













Product Profile

The Series 04 is a high quality switch range that includes pushbuttons, indicators, selectors, mushroom headed switches, key switches, and Emergency-stops.

Options include self cleaning, slow-make and snap-action switching elements.

Technical data see pages 40-42 **Technical drawings see pages 43-47**

- IP65 Protection
- Switch Rating: Maximum Voltage, 500VAC Maximum Thermal Current, Ith = 10A 230VAC/6A, 24VDC/10A
- Raised Mounting into 22.5mm cut out
- Flush Mounting into 30.5mm cut out
- Illumination using Ba9s Lamps or LED's
- All standard lenses are transparent with translucent diffuser
- Screw terminal or plug-in connections

O: Indicator







Indicator, flush mount, aluminium bezel, 30.5mm mounting

Colour	Part No.	Colour	Part No.
Red	704.000.2	Red	704.006.218*
Yellow	704.000.4	Yellow	704.006.418*
Green	704.000.5	Green	704.006.518*
Blue	704.000.6	Blue	704.006.618*
○ Clear	704.000.7	O Clear	704.006.718*
			*Add suffix 'B' for non captive screw with
			flat washer and spring washer option

For complete switch also order \Box



For complete switch also order

O: Indicator



Indicator, flush mount, silver bezel, 30 x 30mm mounting

Non Illuminated pushbutton



Non illuminated raised pushbutton, grey plastic bezel, 22.5mm mounting



Non illuminated raised pushbutton, aluminium bezel, 22.5mm mounting

Colour	Part No.	Colour	Part No., Momentary	Part No., Maintained	Colour	Part No., Momentary	Part No., Maintained
Red	704.202.208	Red	704.010.2	704.040.2	Red	704.012.2	704.042.2
Yellow	704.202.408	O Yellow	704.010.4	704.040.4	Yellow	704.012.4	704.042.4
Green	704.202.508	Green	704.010.5	704.040.5	Green	704.012.5	704.042.5
Blue	704.202.608	Blue	704.010.6	704.040.6	Blue	704.012.6	704.042.6
O Clear	704.202.708	O Clear	704.010.7	704.040.7	O Clear	704.012.7	704.042.7
		Black	704.010.0	704.040.0	Black	704.012.0	704.042.0

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Non illuminated flush mount pushbutton, aluminium bezel, 30.5mm mounting



Non illuminated flush mount pushbutton, silver bezel, 30 x 30mm mounting



Illuminated raised pushbutton, grey plastic bezel, 22.5mm mounting

Colour	Part No., Momentary	Part No., Maintained	Colour	Part No., Momentary	Part No., Maintained	Colour	Part No., Momentary	Part No., Maintained
Red	704.012.218	704.042.218	Red	704.210.008	704.240.008	Red	704.030.2	704.060.2
Yellow	704.012.418	704.042.418	O Yellow	704.210.208	704.240.208	O Yellow	704.030.4	704.060.4
Green	704.012.518	704.042.518	Green	704.210.408	704.240.408	Green	704.030.5	704.060.5
Blue	704.012.618	704.042.618	Blue	704.210.508	704.240.508	Blue	704.030.6	704.060.6
O Clear	704.012.718	704.042.718	O Clear	704.210.608	704.240.608	O Clear	704.030.7	704.060.7
Black	704.012.018	704.042.018	Black	704.210.708	704.240.708			

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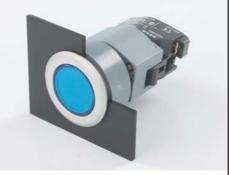




Illuminated pushbutton



Illuminated raised pushbutton, aluminium bezel, 22.5mm mounting



Illuminated flush mount pushbutton, aluminium bezel, 30.5mm mounting



Illuminated flush mount pushbutton, silver bezel, 30 x 30mm mounting

Colour	Part No., Momentary	Part No., Maintained	Colour	Part No., Momentary	Part No., Maintained	Colour	Part No., Momentary	Part No., Maintained
Red	704.032.2	704.062.2	Red	704.032.218*	704.062.218*	Red	704.230.208*	704.260.208*
Yellow	704.032.4	704.062.4	Yellow	704.032.418*	704.062.418*	O Yellow	704.230.408*	704.260.408*
Green	704.032.5	704.062.5	Green	704.032.518*	704.062.518*	Green	704.230.508*	704.260.508*
Blue	704.032.6	704.062.6	Blue	704.032.618*	704.062.618*	Blue	704.230.608*	704.260.608*
O Clear	704.032.7	704.062.7	○ Clear	704.032.718*	704.062.718*	O Clear	704.230.708*	704.260.708*
				*Add suffix 'B' for non o	captive screw with		*Add suffix 'B' for impro	oved shock
				flat washer and spring	washer option		and vibration performa	nce option

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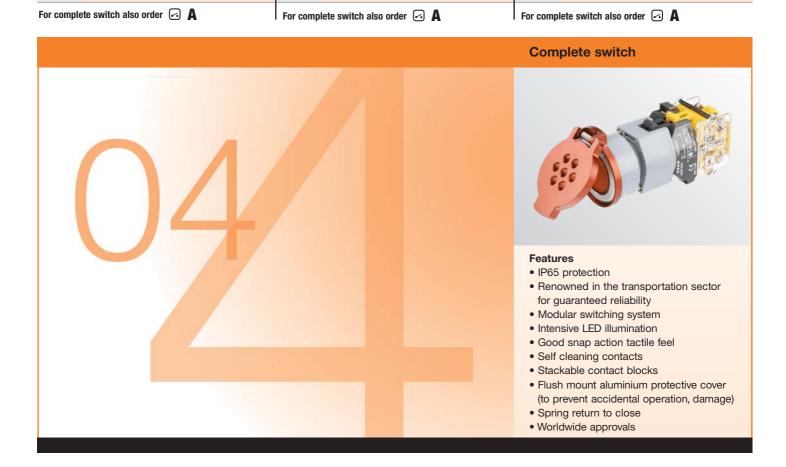


















or Ke	ey insert sw	vitch	or Ke	eylock sv	witch					
				4		E				
Crow inc	Crew insert switch, stainless steel front ring, flush mount, 30.5mm mounting				A A				_ A	
steel fror	nt ring, flush mo	iless / * * * * * * *		switch 2 p 22.5mm mo		2 Maint 90°		switch on, flush mo mounting	ount,	4 C B Maint 90°
steel fror	nt ring, flush mo	ount,			ounting	\bigcirc	2 position	on, flush mo mounting		4 Maint 90° Key rem.
steel fror 30.5mm	nt ring, flush mo mounting	mess ount, Maint 90° Maint/Mom 42°	raised, 2	22.5mm mo	ounting V Mom 42°	Maint 90°	2 position 30.5mm	on, flush mo mounting	Mom 42° Momentary/Maintained	
steel from 30.5mm Drawing	nt ring, flush mo mounting Part No.	Momentary/Maintained	raised, 2	Part No.	Dunting Mom 42° Momentary/Maintained	Maint 90° Key rem.	2 position 30.5mm Drawing	on, flush mo n mounting Part No.	Momentary/Maintained Momentary Momentary	Key rem.
steel from 30.5mm Drawing	nt ring, flush mo mounting Part No. 704.103.0.*28	Momentary/Maintained Momentary	raised, 2 Drawing 1	Part No. 704.123.0	Momentary/Maintained Momentary	Maint 90° Key rem. A	2 position 30.5mm Drawing 3	on, flush mo mounting Part No. 704.123.01	Momentary/Maintained Momentary Momentary Momentary Maintained	Key rem.
steel from 30.5mm Drawing 8 9	nt ring, flush mo mounting Part No. 704.103.0.*28 704.101.0.*28	Momentary Maintained Maintained	raised, 2 Drawing 1 2	Part No. 704.123.0 704.121.0	Momentary/Maintained Momentary Maintained	Maint 90° Key rem. A	2 position 30.5mm Drawing 3	on, flush mo mounting Part No. 704.123.01	Momentary/Maintained Momentary Momentary Momentary Maintained	Key rem. A C
steel from 30.5mm Drawing 8 9 10	nt ring, flush mo mounting Part No. 704.103.0.*28 704.101.0.*28 704.093.0.*18	Momentary/Maintained Maintained Maintained Maintained Maintained	raised, 2 Drawing 1 2	Part No. 704.123.0 704.121.0	Momentary/Maintained Momentary Maintained	Maint 90° Key rem. A	2 position 30.5mm Drawing 3	on, flush mo mounting Part No. 704.123.01	Momentary/Maintained Momentary Momentary Momentary Maintained	Key rem. A C
steel from 30.5mm Drawing 8 9 10 10	nt ring, flush mo mounting Part No. 704.103.0.*28 704.101.0.*28 704.093.0.*18 704.095.0.*18	Momentary/Maintained Maintained/Maintained Momentary/Momentary Maintained/Maintained Momentary/Momentary	raised, 2 Drawing 1 2	Part No. 704.123.0 704.121.0	Momentary/Maintained Momentary Maintained	Maint 90° Key rem. A	2 position 30.5mm Drawing 3	on, flush mo mounting Part No. 704.123.01	Momentary/Maintained Momentary Momentary Momentary Maintained	Key rem. A C
steel from 30.5mm Drawing 8 9 10 10	nt ring, flush mo mounting Part No. 704.103.0.*28 704.101.0.*28 704.093.0.*18 704.095.0.*18	Momentary/Maintained Maintained/Maintained Momentary/Momentary Maintained/Maintained Momentary/Momentary	raised, 2 Drawing 1 2	Part No. 704.123.0 704.121.0	Momentary/Maintained Momentary Maintained	Maint 90° Key rem. A	2 position 30.5mm Drawing 3	on, flush mo mounting Part No. 704.123.01	Momentary/Maintained Momentary Momentary Momentary Maintained	Key rem. A C
steel from 30.5mm Drawing 8 9 10 10	nt ring, flush mo mounting Part No. 704.103.0.*28 704.101.0.*28 704.093.0.*18 704.095.0.*18 *Customised key	Momentary Maintained Momentary/Momentary Maintained Momentary/Momentary Maintained/Momentary Maintained/Momentary Maintained/Momentary Maintained/Momentary Maintained/Momentary	raised, 2 Drawing 1 2	Part No. 704.123.0 704.121.0	Momentary/Maintained Momentary Maintained	Maint 90° Key rem. A	2 position 30.5mm Drawing 3	on, flush mo mounting Part No. 704.123.01	Momentary/Maintained Momentary Momentary Momentary Maintained	Key rem. A C
steel from 30.5mm Drawing 8 9 10 10	nt ring, flush mo mounting Part No. 704.103.0.*28 704.093.0.*18 704.095.0.*18 704.097.0.*18 *Customised key letter by EAO. W	Momentary Maintained Momentary/Momentary Maintained Momentary/Momentary Maintained/Momentary Maintained/Momentary Maintained/Momentary	raised, 2 Drawing 1 2	Part No. 704.123.0 704.121.0	Momentary/Maintained Momentary Maintained	Maint 90° Key rem. A	2 position 30.5mm Drawing 3	on, flush mo mounting Part No. 704.123.01	Momentary/Maintained Momentary Momentary Momentary Maintained	Key rem. A C

Keylock switch

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Keylock switch 2 position, flush mount, 30 x 30mm mounting







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Keylock switch 3 position, flush mount, 30.5mm mounting



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Maint 90° Maint/Mom 42°
Part No. Momentary/Maintained Key rem.
704.113.018 Maintained C + A + B
704.115.018 Momentary A
704.114.018 Maintained A
704.116.018 Maintained C + B

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Keylock switch



Keylock switch 3 position, flush mount, 30 x 30mm mounting







Selector switch short lever 2 position, raised, 22.5mm mounting





Selector switch short lever 2 position, flush mount, 30.5mm mounting



		-	Maint/Mom 42		•	Mom 42°	Maint 90°		-	Mom 42°	Maint 90°
Drawing	Part No.	Momentary/Maintained	Key rem.	Drawing	Part No.	Momentary/Maintained	Bezel	Drawing	Part No.	Momentary/Maintained	Bezel
11	704.335.008	3 Momentary	Α	12	704.412.0	Momentary	Grey plastic	14	704.413.01	8 Momentary	Aluminium
11	704.334.008	3 Maintained	А	12	704.413.0	Momentary	Aluminium	15	704.411.01	8 Maintained	Aluminium
11	704.336.008	3 Maintained	C + B	13	704.410.0	Maintained	Grey plastic				
11	704.333.008	3 Maintained	C + A + B	13	704.411.0	Maintained	Aluminium				

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Selector switch



Selector switch short lever 2 position, flush mount, 30 x 30mm mounting







Selector switch short lever 3 position, raised, 22.5mm mounting





Selector switch short lever 3 position, flush mount, 30.5mm mounting

19	A B	
N	Jaint/Mom 4	20

		- IVIOITI 42	Wall It 50				Wall to WOTT 42				IVIGITIO IVIOTTI 42
Drawing	Part No.	Momentary/Maintained	Bezel	Drawing	Part No.	Momentary/Maintained	Bezel	Drawing	Part No.	Momentary/Maintained	Bezel
16	704.512.008	Momentary	Black plastic	18	704.404.0	Momentary	Grey plastic	19	704.405.018	Momentary	Aluminium
17	704.510.008	Maintained	Black plastic	18	704.405.0	Momentary	Aluminium	19	704.403.018	Maintained	Aluminium
				18	704.402.0	Maintained	Grey plastic				
				18	704.403.0	Maintained	Aluminium				

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Selector switch



Selector switch short lever 3 position, flush mount, 30 x 30mm mounting





Selector switch long lever 2 position, raised, 22.5mm mounting







Selector switch long lever 2 position, flush mount, 30.5mm mounting





00 X 001	Tilli Tilouliu	119	Maint/Mom 42°	22.511111	mounting	Mom 42°	Maint 90°	oo.ormin mounting		Mom 42°	Maint 90°
Drawing	Part No.	Momentary/Maintained	Bezel	Drawing	Part No.	Momentary/Maintained	Bezel	Drawing	Part No.	Momentary/Maintained	Bezel
19	704.504.008	3 Momentary	Black plastic	20	704.102.0	Momentary	Grey plastic	22	704.103.018	3 Momentary	Aluminium
19	704.502.008	Maintained	Black plastic	20	704.103.0	Momentary	Aluminium	23	704.101.018	3 Maintained	Aluminium
				21	704.100.0	Maintained	Grey plastic				
				21	704.101.0	Maintained	Aluminium				



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Selector switch



Selector switch long lever 2 position, flush mount, 30 x 30mm mounting





Selector switch long lever 3 position, raised, 22.5mm mounting





Selector switch



Selector switch long lever 3 position, flush mount, 30.5mm mounting



		Mom 42°	Maint 90°				Maint/Mom 42°				Maint/Mom 42°
Drawing	Part No.	Momentary/Maintained	Bezel	Drawing	Part No.	Momentary/Maintained	Bezel	Drawing	Part No.	Momentary/Maintained	Bezel
24	704.302.008	3 Momentary	Black plastic	26	704.094.0	Momentary	Grey plastic	27	704.095.01	8 Momentary	Aluminium
25	704.300.008	3 Maintained	Black plastic	26	704.095.0	Momentary	Aluminium	27	704.093.01	8 Maintained	Aluminium
				26	704.092.0	Maintained	Grey plastic				
				26	704.093.0	Maintained	Aluminium				

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Selector switch long lever 3 position, flush mount, 30 x 30mm mounting





Selector switch, short lever multi position, flush mount, 30.5mm mounting



Selector switch, long lever multi position, flush mount, 30.5mm mounting

			Maint/Mom 42				
Drawing	Part No.	Momentary/Maintained	Bezel	Part No.	Bezel	Part No.	Bezel
28	704.294.00	8 Momentary	Black plastic	704.411.118KN	Aluminium	704.101.118KN	Aluminium
28	704.292.00	8 Maintained	Black plastic				
				For complete selector	switch order	For complete selector	switch order
				Kraus & Naimer conta	ct block	Kraus & Naimer conta	ct block

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Selector switch



Selector switch, short lever multi position, flush mount, 30 x 30mm mounting



Selector switch, long lever multi position, flush mount, 30 x 30mm mounting

Part No.	Bezel	Part No.	Bezel
704.510.108KN	Black plastic	704.300.108KN	Black plastic
For complete selector sy	witch order	For complete selector sv	vitch order
Kraus & Naimer contact	block	Kraus & Naimer contact	block

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For other options or further information please contact your local sales office.

Product Profile

A range of lever switches to compliment the EAO Series 04 and are available with a choice of lever styles and switching action.

Options include momentary and maintained positions with 4 connection method types.

- IP54 Protection
- Switch Rating, 10A, 250VAC
- Flush Mounting into 33.5mm dia. cut out
- Up to 5 switching Positions
- Different handle shapes available
- LED Illumination Option
- Mechanical Life of minimum 5 Million Operations
- Connection types: Screw Terminal, Plug-in, JST Connector, Fast-on 6.3mm, cage clamp®

Lever switch



Lever switch, 2-5 positions, cage clamp®, aluminium bezel, silver contacts, 33.5mm mounting

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Lever switch, 2-5 positions, JST pin header, aluminium bezel, silver contacts, 33.5mm mounting

		9			' ' '		3		
Colour	Range	Momentary/ Maintained	Contact type	Voltage	Colour	Range	Momentary/ Maintained	Contact type	Voltage
Black	S 41*	Momentary/ Maintained	max. 5 contacts (NC/NO)	max.250VAC/DC, 1.5A	Black	S 42*	Momentary/ Maintained	max. 5 contacts (NC/NO)	max.250VAC/DC, 1.5A
*Part numb	er will be	supplied by EA	O once schematic	diagram has	*Part number will be supplied by EAO once schematic diagram has				
been defir	ed includi	ing specification	of lever style and	switching	been defined including specification of lever style and switching				
action. For	action. For further information please contact your local sales office.				action. For further information please contact your local sales office.				

Lever switch



Lever switch, 2-5 positions, plug-in terminal, aluminium bezel, silver contacts, 33.5mm mounting



Lever switch, 2-5 positions, cage clamp®, aluminium bezel, silver contacts with positive opening, 33.5mm mounting



Lever switch, 2-5 positions, plug-in or screw terminals, aluminium bezel, silver contacts with positive opening, 33.5mm mounting

Colour	Range	Momentary/ Maintained	Contact type	Voltage	Colour	Range	Momentary/ Maintained	Contact type	Voltage	Colour	Range	Momentary/ Maintained	Contact type	Voltage
Black	S 43*	Momentary/ Maintained	max. 5 contacts (NC/NO)	max.250VAC/DC, 1.5A	Black	S 44*	Momentary/ Maintained	max. 4 contacts (NC/NO)	max.250VAC/DC, 10A	Black	S 45*	Momentary/ Maintained	max. 4 contacts (NC/NO)	max.250VAC/DC, 10A
*Part numb	er will be	supplied by EAG	O once schematic	diagram has	*Part number will be supplied by EAO once schematic diagram has				*Part number will be supplied by EAO once schematic diagram has					
been defin	been defined including specification of lever style and switching				been defined including specification of lever style and switching				been defined including specification of lever style and switching					
action. For	further in	formation pleas	e contact your lo	cal sales office.	action. For further information please contact your local sales office.			action. For further information please contact your local sales office.						



















Buzzer, plastic bezel, raised, 22.5mm mounting, 24VDC, 95dB ± 8 at a distance of 0.1m



Buzzer, plastic bezel, flush mount, 30.5mm mounting, 24VDC, IP40, $95dB \pm 8$ at a distance of 0.1m





Contact block, screw terminal, snap-action with self-cleaning silver contacts

Part No.	Front finish	Part No.	Front finish	Part No.	Contact type
14-810.002	Black plastic	14-810.910	Black plastic	704.900.1*	1NO
14-810.902	Chromium-plated	14-810.918	Chromium-plated	704.900.2*	1NC
				704.900.3*	2N0
				704.900.4*	2NC
				704.900.5*	1NO/1NC
				Other contact m	aterials available.
				Please contact i	JS.
				*Add suffix 'B' fo	r non captive screw with
				flat washer and	spring washer option









Contact block



Contact block, plug-in terminal, 6.3mm, snap-action with self-cleaning silver contacts



Contact block, screw terminal, slow-make with forced opening silver contacts



Contact block, plug-in terminal, 6.3mm, slow-make with forced opening silver contacts

Part No.	Contact type	Part No.	Contact type		Part No.	Contact type		
704.905.1*	1NO	704.910.2*	1NC		704.915.2*	1NC		
704.905.2*	1NC	704.910.4*	2NC		704.915.4*	2NC		
704.905.3*	2N0	704.910.5*	1NO/1NC		704.915.5*	1NO/1NC		
704.905.4*	2NC							
704.905.5*	1NO/1NC							
		Other contact r	materials available.					
Other contact i	Other contact materials available.		Please contact us.			Other contact materials available.		
Please contact	Please contact us.		*Add suffix '/B' for non captive screw with			Please contact us.		
*Add suffix '/D'	*Add suffix '/D' for double plug-in terminal		flat washer and spring washer option			or double plug-in terminal		

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Kraus & Naimer contact block, multi position, screw terminal from 2 - 12 positions

LED



LED, Ba9s, single chip, 6 Volt and 12 Volt



LED, Ba9s, single chip, 24 Volt and 28 Volt

	Colour	Part No.	Voltage	Colour	Part No.	Voltage
	Red	10-2506.1082	6VDC, 17mA	Red	10-2512.1142	24VAC/DC, 15mA
	Yellow	10-2506.1084	6VDC, 17mA	Yellow	10-2512.1144	24VAC/DC, 15mA
	Green	10-2506.1085	6VDC, 17mA	Green	10-2512.1145	24VAC/DC, 7mA
	Blue	10-2506.1086	6VDC, 7mA	Blue	10-2512.1146	24VAC/DC, 15mA
	O White	10-2506.1089	6VDC, 17mA	O White	10-2512.1149	24VAC/DC, 15mA
	Red	10-2509.1142	12VAC/DC, 16mA	Red	10-2513.1142	28VAC/DC, 13mA
	O Yellow	10-2509.1144	12VAC/DC, 16mA	Yellow	10-2513.1144	28VAC/DC, 13mA
Customised switching element part number to be supplied	Green	10-2509.1145	12VAC/DC, 7mA	Green	10-2513.1145	28VAC/DC, 7mA
by EAO, once schematic diagram has been defined. For	Blue	10-2509.1146	12VAC/DC, 16mA	Blue	10-2513.1146	28VAC/DC, 13mA
further information please contact your local sales office.	O White	10-2509.1149	12VAC/DC, 16mA	O White	10-2513.1149	28VAC/DC, 13mA











LED, Ba9s, single chip, 48 Volt



LED, Ba9s, single chip, 110 Volt with surge and transient protection



LED, Ba9s, single chip, 130 Volt and 230 Volt

Colour	Part No.	Voltage	Colour	Part No.	Voltage	Colour	Part No.	Voltage
Red	10-2519.1052	48VAC/DC, 8mA	Red	10-2422.3052	110VDC, 5.5mA	Red	10-2H24.2052	130VAC / 5mA
Yellow	10-2519.1054	48VAC/DC, 8mA	Yellow	10-2422.3054	110VDC, 5.5mA	Yellow	10-2H24.2054	130VAC / 5mA
Green	10-2519.1055	48VAC/DC, 4mA	Green	10-2422.3055	110VDC, 5.5mA	Green	10-2H24.2055	130VAC / 3mA
Blue	10-2519.1056	48VAC/DC, 8mA	Blue	10-2422.3056	110VDC, 5.5mA	Blue	10-2H24.2056	130VAC / 5mA
O White	10-2519.1059	48VAC/DC, 8mA	O White	10-2422.3059	110VDC, 5.5mA	O White	10-2H24.2059	130VAC / 5mA
						Red	10-2H25.2042	230VAC / 3mA
						Yellow	10-2H25.2044	230VAC / 3mA
						Green	10-2H25.2045	230VAC / 2mA
						Blue	10-2H25.2046	230VAC / 3mA
						O White	10-2H25.2049	230VAC / 3mA















A Accessories



Lamp / LED block, screw terminal



Lamp / LED block, plug-in terminal, 6.3mm



Lens cap, round, transparent, plastic for raised and flush indicators with bezel and pushbutton actuators

Part No.	Part No.	Colour	Part No.
704.950.0*	704.950.1*	Red	704.602.2
		Yellow	704.602.4
		Green	704.602.5
		Blue	704.602.6
		○ Clear	704.602.7
*Add suffix 'B' for non captive screw with			For complete lens also order diffuser
flat washer and spring washer option	*Add suffix '/D' for double plug-in terminal		704.609.9 (see page 38)

A Accessories



Lens cap raised, round, transparent, plastic for raised and flush mount pushbutton actuators



Lens cap, round, aluminium anodised for raised and flush mount pushbutton actuators



Protective cover, raised pushbutton

	Part No.		Part No.	Comment	Part No.
Red	704.611.2	Red	704.601.2		704.925.0
Yellow	704.611.4	O Yellow	704.601.4		
Green	704.611.5	Blue	704.601.6		
Blue	704.611.6	Silver	704.601.8		
O Clear	704.611.7	Silver	704.601.81	Window for illumination	
		Black	704.601.0		
		Black	704.601.01	Window for illumination	
	For complete lens also order diffuser				
	704.610.9 (see page 38)				







A Accessories



Aluminium protective cover for flush mount pushbutton with fitted spring, closed



Aluminium protective cover for flush mount selector switch short lever with fitted spring, closed



Aluminium protective cover for flush mount selector switch, lockable

			o .		
Colour	Part No.	Colour	Part No.		Part No.
Red	704.928.12	O Natural	704.928.28	O Natural	704.928.38
	704.928.14				
	704.928.16				
O Natural	704.928.18				

A Accessories



Protective front ring with silicon membrane for raised or flush mount pushbutton



Emergency-stop protective shroud, yellow painted aluminium with 22.5mm mounting hole



Emergency-stop switch label, 60mm diameter, English, German, French and Dutch

Part No. Size	Part No.	Part No. Markings
704.600.3 29mm Ø for raised pushbutton	704.927.4	704.963.6 Emergency stop
704.955.3 35mm Ø for flush mount pushbutton		704.963.5 Not Aus
		704.963.7 Arret D'urgence
		007.963.6 Noodstop















A Accessories



Emergency-stop switch enclosure with 22.5mm mounting hole, 83mm (w) x 83mm (h) x 59mm (d)



Blanking plate



Lens remover for round pushbuttons and indicators. LED and lamp remover for round and square pushbuttons and indicators

	Part No.	Part No.	Mounting hole	Part No.
1	704.945.0	704.960.7	22.5mm Ø	700.006.0
2	704.945.6	704.964.8	30.5mm Ø	
		704.964.9	30 x 30mm	

A Accessories



Lens remover for square pushbuttons and indicators

98-968



38









A Accessories







Mounting flange

Diffuser for raised indicator, diffuser for flat lens indicator and pushbutton, diffuser for raised pushbutton

Legend plate, adhesive, natural anodised aluminium finish for raised and flush mount pushbuttons

Part No.	Material	Image	Part No.	Product description	Image	Part No.	Mounting hole	Legend plate
704.960.5	Metal	1	704.608.9	Diffuser for raised indicator	1	704.968.0	23.5 x 14.5mm	Aluminium
704.950.5	Plastic	2	704.609.9	Diffuser for flat lens	2	704.968.1	23.5 x 14.5mm	Black
		3	704.610.9	Diffuser for raised pushbutton	3	704.968.2	22.5mm Ø	Black
					4	704.968.3	30.5mm Ø	Black
						704.968.4	35 x 18mm	Aluminium
						704.968.5	35 x 18mm	Black



Series 04 Technical Data

Snap-action switching element

Switching system

The double-break, snap-action switching element is equipped with one or two independent contact systems, acting as normally open or normally closed contact. The snap-action switching element is fitted with self-cleaning contacts. Up to 3 switching elements can be snapped to each actuator.

Material

Material of contacts

hardsilver, gold/silver, silver/palladium (for aggressive atmospheres)

Switching element

polycarbonate PC

Mechanical characteristics

Connection method

screw terminals

plug-in terminals 6.3 x 0.8 mm:

max. wire cross-section: 2 x 2.5 mm

max. wire cross-section of stranded cable: 2 x 1.5 mm

For switches with plug-in terminals it is necessary to provide insulation sockets and to maintain a spacing of 65 mm between rows (mounting dimensions).

Starting torque

screws at the mounting flange: max. 25 Ncm screws at switching element: max. 50 Ncm

Actuating force

11-20 N ± 1 N

depending on the number of switching elements, 1 to 3 elements

Storage temperature

-40°C to + 85°C

Mechanical life

pushbuttons: - maintained action 1.5 million cycles of operation

- momentary action 3 million cycles of operation

selector switch: - maintained action 1.25 million cycles of operation

- momentary action 2.5 million cycles of operation

e-stop switch: ->= 50'000 cycles of operation

keylock switch: - maintained action 25'000 cycles of operation - momentary action 50'000 cycles of operation

Rebound time

<= 3 ms

Travel

 $5.8 \pm 0.2 \text{ mm}$

Resistance to shock

(single impacts, semi-sinusoidal) 30 g for 11 ms as per EN 60 947-5-1

Resistance to vibration

(sinusoidal)

10 g at 10-2000 Hz, amplitude 0,75 mm as per EN 60 947-5-1

Ambient air temperature

min. - 25°C (- 40° with restriction) max. without illumination: + 80°C

max. with neon lamp + 80°C

max. with LED: + 80°C

max. with incandescent lamp: + 40°C

(as per DIN IEC 68-)

Electrical characteristics

Rated insulation voltage

500 VAC/600 VDC as per VDE 0100, group C

Standards

The switches comply with the "Standards for low-voltage switching devices" EN 60 947-5-1

Contact resistance

starting value $<= 50 \text{ m}\Omega$ as per IEC 512-2-4

Insulation resistance

>= 10 m Ω between open contacts at 500 VDC, as per IEC 512-2-10

Continuous thermal current Ith,

10 A

The maximum current in continuous operation and at ambient temperature must not exceed the quoted maximum values.

Switch rating max.

at switch rating AC for gold-, silver- and hard silver contacts service category AC-15 as per EN60947-5-1 (cos ϕ = 0.7)

voltage: 230 VAC 400 VAC 500 VAC current: 6 A 4 A 2.5 A

at switch rating DC for gold-, silver- and hard silver contacts

service category DC as per EN60947-5-1

L/R=100 ms at P>=50 W and

L/R=2 x P ms<50 W

WOP stands for switch rating in watt

voltage: 24 VDC 60 VDC 110 VDC current: 10 A 3 A 1 A

Switch rating min.

gold/silver contacts:

voltage: 5 VDC 24 VDC 110 VDC current: 15 mA 5 mA 2 mA

hard silver contacts:

voltage: 24 VDC 110 VDC current: 50 mA 10 mA

Electric strength

5000 VAC, 50 Hz, 1 min. between all terminals and earth.

Approvals

- SEV 500 VAC/10 A
- CSA 300 VAC
- UL 600 VAC HD
- German Navy
- German Lloyd
- CE (declaration of conformity)
- CB

Slow-make switching element

Switching system

The double-break, slow-make switching element is equipped with one or two independent contact systems, acting as normally open or normally closed contact. Slow-make contacts with forced action are ideal for high switch ratings. Up to 3 switching elements can be snapped to each actuator.

Material

Material of contacts

hardsilver, gold/silver, silver/palladium (for aggressive atmospheres)

Switching element

polycarbonate PC

Technical Data Series 04

Mechanical characteristics

Connection method

screw terminals

plug-in terminals 6.3 x 0.8 mm:

max. wire cross-section: 2 x 2.5 mm

max. wire cross-section of stranded cable: 2 x 1.5 mm

For switches with plug-in terminals it is necessary to provide insulation sockets and to maintain a spacing of 65 mm between rows (mounting dimensions).

Starting torque

screws at the mounting flange: max. 25 Ncm screws at switching element: max. 50 Ncm

Actuating force

13-36 N ± 1 N

depending on the number of switching elements, 1 to 3 elements

Storage temperature

-40°C to + 85°C

Mechanical life

pushbuttons: - maintained action 1.5 million cycles of operation

- momentary action 3 million cycles of operation

selector switch: - maintained action 1.25 million cycles of operation

- momentary action 2.5 million cycles of operation

e-stop switch: ->= 50'000 cycles of operation

keylock switch: - maintained action 25'000 cycles of operation

- momentary action 50'000 cycles of operation

Travel

 $5.8 \pm 0.2 \text{ mm}$

Resistance to shock

(single impacts, semi-sinusoidal) 30 g for 11 ms as per EN 60 947-5-1

Resistance to vibration

(sinusoidal) 10 g at 10-2000 Hz, amplitude 0,75 mm as per EN 60 947-5-1 $\,$

Rebound time

<= 1 ms

Ambient air temperature

min. - 25°C (- 40° with restriction) max. without illumination: + 80°C

max. with neon lamp + 80°C

max. with LED: + 80°C

max. with incandescent lamp: + 40°C

Electrical characteristics

Rated insulation voltage

500 VAC/600 VDC as per VDE 0100, group C

Standards

The switches comply with the Rules for low-voltage switching devices EN 60 947-5-1

Contact resistance

starting value <= 50 m Ω as per IEC 512-2-4

Insulation resistance

>= 100 m Ω between open contacts at 500 VDC, as per IEC 512-2-10.

Continuous thermal current Ith₂

10 A

The maximum current in continuous operation and at ambient temperature must not exceed the quoted maximum values.

Switch rating max.

at switch rating AC for gold-, silver- and hard silver contacts service category AC-15 as per EN60947-5-1 (cos φ = 0.7)

voltage: 230 VAC 400 VAC 500 VAC current: 7 A 5 A 4 A

At switch rating DC for gold-, silver- and hard silver contacts

service category DC as per EN60947-5-1

L/R=100 ms at P>=50 W and

L/R=2 x P ms<50 W

WOP stands for switch rating in watt

voltage: 24 VDC 60 VDC 110 VDC current: 10 A 5 A 2.5 A

Switch rating min.

gold/silver contacts:

voltage 24 VDC 110 VDC current: 10 mA 2 mA

hard silver contacts:

voltage 24 VDC 110 VDC current: 50 mA 10 mA

Electric strength

5000 VAC, 50 Hz, 1 min. between all terminals and earth

Approvals

- SEV 500 VAC/10 A
- CSA 300 VAC
- UL 600 VAC HD
- German Navy
- German Lloyd
- CE (declaration of conformity)
- CB

Buzzer

Buzzer system

System

Piezo disc

Material

Alarm buzzer case

polyamide

Front cap

plastic: polyamide

metal: nickel-plated brass sea-water proof

Mechanical characteristics

Connection method

plug-in terminal 2.8 x 0.5 mm

Operating temperature

-25°C to + 50°C

Storage temperature

-25°C to + 50°C

Degree of protection

IP 40 as per IEC 529 (flush mounting) IP 65 (raised fitting) as per IEC 529

Electrical characteristics

Frequency (tone)

ca. 2.8 kHz continuous tone only

Sound pressure

95 db (A) \pm 8 at a distance of 0.1 m

Operation voltage/current

operation voltage: 24 VDC \pm 10% operation current: <= 25 mA

Series 04 Technical Data

Selector switch actuator

Material

Front ring

polyamide, aluminium or chromium-plated nickel steel

Mounting flange

polyethylene terephtalate

Actuator case

polycarbonate, polyamide

Mechanical characteristics

Actuating force

snap-action switching element: 11-20 N \pm 1 N slow-make switching element: 13-36 N \pm 1 N depending on the number of snap-action elements

Storage temperature

-30°C to + 85°C

Mechanical life

pushbutton: >= 3 million operations selector switch: >= 2.5 million operations emergency stop switch: >= 50'000 operations keylock switch: >= 50'000 operations

Travel

 $5.8 \pm 0.2 \text{ mm}$

Degree of protection

front as per IEC 529: IP 65

Ambient air temperature

min. -25°C

max. without illumination: + 80°C

max. with neon lamp: + 80°C

max. with LED: + 80°C

max. with incandescent lamp: + 55°C

Electrical characteristics

Standards

The switches comply with the "Rules for low-voltage switching devices" EN 60 947-5-1

Rotary selector switch element

Mechanical characteristics

Number of positions

2 to 12 positions max.

Number of contacts

1 to 16 max. normally open contacts (contact positioning to the rotary plan)

Switching angle

Switching position a (900) is basic position maintained action switching angle

12 x 30° max.

8 x 45° max.

6 x 60° max.

4 x 90° max.

momentary action with release 24° (provide at the beginning or at the end)

Standard type of Kraus + Naimer

- CG 4 hardsilver contacts with 1 µ gold layer
- CG 4-1 hardsilver contacts with 35 μ gold layer

Electrical characteristics

DC 1, resistive circuits T = 1 ms

DO I, resistive circuits) I — I II	13				
1 contact in line						
permissible voltage	24 V	48 V	60 V	110 V	220 V	440 V
rated service current	10.0 A	6.0 A	2.5 A	0.7 A	0.3 A	0.2 A
2 contacts in line						
permissible voltage	48 V	95 V	120 V	220 V	440 V	660 V
rated service current	10.0 A	6.0 A	2.5 A	0.7 A	0.3 A	0.2 A
3 contacts in line						
permissible voltage	70 V	140 V	180 V	330 V	660 V	
rated service current	10.0 A	6.0 A	2.5 A	0.7 A	0.3 A	
4 contacts in line						
permissible voltage	95 V	190 V	240 V	440 V		
rated service current	10.0 A	6.0 A	2.5 A	0.7 A		
5 contacts in line						
permissible voltage	120 V	240 V	300 V	550 V		
rated service current	10.0 A	6.0 A	2.5 A	0.7 A		
6 contacts in line						
permissible voltage	144 V	290 V	360 V	660 V		
rated service current	10.0 A	6.0 A	2.5 A	0.7 A		
8 contacts in line						
permissible voltage	190 V	350 V	450 V			
rated service current	10.0 A	6.0 A	2.5 A			
Inductive circuits T =	50 mc					
1 contact in line	JU 1113					
permissible voltage	24 V	30 V	48 V	60 V	110 V	
rated service current	6.0 A	3.0 A	1.0 A	0.7 A	0.3 A	
2 contacts in line	0.0 A	3.0 A	1.0 A	0.7 A	0.5 A	
permissible voltage	48 V	60 V	95 V	120 V	220 V	
rated service current	6.0 A	3.0 A	1.0 A	0.7 A	0.3 A	
3 contacts in line	0.0 A	3.0 A	1.0 A	0.7 A	0.5 A	
permissible voltage	72 V	90 V	140 V	180 V	330 V	
rated service current	6.0 A	3.0 A	1.0 A	0.7 A	0.3 A	
4 contacts in line	0.0 A	3.0 A	1.0 A	0.7 A	0.5 A	
permissible voltage	96 V	120 V	190 V	240 V	440 V	
rated service current	6.0 A	3.0 A	1.0 A	0.7 A	0.3 A	
5 contacts in line	0.0 A	3.0 A	1.0 A	0.1 A	0.5 A	
permissible voltage	120 V	150 V	240 V	300 V	550 V	
rated service current	6.0 A	3.0 A	1.0 A	0.7 A	0.3 A	
6 contacts in line	0.0 A	3.0 A	1.0 A	0.7 A	0.5 A	
	144 V	180 V	290 V	360 V	660 V	
permissible voltage				0.7 A		
rated service current	6.0 A	3.0 A	1.0 A	0.7 A	0.3 A	
8 contacts in line	100 \	040 \	250.17	450 \		
permissible voltage	190 V	240 V	350 V 1.0 A	450 V	00 4	
rated service current	6.0 A	3.0 A	1.U A	0.7 A	0.3 A	
Chart siverit avect						

Short-circuit-proof

max. insurance (gL-characteristics) 10 A conditional rated short-circuit current 3 kA

Rated service voltage

IEC	500 V
UL	300 V
SEV	380 V
CEE 24	380 V

Rated service current I₀

10 A

AC 21 switching of resistive load with low overload

AC 1 non or bad inductive load

AC 22 switching of mixed resistive and inductive load with low overload AC 11 switching of magnetic drives, contactors, valves, draw-in magnet

Thermic rated current lth₂

 $lth_2 = 10 A$

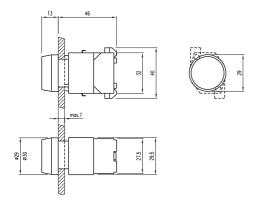
Resistance/motor load

CEE 24 4/2 A

Technical Drawings

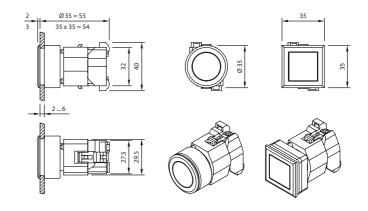
04 Indicator

Raised



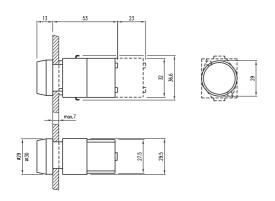
04 Indicator

Flush



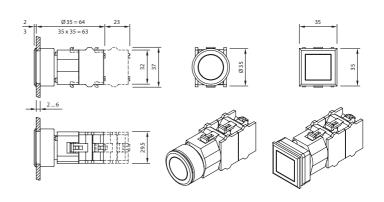
04 Pushbutton

Non-Illuminated, Raised



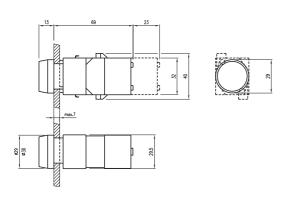
04 Pushbutton

Non-Illuminated, Flush



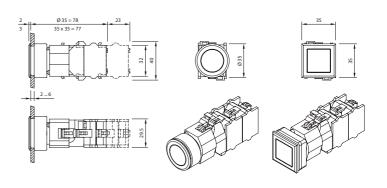
04 Pushbutton

Illuminated, Raised



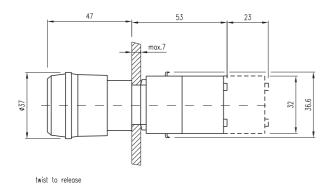
04 Pushbutton

Illuminated, Flush



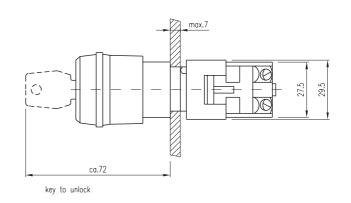
04 E-Stop

EN 418



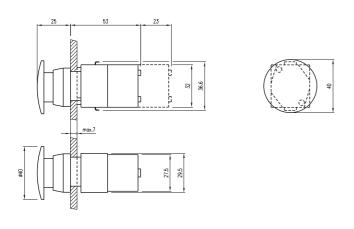
04 E-Stop

EN 418 with optional key



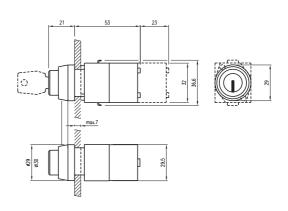
04 E-Stop Mushroom

Pushbutton Mushroom



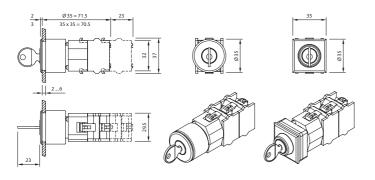
04 Keylock

2-Position, 3-Position, Raised



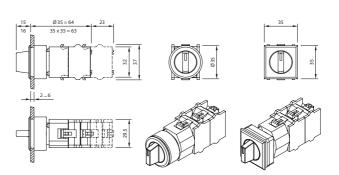
04 Keylock

2-Position, 3-Position, Flush



04 Selector

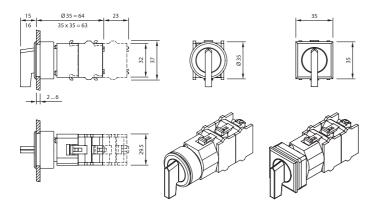
2-Position, 3-Position, Short, Flush



Technical Drawings

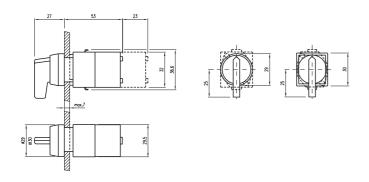
04 Selector

2-Position, 3-Position, Long, Flush



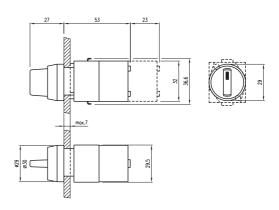
04 Selector, Long Lever

2-Position, 3-Position, Raised



04 Selector, Short Lever

2-Position, 3-Position, Raised

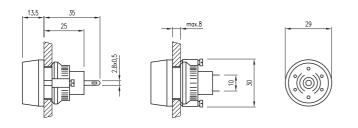


04 Lever switch

Separate technical document available. Please contact your local sales office.

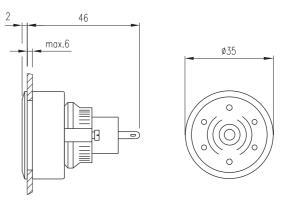
04 Buzzer

Raised

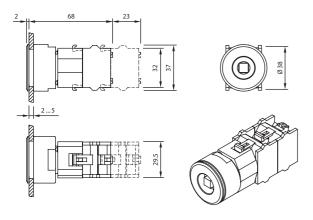


04 Buzzer

Flush

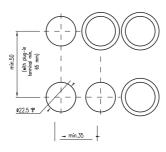


04 Key Insert Switch



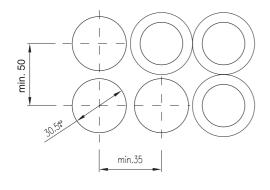
04 Cut-outs, Raised Mounting

(All but long lever)

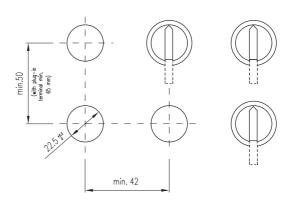


04 Cut-outs, Flush Mounting

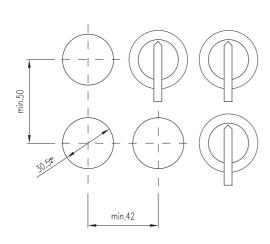
(All but long lever)



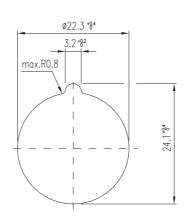
04 Long Lever Cut-outs, Raised Mounting



04 Long Lever Cut-outs, Flush Mounting

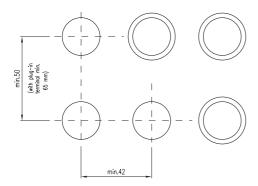


04 E-Stop EN418 Cut-outs

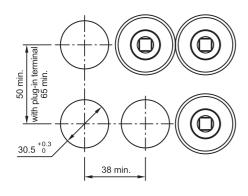


04 E-Stop Mushroom Cut-outs

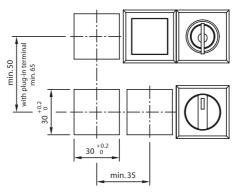
Pushbutton Mushroom



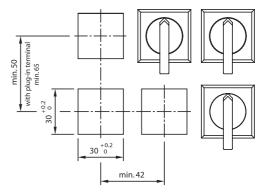
04 Key Insert Cut-outs, Flush Mounting



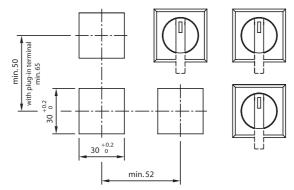
04 Cut-outs, Square, Flush Mounting



Indicator-, pushbutton-, keylock switch-, selector switch actuator short lever



Selector switch actuator long lever



Multi position rotary selector switch actuator



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов:
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001:
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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Факс: 8 (812) 320-02-42

Электронная почта: org@eplast1.ru

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