. The old series is lever operator.

^{*5)} Button material New series: plastic / Old series: metal

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.
 - i. 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
 - iiii. 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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