SPRINGER
controls company

Springer Controls offers a complete line of rugged, industrial grade pilot devices. We carry both the 22mm and 30mm (section H) oil-tight devices. See page G26 for complete, assembled push button stations.

Index
G

22MM (N5) PILOT DEVICES:

FEATURES
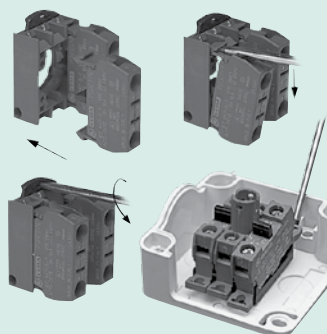
G2

Shape, Material and Colors

The N5 line offers two bezel types for operators:
• round in chrome
• round in black thermoplastic (4x)

Modern ergonomic N5 actuators are available in a wide variety of styles and colors, and are the result of superior industrial design experience.

Series N5 satisfies any sophisticated industrial applications.

Fast Mounting

All the N5 rear panel devices are snap-on.

Mounting between panel and operator is accomplished by means of a patented snap-on flange which ensures a fast fitting.

For base mounting, the fitting is done directly on the adaptor inside the enclosures base.

Each single block can be mounted or removed individually.

In panel mounting, it is also possible to install or remove the snap-on mounting flange with the contact block group.

Blocks and/or flange can be disassembled by a standard screwdriver, to simplify operations.

Fitting and Positioning

All the N5 operators are fitted with seal to ensure IP66 N12 degree of protection.

A locating tab on the operator allows the correct positioning on panels.

The tab also ensures panel stability and prevents unwanted rotations.

The tab can be removed with a screwdriver for applications in holes without a notch.

Suitable for use in NEMA types 1, 3, 3R, 3S, 4, 4X, 12 and 13 enclosures.

Safety and Reliability
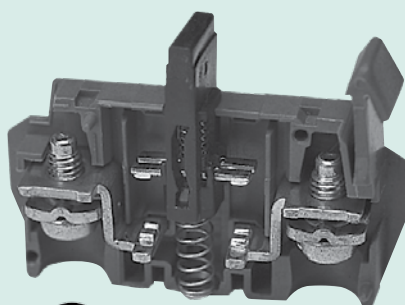
The N5 contact blocks are designed to ensure maximum reliability in every condition and to monitor control circuits at low energy levels (12V-5mA minimum), thanks to advanced solution such as:
• Four contact points
• High efficiency self-cleaning operation
• Silver contacts properly shaped
• High contact pressure
• UL certified
• AC/DC Rating (page G22)

Mounting System
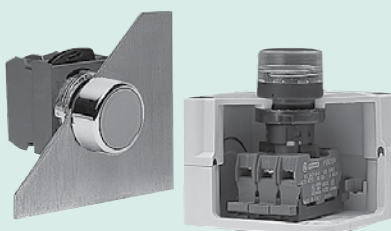
The N5 line offers a wide variety of operators, contact blocks and power supplies for panel mounting.

Furthermore, a range of operators, contact blocks and power supplies are available for base mounting.

The base mounting option is simple with our plastic enclosures fitted with a standard mounting adaptor, which allows a snap-on and secure fastening.

Rear Locking and Back Mounting Procedure

N5 operators are back mounted to the panel by a patented locking ring. The units can be assembled using a standard screwdriver.

As an option, an assembly wrench is available. (N5ACWAF)

N5 CATALOG NUMBERING SYSTEM

Standard & Illuminated Push-Buttons

Operators
Page G6 & Page G14

N5	☐	P	☐	☐	☐	☐

Bezel Style	Type	Type	Cap Color	Push-Button Type	Lens Type
C = Chrome **X** = Round Plastic	**P** = Push Button	**N** = Non-illuminated **L** = Illuminated	**O** = No Cap **N** = Black **R** = Red **V** = Green **G** = Yellow **L** = Blue **B** = White	**G** = Flush **S** = Extended **E** = Recessed	**D** = Diffused for illuminated push-button only

Double Function Push-Buttons

Page G13

N5	D	P	L	☐	☐	☐ ☐

Bezel Style	Type	Type	Cap Color	Push-Button Type	ISO Symbols
D = Square Plastic	**P** = Push Button	**L** = Illuminated	**N** = Black **V** = Green	**G** = Flush **S** = Top Flush Buttom Extended	**00** = No Symbol **01** = With Symbol

Pilot Lights

Page G7

N5	☐	☐	☐	☐	☐ ☐

Bezel Style	Type	Color	Lens Type	For Unibloc Type only
C = Chrome **X** = Round Plastic	**L** = Standard **U** = Unibloc	**R** = Red **V** = Green **G** = Yellow **L** = Blue **B** = White **I** = Clear **A** = Amber	**D** = Diffused **R** = Retraced **V** = Glass	**D0** = Full Voltage

Mushroom Head Push-Buttons

Page G6

N5	☐	E	☐	☐	☐	☐ ☐

Bezel Style	Type	Mushroom Diameter	Color	Illumination	Position Type
C = Chrome **X** = Round Plastic	**M** = Momentary **T** = Push/Pull **R** = Turn to reset **C** = Key to reset	**3** = Ø 28 mm **4** = Ø 40 mm **6** = Ø 60 mm	**N** = Black **R** = Red **V** = Green **G** = Yellow	**N** = Non Illuminated **L** = Illuminated	**1** = Push-Pull **2** = 3 pos; maint. Push-Mom-Pull **3** = 3 pos; mom Push-Mom-Pull **95**= Keyed

G3

N5 CATALOG NUMBERING SYSTEM

Knob & Lever Selector Switches

Pages G9, G10 & G12

| N5 | | S | | | | |

Bezel Style	Type	Type	Cam	Spring Return	Color
C = Chrome **X** = Round Plastic		**M** = Knob **V** = Lever **L** = Illuminated Knob	**D, I** or **H** = 2 positions **E, L, U** or **Z** = 3 positions **X** = 4 positions **Y** or **W** = 5 positions	**0** = Fixed **1** = From Left **3** = From Left & Right **5** = From Right	**N** = Black **R** = Red **V** = Green **G** = Yellow **L** = Blue

Key Selector Switches

Page G11

| N5 | | S | C | | | | 9 | 5 |

Bezel Style	Type	Cam	Spring Return	Key Removal	Key Selection
C = Chrome **X** = Round Plastic		**D, I** or **H** =2 positions **E, L, U** or **Z** = 3 positions **X** = 4 positions	**2/4 Positions** **0** = Fixed **5** = From right **3 Positions** **0** = Fixed **5** = From right **3** = From left & right	See key removal position page G9	

Contact Blocks

Page G5

| N5 | B | | | | |

Bezel Style	Contacts	Terminal Type	Contact Type
	01 = 1 NC **10** = 1 NO **11** = 1 NO + 1 NC **20** = 2 NO **02** = 2 NC	**V** = Standard Screw **F** = Faston **B** = Base Mounting Screw	**N** = Normal **A** = Early Closing **R** = Late Opening

Power Supplies

Page G5

| N5 | P | | | | |

Type	Style	Terminal Type	Full Voltage
D = Full Voltage **T** = Transformer **R** = Resistor	**N** = Normal **M** = Multifunction continuous blinking	**V** = Standard Screw **B** = Base Mounting Screw	**0** = No Bulb **A** = 6V **B** = 12V **D** = 24V **G** = 48V **L** = 120V **Transformer / Resistor** 110 - 120V = **J** 220 - 250V = **N** 480 - 500V = **Y**

G4

G4   Springer Controls Company   •   96074 Chester Road, Yulee, FL 32097   •   (904) 225-0575   •   Fax: (904) 225-9084   •   **www.springercontrols.com**

ASSEMBLY of 22mm PILOT DEVICES
Contacts and Power Supplies

Complete Unit Assembly

22mm OPERATOR		CONTACT		POWER		OPTIONAL
22mm OPERATOR Pages G6 - G17	**+**	CONTACT BLOCK Page G5	**or**	POWER SUPPLY Page G5	**or**	OPTIONAL ACCESSORIES Pages G19 - G21

(Assembled Push Button Stations - pages G26 - G28)

Contact Blocks (For use with all Panel Mounted Operations)

Type	Symbol	Screw Terminal Catalog No.	Quick Connect Terminal Catalog No.	Price
N.C.		N5B01VN	N5B01FN	$11.50
N.O.		N5B10VN	N5B10FN	$11.50
N.C. N.O.		N5B11VN	Not Available	$23.00
N.C. Late Break		N5B01VR	Not Available	$11.50
N.O. Early Make		N5B10VA	Not Available	$11.50
N.O. N.O.		N5B20VN	Not Available	$23.00
N.C. N.C.		N5B02VN	Not Available	$23.00

Power Supplies; Includes bulb[1] (For use with all Panel Mounted Operations)

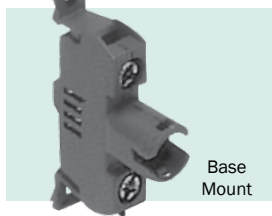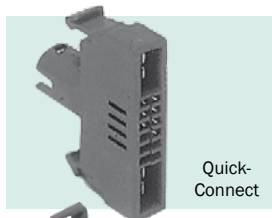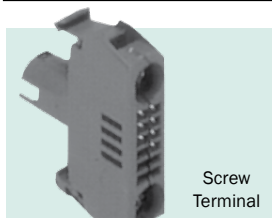Screw Terminal

Quick-Connect

Base Mount

|	Voltage	Screw Terminal Catalog No.	Quick Connect Terminal Catalog No.	Base Mt. Terminal Catalog No.	Price
Full Voltage	No Lamp	N5PDNV0	N5PDNF0	N5PDNB0	$27.00
	6V	N5PDNVA	N5PDNFA	N5PDNBA	$32.50
	12V	N5PDNVB	N5PDNFB	N5PDNBB	$32.50
	24V	N5PDNVD	N5PDNFD	N5PDNBD	$32.50
	48V	N5PDNVG	N5PDNFG	N5PDNBG	$32.50
	120V	N5PDNVL	N5PDNFL	N5PDNBL	$32.50
Transformer	120 - 6V	N5PTNVJ	N5PDNFJ	N5PDNBJ	$66.00
	240 - 6V	N5PTNVN	N5PDNFN	N5PDNBN	$66.00
	480 - 6V	N5PTNVY	N5PDNFY	N5PDNBY	$66.00
Resistor AC/DC	110 - 120V	N5PRNVJ	N5PDNFJ	N5PDNBJ	$54.00
	220 - 240V	N5PRNVN	N5PDNFN	N5PDNBN	$54.00
Flashing Full Voltage	110v AC/DC BA9S 130V-2W	N5PDMVJ	N5PDNFJ	N5PDNBJ	$79.00
Flashing Transformer	120 - 6V BA9S 6V - 6W 220/250V	N5PTMVJ	N5PDNFJ	N5PDNBJ	$103.00

Notes:
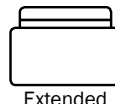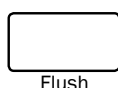1. To order LED bulbs, see page G7. LED bulbs are sold separately

Discount Schedule SC-36

G5

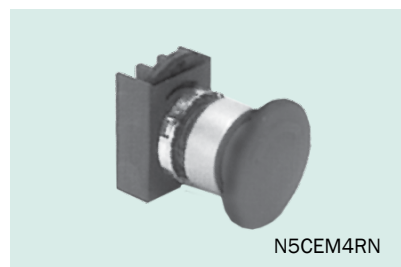## PUSH BUTTONS *(Operators only - add contacts on page G5)*

Standard - Momentary

N5CPNVG (Flush)
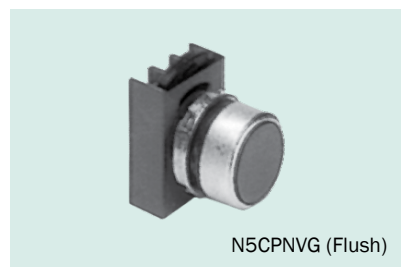
Operator (only)[1]	Chrome Bezel Catalog No.	Type 4X Bezel Catalog No.	Price
With Flush Cap	N5CPN • G	N5XPN • G	$13.00
With Extended Cap	N5CPN • S	N5XPN • S	$13.00
Guarded Cap	N5CPN • E	---	$13.00

(• See Color Table Below)

Flush   Extended   Guarded

Mushroom Head - Momentary

N5CEM4RN

Operator (only)[1]	Chrome Bezel Catalog No.	Type 4X Bezel Catalog No.	Price
Mushroom Head 28mm	N5CEM3 • N	N5XEM3 • N	$25.50
Mushroom Head 40mm	N5CEM4 • N	N5XEM4 • N	$25.50
Mushroom Head 60mm	N5CEM6 • N	N5XEM6 • N	$29.00

(• See Color Table Below)

Mushroom Head - with Latch

N5XER4RAW
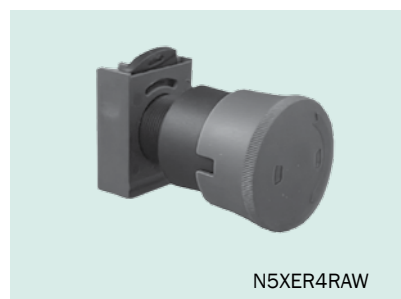
Operator (only)[1]		Chrome Bezel Catalog No.	Type 4X Bezel Catalog No.	Price
Push-Pull 40mm (2 pos. Maint.)		N5CET4 • N1	N5XET4 • N1	$33.50
Twist Release	Red 28mm	N5CER3RN	N5XER3RN	$60.00
	Red 40mm	~~N5CER4RN~~	N5XER4RN	$60.00
	EN418[2]	---	N5XER4RAN	$65.00
	EN418-IND[3]	--	N5XER4RAW	$70.00
Key Release	Red 40mm	N5CEC4RN95	N5XEC4RN95	$83.00
	EN418[2]	--	N5XER4RA95N	$88.00

See page G26 for complete Emergency Stop Stations

Mushroom Head - 3 Position Push Pull

1   0   2
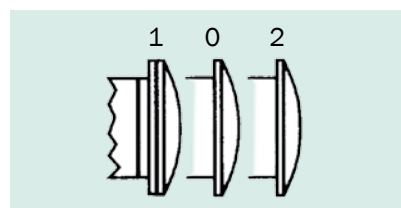
Operator (only)[1]	Chrome Bezel Catalog No.	Type 4X Bezel Catalog No.	Price
Maintained Push (0 to 1) Momentary Pull (0 to 2)	N5CET4 • N2	N5XET4 • N2	$48.00
Momentary Push (0 to 1) Momentary Pull (0 to 2)	N5CET4 • N3	N5XET4 • N3	$48.00

(• See Color Table Below)

• COLOR TABLE

- use complete catalog number when ordering. Replace the (•) with the suffix from the table below.

Color	Black	Red	Green	Yellow	Brown	Blue	White	Grey	W/O cap	w/Red,Blk/Green/Yellow
Caps	N	R	V	G	M	L	B	H	0	Z[4]
Mushroom Heads	N	R	V	G	-	-	-	-	-	-

Notes:
1. Contact Blocks not included; see page G5
2. Emergency Stop Operator; Complies with EN418 Machinery Safety Standard.
3. Emergency Stop Operator with status indication. EN418 approved
4. When ordering operator with 4 color caps (Red, Black, Green & Yellow) add $3.00

Discount Schedule SC-36

## PILOT LIGHTS *(Complete Unit = Operator + Power Supply)*

Pilot Lights - Standard

Standard

Unibloc

Lens & Lamp Holder		Chrome Bezel Catalog No.	Type 4X Bezel Catalog No.	Price
Standard[1]	Diffused Lens	N5CL • D	N5XL • D	$9.50
	Glass Lens	N5CL • V	---	$29.00
Unibloc Full Voltage (complete Pilot Light, Bulb not included)	Diffused Lens	---	N5XU • DD0	$18.50

(• See Color Table Below)

Unibloc combines an indicator light and full voltage power in one unit. 250V maximum

Bulbs
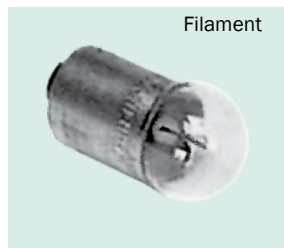
Filament

Description	Volts Nominal	Watts Nominal	Catalog No.	Price
N59S Filament Type	6	0,6	N59S06	$4.50
	6	1,5	N59S15	$4.50
	12	2	N59S12	$4.50
	24	2	N59S24	$4.50
	30	2,1	N59S30	$4.50
	48	2	N59S48	$4.50
	60	1,2	N59S60	$4.50
	130	2	N59S130	$4.50

LED
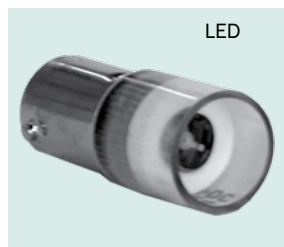
Description	Volts Nominal	Catalog No.	Price
Multi-LED	6	BA9S06L *	$28.00
	12	BA9S12L *	$28.00
	24	BA9S24L *	$28.00
	48	BA9S48L *	$28.00
	110	BA9S110L *	$28.00
	230	BA9S230L *	$28.00

* LED Color Table	Red	Green	Yellow
	R	V	G

• COLOR TABLE

- use complete catalog number when ordering. Replace the (•) with the suffix from the table below.

Color	Red	Green	Yellow	Blue	White	Amber	Clear
Color Code	R	V	G	L	B	A	I

Notes: 1 Lens & Lamp holder only; select Power Supply from page G5

Discount Schedule SC-36

G7

PRESS-TO-TEST PILOT LIGHTS (Complete Unit = Part number with competed suffixes)

Press-To-Test Pilot Lights; includes power supply, contacts, and incandescent bulb
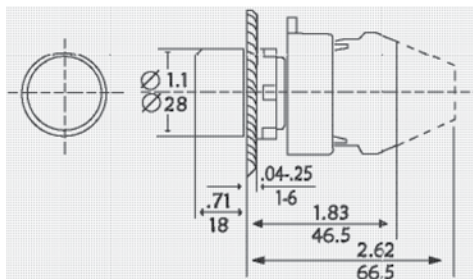
N5CPLVSDFL

N5CPLVSD

+

N5B01VN   N5B10VN

+

N5PDNVL

Operator	Chrome Bezel Catalog No.	4X Bezel Catalog No.	Price
Full Voltage	N5CPL • SDF *	N5XPL • SDF *	$75
Transformer	N5CPL • SDT *	N5XPL • SDR *	$109
Resistor	N5CPL • SDR *	N5XPL • SDR *	$93

(• See Color Table Below)
(* Add Power Supply suffix from table below)

Round Recessed Push Button
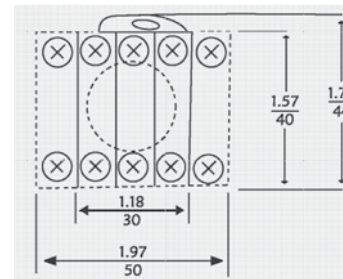
Typical Back Side View
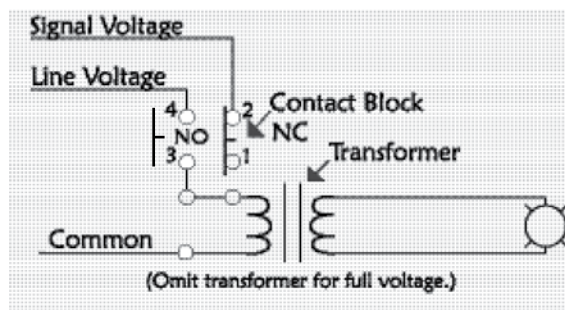
Wire Diagram

*Power Supply (For Press-To-Test Pilot Lights)

Power Supply Type	Lamp	Incandescent Bulb Power Supply Suffix *
Full Voltage	6V	A
	12V	B
	24V	D
	48V	G
	60V	H
	120V	L
Transformer (AC Only)	110 - 120V	J
	220 - 250V	N
	480 - 500V	Y
Standard Resister (AC/DC)	110 - 120V	J
	220 - 240V	N

• COLOR TABLE

- use complete catalog number when ordering. Replace the (•) with the suffix from the table below.

Color	Red	Green	Yellow	Blue	White	Amber	Clear	w/o Lens
Color Code	R	V	G	L	B	A	I	O

Discount Schedule SC-36

G8

SPRINGER controls company

2 POSITION SELECTOR SWITCHES
(Complete Unit = Operator + Contact Block)

2 Position Selector Switches - Standard

(Contact Block & Legend Plates sold separately; page G5, G21)

Knob

Lever

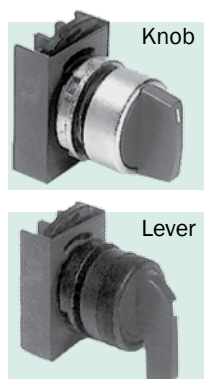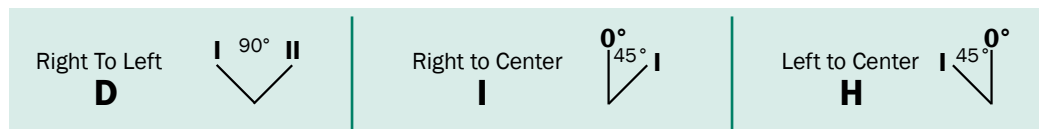| Operating Mode | Cam | Knob Type[1] | | With Black Lever | | Price |
		Chrome Bezel Catalog No.	Type 4X Bezel Catalog No.	Chrome Bezel Catalog No.	Type 4X Bezel Catalog No.	
Maintained	D	N5CSMD0 •	N5XSMD0 •	N5CSVD0N	N5XSVD0N	$22.50
	I	N5CSMI0 •	N5XSMI0 •	N5CSVI0N	N5XSVI0N	$22.50
	H	N5CSMH0 •	N5XSMH0 •	N5CSVH0N	N5XSVH0N	$22.50
Spring Return						
Right To Left	D	N5CSMD5 •	N5XSMD5 •	N5CSVD5N	N5XSVD5N	$22.50
Right To Center	I	N5CSMI5 •	N5XSMI5 •	N5CSVI5N	N5XSVI5N	$22.50
Left To Center	H	N5CSMH1 •	N5XSMH1 •	N5CSVH1N	N5XSVH1N	$22.50

(• See Color Table Below)

2 Position Selector Switches - Key Operated[2]
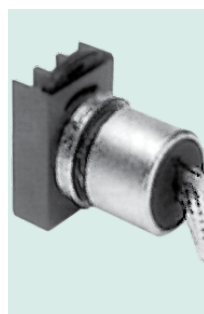
Operating Mode	Cam	Key Removal	Chrome Bezel Catalog No.	Type 4X Bezel Catalog No.	Price
Maintained	D	Left	N5CSCD0A95	N5XSCD0A95	$67.50
		Right	N5CSCD0E95	N5XSCD0E95	$67.50
		Left & Right	N5CSCD0K95	N5XSCD0K95	$67.50
	I	Center	N5CSCI0C95	N5XSCI0C95	$67.50
		Right	N5CSCI0E95	N5XSCI0E95	$67.50
		Center & Right	N5CSCI0N95	NRXSCI0N95	$67.50
	H	Left	N5CSCH0A95	N5XSCH0A95	$67.50
		Center	N5CSCH0C95	N5XSCH0C95	$67.50
		Center & Left	N5CSCH0H95	N5XSCH0H95	$67.50
Spring Return					
Right To Left	D	Left	N5CSD5A95	N5XSCD5A95	$88.00
Right To Center	I	Center	N5CSCI5C95	N5XSCI5C95	$88.00
Left To Center	H	Center	N5CSCH1C95	N5XSCH1C95	$88.00

Cam Mode

Right To Left **D**	I 90° II	Right to Center **I**	0° 45° I	Left to Center **H**	45° 0° I

Contact Switching Sequence

| Cam Mode | ↖ | ↑ | ↗ | Screw Terminal Contact Block | |
				Left Position	Right Position
D	O	---	X	---	N5B10VN
	X	---	O	N5B01VN	---
	O X	--- ---	X O	N5B11VN	---
I	---	O	X	---	N5B10VN
	---	X	O	N5B01VN	
	--- ---	O X	X O	N5B11VN	
H	O	X	---	---	N5B10VN
	X	O	---	N5B01VN	
	O X	X O	--- ---	N5B11VN	

• COLOR TABLE - use complete catalog number when ordering. Replace the (•) with the suffix from the table below.					
Color	Black	Red	Green	Yellow	Blue
Color Code	N	R	V	G	L

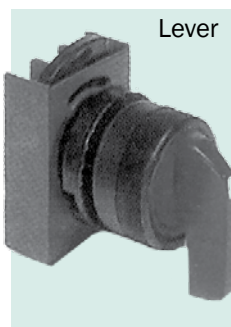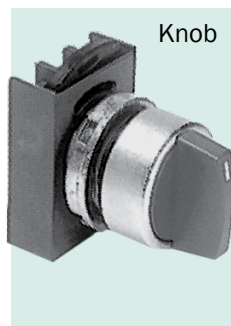**Notes:** 1 Add Suffix from Color Table. 2 Supplied with standard #95 key (spare keys found on page G20) **Discount Schedule SC-36**

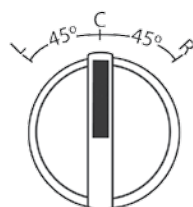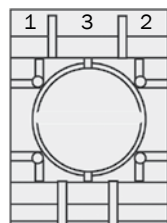## 3 POSITION SELECTOR SWITCHES *(Complete Unit = Operator + Contact Block)*
(Contact Block & Legend Plates sold separately; page G5, G21)

3 Position Selector Switches - Standard

G10
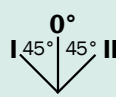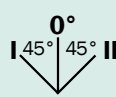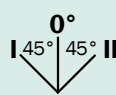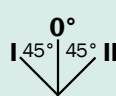
Knob

Lever

Operating Mode	Cam	Knob Type		With Black Lever		Price
		Catalog No. Chrome Bezel	Catalog No. Type 4X Bezel	Catalog No. Chrome Bezel	Catalog No. Type 4X Bezel	
Maintained	E	N5CSME0 •	N5XSME0 •	N5CSVE0N	N5XSVE0N	$22.50
	L	N5CSML0 •	N5XSML0 •	N5CSVL0N	N5XSVL0N	$22.50
	U	N5CSMU0 •	N5XSMU0 •	N5CSVU0N	N5XSVU0N	$22.50
	Z	N5CSMZ0 •	N5XSMZ0 •	N5CSVZ0N	N5XSVZ0N	$22.50
Spring Return Left To Center, Maintained Right	E	N5CSME1 •	N5XSME1 •	N5CSVE1N	N5XSVE1N	$25.50
	L	N5CSML1 •	N5XSML1 •	N5CSVL1N	N5XSVL1N	$25.50
	U	N5CSMU1 •	N5XSMU1 •	N5CSVU1N	N5XSVU1N	$25.50
	Z	N5CSMZ1 •	N5XSMZ1 •	N5CSVZ1N	N5XSVZ1N	$22.50
Spring Return Right To Center Maintained Left	E	N5CSME5 •	N5XSME5 •	N5CSVE5N	N5XSVE5N	$25.50
	L	N5CSML5 •	N5XSML5 •	N5CSVL5N	N5XSVL5N	$25.50
	U	N5CSMU5 •	N5XSMU5 •	N5CSVU5N	N5XSVU5N	$25.50
	Z	N5CSMZ5 •	N5XSMZ5 •	N5CSVZ5N	N5XSVZ5N	$25.50
Spring Return Left & Right To Center	E	N5CSME3 •	N5XSME3 •	N5CSVE3N	N5XSVE3N	$25.50
	L	N5CSML3 •	N5XSML3 •	N5CSVL3N	N5XSVL3N	$25.50
	U	N5CSMU3 •	N5XSMU3 •	N5CSVU3N	N5XSVU3N	$25.50
	Z	N5CSMZ3 •	N5XSMZ3 •	N5CSVZ3N	N5XSVZ3N	$25.50

Contact Switching Sequence

Cam Mode	↖	↑	↗	Screw Terminal Contact Block		
				Left Position	Right Position	
Z	0	0	X	N5B10VN	---	0° I 45° 45° II
	X	0	0	---	N5B10VN	
	X	X	0	N5B01VN	---	
	0	X	X	---	N5B01VN	
	0	0	X	N5B11VN	---	
	X	X	0		---	
	X	0	0	---	N5B11VN	
	0	X	X	---		
E	0	0	X	---	N5B01VN	0° I 45° 45° II
	0	X	0	N5B10VN	---	
	0	0	X	N5B11VN	---	
	0	X	0		---	
L	X	0	0	---	N5B10VN	0° I 45° 45° II
	0	X	0	N5B01VN	---	
	X	0	0	N5B11VN	---	
	0	X	0		---	
U	0	0	X	N5B11VN	---	0° I 45° 45° II
	0	X	0		---	
	0	0	X	---	N5B11VN	
	X	0	0	---		

COLOR TABLE

• **COLOR TABLE** *- use complete catalog number when ordering. Replace the (•) with the suffix from the table below.*

Color	Black	Red	Green	Yellow	Blue
Color Code	N	R	V	G	L

3 POSITION KEYED SELECTOR SWITCHES
(Contact Block & Legend Plates sold separately; page G5, G21)

3 Position Selector Switches - Key Operated - Maintained[1]

Chrome Bezel

4X Poly Bezel

Cam[2]	Key Removal	Chrome Bezel Catalog No.	Type 4X Bezel Catalog No.	Price
Z	Left	N5CSCZOA95	N5XSCZOA95	$67.50
	Center	N5CSCZOC95	N5XSCZOC95	$67.50
	Right	N5CSCZOE95	N5XSCZOE95	$67.50
	Left - Center	N5CSCZOH95	N5XSCZOH95	$67.50
	Left - Right	N5CSCZOK95	N5XSCZOK95	$67.50
	Center - Right	N5CSCZON95	N5XSCZON95	$67.50
	Left - Center - Right	N5CSCZOT95	N5XSCZOT95	$67.50
E	Left	N5CSCEOA95	N5XSCEOA95	$67.50
	Center	N5CSCEOC95	N5XSCEOC95	$67.50
	Right	N5CSCEOE95	N5XSCEOE95	$67.50
	Left - Center	N5CSCEOH95	N5XSCEOH95	$67.50
	Left - Right	N5CSCEOK95	N5XSCEOK95	$67.50
	Center - Right	N5CSCEON95	N5XSCEON95	$67.50
	Left - Center - Right	N5CSCEOT95	N5XSCEOT95	$67.50
L	Left	N5CSCLOA95	N5XSCLOA95	$67.50
	Center	N5CSCLOC95	N5XSCLOC95	$67.50
	Right	N5CSCLOE95	N5XSCLOE95	$67.50
	Left - Center	N5CSCLOH95	N5XSCLOH95	$67.50
	Left - Right	N5CSCLOK95	N5XSCLOK95	$67.50
	Center - Right	N5CSCLON95	N5XSCLON95	$67.50
	Left - Center - Right	N5CSCLOT95	N5XSCLOT95	$67.50
U	Left	N5CSCUOA95	N5XSCUOA95	$67.50
	Center	N5CSCUOC95	N5XSCUOC95	$67.50
	Right	N5CSCUOE95	N5XSCUOE95	$67.50
	Left - Center	N5CSCUOH95	N5XSCUOH95	$67.50
	Left - Right	N5CSCUOK95	N5XSCUOK95	$67.50
	Center - Right	N5CSCUON95	N5XSCUON95	$67.50
	Left - Center - Right	N5CSCUOT95	N5XSCUOT95	$67.50

3 Position Selector Switches - Key Operated - Spring Return[1]

Cam[2]	Key Removal	L → C Chrome Bezel Catalog No.	L → C Type 4X Bezel Catalog No.	C ← R Chrome Bezel Catalog No.	C ← R Type 4X Bezel Catalog No.	L → C ← R Chrome Bezel Catalog No.	L → C ← R Type 4X Bezel Catalog No.	Price
Z	Left	---	---	N5CSCZ5A95	N5XSCZ5A95	---	---	$67.50
	Center	N5CSCZ1C95	N5XSCZ1C95	N5CSCZ5C95	N5XSCZ5C95	N5CSCZ3C95	N5XSCZ3C95	$67.50
	Right	N5CSCZ1E95	N5XSCZ1E95	---	---	---	---	$67.50
	Left - Center	---	---	N5CSCZ5H95	N5XSCZ5H95	---	---	$67.50
	Center - Right	N5CSCZ1N95	N5XSCZ1N95	---	---	---	---	$67.50
E	Left	---	---	N5CSCE5A95	N5XSCE5A95	---	---	$88.00
	Center	N5CSCE1S95	N5XSCE1C95	N5CSCE5C95	N5XSCE5C95	N5CSCE3C95	N5XSCE3C95	$88.00
	Right	N5CSCE1E95	N5XSCE1E95	---	---	---	---	$88.00
	Left - Center	---	---	N5CSCE5H95	N5XSCE5H95	---	---	$88.00
	Center - Right	N5CSCE1N95	N5XSCE1N95	---	---	---	---	$88.00
L	Left	---	---	N5CSCL5A95	N5XSCL5A95	---	---	$88.00
	Center	N5CSCL1C95	N5XSCL1C95	N5CSCL5C95	N5XSCL5C95	N5CSCL3C95	N5XSCL3C95	$88.00
	Right	N5CSCL1E95	N5XSCL1E95	---	---	---	---	$88.00
	Left - Center	---	---	N5CSCL5H95	N5XSCL5H95	---	---	$88.00
	Center - Right	N5CSCL1N95	N5XSCL1N95	---	---	---	---	$88.00
U	Left	---	---	N5CSCU5A95	N5XSCU5A95	---	---	$88.00
	Center	N5CSCU1C95	N5XSCU1C95	N5CSCU5C95	N5XSCU5C95	N5CSCU3C95	N5XSCU3C95	$88.00
	Right	N5CSCU1E95	N5XSCU1E95	---	---	---	---	$88.00
	Left - Center	---	---	N5CSCU5H95	N5XSCU5H95	---	---	$88.00
	Center - Right	N5CSCU1N95	N5XSCU1N95	---	---	---	---	$88.00

Notes: 1 Supplied with 2- #95 Keys   2 See contact switching , page G10   **Discount Schedule SC-36**

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4 & 5 POSITION SELECTOR SWITCHES *(Complete Unit = Operator + Contact Block)*

(Contact Block & Legend Plates sold separately; page G5, G21)

4 Position Selector Switches; Standard

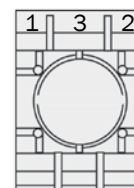| Operating Mode	Cam	with Knob		with Black Lever		Price
		Chrome Bezel Catalog No.[1]	Type 4X Bezel Catalog No.[1]	Chrome Bezel Catalog No.	Type 4X Bezel Catalog No.	
Maintained	X	N5CSMX0 •	N5XSMX0 •	N5CSVX0N	NTXSVX0N	$22.50
Spring Return (4 to 3 only, maintained (1-2-3)	X	N5CSMX5 •	N5XSMX5 •	N5CSVX5N	N5XSVX5N	$29.00

(See Color Table Below)

4 Position Selector Switches; Key Operated *(Operators only)*
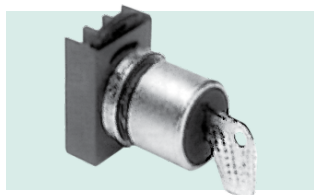
| Operating Mode	Cam	Key Removal	Chrome Bezel Catalog No.	Type 4X Bezel Catalog No.	Price
Maintained	X	All	N5CSCX0Z95	N5XSCX0Z95	$82.50
Spring Return (4 to 3 only, maintained (1-2-3)	x	1-2-3	N5CSCX5R95	N5XSCX5R95	$102.50

Contact Switching Sequence
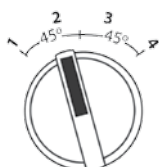
Cam Code	← ↖ ↗ →				Screw Terminal Contact Block	
					Left Position	Right Position
X	0	X	0	0	N5B11VN	---
	0	0	0	X		
	0	0	X	0	---	N5B11VN
	X	0	0	0		

5 Position Selector Switches; Standard

Operating Mode	Cam	with Knob		with Black Lever		Price
		Chrome Bezel Catalog No.[1]	Type 4X Bezel Catalog No.[1]	Chrome Bezel Catalog No.	Type 4X Bezel Catalog No.	
Maintained	Y	N5CSMY0 •	N5XSMY0 •	N5CSVY0N	N5XSVY0N	$40.50
	W	N5CSMW0 •	N5XSMW0 •	N5CSVW0N	N5XSVW0N	$40.50

Contact Switching Sequence

Cam Code	← ↖ ↑ ↗ →					Screw Terminal Contact Block	
						Left Position	Right Position
W	0	X	0	0	0	N5B11VN	---
	0	0	0	X	0		
	0	0	X	0	0	---	N5B11VN
	0	0	0	0	X		
Y	0	X	0	0	0	N5B11VN	---
	0	0	0	0	X		
	0	0	0	X	0	---	N5B11VN
	X	0	0	0	0		
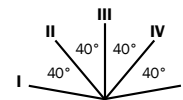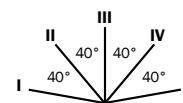
Note: 1 Add Color Suffix from Color Table above

Discount Schedule SC-36

DOUBLE PUSH BUTTONS (Start-Stop)
(Complete Unit = Operator + Power Supply (optional) + Contact Blocks)

Double Push Button without Symbols
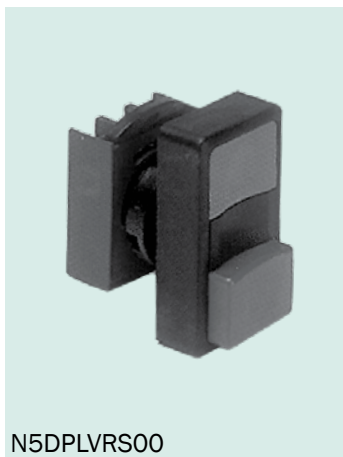
N5DPLVRS00

Button Level	Button Color	Catalog No. Button without Symbols[1]	Price
Flush Top Indicator Light*	Black - Red	N5DPLNRG00	$33.50
Flush Bottom	Green - Red	N5DPLVRG00	$33.50
Flush Top Indicator Light*	Black - Red	N5DPLNRS00	$33.50
Extended Bottom	Green - Red	N5DPLVRS00	$33.50

Double Push Buttons come with both a white transparent lens for use with indicator light and a black insert for non-illuminated feature.

Double Push Button with Symbols
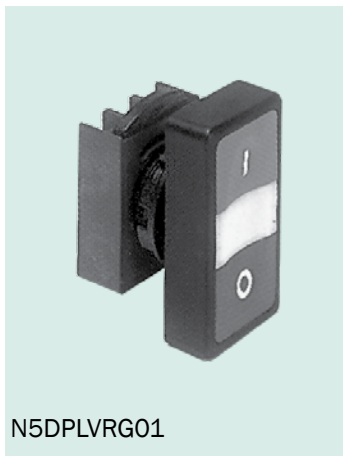
N5DPLVRG01

Button Level	Button Color	Catalog No. Button with Symbols[1]	Price
Flush Top Indicator Light*	Black - Red	N5DPLNRG01	$33.50
Flush Bottom	Green - Red	N5DPLVRG01	$33.50
Flush Top Indicator Light*	Black - Red	N5DPLNRS01	$33.50
Extended Bottom	Green - Red	N5DPLVRS01	$33.50

Double Push Buttons come with both a white transparent lens for use with indicator light and a black insert for non-illuminated feature.

Double Push Button Accessory
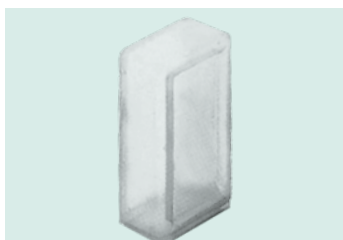
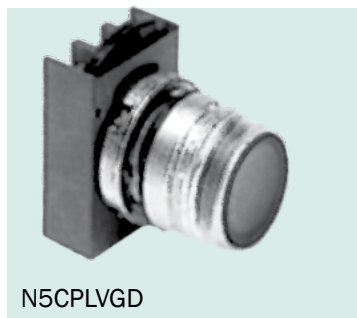| Description	Catalog No.	Price
Silicone rubber boot for use with flush operators	080CPDT	$7.00

Notes: 1 Bulb and Power Supply not included. To order necessary Power Supply and Bulb see page G5   **Discount Schedule SC-36**
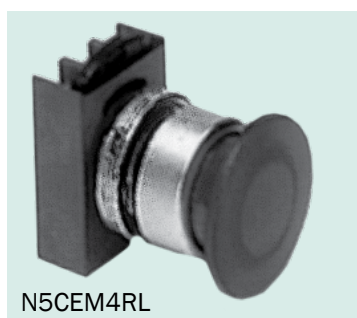
ILLUMINATED PUSH BUTTONS   *(Complete Unit = Operator + Power Supply + Contact Blocks)*

Standard - Momentary

N5CPLVGD

Operator (Only)[1] (with diffused lens)	Chrome Bezel Catolog No.	Type 4X Bezel Catalog No.	Price
With Flush Cap	N5CPL • GD	N5XPL • GD	$18.00
With Extended Cap	N5CPL • SD	N5XPL • SD	$18.00
Guarded	N5CPL • ED	N5XPL • ED	$18.00

Mushroom Head - Momentary

N5CEM4RL

Operator (Only)[1]	Chrome Bezel Catolog No.	Type 4X Bezel Catalog No.	Price
Mushroom Head 40mm	N5CEM4 • L	N5XEM4 • L	$25.50

Mushroom Head - With Latch (Maintained)

N5CET4RL1
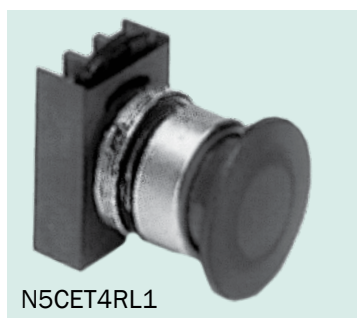
Operator (Only)[1]	Chrome Bezel Catolog No.	Type 4X Bezel Catalog No.	Price
40mm Push To Latch - Pull To Release	N5CET4 • L1	N5XET4 • L1	$36.50

Mushroom Head - 3-Position Push Pull (Center Rest)
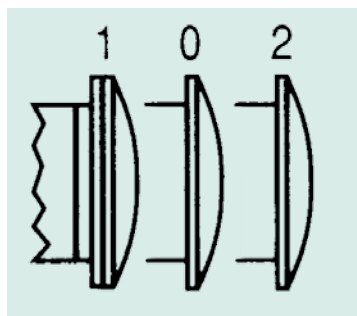
Operator (Only)[1]	Chrome Bezel Catolog No.	Type 4X Bezel Catalog No.	Price
40mm 3-Position -Maintained Push (0 to 1) -Momentary Pull (0 to 2)	N5CET4 • L2	N5XET4 • L2	$48.00
40mm 3-Position -Momentary Push (0 to 1) -Momentary Pull (0 to 2)	N5CET4 • L3	N5XET4 • L3	$48.00

• COLOR TABLE - *use complete catalog number when ordering. Replace the (•) with the suffix from the table below.*					
Color	Black	Red	Green	Yellow	Blue
Color Code	N	R	V	G	L

Note: 1 Order Contact Blocks & Powre Supply from page G5   **Discount Schedule SC-36**

G14

G14

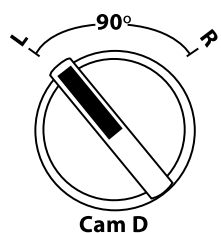## 2 & 3 POSITION ILLUMINATED SELECTOR SWITCHES
(Complete Unit = Operator + Power Supply + Contact Blocks)

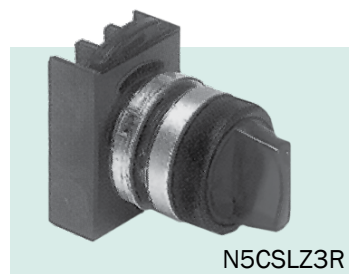### 2-Position Illuminated Selector Switches

N5XSLD0V

Operating Mode	Cam	Chrome Bezel Catalog No.[1]	Type 4X Bezel Catalog No.[1]	Price
Maintained	D	N5CSLD0 •	N5XSLD0 •	$29.00

Contact Switching Sequence

Cam Code	↖	↗	Screw Terminal Contact Block	
			Left Position	Right Position
D	0	X	---	N5B10VN
	X	0	N5B01VN	---
	0	X	N5B11VN	---
	X	0		

Cam D — L 90° R

3-Position Illuminated Selector Switches

N5CSLZ3R

Operating Mode	Cam	Chrome Bezel Catolog No.[1]	Type 4X Bezel Catalog No.[1]	Price
Maintained	Z	N5CSLZ0 •	N5XSLZ0 •	$29.00
Spring Return Left To Center Maintained Right	Z	N5CSLZ1 •	N5XSLZ1 •	$40.50
Spring Return Right To Center Maintained Left	Z	N5CSLZ5 •	N5XSLZ5 •	$40.50
Spring Return Left & Right To Center	Z	N5CSLZ3 •	N5XSLZ3 •	$40.50

Contact Switching Sequence

L 45° C 45° R
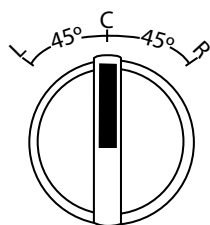
Cam Code	↖	↑	↗	Screw Terminal Contact Block	
				Left Position	Right Position
Z	0	0	X	N5B10VN	---
	X	0	0	---	N5B10VN
	X	X	0	N5B01VN	---
	0	X	X	---	N5B01VN
	0	0	X	N5B11VN	---
	X	X	0		
	X	0	0	---	N5B11VN
	0	X	X		

• **COLOR TABLE** - *use complete catalog number when ordering. Replace the (•) with the suffix from the table below.*

| Color	Red	Green	Yellow	Blue	White	Amber	Clear
Color Code	R	V	G	L	B	A	I

Note: 1 Order Contact Blocks, Power Supplies and Bulbs from page G5

Discount Schedule SC-36

G15

SPECIAL OPERATORS   *(Complete Unit = Operator + Contact Blocks)*

Joystick - Operators - Type 4X

Positions (see below)	Mechanical Interlock	Maintained All Positions Catalog No.	Momentary All Positions Catalog No.	Price
3	No	N5XMN2F	N5XMN2T	$132.00
3	Yes	N5XMB2F	N5XMB2T	$132.00
5	No	N5XMN4F	N5XMN4T	$179.00
5	Yes	N5XMB4F	N5XMB4T	$179.00

Joystick - No Interlock

Joystick - With Interlock
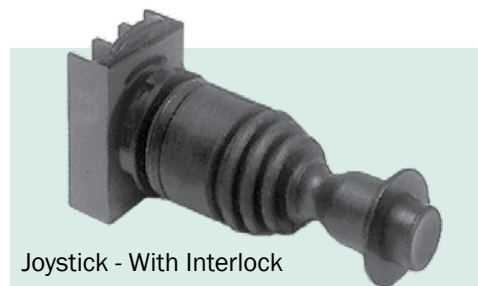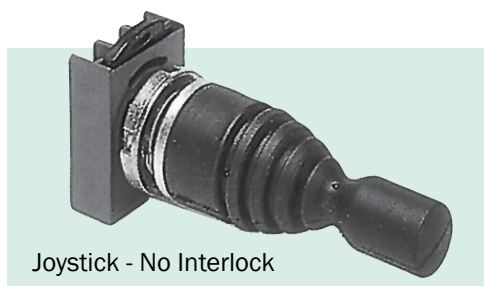
3-Position Joystick Contact Arrangement

U
C
D
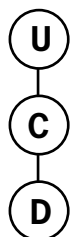
Position			Screw Terminal Contact Block Catalog No. and Mounting Position	
Up	Center	Down	Position 1	Position 2
0	0	X	N5B11VN	---
X	0	0		
X	0	0	---	N5B11VN
0	0	X		

5-Position Joystick Contact Arrangement

U
L C R
D
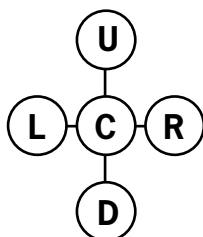
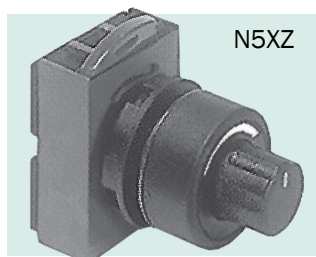| Position					Screw Terminal Contact Block Catalog No. and Mounting Position	
Up	Right	Center	Down	Left	Position 1	Position 2
0	0	0	X	0	N5B11VN	---
X	0	0	0	0		
0	X	0	0	0	---	N5B11VN
0	0	0	0	X		

Discount Schedule SC-36

SPECIAL OPERATORS

Toggle Switches & Cams - Operator Only *(Note selection and position of contact block(s) operation)*
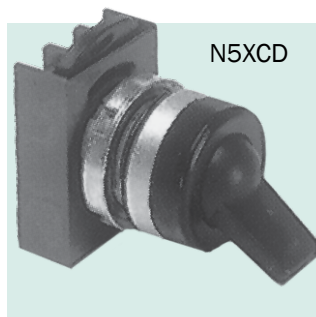
Position			Contact Block Mounting Position		Positions & Catalog No.	Price
Up	Center	Down	1	2		
X	---	O	---	N5B10VN	2 Position Maintained **N5XCD**	$24.00
O	---	X	N5B01VN	---		
X	---	O	N5B11VN	---		
O	---	X				
X	O	O	---	N5B10VN	3 Position Maintained **N5XCB**	$24.00
O	O	X	N5B01VN	---		
X	O	O	N5B11VN	---		
O	O	X				

Potentiometer Operators*

Style	Catalog No.	Price
Chrome Bezel (Operator)*	N5CZ	$101.00
4X Bezel (Operator)*	N5XZ	$101.00
10 K-OHM (Operator)*	2W10K	$132.00

* Potentimeter Operator use .25" x 2" stem.

Wobble Sticks - Type 4X
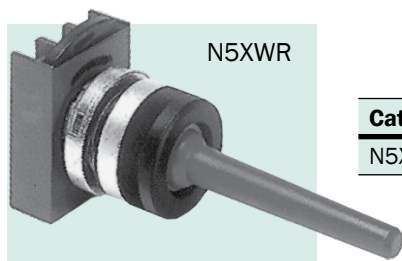
Catalog No.	Price
N5XWR	$48.00

Reset Push Buttons *(Flush blue push buttons with white "R" provided with screw adjustable from 60mm to 80mm depth)*

Style	Catalog No.	Price
Chrome Bezel	N5CRG	$19.50
4X Bezel	N5XRG	$19.50
Reset Rod (extended screw 170mm)	N5ACVLR	$11.50

Discount Schedule SC-36

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22mm PRE-ASSEMBLED OPERATORS

The 22mm Pilot Device units listed below are the most commonly ordered units. The units are complete and include operator, contact mounting base and contact blocks. Legend plates are not included. They may be ordered separately from page G21. Units are packed, unassembled in a single carton.

Push Buttons - Momentary

Operator / Description	Type 1, 3, 3R, 4, 12, 13 IP66 Chrome Bezel	Catalog No.	Price
Flush Pushbutton - 1N.O. Contact Block - Black Cap		N5CPNNG10	$24.50
Flush Pushbutton - 1 N.O. & 1 N.C. Contact Block - Black Cap		N5CPNNG11	$36.00
Flush Pushbutton - 1 N.O. Contact Block - Green Cap		N5CPNVG10	$24.50
Flush Pushbutton - 1 N.O. & 1 N.C. Contact Block - Green Cap		N5CPNVG11	$36.00
Flush Pushbutton - 1 N.C. Contact Block - Red Cap		N5CPNRG01	$24.50
Extended Pushbutton - 1 N.C. Contact Block - Red Cap		N5CPNRS01	$24.50
Extended Pushbutton - 1 N.O. & 1 N.C. Contact Block - Red Cap		N5CPNRS11	$36.00
Guarded Pushbutton - 1 N.O. Contact Block - Black Cap		N5CPNNE10	$24.50
Guarded Pushbutton - 1 N.O. & 1 N.C. Contact Block - Black Cap		N5CPNNE11	$36.00
Mushroom 40mm Pushbutton - 1 N.C. Contact Block - Red Cap (Momentary)		N5CEM4RN01	$37.00
Mushroom 40mm Twist-Release - 1 N.C. Contact Block - Red Cap		N5CER4RN01	$71.50
Double Pushbutton Flush - 1 N.O. & 1 N.C. Contact Block - Black-Red Cap (No power supply)		N5DPLNRG0011	$56.50
Double Pushbutton Flush - 1 N.O. & 1 N.C. Contact Block - Green-Red Cap (No power supply)		N5DPLVRG0011	$56.50

Selector Switches - Maintained

Operator / Description	Type 1, 3, 3R, 4, 12, 13 IP66 Chrome Bezel	Catalog No.	Price
3 Position Sel. Sw. - 2 N.O. Contact Blocks - Cam Z - Black Knob		N5CSMZON20	$45.50
2 Position Sel. Sw. - 1 N.O. Contact Block - Cam D - Black Knob		N5CSMDON10	$34.00
3 Position Sel. Sw. Key Operated - 2 N.O. Contact Block - Cam Z - Center Removal		N5CSCZOC9520	$90.50
2 Position Sel. Sw. Key Operated - 1 N.O. & 1 N.C. Contact Block - Cam Z Left-Right Removal		N5CSCDOK9511	$90.50

Selector Switches - Maintained

Operator / Description	Type 1, 3, 3R, 4, 12, 13 IP66 Chrome Bezel	Catalog No.	Price
Std. Full Voltage Pilot Light 120V - Red Cap (Bulb included)		N5CLRDL	$42.00
Std. Full Voltage Pilot Light 120V - Green Cap (Bulb included)		N5CLVDL	$42.00
Std. Full Voltage Pilot Light 120V - Amber Cap (Bulb included)		N5CLADL	$42.00
Uniblock 300V max. Pilot Light - Red Cap (Bulb included)		N5XURDD0	$18.50
Uniblock 300V max. Pilot Light - Green Cap (Bulb included)		N5XUVDD0	$18.50
Uniblock 300V max. Pilot Light - Amber Cap (Bulb included)		N5XUADD0	$18.50
Uniblock 300V max. Pilot Light - Blue Cap (Bulb included)		N5XULDD0	$18.50

N5CPNVG11 (Pre-assembled)

N5CPNVG   +   N5B10VN (Norm. Open)   +   N5BO1VN (Norm. Closed)

Discount Schedule SC-36

ACCESSORIES / REPLACEMENT PARTS

Pushbutton Caps

Description	Catalog No.	Price
Flush & Guarded Operator	N5ARBG •	$1.50
Extended Operator	N5ARBS •	

Momentary Operators (Mushroom)

Description	Catalog No.	Price
28mm	N5ARB3 •	
40mm	N5ARB4 •	$11.00
60mm	N5ARB6 •	

Push-Pull Operators (Mushroom)

Description	Catalog No.	Price
40mm	N5ACB4 •	$12.50

Knobs & Levers

Description	Catalog No.	Price
Knob for Selector Switches	N5ACMN •	$4.50
Lever for Selector Switches	N5ARMV •	

Lenses (Pilot Lights)

Description	Catalog No.	Price
Diffused Version	N5ARGLD •	$1.00
Refracted Version	N5ARGLR •	$1.50
Glass Version	N5ARGLV •	$21.00

Illuminated Push Button Lens

Description	Catalog No.	Price
Illuminated Push Button Lens	N5ARGPD •	$1.00

Illuminated Mushroom Head Push Buttons

Description	Catalog No.	Price
Momentary 40mm	N5ARGP4 •	$11.00
Push-Pull 40mm	N5ACGP4 •	$12.50
Illuminated Lever Selector Switch	N5ACGSL •	$4.50

Rubber Protective Caps (Standard Flush Push Buttons)

Description	Catalog No.	Price
Colored	080CP •	$8.00
Clear	080CPT	

Rubber Protective Cab (Raised Push Buttons)
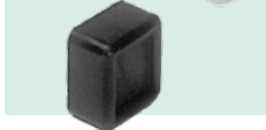
Description	Catalog No.	Price
Clear	N5ARCST	$8.00

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COLOR TABLE
• Use complete catalog number when ordering. Replace the (•) with the suffix from the table below.

| Colors	Black	Red	Green	Yellow	Brown	Blue	White	Grey	Amber	Clear	w/o Cap	Red, Black, Green, Yellow
Pushbutton Caps	N	R	V	G	M	L	B	H	---	---	O	Z[1]
Mushroom Heads	N	R	V	G	---	---	---	---	---	---	---	---
Knobs	N	R	V	G	---	L	---	---	---	---	---	---
Lenses	---	R	V	G	---	L	B	---	A	I	---	---
Protective Caps	N	R	V	G	---	---	---	---	---	---	---	---

Note 1: When ordering operator with 4-color caps (Red/Black/Green/Yellow) add $3.00

Discount Schedule SC-36

SPRINGER
controls company

ACCESSORIES / REPLACEMENT PARTS

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N5ARHPR

Plugs (fill a 22mm hole)

Description	Catalog No.	Price
Round Plug	N5ARHPR	$8.00
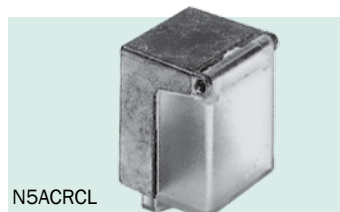
Printed Circuit Board Adaptor

Description	Catalog No.	Price
Adaptor	N5ACA6	$6.00

N5ACRCL

Protections

Description	Catalog No.	Price
Extended Guard for 40mm mushroom head	N5ARRE4	$15.50
Protection Cover: padlockable for standard push buttons, illuminated push buttons, selector switches, illuminated selector switches with knob.	N5ACRCL	$23.00

N5ACFS5

Flanges (For mounting contact blocks)

Description	Catalog No.	Price
Three position - 30 x 50mm	N5ACFS3	$4.50
Five position - 50 x 50mm	N5ACFS5	$8.00

077C3095

Keys

Description	Catalog No.	Price
Extra Key; Selector Switch	077C3095	$5.50

Adapter

Description	Catalog No.	Price
Gives round control and signalling units a square appearance. -- Made in black thermoplastic. -- Excluded for mushroom flush buttons with positive break and Push-Pull units.	N5ARSN1	$2.50

N5ARSN1

N5ACVLR

Reset Adjustment Screw

Description	Catalog No.	Price
Extended Screw (170mm)	N5ACVLR	$11.50
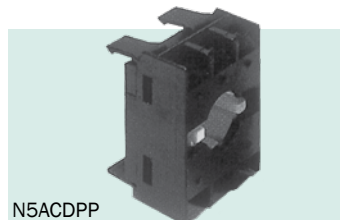
Push-On / Push-Off

Description	Catalog No.	Price
Device for standard push buttons and illuminated push buttons. -- To be added only to single-pole contact blocks. -- The N.O.-contacts must be early closing types.	N5ACDPP	$40.50

N5ACDPP

Ring Adaptor (Allows N5 series to be mounted in 30mm hole)

Description	Catalog No.	Price
Chrome	N5ARAM32	$11.50
4X Bezel	N5ARAX32	$11.50

N5ACWAF

Tools

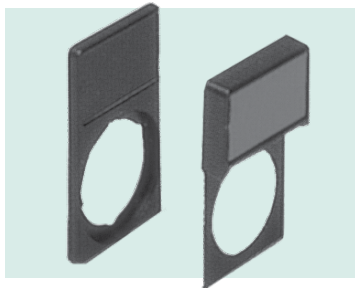| Description	Catalog No.	Price
Locking ring wrench	N5ACWAF	$11.50
Bulb extractor	080E3SL	$6.00

080E35L

Discount Schedule SC-36

LEGEND PLATES   *(Complete Unit = Legend Insert + Insert Holder)*

Legend Inserts *(used with N5ARTBS Insert Holder – Black background except when noted)*

(N5ARTBS)

+

Insert

(N5ACPBS2_ _)

=

Complete Unit
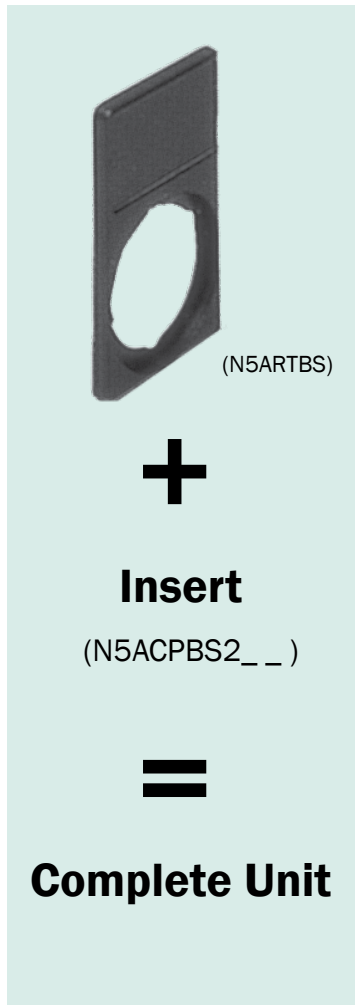
Marking	Catalog No.	Price
Start	N5ACPBS202	$1.00
Stop (Red)	N5ACPBS201	$1.00
Forward	N5ACPBS214	$1.00
Reverse	N5ACPBS215	$1.00
Close	N5ACPBS205	$1.00
Open	N5ACPBS206	$1.00
Up	N5ACPBS204	$1.00
Down	N5ACPBS203	$1.00
Left	N5ACPBS222	$1.00
Right	N5ACPBS224	$1.00
Fast	N5ACPBS208	$1.00
Slow	N5ACPBS207	$1.00
Open-Close	N5ACPBS234	$1.00
Stop-Start	N5ACPBS232	$1.00
Forward-Reverse	N5ACPBS231	$1.00
Off-On	N5ACPBS233	$1.00
Forward-O-Reverse	N5ACPBS239	$1.00
Emergency Stop (Red)	N5ACPBS229	$1.00
Inch	N5ACPBS209	$1.00
Jog	N5ACPBS210	$1.00
Lower	N5ACPBS217	$1.00
Off (Red)	N5ACPBS213	$1.00
On	N5ACPBS212	$1.00
Power On	N5ACPBS240	$1.00
Push To Stop / Pull To Start	N5ACPBS241	$1.00
Reset	N5ACPBS291	$1.00
Run	N5ACPBS211	$1.00
Start - Stop	N5ACPBS255	$1.00
Up - Down	N5ACPBS256	$1.00
Hand - Off - Auto	N5ACPBS261	$1.00
Blank Insert	N5ACPBS	$1.00
Transparent Insert	N5ACPTS	$1.00
Custom Engrave	NSACPBSX	$8.00

Insert Holders   *Insert Holders come with blank insert which can be used to make your own legend. One side Red - One side Black.*

- *Legend Plates are used for Pilot Device identification of application function.*
- *Legend Plate requires Legend Holder and Legend Insert*
- *Legend Plates can be custom engraved at $8.00 each*

Description	Catalog No.	Price
Supplied with neutral insert engravable on both sides	Black — White / Red	
Standard 30 x 50mm	N5ARTBS	$1.50
Extended 45 x 50mm	N5ARTBM	$2.50

Emergency Stop Yellow Ring

Description	Catalog No.	Price
58mm Dia	080XTGR02	$3.00
78MM Dia	080XTG802	$3.00

Discount Schedule SC-36

TECHNICAL DATA

General Specifications

Conformity to Standards	UL508 (USA) NEMA ICS-2 (USA) VDE 0600 (Germany) BSI (Great Britain) CEI EN60947.5.1 (Italy) CENELEC EN 5000 7 (Europe)	CSA C22.2 No. 14-M91 (Canada) IEC 947.5.1 (International) UTE (France) NFC 63140 (France) JIS (Japan)
Approvals	UL listed - File Number E170195 Manufacturing Facility is registered to ISO 9000 CE c(UL)us	
Finger Protection at Terminals	IP2X according to IEC 529 Terminal identification is registered to ISO 9000	
Enclosure Ratings	Suitable for use in NEMA Types 1, 3, 3R, 3S, 4, 4X, 12 and 13 enclosures. (Multi-function push buttons are suitable for NEMA Type 1 enclosures only unless used with protective rubber cap accessory.) IP66 per IEC529, when mounted in enclosures with equal or superior seal.	

Ambient Temperature	Operating -13° to +158°F -25° to +70°C	Storage -40° to +158°F -40° to +70°C	

Climate Suitability / Humidity	Climate Type Temperature Wet Hot Wet Variable Wet	Temperature 74°F (23°C) 74°F (23°C) 104°F (40°C) 74° to 104°F (23° to 40°C)	Relative Humidity 50% 83% 92% 83% to 92%

Resistance to Vibration	Per IEC 68-2-6, 16g with a frequency from 40-500 Hz and maximum peak-to-peak amplitude of 0.75mm
Resistance to Shock	According to MIL 202B, method 202A. Test was performed for 1/2 sinusoid for 11md, 38g max for all operators with transformers and 100g for all other operators.
Operating Force	Standard push button operator: 2.5lbs (11N). Each contact block: 1.3lbs (6N). Selector switch operator: 2.4in/lb (0.27Nm)

Wire Terminals

	Suitable for #22 - #12 AWG stranded or solid copper wires, single or parallel conductors of same size. Terminal torque: 7-12 in/lb. Parallel conductor size combinations (stranded or solid wire):

Wire Capacity and Terminal Torque Requirements	Parallel Conductor Size Combinations (Stranded or Solid Wire)	Terminal Torque
	#12 with #14	12 in/lb
	#14 with #16	12 in/lb
	#16 with #18	12 in/lb
	#16 with #20	12 in/lb
	#16 with #22	12 in/lb
	#18 with #22	10 - 12 in/lb
	#18 with #20	10 - 12 in/lb
	#20 with #22	7 - 12 in/lb

Quick Connect Terminals	Suitable for one female tab connector measuring 0.25 x 0.03 inches (6.35 x 0.8 mm) or two female tab connectors measuring 0.11 x 0.03 inches (2.8 x 0.8 mm).

Contact Data

Electrical Reliability Data	Electrical life and reliability in low level current: 80 million operations at 12V, 5mA, resistive load. (32 contacts tested successfully for 2.5 million operations).
Dust Resistance	In extremely dusty environments, electrical life at low level current is 250,000 operations at 12V, 5mA, resistive load. In a clean environment, electrical life at low level current is 10 million operations at 12V, 5mA, resistive load.
Thermal Current	Ith = 10A per IEC 947-5-1
Insulation Voltage	Ui = 660 Volts ac/dc (opposite polarity) except 2NO and 2NC blocks 300 Vac/dc
Protection from Electrical Shock	Class I per IEC 536 for metal operators Class II (double insulation) per IEC 536 for plastic operators
Insulation Category	Group "C" per VDE 0110
Dielectic Strength	2500 volts
Short Circuit Protection	10A type G fuse, per IEC 269.1 & 269.3

Pilot Duty Ratings

A600 (maximum make volt-amperes = 7200; maximum break volt-amperes = 720; PF- .25)

Volts (AC - V)	12	24	48	60	120	240	480	600
Continuous (A)	10	10	10	10	10	10	10	10
Making (A)	100	100	100	60	60	30	15	12
Breaking (A)	10	10	10	6	6	3	1.5	1.2

Q300 (maximum make or break vold-amperes = 69)

Volts (DC - V)	12	24	48	60	125	250	300
Continuous (A)	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Making (A)	2.5	2.5	1.4	1.1	0.55	0.27	0.23
Breaking (A)	2.5	2.5	1.4	1.1	0.55	0.27	0.23

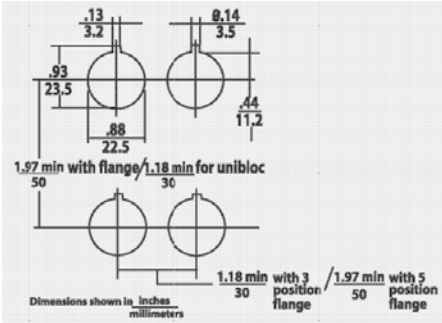## Contact Data

IEC Utilization Categories	AC 5 Control of AC Electromagnetic Loads Rated Operational Voltage and Current									
	Ue (V)	12	24	48	60	110	220	380	500	600
	Ie	10	10	10	10	6	3	2	1.5	1.2
	DC1 3 Control of DC Electromagnets Rated Operational Voltage and Current									
	UE (M)	12	24	48	60	110	220	300		
	LE (A)	2.5	2.5	1.4	10	0.55	0.27	0.2		

Contact Characteristics	NC: slow make, double break (positive opening)
	NO: slow make, double break
	Self-cleaning (wiping action) contact
	Double-bridge contacts with four points of contact
Contact Resistance Contact Fidelity	<25mOhm per IEC 255.7 category 3 @ 24V, 1 amp
	Minimum current: 5mA
	Minimum voltage: 12 Vac/dc. maximum resistance - 2 ohms
Logic Reed Contact Data *(Special Order)*	NC: Single break
	NO: Single break
	120 Vac maximum, 0.1 5A maximum, 8VA maximum
	30 Vdc maximum, 15A maximum, 4.5W maximum

Mounting

Acceptable Panel Thickness	.040 - .236 inches (1-6 mm)
Operator Locking Ring Torque	26 in/lb (3 N -m)
Force Required fo Forcibly Remove Contact Blocks and Flange	Contact block or power supply from flange: 27 lbs (118N)
	3- or 5-block flange from metal operator: 88 lbs (392 N)
	3- or 5-block flange from plastic operator: 66 lbs (294 N)
Mounting Dimensions	

	Operators	Number of Operations
Mechanical Life Ratings for Operators	Standard Push Buttons	3,000,000
	Illuminated Push Buttons[1]	1,000,000 - 3,000,000
	Momentary Mushroom-head Push Buttons	3,000,000
	Maintained Mushroom-head Push Buttons	500,000
	Push-to-Latch, Turn-to-Release Mushroom-Head Push Buttons	300,000
		300,000
	3-Position Mushroom-head Push Buttons	1,000,000
	Non-Illuminated Selector Switches	500,000
	Illuminated Selector Switches	500,000
	Joysticks	500,000
	Toggle Switches	1,000,000
	Wobble Sticks	500,000
	Key-Operated Push Buttons	1,000,000
	Selector Push Buttons	

[1] *Number of operations dependent on the operating duration of the lamp. If the lamp is left on for long periods of time, its heat can reduce mechanical life. All illuminated push buttons meet at least 1,000,000 operations.*

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POLYCARBONATE ENCLOSURES, NAMEPLATES, CONTACT BLOCKS POWER SUPPLIES FOR BASE-MOUNTED PILOT DEVICES

(See pg. G26-28 for assembled push-button stations. Consult factory for custom stations)
NEMA 1, 3, 3R, 4, 4X, 12, 13, & IP66
(For use with operators from pages G6 - G15. Requires base-mount contact blocks & power supplies) (maximum of 3 per operator)
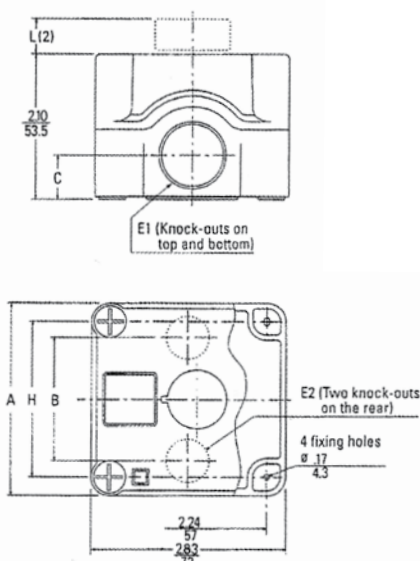
G24
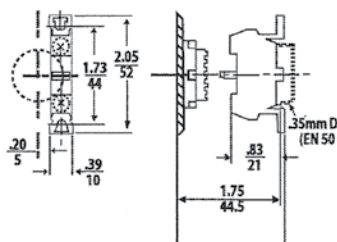
Plastic Enclosures
NEMA 1, 3 3R,3S, 4, 4X, 12, 13 and IP66

Enclosure Holes	Center Distance (in/mm)	Dimension A (in/mm)	Dimension B (in/mm)	Dimension C (in/mm)
1		2.83 (72)	1.81 (46)	.65 (16.5)
2	1.18 (30)	4.33 (110)	3.07 (78)	.65 (16.5)
3	1.18 (30)	5.51 (140)	4.25 (108)	.65 (16.5)
4	1.18 (30)	6.89 (175)	5.63 (143)	.65 (16.5)
6	1.18 (30)	9.25 (235)	7.87 (200)	.77 (19.5)

Enclosure Holes	Center Distance (in/mm)	Dimension E1 Ø (in/mm)	Dimension E2[1] Ø (in/mm)	Dimension H (in/mm)
1		.91 (23)	.61 (15.5)	2.24 (57)
2	1.18 (30)	.91 (23)	.85 (21.5)	3.74 (95)
3	1.18 (30)	.91 (23)	.85 (21.5)	4.92 (125)
4	1.18 (30)	.91 (23)	.85 (21.5)	6.30 (160)
6	1.18 (30)	1.14 (29)	.91 (23)	8.66 (220)

[1] 1-, 2-, 3-, and 4-hole enclosures suitable for cable gland, with locknut, PG16 or ½" NPT. 6-hole enclosures suitable for cable gland, with locknut GP12 or ¾" NPT.

E1 (Knock-outs on top and bottom)

E2 (Two knock-outs on the rear)

4 fixing holes Ø .17 4.3

Polycarbonate Enclosures

Holes	Color	Encl. Length	Catalog No.	Price
1	Gray	2.83"	N5EPE01	$23.00
2	Gray	4.33"	N5EPE02	$27.00
3	Gray	5.51"	N5EPE03	$35.00
4	Gray	6.89"	N5EPE04	$50.00
6	Gray	9.25"	N5EPE06	$76.00

Base-Mount Contact Block (Screw Terminals only for use with Polycarbonate Enclosures)

Type	Contacts	Catalog No.	Price
Base-Mount	1 NO	N5B10BN	$11.50
Base-Mount	1 NC	N5B01BN	$11.50

Base-Mount Power Supply (Screw Terminals only)

Type	Voltage AC/DC	Catalog No. with Incandescent Bulb	Price
Full Voltage	No Lamp	N5PDNB0	$27.00
	6	N5PDNBA	$32.50
	12	N5PDNBB	$32.50
	24	N5PDNBD	$32.50
	48	N5PDNBG	$32.50
	120	N5PDNBL	$32.50
Standard Resistor	110 - 120	N5PRNBJ	$54.50
	220 - 240	N5PRNBN	$54.50

Legend plates for Plastic Enclosures (Self adhesive, black background)

Marking	Catalog No.	Price
Stop	N5AELN201	$2.50
Start	N5AELN202	$2.50
Down	N5AELN203	$2.50
Up	N5AELN204	$2.50
Close	N5AELN205	$2.50
Open	N5AELN206	$2.50
On	N5AELN212	$2.50
Off	N5AELN213	$2.50
Forward	N5AELN214	$2.50
Reverse	N5AEL215	$2.50
Left	N5AELN222	$2.50
Right	N5AELN224	$2.50

Base Mount Contact Blocks with Screw Terminal

Base Mount Power Supply
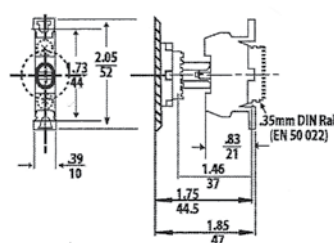
Discount Schedule SC-36

METAL ENCLOSURES FOR TYPE N5 OILTIGHT PILOT DEVICES

NEMA 12 surface mounting enclosure is available with one through sixteen elements openings. All enclosures will accommodate non-illuminated operators with up to two contact blocks (1 per side). Consult factory for stations with 7 through 20 elements and all custom built assembled push-button stations.

N5 Separate Enclosures

N5SPPSL-2

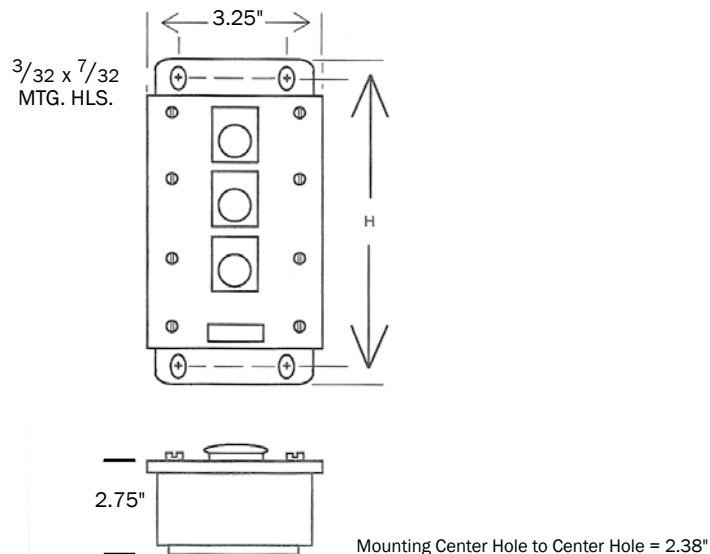### Enclosures only (No operators or contacts)

Type 12, Metal, Surface Mounted Enclosure

Number of Element(s)	Catalog No.	Price
1	N5SPPSL - 1	$124.50
2	N5SPPSL - 2	$140.00
3	N5SPPSL - 3	$155.50
4	N5SPPSL - 4	$194.00
5	N5SPPSL - 5	$194.00
6	N5SPPSL - 6	$233.00
7 - 20	Consult factory	

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Dimensions

Type12, Metal

Number of Element(s)	W	Surface Mounted Enclosure H	D
1		3.50″	
2		5.75″	
3	3.25″	8.00″	2.75″
4		10.25″	
5		12.50″	
6		14.75″	

NEMA 12 Painted Metal

$3/32 \times 7/32$ MTG. HLS.

3.25"

H

2.75"

Mounting Center Hole to Center Hole = 2.38"

Note: Consult factory for extra deep or wide enclosure and stainless steel NEMA 4X

Ordering Information: Select Enclosure Desired by Catalog Number

Discount Schedule SC-36

22mm ASSEMBLED PUSH-BUTTON STATIONS

22mm push-button stations are available assembled in NEMA 1,3,3R,4, 4X, 12, 13, & IP66 rated polycarbonate enclosures. Assembled stations include operators, contact blocks, pilot lights, bulbs and legend plates as indicated. For other assembled stations not listed below please consult factory.

Single Element 22mm Push-Button Stations

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N5PEC101

Description (CHROME BEZEL)	Catalog No.	Price
Start PB Station Green Flush Push-Button Momentary	N5PEC101	$57.50
Stop PB Station Red Extended Push-Button Momentary	N5PEC102	$57.50
Stop PB Station Red 40mm Mushroom Push-Button Momentary	N5PEC103	$70.00
Stop PB Station Red 40mm Push-Pull	N5PEC104	$78.00

Consult factory for additional custom push-button stations

N5PEX102

Description (4X BEZEL)	Catalog No.	Price
Start PB Station Green Flush Push-Button Momentary	N5PEX101	$57.50
Stop PB Station Red Extended Push-Button Momentary	N5PEX102	$57.50
Emergency PB Station Red 40mm Mushroom Push Button, twist release EN418 approved	N5PEX103	$88.00
Stop PB Station Red 40mm Push-Pull	N5PEX104	$78.00

Consult factory for additional custom push-button stations

N5PEX103
Emergency Push Button Station

Discount Schedule SC-36

22mm ASSEMBLED PUSH-BUTTON STATIONS

Two Element 22mm Push-Button Stations

Description (CHROME BEZEL)	Catalog No.	Price
Start-Stop PB Station Green Flush, Red Extended Push-Buttons Momentary	N5PEC201	$93.00
Start-Stop PB Station Green Flush, Red 28mm Mushroom PB Momentary	N5PEC202	$105.50
Open-Close PB Station Two Black Flush Push-Buttons Momentary	N5PEC203	$93.00
Up-Down PB Station Two Black Flush Push-Buttons Momentary	N5PEC204	$93.00
Forward-Reverse PB Station Two Black Flush Push-Buttons Momentary	N5PEC205	$93.00

N5PEC201

Consult factory for additional custom push-button stations.

Description (4X BEZEL)	Catalog No.	Price
Start-Stop PB Station (Green Flush, Red Extended Push-Buttons)	N5PEX201	$93.00
Start-Stop PB Station (Green Flush, Red 28mm mushroom PB)	N5PEX202	$105.50
Open-Close PB Station (Two Black Flush Push-Buttons)	N5PEX203	$93.00
Up-Down PB Station (Two Black Flush Push-Buttons)	N5PEX204	$93.00
Forward-Reverse PB Station (Two Black Flush Push-Buttons)	N5PEX205	$93.00

N5PEX204

Consult factory for additional custom push-button stations.

Discount Schedule SC-36

SPRINGER
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22mm ASSEMBLED PUSH-BUTTON STATIONS

Three Element 22mm Push-Button Stations

N5PEC304

Description (CHROME BEZEL)	Catalog No.	Price
Forward - Reverse - Stop PB Station Two Black Flush, One Red Extended PB Momentary	N5PEC301	$132.00
Open - Close - Stop PB Station Two Black Flush, One Red Extended PB Momentary	N5PEC302	$132.00
Up - Down - Stop PB Station Two Black Flush, One Red Extended PB Momentary	N5PEC303	$132.00
Start - Stop - On Light PB Station One Green Flush, One Red Extended Momentary, Pilot Light Green 120V	N5PEC304	$149.00
Start - Stop - Selector Switch One Green, One Red Momentary, 2 pos Sel. Sw. Maintained	N5PEC305	$152.00

Consult factory for additional custom push-button stations.

N5PEX301

Description (4X BEZEL)	Catalog No.	Price
Forward - Reverse - Stop PB Station Two Black Flush, One Red Extended PB Momentary	N5PEX301	$132.00
Open - Close - Stop PB Station Two Black Flush, One Red Extended PB Momentary	N5PEX302	$132.00
Up - Down - Stop PB Station Two Black Flush, One Red Extended PB Momentary	N5PEX303	$132.00
Start - Stop - On Light PB Station One Green Flush, One Red Extended Momentary, Pilot Light Green 120V	N5PEX304	$149.00
Start - Stop - Selector Switch One Green, One Red Momentary, 2 pos. Sel. Sw. maintained	N5PEX305	$152.00

Consult factory for additional custom push-button stations.

Discount Schedule SC-36

Round Operators - Push-Buttons

N5CPN-G
N5XPN-G

N5CPN-S
N5XPN-S

N5CPN-E

N5CEM3-N
N5XEM3-N
N5CER3RN
N5XER3RN

N5CEM4-N
N5XEM4-N
N5CER4RN
N5XER4RN
N5CEC4RN-

N5CEM6-N
N5XEM6-N

N5CET4-N-
N5XET4-N-

N5XER4RAN/W

N5XEC4RA-95N

N5CPCN- - -
N5XPCN- - -
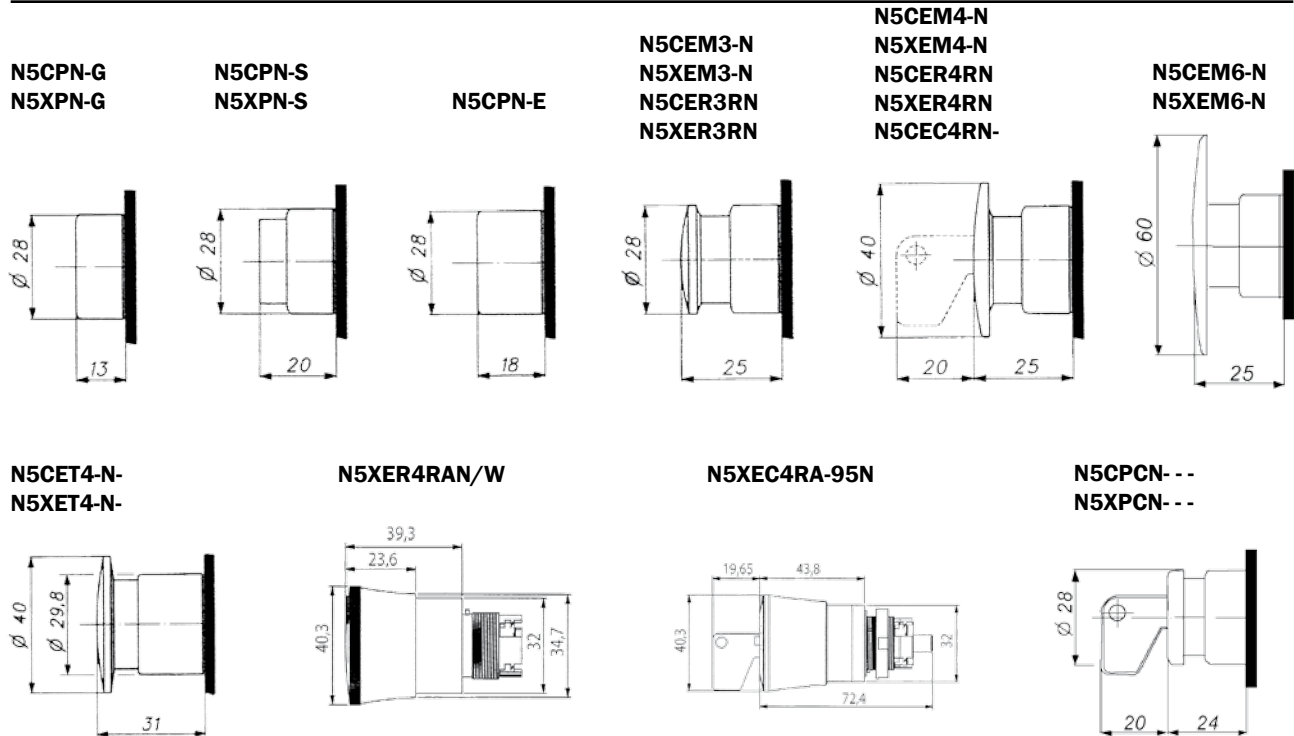
Round Operators - Selector Switches

N5CSM-
N5XSM-

N5CSV-
N5XSV-

N5CPCN- - -
N5XPCN- - -
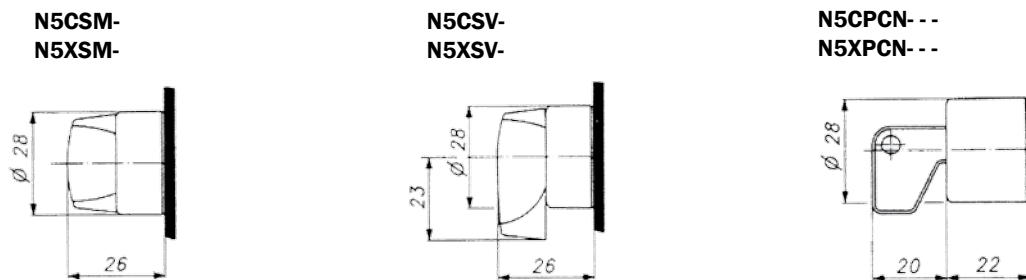
Round Operators - Illuminated Push-Buttons and Selector Switches

N5CPL-G-
N5XPL-G-

N5CPL-S-
N5XPL-S-

N5CPL-E-
N5XPL-E-

N5CEM4-L
N5XEM4-L

N5CET4-L-
N5XET4-L-

N5CSL- - -
N5XSL- - -
N5CSA- - -
N5XSA- - -

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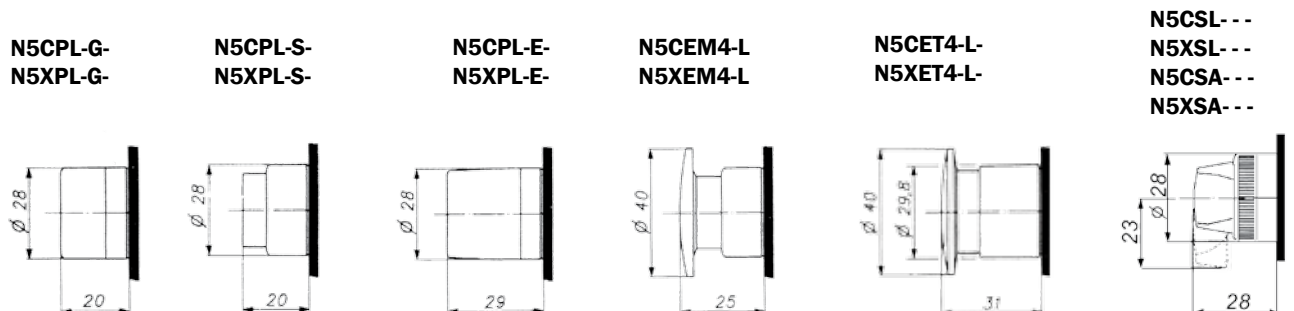
DIMENSIONS

Round Operators - Pilot Lights

N5CL- -
N5XL- -

N5CL-V

N5XU- -

Ø 28 — 14

Ø 28 — 25

Ø 28 — 14 — 49.5
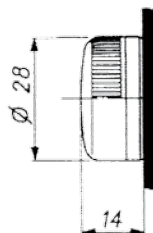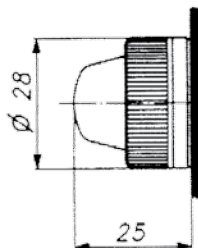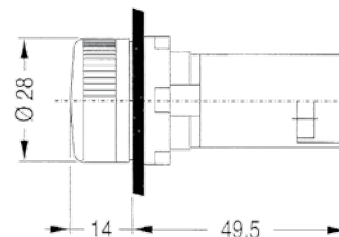
Round Operators - Other Devices

G 30

N5XC-

N5CMN- -
N5XMN- -

N5XMB- -

Ø 28 — 36

73 / 35 / 36 / 70

76

N5CRG
N5XRG

N5CZ
N5XZ

Ø 28 — 13 — MIN. 60 (MIN. 80*) / MAX. 80 (MAX. 170*) — 6
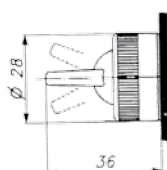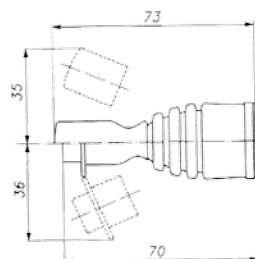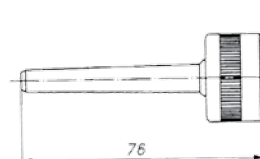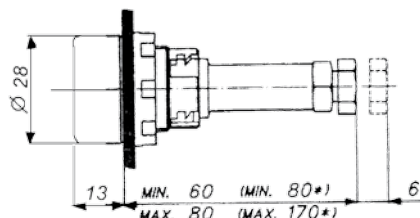
*with accessory N5ACVLR

Ø 28 — 26 — 28
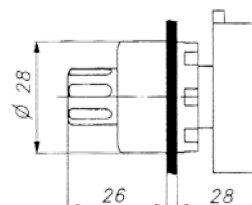
Square Operators - Double Function Push-Buttons

N5DPL- - G - -

N5DPL- - S - -

56 / 13 / 29,7

56 / 19 / 29,7
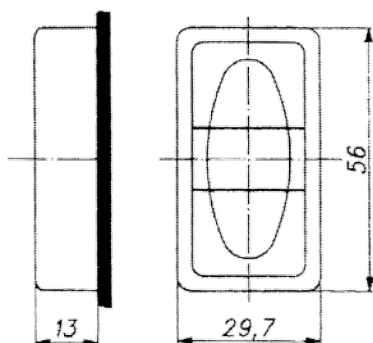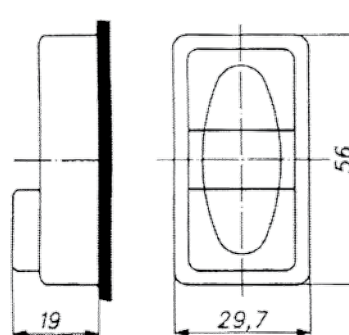
DIMENSIONS

Square Operators - Other Devices

Adaptor
N5ARSN1
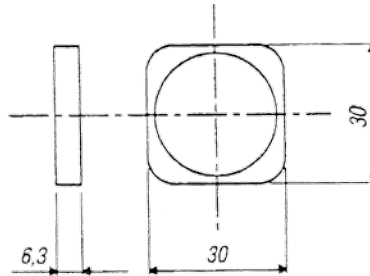
Contact Blocks

N5B01V- /
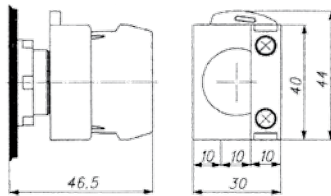
N5B01FN /
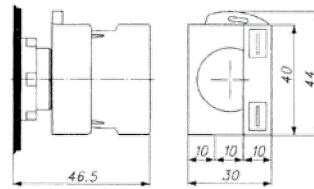
N5B011VN
N5B02VN
N5B20VN
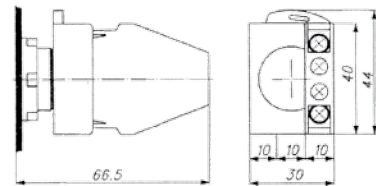
Power Supplies

N5PDNV0
N5PRLV -
N5PRDV-
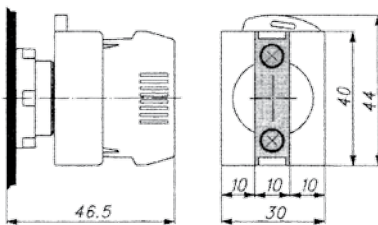
N5PDNF0
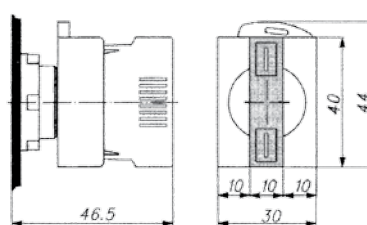
N5PRNV-
N5PDTV0
N5PRTV-

N5PREV-

N5PTNV-

N5PDMV-/

SPRINGER
controls company
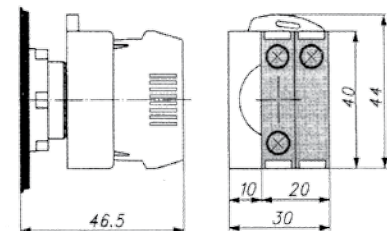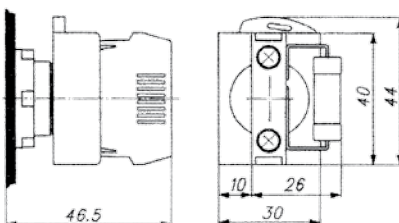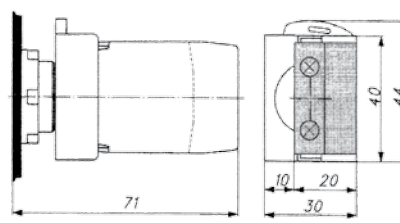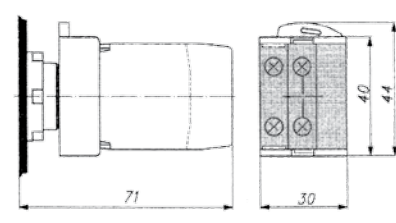
DIMENSIONS

Push-On / Push-Off Devices

N5ACDPP
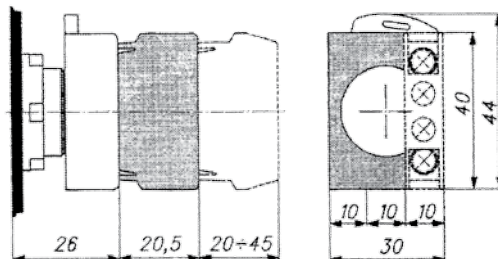
Protection Cover

N5ACRCL
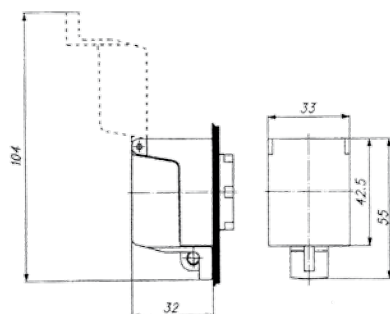
Insert Holders and Plates

N5ARTBS
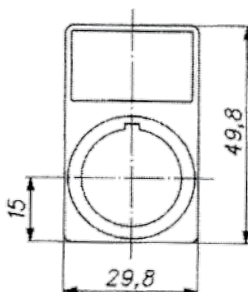
N5ARTBM
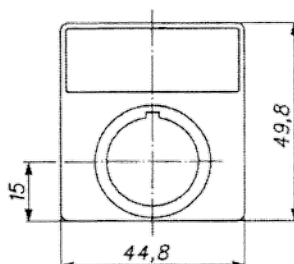
N5ASTBS

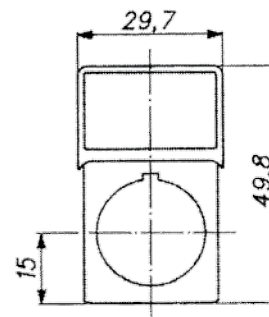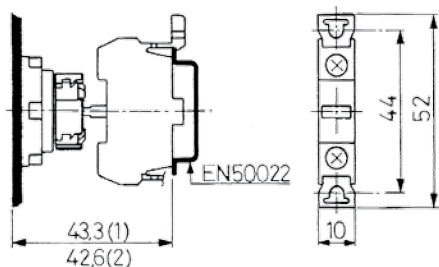### Contact Blocks

N5B01BN
N5B10BN

EN50022

(1) With insert holder
(2) Without insert holder

Power Supplies

N5PDNB0