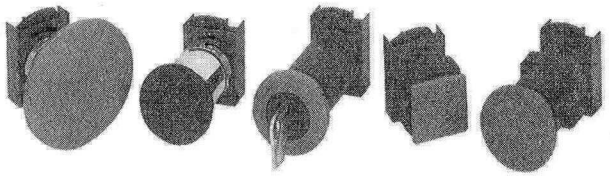
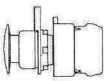
C-2000™ Push Buttons

600 Volts Max. AC/300 Volts Max. DC
10 Amps. Continuous AC/2.5 Amps. Continuous DC

Mushroom-Head Push Buttons



Selection Process

Select operator below	+	Select contact block(s) from pages 9-82 & 9-83	+	Select nameplate, if required, from pages 9-84 to 9-86	=	Complete unit
						

Operators

Momentary & Push-To-Latch

Replace asterisk (*) in momentary catalog number with color code from colors table below.
Replace dagger (†) in push-to-latch—key-to-release catalog number with key code from keys table below.

Style	Head Diameter	Momentary		Red Push-To-Latch—Turn-to-Release		Red Push-To-Latch—Key-to-Release	
		Catalog No.	**List Price, GO-10GC**	Catalog No.	**List Price, GO-10GC**	Catalog No.	**List Price, GO-10GC**
Polished Chrome	28mm	P9CEM3*N	**$16.50**	P9CER3RN	**$38.50**	—	—
	40mm	P9CEM4*N	**16.50**	P9CER4RN	**38.50**	P9CEC4RN†	**$53.50**
	60mm	P9CEM6*N	**18.50**	—	—	—	—
Satin Chrome	28mm	P9MEM3*N	**16.50**	P9MER3RN	**38.50**	—	—
	40mm	P9MEM4*N	**16.50**	P9MER4RN	**38.50**	P9MEC4RN†	**53.50**
	60mm	P9MEM6*N	**18.50**	—	—	—	—
Round Engineered Plastic	28mm	P9XEM3*N	**16.50**	—	—	—	—
	40mm	P9XEM4*N	**16.50**	**P9XER4RA**	**38.50**	**P9XEC4RA†**	**53.50**
	60mm	P9XEM6*N	**18.50**	—	—	—	—
Square Engineered Plastic	29mm	P9SEM3*N	**16.50**	—	—	—	—
	40mm	—	—	**P9SER4RA**	**38.50**	**P9SEC4RA†**	**53.50**

Catalog numbers shown in bold are direct snap action push buttons per EN 418. Fully depressing the button will ensure that the NC contacts have been opened by purely mechanical means. Less than full depression of the button will not change contact state.

Push-Pull

Replace asterisk (*) in catalog number with color code from colors table below.

Style	Head Diameter	2-Position Maintained		3-Position Maintained Push—Momentary Pull		3-Position Momentary Push—Momentary Pull	
		Catalog No.	**List Price, GO-10GC**	Catalog No.	**List Price, GO-10GC**	Catalog No.	**List Price, GO-10GC**
Polished Chrome	40mm	P9CET4*N1	**$21.50**	P9CET4*N2	**$31.00**	P9CET4*N3	**$31.00**
Satin Chrome	40mm	P9MET4*N1	**21.50**	P9MET4*N2	**31.00**	P9MET4*N3	**31.00**
Round Engineered Plastic	40mm	P9XET4*N1	**21.50**	P9XET4*N2	**31.00**	P9XET4*N3	**31.00**
Square Engineered Plastic	40mm	P9SET4*N1	**21.50**	P9SET4*N2	**31.00**	P9SET4*N3	**31.00**

*Colors

Color	Black	Red	Green	Yellow
*Color Code	N	R	V	G

†Keys (Set of 2)

Key Number	Std.	Special①										Colored①				
	3095	9901	9902	9903	9904	9905	9910	9916	9919	3353	R455 (Ronis)	73033 (Yellow)	73034 (Black)	73037 (Red)	73038 (Blue)	73040 (Orange)
†Key Code	95	01	02	03	04	05	10	16	19	53	55	33	34	37	38	40

① To order with other than standard key code (95), add **$4.00** to **List Price, GO-10GC.** Minimum quantity order on Key Codes 95, 55, and 33 is one; for all others, minimum quantity order is ten.

Dimensional drawings on page 9-64.

Selection and Drawing Data. . . . . pages 9-50, 9-51
Accessories . . . . . pages 9-87 to 9-95
Technical Data . . . . . pages 9-52 to 9-57

Section 9

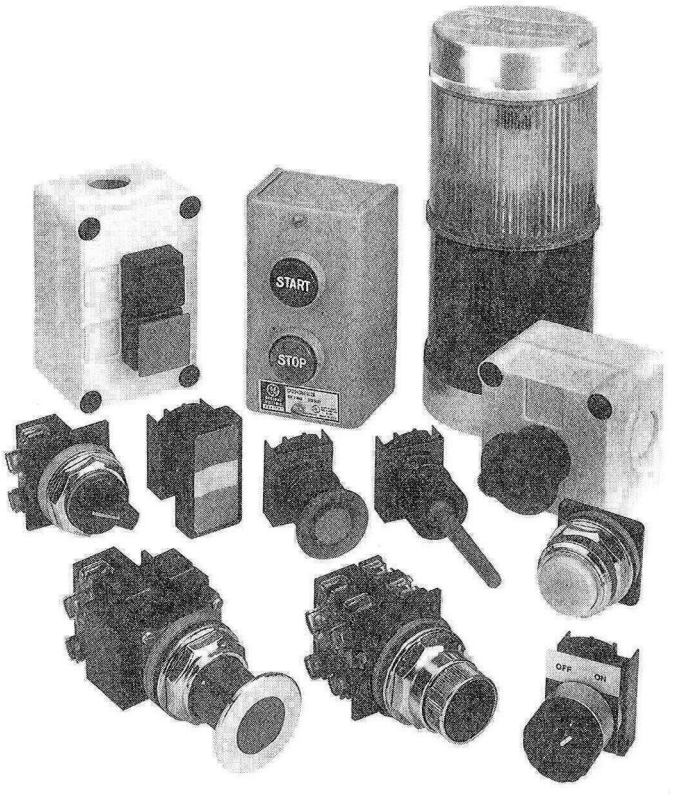
The GE push button offering includes a complete line of control units and stations in both full size push buttons (30 mm) and in miniature size devices (22 mm) which are designed to be used in numerous types of industrial applications.

The CR104P full-size, heavy-duty oiltight and watertight line is complete with a variety of accessories and enclosures.

Light Tower Status Indicating Lights provide information at a glance in industrial or commercial environments where you need to transmit and receive information across a distance. Modularity and versatility make them valuable in a broad range of applications.

GE's C-2000™ 22mm Global Push Buttons are designed to be applied in just about any application worldwide. C-2000 push buttons conform to all major world standards and are UL listed and CSA Certified. All devices except the double push button are rated for NEMA 1, 3, 3R, 3S, 4, 4X, 12, 13, and IP66 when mounted in a suitable enclosure. C-2000 push buttons are manufactured in an ISO 9000 facility, assuring you that these products comply with quality standards that are recognized worldwide. Pre-engraved nameplates are available in French, Spanish, Italian, German, and English. The C-2000 push button line is globally available under the same catalog numbers, packaging, and markings anywhere in the world.

An entire listing of CR2943 and CR2941 standard-duty push button control stations is available, suitable for NEMA Type 1, 4, 4X, and 7 and 9 applications.



References:
See Publication Index, Section 18.

C-2000™ Push Buttons

600 Volts Max. AC/300 Volts Max. DC
10 Amps. Continuous AC/2.5 Amps. Continuous DC

Technical Data

General Specifications

Conformity to standards	**UL508** (USA) **NEMA ICS-2** (USA) **VDE 0660** (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 E66677 **CSA Certified**—File Number 16661-63 Manufacturing facility is registered to **ISO 9000** CE
Finger protection at terminals	**IP2X** according to IEC 529 Terminal identification per **CENELEC EN 50013**
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 IEC 529, 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	Temperature: 74°F (23°C), 50% Wet: 74°F (23°C), 83% Hot Wet: 104°F (40°C), 92% Variable Wet: 74° to 104°F (23° to 40°C), 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 11ms, 38g max for all operators with transformers and 100g for all other operators.
Operating force	Standard push button operator: 2.5 lbs. (11N) Each contact block: 1.3 lbs. (6 N) Selector switch operator: 2.4 in./lb. (0.27 N-m)

Wire Terminals

Wire capacity and terminal torque requirements (for all power supplies and contact blocks)	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):

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 12 V, 5mA, resistive load. In a clean environment, electrical life at low level current is 10 million operations at 12 V, 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
Dielectric strength	2500 Volts
Short circuit protection	10A type gG fuse, per IEC 269.1 & 269.3

Pilot duty ratings

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

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

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

Volts (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