

Data sheet

FEU

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1 General Description

General

The fuse socket can be used for either a fuse carrier for 5x20 or 6.3x32mm fuses.

The fuse-carrier can be operated with a screw driver or with a coin. The fuse-carrier fingergrasp can be operated without any tool.

Standards:

The fuse-holder meets the requirements of the international standards:

-IEC 60127-6

-EN 60127-6

-UL 512

-CSA C22.2 No. 39

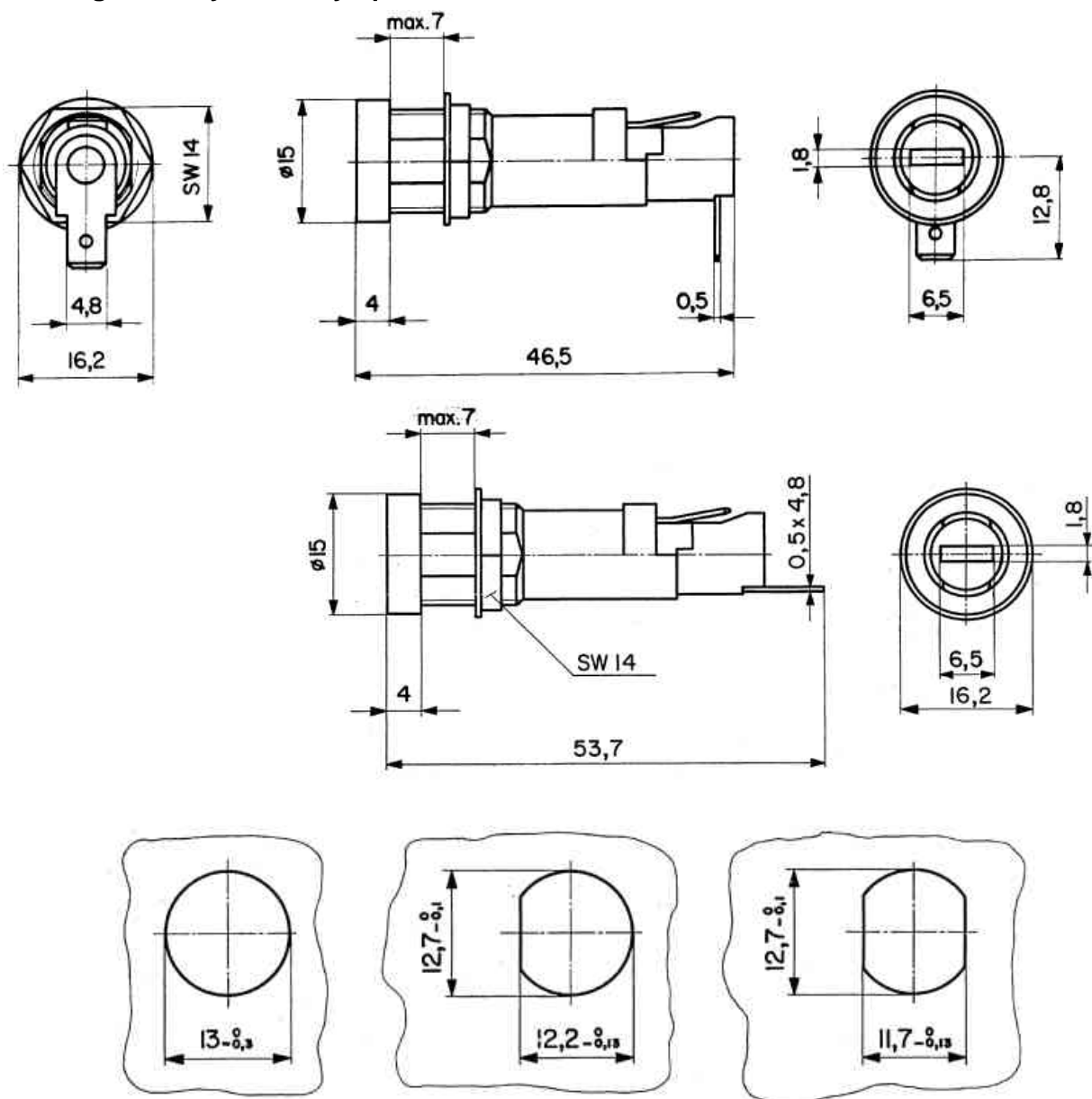
Once mounted, the fuse-holder is shock-safe from the front. Live parts cannot be touched with the standard test-finger acc. to IEC 60529 during the following situations:

- while operating, i.e. with inserted fuse-carrier
- while open, i.e. with removed fuse-carrier
- while exchanging the fuse-link, which is held by the fuse-carrier

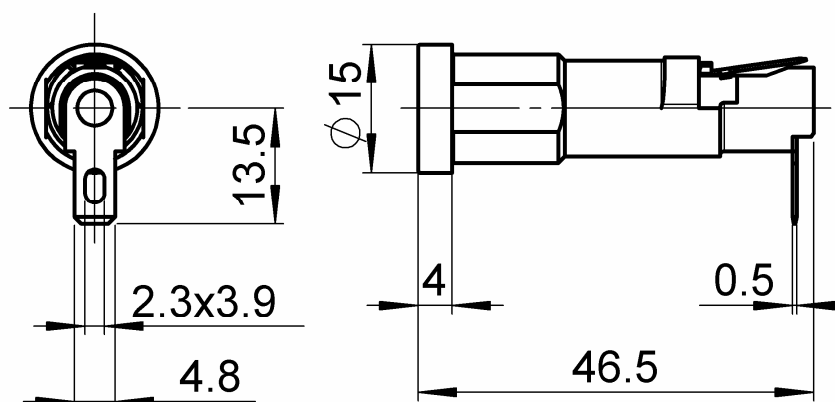
The vibration resistant fuse-holder excludes all interruption of the contact, caused by unintentional axial or radial movements of the fuse-carrier.

2 Dimensions

2.1 Flange form cylindrically, quick-connect terminals 4,8 x 0,5mm

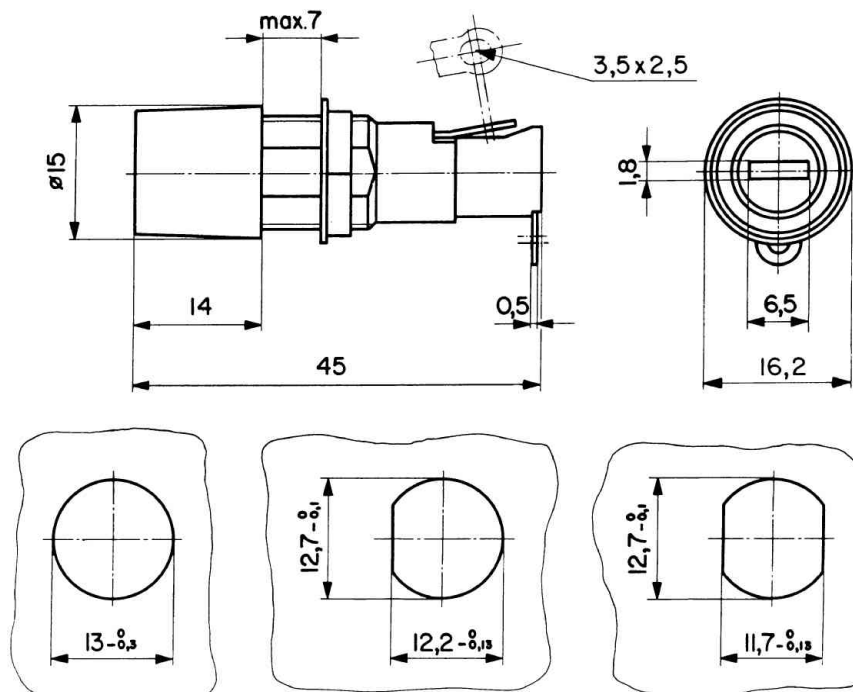


0031.1693	Flange form cylindrically, quick-connect terminals 4,8 x 0,5mm, 90° end terminal
0031.1694	Flange form cylindrically, quick-connect terminals 4,8 x 0,5mm, straight end terminal



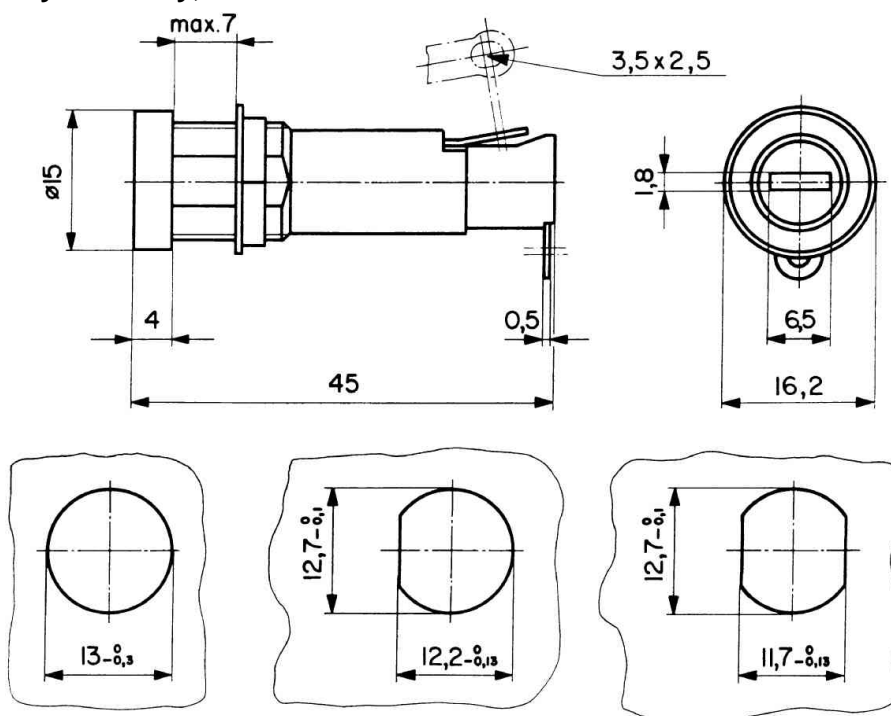
0031.8822	Flange form cylindrically, quick-connect terminals 4,8 x 0,5mm white solder hole 3.9 x 2.3mm, 90° end terminal
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2.2 Flange form conical , solder terminals



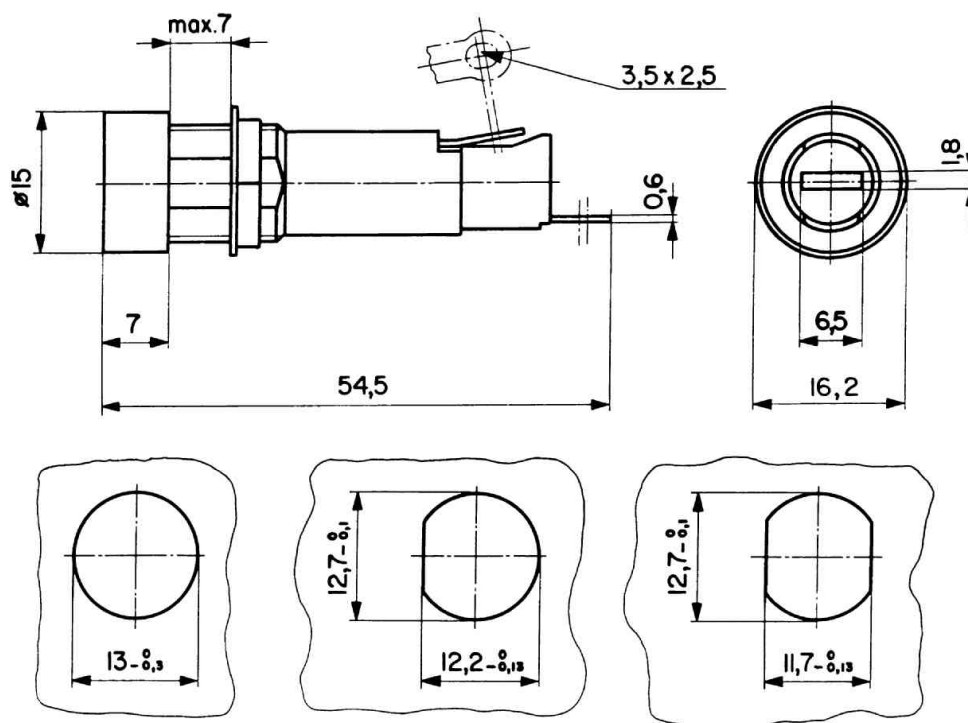
0031.1653	flange form conical , solder terminals
0031.1657	0031.1653 socket without fixing-nut

2.3 Flange form cylindrically, solder terminals



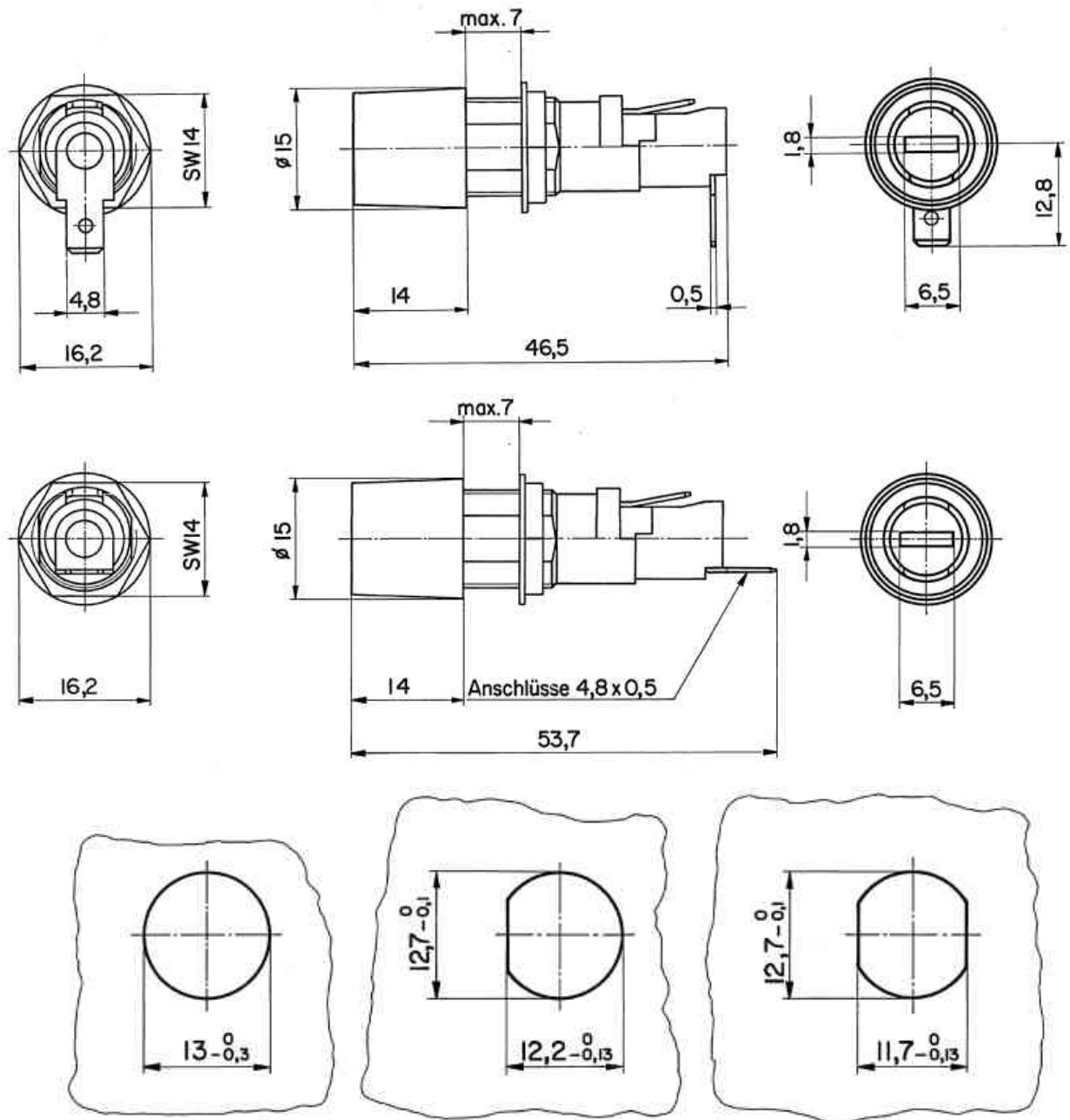
0031.1673	flange form cylindrically, solder terminals
0031.1677	0031.1673 socket without fixing-nut
0031.1700	flange form cylindrically, solder terminals with metal-nut

2.4 Recessed fuse carrier



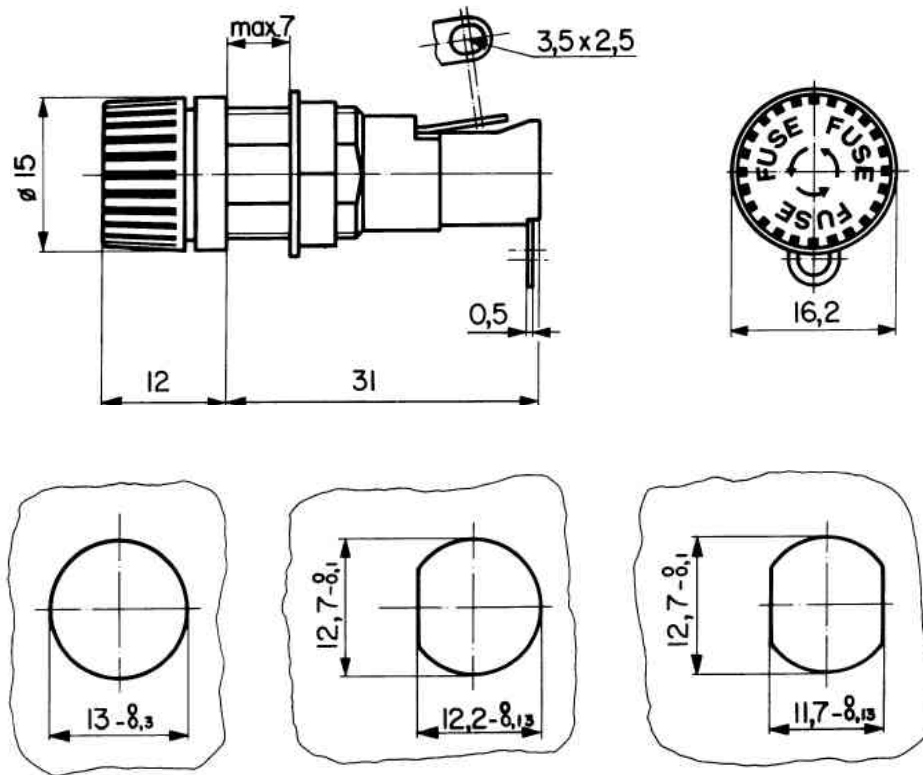
0031.1681	Recessed fuse carrier (medical standards), flange form cylindrically, solder terminals
0031.1687	0031.1681 socket without fixing-nut

2.5 Quick-connect terminals 4,8 x 0,5mm



0031.1695	quick-connect terminals 4,8 x 0,5mm, 90° end terminal
0031.1696	quick-connect terminals 4,8 x 0,5mm, straight end terminal

2.6 Finger grip fuse carrier, solder terminals



0031.1801	finger grip fuse carrier, solder terminals
0031.1809	0031.1801 sealed from the rear side

3 Electrical Data

Rated voltage U_n	250 V	
Rated current according to UL 512	20A	
Rated current according to CSA C22.2 No. 39	16A	
Rated accepted power dissipation to according to IEC 60127-6	6.3x32 4 W/10A 5x20 4 W/10A	see 6.1, Derating curve
Contact resistance acc. to IEC 60127-6	5 m	at 20 mV
Insulation resistance (500 V DC ; 1 min.)	$>2 \times 10^3$ M between live parts of different potentials. $>1 \times 10^4$ M between metal mounting-plate (acc. to dimension sheet) and live parts.	
Dielectric strength (50 Hz ; 1 min.)	> 3 kV	between live parts of different potentials.
	> 4 kV	between metal mounting-plate (acc. to dimension sheet) and live parts.
Impulse withstand voltage $U_{1,2/50}$	> 7,6 kV between live parts of opposite polarity	
Impulse withstand voltage $U_{1,2/50}$	> 12 kV between metal mounting-plate and live parts.	
Overvoltage category acc. to IEC 60664-1	I - III	
Clearance and creepage distances, when the fuse-holder is properly assembled and installed as in normal use.	> 3 mm	between live parts of different potentials.
	> 8 mm	between metal mounting-plate (acc. to dimension sheet) and live parts, for appliances of protection class II.
Protection against electric shock acc. to IEC 60127-6	Category PC 2 If the fuse-holder is installed as in normal use, it is not possible to touch any live parts with the test-finger acc. to IEC 60529 both in normal use and during insertion or removal of the fuse-carrier incl. fuse-link.	
Pollution degree acc. to IEC 60664-1	1 - 3	
Protection class acc. to IEC 61140. (Protection against dangerous currents passing through the human body.)	Suitable for appliances of protection class I and II,	

4 Mechanical Data

4.1 Terminals

- Type	Tin-lead-plated
- Solderability acc. to IEC 60068-2-20	350° C / 3s, test Ta method 2
- Resistance to soldering heat acc. to IEC 60068-2-20	350° C / 10s, test Tb method 2

4.2 Packing and weight

Original packing	100 pcs.		
Torque/ Fixing nut	max. 1.2 Nm		
Net weight gr. per 1 pcs.	Socket white nut	0031.1653	5,6
		0031.1673	5,6
		0031.1681	5,6
		0031.1801	
		0031.1693	5,0
		0031.8822	5,0
	Fuse-carrier 5x20	0031.1663	3,2
	Fuse-carrier 6.3x32	0031.1661	2,4

5 Materials

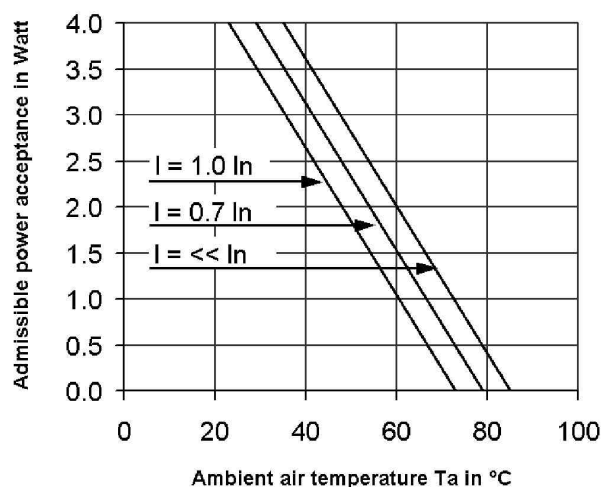
Socket	0031.1653	Thermoplast mat. UL94 V-0
	0031.1673	Temp.- index RTI, elec. : 140°
	0031.1693	
	0031.1694	
	0031.8822	
	0031.1695	Duroplast mat. UL94 V-0
	0031.1696	Temp.- index RTI, elec. : 130°
	0031.1681	Duroplast mat. UL94 V-0
	0031.1687	Temp.- index RTI, elec. : 150°
	0031.1801	
	0031.1809	
Fuse-carrier:		Thermoplast mat. UL94 V-0
		Temp.- index RTI, elec. : 140°

6 Environmental Condition

IP Degree of protection acc. to IEC 60529	IP40
Climatic category acc. to IEC 60068-1	25/ 085/ 21
Resistance to vibration acc. to IEC 60068-2-6	Test Fc Frequency range 10 - 2000 Hz, Cross-over frequency 60 Hz < 60 Hz constant amplitude of 0.75 mm > 60 Hz constant acceleration of 10 g
Max. permissible ambient air temperature	Storage temperature: - 40° C to + 85° C Operational temperature: - 40° C to + 85° C for accessible parts acc. to table 1
Storage capability	Max. 5 years at 25 °C in original packaging

6.1 Derating curve

Power acceptance depending on the ambient air temperature








(for 5x20 and 6.3x32)

Remark

The rated accepted power of the fuse-holder is determined by a standardized testing procedure at rated current and at an ambient air temperature of 23° C, whereby the maximum permissible temperatures at the fuse-holder must not be exceeded. Application and mounting method, especially for closed fuse-holders, can influence the heating situation considerably. Therefore the heating situation has to be tested at the working condition of the fuse-holder at maximum current and ambient air temperature.

7 Approvals

Country	Certificationbody	Type	Mark
Germany	VDE	Certificate of Conformity with Factory Surveillance	
U.S.A.	UL	Recognition	
Canada	CSA	Certification Record	
Sweden	SEMKO	Certificate	
Switzerland	SEV	Certificate	

8 Order Code

The table below shows the order numbers of complete fuseholder with fuse-carrier and fuseholder.

Fuse-carrier Socket	slotted 0031.1661 6.3x32 black	slotted 0031.1663 5x20 black	slotted 0031.1664 5x20 grey	slotted 0031.1665 5x20 grey	slotted 0031.1666 6.3x32 grey	slotted 0031.1667 6.3x32 black	slotted 0031.1741 5x20 black
0031.1653	0031.1652	0031.1751			0031.1659		
0031.1657	0031.1705						
0031.1673	0031.1672	0031.1759			0031.1680	0031.1679	0031.1756
0031.1677							
0031.1681		0031.1757			0031.1758		
0031.1687							
0031.1693	0031.1692	0031.1706			0031.1699	0031.1761	0031.1762
0031.1694		0031.1754			0031.1764	0031.1765	0031.1766
0031.1695		0031.1767			0031.1768		
0031.1696		0031.1769			0031.1752		
0031.1700		0031.1753					
0031.8822	0031.8823	0031.8824					

Fuse-carrier Socket	finger-grip 0031.1811 5x20 black	finger grip 0031.1812 6.3x32 black
0031.1801	0031.1803	0031.1804
0031.1809		0031.1807

0031.XXXX.**XX**



for customer specific marking
pack at 1000 pcs.