

Square miniature oiltight controls PW2

- Single seal for oiltight sealing of 1/16" to 3/6" panels
- Quick mount snap-in installation
- Low profile, miniature, square appearance is compatible with other panel controls
- Wide variety of operator colors
- Mechanical, including electronic duty, and solid state switch boxes
- UL and CSA listed
- Suitable for use in NEMA 4, 4X, and 13 enclosures

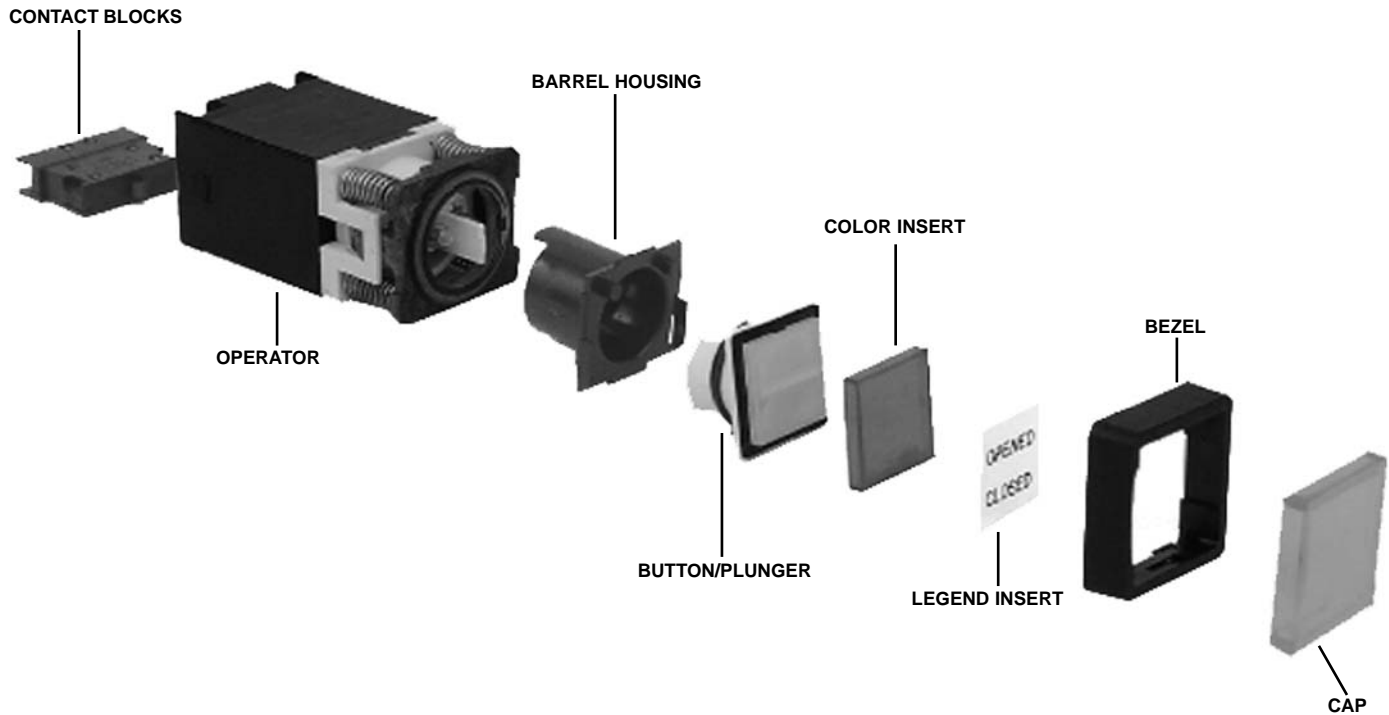
Application note: Enclosures are based, in general, on the broad definitions outlined in NEMA Standards. Therefore, it will be necessary to ascertain that a particular enclosure will be adequate when exposed to the specific conditions that might exist in intended applications. Except as might otherwise be noted, all references to products relative to NEMA enclosure types are based on Senasys evaluation only.

UL file no. E211513

CSA Certified no. 206017


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PW2 Square miniature oiltight controls

GENERAL PURPOSE ELECTRONIC DUTY (SILVER CONTACTS)

Description 	Screw Terminals	Push-On ¹ Terminals
1 N.O.-1 N.C. Form C	PWCM	PWCC

LOW LEVEL ELECTRONIC DUTY (GOLD BIFURCATED CONTACTS)

Description 	Screw Terminals	Push-On ¹ Terminals
1 N.O.-1 N.C. Form C	PWCL	PWCB

Notes:

¹UL recognized.

²To be used where stable contact resistance and high reliability over extended length of time is required.

³Switches in this category have been designed to transfer the specified electrical load. When used under such low energy conditions, recognition must be given to continuity problems which can arise during installation or over the life of the switch due to environmental factors.

ELECTRICAL RATING— GENERAL PURPOSE ELECT. DUTY

Form C 1 N.O.-1 N.C. – Silver Contacts			
Volts	Amperes		Type Load
	Make	Break	
AC 120	7.5	1.2	.35 P.F.
DC 30	3	3	Ind.
30	5	5	Res.
5 Amps continuous carrying current			

ELECTRICAL RATING— LOW LEVEL ELECTRONIC DUTY

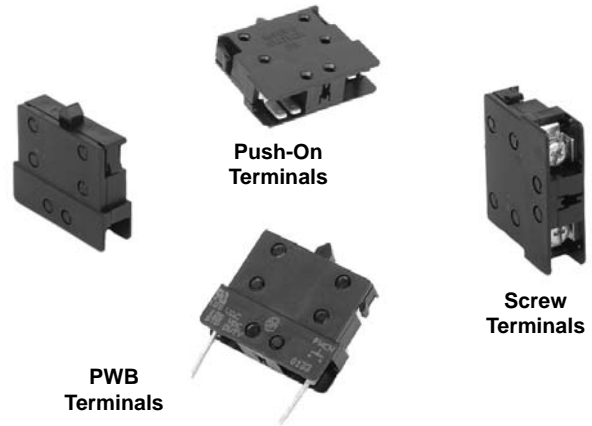
Form C 1 N.O.-1 N.C. – Gold Contacts ²			
Volts	Amperes		Type Load ³
	Make	Break	
AC max. 120	1	1	Res.
DC max. 30	0.5	0.5	Ind.
30	1	1	Res.
AC/DC typ. 3	.003	.003	Ind./ Res.
1 Amp continuous carrying current			

Square miniature oiltight controls PW2

PWC MECHANICAL CONTACT BLOCKS

Easy to assemble mechanical contact blocks that snap in place have screw, .250/.110 x .032 inch push-on, or .030 x .050 inch printed wiring board terminals. Up to four contact blocks, in any combination, may be used per operator (two with lighted push-buttons).

Note that the complete catalog listing is given in ordering blocks separately. The bold-face digit in the listing is for use when the catalog listing for a complete control is made up by the customer. The letter "A" is used in a complete selector or selector push catalog listing to indicate a slot where a contact block is not required.



STANDARD DUTY

Description	Circuitry	Catalog Listings		
		Screw Terminals	Push-On ¹ Terminals	PWB Terminals
1 N.O. Form X		PWCD	PWCF	PWCN
1 N.C. Form Y		PWCE	PWCG	PWCP

ELECTRICAL RATING—STANDARD DUTY

Form X 1 N.O. and Y N.C.—Silver Contacts			
NEMA Contact Rating: AC—B150, DC—P150			
Volts	Amperes		Type Load
	Make	Break	
AC 120	30	3	.35 P.F.
DC 125	1.1	1.1	Ind.
10 Amp continuous carrying current			

PW2 Square miniature oiltight controls

PW2P UNLIGHTED MOMENTARY PUSHBUTTONS

• Suitable for NEMA 4 and 13 enclosures



Example:

PW2P	C	2	DDE	28
Operator Type	Bezel Style	Button Color	Contact Blocks	Legending
PW2P Unlighted pushbutton, no button actuator	A –None B –Unguarded C –Half Guard D –Full Guard E –Ext. Guard	1 – None 2 – Black 3 – Red 4 – Amber 5 – Yellow 6 – Green 7 – Blue 8 – White	Order contact blocks separately or add suffix letters to operator catalog listing as shown in the example above. Up to 4 mechanical blocks may be used per operator.	Exposed type only. Standard legends Add two bold-face digits from the chart below. Order only button colors indicated in chart for standard legends. Special legends See P. 89 To order a device without a legend omit hyphen and two digit code.

PW2P SEPARATE PARTS LISTS

Operator Without Bezel or Button Actuator

Catalog Listing
PW2PA1

Separate Bezels

Description	Catalog Listing
Unguarded (black)	PW2PZB
Half guard (black)	PW2PZC
Full guard (black)	PW2PZD
Ext. guard (black)	PW2PZE

Separate Button Actuator

Description	Catalog Listing
Black	PW2PZ2
Red	PW2PZ3
Amber	PW2PZ4
Yellow	PW2PZ5
Green	PW2PZ6
White	PW2PZ8

Replacement barrel housing: PW2PZ03
(See page 71)

COMMON CONTACT BLOCKS

Terminals	Screw	Push-On	PWB
1NO 1NC	PWCD PWCE	PWCF PWCG	PWCN PWCP

Standard Exposed Legends With Button Actuator

Characters .203 inch (5,2mm) high	Button Actuator Catalog Listing	Button Color	Legend Color
Close	PW2PZ2-01	Black	White
Down	PW2PZ2-03	Black	White
Emerg. Stop	PW2PZ3-04	Red	Black
Fast	PW2PZ2-05	Black	White
For	PW2PZ2-06	Black	White
High	PW2PZ2-07	Black	White
In	PW2PZ2-08	Black	White
Inch	PW2PZ2-09	Black	White
Inch	PW2PZ6-11	Green	Black
Jog	PW2PZ2-10	Black	White
Jog	PW2PZ6-12	Green	Black
Low	PW2PZ2-14	Black	White
Off	PW2PZ3-17	Red	Black
On	PW2PZ2-18	Black	White
On	PW2PZ6-16	Green	Black
Open	PW2PZ2-19	Black	White
Out	PW2PZ2-20	Black	White
Raise	PW2PZ2-22	Black	White
Reset	PW2PZ2-23	Black	White
Rev	PW2PZ2-24	Black	White
Run	PW2PZ2-26	Black	White
Slow	PW2PZ2-27	Black	White
Start	PW2PZ2-28	Black	White
Start	PW2PZ6-30	Green	Black
Stop	PW2PZ3-29	Red	Black
Test	PW2PZ2-02	Black	White
Up	PW2PZ2-31	Black	White

When ordering a separate button actuator with a standard legend use full catalog listing above. For example: PW2PZ6-30

Square miniature oiltight controls PW2

PW2PC UNLIGHTED MOMENTARY PUSHBUTTONS WITH CLEAR CAP

- Suitable for NEMA 4 and 13 enclosures



Example:

PW2PC **B** **2** **DDE** — **S18**

Operator Type	Bezel Style	Button Color	Contact Blocks	Legending
PW2PC Unlighted pushbutton, with clear cap, no button actuator	A –None B –Unguarded C –Half Guard D –Full Guard E –Ext. Guard	1 – None 2 – Black 3 – Red 4 – Amber 5 – Yellow 6 – Green 7 – Blue 8 – White	Order contact blocks separately or add suffix letters to operator catalog listing as shown in the example above. Up to 4 mechanical blocks may be used per operator.	Protected type only. Standard legends Add two bold-face characters from legend chart below. Order only button colors indicated in chart for standard legends. Special legends See P. 89 To order a device without a legend omit hyphen and three character code.

PW2PC SEPARATE PARTS LISTS

Operator Without Bezel or Button Actuator

Catalog Listing
PW2PCA1

Separate Bezels

Description	Catalog Listing
Unguarded (black)	PW2PZB
Half guard (black)	PW2PZC
Full guard (black)	PW2PZD
Ext. guard (black)	PW2PZE

Separate Button Actuator

Description	Catalog Listing
Black	PW2PZ2
Red	PW2PZ3
Amber	PW2PZ4
White	PW2PZ8

Replacement barrel housing: PW2PZ03
(See page 71)

REPLACEMENT CAP

Catalog Listing
PW2HZC

Standard Exposed Legends With Button Actuator

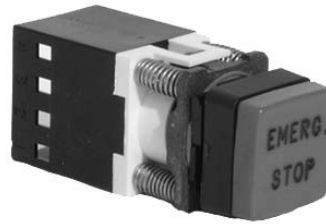
Characters .203 inch (5,2mm) high	Legend Film Insert Catalog Listing	
	Black	White
Close	PW2NS01	PW2NU01
Down	PW2NS03	PW2NU03
Emerg. Stop	PW2NS04	PW2NU04
Fast	PW2NS05	PW2NU05
For	PW2NS06	PW2NU06
High	PW2NS07	PW2NU07
In	PW2NS08	PW2NU08
Inch	PW2NS09	PW2NU09
Jog	PW2NS10	PW2NU10
Low	PW2NS14	PW2NU14
Off	PW2NS17	PW2NU17
On	PW2NS18	PW2NU18
Open	PW2NS19	PW2NU19
Out	PW2NS20	PW2NU20
Raise	PW2NS22	PW2NU22
Reset	PW2NS23	PW2NU23
Rev	PW2NS24	PW2NU24
Run	PW2NS26	PW2NU26
Slow	PW2NS27	PW2NU27
Start	PW2NS28	PW2NU28
Stop	PW2NS29	PW2NU29
Test	PW2NS02	PW2NU02
Up	PW2NS31	PW2NU31

To order legending film insert separately use the complete catalog listing above. For example: PW2NS18 Clear insert with black legend "ON"

PW2 Square miniature oiltight controls

PW2M MUSHROOM HEAD MOMENTARY PUSHBUTTONS

• Suitable for NEMA 4 and 13 enclosures



Example: 2 3 DDE 04

Operator Type	Button Size	Button Actuator Color	Contact Blocks	Legending
PW2M mushroom head push-button, no button actuator	1 – None 2 – 1 7/16"	1 – None 2 – Black 3 – Red 4 – Amber 5 – Yellow 6 – Green 7 – Blue 8 – White	Order contact blocks separately or add suffix letters to operator catalog listing as shown in the example above. Up to 4 mechanical blocks may be used per operator.	Exposed type only. Standard legends Add two bold-face digits from legend chart below. Order button colors indicated in chart for standard legends. Special legends See P. 89 To order a device without a legend omit hyphen and two digit code.

PW2M SEPARATE PARTS LISTS

Operator Without Button Actuator

Catalog Listing
PW2M11

Separate Button Actuator (includes bezel)

Color	Catalog Listing
Red	PW2MZ3
Yellow	PW2MZ5
Green	PW2MZ6

COMMON CONTACT BLOCKS

Terminals	Screw	Push-On	PWB
1NO	PWCD	PWCF	PWCN
1NC	PWCE	PWCG	PWCP

Standard Exposed Legends With Button Actuator (includes bezel)

Characters 13/64 inch (5,2mm) high	Button Actuator Catalog listing	Button Color	Legend Color
Emerg Stop	PW2MZ3-04	Red	Black
Stop	PW2MZ3-29	Red	Black
Reset	PW2MZ5-23	Yellow	Black

When ordering a separate button actuator with a standard legend use full catalog listing above. For example: PW2MZ3-04 includes button and legend.

Square miniature oiltight controls PW2

PW2H LIGHTED MOMENTARY PUSHBUTTONS

• Suitable for NEMA 4 and 13 enclosures



Example:

Operator Type	Cap Color	Insert Color	Bezel Style	Lamp Service	Termination	Contact Blocks	Legending
PW2H lighted pushbutton, single lamp	A – No cap R – Red T – Amber Y – Yellow G – Green B – Blue W – White C – Clear Specify a clear cap (C) with protected leg- ending	1 – None 3 – Red 4 – Amber 5 – Yellow 6 – Green 7 – Blue 8 – White 9 – Clear	A – No bezel B – Unguarded C – Half guard D – Full guard E – Ext. guard	A – No lamp B – 6 to 8 volt #86 lamp C – 12 volt # 73 lamp E – 24 volt #85 lamp F – 120 volt transformer #86 lamp G – 120 volt resistor #85 lamp LEDs to be available- contact Senasys	2 – Screw 3 – Push-on	Order separately or add suffix letters to operator catalog listing as shown in the example above. Up to two mechanical blocks may be used per operator.	Standard legends Add three bold-face characters from the legend chart on pg. 75. Special legends Protected and exposed type. See P. 89 To order a device without a legend omit hyphen and three character code.

PW2H SEPARATE PARTS LISTS

Operators Without Caps, Legends, Inserts, or Bezels

Type	Type of Termination	
	Screw	Push-on
No lamp	PW2HA1AA2	PW2HA1AA3
6 to 8 volt #86 lamp	PW2HA1AB2	PW2HA1AB3
12 volt #73 lamp	PW2HA1AC2	PW2HA1AC3
24 volt #85 lamp	PW2HA1AE2	PW2HA1AE3
120 volt transformer #86 lamp	PW2HA1AF2	PW2HA1AF3
120 volt resistor #85 lamp	PW2HA1AG2	PW2HA1AG3

Separate Bezels

Type	Catalog Listing
Unguarded (black)	PW2PZB
Half guard (black)	PW2PZC
Full guard (black)	PW2PZD
Ext. guard (black)	PW2PZE

Standard Protected Legends

See Standard Protected Legends Chart on page 75.

To order legended film insert separately use the complete catalog listing as shown on page 75.
For example:
PW2NS18
Clear insert with black legend "ON"

Separate Caps

Color	Catalog Listing
Red	PW2HZR
Yellow	PW2HZY
Green	PW2HZG
Blue	PW2HZB
White	PW2HZW
Clear	PW2HZC

Separate Inserts

Color	Catalog Listing
Red	PW2HZ3
Amber	PW2HZ4
Yellow	PW2HZ5
Green	PW2HZ6
White	PW2HZ8
Clear	PW2HZ9

Replacement barrel housing: PW2PZ03
Replacement button/plunger: PW2HZ03

PW2 Square miniature oiltight controls

SEPARATE PARTS LISTS

PW2L2 Standard Indicators Without Caps, Legends, Inserts, or Bezels

Type	Type of Termination	
	Screw	Push-on
No lamp	PW2L2A1AA2	PW2L2A1AA3
6 to 8 volt #86 lamp	PW2L2A1AB2	PW2L2A1AB3
12 volt #73 lamp	PW2L2A1AC2	PW2L2A1AC3
24 volt #85 lamp	PW2L2A1AE2	PW2L2A1AE3
120 volt transformer #86 lamp	PW2L2A1AF2	PW2L2A1AF3
120 volt resistor #85 lamp	PW2L2A1AG2	PW2L2A1AG3

PW2L3 Push-to-Test Indicators Without Caps, Legends, Inserts, or Bezels

Type	Type of Termination	
	Screw	Push-on
No lamp	PW2L3A1AA2	PW2L3A1AA3
6 to 8 volt #86 lamp	PW2L3A1AB2	PW2L3A1AB3
12 volt #73 lamp	PW2L3A1AC2	PW2L3A1AC3
24 volt #85 lamp	PW2L3A1AE2	PW2L3A1AE3
120 volt resistor #86 lamp	PW2L3A1AF2	PW2L3A1AF3
120 volt resistor #85 lamp	PW2L3A1AG2	PW2L3A1AG3

Caps For PW2L2 Standard Indicators

Color	Catalog Listing
Red	PW2LZR
Amber	PW2LZT
Green	PW2LZG
Clear	PW2LZC

Inserts For PW2L2

Color	Catalog Listing
Red	PW2HZ3
Amber	PW2HZ4
Yellow	PW2HZ5
Green	PW2HZ6
Blue	PW2HZ7
White	PW2HZ8
Clear	PW2HZ9

Bezel for PW2L2

Unguarded black bezel: PW2PZB

Caps For PW2L3 Push-to-Test Indicators

Color	Catalog Listing
Red	PW2HZR
Yellow	PW2HZY
Green	PW2HZG
Blue	PW2HZB
White	PW2HZW
Clear	PW2HZC

Inserts For PW2L3

Color	Catalog Listing
Red	PW2HZ3
Yellow	PW2HZ5
Green	PW2HZ6
White	PW2HZ8
Clear	PW2HZ9

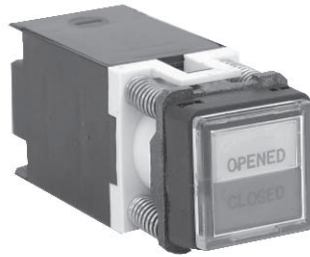
Bezel For PW2L3

Type	Catalog Listing
Unguarded (black)	PW2PZB
Half guard (black)	PW2PZC
Full guard (black)	PW2PZD
Ext. guard (black)	PW2PZE

Square miniature oiltight controls PW2

PW2D DUAL LAMP INDICATORS

• Suitable for NEMA 4 and 13 enclosures



Type	Cap Color	Insert Color	Bezel Style	Lamp Service	Termination	Legending
PW2D two lamp indicator	A – No cap R – Red T – Amber Y – Yellow G – Green W – White C – Clear B – Blue Specify a clear cap (C) with protected leg-ending	Requires two numbers 1 – None 3 – Red 4 – Amber 5 – Yellow 6 – Green 7 – Blue 8 – White 9 – Clear	A – None B – Unguarded	A – No lamps B – 6 to 8 volt #86 lamp C – 12 volt #73 lamp E – 24 volt #85 lamp F – 120 volt transformer #86 lamp LEDs to be available, contact Senasys.	2 – Screw 3 – Push-on	Standard legends Add three bold-face characters from legend chart below Special legends Protected and exposed type. See P. 89. To order a device without a legend omit hyphen and three character code.

PW2D SEPARATE PARTS LIST

Type	Type of Termination	
	Screw	Push-on
No lamp	PW2DA11AA2	PW2DA11AA3
6 to 8 volt #86 lamp	PW2DA11AB2	PW2DA11AB3
12 volt #73 lamp	PW2DA11AC2	PW2DA11AC3
24 volt #85 lamp	PW2DA11AE2	PW2DA11AE3
120 volt resistor #86 lamp	PW2DA11AF2	PW2DA11AF3

Standards Protected Legends

Characters .203 inches (5,2mm) high	Legended Film Insert Catalog Listing	
	Black	White
Fast-Slow	PW2NS43	PW2NU43
For-Rev	PW2NS33	PW2NU33
Man-Auto	PW2NS38	PW2NU38
On-Off	PW2NS39	PW2NU39
Open-Close	PW2NS40	PW2NU40

Single word standard legends are also available for these operators. See page 79.

To order legended film insert separately use the complete catalog listing above.
For example:
PW2NS39 Clear insert with black legend "ON-OFF"

Separate Inserts (2 required per operator)

Color	Catalog Listing
Red	PW2DZ3
Yellow	PW2DZ5
Green	PW2DZ6
White	PW2DZ8
Clear	PW2DZ9

Separate Caps

Color	Catalog Listing
Red	obsolete
Amber	obsolete
Green	PW2LZG
Clear	PW2LZC

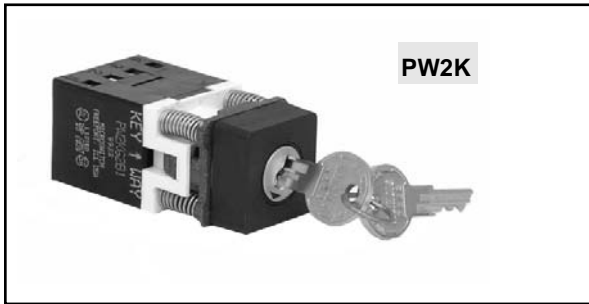
Separate Bezels

Type	Catalog Listing
Unguarded (black)	PW2PZB

PW2 Square miniature oiltight controls

PW2K KEY OPERATED 60° SELECTORS

• Suitable for NEMA 4 and 13 enclosures



Selector Action	
2 POSITION	
B	Maintained
D	Spring
3-POSITION	
E	Maintained
F	Spring return from left
G	Spring return from right
H	Spring return from left and right

Key withdrawal in maintained position only	
	Withdrawal Position
2	1 only
3	1 only
4	1 only
5	1 & 2
6	2 & 3
7	1 & 3
8	1, 2 & 3

Key Selector Ordering Instructions

- Match your circuit requirements in one cam code column in the circuitry chart below.
- Develop the catalog listing on the unit. See example.
- Add contact block letter(s) for circuits desired. One contact block per slot in the operator. Blocks must be placed in the specified slot for proper circuitry.
- Add legend number if required.

Example: Complete listing is **PW2KB2M1DEAE-39**

Note: Letter **A** indicates no block in slot.

Slot

- 1 – D Block
- 2 – E Block
- 3 – no Block
- 4 – E Block

Cam Code:							2-Pos		3-Positions				
							M	B	C	D*	J	K	L
Selector Position:							1 2	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3
Contact Blocks:													
Slot No.	Electronic Duty i N.O. - 1 n.N.C.		Standard Duty										
	Screw Terminals	Push-on Terminals	Screw Terminals	Push-on Terminals	PWB Terminals	Contacts							
1	PWCM	PWCC	PWCE	PWCG	PWCP	N.C.	XO	OXX	XOO	OXX	OXX	XXO	OXX
	PWCL	PWCB	PWCD	PWCF	PWCN	N.O.	OX	XOO	OXX	XXO	XOO	OXX	XOO
2	PWCM	PWCC	PWCE	PWCG	PWCP	N.C.	XO	XXO	OXX	OXX	OXX	XXO	XXO
	PWCL	PWCB	PWCD	PWCF	PWCN	N.O.	OX	OXX	XOX	XXO	XOX	OXX	OXX
3	PWCM	PWCC	PWCE	PWCG	PWCP	N.C.	XO	OXX	XXO	XOX	XXO	XXO	XXO
	PWCL	PWCB	PWCD	PWCF	PWCN	N.O.	OX	XOO	OXX	OXX	OXX	OXX	OXX
4	PWCM	PWCC	PWCE	PWCG	PWCP	N.C.	XO	XXO	XXO	XOX	OXX	OXX	XXO
	PWCL	PWCB	PWCD	PWCF	PWCN	N.O.	OX	OXX	OXX	OXX	XOX	XOX	OXX

*This cam code is for use with maintained selector action only.

Square miniature oiltight controls PW2

M

Cam Code

Add one letter from circuitry chart on the preceding page.

1

Key Code	Mfr. I.D. No. Stamped on Key
1	T112
2	T115
3	T159
4	T171
5	T178
6	T182
7	T198
8	T246
9	T324
10	T382

Master Key:
PTKZ81:
Will operate any of above key codes.











DEAE

Contact Block(s)

Choose circuitry for mechanical contact blocks from chart below. Refer to page 107 for information about solid state units. Up to four mechanical contact blocks may be used per operator. Add the contact block suffix letter(s) to the catalog listing.

For omission of a block, insert the letter "A".

If blocks are ordered separately, omit all contact block letters.

STD Duty	A	No Contact Block	
	D	 Screw Term. 1. N.O.	
	E	 Screw Term. 1. N.O.	
	F	 Push-on Term*. 1 N.O.	
	G	 Push-on Term*. 1 N.C.	
	N	 PWB Term.*. 1 N.O.	
	P	 PWB Term.*. 1 N.C.	
	Elect. Duty	C	 (Silver) Push-on Term*. Form C
		B	 (Gold) Push-on Term*. Form C
		M	 (Silver) Screw Term.*. Form C
L		 (Gold) Push-on Term*. Form C	

*UL Recognized

39

Legending

Exposed type only.

Standard legends
Add two digits from legend chart below.

Special legends
See P. 89

To order a device without a legend omit hyphen and two digit code.

Standard Exposed Legends With Bezel

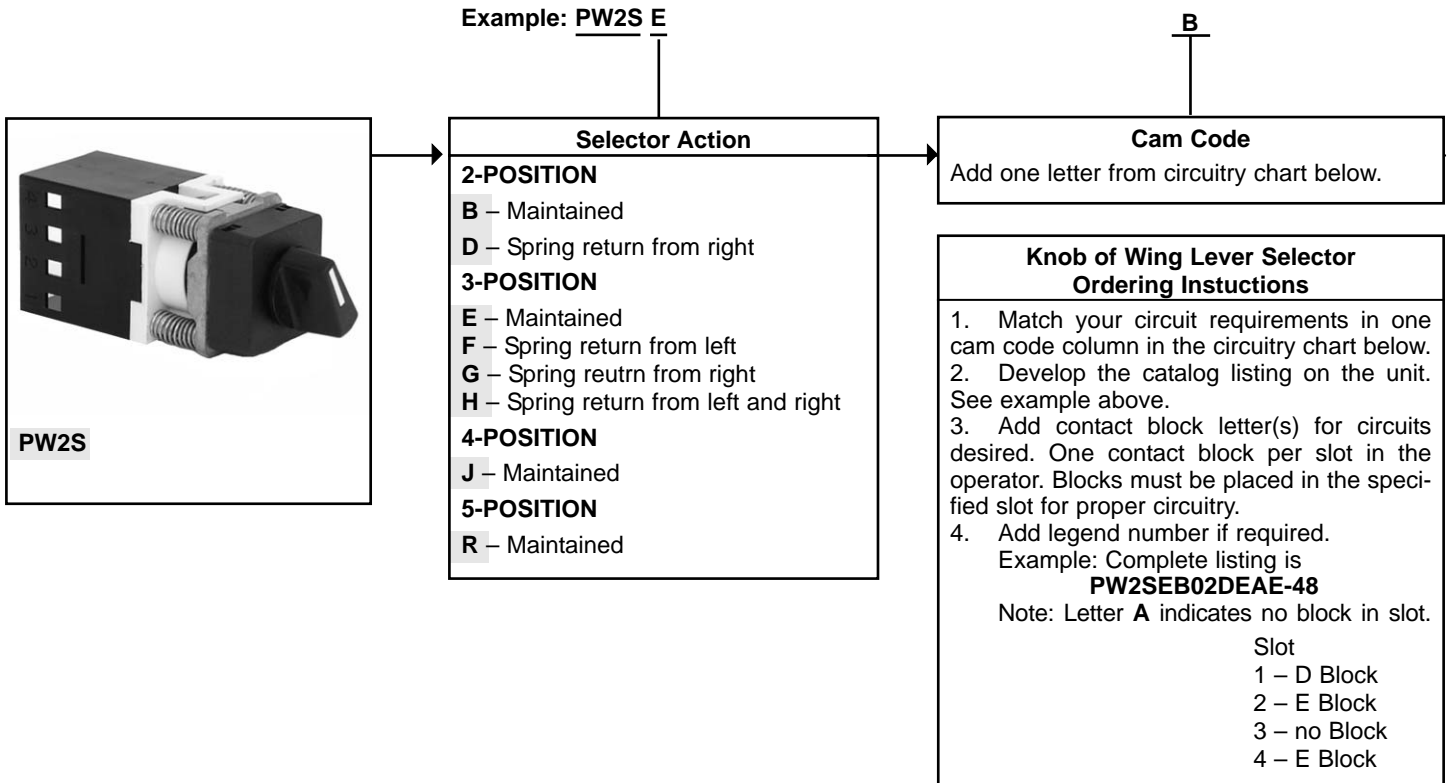
Charaters .109 inches (2,78mm) high	Catalog Listings
Two Position	
For-Rev	PW2KZ04-33
Hand-Auto	PW2KZ04-34
Jog-Run	PW2KZ04-36
Man-Auto	PW2KZ04-39
Off-On	PW2KZ04-47
Three Position	
For-Off-Rev	PW2KZ04-48
Hand-Off-Auto	PW2KZ04-49
Slow-off-Fast	PW2KZ04-50
Up-Off-Down	PW2KZ04-51
Jog-Safe-Run	PW2KZ04-53
Auto-Man-Off	PW2KZ04-56

When ordering a separate bezel with a standard legend use full catalog listing above. For example: PW2KZ04-33 includes bezel with legending.

PW2 Square miniature oiltight controls

PW2S KNOB AND WING LEVER 60° SELECTORS

• Suitable for NEMA 4 and 13 enclosures



							 2-Pos		 3-Positions					 4-Pos	 5-Pos
Cam Code:							M	B	C	D*	J	K	L	E	F
Selector Position:							1 2	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3 4	1 2 3 4 5
Contact Blocks:															
Slot No.	Electronic Duty 1 N.O. - 1 N.C.		Standard Duty				Cont-acts								
	Screw Terminals	Push-on Terminals	Screw Terminals	Push-on Terminals	PWB Terminals										
1	PWCM	PWCC	PWCE	PWCG	PWCP	N.O.	XO	OXX	XOO	OXX	OXX	XXO	OXX	OXXO	XOOOO
	PWCL	PWCB	PWCD	PWCF	PWCN	N.C.	OX	XOO	OXX	XXO	XOO	OXX	XOO	XXOX	OXXXX
2	PWCM	PWCC	PWCE	PWCG	PWCP	N.O.	XO	XXO	OXX	OXX	XXO	XXO	OXXX	XXXXO	
	PWCL	PWCB	PWCD	PWCF	PWCN	N.C.	OX	OXX	OXX	XXO	OXX	OXX	OXX	XOOO	OXXXX
3	PWCM	PWCC	PWCE	PWCG	PWCP	N.O.	XO	OXX	XXO	OXX	XXO	XXO	XXXO	XOXXX	
	PWCL	PWCB	PWCD	PWCF	PWCN	N.C.	OX	XOO	OXX	OXX	OXX	OXX	OXX	OXXO	OXXXX
4	PWCM	PWCC	PWCE	PWCG	PWCP	N.O.	XO	XXO	XXO	OXX	OXX	XXO	OXXO	OXXO	
	PWCL	PWCB	PWCD	PWCF	PWCN	N.C.	OX	OXX	OXX	OXX	OXX	OXX	OXX	OXXX	XXXXO

*This cam code is for use with maintained selector action only.

Square miniature oiltight controls PW2

02

DEAE

48

Actuator Styles and Colors		
(Choose One)		
Knob	Color	Wing Lever
02	Black	12
03	Red	13
04	Amber	14
05	Yellow	15
06	Green	16
07	Blue	17
08	White	18
01- Operator Without Acuator		

Contact Block(s)
 Choose circuitry for mechanical contact blocks from chart below. Refer to page 73 for information about solid state units. Up to four mechanical contact blocks may be used per operator. Add the contact block suffix letter(s) to the catalog listing.

 For omission of a block, insert the letter "A".

 If blocks are ordered separately, omit all contact block letters.

Legending
 Exposed type only.

Standard legends
 Add two bold-face digits from the legend chart below.











 Standard legends are available with black knob or wing lever. Use chart below.
Special legends
 See P. 89.

 To order a device without a legend omit hyphen and two digit code.

Separate Selector Actuators		
Color	Knobs	Levers
Black	PW2SZ02	PW2SZ12
Red	PW2SZ03	PW2SZ13
Orange	PW2SZ04	PW2SZ14
Yellow	PW2SZ05	PW2SZ15
Green	PW2SZ06	PW2SZ16
Blue	PW2SZ07	PW2SZ17
White	PW2SZ08	PW2SZ18

When ordering a separate black knob or wing lever with a standard legend use full catalog listing at right. For example: PW2SZ02-48 includes black knob with legend.

 To order other selector actuator colors with standard legends, use above listings with two bold-face digits from legend chart at right.

	A	
	No Contact Block	
STD Duty	D	 1. N.O.
	E	 1. N.O.
	F	 1 N.O.
	G	 1 N.C
	N	 1 N.O
	P	 1 N.C
Elect. Duty	C	 (Silver) Push-on Term.*. Form C
	B	 (Gold) Push-on Term.*. Form C
	M	 (Silver) Screw Term.*. Form C
	L	 (Gold) Push-on Term.*. Form C

Standard Exposed Legends With Black Selector Bezel

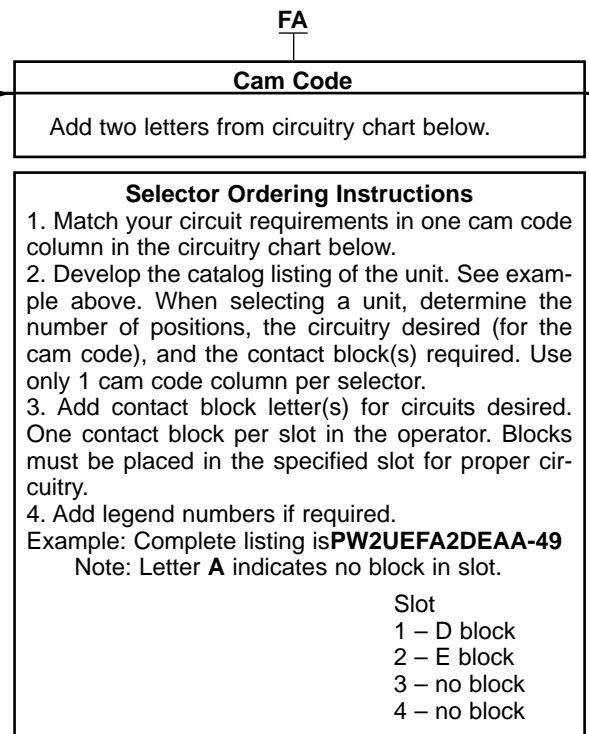
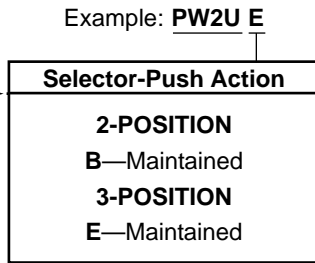
Charaters .109 inches (2,78mm) high	Selector Actuator Catalog Listings		
	Two Position	Black Knob	Black Lever
For-Rev	PW2KZ04-33	PW2SZ12-33	
Hand-Auto	PW2KZ04-34	PW2SZ12-34	
Jog-Run	PW2KZ04-36	PW2SZ12-36	
Man-Auto	PW2KZ04-39	PW2SZ12-39	
Off-On	PW2KZ04-47	PW2SZ12-47	
Three Position			
For-Off-Rev	PW2KZ04-48	PW2SZ12-48	
Hand-Off-Auto	PW2KZ04-49	PW2SZ12-49	
Slow-off-Fast	PW2KZ04-50	PW2SZ12-50	
Up-Off-Down	PW2KZ04-51	PW2SZ12-51	
Jog-Safe-Run	PW2KZ04-53	PW2SZ12-53	
Auto-Man-Off	PW2KZ04-56	PW2SZ12-56	

*UL Recognized

PW2 Square miniature oiltight controls

PW2U 60° SELECTOR PUSH

• Suitable for NEMA 4 and 13 enclosures



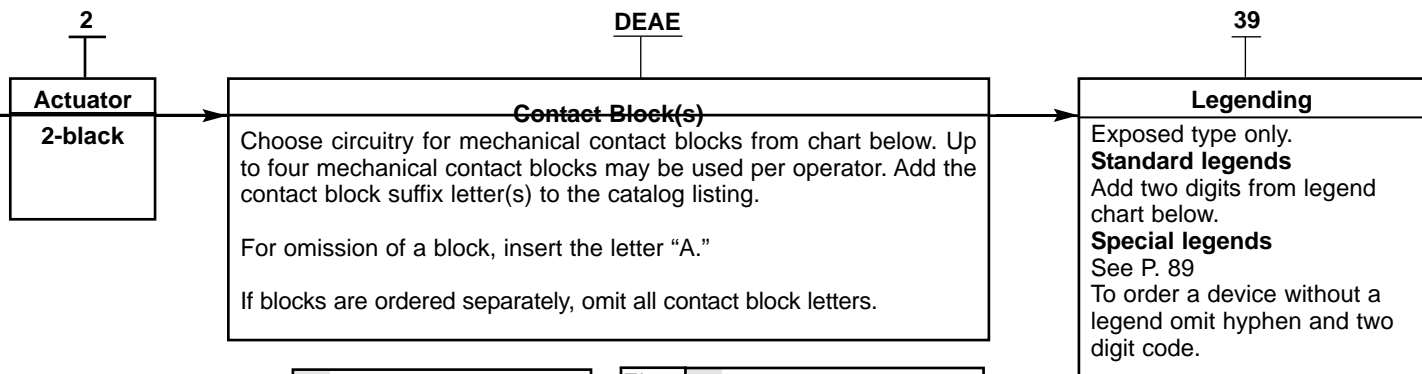
CIRCUITRY SELECTION CHART

KEY: X – Circuit Closed
 O – Circuit Open

								Cam Code:										
								Selector Position:										
Contact Blocks								2-Position										
								KA	KB	KC	GC	FC	FD	LA	LB	MA		
								1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2		
Slot No.	Electronic Duty 1 N.O.-1 N.C.		Standard Duty			Contacts	Push Position											
	Screw Terminals	Push-on Terminals	Screw Terminals	Push-on Terminals	PWB Terminals													
1	PWCM	PWCC	PWCE	PWCG	PWCP	N.C.	Free	XO	XO	XO	OX	OX	OX	OX	OX	OX	OX	XX
	PWCL	PWCB	PWCD	PWCF	PWCN	N.O.	Depress	OO	OO	OO	OX	OX	OX	OO	OO	OO	OX	XO
2	PWCM	PWCC	PWCE	PWCG	PWCP	N.C.	Free	XO	XO	XO	XO	XX	XX	XO	XO	XX	XO	XX
	PWCL	PWCB	PWCD	PWCF	PWCN	N.O.	Depress	OX	OX	OX	OX	OO	OO	OX	OX	OO	OX	OO
3	PWCM	PWCC	PWCE	PWCG	PWCP	N.C.	Free	XX	XX	XX	XX	OX	XO	XX	XX	XX	XX	XX
	PWCL	PWCB	PWCD	PWCF	PWCN	N.O.	Depress	OX	OO	OO	OX	OX	XO	OO	XO	OX	XO	XO
4	PWCM	PWCC	PWCE	PWCG	PWCP	N.C.	Free	XX	XX	XX	XX	XX	XX	XO	XO	XX	XO	XX
	PWCL	PWCB	PWCD	PWCF	PWCN	N.O.	Depress	XO	XO	XO	XO	XO	OO	XO	XO	OX	XO	OX

NOTE: If your circuitry requirements are not included in this table, contact Senasys.

Square miniature oiltight controls PW2



STD Duty	A No Contact Block	
	D	
	Screw Term.	1. N.O.
	E	
	Screw Term.	1. N.O.
	F	
	Push-on Term*.	1 N.O.
G		
Push-on Term*.	1 N.C.	
N		
PWB Term.*.	1 N.O.	
P		
PWB Term.*.	1 N.C.	

Elect. Duty	C		(Silver) Push-on Term*. Form C
	B		(Gold) Push-on Term*. Form C
	M		(Silver) Screw Term*. Form C
	L		(Gold) Push-on Term*. Form C

*UL Recognized.

When ordering a separate bezel with a standard legend use full catalog listing at right. For example: PW2UZ04-33 includes bezel with legending.

Exposed type only.
Standard legends
Add two digits from legend chart below.
Special legends
See P. 89
To order a device without a legend omit hyphen and two digit code.

Standard Exposed Legends With Bezel

Characters .109 inches (2,78mm) high	Catalog Listings
Two Position	
For-Rev	PW2UZ04-33
Hand-Auto	PW2UZ04-34
Jog-Run	PW2UZ04-36
Off-On	PW2UZ04-39
Up-Down	PW2UZ04-47
Three Position	
For-Off-Rev	PW2UZ04-48
Hand-Off-Auto	PW2UZ04-49
Slow-off-Fast	PW2UZ04-50
Up-Off-Down	PW2UZ04-51
Jog-Safe-Run	PW2UZ04-53
Auto-Man-Off	PW2UZ04-56



3-Position																
AA	BA	CA	DA	EA	EB	FA	FB	GA	GB	HA	HB	HC	HD	HE	JA	MB
123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123
XOO	XOX	XOO	OXX	XOO	XOO	OXX	OXX	OXX	OXX	XOO	XOO	XOO	XOO	XOO	XOO	
OOO	OOX	XOO	OXX	OOO	OOO	OXX	OXX	OXX	OXX	XOO	XOO	XOO	XOO	OOO	XOO	
OXX	OXO	OXX	XOO	OXX	OXX	XOO	XOO	XOO	XOO	OXX	OXX	OXX	OXX	OXX	OXX	OOO
XXX	XXO	OXX	XOO	XXX	XXX	XXO	XXO	XOO	XOO	OXX	OXX	OXX	OXX	XXX	OXX	XOO
OXX	XOX	OOX	XXO	OOX	OOX	XXO	XXO	XOO	XOO	XOX	XOX	XOX	XOX	XOX	OXO	
OXO	XOO	OOX	XXO	OOO	OOO	XOO	XOO	XOO	XOO	XOX	XOX	XOX	XOX	XOO	OXO	
XOO	OXO	XXO	OOX	XXO	XXO	OOX	OOX	OXX	OXX	OXO	OXO	OXO	OXO	OXO	XOX	OOO
XOX	OXX	XXO	OOX	XXX	XXX	OXX	OXX	OXX	OXX	OXO	OXO	OXO	OXO	OXX	XOX	OXO
XXO	XOX	XOX	XXX	XXO	XXO	OXX	OXX	XXX		XXX	XXX	XXX	XXX	XXX	XXX	
XOO	OOX	XOX	OXX	XXO	OOO	OXX	OXX	OXX		XXO	XOX	XOO	XOO	OXX	OOO	
OOX	OXO	OXO	OOO	OOX	OOX	XOO	XOO	OOO		OOO	OOO	OOO	OOO	OOO	OOO	OOO
OXX	XXO	OXO	XOO	OOX	XXX	XOO	XXO	XOO		OOX	OXO	OXX	OXX	XOO	XXX	OXX
OXX	XOX	XXX	XXX	OXX	OXX	XXO	XXO	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	
OXX	XOO	XOX	XXO	OOX	OOO	XXO	XOO	XXO	XOX	OXX	XOX	XOO	OOX	XXO	OXO	
XOO	OXO	OOO	OOO	XOO	XOO	OOX	OOX	OOO	OOO	OOO	OOO	OOO	OOO	OOO	OOO	OOO
XOO	OXX	OXO	OOX	XXO	XXX	OOX	OXX	OOX	OXO	XOO	OXO	XOO	XXO	OOX	XOX	XXX

PW2 Square miniature oiltight controls

LEGEND AREA CHART

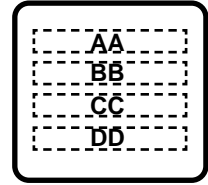
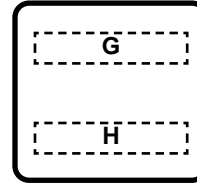
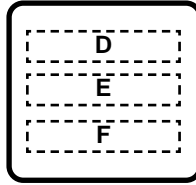
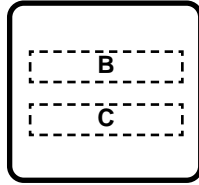
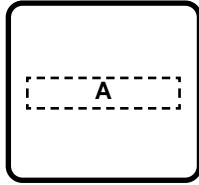
Special legends both film and exposed type.

PW2P, PW2PC, PW2I, PW2H, PW2D, and PW2J lighted and unlighted pushbuttons and indicators

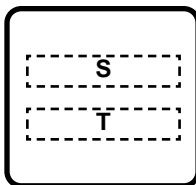
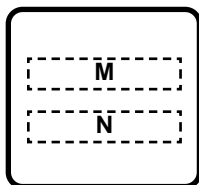
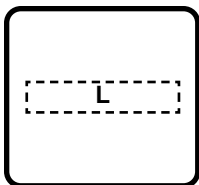
7 Characters Maximum .141 inches (3,57mm) high

7 Characters max.

.109 inch
(2,78mm) high



5 Characters Maximum .203 inches (5,2mm) high
(4 Characters Maximum when legend includes both M and W)

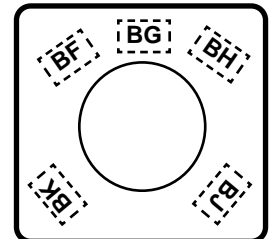
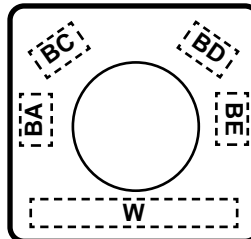
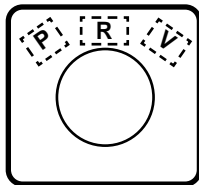
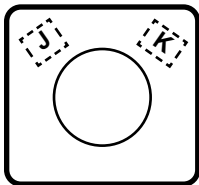


PW2K, PW2S, and PW2U Selector Units (Exposed Type Only)*

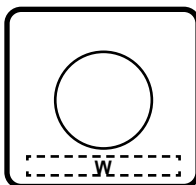
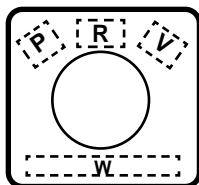
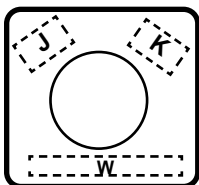
4 Characters maximum (Areas J, K, R and V) .109 inch (2,78mm) high
3 Characters maximum when legend includes both M and W

PW2K and PW2S Only*

4 Characters Maximum (Areas BA, BC, BD, BE, BF, BG, BH, BJ and BK) .109 inch (2,78mm) high
(3 Characters maximum when legend includes both M and W)



11 Characters Maximum (Area W) .109 inches (2,78mm) high

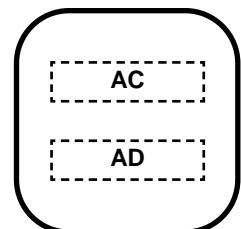
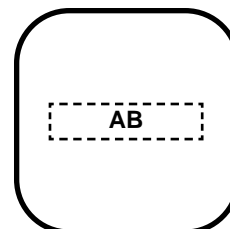
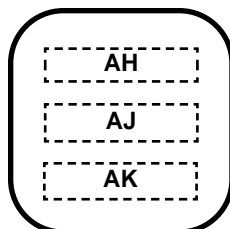
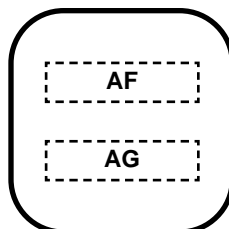
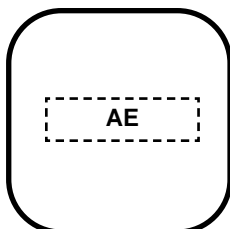


*Note: When selector units are installed in mounting hole with keyway slot at 12 o'clock (see page 76), legends must be oriented as shown.

PW2M __ Mushroom Head Pushbutton

6 Characters Maximum .203 inch (5,2mm) high
(5 Characters Maximum when legend includes both M and W)

5 Characters Maximum .203 inch (5,2mm) high
(4 Characters maximum when legend includes both M and W)



Square miniature oiltight controls PW2

PW2 SPECIAL LEGENDS

Special legends are offered in full capital alphabetic and numeric characters only.

Legend Types

Protected (which is film insert that is placed beneath a clear cap) or Exposed (which is the legend stamped directly on the cap).

Legend Colors

Exposed Legends: White on black opaque cap, buttons or bezels only. White or black on all other colors.

Protected Legends: Black or white only on clear film.

Order Guide

- To order a special legend (mylar insert) as part of a PW2 unit listing (shown in the operator order guides), add suffix -99 to the unit listing and supply the additional information described under SPECIAL INSTRUCTIONS

Example: PW2PCB2DDE-99
Unlighted pushbutton

- To order a special legend (exposed type) as part of a PW2 lighted device, add suffix -E99 to the unit listing and supply the additional information described under SPECIAL INSTRUCTIONS.

To order a blank legend (mylar insert) as part of a PW2 unit listing (shown in the operator order guides), add suffix -00 to the unit listing.

Example: PW2L2C3BF2-00 Indicator

- To order a cap, button or selector actuator bezel with an exposed legend, add suffix -99 to the catalog listings for separate caps, buttons, or selector actuator bezels (from the original guides) and supply the additional information described under SPECIAL INSTRUCTIONS

Example: PW2PZ4-99 Amber button for unlighted pushbutton.

- To order a protected legend (mylar insert) separately. Specify the listing PW2N99 and supply the additional information described under SPECIAL INSTRUCTIONS.

- To order a blank legend (mylar insert) separately. Specify the listing under PW2NOO.

SPECIAL INSTRUCTIONS

All special legend orders must be accompanied by the following additional information for each listing:

- The AREA where each legend is to appear (Legend Area Chart). **Please note the maximum character counts for each legend area.**

- The LEGEND word(s) or number(s). (Observe the maximum character counts, Legend Area Chart).

- Specify BLACK or WHITE.

- Give the QUANTITY of each legended piece.

LEGEND STYLE AND SIZES

Sizes available in full capital alphabetic and numeric characters are:

.109" 2,78mm **A1** .141" 3,58mm **A1** .203" 5,16mm **A1** .266" 6,76mm **A1**

Characters available are:

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

. , ' - () + X / &

0 1 2 3 4 5 6 7 8 9

Additional characters available only in .141" (3,58mm) are:

" " < > % = + * ▸ # ← →

O₂ H₂ O 1/4 1/2 3/4 1/3 2/3

I II III IV V VI VII VIII IX X

Example:

Listing:	Type	Area	Legend	Color	Quantity
PW2HC2BF2DD-99	Protected	B C	Fast Forward	Black	3

Listing:	Type	Area	Legend	Color	Quantity
PW2HC3BF2DD-E99	Exposed	A	STA 1	Black	3

REPLACEMENT PARTS

Description	Catalog Listing
Panel Seal	PW2Z04
5-6 Volt Lamp, .200 amp Mfgrs. #86-20,000 hrs.	PW2Z05
12-14 Volt Lamp, .080 amp Mfgrs. #73-15,000 hrs.	PW2Z06
24-28 Volt Lamp, .040 amp Mfgrs. #85-7,000 hrs.	PW2Z07

ACCESSORIES

Description	Catalog Listing
Push-on terminal connectors (pre-insulated) Wire size 14-16 (Mfgrs. #ETC AA-8135) Pkg. Of 100	PWZ50*
Wire size 18-22 (Mfgrs. #ETC AA 8134)	PWZ52*

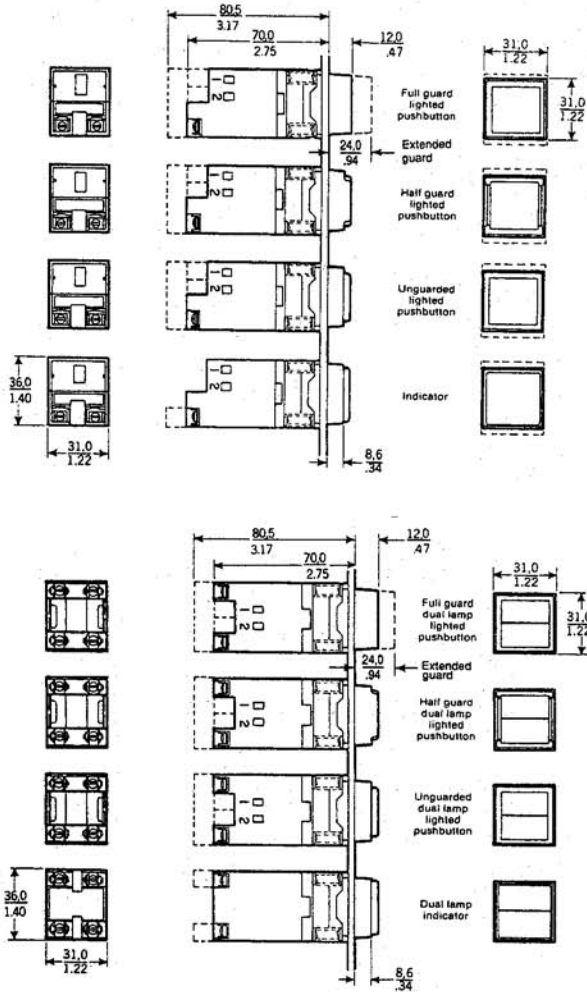
*Minimum order quantity: 100 (must be purchased in multiples of 100).

PW2 Square miniature oiltight controls

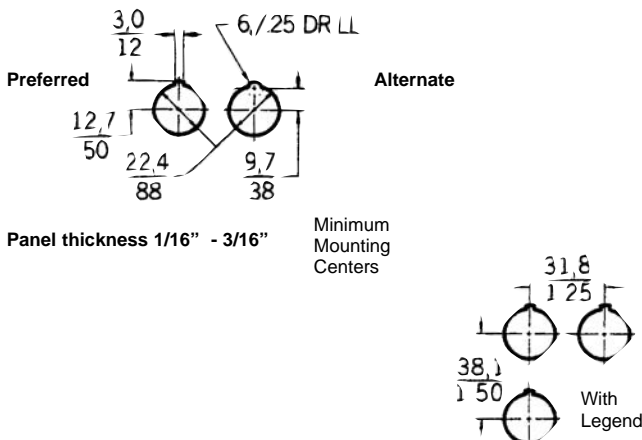
PW2 MOUNTING DIMENSIONS

Operator housings are shown with screw or push-on terminal contact blocks. The dimensions indicated in phantom are for PWB termination or form C contact blocks with screw termination.

LIGH

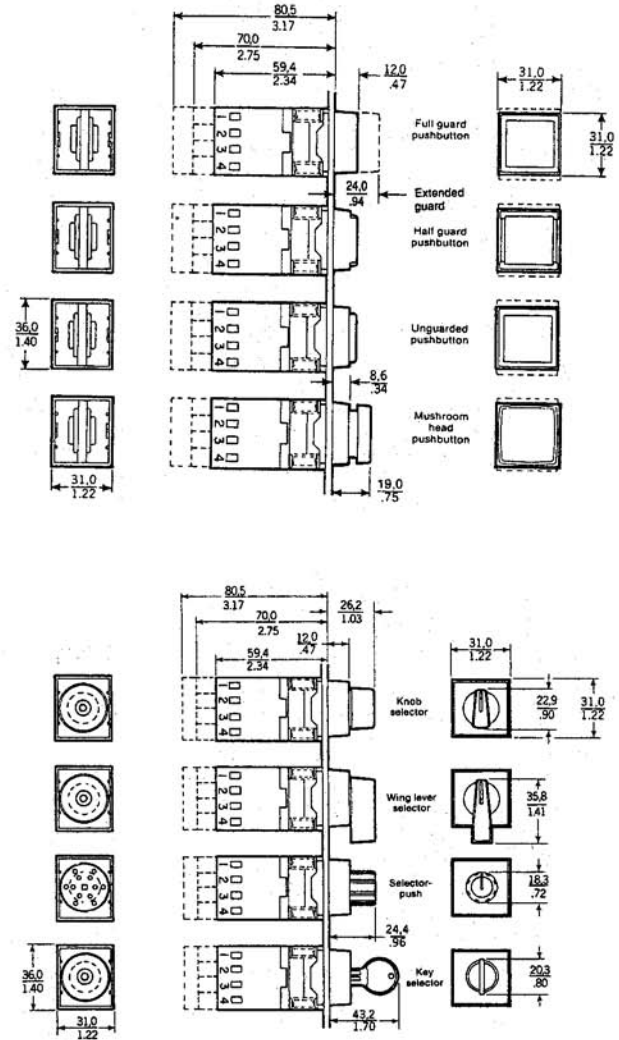


MOUNTING HOLE DIMENSIONS



For 1/4" Panel Mounting
Contact Senasys
UNLIGHTED UNITS

Unlighted pushbuttons wgt. 3 oz.



DIMENSIONS SHOWN ARE FOR REFERENCE ONLY

*Minimum center to center distance between adjacent three, four, and five-position PW2S units with wing levers should be 2.125" (54,0mm) horizontally and 1.500" (38,1mm) vertically.

WARNING

Resistor equipped devices require air space to displace heat. Minimum mounting centers both vertically and horizontally should be 1 1/2".