

Smart Card Connectors with PCB Mount Wiping Contacts

Series C702E



with board locks,
dip solder pins and
self-cleaning switch

Page 32



with board locks,
dip solder pins,
3 mm stand-offs and
self-cleaning switch

Page 32



with board locks,
dual plane, 2 x 8 contacts,
dip solder pins and
self-cleaning switch

Page 33



with board locks,
dip solder pins,
3 mm stand-offs, self-cleaning
switch and card guide

Page 33



with board locks,
dip solder pins,
self-cleaning switch and
card guide

Page 34



with board locks,
dip solder pins,
self-cleaning switch,
"double decker"

Page 34,35



Screw/Rivet mounting

Page 36



with board locks
and dip solder pins

Page 36



with board locks,
SMT and self-cleaning
switch

Page 37



with board locks,
SMT, self-cleaning switch
and card guide

Page 37



with board locks,
dip solder pins,
self-cleaning switch and
card guide

Page 38

PCB Mount Wiping Contact Smart Card Connectors

Typical applications for Smart Card Connectors with wiping contacts and PCB mounting are set top boxes, toll road transponders, parking meters, utility metering systems, etc., where limited numbers of mating cycles are specified.

Design features

- Termination: dip solder pins or SMT
- self-cleaning card presence switch on most models detecting final card position
- special shape of wiping contacts minimize card scratching and wear
- Versions acc. to EMV (see page 6)
- dual plane version with 2 x 8 contacts for chip up & down card handling, suitable for applications with short dwell time of the card



Assembly instructions:

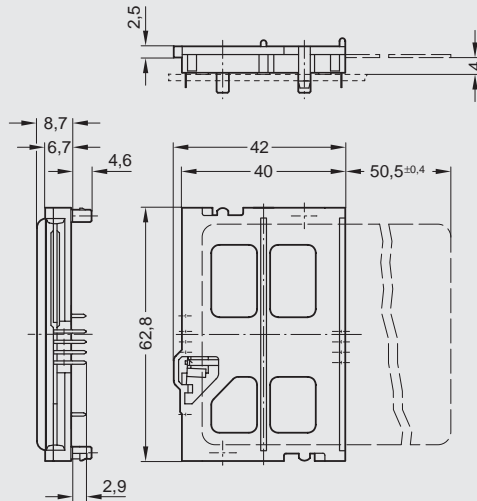
Soldering conditions

- wave soldering: 260 °C; 10 s max.
- infrared reflow 230 °C; 30 s max. (SMT versions only)

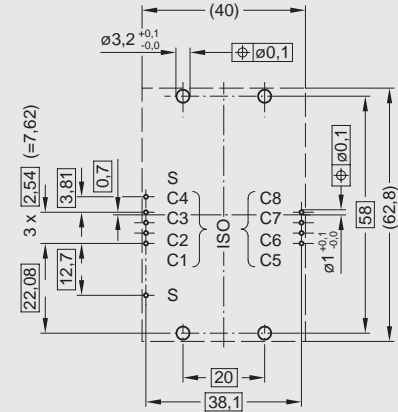
C702E Smart Card Connectors with PCB Mount Wiping Contacts



Description	Contact position	Termination	Part No.
with board lock and self-cleaning switch, acc. to EMV	ISO	Dip solder pin	C702 10M008 272 4



BESTÜCKUNGSSEITE / COMPONENTS SIDE

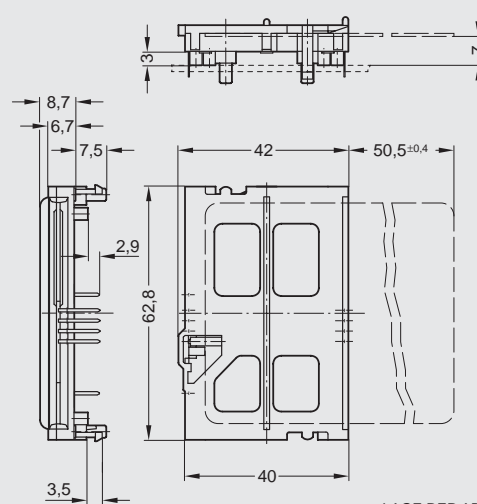


LEITERPLATTENDICKE / PCB THICKNESS = 1,4 - 1,68

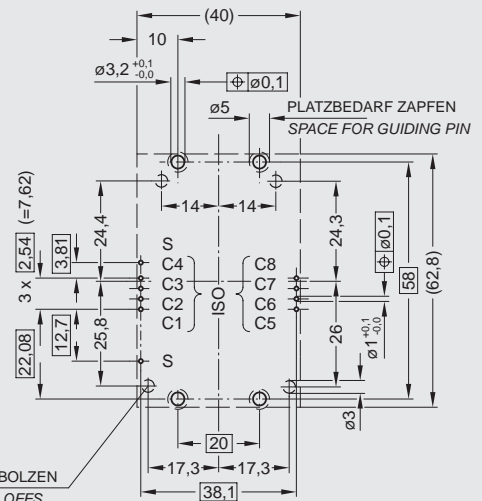
C702E Smart Card Connectors with PCB Mount Wiping Contacts



Description	Contact position	Termination	Part No.
with board lock and self-cleaning switch and 3 mm stand-offs, acc. to EMV	ISO	Dip solder pin	C702 10M008 255 4



BESTÜCKUNGSSEITE / COMPONENTS SIDE



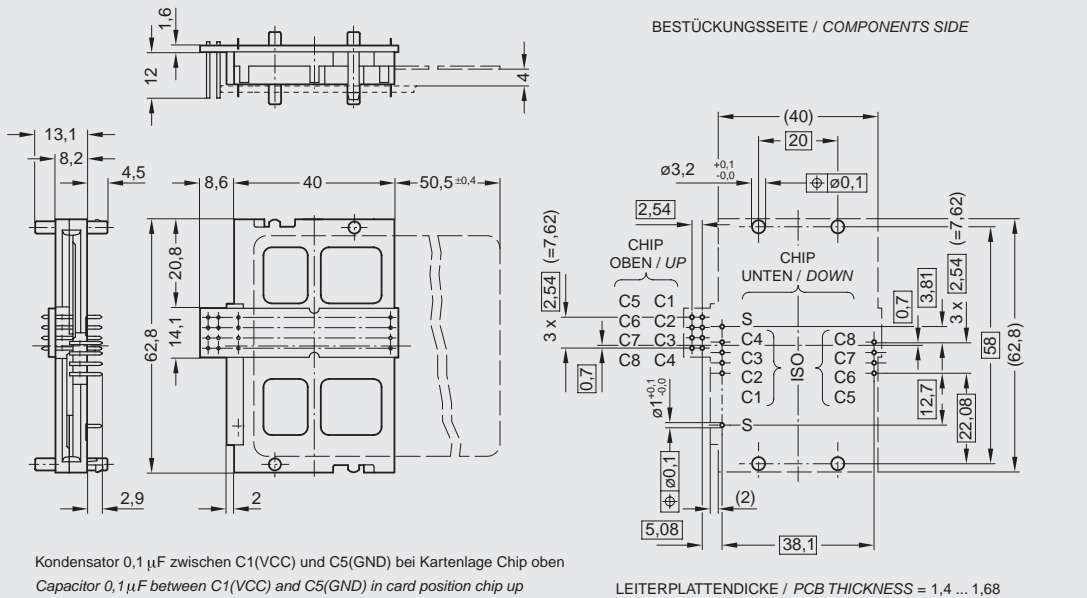
LAGE DER ABSTANDSBOLZEN
POSITION OF STAND-OFFS

LEITERPLATTENDICKE / PCB THICKNESS = 1,4 - 1,68

C702E Smart Card Connectors with PCB Mount Wiping Contacts



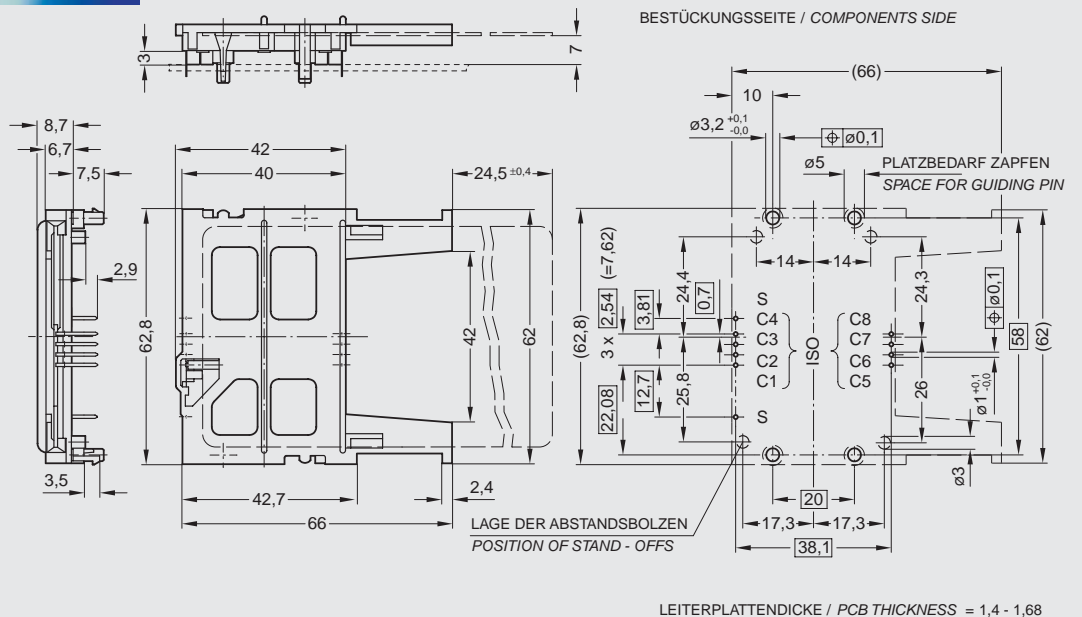
Description	Contact position	Termination	Part No.
with board lock and self-cleaning switch, dual plane, 2 x 8 contacts, acc. to EMV	ISO (Data contacts top and bottom side)	Dip solder pin	C702 10M008 271 4



C702E Smart Card Connectors with PCB Mount Wiping Contacts



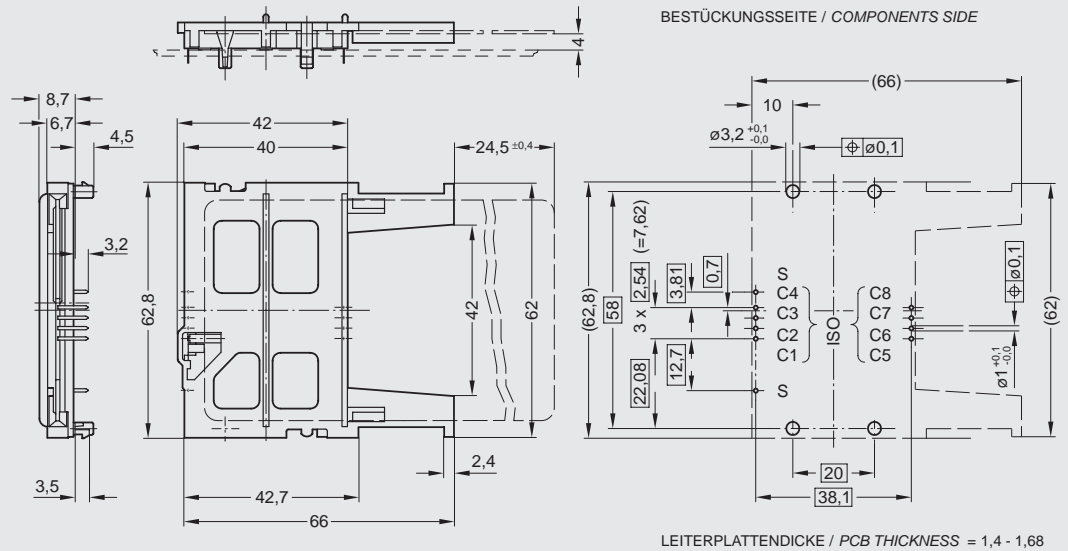
Description	Contact position	Termination	Part No.
with board lock, self-cleaning switch and card guide, 3 mm stand-offs, acc. to EMV	ISO	Dip solder pin	C702 10M008 283 4



C702E Smart Card Connectors with PCB Mount Wiping Contacts



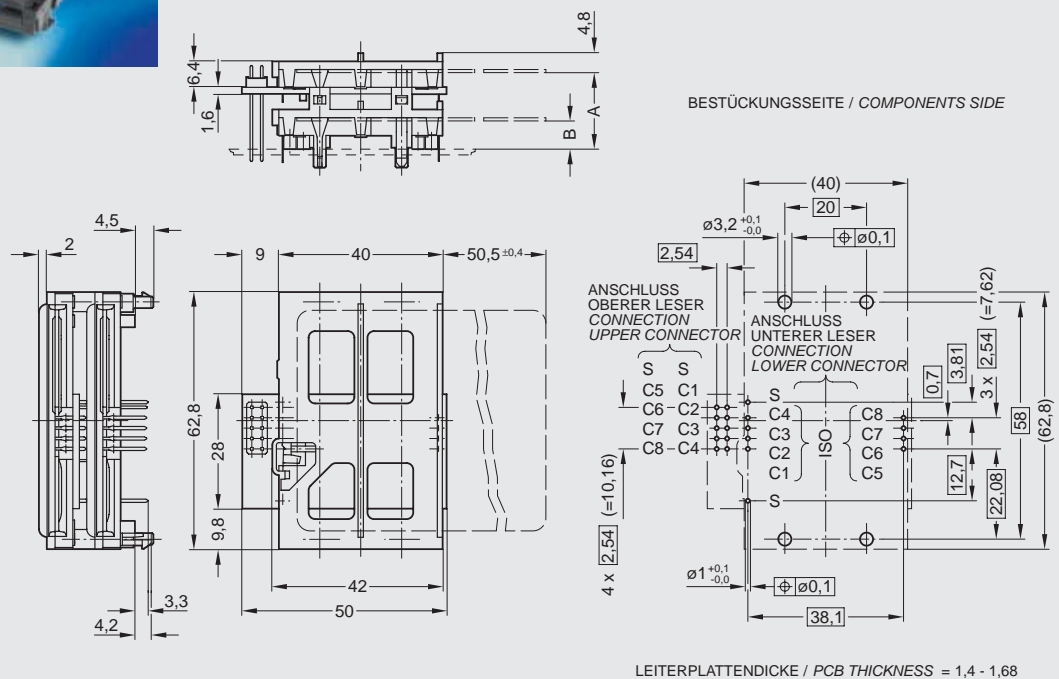
Description	Contact position	Termination	Part No.
with board lock, self-cleaning switch and card guide, acc. to EMV	ISO	Dip solder pin	C702 10M008 286 4



C702E Smart Card Connectors with PCB Mount Wiping Contacts



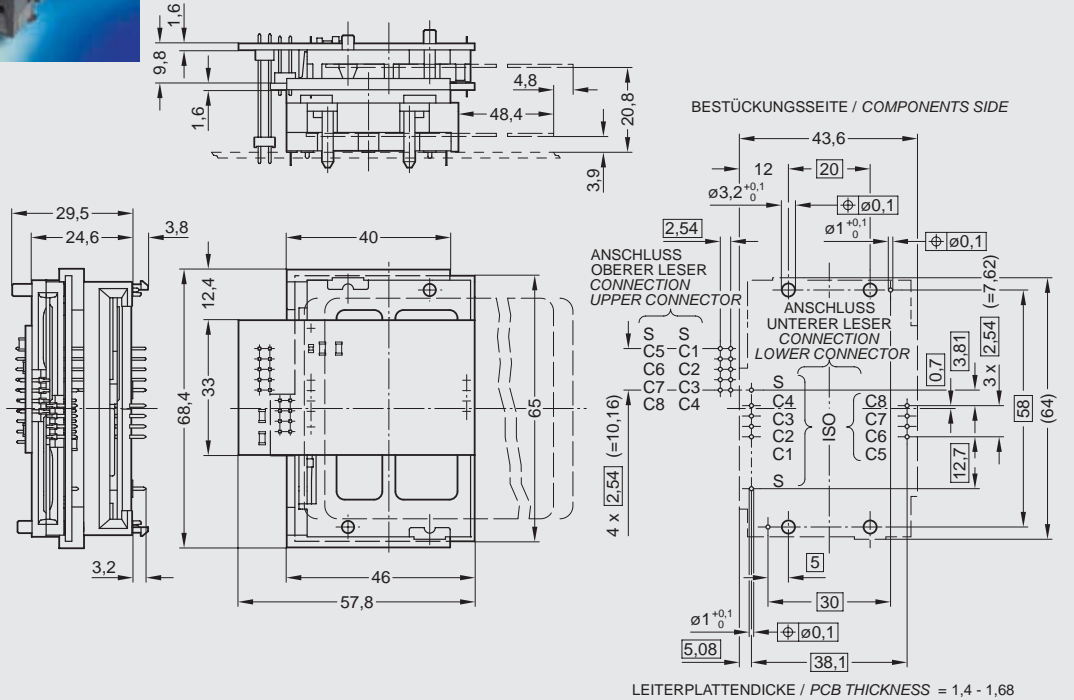
Description	Contact position	Termination	stand off	dim. A	dim. B	Part No.
double decker	ISO	Dip solder pin	-	15.7 mm	3.9 mm	C702 10M008 278 4
with board lock and self cleaning switch	ISO	Dip solder pin	3 mm	18.7 mm	6.9 mm	C702 10M008 279 4
	ISO	Dip solder pin	-	20.5 mm	3.9 mm	C702 10M008 295 4



C702E Smart Card Connectors with PCB Mount Wiping Contacts



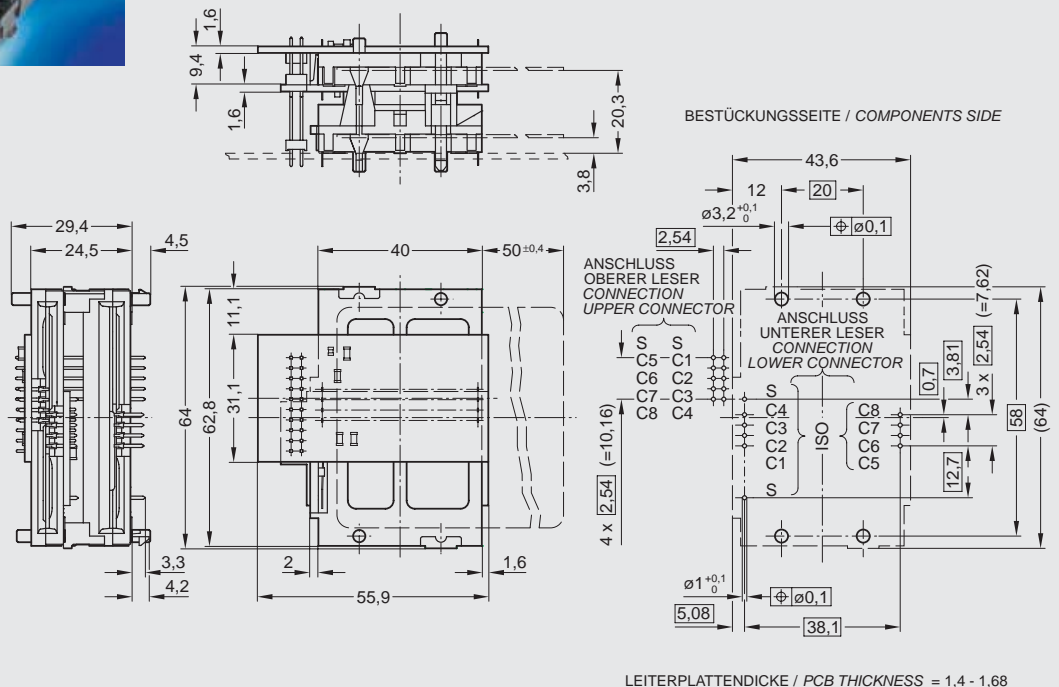
Description	Contact position	Termination	Part No.
double decker, with board lock and self cleaning switch, 5mm overhang, bottom part for double thickness cards, upper part, dual plan 2x8 contacts	ISO	Dip solder pin	C702 10M008 290 4



C702E Smart Card Connectors with PCB Mount Wiping Contacts



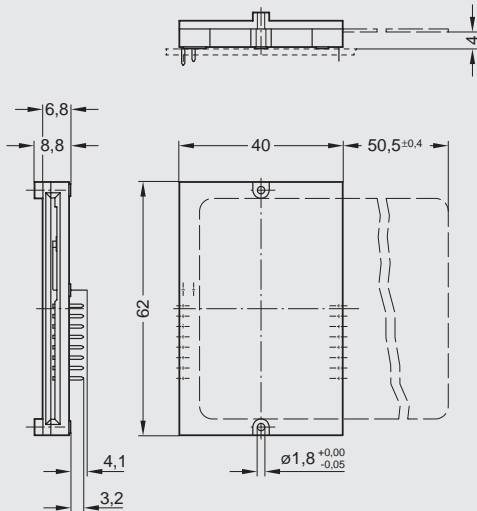
Description	Contact position	Termination	Part No.
double decker, with board lock and self cleaning switch, bottom part for double thickness cards, upper part, dual plan 2x8 contacts	ISO	Dip solder pin	C702 10M008 294 4



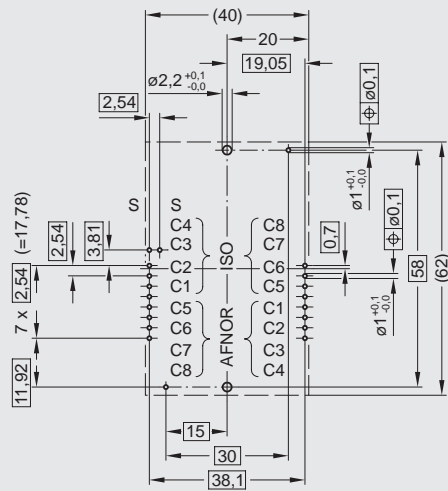
C702E Smart Card Connectors with PCB Mount Wiping Contacts



Description	Contact position	Termination	Part No.
Screw /	ISO	Dip solder pin	C702 10M008 201 4
Rivet mounting	AFNOR	Dip solder pin	C702 10M008 202 4
	ISO + AFNOR	Dip solder pin	C702 10M008 203 4



BESTÜCKUNGSSEITE / COMPONENTS SIDE

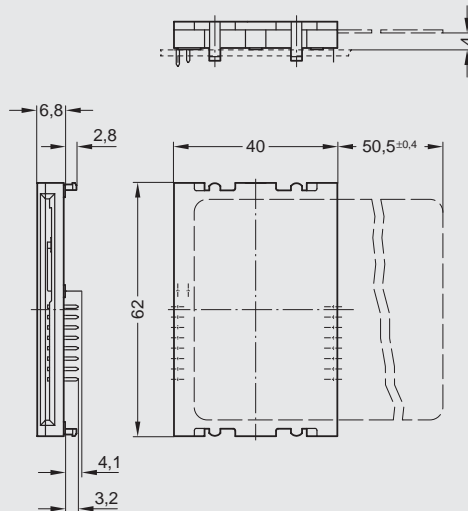


LEITERPLATTENDICKE / PCB THICKNESS = 1,6 ... 2,4

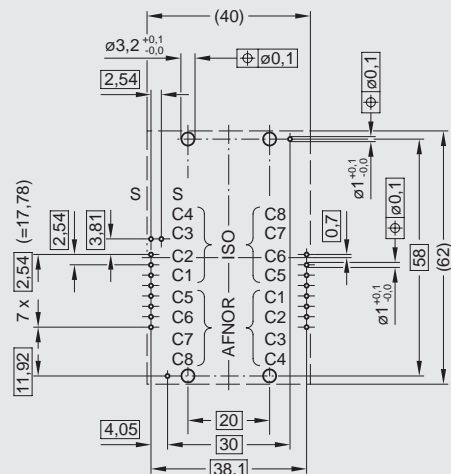
C702E Smart Card Connectors with PCB Mount Wiping Contacts



Description	Contact position	Termination	Part No.
with board lock	ISO	Dip solder pin	C702 10M008 206 4
	AFNOR	Dip solder pin	C702 10M008 207 4
	ISO + AFNOR	Dip solder pin	C702 10M008 205 4



BESTÜCKUNGSSEITE / COMPONENTS SIDE

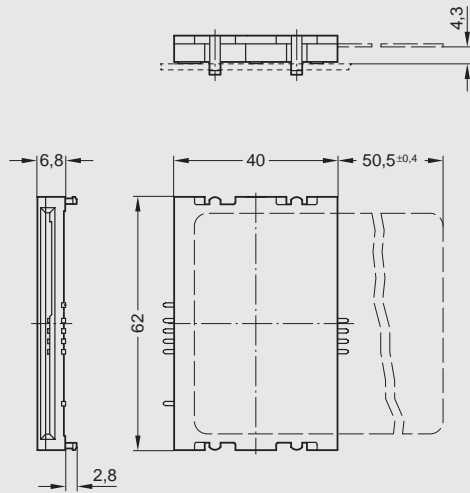


LEITERPLATTENDICKE / PCB THICKNESS = 1,4 ... 1,68

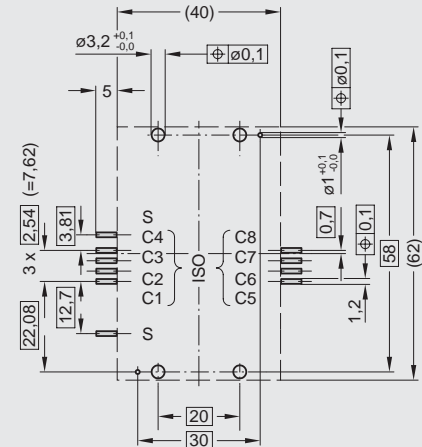
C702E Smart Card Connectors with PCB Mount Wiping Contacts



Description	Contact position	Termination	Part No.
with board lock and self-cleaning switch	ISO	SMT	C702 10M008 244 4



BESTÜCKUNGSSEITE / COMPONENTS SIDE

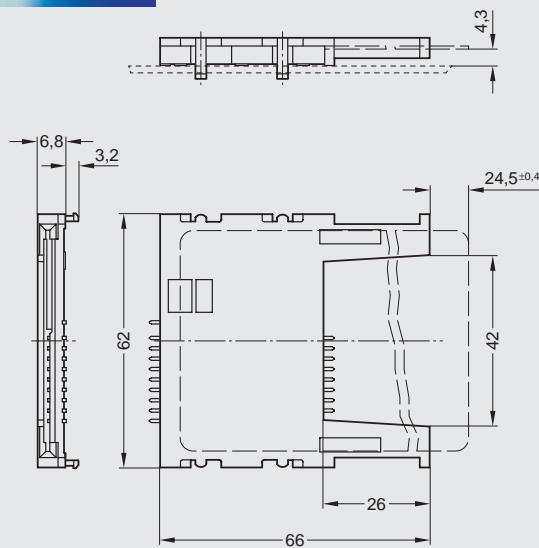


LEITERPLATTENDICKE / PCB THICKNESS = 1,4 - 1,68

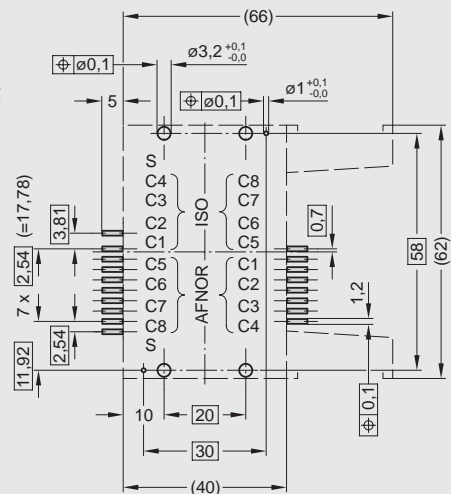
C702E Smart Card Connectors with PCB Mount Wiping Contacts



Description	Contact position	Termination	Part No.
with board lock, self-cleaning switch and card guide	ISO	SMT	C702 10M008 230 4
	ISO + AFNOR	SMT	C702 10M008 224 4



BESTÜCKUNGSSEITE / COMPONENTS SIDE

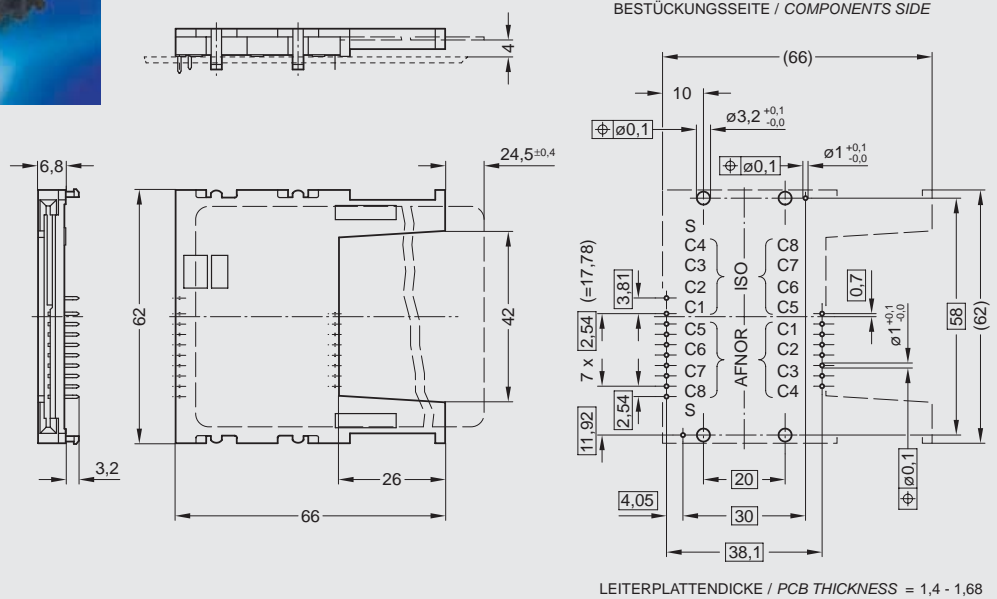


LEITERPLATTENDICKE / PCB THICKNESS = 1,4 - 1,68

C702E Smart Card Connectors with PCB Mount Wiping Contacts



Description	Contact position	Termination	Part No.
with board lock, self-cleaning switch and card guide	ISO	Dip solder pin	C702 10M008 226 4
	ISO + AFNOR	Dip solder pin	C702 10M008 235 4



C702E Technical Data

Electrical Characteristics	Standard	Value
Contact resistance without cable or flexprint	IEC 60512-2, Test 2a	Data contacts $\leq 30 \text{ m}\Omega$ Switch contacts $\leq 50 \text{ m}\Omega$
Insulation resistance	IEC 60512-2, Test 3a	$\geq 10^9 \Omega$
High voltage resistance	IEC 60512-2, Test 4a	500 V _{AC} ; 1 min

Climatical Characteristics

Climatic category	IEC 60068-1	25 / 70 / 21
Operating temperature		- 25 °C ... + 70 °C
Storage temperature		- 40 °C ... + 85 °C

Mechanical Characteristics

Card insertion force	IEC 60512-7, Test 13b	$\leq 5 \text{ N}$	$\leq 12 \text{ N}$ at "dual plane" 2 x 8 contacts
Card extraction force	IEC 60512-7, Test 13b	$\geq 1 \text{ N}$	
Mechanical lifetime	IEC 60512-5, Test 9a (without corrosion stress)	100,000 mating cycles	
Vibration	IEC 60512-4, Test 6d	f = 10 ... 60 Hz 0,35 mm DA f = 60 ... 500 Hz a = 2.5 g 2 h / axis	
Shock, without disconnection	IEC 60512-4, Test 6c	$\leq 40 \text{ g}$; 11 ms; halfsine 3 shocks / direction in 3 axis	
Shock, without destruction	IEC 60512-4, Test 6c	200 g; 6 ms; halfsine 2 shocks / direction in 3 axis	
Contact force		20 ... 50 cN	

Switch

Card presence switch		normally closed
Switch sequence	The card presence switch is activated after the data contacts have mated with the contact field and before the card reaches its final position.	
Chattering time		$\leq 5 \text{ ms}$