



New PB-line

New push-buttons

Standards

IEC/EN 60947-1	General rules
IEC/EN 60947-5-1	Electromechanical control circuit devices
IEC 60529	Enclosure IP ratings
IEC 60068-2-27	Shock test
IEC 60068-2-6	Vibration test
VDE 0660	Same as IEC/EN 60947-5-1
GB14048.5-2001	Same as IEC/EN 60947-5-1
UL508	Industrial control equipment
UL-94	Standard for safety test for flammability of plastic materials for parts in devices and appliances

Approvals



CCC (China) cRUus (USA & Canada) Gost R (Russia)



CE-marking

IP protection

Operators	IP54
Terminal protection for pilot lights	IP20

Mechanical and electrical endurance

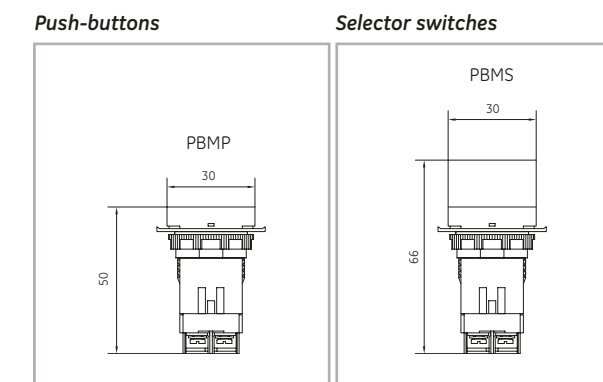
Product	No. of cycles
Push-buttons	500,000
Selector switches	100,000
Emergency stop push-buttons	10,000

Product	No. of cycles
Enclosed and panel mounting operators	100,000

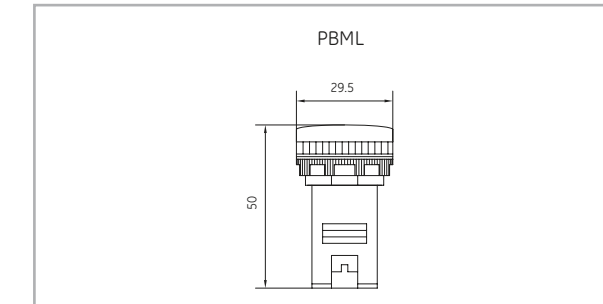
Climatic conditions

Ambient temperature	-5°C to +40°C
Storage temperature	-25°C to +55°C
Relative humidity acc. IEC 60068-2-1 and IEC/EN 60947-1	50% at 40°C 90% at 20°C

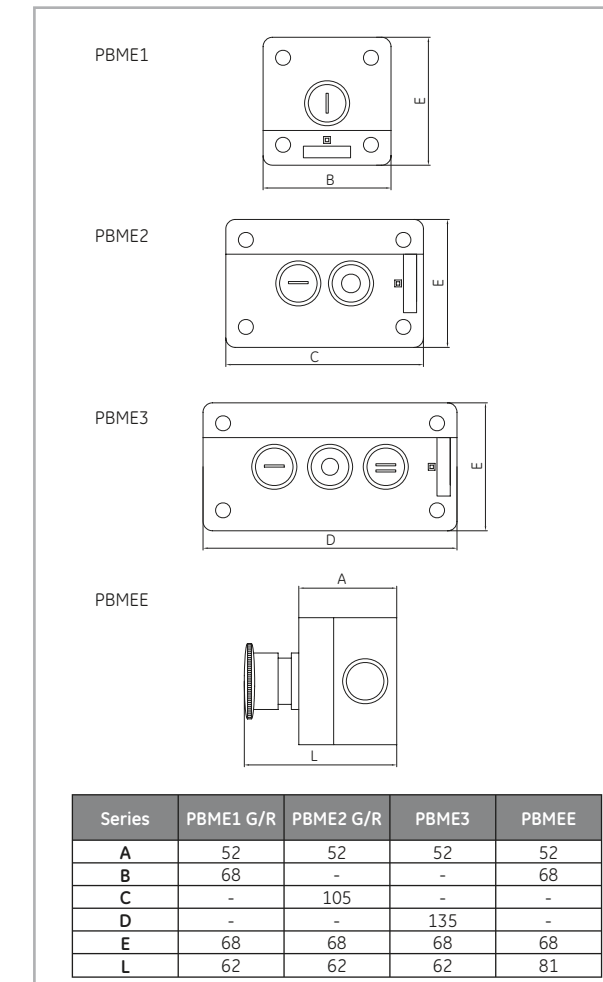
Dimensions



Pilot lights



Enclosed push-button stations



Wiring capabilities

			Head type	Series
Screw plate	Solid	mm ²	Slot and Pozidrive 2	PBMP, PBMS: 1 x 0.5 ... 1.5
				PBME: 1 x 0.5 ... 2.5
	Stranded	mm ²		PBML-220V & PBML-24V: 1 x 0.5 ... 2.5
				PBMP, PBMS: 2 x 0.5 ... 1.5
	Standard gauge	AWG wires		PBME: 2 x 0.5 ... 1.5 or 2 x 1.5 ... 2.5
PBML-220V & PBML-24V: 2 x 0.5 ... 1.5 or 2 x 1.5 ... 2.5				
Tightening torque	Nm/Lb·in	PBMP, PBMS: 2 x 18 ... 16		
		PBME: 2 x 18 ... 16 or 2 x 16 ... 14		
				PBML 220V & PBML-24V: 2 x 18 ... 16 or 2 x 16 ... 14
				PBMP, PBMS: A1/B1
				PBME: A2/B2
				PBML-220V & PBML-24V: A2/B2
				PBMP, PBMS: 0.5/4.5
				PBME: 0.8/7.5
				PBML-220V & PBML-24V: 0.8/7.5

Technical features and performance - operators

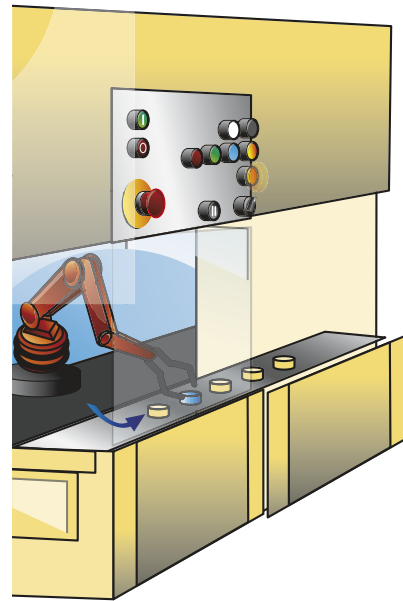
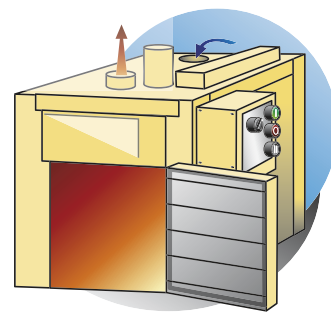
	Op. conds.	PBMP push-button operators	PBMS selector switch operators	PBME push-button stations
Rated working voltage (Ue), rated working current (Ie)	V, A	24V, 1.0A 110V, 0.5A	24V, 1.0A 110V, 0.5A	110V, 6A 220/230V, 4.5A
AC-15 utilisation category		220/230V, 0.3A	220/230V, 0.3A	380V, 2.5A
Rated working voltage (Ue), rated working current (Ie)	V, A	24V, 1.0A 110V, 0.1A	24V, 1.0A 110V, 0.1A	110V, 0.6A 220/230V, 0.3A
DC-13 utilisation category				
Rated insulation voltage (Ui) subject to a pollution degree of 3	V	250	250	380
Rated thermal current (Ith at θ<55°C)	A	5	5	10
Electrical rating AC (IEC & UL)	-	D300	D300	A300
Electrical rating DC (IEC & UL)	-	R150	R150	Q300
Rated frequency	Hz	50/60	50/60	50/60
Degree of protection from frontside	-	IP54	IP54	IP54
Enclosure degree of protection as per UL	-	-	-	Type 1
Electrical resistance of contact	Ω	< 50mΩ self cleaning	< 50mΩ self cleaning	< 50mΩ self cleaning

Technical features and performance - indicating lamps

	Op. conds.	PBML-24V	PBML-220V
Voltage ranges	V	24V	220/230V
Rated working voltage (Ue), rated working current (Ie)	V, A	AC/DC 24V, ≤20 mA	AC 220/230V, ≤20 mA
Electrical life	hrs	>30,000	30,000
Rated insulation voltage (Ui) subject to a pollution	V	380	380
Degree of rated frequency	Hz	50/60	50/60
Degree of protection from front side	-	IP54	IP54
Finger protection at terminals	-	IP20	IP20
Surge withstand	-	-	2000V

The new **Series PB push-button line** from GE is the most cost effective solution in control and signalling devices available. Concentrating on the highest usage product types, **cost effectiveness** is achieved through a simplified one piece fit and connect design delivering additional cost savings in ordering, packaging, installation and wiring.

Modern in design and appearance incorporating new LED indicating lamp technology, the range is styled to enhance the control station of any machine or operator interface.



Application examples

- DIY machinery & equipment
- Automatic doors
- Pumps
- Stand alone machines
- Construction/HVAC

Advantages

- Single catalogue code = complete device
- No need to assemble = cost saving
- LED technology for pilot lights = long life time
- High protection IP54

Quality/Standards

- All products are in accordance with IEC.
- They are produced according the highest quality standards.
- They do have UL, CSA and CCC agreements.

Push-buttons 22mm



Push-button configuration
 PB = Push-button
 M = Monoblock
 P = Push-button
 S = Selector switch
 E = Enclosed push-button

Contacts configuration
 1 = 1NO
 2 = 1NC
 3 = 2NO
 4 = 2NC
 5 = 1NO+1NC

Colour configuration
 W = White
 B = Black
 G = Green
 R = Red
 Y = Yellow
 L = Blue

Description	Contact block	Diagram	Cat. No.	Ref. No.	Pack./MOQ
Push-button white	1NO		PBMPW1	246951	20
Push-button white	1NC		PBMPW2	246952	20
Push-button white	2NO		PBMPW3	246953	20
Push-button white	2NC		PBMPW4	246954	20
Push-button white	1NO+1NC		PBMPW5	246955	20
Push-button black	1NO		PBMPB1	246956	20
Push-button black	1NC		PBMPB2	246957	20
Push-button black	2NO		PBMPB3	246958	20
Push-button black	2NC		PBMPB4	246959	20
Push-button black	1NO+1NC		PBMPB5	246960	20
Push-button green	1NO		PBMPG1	246961	20
Push-button green	2NO		PBMPG3	246962	20
Push-button green	1NO+1NC		PBMPG5	246963	20
Push-button red	1NC		PBMPR2	246964	20
Push-button red	2NC		PBMPR4	246965	20
Push-button red	1NO+1NC		PBMPR5	246966	20
Push-button yellow	1NO		PBMPY1	246967	20
Push-button yellow	1NC		PBMPY2	246968	20
Push-button yellow	2NO		PBMPY3	246969	20
Push-button yellow	2NC		PBMPY4	246970	20
Push-button yellow	1NO+1NC		PBMPY5	246971	20
Push-button blue	1NO		PBMPL1	246972	20
Push-button blue	1NC		PBMPL2	246973	20
Push-button blue	2NO		PBMPL3	246974	20
Push-button blue	2NC		PBMPL4	246975	20
Push-button blue	1NO+1NC		PBMPL5	246976	20

Selector switches 22mm



Description	Contact block	Diagram	Cat. No.	Ref. No.	Pack./MOQ
Selector switch 2pos.	1NO		PBMS21	246977	10
Selector switch 2pos.	1NC		PBMS22	246978	10
Selector switch 2pos.	2NO		PBMS23	246979	10
Selector switch 2pos.	2NC		PBMS24	246980	10
Selector switch 2pos.	1NO+1NC		PBMS25	246981	10
Selector switch 3pos.	2NO		PBMS33	246998	10
Selector switch 3pos.	2NC		PBMS34	246999	10
Selector switch 3pos.	1NO+1NC		PBMS35	246700	10

LED pilot lights 24V



Pilot light white	PBMLW	246982	20
Pilot light green	PBMLG	246983	20
Pilot light red	PBMLR	246984	20
Pilot light yellow	PBMLY	246985	20
Pilot light blue	PBMLL	246986	20

LED pilot lights 220V/230V



Pilot light white	PBMLW4	246987	20
Pilot light green	PBMLG4	246988	20
Pilot light red	PBMLR4	246989	20
Pilot light yellow	PBMLY4	246990	20
Pilot light blue	PBMLL4	246991	20

Enclosed push-button stations



Enclosure 1 button green	PBME1G	246994	5
Enclosure 1 button red	PBME1R	246995	5
Enclosure 2 buttons black+white	PBME2	246993	5
Enclosure 2 buttons red+green	PBME2RG	246996	5
Enclosure 3 buttons	PBME3	246992	5
Enclosure with emergency stop	PBMEE	246997	5

Get more for your investment !



GE imagination at work

GE POWER CONTROLS Ltd
 Lincoln Road - Enfield
 Middlesex EN1 1SB
 United Kingdom
 Tel. 0800 587 1251
 Fax 0800 587 1239

GE POWER CONTROLS
 International Sales
 Nieuwevaart 51
 B-9000 Gent - Belgium
 Tel. +32/9 265 21 11
 Fax +32/9 265 28 90