

Description

Single and two pole magnetic circuit breakers with trip-free mechanism and push/pull on/off manual actuation. A choice of fast magnetic only or hydraulically delayed switching characteristics (S-type MO or HM CBE to EN 60934) ensures suitability for a wide range of applications. Convenient threadneck panel or plug-in mounting, and with a white push button indicator band showing clearly the tripped/off position. Available with auxiliary contacts (1 x N/O, 1 x N/C) for status signalling.

Approved to CBE standard EN 60934 (IEC 60934).

Typical application

Control equipment, communications systems, power semiconductors.



8340-G2...

1-pole

2-pole

Standard current ratings and typical internal resistance values

Current rating (A)	Internal resistance (Ω) per pole		
	-F4/-F5	-E1/H1/R1	-E2/H2/R2
0.02	583	2 896	2 660
0.05	94	531	542
0.08	35.6	202	199
0.1	22.9	129	127
0.15	9.89	57.3	55.7
0.2	5.02	30.5	30.5
0.3	2.44	13.9	13.7
0.5	0.789	4.50	4.42
0.75	0.392	2.19	1.82
1	0.246	1.10	1.08
1.25	0.145	0.695	0.686
1.5	0.10	0.487	0.472
1.75	0.083	0.355	0.337
2	0.059	0.295	0.291
2.5	0.048	0.174	0.168
3	0.028	0.121	0.118
4	< 0.02	0.0729	0.0687
5	< 0.02	0.0437	0.0449
6	< 0.02	0.0329	0.0323
8	< 0.02	< 0.02	< 0.02
10	< 0.02	< 0.02	< 0.02
12	< 0.02	< 0.02	< 0.02
15	< 0.02	< 0.02	< 0.02
16	< 0.02	< 0.02	< 0.02
20	< 0.02	< 0.02	< 0.02
25	< 0.02*	< 0.02	< 0.02
30	< 0.02*	< 0.02	< 0.02
40		< 0.02	
50		< 0.02	

* 50 % ON duty / 60 min.

Technical data

For further details please see: http://www.e-t-a.de/ti_e

Voltage rating	3 AC 415 V; AC 240 V, 50/60 Hz; DC 80 V (higher DC voltages to special order)			
Current ratings	0.02...50 A DC 0.02...30 A AC			
Auxiliary circuit	1 A, AC 240 V/DC 65 V 0.5 A, DC 80 V			
Typical life	3 AC 415 V, AC 240 V: 0.02...30 A DC 80 V: 0.02...25 A 0.02...30 A 40 + 50 A			
Ambient temperature	6,000 operations at 1 x I_N , inductive 10,000 operations at 1 x I_N , resistive 6,000 operations at 1 x I_N , inductive 10,000 operations at 1 x I_N , resistive 5,000 operations at 1 x I_N , resistive -40...+85 °C (-40...+185 °F)			
Insulation co-ordination (IEC 60664 and 60664A)	rated impulse withstand voltage 2.5 kV pollution degree 2 reinforced insulation in operating area			
Dielectric strength (IEC 60664 and 60664A)	operating area Line to Load pole to pole (2- and 3-pole) main to auxiliary circuit switching to trip circuit (version -X)			
test voltage AC 3,000 V test voltage AC 1,500 V test voltage AC 1,500 V test voltage AC 1,500 V test voltage AC 1,500 V				
Insulation resistance	> 100 M Ω (DC 500 V)			
Interrupting capacity IEC 60934 - test sequence E4	6 x IN at AC; 6 x IN at DC			
Interrupting capacity (UL 1077)	AC:	I_N 1-pole 2-pole	0.02...20 A AC 250 V/3,500A AC 250 V/3,500A	25...30 A AC 250 V/3,500A AC 250 V/5,000A
	DC:	1-pole 2-pole	0.02...50 A 0.02...30 A	DC 80 V/3,500 A DC 80 V/3500 A
Degree of protection (IEC 60529/DIN 40050)	operating area IP40 terminal area IP00			
Vibration	with button down: at 0.9 x I_N other mounting planes: 10 g (57-2000 Hz) at I_N to IEC 60068-2-6, test Fc 10 frequency cycles/axis			
Shock	100 g (11 ms) at 1 x I_N , directions 1,2,3,4,5 100 g (11 ms) at 0.8 x I_N , direction 6 to IEC 60068-2-27, test Ea			
Corrosion	96 hours at 5 % salt mist, to IEC 60068-2-11, test Ka			
Humidity	240 hours at 95 % RH to IEC 60068-2-78, test Cab			
Mass	approx. 70 g per pole			

Ordering information

Type No.

8340 Magnetic push/pull circuit breaker

Mounting

G threadneck panel mounting

Threadneck design

2 M12x1

Number of poles (main current paths)

1 single pole, protected

2 two pole, protected

3 three pole, protected

Panel hardware

0 without panel hardware

1 with hex nut M12x1 and washer 12/15

Terminal design

P1 blade terminals A6.3-0.8 mm (QC.250) (≤ 35 A)

K4 screw terminals M5 recommended for $I_N > 20$ A

R1 round connectors $\varnothing 6$

Characteristic curve *

Characteristic curve, instantaneous:

F4 DC

F5 AC 50/60 Hz

Short delay:

E1 DC

E2 AC 50/60 Hz

Medium delay:

H1 DC

H2 AC 50/60 Hz

Long delay:

R1 DC

R2 AC 50/60 Hz

Actuator colour

A black with white trip indicator band

Actuator marking

4 rated current

legible with location pin above (standard)

7 rated current

legible with location pin below

Auxiliary contacts

H0 without auxiliary contacts

H1 with auxiliary contacts

H2 with auxiliary contacts
on pole 1 only (2 pole types)

Auxiliary contact function

1 one each N/O and N/C

3 1 pair N/C (11/12)

Auxiliary contact terminal design

1 blade terminals A6.3-0.8 mm

Current ratings (optional)

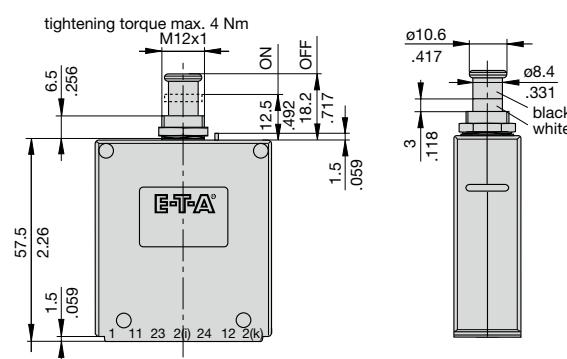
0.02...50 A

8340 - G 2 1 1 - P1 F4 - A 4 H1 1 1 - 8 A ordering example

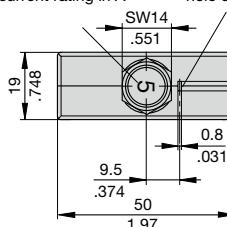
Please be informed that we have minimum ordering quantities to be observed.

* Other characteristic curves upon request (e.g. pulse delayed, for high inrush currents or capacitive loads)

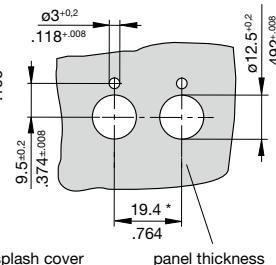
Dimensions (1-pole)



location pin for 3mm (.118 in.)
hole dia.



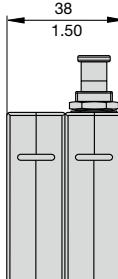
Cut-out dimensions:



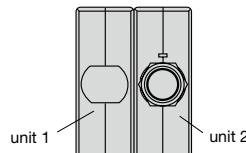
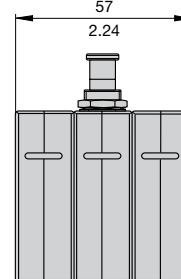
* min. 25 for use with splash cover

panel thickness
max. 3 mm (.118 in.)

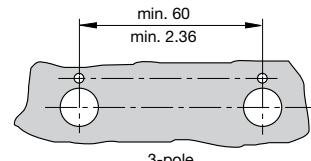
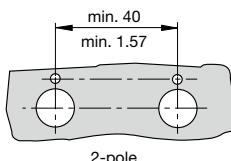
2-pole



3-pole



Cut-out dimensions:

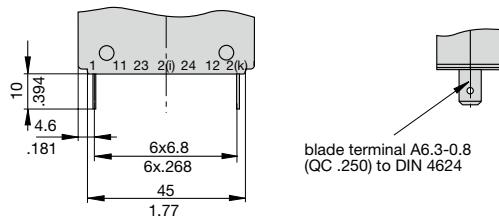


panel thickness
max. 3 mm (.118 in.)

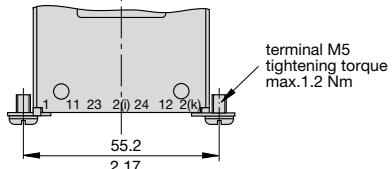
This is a metric design and millimeter dimensions take precedence ($\frac{\text{mm}}{\text{inch}}$)

Terminal design

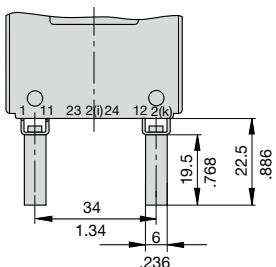
Terminal design -P1



Terminal design -K4

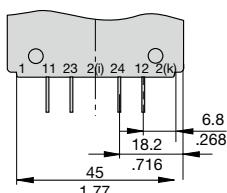


Terminal design -R1

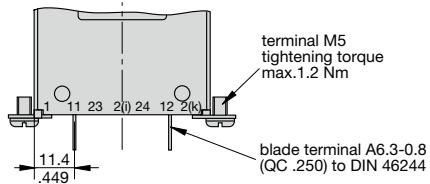


Auxiliary contact terminal design

1 N/O, 1 N/C

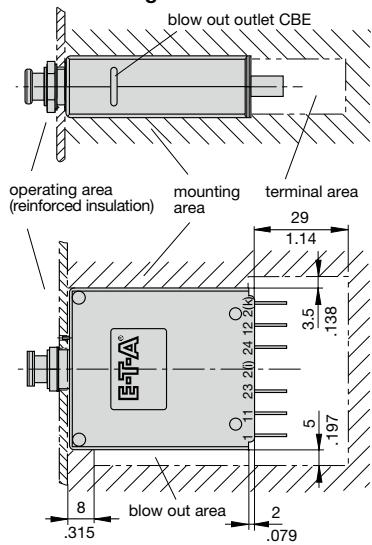


1 N/C

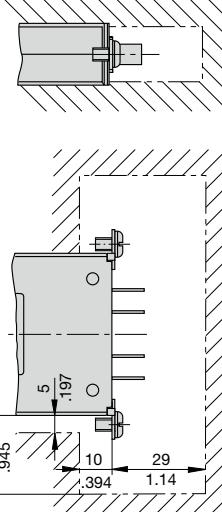


Installation drawings

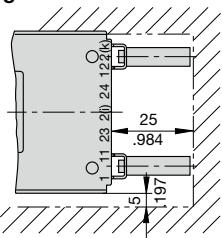
Terminal design -P



Terminal design -K

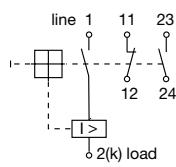


Terminal design -R

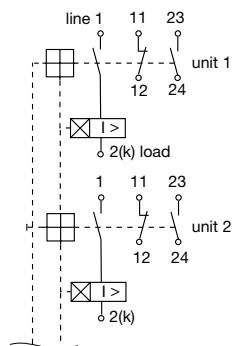


Internal connection diagrams

1-pole, protected magnetically



double pole

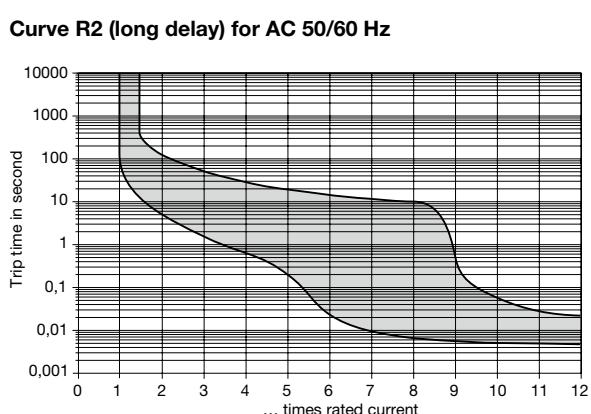
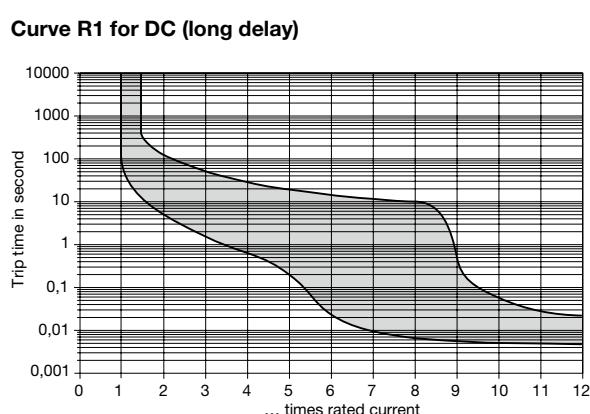
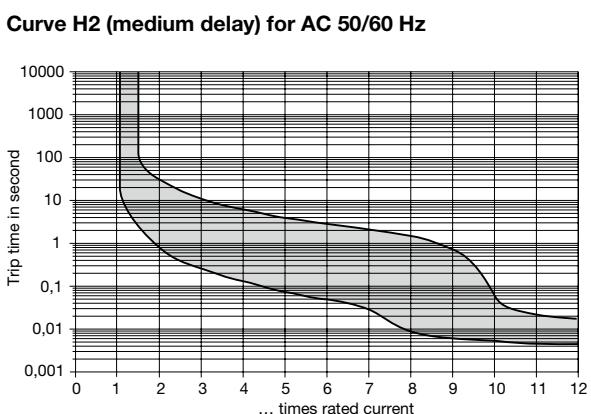
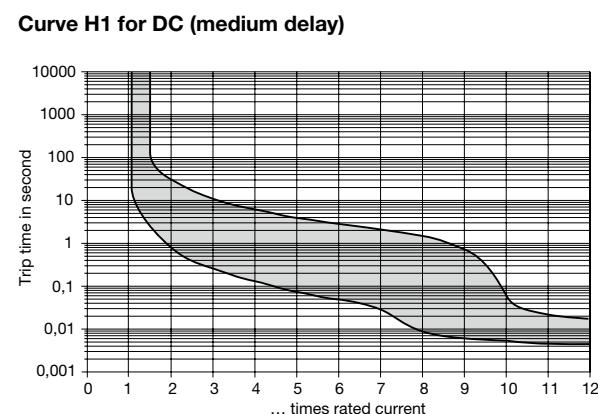
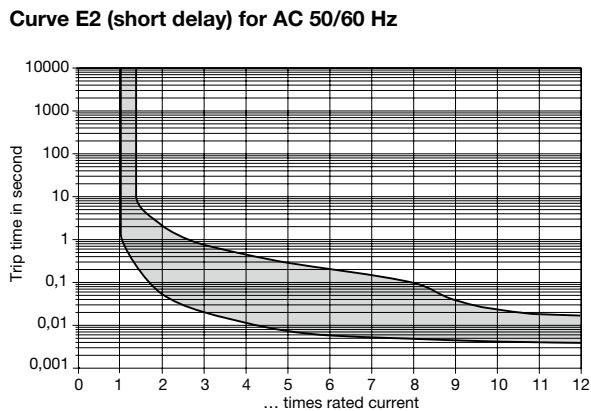
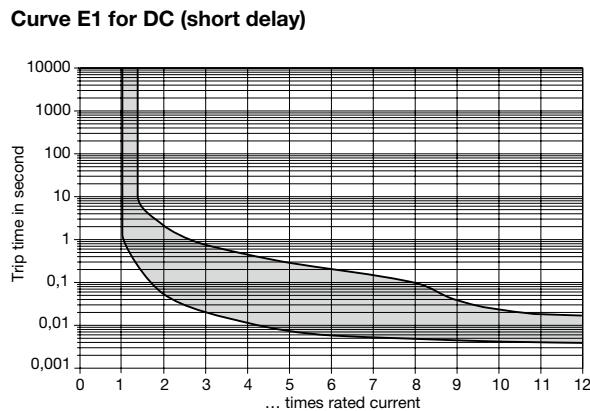
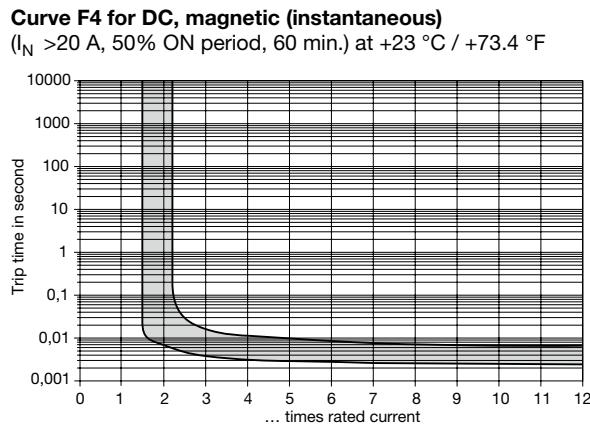


Approvals

Authority	Standard	Rated voltage	Current ratings
VDE	IEC / EN 60934	AC 240/415 V AC 240 V DC 80 V	0.02 A...30 A 0.02 A...30 A 0.02 A...50 A
UL	UL 1077	AC 250 V DC 80 V DC 80 V	0.02 A...30 A 0.02 A...50 A 100 A (2 poles in parallel)
UL	UL 489A	DC 80 V	0.05 A...30 A (1 + 2 pole)
CSA	C22.2 No 235	AC 250 V DC 80 V	0.02 A...30 A 0.02 A...30 A
CQC	GB 17701	AC 240/415 V AC 240 V DC 80 V DC 110 V	0.02 A...30 A 0.02 A...30 A 0.02 A...50 A 0.02 A...50 A (8340-G)
QPL Sweden Defence Material Admin.	MIL-C-55629	AC 240 V DC 50 V AC 240 V AC 240 / 415 V	1 A...30 A (8340-F410) 1 A...30 A (8340-410) 1 A...30 A (8340-F420) 1 A...30 A (8340-F430)

This is a metric design and millimeter dimensions take precedence ($\frac{\text{mm}}{\text{inch}}$)

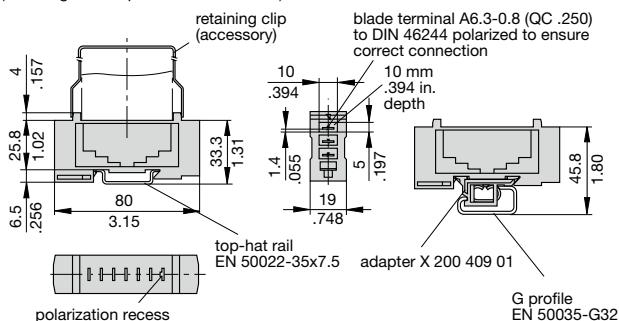
Typical time/current characteristics



Accessories

Socket 18-P10-Si

(for ratings >16 A please contact E-T-A)

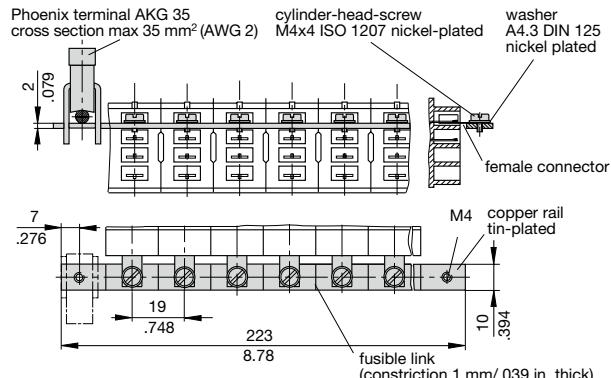


Bus bar (10-way) (supplied as a complete package) for type 18 socket

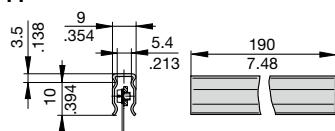
(for max. 100 A continuous load),
more positions available on request

X 211 158 01 with terminal

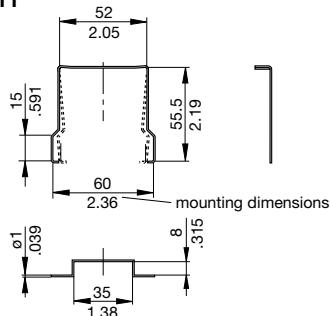
X 211 158 02 without terminal



Insulated sleeving for bus bars Y 303 824 11

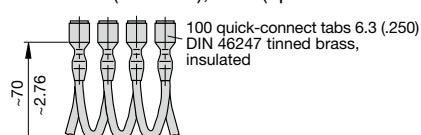


Retaining clip for socket 18-P10-Si Y 300 579 11



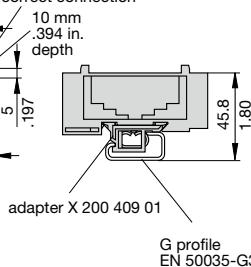
Connector bus link -P10

- X 210 588 01**/1.5 mm² (AWG 16), brown (up to 13 A max. load)
- X 210 588 02**/2.5 mm² (AWG 14), black (up to 20 A max. load)
- X 210 588 03**/2.5 mm² (AWG 14), red (up to 20 A max. load)
- X 210 588 04**/2.5 mm² (AWG 14), blue (up to 20 A max. load)

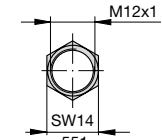


Polarized socket with adapter 18-P10-Si-20025

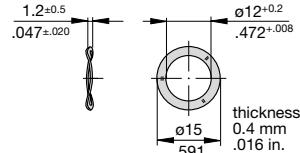
blade terminal A6.3-0.8 (QC .250) to DIN 46244 polarized to ensure correct connection



Hex nut Y 300 116 02



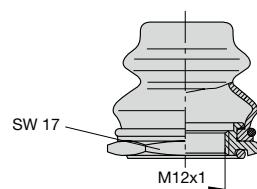
Spring washer Y 300 118 03



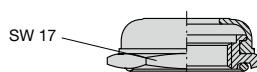
Accessories for push button

Splash cover with hex nut and O ring (IP66 and IP67)
X 200 801 08 (nickel plated hex nut M12x1, splash cover transparent)

X 200 801 03 (black finish hex nut M12x1, splash cover black)

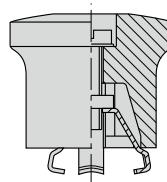


Splash seal, black, hex nut and O ring (IP54)
X 200 802 01 (nickel plated hex nut M12x1, splash seal black)

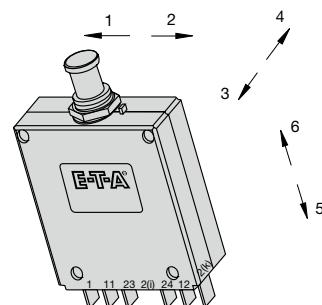


Actuator extension

X 200 803 01 (black button)



Shock directions / Mounting attitudes



This is a metric design and millimeter dimensions take precedence ($\frac{\text{mm}}{\text{inch}}$)

All dimensions without tolerances are for reference only. In the interest of improved design, performance and cost effectiveness the right to make changes in these specifications without notice is reserved. Product markings may not be exactly as the ordering codes. Errors and omissions excepted.



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, помошь 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 помошь 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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