

Incorporating experience and expertise gained from M2M, C&K introduces new versions of the CCM03 family, which are designed to withstand the most extreme conditions and to accommodate specific manufacturing processes.

Based on CCM03-3009:

CCM03-3001 with inlay contacts for application in hot and humid environment (example - outdoor smart meters)

CCM03-3511 with an increased contact force to withstand shock and high vibration (example - tracking devices)

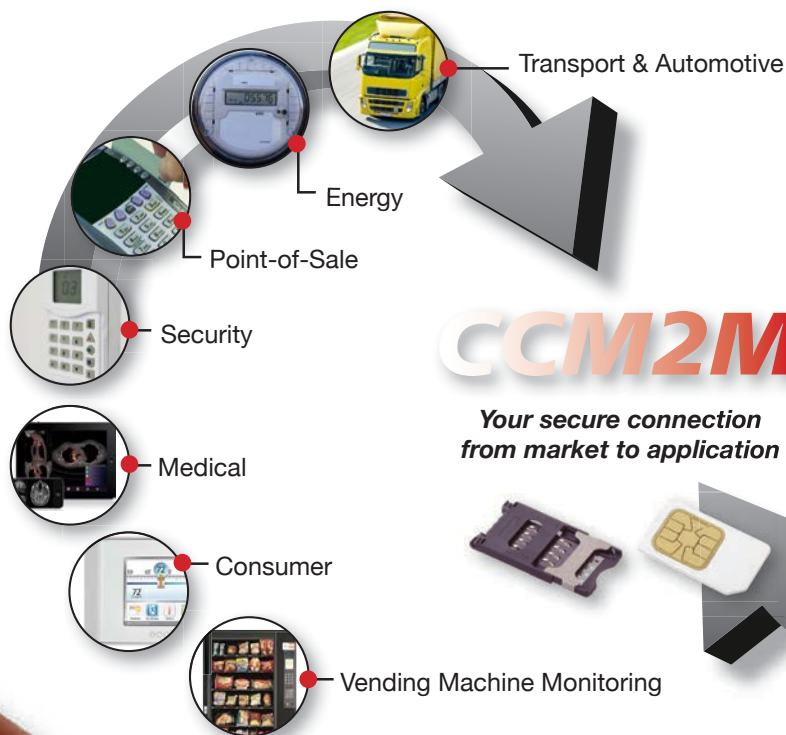
CCM03-3512 with extended soldering pads to withstand a second reflow upside down

Based on CCM03-3013

CCM03-3513 with extended soldering pads to withstand a second reflow upside down.

C&K's CCM03 series smart card connector offers a built-in card detection switch for machine-to-machine applications. The harsh environment connectors meet IEC 512 certification and are resistant to shock, vibration, humidity and extreme temperatures.

The CCM03 connectors deliver an advanced contact system that optimizes electrical performance, flexibility and reliability, while minimizing the electrical contact resistance and overall cost.



## CCM2M

*Your secure connection  
from market to application*



- Asset
- Monitoring
- Supply Chain
- Location
- Automation
- Diagnostics
- Enterprise
- Middleware
- Infrastructure
- LAN/WAN
- Wireless
- RFID



## Mechanical

Number of contacts	6
Mechanical life, hinged cover	10,000 cycles min
Card insertion force Hinged cover:	1N max
Card extraction force Hinged cover:	1N max
Contact force	0,25N min / 0,50N max
High force option	0,35N to 0,65N
Slide locking force	2N min / 6N max
	1,8N max. for complete depression
Vibration frequency	10 to 500 Hz. Acceleration 50m/s <sup>2</sup> Duration 6 hours – amplitude 0,35 mm
Max electrical discontinuity	1µs
Shock peak value	500 m/s <sup>2</sup> – Duration 11 ms 3 shocks in each direction of each axis



## Switch Electrical Data

Card detection switch	Normally open
Contact resistance	100 mΩ max
Dielectric strength	250 Vrms min
Current rating	1 mA min / 10m A max
Maximum power	0.2 VA

## Environment Data

Operating temperature	-40°C to +85°C
Damp heat	IEC 512 test number 11c (10 days)
Salt mist	IEC 512 test number 11f (96 hours)
RoHS compliant	

## Soldering Process

Compatible with lead free SMT soldering process



## Contact Electrical Data

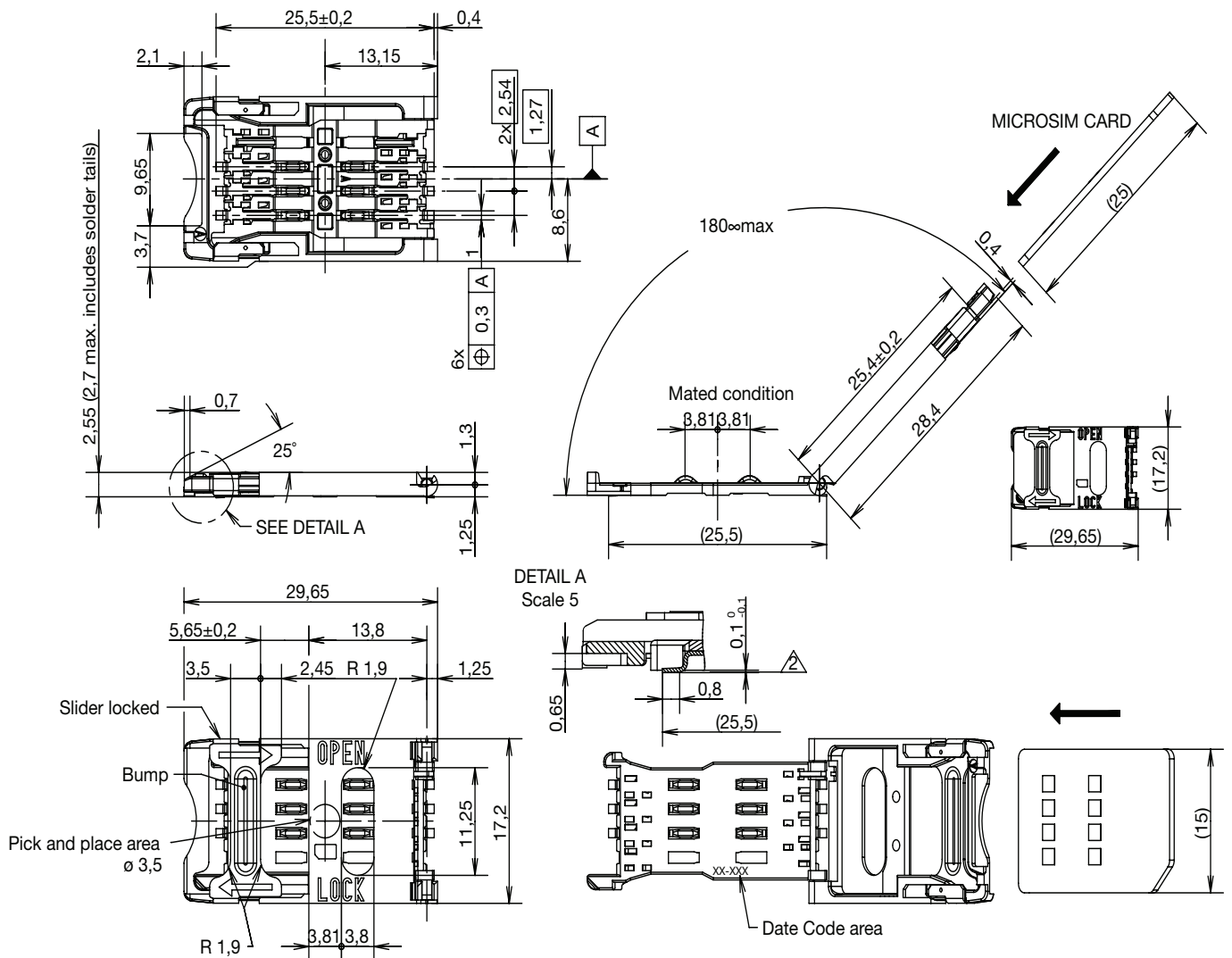
Insulation resistance	1,000 MΩ min
Resistance	100 mΩ max
Current rating	10 µA min / 1 A max
Dielectric strength	750 Vrms min

Designation	Contact Plating	Cover	# of Contacts	Card Presence Switch	Operating Life	Total Height (mm)	Dim. (mm)	Packaging
CCM03-3009LFT	gold	hinged	6	without	10,000	2,55	17,2 x 29,65	reels of 1,000 pcs
CCM03-3013LFT	gold	hinged	6	with	10,000	2,55	17,2 x 29,65	reels of 1,000 pcs

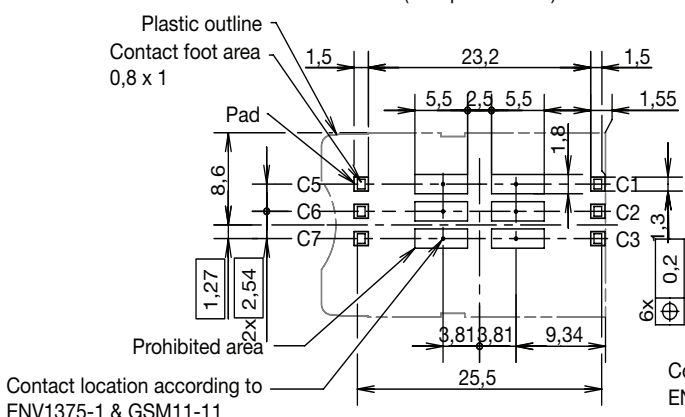
Inlay contacts, high forces, long soldering pads available on demand



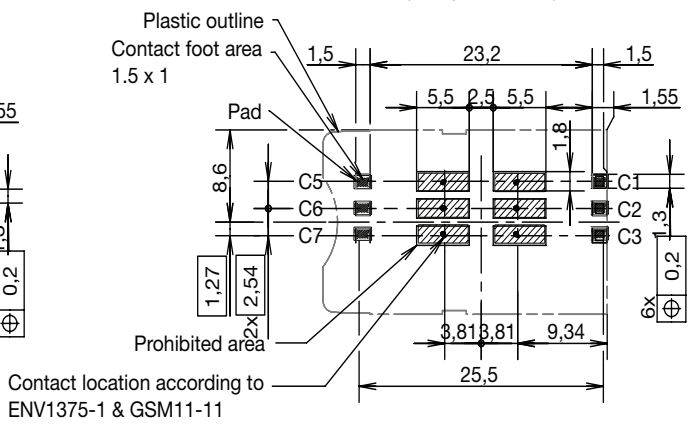
# CCM03-3009 LFT



RECOMMENDED PC BOARD LAYOUT  
(Component side)



RECOMMENDED PC BOARD LAYOUT  
(Component side)



Long soldering pads option

# CCM03-3013 LFT

