ø30 Switches and Pilot Lights

TWN TWND Series



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



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



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



B-301

C B

ø30 TWN/TWND Selection Guide

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

Function		Pushbutton											
Cotogony	Extended wit	th Full Shroud	Mushroom		I Shroud Mushroom Mushr		Shroud Mushroom		Mushroom		Mushroom w	ith Full Shroud	Explosion Proof
Category	Momentary	/Maintained	Momentar	y/Maintained	Momentary	/Maintained	Terminal Blocks						
		Diecast Zinc		Diecast Zinc		Diecast Zinc							
							Relays & Sockets						
Shape							Circuit Protectors						
							Power Supplies						
							LED Illumination						
Model	ABN2F	ABFD2	ABN3	ABD3	ABN3G	ABGD3							
Model	A0N2F	A0FD2	AON3	A0D3	_	A0GD3	Controllers						
Page	B-310	B-326	B-311	B-327	B-311	B-327	Operator Interfaces						

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

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

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

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

ø30 TWN/TWND Selection Guide

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

Safety Products	Function		LED Illuminated Pushbutton				
Explosion Proof	Category	Mus	hroom	Mushroom Pushl	Mushroom Pushlock Turn Reset (*1)		ush Turn Lock
Terminal Blocks	Category	Momentary	/Maintained	Mushroom rushi		Widshildoniii	
Relays & Sockets			Diecast Zinc		Diecast Zinc		Diecast Zinc
Circuit Protectors	Shape						_
Power Supplies							
LED Illumination		ALN3	ALD3				
Controllers	Model	AOLN3	A0LD3	AVLN3	AVLD3	AJLN3	_
Operator							
Interfaces	Page	B-313	B-330	B-314	B-330	B-313	

Sensors								
	Function		Selector Switches					
AUTO-ID	Category	Kn	ob	Le	ver	Кеу		
			Diecast Zinc		Diecast Zinc		Diecast Zinc	
Flush Silhouette ø16 ø22	Shape	Ô	Ô	I	Ŕ	6	i.	
ø30	Model	ASN	ASD	ASN□L	ASD□L	ASN□K	ASD⊡K	
Miniature	Page	B-316	B-331	B-317	B-332	B-318	B-333	

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

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

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

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

ø30 TWN/TWND Ratings/Specifications

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

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

ø30 TWN Series (plastic)



ø30 TWND Series (Diecast Zinc)





Ratings and Specifications

Contact ratings

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

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

HW-U10 (NO contact), HW-U01 (NC contact)								AUTO-ID	
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	_	Flush Silhouette
		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			24V	48V	50V	110V	220V	440V	ø22
AC		AC-12 Control of resistive loads and solid state loads	5A	_	5A	5A	3A	1A	ø30
Operating	50/60 Hz	AC-15 Control of electromagnetic loads (> 72 VA)	5A	_	3.5A	2.5A	1.5A	0.5A	Miniature
Current	DC	DC-12 Control of resistive loads and solid state loads	5A	2.5A	-	1.1A	0.55A	-	Pilot Lights
		DC-13 Control of electromagnets	2.5A	1A	-	0.55A	0.3A	-	

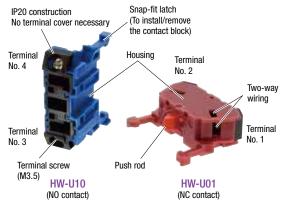
• The operating current represents the classification by making and breaking currents (IEC 60947-5-1).

· Silver contacts

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

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

HW-U Contact Block



Part No.	HW-U10	HW-U01	HW-U10R	HW-U01R	
Contact		~~		4	
oontaot	1N0	1NC	EM (NO) (early make)	LB (NC) (late break)	
Terminal No.	3-4	1-2	3-4	1-2	
Housing color	Blue	Reddish purple	Blue	Reddish purple	
Push Rod color	Green	Red	Black	White	
Weight	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)

Miniature
Pilot Lights

ø30 TWN/TWND Series

LED Illuminated Part Specifications

×20							
<u> </u>	Linit					LED I	amp
유	Unit	Rated Voltage		Operating Voltage		Lamp Base	Part No.
- Ei		6V AC/DC		6V AC/DC			LSRD-6
Pilot Lights		12V AC/DC		12V AC/DC	_	-	LSRD-1
		24V AC/DC		24V AC/DC			LSRD-2
		100/110V AC	_	100/110V AC	-		
APEM		115/120V AC (*1)		115/120V AC (*1)	40%		
	Illuminated pushbutton	120V AC (*2)		120V AC (*2)			
Switches & Pilot Lights	Illuminated selector switch	200/220V AC		200/220V AC	±10%	BA9S/13	
Control Boxes	Pilot light	230/240V AC (*1)	50/60 Hz	230/240V AC (*1)	-		
		240V AC (*2)		240V AC (*2)			LSRD-6
Emergency Stop Switches		380V AC		380V AC	-		
Enabling	g	400/440V AC	-	400/440V AC			
Switches		480V AC		480V AC			
Safety Products		110V DC		90 to 140V DC			

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

*2) Pilot light Terminal Blocks

Explosion Proof

Relays & Sockets Illuminated Part Type and Shape

Cinquit								
Circuit Protectors		Illuminated Unit					Pilot	Light
Power Supplies	Power Unit	Full voltage adapter	Transfo	rmer	DC-DC converter	Full voltage adapter (unibody)	Transformer	DC-DC converter
LED Illumination	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
Controllers	Polarity	None	None	None	X1 (+) X2 (-)	None	None	X1 (+) X2 (–)
Operator Interfaces		×1		-				X1
Sensors								
AUTO-ID	Shape/Terminal		1 649		X1	B	9	
			12.00					But I
		X2	X1 X2		X2	(APN1)		X2

Flush Silhouette

ø22

• Note the polarity for wiring when connecting to DC-DC converter unit. ø16

LED Lamp Ratings (LSRD)

		p natinge					
ø30	Part No.		LSRD-6	LSRD-1	LSRD-2		
Miniature	Lamp Base		BA9S/13				
Williature	Rated Voltag	je	6V AC/DC	12V AC/DC	24V AC/DC		
Pilot Lights	Voltage Rang	ge	6V AC/DC ±10%	12V AC/DC ±10%	24V AC/DC ±10%		
	Current	DC	10mA	7mA	7mA		
	Draw	AC	14mA	8mA	8mA		
	Voltage Marl	king	Die stamped on the base				
TWN	Life (referen	ce value)	Approx. 50,000 hours (The luminance is reduced to 50% the initial intensity when used on complete DC at 25°C.)				
TWND					Example: LSRD-2		
ARN			X1 — Limite	d current circuit			
CS	Internal Circuit		Noise	protection circuit	21		
			Rectifi	er circuit	6		
			X2 — _{Dimm}	er protection circuit			
	Weight		Approx. 2g				

X1

X2

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

Switche

Specifications				hes & Pilot Lights
Operating Temperature			Non-illuminated: -25 to +70°C (no freezing)	말
			Illuminated: -25 to +50°C (no freezing)	<u> </u>
Storage Temperature			-40 to +80°C (no freezing)	- Lig
Operating Humidity			45 to 85% RH (no condensation)	- hts
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)	APEM
Vibration Resistance	Damage limits		30 Hz, amplitude 1.5 mm	Switches & Pilot Lights
VIDIATION RESISTANCE	Operation extremes		5 to 55 Hz, amplitude 0.5 mm	
Shock Resistance	Damage limits		1000 m/s ²	Control Boxes
SHUCK RESISTANCE	Operation extremes		100 m/s ²	Emergency Stop Switches
		Momentary	5,000,000	Enabling
	Pushbutton	Maintained	500,000 (over 3 contacts: 250,000)	Switches
	Fushbullon	Push lock turn reset	500,000	Safety Products
		Pull	500,000	
Mechanical Life Illuminated pushbutton		Momentary	2,500,000	Explosion Proof
(minimum operations)	Maintained		500,000 (over 3 contacts: 250,000)	Terminal Blocks
	Selector switch		500,000	
	Key selector switch		500,000	Relays & Sockets
	Illuminated selector switch		500,000	Circuit
	Selector pushbutton		250,000	Protectors
		Momentary	500,000 Switching frequency 1800 operations/h, duty ratio 40%	Power Supplies
	Pushbutton	Maintained	500,000 (over 3 contacts: 250,000) Switching frequency 900 operations/h, duty ratio 40%	LED Illumination
		Push lock turn reset	500,000 Switching frequency 900 operations/h, duty ratio 40%	Controllers
Electrical Life	Illuminated much huttan	Momentary	500,000 Switching frequency 1800 operations/h, duty ratio 40%	
(minimum operations) (*1)	Illuminated pushbutton	Maintained	500,000 (over 3 contacts: 250,000) Switching frequency 900 operations/h, duty ratio 40%	Operator Interfaces
	Selector switch		500,000 Switching frequency 1200 operations/h, duty ratio 40%	Sensors
	Key selector switch		500,000 Switching frequency 1200 operations/h, duty ratio 40%	AUTO-ID
	Illuminated selector swite	h	500,000 Switching frequency 1200 operations/h, duty ratio 40%	AUTU-ID
	Selector pushbutton	1	250,000 Switching frequency 900 operations/h, duty ratio 40%	_
		Pushbutton	ABN122: 82g ABN322: 87g	_
		Illuminated pushbutton	ALN22222DN: 106g ALN21622DN: 163g	
Weight (approx.)	TWN series	Selector switch	ASN222N: 83g ASN2K22N: 120g	Flush Silhouette
		Illuminated selector switch	ASLN22222DN: 106g ASLN21622DN: 163g	ø16
		Pilot light	APN122DN: 46g APN116DN: 125g	
		Pushbutton	ABD122: 108g ABD322: 113g	ø22
	THUD	Illuminated pushbutton	ALD22222DN: 132g ALD21622DN: 189g	ø30
	TWND series	Selector switch	ASD222N: 110g ASD2K22N: 147g	
		Illuminated selector switch	ASLD22222DN: 133g ASLD21622DN: 190g	Miniature
		Pilot light	APD122DN: 75g APD116DN: 152g	Pilot Lights

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

Degree of Protection

Series	Unit	Model	IEC 60529	JIS C 0920	
	Pushbutton	ABN, AON, AVN			
	Illuminated pushbutton	ALN, AOLN, AVLN			
	Selector switch	ASN, ASN□L			
	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	
DIECAST ZILIC	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.

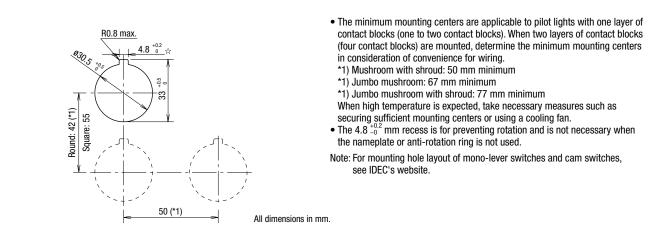
For harsh environment such as torrid/frigid area

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

Pilot Lights

ARN	
CS	

Mounting Hole Layout/Mounting Centers



Notes for Ordering

Standard models

Specify Ordering No. when ordering.

- Specify a color code in place of *
- Pilot lights, illuminated pushbuttons, and illuminated selector switches have an LED lamp installed.
- · Pilot lights are equipped with a terminal cover.
- Color codes for units without LED lamps:
- R (red), G (green), A (amber), Y (yellow), S (blue)
- When using a commercially available lamp, choose a lamp with rated voltage 5 to 30V AC/DC and 1W maximum, and with the same base and shape. Make sure of correct operation before installation. The operation of TWN/TWND series cannot be guaranteed when a commercially available lamp is used.
- · Terminal covers, nameplates, and accessories for mono-lever switch and cam switch are ordered separately.
- For terminal cover, nameplate and other accessories of mono-lever switches and cam switches, see IDEC's website.

Ordering Information

Pushbutton Flush Silhouette

When specifying gold-plated silver contact and contact configuration:

ø22	TWN series (\mathbf{P} 210 to \mathbf{P} 212)	<codes></codes>
ø30	TWN series (B-310 to B-312)	① Optional contact
Ø30	ABN 2 11 R - MAU	MAU: Gold-plate
Miniature	① Optional contact	② Contact configuration
Pilot Lights	© Contact configuration	10: 1NO
		01: 1NC
		11: 1NO1NC
	TWND series (B-326 to B-328)	20: 2NO
TWN		02: 2NC
	ABD 2 <u>11</u> NR - <u>MAU</u>	22: 2N02NC
TWND	Deptional contact	40: 4NO
		04: 4NC
ARN	© Contact configuration	13: 1NO3NC
CS		31: 3NO1NC
		30: 3NO
		03: 3NC
		12: 1NO2NC
		21: 2NO1NC

ted silver tion

Note:

IDEC

· 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.

APEM

Control Boxes

Emergency

Enabling Switches Safety Products

Stop Switches

Explosion Proof Terminal Blocks

Relavs & Sockets

Power Supplies

LED Illumination

Controllers

Operator

Sensors

AUTO-ID

ø16 ~~

Interfaces

Circuit Protectors

Ordering Information

Illuminated Pushbutton

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

			0
TWN series (B-313 to B-315)	<codes> ① Optional contact</codes>		
ALFN 2 <u>126</u> <u>13</u> DN R - <u>MAU</u>	MALL: Gold-plated s	silver	APEM
① Optional contact ② Contact configur	ation ② Contact configuration		Switches & Pilot Lights
③ Operating voltag	10: 1NO 01: 1NC		Control Boxes
TWND series (B-329 to B-330)	11: 1NO1NC 20: 2NO		Emergency Stop Switches
ALFD 2 126 13 DN R - MAU	02: 2NC 31: 3NO1NC		Enabling Switches
U Optional contact	22: 2NO2NC		Safety Products
© Contact configur 3 Operating voltag	40. 400		Explosion Proof
	04: 4NC		Terminal Blocks
	③ Operating voltage 99: Without LED I	lamp	Relays & Sockets
	66: 6V AC/DC 11: 12V AC/DC		Circuit Protectors
	22: 24V AC/DC 16: 100/110V AC		Power Supplies
	126: 115/120V AC 26: 200/220V AC		LED Illumination
	246: 230/240V AC 386: 380V AC		Controllers
	46: 400/440V AC		Operator Interfaces
Note: • Odd number of contact blocks, such as 1NO, 1NC, 3NO, 2NO-1N	486: 480V AC C, 1NO-2NC, and 3NC, are not available for models of 10	00V AC or over.	Sensors
 Illuminated pushbuttons of 24V AC/DC and below with two or for See B-309 for how to specify 110V DC model (DC-DC converter) 			AUTO-ID
 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 wi	ith the same base and shape.	
Selector Switch			Flush Silhouette
When specifying gold-plated silver contact and con	tact configuration.		ø16
	-		ø22
TWN series (<mark>B-316</mark> to <mark>B-319</mark>) ASN 2 11 N - MAU	TWND series (<mark>B-331</mark> to <mark>B-333</mark>) ASD 2 11 N - MAU	<codes> ① Optional contact</codes>	ø30
• • • • • • • • • • • • • • • • • • •	① Optional contact	MAU: Gold-plated silver	Miniature
© Contact configuration	© Contact configura	ation	Pilot Lights

Key removable position code (example)

	Position	Kay removable position	Key removable	Part No. Example			
	POSILION	Key removable position	position code		TWN series	TWND series	
		Removable in all positions	(blank)	ASN2K20N	ASN2K20N-N024401	ASD2K20N	ΤW
	Maintained	Removal in left only	В	ASN2K20NB	ASN2K20NB-N024401	ASD2K20NB	ТМ
2-position		Removable in right only	C	ASN2K20NC	ASN2K20NC-N024401	ASD2K20NC	
	Spring return from right	Removal in left only	(blank)	ASN21K20N	ASN21K20N-N024401	ASD21K20N	AR
	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	1
		Removable in right and center	C	ASN3K20NC	ASN3K20NC-N024401	ASD3K20NC	1
	Maintained	Removable in center only	D	ASN3K20ND	ASN3K20ND-N024401	ASD3K20ND	1
		Removable in right and left	E	ASN3K20NE	ASN3K20NE-N024401	ASD3K20NE	
		Removal in left only	G	ASN3K20NG	ASN3K20NG-N024401	ASD3K20NG	
0		Removable in right only	н	ASN3K20NH	ASN3K20NH-N024401	ASD3K20NH	1
3-position		Removable in left and center	(blank)	ASN31K20N	ASN31K20N-N024401	ASD31K20N	
	Spring return from right	Removable in center only	D	ASN31K20ND	ASN31K20ND-N024401	ASD31K20ND	
		Removal in left only	G	ASN31K20NG	ASN31K20NG-N024401	ASD31K20NG	1
		Removable in right and center	(blank)	ASN32K20N	ASN32K20N-N024401	ASD32K20N	7
	Spring return from left	Removable in center only	D	ASN32K20ND	ASN32K20ND-N024401	ASD32K20ND	1
		Removable in right only	н	ASN32K20NH	ASN32K20NH-N024401	ASD32K20NH	
	Spring return two-way	Removable in center only	(blank)	ASN33K20N	ASN33K20N-N024401	ASD33K20N	1

• The key cannot be removed in spring return positions.

ø30 TWN/TWND Series

Ordering Information

Illuminated Selector Switch

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

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

• Odd number of contact blocks, such as 1NO, 1NC, 3NO, 2NO-1NC, 1NO-2NC, and 3NC, is not available for models of 100V AC or over.

Relays & Sockets • Illuminated selector switches of 24V AC/DC and below with two or four contact blocks contain a dummy block.

 See below for how to specify 110V DC model (DC-DC converter). Circuit

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

Pilot Light (LED)

When specifying LED operating voltage:

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

See below for how to specify 110V DC model (DC-DC converter).

• Color codes for units without LED lamps: R (red), G (green), A (amber), Y (yellow), S (blue)

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

DC-DC Convertor Model (110V DC)

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

TWN series



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

ASLN2 16 11D DN Y

1 Operating voltage

APN1 <u>16 D</u> DN R

① Operating voltage

TWND series

ALD2 16 22D DN G

① Operating voltage

ASLD2 16 11D DN Y

IDEC

① Operating voltage

APD1 <u>16 D</u> DN R

- ① Operating voltage

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

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

Protectors

Power Supplies

LED Illumination

Controllers Operator Interfaces

> Sensors AUTO-ID

Flush Silhouette

ø16 ø22

Miniature

Pilot Lights

ARN

CS

Switches & Pi

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

			1			Package Quantity: 1	liot
Shape	Operation	Contact	Part No. (Ordering No.)	Button Color Code	Dimensions	(All dimensions in mm.)	Pilot Lights
Flush ABN1		1N0	ABN110*	В			S
AON1		1NC	ABN101*	G			
AUNT	Momentary	1NO-1NC	ABN111*	R Y			APEM
	inonician j	2N0	ABN120*	S		Panel Thickness 0.8 to 7.5	
Marine Law		2NC	ABN102*	W	I I		Switches & Pilot Lights
		2N0-2NC	ABN122*	Note	4	++s	Control Boxes
		1N0	A0N110*	B	BB		Emergency
		1NC 1NC	AON101*	GR	45.4 (1 or 2 blocks) 65.4(3 or 4 blocks)	9 \$39	Stop Switches
	Maintained	1NO-1NC 2NO	A0N111* A0N120*	- Y	<u>, 00.4(0 UI 4 DIULno) , , , </u>	1 <mark>91 1000 1</mark>	Enabling
		2N0 2NC	AUN120* AON102*	S			Switches
		2NO-2NC	AON102* AON122*	W Note			Safety Products
Extended		1N0	AUN122* ABN210*				Explosion Proof
ABN2		1NC	ABN210*	В			
AON2		1NO-1NC	ABN201* ABN211*	G			Terminal Blocks
	Momentary	2N0	ABN220*	R Y		Panel Thickness 0.8 to 7.5	Relays & Sockets
		2NC	ABN220*	S			Circuit
		2N0-2NC	ABN202*	W			Protectors
		1N0	AON210*	+	45.4 (1 or 2 blocks)		Power Supplies
		1NC	A0N201*	B			LED Illumination
		1NO-1NC	A0N211*	– G R	65.4 (3 or 4 blocks)	14 <u>039</u>	
	Maintained	2N0	A0N220*	Y			Controllers
		2NC	A0N202*	S			Operator
		2NO-2NC	A0N222*	W			Interfaces
Extended with Half Shroud		1N0	ABN2G10*				Sensors
ABN2G AON2G		1NC	ABN2G01*	B G			AUTO-ID
AUNZG	Memontory	1NO-1NC	ABN2G11*	R			
-	Momentary	2N0	ABN2G20*	Y	Pa	anel Thickness 0.8 to 3.5	
		2NC	ABN2G02*	S W			
		2N0-2NC	ABN2G22*	Vv		032 032 032 032	Flush Silhouette
		1N0	AON2G10*	В	40.9 (1 or 2 blocks)		a16
		1NC	AON2G01*	G			ø16
	Maintained	1NO-1NC	AON2G11*	R			ø22
	mannatio	2N0	AON2G20*	Y S			ø30
		2NC	A0N2G02*	- W			050
		2NO-2NC	AON2G22*				Miniature
Extended with Full Shroud ABN2F		1N0	ABN2F10*	В			Pilot Lights
AON2F		1NC	ABN2F01*	G			
	Momentary	1NO-1NC	ABN2F11*	R			
		2N0 2NC	ABN2F20*	Y S		Panel Thickness 0.8 to 6	
		2NC 2NO-2NC	ABN2F02* ABN2F22*	Ŵ	I I I		TWN
		1N0-2NC	ABN2F22* AON2F10*	+	4. • • • • • • • • • • • • • • • • • • •		
		1NC	AON2F10*	В	8,8,		TWND
				G		14 29.6	ARN
					T		
	Maintained	1NO-1NC 2NO	A0N2F11*	R	65.4 (3 or 4 blocks)	16.5 ø39	
	Maintained	2N0 2NC	AON2F11* AON2F20* AON2F02*	Y S	65.4 (3 or 4 blocks)	<u>16.5</u> ø39	CS

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

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

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

• See B-307 for other contact configurations and gold-plated silver contacts.

• See B-312 for bottom view.

• Terminal screws: M3.5

• Integrated terminal cover

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

ø30 TWN Series

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

ilot						Package Quantity: 1
ilot Lights	Shape	Operation	Contact	Part No. (Ordering No.)	Button Color Code	Dimensions (All dimensions in mm.)
Its	Mushroom		1N0	ABN310*		
	ABN3		1NC	ABN301*	B G	
	AON3	Momentary	1N0-1NC	ABN311*	R	
APEM		Womentary	2N0	ABN320*	Y S	
Switches & Pilot Lights			2NC	ABN302*	W	
Control Boxes			2NO-2NC 1NO	ABN322* AON310*		
Emergency			1NC	AON310*	В	
Stop Switches Enabling		Maintained	1NO-1NC	A0N311*	G R	45.4 (1 or 2 blocks) 65.4 (3 or 4 blocks) 22
Switches		Maintained	2N0	A0N320*	Y	
Safety Products			2NC	A0N302*	S W	
Explosion Proof	Mushroom with Full Shroud		2NO-2NC	A0N322*		
	ABN3G		1N0	ABN3G10*	_	Panel Thickness 0.8 to 6.5
Terminal Blocks			1NC	ABN3G01*	B G	
Relays & Sockets		Momentary	1NO-1NC	ABN3G11*	R	
Circuit Protectors			2N0	ABN3G20*	Y S	
Power Supplies			2NC	ABN3G02*	Ŵ	43.9 (1 or 2 blocks) 63.9 (3 or 4 blocks) 23.5
			2N0-2NC	ABN3G22*		
LED Illumination	Jumbo Mushroom ABN4		1N0	ABN410*		
Controllers	ADIV4		1NC	ABN401*	P	Panel Thickness 0.8 to 7.5
Operator Interfaces			1NO-1NC	ABN411*	B G	
Sensors		Momentary	2N0	ABN420*	R Y	
AUTO-ID			2NC	ABN402*	Ť	45.4 (1 or 2 blocks)
AUTO-ID			2NO-2NC	ABN422*		65.4 (3 or 4 blocks) 29
	Jumbo Mushroom with Shallow Shroud		1N0	ABN4G10*		Panel Thickness 0.8 to 7.5
Flush Silhouette	ABN4G		1NC	ABN4G01*		
ø16			1NO-1NC	ABN4G11*	B G	
ø22		Momentary	2N0	ABN4G20*	R	
ø22 ø30			2NC	ABN4G02*	. 1	
			2NO-2NC	ABN4G22*		45.4 (1 or 2 blocks) 65.4 (3 or 4 blocks) 29
Miniature	Jumbo Mushroom with		1N0	ABN4F10*		Danel Telelence 0.0 to 7.5
Pilot Lights	Deep Shroud ABN4F		1NC	ABN4F01*		Panel Thickness 0.8 to 7.5
			1NO-1NC	ABN4F11*	B	
TWN		Momentary	2N0	ABN4F20*	G R Y	
TWND			2NC	ABN4F02*	, T	
ARN			2N0-2NC	ABN4F22*		45.4 (1 or 2 blocks) 65.4 (3 or 4 blocks) 33
	 Specify a color code in place of * in 	Davit Nia D (black) O (and and) D	(us all) M (us llave) C	. (-	- 11 - 1

• 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

IDEC

CS

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

	Contact	Part No. (Ordering No.)	Button Color Code	Dimensions	(All dimensions in mm.)	1
ushroom Pushlock Turn Reset (*1) /N3	1N0	AVN310N*				
N3	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	
	2N0-2NC	AVN322N*		65.4 (3 or 4 blocks) 23.6		
ushroom Push Turn Lock IN3	1N0	AJN310N*	B G R Y	Panel 1	hickness 0.8 to 7.5].
	1NC	AJN301N*		45.4 (1 or 2 blocks) 65.4 (3 or 4 blocks) 23.6		
	1NO-1NC	AJN311N*				
	2N0	AJN320N*				
	2NC	AJN302N*			29.6	-
	2N0-2NC	AJN322N*		r		
ushroom Pull	1N0	AZN310N*				1.
ZN3	1NC	AZN301N*			hickness 0.8 to 7.5	
1	1NO-1NC	AZN311N*	B G			
	2N0	AZN320N*	R	4		· •
	2NC	AZN302N*	Y	45.4 25.1	5.5 stroke 29.6	-
				40.4 <u>4</u> 20.1	<u></u>	-

• Round bezel (metal): Chrome-plated

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

• See B-307 for other contact configurations and gold-plated silver contacts.

• Mushroom pull has up to 2 contact blocks.

• Terminal screws: M3.5

· Integrated terminal cover

*1) Pushlock turn reset switches cannot be used as emergency stop switches. When emergency stop switches are required, use XN series emergency stop switches (ISO 13850 and IEC 60947-5-5 compliant).

Pushbutton operation

Pushlock Turn Reset

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

Push Turn Lock

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

<u>Pull</u>

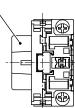
Pulling the button operates the contacts, and releasing the button return the contacts.

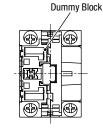
Pull contact operation

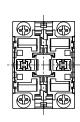
Contact	AZN3				
Contact	Normal	Pull			
1N0	ملم	٥۲			
2N0-2NC	പ്പം 🕂	0 0 1			
2N0	میں میں	0 0 0 1 0			
2NC	•••	<u></u>			

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

Dummy Block





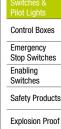


2/4 contact blocks

• See B-348 for wiring.

• Integrated terminal cover





inal Blocks

ys & Sockets

ectors er Supplies

Illumination

rollers

rator faces

Sensors AUTO-ID

Flush Silhouette ø16 ø22 Miniature Pilot Lights

TWN	
TWND	
ARN	
CS	

1 contact block (NO) (NC: opposite position) 3 contact blocks

IDEC

ø30 TWN Series

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

ot		1			r		Pad	kage Quantity: 1							
Pilot Lights	Shape	Base	Operation	Operating Voltage	Contact	Part No. (Ordering No.)	Color Code	Dimensions Page							
	Extended				1NO-1NC	ALN22211DN*									
	ALN2 AOLN2			24V AC/DC	2N0	ALN22220DN*									
APEM	AUENZ				2NC	ALN22202DN*	R								
Switches &					1NO-1NC	ALN21611DN*	GY								
Pilot Lights			Momentary	100/110V AC	2N0	ALN21620DN*	– A								
Control Boxes					2NC	ALN21602DN*	S								
Emergency					1NO-1NC	ALN22611DN*	PW								
Stop Switches				200/220V AC	2N0	ALN22620DN*	-								
Enabling Switches	(24VAC/DC)	BA9S			2NC	ALN22602DN*									
				0.01/ 0.0/20	1NO-1NC	AOLN22211DN*	-								
Safety Products	the state			24V AC/DC	2N0	AOLN22220DN*	- <u> </u>								
Explosion Proof					2NC	AOLN22202DN*	R G								
Terminal Blocks			Maintainad	100/1101/40	1NO-1NC	AOLN21611DN*	Y								
			Maintained	100/110V AC	2N0 2NC	AOLN21620DN*	A								
Relays & Sockets					1NO-1NC	A0LN22611DN+	_ S PW								
Circuit	With transformer			200/220V AC	2N0	A0LN22611DN*	- F'W								
Protectors	(100/110V AC)			200/220V AU	2N0 2NC	AOLN22620DN* AOLN22602DN*	-								
Power Supplies	Extended with Half Shroud				1NO-1NC	AULN22002DN*									
LED Illumination	ALGN2			24V AC/DC	2N0	ALGN22211DN*	-								
	AOLGN2			247 A0/D0	2NC	ALGN2220DN*	R								
Controllers					1NO-1NC	ALGN21611DN*	G								
Operator			Momentary	100/110V AC	2N0	ALGN21620DN*	Y								
Interfaces			womentary	100/1101/10	2NC	ALGN21602DN*	A S								
Sensors					1NO-1NC	ALGN22611DN*	_ S _ PW								
AUTO-ID				200/220V AC	2N0	ALGN22620DN*	_	D 015							
	(24V AC/DC)	BA9S —			2NC	ALGN22602DN*									
			BA9S	BA9S -			1NO-1NC	AOLGN22211DN*		B-315					
							24V AC/DC	2N0	AOLGN22220DN*						
Flush Silhouette												2NC	AOLGN22202DN*	R	
a16														ĺ	
ø16			Maintained	100/110V AC	2N0	AOLGN21620DN*	Y A S								
ø22					2NC	AOLGN21602DN*									
ø30								1NO-1NC	AOLGN22611DN*	PW					
000	With transformer									200/220V AC	2N0	AOLGN22620DN*			
Miniature	(100/110V AC)						2NC	AOLGN22602DN*							
Pilot Lights	Extended with Full Shroud				1NO-1NC	ALFN22211DN*									
	ALFN2 AOLFN2			24V AC/DC	2N0	ALFN22220DN*	4								
					2NC	ALFN22202DN*	R								
					1NO-1NC	ALFN21611DN*	G Y								
TWN			Momentary	100/110V AC	2N0	ALFN21620DN*	A								
					2NC	ALFN21602DN*	S								
TWND				000/0001110	1NO-1NC	ALFN22611DN*	PW								
ARN	(24V AC/DC)			200/220V AC	2N0	ALFN22620DN*	-								
	(BA9S			2NC	ALFN22602DN*									
CS	_			04140/20	1NO-1NC	AOLFN22211DN*	-								
				24V AC/DC	2N0	AOLFN22220DN*									
					2NC	AOLEN210101	R G								
			Mointainad	100/1101/40	1NO-1NC	AOLEN21611DN*	- Y								
			Maintained	100/110V AC	2N0 2NC	AOLEN21620DN*	- A								
					1NO-1NC	AOLFN21602DN* AOLFN22611DN*	_ S PW								
	With transformer			200/220V AC	2N0	AOLFN22620DN*									

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 pushbuttons of 24V AC/DC or below with 2 or 4 contact blocks have a dummu block

IDEC

dummy block.

See B-308 for other contact configurations and gold-plated silver contacts.
See B-314 for bottom view.
Terminal screws: M3.5

· Integrated terminal cover

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

						Pa	ckage Quantity: 1	liot
Shape	Base	Operation	Operating Voltage	Contact	Part No. (Ordering No.)	Color Code	Dimensions Page	Pilot Lights
Mushroom (ø40)				1NO-1NC	ALN32211DN *		ŭ	रु
ALN3			24V AC/DC	2N0	ALN32220DN *			
AOLN3				2NC	ALN32202DN *	R		
				1NO-1NC	ALN31611DN *	G		APEM
		Momentary	100/110V AC	2N0	ALN31620DN *	- Y - A		Switches &
				2NC	ALN31602DN *	S		Pilot Lights
				1NO-1NC	ALN32611DN *	PW		Control Boxes
			200/220V AC	2N0	ALN32620DN *			Emergency
(24V AC/DC)	DAGO			2NC	ALN32602DN *			Stop Switches Enabling
	BA9S			1NO-1NC	AOLN32211DN *			Switches
			24V AC/DC	2N0	AOLN32220DN *			Safety Products
				2NC	AOLN32202DN *	R		
		Maintained	100/110V AC	1NO-1NC	AOLN31611DN *	G		Explosion Proof
With tranformer (100/110V AC)				2N0	AOLN31620DN *	Y A S PW		Terminal Blocks
				2NC	AOLN31602DN *			
			200/220V AC	1NO-1NC	AOLN32611DN *			Relays & Sockets
				2N0	AOLN32620DN *			Circuit Protectors
				2NC	AOLN32602DN *		B-315	
Mushroom Pushlock Turn Reset	BA9S	_	24V AC/DC	1NO-1NC	AVLN32211DN *	_	0.010	Power Supplies
AVLN3 (*1)				2N0	AVLN32220DN *			LED Illumination
				2NC	AVLN32202DN *			
			100/110V AC	1NO-1NC	AVLN31611DN *	R		Controllers
				2N0	AVLN31620DN *			Operator Interfaces
				2NC	AVLN31602DN *			
				1NO-1NC	AVLN32611DN *			Sensors
			200/220V AC	2N0	AVLN32620DN *			AUTO-ID
(24V AC/DC)				2NC	AVLN32602DN *			
Mushroom Push Turn Lock				1NO-1NC	AJLN32211DN *			
AJLN3			24V AC/DC	2N0	AJLN32220DN *			
				2NC	AJLN32202DN *	– R		Flush Silhouette
				1NO-1NC	AJLN31611DN *	G		
	BA9S	_	100/110V AC	2N0	AJLN31620DN *	A Y		ø16
				2NC	AJLN31602DN *			ø22
				1NO-1NC	AJLN32611DN *	PW		ø30
			200/220V AC	2N0	AJLN32620DN *			050
(24V AC/DC)				2NC	AJLN32602DN *			Miniature

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

Illuminated pushbuttons have an LED lamp installed.

• Round bezel (metal): Chrome-plated

• See B-308 for other operating voltage such as 6V AC/DC, 12V AC/DC, and 110V DC.

See B-308 for other contact configurations and gold-plated silver contacts.

Illuminated pushbutttons of 24V AC/DC or below with 2 or 4 contact blocks have a

dummy block.

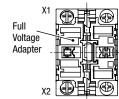
Illuminated pushbutton operation

Pushlock Turn Reset

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

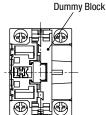
Bottom View (for illuminated pushbuttons, selector switches, and pilot lights)

6V, 12V, 24V AC/DC



¹ contact block • See B-348 for wiring.

3 contact blocks



• Terminal screws: M3.5

Push Turn Lock

• Integrated terminal cover

when turned counterclockwise.

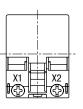
2/4 contact blocks

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

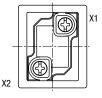
*1) Pushlock turn reset switches cannot be used as emergency stop switches. When

emergency stop switches are required, use XN or HN series emergency stop switches (ISO 13850 and IEC 60947-5-5 compliant).

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



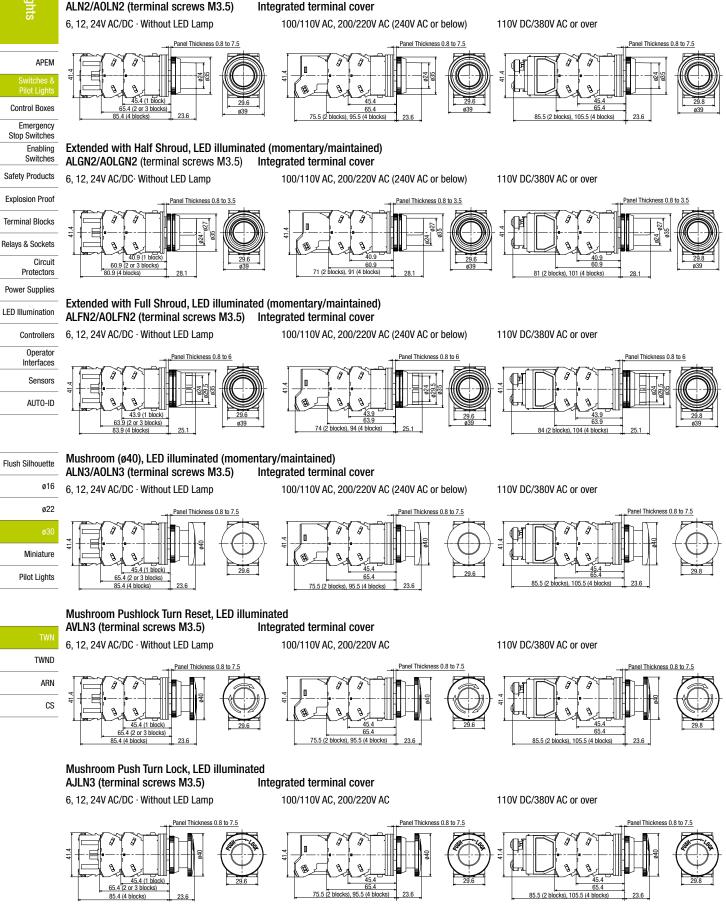
110V DC, 380V AC or over



DC-DC converter unit Terminal No. X1: positive Terminal No. X2: negative TWN TWND ARN CS

Pilot Lights

Dimensions (Illuminated Pushbuttons)



All dimensions in mm.

ASN Selector Switches	(Knob Operator)
-----------------------	-----------------

_	
_	

	Knoh Onere	tor		-									Package Quantity: 1	ot L
Shape	Knob Opera ASN	luf					7	Ô						lot Lights
														APEM
		Contact C	Configuratio	on			Maintained	Spring Return from Right		Spring	Retur	n from	Left	Switches & Pilot Lights
		Contact	Block) Derat Positic		1 2	-	Contact	Block	Ope Pos	rator	1, 2	Control Boxes
	Contact	Mounting Position	Contact	1	2				Mounting Position	Contact	1	2		Emergency Stop Switches Enabling
	1N0	1 0011011	NO		•				1 0311011	NO	•			Switches
90°	(10)	2	_	Dur	nmy E	Block	ASN210N	ASN2110N	2	_	_	_	ASN2210N	Safety Products
2-position	1NO-1NC	0	NO		•		ASN211N	ASN2111N	0	NO	•		ASN2211N	Explosion Proof
	(11)	2	NC	•			AGINZ I III	AGNZTTTN	2	NC		•	AUNZZIIIN	
	2NO (20)	0	NO		•	-	ASN220N	ASN2120N	0	NO	•		ASN2220N	Terminal Blocks
	(20)	2	NO NO		•				2 ①	NO NO	•			Relays & Sockets
	2NO-2NC	2	NC	•		1			 	NC		•		Circuit
	(22)	3	NO		•	1	ASN222N	ASN2122N	3	NO	•		ASN2222N	Protectors
		4	NC	•		1			4	NC				Power Supplies
		Contact C	Configuratio	on			Maintained	Spring Return from Right	Sprin	g Return fro	om Lef	t	Spring Return Two-way	LED Illumination
		Contact	Block)perat Positic		1 0 2	1 0 2		1,02			1 ي 0 ي 2	Controllers
	Contact	Mounting Position	Contact	1	0	2		\bigvee		\bigvee				Operator Interfaces
	2N0	0	NO	•			1010001	10101001					10100001	Sensors
	(20)	2	NO				ASN320N	ASN3120N		ASN32201	N		ASN3320N	AUTO-ID
	2NC	0	NC				ASN302N	ASN3102N		ASN32021	J		ASN3302N	
	(02)	2	NC				, lonoo2n	honorozh		101102021			AGREGOLIT	
		① ②	NO NO	•		•								
	2NO-2NC (22)	3	NC			5	ASN322N	ASN3122N		ASN32221	N		ASN3322N	Flush Silhouette
45° 3-position	()	4	NC											ø16
o position		1	NO	•										-00
	4N0	2	NO				ASN340N	ASN3140N		ASN3240M	J		ASN3340N	ø22
	(40)	3	NO	•			ASING4UN	ASIISTAUN		A0N02401	•		A01004010	ø30
		4	NO			•								Miniature
		0	NC											
	4NC (04)	2 3	NC NC				ASN304N	ASN3104N		ASN3204M	N		ASN3304N	Pilot Lights
	(04)	(3) (4)	NC		5									
		0	NO	•										
	☆	2	NO		1	•								
	3S	3	NC				ASN33SN-243	—		_			—	TWN
		4	_	Dur	nmy E	Block								TWND

Knob: Black

• Round bezel (metal): Chrome-plated

Selector switches with 1 or 3 contact blocks have a dummy block.
Knob operator can be installed at 45-degree intervals in addition to the positions shown in the above table.

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

Turn the operator to each position accurately.

Contact Block Mounting Position

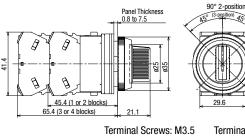


 \bullet Selector switches with \precsim have a half contact operating current (load switching current value). Rated insulation voltage and rated current remain the same.

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

Dimensions





45

Terminal cover: integrated

IDEC

ø30 TWN Series

Shape

Lever Operator ASN□L

ASN- \square Selector Switches (Lever Operator)
--	---



APEM														
vitches & lot Lights			Contact C	Configuratio	n			Maintained	Spring Return from Right		Spring	Return	from Le	ft
rol Boxes nergency			Contact	Block) perat Positio		1 2	1 2	Contact	Block	Oper Posi		1, 2
Switches Enabling Switches		Contact	Mounting Position	Contact	1	2				Mounting Position	Contact	1	2	
Products		1N0	1	NO		•		ASN2L10N	ASN21L10N	0	NO	•		ASN22L10N
FIUUUCIS	90°	(10)	2		Dun	nmy E	Block			2	—	-	_	
ion Proof	2-position	1NO-1NC	0	NO		•	-	ASN2L11N	ASN21L11N	0	NO	•	-	ASN22L11N
		(11)	2	NC	•	-				2	NC		•	
al Blocks		2N0	0	NO		•	-	ASN2L20N	ASN21L20N	0	NO	•		ASN22L20N
& Sockets		(20)	2	NO		•				2	NO	•		
Circuit			0	NO		•	-			0	NO	•		
rotectors		2NO-2NC	2	NC			-	ASN2L22N	ASN21L22N	2	NC		•	ASN22L22N
Supplies		(22)	3	NO		•	-			3	NO	•		
ouppiloo			4	NC						4	NC		•	
mination			Contact C	Configuratio	n			Maintained	Spring Return from Right	Sprin	ig Return fr	om Lef	İ	Spring Return Two-way
ontrollers Operator		.	Contact	Block)perat Positio		1 0 2	1 0 2			2		1 → 0 → 2
Sensors		Contact	Mounting Position	Contact	1	0	2				\bigvee			\bigvee
		2N0	1	NO	•									
AUTO-ID		(20)	2	NO			•	ASN3L20N	ASN31L20N		ASN32L20	JN		ASN33L20N
		2NC	1	NO					ACNOTLOON			NNI .		
		(02)	2	NO				ASN3L02N	ASN31L02N		ASN32L02	2111		ASN33L02N
			1	NO	•									
Silhouette		2N0-2NC	2	NO					101041-0011					
ø16	45°	(22)	3	NO				ASN3L22N	ASN31L22N		ASN32L22	211		ASN33L22N
010	3-position		4	NO										
ø22			1	NO	•									
		4N0	2	NO				ASN3L40N	ASN31L40N		ASN32L40	M		ASN33L40N
ø30		(40)	3	NO	•			ASINSL40IN	ASING IL40IN		ASIN3ZL4U	JIN		ASIN33L40IN
Miniature			4	NO										
			1	NO										
lot Lights		4NC	2	NO				ASN3L04N	ASN31L04N		ASN32L04	IN		ASN33L04N
		(04)	3	NO				ASIV5LU4IV	ASING ILU4IN		MOINOZLU4	FIN		ASINSSLU4IN
			4	NO										
			0	NO	٠									
TWN		☆ 3S	2	NO			•							
THE		33	3	NO		•		ASN3L3SN-243	_		_			—
TWND			4		Dun	nmy E	Block							
401														

ARN · Lever: Black

CS

• Round bezel (metal): Chrome-plated

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

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

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

Turn the operator to each position accurately.

Contact Block Mounting Position



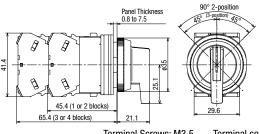
 \bullet Selector switches with \precsim have a half contact operating current (load switching current value). Rated insulation voltage and rated current remain the same.

• See **B-308** for gold contact. • See B-312 for bottom view.

Dimensions

All dimensions in mm.

Package Quantity: 1



Terminal Screws: M3.5

Terminal cover: integrated

ASN- K Key Selector Switches

Package Quantity: 1

1	
2	
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<u> </u>	2
5	
- 5	
gn	
5	
-0.	

Key Selector (Key No. 0)

Shape	ASN□K	(,					Ĩ	ò						APEM
		Contact C	Configuratio	n			Maintained	Spring Return from Right		Spring	Return	from l	_eft	Switches & Pilot Lights
		Contact	Block)perat Positio		1 2	1 . 2	Contact	Block		rator ition	1.+ 2	Control Boxes
	Contact	Mounting Position	Contact	1	2				Mounting Position	Contact	1	2		Emergency Stop Switches
	1N0	1 0311011	NO							NO	•			Enabling Switches
009	(10)	2		Dur	nmy E	lock	ASN2K10N	ASN21K10N	2		-	_	ASN22K10N	Safety Products
90° 2-position	1N0-1NC	0	NO		Ó		ASN2K11N	ASN21K11N	0	NO	•		ASN22K11N	
	(11)	2	NC	•			ASINZKTTIN	ASINZ IKT IIN	2	NC		•	ASINZZKTTIN	Explosion Proof
	2N0	0	NO		•		ASN2K20N	ASN21K20N	0	NO	۲		ASN22K20N	Terminal Blocks
	(20)	2	NO		•				2	NO	•			Relays & Sockets
		0	NO		•	-			0	NO	•		-	Circuit
	2NO-2NC (22)	2 3	NC	•	•		ASN2K22N	ASN21K22N	2 3	NC NO	•	•	ASN22K22N	Protectors
	(22)	(3) (4)	NO NC	•		1			3	NC	•	•	-	Power Supplies
			Configuratio	n			Maintained	Spring Return from Right		g Return fro	om Lef	t	Spring Return Two-way	LED Illumination
		Contact	Blook	0) perat	or		nonrught					into may	Controllers
	Contact	Mounting			Positio									Operator Interfaces
		Position	Contact	1	0	2	V V	↓		~				Sensors
	2N0	0	NO	•			ASN3K20N	ASN31K20N		ASN32K20	N		ASN33K20N	
	(20)	2	NO			•								AUTO-ID
	2NC (02)	① ②	NC NC				ASN3K02N	ASN31K02N		ASN32K02	N		ASN33K02N	
	(02)	0	NO	•										
	2N0-2NC	2	NO			•								Flush Silhouette
45°	(22)	3	NC				ASN3K22N	ASN31K22N		ASN32K22	N		ASN33K22N	
3-position		4	NC											ø16
		0	NO	•										ø22
	4N0	2	NO			•	ASN3K40N	ASN31K40N		ASN32K40	N		ASN33K40N	ø30
	(40)	3	NO	•		_				I ONOLITIO			honoon	030
		4	NO											Miniature
	410	① ②	NC NC			P								Pilot Lights
	4NC (04)	3	NC				ASN3K04N	ASN31K04N		ASN32K04	N		ASN33K04N	
		(3) (4)	NC											
		(†) (1)	NO	•										
	s SS	2	NO	-		•	☆							TWN
	35	3	NC		•	-	ASN3K3SN-243			—	-	TWND		
		4	_	Dur	nmy E	lock	1							
Cylinder: Ch	rome-plated						• k	Cev selector switch is su	innlied with t	wo standard	kevs		·	ARN

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

Key selector switches with 1 or 3 contact blocks have a dummy block.
See B-321 to B-322 for other contact configurations.

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

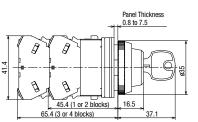
Contact Block Mounting Position



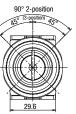
Key selector switch is supplied with two standard keys.
(1) Insert the key completely before turning the key, otherwise failure may result.
(2) Turn the operator to each position accurately.

- b)Ifferent key number is available upon request. Contact IDEC.
 Selector switches with A have a half contact operating current (load switching current value). Rated insulation voltage and rated current remain the same.
- See B-308 for gold-plated silver contacts.
 See B-312 for bottom view.

Dimensions







Terminal Screws: M3.5

Terminal cover: integrated

IDEC

CS

ø30 TWN Series

ASN K Key Selector Switches

Package Quantity: 1

Key Selector (Key No. 24401) ASNDK

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

Contact Configuration Maintained Spring Return Sp	ng Returi	n from	Left		
Contact Block Operator Position 1 2 1 2 Contact Block	Oper Posi		1, 2		
Contact Mounting Position Contact 1 2 Mounting Position Contact Contact	t 1	2			
1N0 ① N0 ● ASN2K10N- ASN21K10N- ① N0			ASN22K10N-		
90° (10) ② — Dummy Block N024401 N024401 ② —			N024401		
2-position 1N0-1NC ① N0 ● ASN2K11N- ASN21K11N- ① N0	•		ASN22K11N-		
· (11) ② NC ● N024401 N024401 ② NC		•	N024401		
2N0 ① N0 ● ASN2K20N- ASN21K20N- ① NO	•		ASN22K20N-		
(20) ② NO ● NO24401 NO24401 ② NO	•		N024401		
① NO ● ① NO	•		_		
2N0-2NC ② NC ● ASN2K22N- ASN21K22N- ② NC		•	ASN22K22N-		
(22) <u>③ N0</u> ● N024401 N024401 <u>③ N0</u>	•		N024401		
④ NC ●					
Contact Configuration Maintained Spring Return from Right Spring Return	from Left	t	Spring Return Two-way		
Contact Block Operator Position 1 0 2 1 0 2 1 0 2					
Mounting Contact 1 0 2					
2NO ① NO ● ASN3K20N- ASN31K20N- ASN32K	ASN32K20N- N024401				
(20) ② NO ● NO24401 NO24401 NO24401					
2NC ① NC ASN3K02N- ASN31K02N- ASN32K	2N-		ASN33K02N-		
(02) ② NC 📥 NO24401 NO24401 NO24401			N024401		
① NO ●					
2NO-2NC ② NO ● ASN3K22N- ASN31K22N- ASN32K	2N-		ASN33K22N-		
45° (22) <u>3</u> NC MO24401 N024401 N024401			N024401		
3-position					
① NO ●					
4N0 ② N0 ● ASN3K40N- ASN31K40N- ASN32K	ON-		ASN33K40N-		
(40) ③ NO ● NO24401 NO24401 NO24401			N024401		
 ④ NO ● 					
ANC 2 NC ASN3K04N- ASN31K04N- ASN32K	4N-		ASN33K04N-		
(04) ③ NC ● NO24401 NO24401 NO24401			N024401		
① NO ●					
3S ③ NC ● 243-N024401			_		
Oummy Block					

ARN • Cylinder: Chrome-plated

• Round bezel (metal): Chrome-plated

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

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

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

Contact Block Mounting Position

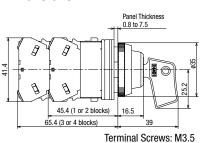
3000

• Key selector switch is supplied with two standard keys.

Insert the key completely before turning the key, otherwise failure may result.
 Turn the operator to each position accurately.

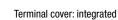
- Different key number is available upon request. Contact IDEC.
- Selector switches with $\stackrel{\scriptstyle \leftarrow}{\rightarrow}$ have a half contact operating current (load switching current value). Poted insulation values and rated
- current value). Rated insulation voltage and rated current remain the same. • See B-308 for gold-plated silver contacts.
- See B-312 for bottom view.

Dimensions



All dimensions in mm.





CS

Switches &

ASLN Illuminated Selector Switches (LED)

														Package Qu	antity: 1	ilot I
Shape	Illuminate ASLN	d Selector	Switches	3 (BA	9S B	lase))	1								Pilot Lights
								(24V AC/DC)								APEM
		Contact Co	onfiguratio	on				Maintained	Spring Return from Right		Spring	g Retu	rn fro	om Left		Switches & Pilot Lights
	Contrat	Contact	Block		oerato ositio		Rated Voltage	1 2	1 2	Contact	Block	Oper Posi		1 2	Color Code	Control Boxes
	Contact -	Mounting Position	Contact		2					Mounting Position	Contact	1	2			Emergency Stop Switches Enabling
lion	1NO-1NC	1	NO				24V AC/DC	ASLN22211DN*	ASLN212211DN*	0	NO	•		ASLN222211DN*		Switches
osit	(11)	2	NC	\bullet			100/110V AC	ASLN21611DN*	ASLN211611DN*	2	NC		۲	ASLN221611DN*		Safety Products
90° 2-position				·	·		200/220V AC	ASLN22611DN*	ASLN212611DN*	<u> </u>	· _ T			ASLN222611DN*	R	
°06	2N0	0	NO	\square	•		24V AC/DC	ASLN22220DN*	ASLN212220DN*	0	NO	•		ASLN222220DN*	G	Explosion Proof
	(20)	2	NO		\bullet		100/110V AC	ASLN21620DN*	ASLN211620DN*	2	NO	•		ASLN221620DN*	Y	Terminal Blocks
	<u>, , ,</u>				-		200/220V AC	ASLN22620DN*	ASLN212620DN*		NO.	-		ASLN222620DN*	A S	Terminal Blocks
		0	NO		•		24V AC/DC	ASLN22222DN*	ASLN212222DN*	0	NO	•	•	ASLN222222DN*	PW	Relays & Sockets
	2NO-2NC (22)	2	NC NO	•	•		100/110V AC 200/220V AC	ASLN21622DN*	ASLN211622DN*	2 3	NC NO	•	•	ASLN221622DN*	¹ "	Circuit
	(22)	3 (4)	NO	•	⊢		200/220V AC	ASLN22622DN*	ASLN212622DN*	(3) (4)	NC	-	•	ASLN222622DN*		Protectors
							_	Maintainad	Spring Return				-	Spring Return		Power Supplies
		Contact Co	Illigurau					Maintained	from Right	Spring	Return fro		en	Two-Way		
	Contact -	Contact			perate psitio		Rated Voltage	1 0 2	1 0 2		1 0 2	2		1 0 2	Color Code	LED Illumination
	Contact	Mounting Position	Contact	1	0	2					\bigvee					Controllers Operator
	2N0	1	NO	\bullet			24V AC/DC	ASLN32220DN*	ASLN312220DN*	ASL	N322220	DN*		ASLN332220DN*		Interfaces
	2N0 (20)	2	NO				100/110V AC	ASLN31620DN*	ASLN311620DN*		N321620			ASLN331620DN*		Sensors
	(20)		- 	- 			200/220V AC	ASLN32620DN*	ASLN312620DN*		N322620			ASLN332620DN*		
-	2NC	1	NC				24V AC/DC	ASLN32202DN*	ASLN312202DN*		N322202			ASLN332202DN*		AUTO-ID
itior	(02)	2	NC				100/110V AC	ASLN31602DN*	ASLN311602DN*		N321602			ASLN331602DN*		
3-position	↓			· 🔺	<u> </u>		200/220V AC	ASLN32602DN*	ASLN312602DN*		N322602			ASLN332602DN*		
3-		0	NO NO	•			24V AC/DC	ASLN32222DN*	ASLN312222DN*		N322222			ASLN332222DN*	R	
45°	2NO-2NC (22)	2	NO NC	\vdash			100/110V AC 200/220V AC	ASLN31622DN*	ASLN311622DN*		N321622			ASLN331622DN*	G	Flush Silhouette
	(22)	3 	NC				200/2201 10	ASLN32622DN*	ASLN312622DN*	HOL	N322622	UN*		ASLN332622DN*	Y A	
	†	(1) (1)	NO	•			24V AC/DC	ASLN32240DN*	ASLN312240DN*	ASI	N322240	NN*		ASLN332240DN*	S	ø16
	4N0	 ②	NO			•	100/110V AC	ASLN31640DN*	ASLN312240DN*		N321640			ASLN331640DN*	PW	ø22
	(40)	3	NO	•			200/220V AC	ASLN32640DN*	ASLN312640DN*		N322640			ASLN332640DN*		-
	↓ `´_[4	NO			\bullet				<u> </u>			_			ø30
		0	NC				24V AC/DC	ASLN32204DN*	ASLN312204DN*	ASL	N322204	DN*	_	ASLN332204DN*		Miniature
	4NC	2	NC				100/110V AC	ASLN31604DN*	ASLN311604DN*	ASL	N321604	DN*		ASLN331604DN*		Williature
	L															
	(04)	3	NC NC				200/220V AC	ASLN32604DN*	ASLN312604DN*		N322604	DN*		ASLN332604DN*		Pilot Lights

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

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

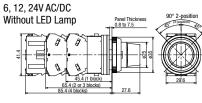
• Illuminated selector switches have an LED lamp installed.

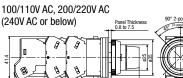
Round bezel (metal): chrome-plated
See B-309 for other operating voltage such as 6V AC/DC, 12V AC/DC, and 110V DC.
Illuminated selector switches of 24V AC/DC or below with 2 or 4 contact blocks have a dummy block.

Contact Block Mounting Position



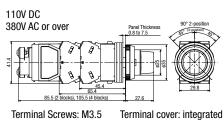
Dimensions





27

65.4 75.5 (2 blocks), 95.5 (4 blocks)



All dimensions in mm.

• 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.



ø30 TWN Series

Selector Switches Contact Configuration (90° 2-position)

) t										
Lig						Op	perator Opera	tion and Circ	uit	
ot Lights				act ck	Maint	ained 2		Return Right > ²	Spring from ¹ <	
APEM	Contact	Circuit Code	Diot		Knob		Knob	/	Knob	/
Switches &	Configuration				Lever	Кеу	Lever	Key	Lever	Key
Pilot Lights					Operator	Position	Operator	Position	Operator	Position
Control Boxes			Mounting	Contact	1	2	1	2	1	2
Emergency Stop Switches			Position		S	Ø		Ø		Ø
Enabling	10	Not	1	NO		•		●	•	
Switches	10	required	2		Dumm	y Block	Dumm	y Block	Dumm	y Block
Safety Products	01	Not	1	NC	•		•			•
Explosion Proof	01	required	2	—	Dumm	y Block	Dumm	y Block	Dumm	y Block
		☆	1	EM						
Terminal Blocks	2B	118	2	LB						
Relays & Sockets	28	자	1	EM						
Circuit		168	2	LB						
Protectors										

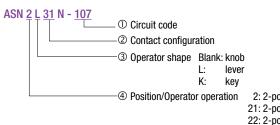
Power Supplies							Op	perator 0	peration	and Circ	uit				
					N	laintaine	ed		ring Reti			ring Ret			
LED Illumination			<u> </u>				0	fi	rom Righ		1	rom Lef	-		
Controllers			Conta Bloc				2			2			2		
Operator Interfaces	Contact Configuration	Circuit Code			Knob Lever	Key	Illumi- nated	Knob Lever	Key	Illumi- nated	Knob Lever	Key	Illumi- nated		
Sensors															
AUTO-ID			Mounting		Uper 1	ator Pos	2	Uper 1	rator Pos	2	Uper 1	ator Pos	2		
			Position	Contact	, second		Ø	-		Ź	, second		Ź		
	11	Not	1	NO			•			•	•				
Flush Silhouette		required	2	NC	•			•					•		
	20	Not	1	NO			•			•	•				
ø16	20	required	2	NO			•			•	•				
ø22	02	Not	1	NC	•			•					•		
	02	required	2	NC	•			•					•		
ø30			1	NO			•			•	•				
Miniature	22	Not	2	NC	•			•					•		
		required	3	NO			•			•	•				
Pilot Lights			4	NC	•			•					•		
			0	NC	•			•					•		
	31	107	2	NO			•			•	•				
71401	01		3	NO			•			•	•				
TWN			4	NO			•			•	•				
TWND			0	NO			•			•	•				
	40	Not			2	NO			•			•	•		
ARN		required	3	NO			•			•	•				
CS	. 0.1		<u>(4)</u>	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

B-321

IDEC

Switches & Pilo

Selector Switches Contact Configuration (45° 3-position)

	Operator Operation and Circuit												ot Li						
		Cont	act				N	laintain	ed	Spr	ing Re	turn	1	pring R	eturn		ing Re		lot Lights
		Blo		Оре	erator Pos	sition		•	•		om Rig	,		from L			wo-wa	-	
Contact Configuration	Circuit Code						'		2	1		>2			/			2	
Configuration				1	0	2													APEM
		Mounting Position	Contact	®			Knob/ Lever	Key	Illumi- nated	Knob/ Lever	Key	Illumi- nated	Knob Leve		Illumi- nated	Knob/ Lever	Key	Illumi- nated	Switches & Pilot Lights
	000	0	NO	\bullet				1											Control Boxes
	202	2	NC					V			V			√			√		Emergency Stop Switches
11	203	0	NC NO					\checkmark			\checkmark			\checkmark			\checkmark		Enabling Switches
	303	① ②	NC NO		•	•		V			V			V			1		Safety Products
20	Not	0	NO	•				√			V			√			√		Explosion Proof
20	required	2	NO			•		٧			ν			V			V		Terminal Blocks
02	Not required	① ②	NC NC				-	\checkmark			\checkmark			\checkmark			\checkmark		
	requireu	0	NO	•			<u> </u>												Relays & Sockets
	Not	2	NO			•		,			,			1			,		Circuit Protectors
	required	3	NC]	V			V			V			V		Power Supplies
		4	NC																
		0	NO	•															LED Illumination
	209	2 3	NC NC				-	\checkmark			\checkmark			_			_		Controllers
		() ()	NO																Operator
		0	NC									0							Interfaces
22	210	2	NO]	\checkmark						\checkmark			\checkmark		Sensors
22	210	3	NC					v			v			v			v		AUTO-ID
		4	NO		_	•													
		0	NC NO		•	•	1												
	310	3	NC		•	-	-	\checkmark			—			_			—		
		4	NO			•	1												Flush Silhouette
		0	NO	•		•													ø16
	011	2	NO			•	1	,			,			1			,		
	311	3	NC]	V			V			V					ø22
		4	NC																ø30
		0	NO	•															
40	Not	2	NO			•													Miniature
-	required	3	NO	•			-	•			•			•			•		Pilot Lights
		(4)	NO NC																
	Not	① ②	NC NC				1												
04	Not required	3	NC				1	\checkmark			\checkmark			\checkmark			\checkmark		
		() (4)	NC																TWN
	1	0	NO	•															TWND
20	\$	2	NO				1	,											
3S	243	3	NC		•		۱ ۱	/	-								_		ARN
		④ ve a half con		<u></u>	ummy Blo														CS

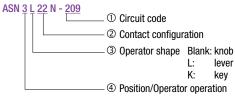
• Selector switches with 🖄 have a half contact operating current (load switching current value). Rated insulation voltage and rated current remain the same.

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

Contact Block Mounting Position



Part No. Development



3: 3-position, maintained

31: 3-position, spring return from right

32: 3-position, spring return from left

33: 3-position, spring return two-way

IDEC

Switches & Pil

ASBN2 Selector Pushbuttons

liot Lights						,					
-ig						L	Ring P	osition			
Its	Shape	Contact Configuration	Circuit Code	Con Blo	tact ock	Left		C	Right	Button Color Code	Ring Operator
APEM				Mounting Position	Contact	Normal	Pushl Push	outton Normal	Push		Part No. (Ordering No.)
Switches & Pilot Lights	Ring Operator (90°2-position)		400	0	NO		•		•		
Control Boxes	ASBN2		A03	2	NC						ASBN211N-A03*
Emergency		11	☆	0	NC	•				В	\$
Stop Switches		(1NO-1NC)	K04	2	EM		•			G	ASBN211N-K04*
Enabling Switches			G03	0	NO		•		Blocked	R Y	ASBN211N-G03*
Safety Products				2 1	NC NO	•	•	•			
		20 (2NO)	D01	 	NO		•		•		ASBN220N-D01*
Explosion Proof		(110)		0	NO		•		•		
Terminal Blocks				 	NC	•					
Deleve & Or electe			A08	3	NO		•		•		ASBN222N-A08*
Relays & Sockets				4	NC						
Circuit Protectors				0	NO		•				
Power Supplies			☆	2	NO				•		☆
			C10	3	NC	•					ASBN222N-C10*
LED Illumination				4	NC						
Controllers				0	NO		•				
Operator			D10	2	NO				•		ASBN222N-D10*
Interfaces				3	NC	•					
Sensors				(4) (1)	NC NO			•			
AUTO-ID		00		 	NO		•		•	B G	
		22 (2NO-2NC)	☆ E10	3	NC					R	☆ ASBN222N-E10∗
		()	210	4	NC					Ŷ	NODNELEN ETO
				0	NO				•		
Flush Silhouette			☆	2	NO		•				☆
ø16			F10	3	NC						ASBN222N-F10*
010				4	NC	\bullet					
ø22				0	NO		●				
ø30			G10	2	NO		•		Blocked		ASBN222N-G10*
				3	NC	•		•			NODILLEIT UTV
Miniature				4	NC	•		•			
Pilot Lights				0	NC	•					
			☆ K15	2	NC EM	•	•				☆ ACDN222N K15*
			617	3 4	EM		•				ASBN222N-K15*
	Specify a color code in place of * ir	Dout No.		•			-				

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

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

• Bezel (metal): Chrome-plated

TWND

ARN

CS

• 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.

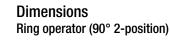
• Selector switches with 🖄 have a half contact operating current (load switching current value). Rated insulation voltage and rated current remain the same.

• See B-312 for bottom view.

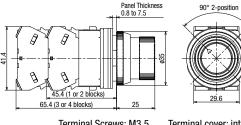
IDEC

Contact Block Mounting Position





(All dimensions in mm.)



Terminal Screws: M3.5

Terminal cover: integrated

ø30 TWN Series

Pilot Lights Round, Square Extended, Rectangular (Marking)

						Ра	ickage Quantity: 1	iid
Shape	Illumination	Base	Rated Voltage	Part No. (Ordering No.)	Color Code	LED Lamp Part No.	Dimensions Page	ⁱ lot Lights
Round APN1			24V AC/DC	APN122DN*	R, G, Y, A, S, PW	LSRD-2		0,
			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		APEM Switches & Pilot Lights
Square Extended UPQN3B			24V AC/DC	UPQN3B22D*	R, G, Y, A, S, PW	LSRD-2		Control Boxes
	LED	BA9S					B-325	Emergency Stop Switches
			100/110V AC	UPQN3B16D*	R, G, Y, A, S, PW	LSRD-6		Enabling Switches
(24V AC/DC)			200/220V AC	UPQN3B26D*	R, G, Y, A, S, PW			Safety Products
Rectangular (Marking)								Explosion Proof
UPQN4			24V AC/DC	UPQN422D*	R, G, Y, A, S, PW	LSRD-2	-	Terminal Blocks
	LED	BA9S	100/110V AC	UPQN416D*	R, G, Y, A, S, PW			Relays & Sockets
			200/220V AC	UPQN426D*	R, G, Y, A, S, PW	LSRD-6		Circuit Protectors
(24V AC/DC)					, , , , , , , ,			Power Supplies

• 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.

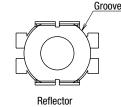
Terminal cover is installed on pilot lights for electric shock prevention.
 Type
 Terminal Cover Quantity

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

Note: DC-DC converter types are not approved by UL and CSA, and not CE compliant. • See B-314 for bottom view.

Reflector

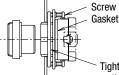
- 1. The lamp housing of the square LED illuminated pilot lights has a built-in reflector.
- Make sure that the reflector does not fall off when removing the lens or making plate.
- 3. When replacing the LED lamp of UPQN4 (rectangular), use a lamp holder tool (0R-55).
- 4. To remove the reflector, insert a flat screwdriver inside the groove of the reflector and lightly push out.



Panel Mounting of Square Pilot Lights

Tighten the square bezel to the operator and position the bezel correctly.
 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

Flush Silhouette
ø16
ø22
ø30
Miniature
Pilot Lights

LED Illumination

Controllers

Operator

Interfaces

Sensors

AUTO-ID

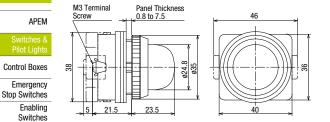
TWN	
TWND	
ARN	
CS	

ø30 TWN Series

Dimensions (Pilot Light)

Round APN1





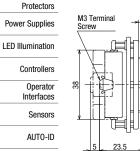
Terminal screws: M3

Square Extended **UPQN3B**



Panel Thickness 0.8 to 3.2

0.25



20

Terminal screws: M3

ŝ 52.5

46

4(

4

46

36

40 44

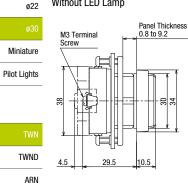
ŝ

36

Terminal screws: M3

Rectangular (Marking) UPQN4

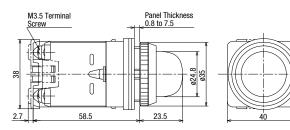
6V, 12V, 24V AC/DC (Terminal Cover: APN-PVL) Without LED Lamp



CS

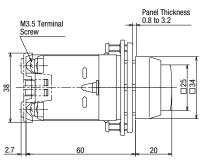
• See B-349 for wiring.

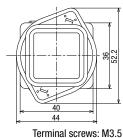
100 to 480V AC, 110V DC (Terminal Cover: N-VL3)



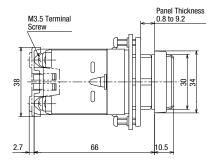
Terminal screws: M3.5

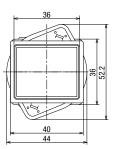
100 to 480V AC, 110V DC (Terminal Cover: N-VL3)





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





Terminal screws: M3.5

Pilot L

Safety Products

Explosion Proof

Terminal Blocks

Flush Silhouette

ø16

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

						Package Quantity: 1	liot
Shape	Operation	Contact	Part No. (Ordering No.)	Button Color Code	Dimensions	(All dimensions in mm.)	^p ilot Lights
Flush		1N0	ABD110N*	В			
ABD1 AOD1		1NC	ABD101N*	G R			
	Momentary	1NO-1NC	ABD111N*	r Y			APEM
- 6	Montonary	2N0	ABD120N*	S	Pa 	nel Thickness 3 to 7.5 ø39	Switches &
		2NC	ABD102N*	W			Pilot Lights
		2NO-2NC	ABD122N*	Note			Control Boxes
		1N0	AOD110N*	B			Emergency
		1NC	AOD101N*	G R	45.4 (1 or 2 blocks)	29.4	Stop Switches
	Maintained	1NO-1NC	AOD120N+	Y	65.4 (3 or 4 blocks) 9	40	Enabling Switches
		2N0 2NC	AOD120N*	S			Safety Products
		2NC 2NO-2NC	A0D102N*	W Note			Salety Fronucts
Extended		2NU-2NC 1NO	AOD122N*				Explosion Proof
ABD2		1NC	ABD210N* ABD201N*	В			Terminal Blocks
A0D2		1NO-1NC	ABD201N* ABD211N*	G			
	Momentary	2N0	ABD211N* ABD220N*	R Y	Pa	nel Thickness	Relays & Sockets
		2NC	ABD220N* ABD202N*	S		nel Thickness 3 to 7.5 Ø39	Circuit
		2NO-2NC	ABD222N*	W			Protectors
		1N0	AOD210N*				Power Supplies
		1NC	A0D201N*	B			LED Illumination
_		1NO-1NC	A0D211N*	G R Y	45.4 (1 or 2 blocks) 65.4(3 or 4 blocks) 14	4	A
	Maintained	2N0	A0D220N*		· · · ·		Controllers
		2NC	A0D202N*	S			Operator Interfaces
		2NO-2NC	AOD222N*	W			Sensors
Extended with Half Shroud		1N0	ABGD210N*	В			56115015
ABGD2 AOGD2		1NC	ABGD201N*	G			AUTO-ID
AUGDZ	Momentary	1NO-1NC	ABGD211N*	R			
	Womontary	2N0	ABGD220N*	Y	Pane 0.8 f	el Thickness o 3.5 ø39	
		2NC	ABGD202N*	S W			
		2N0-2NC	ABGD222N*			32.026.8	Flush Silhouette
		1N0	AOGD210N*	В		100 100 100 100 100 100 100 100 100 100	ø16
		1NC	AOGD201N*	G			
	Maintained	1NO-1NC	AOGD211N*	R	40.9 (1 or 2 blocks) 18. 60.9 (3 or 4 blocks) 20.	5 4 40	ø22
		2N0 2NC	AOGD220N*	Y S			ø30
		2NO-2NC	AOGD202N* AOGD222N*	W			Miniature
Extended with Full Shroud		1N0	ABFD210N*				
ABFD2		1NC	ABFD210N*	В			Pilot Lights
A0FD2		1NO-1NC	ABFD211N*	G R			
	Momentary	2N0	ABFD220N*	Y	Pa	nel Thickness	
		2NC	ABFD202N*	S	- <u></u>	nel Thickness B to 6 Ø39	
		2NO-2NC	ABFD222N*	W			TWN
		1N0	A0FD210N*	_	+ + +		TWND
		1NC	A0FD201N*	B G			ADN
	Mointained	1NO-1NC	AOFD211N*	R	45.4 (1 or 2 blocks) 1 65.4 (3 or 4 blocks) 16		ARN
	Maintained	2N0	AOFD220N*	Y			CS
		2NC	A0FD202N*	S W			
		2NO-2NC	AOFD222N*	٧V			

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

• Round bezel (metal): Chrome-plated

Pushbuttons with 1 or 3 contact blocks have a dummy block.
See B-307 for other contact configurations and gold-plated silver contacts.

• See B-312 for bottom view.

• Terminal screws: M3.5

• Integrated terminal cover

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

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

ø30 TWND Series

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

liot					Package C			
Pilot Lights	Shape	Operation	Contact	Part No. (Ordering No.)	Button Color Code	Dimensions	(All dimensions in mm.)	
	Mushroom		1N0	ABD310N*	В			
	ABD3 AOD3		1NC 1NO-1NC	ABD301N* ABD311N*	G R			
APEM		Momentary	2N0	ABD320N*	Y	-+ += Panel Thickness 0.8	to 7.5 + 29.4 +	
Switches &			2NC	ABD302N*	S			
Pilot Lights			2NO-2NC	ABD322N*	W	4	{} I	
Control Boxes			1N0 1NC	AOD310N* AOD301N*	B G			
Emergency Stop Switches		Maintained	1NO-1NC	A0D311N*	R	45.4 (1 or 2 blocks) 65.4 (3 or 4 blocks) 22	40	
Enabling		Wallitalleu	2N0	AOD320N*	Y			
Switches			2NC 2NO-2NC	AOD302N* AOD322N*	S W			
Safety Products	Mushroom with Full Shroud		1N0	ABGD310N*	В			
Explosion Proof	ABGD3 AOGD3		1NC	ABGD301N*	G		<u>29.4</u>	
Terminal Blocks	AUGD3	Momentary	1NO-1NC 2NO	ABGD311N* ABGD320N*	R Y			
			2NC	ABGD302N*	S			
Relays & Sockets			2N0-2NC	ABGD322N*	W			
Circuit Protectors			1N0 1NC	AOGD310N* AOGD301N*	В	43.9 (1 or 2 blocks) 63.9 (3 or 4 blocks) 23.5		
Power Supplies			1NO-1NC	AOGD301N* AOGD311N*	G R		H a + I	
LED Illumination		Maintained	2N0	AOGD320N*	Y			
			2NC 2NO-2NC	AOGD302N* AOGD322N*	S W			
Controllers	Jumbo Mushroom		1N0	AUGD322N* ABD410N*			29.4	
Operator Interfaces	ABD4		1NC	ABD401N*		Panel Thickness 0.8 to 7.5		
Sensors	T		1NO-1NC	ABD411N*	В			
		Momentary	2N0	ABD420N*	G R	865	(
AUTO-ID			2NC	ABD402N*	Y			
			2NO-2NC	ABD422N*		45.4 (1 or 2 blocks) 65.4 (3 or 4 blocks) 29	40	
	Jumbo Mushroom with		1N0	ABGD410N*		Panel Thickness 0.8 to 7.5	29.4	
Flush Silhouette	Shallow Shroud		1NC	ABGD401N*				
ø16	ABGD4				В			
		Momentary	1NO-1NC	ABGD411N*	G			
ø22			2N0	ABGD420N*	R Y			
ø30			2NC	ABGD402N*		45.4 (1 or 2 blocks)		
Miniature			2N0-2NC	ABGD422N*		65.4 (3 or 4 blocks) 29	40	
Pilot Lights	Jumbo Mushroom with Deep Shroud		1N0	ABFD410N*		Panel Thickness 0.8 to 7.5	29.4	
	ABFD4		1NC	ABFD401N*				
			1NO-1NC	ABFD411N*	B G			
		Momentary	2N0	ABFD420N*	R			
TWN			2NC	ABFD402N*	Y			
TWND			2NO-2NC	ABFD402N*		45.4 (1 or 2 blocks) 65.4 (3 or 4 blocks) 33		
ARN	Pin Lock (On-off Lock Type) (*1)		1N0-2NC	ABFD422N* ABD8P10N*				
	ABD8P		1NC	ABD8P01N*	В			
CS	1 ANS		1NO-1NC	ABD8P11N*	G		40	
			2N0	ABD8P20N*	R Y	Panel Thickness 0.8 to 7.5		
	The Area	3 9	2NC 2NO-2NC	ABD8P02N*	ſ			
	Pin Lock (On-lock Type) (*1)		1N0	ABD8P22N* ABD8PN10N*				
	ABD8PN		1NC	ABD8PN01N*	В			
	TAN S		1NO-1NC	ABD8PN11N*	G	45.4 (1 or 2 blocks)	Letter Del	
			2N0	ABD8PN20N*	R Y	65.4 (3 or 4 blocks) 27.5	\checkmark	
			2NC 2NO-2NC	ABD8PN02N* ABD8PN22N*				
			2.1.5 2.110	ABBOI HEEN"		ļ		

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

Y (yellow), S (blue), W (white)

IDEC

• 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).

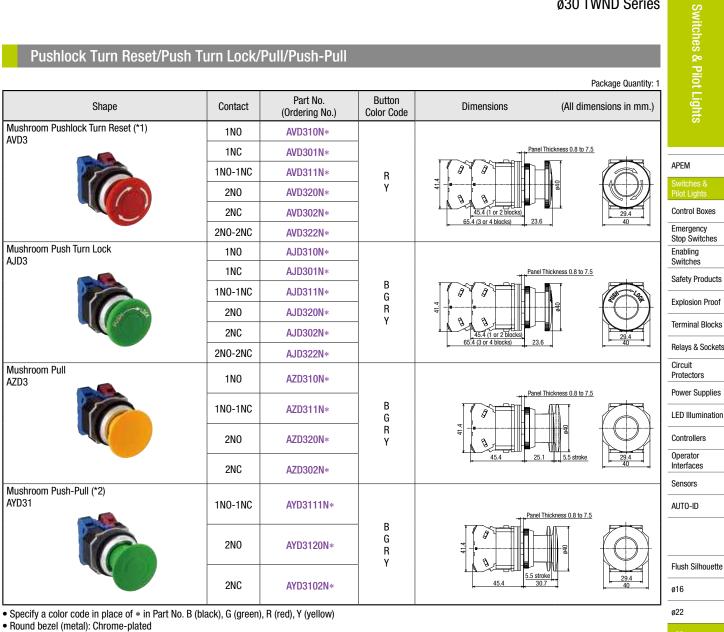
• See B-312 for bottom view.

• Terminal screws: M3.5

· Integrated terminal cover

Switches & Pilot Lights

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



 Pushbuttons with 1 or 3 contact blocks have a dummy block. • See B-307 for other contact configurations and gold-plated silver contacts.

• Mushroom pull has up to 2 contact blocks.

*1) Pushlock turn reset switches cannot be used as emergency stop switches. When emergency stop switches are required, use XN series emergency stop switches (ISO 13850 and IEC 60947-5-5 compliant).

*2) Push-Pull switches with red button cannot be used as emergency stop switches. When emergency stop switches are required, use XN series emergency stop switches (ISO 13850 and IEC 60947-5-5 compliant).

• See B-312 for bottom view.

• Terminal screws: M3.5

Integrated terminal cover

Pushbutton operation

Pushlock Turn Reset

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

Push Turn Lock

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

<u>Pull</u>

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

Push-Pull

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

Pull contact operation

Contract	AZD3						
Contact	Normal	Pull					
1N0	ملم	1 o					
2N0-2NC	<u>ب</u>	•.•					
2N0	ملم ملم						
2NC	•_•						

Contact	AYD31						
COILLAGE	Push	Pull					
1N0	<u>⊷</u> •	⊥_ 0 •					
2N0	میہ میں	0 0 0 1 0					
2NC	•_• •_•	919 919					

Push-Pull contact operation

Miniature

Pilot Lights

TWN

ARN

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Switches &

LED Illuminated Extended/Extended with Full Shroud

Pilot Lights	Shape	Base	Operation	Operating Voltage	Contact	Part No. (Ordering No.)	Button Color Code
ία.	Extended			Ū	1NO-1NC	ALD22211DN*	
	ALD2			24V AC/DC	2N0	ALD22220DN*	-
	A0LD2			211110/20	2NC	ALD22202DN*	R
APEM			-		1NO-1NC	ALD21611DN*	G
Switches &			Momentary	100/110V AC	2N0	ALD21620DN*	Υ Y
Pilot Lights			, , , , , , , , , , , , , , , , , , ,		2NC	ALD21602DN*	— A S
Control Boxes					1NO-1NC	ALD22611DN*	PW
Emergency				200/220V AC	2N0	ALD22620DN*	
Stop Switches	(24V AC/DC)	DAGO			2NC	ALD22602DN*	
Enabling Switches		BA9S			1NO-1NC	AOLD22211DN*	
				24V AC/DC	2N0	AOLD22220DN*	
Safety Products					2NC	AOLD22202DN*	R
Explosion Proof			Maintained	100/110V AC	1NO-1NC	AOLD21611DN*	G
					2N0	AOLD21620DN*	— Ү — А
erminal Blocks					2NC	AOLD21602DN*	S
elays & Sockets					1NO-1NC	AOLD22611DN*	PW
Circuit	With transformer				2N0	AOLD22620DN*	
Protectors	(100/110V AC)				2NC	AOLD22602DN*	
Power Supplies	Extended with Full Shroud				1NO-1NC	ALFD22211DN*	
	ALFD2 AOLFD2			24V AC/DC	2N0	ALFD22220DN*	
ED Illumination	AULFD2		Momentary	100/110V AC	2NC	ALFD22202DN*	R
Controllers					1NO-1NC	ALFD21611DN*	G Y
					2N0	ALFD21620DN*	- A
Operator Interfaces			-		2NC	ALFD21602DN*	S
					1NO-1NC	ALFD22611DN*	PW
Sensors				200/220V AC	2N0	ALFD22620DN*	_
AUTO-ID	(24V AC/DC)	BA9S			2NC	ALFD22602DN*	
		2,100			1NO-1NC	AOLFD22211DN*	_
				24V AC/DC	2N0	AOLFD22220DN*	_
					2NC	AOLFD22202DN*	R
Flush Silhouette					1NO-1NC	AOLFD21611DN*	G
			Maintained	100/110V AC	2N0	AOLFD21620DN*	- A
ø16					2NC	AOLFD21602DN*	S
ø22					1NO-1NC	AOLFD22611DN*	PW
922	With transformer (100/110V AC)			200/220V AC	2N0	AOLFD22620DN*	
ø30	(100/110V AC)				2NC	AOLFD22602DN*	

· Illuminated pushbuttons have an LED lamp installed. Pilot Lights

• Round bezel (metal): Chrome-plated • See B-308 for other operating voltage such as 6V AC/DC, 12V AC/DC, and 110V DC.

dummy block. • See B-314 for bottom view.

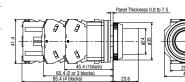
Dimensions

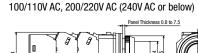
Extended, LED illuminated (momentary/maintained) ALD2/AOLD2 (terminal screws M3.5) Integrated terminal cover

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

TWN

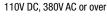
CS

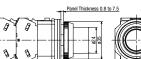




(2 blocks), 95.5 (4 bl

B

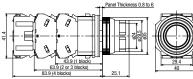


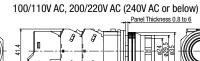




Extended with Full Shroud, LED illuminated (momentary/maintained) ALFD2/AOLFD2 (terminal screws M3.5) Integrated terminal cover

6, 12, 24V AC/DC · Without LED Lamp

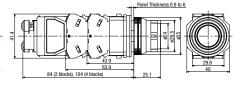




4 (2 blocks), 94 (4 blocks)

110V DC, 380V AC or over

cks), 105.5 (4







LED Illuminated Mushroom (ø40)/Mushroom Pushlock Turn Reset

						Package Quantity: 1	로
Shape	Base	Operation	Operating Voltage	Contact	Part No. (Ordering No.)	Color Code	liot Lights
Mushroom (ø40)				1NO-1NC	ALD32211DN*		
ALD3			24V AC/DC	2N0	ALD32220DN*		
A0LD3				2NC	ALD32202DN*		APEM
				1NO-1NC	ALD31611DN*	R G	
		Momentary	100/110V AC	2N0	ALD31620DN*	Y	Switches & Pilot Lights
				2NC	ALD31602DN*	A S	Control Boxes
				1NO-1NC	ALD32611DN*	3	
			200/220V AC	2N0	ALD32620DN*		Emergency Stop Switches
(24V AC/DC)	BA9S			2NC	ALD32602DN*		Enabling
	DA93	Maintained	24V AC/DC 100/110V AC	1NO-1NC	AOLD32211DN*		Switches
A CONTRACTOR OF				2N0	AOLD32220DN*		Safety Products
				2NC	AOLD32202DN*	R	Explosion Proof
				1NO-1NC	AOLD31611DN*	G Y A	Explosion 11001
				2N0	AOLD31620DN*		Terminal Blocks
				2NC	AOLD31602DN*	W	Relays & Sockets
				1NO-1NC	AOLD32611DN*	S	Circuit
With transformer (100/110V AC)			200/220V AC	2N0	AOLD32620DN*		Protectors
(100/110V AC)				2NC	AOLD32602DN*		Power Supplies
Mushroom Pushlock Turn Reset (*1)				1NO-1NC	AVLD32211DN*		
AVLD3			24V AC/DC	2N0	AVLD32220DN*		LED Illumination
				2NC	AVLD32202DN*		Controllers
				1NO-1NC	AVLD31611DN*		Operator
	BA9S	—	100/110V AC	2N0	AVLD31620DN*	R	Interfaces
				2NC	AVLD31602DN*		Sensors
				1NO-1NC	AVLD32611DN*		
(24V AC/DC)			200/220V AC	2N0	AVLD32620DN*	_	AUTO-ID
				2NC	AVLD32602DN*		

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

• Illuminated pushbuttons have an LED lamp installed.

• Round bezel (metal): Chrome-plated

• See B-308 for other operating voltage such as 6V AC/DC, 12V AC/DC, and 110V DC.

• See B-308 for other contact configurations and gold-plated silver contacts.

• Illuminated pushbutttons of 24V AC/DC or below with 2 or 4 contact blocks have a dummy block.

*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

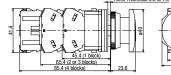
Pushlock Turn Reset

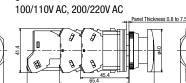
Button is maintained when pressed and is reset when turned clockwise.

Mushroom, LED illuminated (momentary/maintained)

ALD3/AOLD3 (terminal screws M3.5)

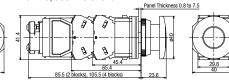
6, 12, 24V AC/DC · Without LED Lamp

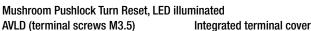




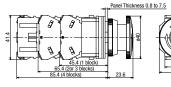
Integrated terminal cover

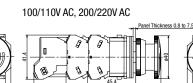
110V DC, 380V AC or over





6, 12, 24V AC/DC · Without LED Lamp

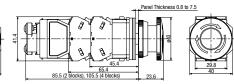




75.5 (2 blocks), 95.5 (4 blocks

23.6

110V DC, 380V AC or over



Pilot Lights

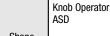
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	TWN
	ARN

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B-330

ø30 TWND Series

ASD Selector Switches (Knob Operator)



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

4	Shape	ASD													
8			Contact C	onfiguratio	n			Maintained	Maintained Spring Return Spring Return				from Left		
S			Contact	Block		perate Positio		1 2	1 <u>2</u>	Contact	Block		rator ition	1 2	
y s g		Contact	Mounting Position	Contact	1	2				Mounting Position	Contact	1	2		
y s		1N0	0	NO				ASD210N	ASD2110N	1	NO	٠		ASD2210N	
3	90°	(10)	2		Dun	nmy B	lock	ASDZTUN	ASDZITUN	2	—	_	_	ASDZZTUN	
_	2-position	1N0-1NC	0	NO		•		ASD211N	ASD2111N	0	NO	•		ASD2211N	
f		(11)	2	NC	٠			AUDETIN	AUDETTIN	2	NC		•	AUDZETTI	
3		2N0	0	NO		•		ASD220N	ASD2120N	0	NO	•		ASD2220N	
_		(20)	2	NO		•		HODLEON	ABBEILEN	2	NO	•		HODELLON	
S			0	NO		•				0	NO	•			
t S		2N0-2NC	2	NC	•			ASD222N	ASD2122N	2	NC		•	ASD2222N	
_		(22)	3	NO		•				3	NO	•			
S			4	NC	•					4	NC		•		
ו 		Contact Configuration				Maintained	Spring Return from Right	Spring Return from Left				Spring Return Two-way			
s r		Contact	Contact	Block		perate Positio			1 0 2						
S			Mounting Position	Contact	1	0	2	\bigvee	\bigvee					\vee	
_		2N0	0	NO	٠			ASD320N	ASD3120N		ASD3220N				
)		(20)	2	NO			•	ASDSZON	ASDSTZON		ASDSZZUN			ASD3320N	
		2NC	0	NC				ASD302N	ASD3102N	ASD3202N				ASD3302N	
		(02)	2	NC				ADDODEN	AGDOTOLIN		RODOLOLI			ASDSSUZIN	
_			0	NO	•			-							
		2N0-2NC	2	NO			•	ASD322N	ASD3122N		ASD3222N			ASD3322N	
6	45°	(22)	3	NC				-						ASDSSZZN	
2	3-position		4	NC											
-			0	NO	•			-							
D		4N0	2	NO	-		•	ASD340N	ASD3140N		ASD3240N	I		ASD3340N	
9		(40)	3	NO	•			-							
_			4	NO											
3			0	NC	_			-							
_		4NC	2	NC				ASD304N	ASD3104N		ASD3204N	I		ASD3304N	
		(04)	3	NC	_			-							
_			4	NC											
J			0	NO	•			-							
)		☆	2	NO			•		_		_				
		3S	3	NC	Der	•		ASD33SN-243							
I			4	—	Dun	nmy B	IOCK								

Knob: Black

CS

• Round bezel (metal): Chrome-plated

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

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

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

Contact Block Mounting Position

IDEC

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.

All dimensions in mm. Dimensions 90° 2-position Panel Thickness 45° (3-p on) 45 0.8 to 7.5 ð Ĝ B B 45.4 (1 or 2 blocks) 29 65.4 (3 or 4 blocks) 21

Terminal Screws: M3.5

Package Quantity: 1

Terminal cover: integrated

B-331

ASD L Selector Switches (Lever Operator)

	1. 0											Package Quantity: 1	Pilot Lights
Shape	Lever Opera	ator				2							lights
							S						APEM Switches &
		Contact C	Configurat	ion		Maintained	Spring Return		Spr	ina Re	turn fro	m Left	Pilot Lights Control Boxes
					perator		from Right				erator	1	Emergency
	Contact	Contact	Block		Position		$1 >^2$	Contact	Block		sition		Stop Switches
	Uniaci	Mounting Position	Contact	1	2		\checkmark	Mounting Position	Contact	1	2		Enabling Switches
	1N0	0	NO		•	ASD2L10N	ASD21L10N	0	NO	•		ASD22L10N	Safety Products
90°	(10)	2	—	Dun	nmy Block	AUDELIUM	AUDETETOI	2		-		AUDILLIUM	Explosion Proof
2-position	1NO-1NC	0	NO		•	ASD2L11N	ASD21L11N	0	NO	•		ASD22L11N	
	(11)	2	NC	•				2	NC		•		Terminal Blocks
	2N0 (20)	0	NO NO		•	ASD2L20N	ASD21L20N	0	NO NO	•		ASD22L20N	Relays & Sockets
	(20)	0	NO		•			0	NO	•			Circuit
	2N0-2NC	2	NC	•				2	NC		•		Protectors
	(22)	3	NO		•	ASD2L22N	ASD21L22N	3	NO	•		ASD22L22N	Power Supplies
		4	NC	•				4	NC		•		LED Illumination
	Contact Configuration			Maintained	Spring Return from Right	Sprin	g Return f	from L	eft	Spring Return Two-way	Controllers		
	Contract	Contact	Block	Operator Position		1 0 2	1 0 2		1 • 0	2		1 0 - 2	Operator Interfaces
	Contact	Mounting Position	Contact	1	2		\bigvee		\searrow				Sensors
	2N0	0	NO	٠		ASD3L20N	ASD31L20N		ASD32L2	ON		ASD33L20N	AUTO-ID
	(20)	2	NO		•	AODOLZUN	ASDSTLZUN		AODOZLZ			ASDSSLEDIN	
	2NC	0	NC			ASD3L02N	ASD31L02N		ASD32L0	2N		ASD33L02N	
	(02)	2	NC										Thirt Oilbougtto
		0	NO	•		_							Flush Silhouette
	2N0-2NC (22)	2 3	NO NC			ASD3L22N	ASD31L22N		ASD32L2	2N		ASD33L22N	ø16
45°	()	4	NC			- -							ø22
3-position		0	NO	•									
	4N0	2	NO		•				1000014			100001 (0)	ø30
	(40)	3	NO	•		ASD3L40N	ASD31L40N		ASD32L4	ON		ASD33L40N	Miniature
		4	NO		•	-							Pilot Lights
		0	NC										
	4NC	2	NC			ASD3L04N	ASD31L04N		ASD32L0	4N		ASD33L04N	
	(04)	3	NC				1000.10		NODULL.			1000010111	
		4	NC										TWN
		0	NO	•		\$							TWND
	☆ 3S	2 3	NO NC		•	ASD3L3SN-243	—		—			—	
	30	(3) (4)		Dur	nmy Block								ARN
 Lever: Black 	I		1	<u> </u>	ing bloc.		Turn the operator to e	ach position	occurate				CS

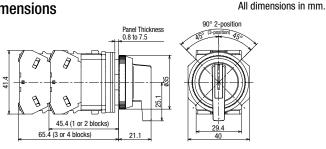
Lever: Black
Round bezel (metal): Chrome-plated
Selector switches with 1 or 3 contact blocks have a dummy block.
Knob operator can be installed at every 45 degrees intervals in addition to the positions shown in the above table.

Contact Block Mounting Position



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

Dimensions



Terminal Screws: M3.5

Terminal cover: integrated

Shape

ASD K Key Selector Switches

Package Quantity: 1

Key Selector (Key No. 0) ASD⊡K



APEM	
Switches & Pilot Lights	
Control Boxes	
Emergency Stop Switches	
Enabling Switches	
Safety Products	
Explosion Proof	9
Terminal Blocks	2
Relays & Sockets	
Circuit Protectors	
Power Supplies	
LED Illumination	
Controllers	
Operator Interfaces	
Sensors	
AUTO-ID	
Flush Silhouette	
ø16	4
ø22	3
ø30	
Miniature	
Pilot Lights	
TWN	
TWND	
ARN	
CS	• (
	• F

gg0 Contact Configuration Maintained Position Spring Return from Right 1 Spring Return from Right 1 Spring Return from Right 1 Spring Return from Left 90° 100 Contact Block Operator Position 1 2 1 0									SI)						
go Contact Block Operator Position 1 2 1 2 Contact Block Operator Position 100 Contact Block 0 ASD2K10N ASD2K10N ASD2K10N Ontact Block 1 2 100 Contact Block 0 ASD2K10N ASD2K10N ASD2K10N Ontact Block ASD22K10N 110 0 NC 0 ASD2K11N ASD2K11N ONO ASD22K10N 200 0 NO 0 ASD2K2N ASD2K12N ONO ASD22K10N 200 0 NO 0 ASD2K2N ASD2K12N ONO ASD22K2N 200 0 NO 0 ASD2K2N ASD21K2N ONO ONO ASD22K2N 200 0 NC 0 NO O ASD2K2N ASD21K2N ONO O ASD2K2N ASD2K2N ASD2K2N ASD2K2N ASD2K2N ASD2K2N ASD2K2N ASD2K2N ASD2K2N ASD3K2N ASD3K2N ASD3K2N <t< td=""><td></td><td colspan="6">Contact Configuration</td><td>Maintained</td><td>Spring Return from Right</td><td colspan="5">Spring Return from Right Spring Return from</td></t<>		Contact Configuration						Maintained	Spring Return from Right	Spring Return from Right Spring Return from					
Oriental 90° 2-position Contact 100 No No ASD2K10N ASD21K10N Mounting Position Contact 1 2 90° 2-position 1N0 0 NO 0 ASD2K10N ASD21K10N 0 NO 0 ASD22K10N 1N0-1NC 0 NO 0 ASD2K11N ASD21K11N 0 NO 0 ASD22K11N 2NO 0 NO 0 ASD2K20N ASD21K20N 0 NO 0 ASD22K20N 2NO 0 NO 0 ASD2K20N ASD21K20N 0 NO 0 ASD22K20N 2NO-2NC (22) 0 NO 0 ASD2K22N ASD21K22N 0 NO 0 ASD22K20N 2NO-2NC (22) 0 NO 0 ASD2K22N ASD21K22N ASD21K22N 0 NO 0 ASD22K22N 2NO-0 0 NO 0 ASD3K22N ASD31K22N ASD32K22N ASD33K20N 2NO 0 <td< td=""><td></td><td>Orinteet</td><td>Contact</td><td>Block</td><td></td><td colspan="2"></td><td></td><td>1 2</td><td>Contact</td><td>Block</td><td colspan="2"></td><td>1 2</td></td<>		Orinteet	Contact	Block					1 2	Contact	Block			1 2	
90° 2-position 100 2 — Dummy Block ASDZK10N ASDZK10N ASDZK10N Q — ASDZK10N Q NO ● ASDZK11N ASDZK11N Q NO ● ASDZK2N ASDZK2N Q NO ● ASDZK2N ASDZK2N ASDZK2N Q NO ● Q NO <		Contact		Contact	1 2					Mounting Position	Contact	1	2		
90° 2-position (10) ① → Dummy Block → ② → → ASD2K11N ASD2K20N ASD21K20N O NO ● ASD22K20N ASD21K20N O NO ● ASD22K20N ASD21K22N O NO ● ASD22K20N ASD21K22N O NO ● ASD22K22N ASD21K22N ASD22K22N ASD22K22N ASD22K22N ASD22K22N ASD22K22N ASD22K22N ASD22K22N ASD22K22N ASD32K22N ASD32K22N ASD33K22N		1N0	0	NO					ASD21K10N	1	NO	•		ASD22K10N	
2-position 110-11/C 0 N0 0 ASD2K11N ASD21K11N ASD21K11N 0 N0 0 ASD22K11N 2N0 0 N0 0 ASD2 ASD2 0 N0 0 ASD22K20N ASD21K20N 0 N0 0 ASD22K20N ASD22K20N ASD21K20N 0 N0 0 ASD22K20N ASD21K20N 0 N0 0 ASD22K20N ASD21K20N 0 N0 0 ASD22K20N ASD22K20N 0 N0 0 ASD22K20N ASD22K20N 0 N0 0 ASD22K22N ASD21K20N 0 N0 0 ASD22K22N ASD22K20N ASD32K20N ASD32K20N ASD33K20N ASD33K20N ASD33K20N ASD33K20N ASD33K20N ASD33K20N ASD33K20N ASD33K20N ASD33K22N ASD33K20N ASD33K22N ASD33K	90°	(10)	2	—	Dun	nmy E	Block	AODZITION	AODZITTION	2	—	-	_	AUDZZICTUN	
Image: contact Block Operator Position ASD2K20N ASD21K20N ASD21K20N ASD22K20N ASD22K20N 2N0 (2) 0 NO 0 NO 0 NO 0 ASD22K20N 2N0 (2) 0 NO 0 NO 0 NO 0 ASD22K20N 2N0 - (2) 0 NO 0 ASD21K22N ASD21K22N 0 NO 0 ASD22K22N 2N0 - (2) 0 NO 0 1 0 2 1 0 2 1 0 2 1 0 2 1 0 2 1 0 2 1 0 2 1 0 2 1		1NO-1NC		NO		•			ASD21K11N		NO	•		ASD22K11N	
(20) 2 N0 ASU2K20N ASU2K20N <td></td> <td>(11)</td> <td></td> <td>NC</td> <td>•</td> <td></td> <td></td> <td>AGDZRTIN</td> <td>ASDZINIIM</td> <td>2</td> <td>NC</td> <td></td> <td>•</td> <td>ASDZZKTIN</td>		(11)		NC	•			AGDZRTIN	ASDZINIIM	2	NC		•	ASDZZKTIN	
Image: constraint of the			0	NO		\bullet			ASD21K20N	0	NO	•		ASDOOKOON	
2N0-2NC (22) 0 NC 0 ASD2K22N ASD21K22N 0 NC 0 ASD22K22N 3 NO 0 NC 0 NC 0 NC 0 ASD22K22N 3 NO 0 ASD22K22N ASD21K22N 0 0 NC 0		(20)	2	NO		\bullet		ASDZIZZON	ASDZINZON	2	NO	•		ASDZZRZON	
(22) 3 NO ASU2K22N ASU2K22N ASU2K22N 3 NO ASU2K22N (22) 3 NO 0			0	NO		\bullet				0	NO	•			
Image: construct configuration Maintained Spring Return from Right Spring Return f		2NO-2NC	2	NC	•				ASD21K22N	2	NC		•	Vedookoon	
A5° Contact Configuration Maintained Spring Return from Right Spring Return from Right Spring Return from Left Spring Return Two-way 2NO O NO ASD3K20N ASD31K20N ASD32K20N ASD33K20N 2NO O NO ASD3K20N ASD31K20N ASD32K20N ASD33K22N 2NO-2NC O NO ASD3K22N ASD31K22N ASD32K22N ASD33K22N 2NO-2NC O NO ASD3K22N ASD31K22N ASD32K22N ASD33K22N 45° O NO ASD3K40N ASD31K40N ASD32K40N ASD33K40N 4NO O NO ASD3K40N ASD31K40N ASD32K40N ASD33K04N 4NC O NO ASD3K3N-24		(22)	3	NO				AODZINZZN		3	NO	•		AJUZZNZZN	
45° O NO O ASD3K20N ASD31K20N ASD32K20N ASD33K20N 45° 0 NO 0 ASD3K20N ASD31K20N ASD32K20N ASD33K20N 2NC 0 NO 0 ASD3K20N ASD31K20N ASD32K20N ASD33K20N 2NC 0 NC 0 ASD3K2N ASD31K2N ASD32K20N ASD33K2N 2NO 0 NC 0 ASD3K02N ASD31K2N ASD32K2N ASD33K2N 2NO-2NC 0 NC 0 ASD3K2N ASD31K2N ASD32K2N ASD33K2N 45° 0 NO 0 ASD3K2N ASD31K2N ASD32K2N ASD33K2N 2NO-2NC 0 NO 0 ASD3K2N ASD31K2N ASD32K2N ASD33K2N 400 0 NO 0 ASD3K4N ASD31K4N ASD32K4N ASD33K4N 4NC 0 NC 0 ASD3K04N ASD31K04N ASD32K04N ASD33K04N			4	NC						4	NC		\bullet		
Contact Mounting Position Contact 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 1 2		Contact Configuration						Maintained	Spring Return from Right	Sprin	g Return f	rom Le	eft		
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $						ator Po	osition	1 0 2	1 0 2		1, 0	2		1, 0, 2	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		Contact		Contact	1	2		\searrow							
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		-		-	•			ASD3K20N	ASD31K20N		ASD32K2	ASD33K20N			
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$. ,													
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$			-					ASD3K02N	ASD31K02N		ASD32K0	ASD33K02N			
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		(02)													
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$															
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				-				ASD3K22N	ASD31K22N		ASD32K2	2N		ASD33K22N	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	45°	(==)					F								
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	-						$\left \right $								
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		4110	-	-	-										
$ \begin{array}{ c c c c c c c } \hline \hline & $		-		-				ASD3K40N	ASD31K40N		ASD32K4	ON		ASD33K40N	
$\begin{array}{ c c c c c c c c } \hline & & & & & & & & & & & & & & & & & & $		(10)	-	-											
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$			-	-											
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		4NC				5									
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$		-						ASD3K04N	ASD31K04N		ASD32K0	4N		ASD33K04N	
$\begin{array}{ c c c c c c } \hline \hline & N0 & \bullet & & \\ \hline & \hline & N0 & \bullet & \\ \hline & \hline & N0 & \bullet & \\ \hline & \hline & & \hline & \\ 3S & \hline & \hline & & \\ \hline & \hline & & \\ \hline & & \hline & & \\ \hline & & \\ \hline & & & \\ \hline \\ \hline$		(3.)		-											
② NO ● 3S ③ NC ●				-											
ASD3K3SN-243 — # # <t< td=""><td></td><td></td><td></td><td>-</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>				-											
		25		-					_		—			—	
		30	4		Dun										

Cylinder: Chrome-plated

Round bezel (metal): Chrome-plated

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

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

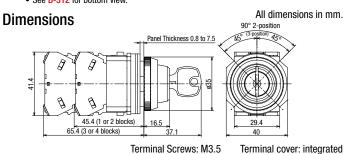
Contact Block Mounting Position



IDEC

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

(1) insert the key completely before unfining 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.



Terminal cover: integrated

ASLD Illuminated Selector Switches (LED)

1

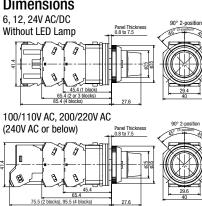
Switches & Pilot

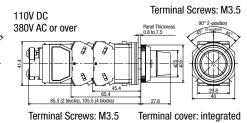
Shape	Illuminated Selector Switches (BA9S Base) ASLD										Lights					
	(24V AC/DC)											APEM				
		Contact	Configura	tion				Maintained	Spring Return from Right		Spri	ng Re	turn f	rom Left		Switches & Pilot Lights
	2	Contact	t Block		Operat Positic		Operating Voltage	1 2	1 , 2	Contact	Block		rator ition	1, 2	Color Code	Control Boxes
	Contact	Mounting Position	Contact	1	2		voltage	\sim		Mounting Position	Contact	1	2	\sim	COUC	Emergency Stop Switches
		1	NO				24V AC/DC	ASLD22211DN*	ASLD212211DN*	1	NO			ASLD222211DN*		Enabling
	1NO-1NC (11)	2	NC	٠]	100/110V AC	ASLD21611DN*	ASLD211611DN*	2	NC		۲	ASLD221611DN*		Switches
90°	(1.)						200/220V AC	ASLD22611DN*	ASLD212611DN*					ASLD222611DN*	5	Safety Products
2-position	2N0	1	NO		•		24V AC/DC	ASLD22220DN*	ASLD212220DN*	0	NO	٠		ASLD222220DN*	R G	Explosion Proof
	(20)	2	NO		•]	100/110V AC	ASLD21620DN*	ASLD211620DN*	2	NO			ASLD221620DN*	Y	·
	· · /						200/220V AC	ASLD22620DN*	ASLD212620DN*					ASLD222620DN*	A S	Terminal Blocks
		0	NO		•		24V AC/DC	ASLD22222DN*	ASLD212222DN*	0	NO	•		ASLD222222DN*	PW	Relays & Sockets
	2NO-2NC	2	NC	•		-	100/110V AC	ASLD21622DN*	ASLD211622DN*	2	NC		•	ASLD221622DN*		Circuit
	(22)	3	NO		•		200/220V AC	ASLD22622DN*	ASLD212622DN*	3	NO	•		ASLD222622DN*		Protectors
		4	NC	•			_	_		4	NC		•			Power Supplies
	Contact Configuration Maintained Spring Return from Right Spring Return from Left Two-way										LED Illumination					
	Contact Block Operator Position			Operating Voltage	1 0 2	1 0 2	1 0 2				1,0,2	Color Code				
	Contact	Mounting Position	Contact	1	0	2	Ű	\checkmark			\bigvee					Controllers
		0	NO	•			24V AC/DC	ASLD32220DN*	ASLD312220DN*	ASLI)322220	DN*		ASLD332220DN*		Operator Interfaces
	2N0 (20)	2	NO				100/110V AC	ASLD31620DN*	ASLD311620DN*	ASLI	0321620	DN*		ASLD331620DN*		
	(20)						200/220V AC	ASLD32620DN*	ASLD312620DN*	ASLI	0322620	DN*		ASLD332620DN*		Sensors
	010	1	NC				24V AC/DC	ASLD32202DN*	ASLD312202DN*	ASLI)322202	DN*		ASLD332202DN*		AUTO-ID
	2NC (02)	2	NC				100/110V AC	ASLD31602DN*	ASLD311602DN*	ASLI	0321602	DN*		ASLD331602DN*		
	(,						200/220V AC	ASLD32602DN*	ASLD312602DN*	ASLI	0322602	DN*		ASLD332602DN*		
45°		1	NO	•			24V AC/DC	ASLD32222DN*	ASLD312222DN*	ASLI)322222	DN*		ASLD332222DN*	Р	
3-position	2N0-2NC	2	NO			•	100/110V AC	ASLD31622DN*	ASLD311622DN*		0321622			ASLD331622DN*	R G	Flush Silhouette
	(22)	3	NC				200/220V AC	ASLD32622DN*	ASLD312622DN*	ASLI)322622	DN*		ASLD332622DN*	Y	ø16
		4	NC					_	_		_			_	A S	Ø16
		1	NO	•			24V AC/DC	ASLD32240DN*	ASLD312240DN*		0322240			ASLD332240DN*	PW	ø22
	4N0	2	NO	_		•	100/110V AC	ASLD31640DN*	ASLD311640DN*		0321640			ASLD331640DN*		ø30
	(40)	3	NO	•			200/220V AC	ASLD32640DN*	ASLD312640DN*	ASLI	0322640	DN*		ASLD332640DN*		030
		4	NO				-			4.011		DNL				Miniature
		0	NC			–	24V AC/DC	ASLD32204DN*	ASLD312204DN*		0322204			ASLD332204DN*		Pilot Lights
	4NC (04)	2	NC				100/110V AC	ASLD31604DN*	ASLD311604DN*		0321604			ASLD331604DN*		
	(04)	3 ④	NC NC	_	L		200/220V AC	ASLD32604DN*	ASLD312604DN*	ASLI	0322604	אווט		ASLD332604DN*		
- Creatify i		-	_			<u> </u>				tobac of 0.4		r hol-		th Q or A contact bir size i		
R (red), G (Specify a color code in place of * in Part No. R (red), G (green), Y (yellow), A (amber), S (blue). PW (pure white) Pared level (arche) (Cortex) (Action of Content									iave d	TWN					
 Illuminated 	tound bezel (metal): Chrome-plated • Turn the operator to each position accurately. Iuminated selector switches have an LED lamp installed. • See B-309 for gold-plated silver contacts.									TWND						
	 Jse a pure white (PW) LED for yellow (Y) illumination. See B-314 for bottom view. 															

Specify a color code in place or * in Far 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.

Contact Block Mounting Position Dimensions







IDEC

CS

All dimensions in mm.

ASBD2 Selector Pushbuttons

liot											Package Quantity: 1
Pilot Lights	Shape	Contact Configuration	Circuit Code		Contact Block		Button Color Code	Ring Operator			
APEM				Mounting Position	Contact	Normal	Pushl Push	outton Normal	Push	Cone	Part No. (Ordering No.)
Switches & Pilot Lights	Ring Operator (90°2-position) ASBD2			0	NO		•		•	В	
Control Boxes Emergency		11 (1NO-1NC)	A03	2	NC	•				G R Y	ASBD211N-A03*
Stop Switches Enabling				0	NO		•				
Switches Safety Products			A08	2 3	NC NO	•	•		•		ASBD222N-A08*
Explosion Proof				(4) (1)	NC NO	•	•		•		
Terminal Blocks			☆ C10	2	NO		•		•		<i>☆</i>
Relays & Sockets			C10	3 ④	NC NC	•					ASBD222N-C10*
Circuit Protectors		22		① ②	NO NO		٠			В	
Power Supplies		(2NO-2NC)	D10	3	NC	•				B G R Y	ASBD222N-D10*
LED Illumination				(4) (1)	NC NO		-	•		1	
Operator			☆ E10	2	NO NC				•		☆ ASBD222N-E10∗
Interfaces Sensors				4	NC						
AUTO-ID			5.42	① ②	NO NO		•		•		\$
			☆ F10	3 4	NC NC	•		•			ASBD222N-F10*

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

• Bezel (metal): Chrome-plated Flush Silhouette

Miniature

Pilot Lights

TWN

ARN

CS

• Circuit codes E and F: The right and left NC contact blocks on circuit code E or F may overlap each other while turning the ring operator. The NO and NC contact blocks on circuit code F may overlap each other while pressing the button. ø16

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

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

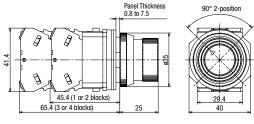
• See B-312 for bottom view.

Contact Block Mounting Position



Dimensions Ring operator (90° 2-position)

All dimensions in mm.



Terminal Screws: M3.5

Terminal cover: integrated

Pilot Lights (Round)

						Package Quantity: 1	
Shape	Illumination	Base	Operating Voltage	Part No. (Ordering No.)	Color Code	LED Lamp Part No.	
Round APD1			24V AC/DC	APD122DN*	R, G, Y, A, S, PW	LSRD-2	
	LED	BA9S	100/110V AC	APD116DN*	R, G, Y, A, S, PW		AF
(24V AC/DC)			200/220V AC	APD126DN*	R, G, Y, A, S, PW	LSRD-6	Sv Pil

• 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.

Туре **Terminal Cover** Quantity 6V, 12V, 24V AC/DC **APN-PVL** 1

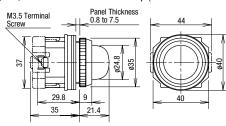
100V/110V AC, 200/220V AC N-VL3 1 110V DC N-VL3 1

Note: DC-DC converter types are not approved by UL and CSA, and not CE compliant. • See B-314 for bottom view.

Dimensions

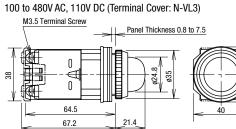
Round, LED illuminated

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



Terminal Screws: M3.5

• See B-349 for wiring.



Terminal Screws: M3.5

ø22 Miniature

Pilot Lights

TWN	
TWND	
ARN	
CS	

-2	
	APEM
-6	Switch

Control Boxes

Switches & Pilot Lights

Emergency Stop Switches

Enabling Switches

Safety Products

Explosion Proof

Terminal Blocks

Relays & Sockets

Circuit Protectors

Power Supplies

LED Illumination

All dimensions in mm. Controllers

> Operator Interfaces

Sensors

AUTO-ID

Flush Silhouette

ø16

Nameplates

Model	Legend	Material	Part No.	Ordering No.	Package Quantity	Dimensions (mm)
NA	5 1 1			NA-0	1	. 401.2
	Blank	Aluminium 1.2 mm thick	NA-0	NA-0PN10	10	
	With	White letters on black background		NA-□	1	
For TWN/TWND	Legend		NA-□	NA-□PN10	10	030.5
ΝΔΙΟ						
				NALO	4	
	Disale	Aluminium		NALU	I	
	BIANK	Black	NALU			
\bigcirc				NALOPN10	10	ø30.5
For TWN/TWND						
-	NA For TWN/TWND	NA Blank With Legend NALO For TWN/TWND Blank Blank	NA Blank Aluminium For TWN/TWND With Legend Aluminium NALO For TWN/TWND Blank Aluminium For TWN/TWND Blank Aluminium	NA Blank Aluminium Image: Description of the sector of th	NA Blank Aluminium NA-0 Image: Blank Aluminium 1.2 mm thick NA-0 Image: Aluminium 1.2 mm thick NA-0 Image: Aluminium NA-0 NA-0 Image: Aluminium NA-0 NA-0 Image: Aluminium NA-0 NA-0 Image: Aluminium NA-0 NA-0 Image: NA-0 NA-0 NA-0	Model Legend Material Part No. Ordering No. Quantity NA Aluminium 1.2 mm thick NA-0 1 NA Material Aluminium NA-0 10 Na-OPN10 10 10 10 NALO With Legend NA-0 1 NALO Naterial NA-0 10 10 NALO Aluminium NA-0 10 10 NALO Blank Aluminium NA-0 10 NALO Blank Aluminium NA-0 10 NALO Blank Aluminium NALO 10 NALO Blank Aluminium NALO 10

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

LED Illumination

Power Supplies

Controllers Operator Interfaces Sensors AUTO-ID

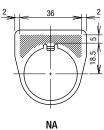
□: Code	Legend
1	ON
2	0FF
3	START
4	STOP
31	OFF ON
35	HAND AUTO
53	HAND OFF AUTO

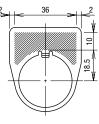
ø16 Shape and Engraving Area



ARN CS

Flush Silhouette





NALO

All dimensions in mm.

ND Example (when the legend height is 4 mm)

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

	1	1		1		ot
Shape	Material	Part No.	Ordering No.	Package Quantity	Remarks	ilot Lights
Locking Ring Wrench	Nitril rubber (black)	OR-12	0R-12	1	 Used to tighten the round bezel when installing the ø30 or ø25 switch onto a panel from the front. A: TWS series (ø25) B: TWN/TWND series (ø30) A A B B<!--</td--><td>APEM Switches & Pilot Lights Control Boxes Emergency Stop Switches</td>	APEM Switches & Pilot Lights Control Boxes Emergency Stop Switches
Lamp Holder Tool A B For TWN/TWND	Nitril rubber (black)	OR-55	0R-55	1	• Used to install and remove the LED/incandescent lamps. See B-345. A: For BA9S base B: For E12 base A 	Enabling Switches Safety Products Explosion Proof Terminal Blocks Relays & Sockets
Contact Block Removal Tool	Metal (zinc-plated) Rubber (nitryl)	TW-KC1	TW-KC1	1	Used to remove transformer units. See B-347 for how to use.	Circuit Protectors Power Supplies LED Illumination Controllers Operator Interfaces
Contact Rubber Boot For momentary 1 layer of contact blocks (2 contact blocks)	Nitril rubber (black)	0C-99	0C-99	1	 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. 	Sensors AUTO-ID Flush Silhouette Ø16 Ø22
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. 	030 Miniature Pilot Lights
Rubber Mounting Hole Plug	Nitril rubber (black) Nitril rubber (gray)	0B-13B 0B-13	0B-13BPN05 0B-13PN05	5	 Used to plug unused ø30.5 mm mounting holes. Degree of protection: IP40 	TWN TWND ARN
Plastic Mounting Hole Plug	Plug: ABS plastic (gray) Gasket: Chloroprene rubber Locking ring: diecast zinc	0BP-11	0BP-11	1	 Tightening torque: 1.2 N·m. Degree of protection: IP65 (when there is no anti-rotation ring hole) Supplied with a locking ring. 	
Metallic Mounting Hole Plug	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. 	

Accessories

ilot								
ilot Lights	Shape		Material	Par	t No.	Ordering No.	Package Quantity	Remarks
	Button Cover for Extend Pushbuttons	ded		Black	0C-11B	0C-11B		Metallic bezels covered with a rubber boot to enhance waterproof
APEM			Nitril rubber	Red	0C-11R	0C-11R		Characteristics. Button is not included. Applicable to extended pushbuttons only.
Switches & Pilot Lights			Bezel:				1	Oil-proof Operating temperature:
Control Boxes Emergency		-	diecast zinc	Green	0C-11G	0C-11G		$-5 \text{ to } +60^{\circ}\text{C}.$
Stop Switches Enabling Switches	For	TWN/TWND		Yellow	0C-11Y	0C-11Y		<u>/ M30 P1.5</u>
Safety Products								Used to cover and protect push-
Explosion Proof		For flush Dushbuttons		0C-121	l	0C-121	1	buttons where units are subject to water splash. Not suitable for outdoor use or where the units are
Terminal Blocks			EPDM rubber					subject to oil splash.
Relays & Sockets Circuit	e	For extended oushbuttons		0C-122	2	0C-122	1	0C-121 37 16
Protectors Power Supplies	For TWN/TWND							
LED Illumination	Dust-proof Rubber Cove for Jumbo Mushrooms							Used for ABN4G and ABGD4 pushbuttons. Panel Thickness 1.2 to 5.5
Controllers			Nitril rubber (black)	OC-4GI	N	OC-4GN	1	
Operator Interfaces			· /					
Sensors		TWN/TWND						
AUTO-ID	Padlock Cover							 Used to protect pushbuttons and illuminated pushbuttons (momentary/maintained) with 24 mm max. height from the panel, and selector switches (knob operator).
Flush Silhouette ø16 ø22 ø30 Miniature Pilot Lights	For	TWN/TWND	Polyarylate (gasket: nitryl rubber)	OL-KL1		OL-KL1	1	Not used for the following models. Pushbuttons Mushroom Jumbo mushroom with shroud Illuminated Outside diameter: e50 Inside diameter: e44 With half shroud With full shroud Selector Switches Lever operator Key selector switch with key installed
TWN TWND ARN CS	Padlock Cover for Key Selector Switches	TWN/TWND	Metal Paint: red (zinc-plated brass)	HS9Z-F	PC30	HS9Z-PC30	1	• Applicable model <u>Key selector switches ASN□K/ASD□K</u> See padlock cover catalog for operating instruction. 1.6 mm-thick Red paint <u>Bunities Steel</u> <u>Atternities Steel Steel Steel Steel Steel Steel Steel Steel Stee</u>
	For Flush Pushbuttons		Metal (zinc-plated brass)	OL-C		OL-C	1	 Used to protect flush pushbuttons from inadvertent operation. Can be easily attached using the locking ring.
	For	TWN/TWND						¥ · · ·

IDEC

Shape		Material	Part No.	Ordering No.	Package Quantity	Remarks	ilot Lights
Metallic Bezel							1
	1					1	1
	I	Metal (diecast zinc:	0G-11	0G-11PN02	2	 Cannot be used with pin lock, selector pushbuttons, and monolever 	APEM Switches &
	I	chrome-plated)				units.	Pilot Lights
ø35/ø26, height 9 For 1	r TWN/TWND					1	Control Boxes
Plastic Bezel			+		+		Emergency Stop Switches
	I						Enabling Switches
	1					 Specify a color code in place of *. B (black), G (green), R (red), W (white), 	Safety Products
	I.	Polycarbonate	0GP-11*	0GP-11*PN02	2	 Y (yellow) Cannot be used with pin lock, selector 	Explosion Proof
	I					 cannot be used with pin lock, selector pushbuttons, and monolever units. 	Terminal Blocks
ø35/ø26, height 9	For TWN						Relays & Sockets
035/026, height 9 Octagonal Metal Bezel			+	+	+		Circuit
	① Flush						Protectors Power Supplies
	W35 (37.6)		0G-81	0G-81PN02	2		Power Supplies
	(37.6) H9	Metal				Use with TWDN series diecast zinc	LED Illumination
		 (diecast zinc: chrome-plated) 				 switches and pilot lights. Cannot be used with half-shrouds. 	Controllers
	② Extended					• Calinol de useu with nan-smourds.	Operator Interfaces
	W35		0G-82	0G-82	1		Sensors
	(37.6) H16					ļ	AUTO-ID
For TWDN Clear Plastic Shroud for Flush Push			+	+	+	 	1
	buttone						1
	1					ļ	Flush Silhouette
The second second	1	Acrylic (clear)	0GP-13	0GP-13PN02	2		ø16
	I						ø22
ø35, height 14	For TWN				I	Clear plastic full shroud.	ø30
Clear Plastic Shroud for Extended P	Pushbuttons				Ţ	· Cical plastic fun sincua.	Miniature
	I						Pilot Lights
2-3	I	Acrylic (clear)	0GP-14	0GP-14PN02	2		P110t Lignto
	I						1
ø35, height 20.6	For TWN						TWN
Ø35, neight 20.6 Clear Plastic Shroud for Illuminated Pu		<u> </u>	+	-	++		TWND
	I						ARN
	1	Acrylic (clear)	0GP-1411	0GP-1411	1	• Buttons may protrude slightly depending on the panel thickness.	
	ļ						1
Shroud: ø35, height 20.6						ļ	í.
Metal Nut Ring: height 4 Metal Nut Ring for Illuminated Push	For TWN shbuttons				'	ļļ	f
Metal Nut hing for mannatos	Duttons					ļ	í.
	1						1
	I	Metal (diecast zinc)	0L-11	OL-11PN05	5	Metal nut ring for OGP-1411 only.	1
	1					1	1
ø35, height 4	For TWN						Í.

Accessories

ot Lights	S	hape	Material	Part No.	Ordering No.	Package Quantity	Color Code *
03	Button for Pushbuttons	① Flush ø24.6, height 4		ABN1BN-*	ABN1BN-*PN05	5	
APEM Switches &		② Extended ø24.6, height 9		ABN2BN-*	ABN2BN-*PN05	5	B (black), G (green), R (red), Y (yellow), S (blue), W (white)
Pilot Lights Control Boxes Emergency	3	③ Mushroom ø40, height 16.2	Polyacetal	ABN3BN-*	ABN3BN-*PN02	2	
Stop Switches Enabling Switches	(4)	④ Jumbo Mushroom ø65, height 23.2		ABN4BN-*	ABN4BN-*	1	B (black), G (green), R (red), Y (yellow), S (blue)
Safety Products Explosion Proof	5	⑤ Button for Pin Lock (ABD8P) ø23.6, height 3		ABW1B-*	ABW1B-*PN05	5	B (black), G (green), R (red), Y (yellow), S (blue), W (white)
Terminal Blocks Relays & Sockets Circuit		© ø40 Pushlock Turn Reset (AVN3, AVD3) ø40, height 18.5		AVN3B-*	AVN3B-*	1	R (red),Y (yellow)
Protectors Power Supplies LED Illumination	Tor TWN/TWND	 Ø40 Push Turn Lock (AJN3, AJD3) Ø40, height 18.5 	AS resin	AJN3B-*	AJN3B-*	1	B (black), G (green), R (red), Y (yellow)
Controllers Operator Interfaces Sensors	Lens for Illuminated Pushbuttons	① Extended (ALN2, ALD2) ø24, height 18.5		ALN2LD-*-K	ALN2LD-*-KPN05	5	R (red), G (green), S (blue), Y (yellow), A (amber), W (white) Specify W for PW (pure white) illumination.
AUTO-ID	² For TWN/TWND	 Ø40 Pushlock turn reset (AVLN3, AVLD3) Ø40, height 18.5 	AS resin	AVLN3L-R-K	AVLN3L-R-KPN02	2	R (red) only
Flush Silhouette ø16	Selector Operator	① Knob operator ø25, height 20.5		ASNHT-*	ASNHT-*PN02		
ø22 ø30	²	 2 Lever operator ø25, height 20.5, length 37.5 	Polyacetal	ASNHL-*	ASNHL-*PN02	2	B (black), G (green), R (red)
Pilot Lights		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)
TWN	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.
ARN	Lens for Pilot Lights	① Round (APN1, APD1)Ø24.8, height 28, M20For TWN/TWND		APN106LN-*-K	APN106LN-*-KPN05	5	R (red), G (green), Y (yellow) A (amber), W (white), S (blue) Specify W for PW (pure white) illumination.
	2	[©] Rectangular (UPQN4) Width 36, depth 30, height 8.5 For TWN	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 For TWN		UPQN06LD-*-K	UPQN06LD-*-KPN05	5	R (red), G (green), S (blue), Y (yellow), A (amber), W (white) Specify W for PW (pure white) illumination.
	Marking Plate For TWN	Rectangular pilot lights (UPQN4) Width 29.8, depth 23.8, thickness 2	Acrylic	UPQN406N-W	UPQN406N-WPN05	5	W (white) only See <mark>B-346</mark> for engraving area.

Maintenance Parts

All dimensions in mm.

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

Maintenance Parts

→						
ot Lights	Shape	Description	Part No.	Ordering No.	Package Quantity	Remarks
05	Contact block	NO contact	HW-U10	HW-U10	4	Housing color: Blue
	HW-U	NO contact	HW-U10-MAU	HW-U10-MAU	1	Push rod color: Green MAU has gold contacts
APEM	6	NC contact	HW-U01	HW-U01	1	Housing color: Reddish purple Push rod color: Red
Switches &		NG COMACI	HW-U01-MAU	HW-U01-MAU	1	MAU has gold contacts
Pilot Lights		EM contact	HW-U10R	HW-U10R		Housing color: Blue
Control Boxes		(early make)	HW-U10R-MAU	HW-U10R-MAU	1	Push rod color: Black MAU has gold contacts
Emergency Stop Switches		LB contact	HW-U01R	HW-U01R	1	Housing color: Reddish purple Push rod color: White
Enabling Switches	For TWN/TWND, 11g approx.	(late break)	HW-U01R-MAU	HW-U01R-MAU	•	MAU has gold contacts
Safety Products	Dummy Block					 For HW-U contact blocks
Explosion Proof	For TWN/TWND	Polyamide	HW-DB	HW-DBPN10	10	• Used when the number of contact blocks and full voltage adapters is 1 or 3.
Terminal Blocks	3.5g approx.					
Relays & Sockets Circuit Protectors	Full Voltage Adapter For Illuminated Switches (*1)	Polyamide	HW-GA1N	HW-GA1NPN02	2	 Applicable model: Illuminated pushbuttons Illuminated selector switches Applicable load (LED lamp)
Power Supplies	For TWN/TWND 12g approx.					LSRD-6, LSTD-6 (6V AC/DC) LSRD-1, LSTD-1 (12V AC/DC) LSRD-2, LSTD-2 (24V AC/DC)
Controllers	Transformer Unit For Illuminated Switches (*1)	100/110V AC	HW-T16	HW-T16	1	Applicable model: Illuminated pushbuttons
Operator Interfaces	For TWN/TWND	200/220V AC	HW-T26	HW-T26	1	Illuminated selector switchesApplicable load (LED lamp)
Sensors	66g approx.					LSRD-6, LSTD-6 (6V AC/DC)
AUTO-ID	Transformer Unit For Pilot Lights (*1)	100/110V AC	TWR-016B	TWR-016B	1	 Mounting screws are not included. See B-347 for mounting screws.
	For TWN/TWND 69g approx.	200/220V AC	TWR-026B	TWR-026B	1	Applicable load (LED lamp) LSRD-6, LSTD-6 (6V AC/DC)

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

LED Lamps (Use LED lamps for replacing incandescent lamps)

ø16	LED Lainps (USE LED IAII	ips for replace	ing incanuesc	ent lamps	»)			r
ø22	Model	Operating Voltage	Currer DC	nt Draw DC	Part No.	Ordering No.	Color Code	Package Quantity	Base
ø30	LSRD					LSRD-6		1	
		6V AC/DC	10mA	14mA	LSRD-6	LSRD-6PN10		10	
Miniature	27			0		LSRD-1		1	BA9S
Pilot Lights	6 27	12V AC/DC	7mA	8mA	LSRD-1	LSRD-1PN10		10	/13
		24V AC/DC	7mA	8mA	LSRD-2	LSRD-2		1	
		24V AC/DC	7111A	OIIIA	LOND-2	LSRD-2PN10		10	
71441	LSTD	6V AC/DC	7mA (R, A) 5.5mA (G, PW)	8mA (except S)	LSTD-6*	LSTD-6*		1	
TWN		OV AC/DC	4.5mA (S)	7mA (S)	L31D-0*	LSTD-6*PN10		10	D1 00
TWND		12V AC/DC	10mA (except S)	11mA (except S)	LSTD-1*	LSTD-1*	R, G, A, S, PW	1	BA9S /13
ARN		12V AC/DC	8mA (S)	9mA (S)	LOID-I*	LSTD-1*PN10		10	/10
CS		24V AC/DC	10mA (except S)	11mA (except S)	LSTD-2*	LSTD-2*		1	_
		241 A0/D0	8mA (S)	9mA (S)	1010-2*	LSTD-2*PN10		10	
	LETD	6V AC/DC	14mA (R, A)	17mA (R, A)	LETD-6*	LETD-6*		1	
		OV AC/DC	5.5mA (G, S, PW)	8mA (G, S, PW)	LEID-0*	LETD-6*PN10		10	
		12V AC/DC	6.5mA	7mA	LETD-8*	LETD-8*	R, G, A, S, PW	1	E12
		12V AC/DC	(10mA: at 15V)	(11mA: at 15V)	LEID-0*	LETD-8*PN10	n, u, A, S, FW	10	/15
		24V AC/DC	10mA	11mA	LETD-2*	LETD-2*		1	
		24V AU/DU			LEID-Z*	LETD-2*PN10		10	

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

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

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

IDEC

• When replacing the LED with LSRD, the lens must also be replaced (see B-341).

Maintenance Parts

LED lamps for replacing incandescent lamps

Incandescent Lamp						
Mode	l (mm)	Part No.	Operating Voltage	Lamp Rating	Base	
LS	<	LS-6	6V AC/DC	1W (6V)		
(i)	Bulb: ø11	LS-8	12V AC/DC	1W (18V)	BA9S	
		LS-2	18V AC/DC	1W (24V)	/13	
	Length: 23	LS-3	24V AC/DC	1W (30V)		
LE	20	LE-6	6V AC/DC	2W (6V)		
E		LE-8	12V AC/DC	2W (18V)	E12	
8	Bulb: ø13	LE-2	18V AC/DC	2W (24V)	/15	
	Length: 34	LE-3	24V AC/DC	2W (30V)		

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

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

• When replacing incandescent lamps to LSRD, the lens must also be replaced (see B-341).

Transformer

Shape	Operating Voltage	Voltage Range	Part No. (Ordering No.)	Applicable Load	Te
For 6V	100/110V AC	±10%	TWR516	LSRD-6, LSTD-6* (6V AC/DC, LED lamp)	C
	200/220V AC	±10%	TWR526	Specify a color code in place of $*$ in Part No.	P
	400/4440V AC	±10%	TWR546	R (red), G (green), A (amber), S (blue), PW (pure white)	
For 24V	100/110V AC	±10%	TWR512	LSRD-2, LSTD-2* (24V AC/DC, LED lamp)	C
	200/220V AC	±10%	TWR522	Specify a color code in place of * in Part No.	0 In
	400/4440V AC	±10%	TWR542	R (red), G (green), A (amber), S (blue), PW (pure white)	S

Dimensions

M3.5 Terminal Screws

Secondary Side

2-ø3.3 Mounting Hole

Terminal Cover

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

Specifications

Part No.	TWR5□6	TWR5□2	
Rated Voltage	100/110V AC, 200/220V AC,	400/440V AC (50/60 Hz)	
Current Draw	2.4VA		
Rated Insulation Voltage	600V		
Insulation Resistance	$100M\Omega$ minimum (500V DC	megger)	
Operating Temperature	–30 to 60°C (no freezing)		
Operating Humidity	35 to 85% RH (no 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		
Shock Resistance	1000 m/s ²		
SHOCK RESISTANCE	100 m/s ²		
Dielectric Strength 2500V AC, 1 minute			
Terminal Screw	M3.5		
Applicable Wire 2 mm ² maximum, 2 wires maximum		aximum	
Weight	87g		

Accessories

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

• See H-071 for DIN rail products.

When using a commercially available incandescent lamp, choose a lamp with the same dimensions, operating voltage, and base.

Part No. R (red), G (green), A (amber), S (blue), PW (pure white)

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

of incandescent lamp, use A (amber) LED lamp.

Specify a color code in place of * in

• For 0 (orange) and C (clear) color code

Safety Products Explosion Proof Blocks Sockets pplies

Switches & Pilot Lights

APEM

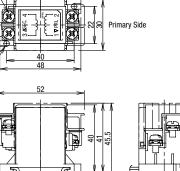
Control Boxes

Emergency Stop Switches

Enabling Switches

ination

ſS



BAA1000



All dimensions in mm.

ARN

CS

IDEC

Pilot Lights

Miniature

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 fire

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.





Locking Ring Nameplate

Panel Thickness and Rubber Washer

Panel

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



TWN/TWND series

ø16 Pushbutton ø22

(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	_	



CS

Miniature Pilot Lights

> TWN/TWND series Pushbutton (extended with half shroud)

Illuminated pushbutton (extended with half shroud) ARN

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

TWN/TWND series

Pushbutton (extended with full shroud)

IDEC

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

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

Notes for Panel Mounting

Locking ring wrench

lamp is used.

Locking ring wrench recommended torque

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

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

sure of correct operation before installation. The operation of illuminated

pushbutton switches cannot be guaranteed when a commercially available

5 to 30V AC/DC and 1W maximum, and with the same base and shape. Make

Locking ring wrench (OR-12) В

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

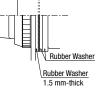


Panel

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.



ll h

Anti-rotation Ring OGL-11 (0.8 mm)

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.



Adjust the thickness of the rubber

APEM

Control Boxes

Emergency Stop Switches Enabling

Switches

Safety Products

Explosion Proof

Terminal Blocks

Relavs & Sockets

LED Illumination

Controllers

Operator

Interfaces

Sensors

AUTO-ID

Flush Silhouette

Circuit Protectors Power Supplies

Rubber Gasket TWN/TWND series

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

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

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

TWND series

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

TWN/TWND series

Other models (excluding square)

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

Installing/Removing the Buttons and Lenses

To install

Pushbutton button

Flush/Extended Push in the button to install.

and the bezel to remove the button

To remove



Notches on the operating shaft

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



-Notches

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

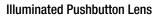
Notes on button removal

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.

counterclockwise to remove.



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

lens.







Pilot Light Lens Round

Lens has threads. Turn clockwise to install the lens.





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

Marking Plate on Pilot Lights

Rectangular Marking Plates (for UPQN4)

Removina

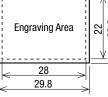
① Insert a flat screwdriver between the lens and bezel, and tilt the screwdriver to remove the lens.



Engraving Area

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

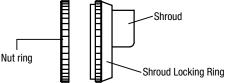




Installing the Half Shroud on Extended Pushbuttons/ Illuminated Pushbuttons

Half Shroud Parts

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



Installing the Half Shroud

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

Tightening the Half Shroud

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

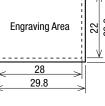
(1) Three projections (2) Grooves on the threads (3) Complete on the shroud TOF Grooves on the threads (The shroud is installed in (Four grooves on up, the shroud locking ring.) down, right, and left)

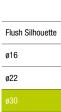
- Shrouds may rattle depending on the panel thickness.
- A gap may appear between the nut ring and the shroud locking ring depending on the panel thickness.

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



easily





Miniature Pilot Lights

TWN	
TWND	
ARN	
CS	

Control Boxes

Stop Switches

Safety Products

Explosion Proof

Terminal Blocks

Relavs & Sockets

LED Illumination

Controllers

Operator

Interfaces

Sensors

AUTO-ID

Circuit

Protectors Power Supplies

Emergency

Enabling

Switches





Operating Instructions

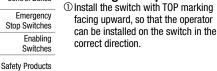
Selector Switches

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

Key Selector Switches

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

Installing the Operator on Selector Switches Control Boxes



"TOP" marking

Color Insert

TOP" marking

45° 3-position

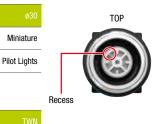
2 On non-illuminated models, install the Terminal Blocks color insert in the middle of operator. The color insert also serves to retain Relavs & Sockets the operator. Circuit Protectors

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



Installation of Selector Operators

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



IDEC



90° 2-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



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



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

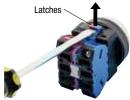
Removing the Operator from Illuminated Selector Switches



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

Removing the Contact Blocks/Full Voltage Adapters

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



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

Transformer Units and DC-DC Converters

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



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

Transformer Units and DC-DC Converters for Pilot Lights

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



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

Switches & Pilot Lights

APEM

Explosion Proof

Power Supplies

LED Illumination

Controllers

Operator

Sensors

AUTO-ID

Flush Silhouette

ø16

ø22

ARN

CS

Interfaces

Operating Instructions

Applicable Wiring

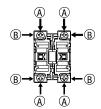
(1) Contact Block 0.3 to 3.5 mm² (solid wire 0.5 to 2.0 mm)

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

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

<Contact Block>

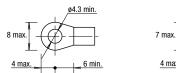
Terminal screws M3.5 (spring-up)



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

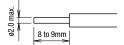


Crimping terminal for B

IP20 crimping terminal ø3.6 min.







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

3.6 min.

6 min

with the terminal metal part.

(1)-1 IP20 Degree of Protection

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

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

When using a crimping terminal

Use IP20 crimping terminals.

When using a solid wire

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

When using a stranded wire

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

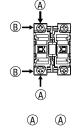
(2) Power Unit 0.3 to 2 mm² (solid wire 0.5 to 1.6 mm)

Illuminated pushbutton/illuminated selector switch

 $\textcircled{\sc B}$ and $\textcircled{\sc B}$ show the wiring direction to the terminals. <Full Voltage Adapter>

Terminal screws M3.5

(spring-up)

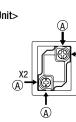


<Transformer Unit> 100/110V AC, 200/220V (240V AC or below) Terminal screws M3.5 (spring-up)



<DC-DC Conver Unit/Transformer Unit>

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



(A)

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)



ø3.6 min



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.

Miniature
Pilot Lights
TWN

TWN	
TWND	
ARN	
CS	

Control Boxes Emergency Stop Switches

Enabling Switches

Safety Products

Explosion Proof

Terminal Blocks

Relays & Sockets

Power Supplies

LED Illumination

Controllers Operator

Interfaces

Sensors

AUTO-ID

Flush Silhouette

ø16

ø22

Circuit

Protectors

6 min

4 ma

Crimping terminal for (B)

Operating Instructions

(3) Pilot Light

Switches & Pilot Lights

Control Boxes

Emergency

Enabling

Switches

Stop Switches

Safety Products

Explosion Proof

Terminal Blocks

Relays & Sockets

Power Supplies

LED Illumination

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Operator Interfaces

Circuit

Protectors

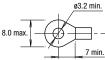
nt 0.3 to 2 mm² (solid wire 0.5 to 1.6 mm)

Applicable crimping terminal

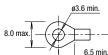
Be sure to use an insulation tube or cover on the crimping part of the crimping terminal to prevent electrical shocks.

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

(Arrows show the wiring direction)

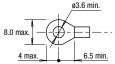


APD1 (6, 12V, 24V AC/DC) Terminal screws M3.5 (self-lifting)





APN1, UPQN3B, UPQN4, APD1 (100 to 480V AC or below, 110V DC) Terminal screws M3.5 (self-lifting)



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

Cautions for Wiring

About using DC-DC Converter Unit

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

Terminal No.	Polarity
X1	Positive
X2	Negative

2. Incandescent lamps cannot be used in DC-DC converter unit.

DC-DC converters are equipped with an electric circuit and noise may be heard inside the unit, which does not affect the performance of DC-DC converters.

Recommended Tightening Torque Number of Wires

Unit	Wire		Number of Wires	Recommended Tightening Torque (Nm)	Terminal Screw	
	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 Unit (*1)	Solid Wire	ø0.5 to 1.6 mm (AWG14 to 22)	2	1.0 to 1.3	M3.5	
	Stranded 0.3 to 2.0 mm² Wire (AWG14 to 22)					
	Crimping Terminal					
Pilot Light	Solid Ø0.5 to 1.6 mm Wire (AWG14 to 22)		2	0.6 to 1.0 (M3.0)		
	Stranded Wire	0.3 to 2.0 mm ² (AWG14 to 22)	1.0 to 1.3 (M3		M3.5)	

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



Switches & Pil

ø30 Selector Switches / Pushbuttons Part Number Replacement List

	Old Series	3	New Part No. (to)	Demonstra
Model	Operator	Old Part No.	New Part No. (*3)	Remarks
operator		ASN310	ASN210N	
		ASN311	ASN211N	
		ASN320	ASN220N	
		ASN322	ASN222N	
		ASN37S	ASN22RN-118	
		ASN410	ASN2110N	
		ASN411	ASN2111N	
		ASN420	ASN2120N	
		ASN422	ASN2122N	
	90°	ASN47S	ASN212RN-118	
	2-position	ASN3010	ASN201N	(*2)
		ASN3011	ASN211N	(*1)
		ASN3020	ASN202N	(*2)
		ASN3022	ASN222N	(*1)
		ASN307S	ASN22RN-118	(*1)
		ASN4010	ASN2210N	
		ASN4011	ASN2211N	
		ASN4020	ASN2220N	
ASN		ASN4022	ASN2222N	
Knob		ASN407S	ASN222RN-168	(10)
Operator		ASN111	ASN320N	(*2)
		ASN122	ASN340N	(*2)
		ASN15S	ASN322N	(1.7)
		ASN17S	ASN302N	(*1)
		ASN18S	ASN304N	(*1)
		ASN211	ASN3220N	(*2)
		ASN222	ASN3240N	(*2)
		ASN25S	ASN3222N	(1.1)
		ASN27S	ASN3202N	(*1)
	45°	ASN28S	ASN3204N	(*1)
	3-position	ASN1011	ASN320N	(*1) (*2)
		ASN1022	ASN340N	(*1) (*2)
		ASN105S	ASN322N	(*1)
		ASN107S	ASN302N	
		ASN108S	ASN304N	(4.4) (4.6)
		ASN2011	ASN3120N	(*1) (*2)
		ASN2022	ASN3140N	(*1) (*2)
		ASN205S	ASN3122N	(*1)
		ASN207S	ASN3102N	
		ASN208S	ASN3104N	
		ASN3L10	ASN2L10N	
		ASN3L11	ASN2L11N	
		ASN3L20	ASN2L20N	
		ASN3L22	ASN2L22N	
		ASN3L7S	ASN2L2RN-118	
	90° 2-position	ASN4L10	ASN21L10N	
		ASN4L11	ASN21L11N	
		ASN4L20	ASN21L20N	
		ASN4L22	ASN21L22N	
		ASN4L7S	ASN21L2RN-118	
		ASN30L10	ASN2L01N	(*2)
		ASN30L11	ASN2L11N	(*1)
ASN-L		ASN30L20	ASN2L02N	(*2)
Lever		ASN30L22	ASN2L22N	(*1)
Operator		ASN30L7S	ASN2L2RN-118	(*1)
		ASN40L10	ASN22L10N	
		ASN40L11	ASN22L11N	
		ASN40L20	ASN22L20N	
		ASN40L22	ASN22L22N	
		ASN40L7S	ASN22L2RN-168	
		ASN1L11	ASN3L20N	(*2)
		ASN1L22	ASN3L40N	(*2)
			ACMOLOOM	1
		ASN1L5S	ASN3L22N	
	45°	ASN1L7S	ASN3L02N	(*1)
	45° 3-position	ASN1L7S ASN1L8S	ASN3L02N ASN3L04N	(*1)
		ASN1L7S ASN1L8S ASN2L11	ASN3L02N ASN3L04N ASN32L20N	(*1) (*2)
		ASN1L7S ASN1L8S	ASN3L02N ASN3L04N	(*1)

	Old Series	3	New Devi Ne. (*0)	Demonder	할
Model	Operator	Old Part No.	New Part No. (*3)	Remarks	Lig
		ASN2L7S	ASN32L02N	(*1)	hts
		ASN2L8S ASN10L11	ASN32L04N ASN3L20N	(*1) (*1) (*2)	
		ASN10L11	ASN3L20N ASN3L40N	(*1) (*2)	
		ASN10L5S	ASN3L22N	(*1)	APEM
ASN-L Lever	45°	ASN10L7S	ASN3L02N		Switches &
Operator	3-position	ASN10L8S	ASN3L04N		Pilot Lights
		ASN20L11	ASN31L20N ASN31L40N	(*1) (*2)	Control Boxes
		ASN20L22 ASN20L5S	ASN31L22N	(*1) (*2) (*1)	Emergency
		ASN20L7S	ASN31L02N		Stop Switches
		ASN20L8S	ASN31L04N		Enabling Switches
		ASN3K10□	ASN2K10N□-N024401		
			ASN2K11N□-N024401		Safety Products
		ASN3K20	ASN2K20N□-N024401 ASN2K22N□-N024401		Explosion Proof
		ASN3K7S	ASN2K2RN□-118-N024401		
		ASN4K10	ASN21K10N-N024401		Terminal Blocks
		ASN4K11	ASN21K11N-N024401		Relays & Sockets
		ASN4K20	ASN21K20N-N024401		Circuit
	90°	ASN4K22 ASN4K7S	ASN21K22N-N024401 ASN21K2RN-118-N024401		Protectors
	2-position	ASN30K10	ASN2K01N□-N024401	(*2)	Power Supplies
		ASN30K11	ASN2K11N□-N024401	(*1)	LED Illumination
		ASN30K20□	ASN2K02N□-N024401	(*2)	
		ASN30K22	ASN2K22N	(*1)	Controllers
		ASN30K7SD ASN40K10	ASN2K2RN□-118-N024401 ASN22K10N-N024401	(*1)	Operator
		ASN40K11	ASN22K10N-N024401		Interfaces
		ASN40K20	ASN22K20N-N024401		Sensors
ASN-K		ASN40K22	ASN22K22N-N024401		AUTO-ID
Key		ASN40K7S	ASN22K2RN-168-N024401 ASN3K20N□-N024401	(*0)	
Selector		ASN1K11	ASN3K40N□-N024401	(*2) (*2)	
		ASN1K5S	ASN3K22N -N024401	(*1) (*2)	
		ASN1K7S□	ASN3K02N□-N024401	(*1) (*2)	Flush Silhouette
		ASN1K8S	ASN3K04N - N024401	(*1) (*2)	
		ASN2K11	ASN32K20N□-N024401 ASN32K40N□-N024401	(*2) (*2)	ø16
		ASN2K5S	ASN32K40N -N024401	(*1) (*2)	ø22
		ASN2K7S	ASN32K02N□-N024401	(*1) (*2)	-00
	45°	ASN2K8S□	ASN32K04N□-N024401	(*1) (*2)	ø30
	3-position	ASN10K11	ASN3K20N	(*1) (*2)	Miniature
		ASN10K22	ASN3K40N□-N024401 ASN3K22N□-N024401	(*1) (*2) (*1) (*2)	Dilot Lighto
		ASN10K3S	ASN3K02N - N024401	(*2)	Pilot Lights
		ASN10K8S	ASN3K04N - N024401	(*2)	
		ASN20K11	ASN31K20N□-N024401	(*1) (*2)	
		ASN20K22	ASN31K40N□-N024401	(*1) (*2)	TWN
		ASN20K5S	ASN31K22N□-N024401 ASN31K02N□-N024401	(*1) (*2) (*2)	
		ASN20K7S	ASN31K04N	(*2)	TWND
		ASTN3211	ASN211N	(=/	ARN
	90°	ASTN3222	ASN222N	(*1)	
2-pos	2-position	ASTN4211	ASN2111N	(44)	CS
		ASTN4222 ASTN1122	ASN2122N ASN322N	(*1)	
		ASTN1122	ASN322N-311		
		ASTN1340	ASN340N		
ASTN		ASTN1422	ASN322N-209		
Knob Operator		ASTN1520	ASN320N	(t. t. t)	
oporator	45° 3-position	ASTN1540 ASTN1611	ASN340N ASN311N-303	(*1)	
	o position	ASTN1611 ASTN1622	ASN322N-310	<u> </u>	
		ASTN2122	ASN3222N		
		ASTN2222	ASN3222N-311		
		ASTN20122	ASN3122N		
		ASTN20222	ASN3122N-311		
naka sura of	contact one	ration before wir	ing		

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

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

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

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ø30 Selector Switches / Pushbuttons Part Number Replacement List

유	Old Series			Demerilia	
Lig	Model	Operator	Old Part No.	New Part No. (*3)	Remarks
글을 물고 있는			ASTN20422	ASN3122N-209	
S	S		ASTN20520	ASN3120N	(*1)
	ASTN	45°	ASTN20540	ASN3140N	(*1)
Knob		3-position	ASTN5120	ASN3320N	
APEM	Operator	e peeraon	ASTN5122	ASN3322N	
Switches &			ASTN5222	ASN3322N-311	
Pilot Lights			ASTN5111	ASN3311N-202	
			ASTN32L11	ASN2L11N	(1.1)
Control Boxes		90°	ASTN32L22	ASN2L22N	(*1)
Emergency		2-position	ASTN42L11	ASN21L11N	(***)
Stop Switches			ASTN42L22	ASN21L22N	(*1)
Enabling Switches			ASTN11L22	ASN3L22N	
			ASTN12L22 ASTN13L40	ASN3L22N-311 ASN3L40N	
Safety Products			ASTN13L40	ASN3L22N-209	
Explosion Proof			ASTN14L22	ASN3L22N-205	(*1)
Explosion Proof			ASTN15L40	ASN3L40N	(*1)
Terminal Blocks	ASTN■L		ASTN16L11	ASN3L11N-303	
	Lever		ASTN16L22	ASN3L22N-310	
Relays & Sockets	Operator		ASTN21L22	ASN32L22N	
Circuit		45°	ASTN22L22	ASN32L22N-311	
Protectors		3-position	ASTN201L22	ASN31L22N	
Power Supplies			ASTN202L22	ASN31L22N-311	
Fower Supplies			ASTN204L22	ASN31L22N-209	
LED Illumination			ASTN205L20	ASN31L20N	(*1)
			ASTN205L40	ASN31L40N	(*1)
Controllers			ASTN51L20	ASN33L20N	
Operator			ASTN51L22	ASN33L22N	
Interfaces			ASTN52L22	ASN33L22N-311	
Sensors			ASTN51L11	ASN33L11N-202	
00113013			ASTN32K11	ASN2K11N	(***)
AUTO-ID		90°		ASN2K22N	(*1)
		2-position	ASTN42K11	ASN21K11N	(*1)
			ASTN42K22 ASTN11K22	ASN21K22N ASN3K22N	(1)
			ASTN11K22	ASN3K22N -311	
			ASTN13K40	ASN3K40N	
Flush Silhouette			ASTN14K22	ASN3K22N -209	
ø16			ASTN15K20	ASN3K20N	(*1)
010			ASTN15K40	ASN3K40N	(*1)
ø22	ASTN∎K		ASTN16K11	ASN3K11N□-303	
	Key		ASTN16K22	ASN3K22ND-310	
ø30	Selector	45°	ASTN21K22	ASN32K22N	
Minister		45° 3-position	ASTN22K22	ASN32K22N□-311	
Miniature		o position	ASTN201K22	ASN31K22N	
Pilot Lights			ASTN202K22	ASN31K22N□-311	
Eighto			ASTN204K22	ASN31K22N□-209	
			ASTN205K20	ASN31K20N	(*1)
			ASTN205K40	ASN31K40N	(*1)
			ASTN51K20	ASN33K20N	
TWN			ASTN51K22	ASN33K22N	
THAD			ASTN52K22 ASTN51K11	ASN33K22N-311 ASN33K11N-202	
TWND			ASN120-T	ASN330N	
ARN			ASN120-T	ASN320N ASN340N	
	ASN-T Knob	45°	ASN220-T	ASN3220N	
CS		3-position	ASN240-T	ASN3240N	
Operator		o position	ASN2020-T	ASN3120N	(*1)
			ASN2040-T	ASN3140N	(*1)
			ASN1L20-T	ASN3L20N	
	ACN T		ASN1L40-T	ASN3L40N	
	ASN-T	45°	ASN2L20-T	ASN32L20N	
	Lever	3-position	ASN2L40-T	ASN32L40N	
	Operator		ASN20L20-T	ASN31L20N	(*1)
			ASN20L40-T	ASN31L40N	(*1)

Model	Old Seri	es Old Part No.	New Part No. (*3)	Remarks
model	operator	ASN3K10□-T	ASN2K10N	
		ASN3K11□-T	ASN2K11N	
		ASN3K20□-T	ASN2K20N	
		ASN3K22□-T	ASN2K22N	
		ASN3K7S□-T	ASN2K2RN□-118	
		ASN4K10-T	ASN21K10N	
	90°	ASN4K11-T	ASN21K11N	
	2-position	ASN4K20-T	ASN21K20N	
		ASN4K22-T	ASN21K22N	
		ASN4K7S-T	ASN21K2RN-118	
		ASN40K10-T	ASN22K10N	
		ASN40K11-T	ASN22K11N	
		ASN40K20-T	ASN22K20N	
ASN∎K-T		ASN40K22-T ASN40K7S-T	ASN22K22N ASN22K2RN-168	
Key		ASN40K73-1	ASN3K20N	
Selector		ASN1K20⊡-T	ASN3K40N	
		ASN1K40⊡-T	ASN3K22N	
		ASN1K7S□-T	ASN3K02N	(*1)
		ASN1K8S□-T	ASN3K04N	(*1)
		ASN2K20□-T	ASN32K20N	
		ASN2K40□-T	ASN32K40N	
	45°	ASN2K5S -T	ASN32K22N	
	3-position	ASN2K7S□-T	ASN32K02N	(*1)
		ASN2K8S□-T	ASN32K04N	(*1)
		ASN20K20□-T	ASN31K20N	(*1)
		ASN20K40 -T	ASN31K40N	(*1)
		ASN20K5SD-T	ASN31K22N	(*1)
		ASN20K7SD-T	ASN31K02N	
		ASN20K8SD-T	ASN31K04N	
		ABN6111	ASBN211N-A03	
		ABN6411	ASBN211N-K04	(*2)
		ABN9111	N/A	
		ABN7120	ASBN220N-D01	
Selector		ABN6122	ASBN222N-A08	(*1)
Pushbuttons		ABN6222	ASBN222N-C10	(*1)
Ring		ABN6422	ASBN222N-K15	(*2)
Operator		ABN7122	ASBN222N-D10	(*1)
		ABN7222	ASBN222N-E10	(*1)
	90°	ABN7322	ASBN222N-F10	(*1)
	2-position	ABN9122	N/A	
	2 position	ABN6L111	ASBN211N-A03	(*4)
		ABN6L411	ASBN211N-K04	(*2) (*4)
		ABN9L111	N/A	
Selector		ABN6L122	ASBN222N-A08	(*1) (*4)
Pushbuttons		ABN6L222	ASBN222N-C10	(*1) (*4)
Lever		ABN6L422	ASBN222N-K15	(*2) (*4)
Operator		ABN7L122	ASBN222N-D10	(*1) (*4)
		ABN7L222	ASBN222N-E10	(*1) (*4)
		ABN7L322	ASBN222N-F10	(*1) (*4)
		ABN9L122	N/A	
		ABN8P10	ABD8P10N	(*5)
		ABN8P01	ABD8P01N	(*5)
	Pin Lock	ABN8P11		(*5)
		ABN8P20		(*5)
		ABN8P02	ABD8P02N	(*5)
		ABN8P22		(*5)
		ABN8P10-TK231-1		(*5)
Pushbuttons	ON Lock Type Pin Lock	ABN8P01-TK231-1		(*5)
		ABN8P11-TK231-1		(*5)
		ABN8P20-TK231-1		(*5)
		ABN8P02-TK231-1		(*5)
		ABN8P22-TK231-1		(*5)
	Muchan			
	Mushroom			
	Pull			
		ATN2302□	AZN302N	1

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

⇒ Decury a control code in place of * in rai rate. Do block, a (green), a (red), if (r

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

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

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

- (1) 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
 - ii. Safety design, including redundant design and malfunction prevention design that prevents other danger and damage even in the event that an IDEC product fails
 - iii. 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
 - ii. Use in applications that require a high degree of reliability, such as provision systems for gas / waterworks / electricity, etc., systems that operate continuously for 24 hours, and settlement systems
 - iii. Use in applications where the product may be handled or used deviating from the specifications or conditions / environment listed in the Catalogs, such as equipment used outdoors or applications in environments subject to chemical pollution or electromagnetic interference If you would like to use IDEC products in the above applications, be sure to consult with an IDEC sales representative.

3. Inspections

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

4. Warranty

(1) Warranty period

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

(2) Warranty scope

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

- i. The product was handled or used deviating from the conditions / environment listed in the Catalogs
- ii. The failure was caused by reasons other than an IDEC product
- iii. Modification or repair was performed by a party other than IDEC
- iv. The failure was caused by a software program of a party other than $\ensuremath{\mathsf{IDEC}}$
- v. The product was used outside of its original purpose
- vi. 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 $\ensuremath{\mathsf{IDEC}}$

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.

- 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.

IDEC CORPORATION

Head Office 6-64, Nishi-Miyahara-2-Chome, Yodogawa-ku, Osaka 532-0004, Japan

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