# Rack and Panel Connectors Military, MIL-C-28748/7/8 Qualified and Commercial Microminiature Rectangular



## FEATURES

- Qualified to MIL-C-28748/7/8
- Solder cup contacts
- Dip solder contacts
- Fixed and turnable screwlocks
- Optional closed entry socket contacts

## APPLICATIONS

Especially suited for use in airborne, instrumentation and portable equipment applications or wherever the following requirements must be met: Minimum space and weight without sacrifice of performance, high quality materials, long service life, high vibration and shock resistance and positive locking.

## ELECTRICAL SPECIFICATIONS

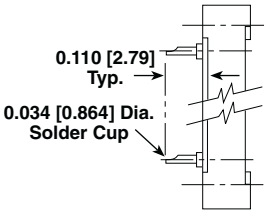
**Current Rating:** Model MM22 = 5 A
Model MM24 = 3 A
**Breakdown Voltage:** At sea level: 2000 $V_{RMS}$
At 70 000 feet: 500 $V_{RMS}$

## MATERIAL SPECIFICATIONS

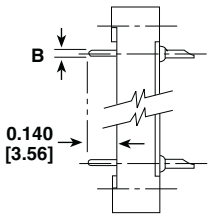
**Contact Pin:** Phosphor bronze
**Contact Socket:** Phosphor bronze (Beryllium copper available on request)
**Contact Plating:** Gold
**Screwlocks:** Stainless steel, passivated
**Guides:** Brass, gold plated or stainless steel, passivated
**Standard Body:** Glass-filled diallyl phthalate per MIL-M-14, Model SDG-F, green

## DIMENSIONS in inches [millimeters]

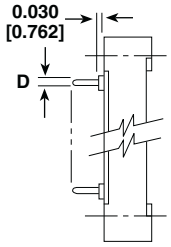
**MMS**
**With Solder Cup Contacts**



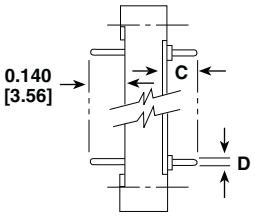

**MMP**
**With Solder Cup Contacts**




**MMDS**
**With Dip Solder Contacts**




**MMDP**
**With Dip Solder Contacts**




| CONTACT GAUGE | B DIAMETER | CONTACT GAUGE | C DIP TAIL LENGTH | D DIAMETER |
|---|---|---|---|---|
| 22 AWG | 0.030 ± 0.001 [0.762 ± 0.025] | 22 AWG | 0.160 or 0.350 [4.06 or 8.89] nom. | 0.025 [0.635] |
| 24 AWG | 0.025 ± 0.001 [0.635 ± 0.025] | 24 AWG | 0.160 or 0.350 [4.06 or 8.89] nom. | 0.025 [0.635] |



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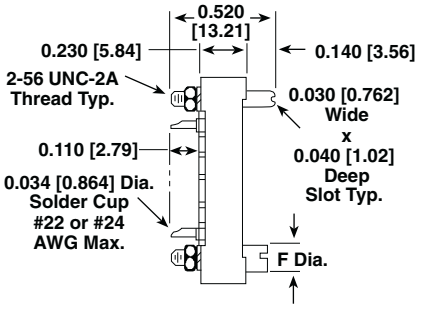
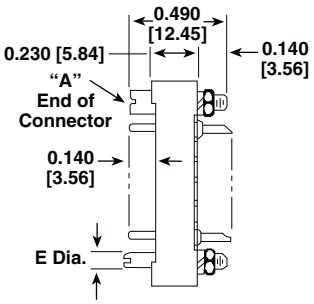
## DIMENSIONS in inches [millimeters]

### MMS With Fixed (026, 027) Guides

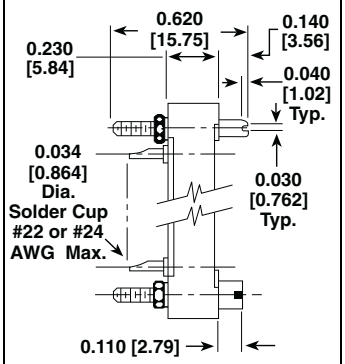



### MMP With Fixed (026, 027) Guides

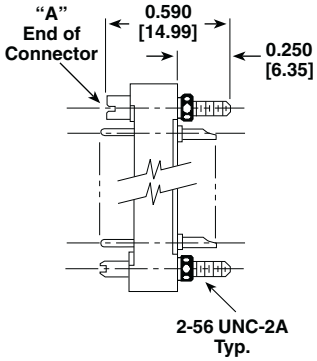



| HARDWARE TYPE | E DIAMETER | F DIAMETER |
|---|---|---|
| 026 | 0.078 [1.98] | 0.125 [3.17] |
| 026L | 0.078 [1.98] | 0.125 [3.17] |
| 027 | 0.078 [1.98] | 0.125 [3.17] |
| 027L | 0.078 [1.98] | 0.125 [3.17] |

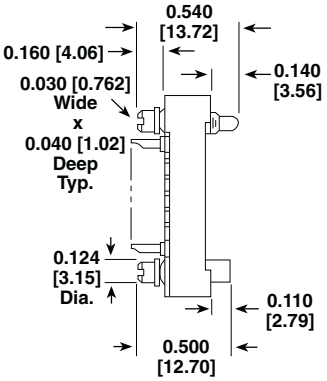
### MMS With Fixed (026L, 027L) Guides



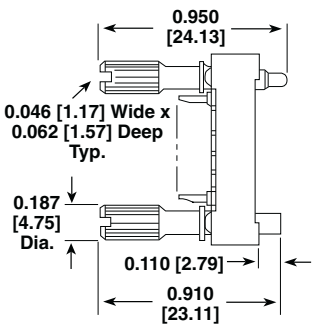

### MMP With Fixed (026L, 027L) Guides



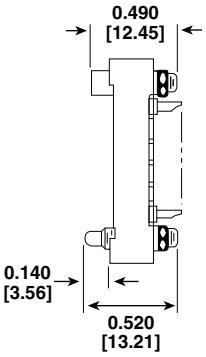

### Short Turnable Screwlocks (SK030)



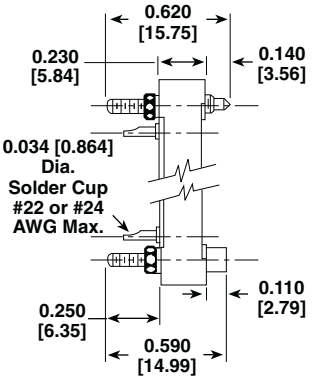

### Turnable Screwlocks (SK)



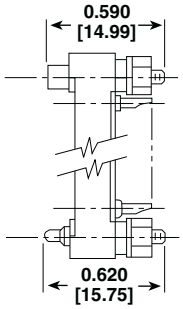

### Fixed Screwlocks (SL)



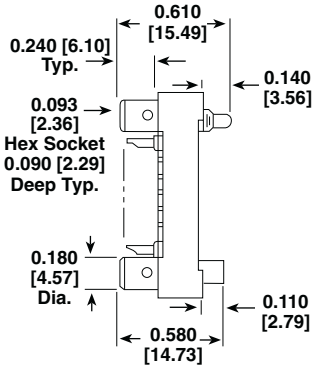

### Fixed Screwlocks (SLL)




### Fixed Screwlocks And Nylon Retaining Nut And Fiber Washer (NSL)




### Short Turnable Screwlocks (SK2035)





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## HARDWARE MATING CHART

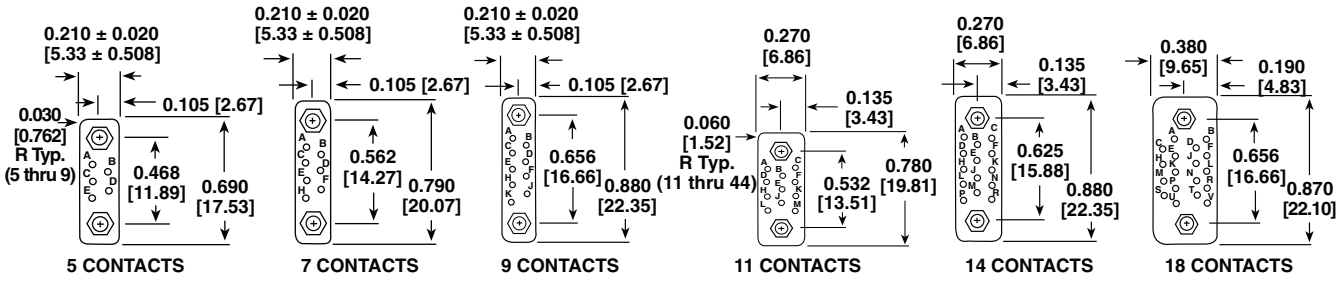
| HARDWARE MODEL | MATES WITH HARDWARE MODEL |
|---|---|
| 026 | 026, 026L |
| 027 | 027, 027L |
| SK | SL, NSL or SLL |
| SK030 | SL, NSL or SLL |
| SK2 | SL2, NSL2 or SL2L |
| SK2030 | SL2, NSL2 or SL2L |
| SK2035 | SL2, NSL2 or SL2L |

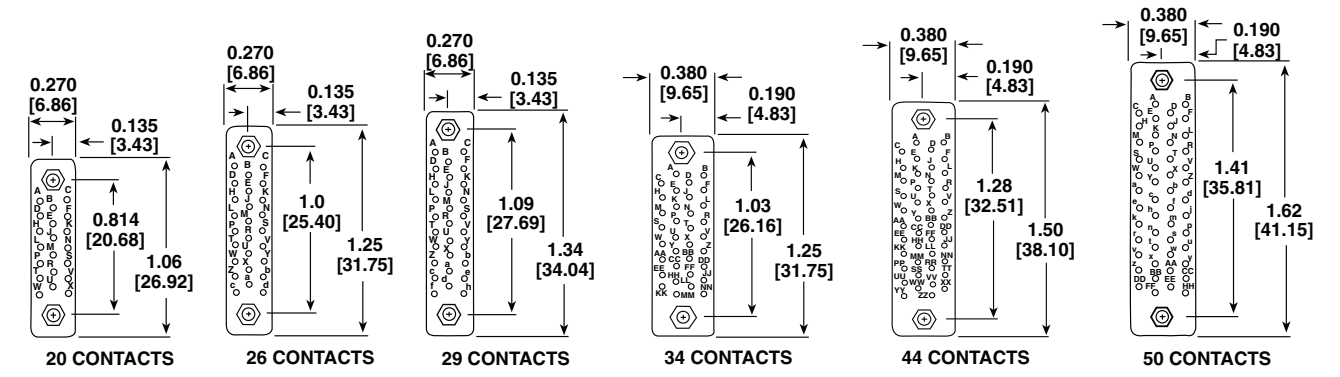
**NOTE:**
EITHER MMP OR MMS CONNECTORS MAY BE ORDERED WITH ANY TYPE OF HARDWARE SHOWN.

**EXAMPLES:**
1. MMP WITH 026 HARDWARE WOULD MATE WITH AN MMS WITH 026 HARDWARE.
2. MMS WITH SK HARDWARE WOULD MATE WITH AN MMP WITH SL OR NSL HARDWARE.
3. MMS WITH SL2 HARDWARE WOULD MATE WITH AN MMP WITH SK2 OR SK2030 HARDWARE.

## DIMENSIONS in inches [millimeters]

**NOTE:** The views below show the wiring side of a pin model connector (female is opposite). Socket hardware assembled at "A" contact end of a pin model connector.



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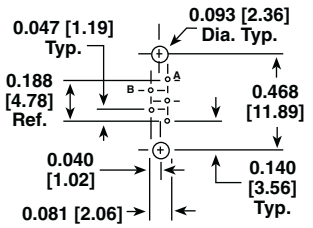
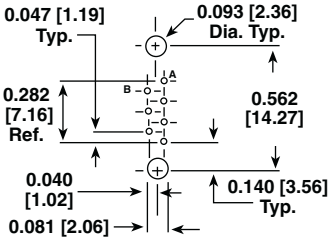
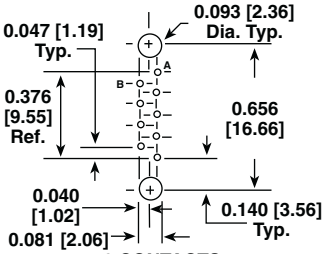
## MOUNTING VARIATIONS in inches [millimeters]




5 CONTACTS

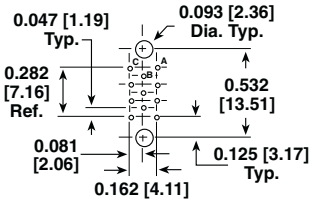



7 CONTACTS

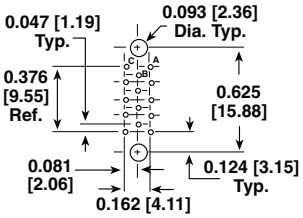



9 CONTACTS

**DIP SOLDER PC BOARD MOUNTING PATTERNS**
Male (MMP) connector shown - female is opposite. Contact, contact row and mating hole $C_L$ to $C_L$ Dimensions also applies to solder cup style connectors.




11 CONTACTS

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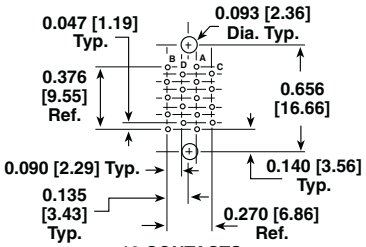
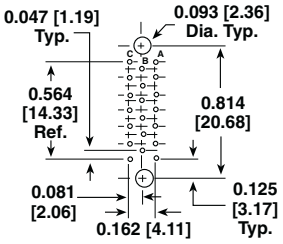
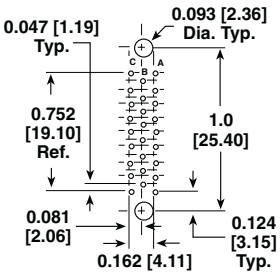


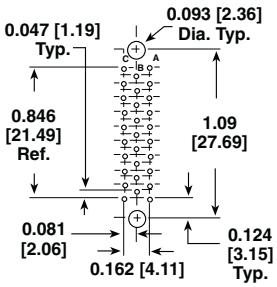

18 CONTACTS



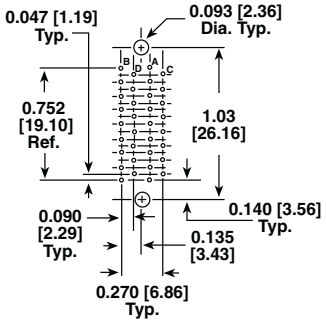

20 CONTACTS



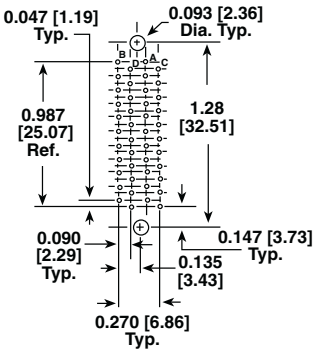

26 CONTACTS



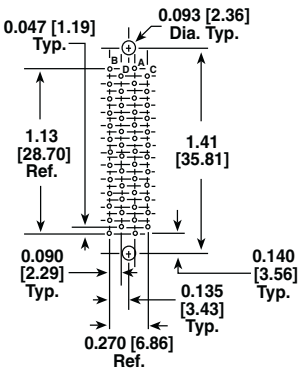

29 CONTACTS




34 CONTACTS




44 CONTACTS

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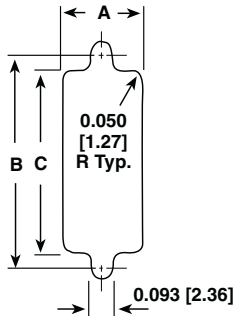
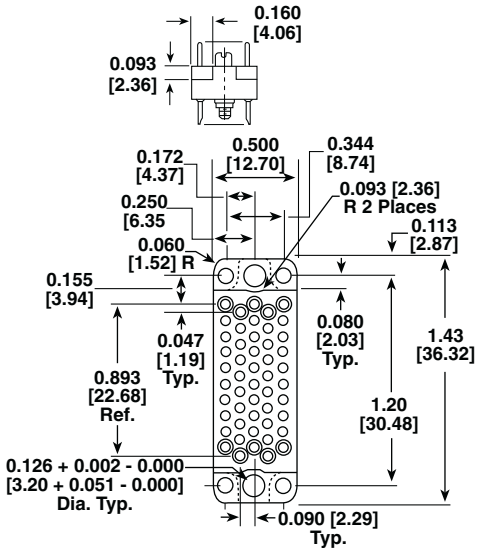
## PANEL CUTOUT in inches [millimeters]

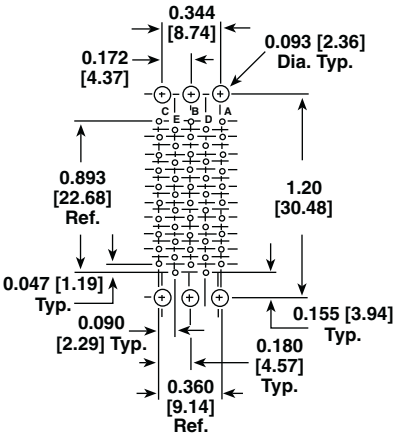



| NUMBER OF CONTACTS | A | B | C | NUMBER OF CONTACTS | A | B | C |
|---|---|---|---|---|---|---|---|
| 5 | 0.210 [5.33] | 0.468 [11.89] | 0.340 [8.64] | 20 | 0.270 [6.86] | 0.814 [20.68] | 0.690 [17.53] |
| 7 | 0.210 [5.33] | 0.562 [14.27] | 0.440 [11.18] | 26 | 0.270 [6.86] | 1.0 [25.40] | 0.870 [22.10] |
| 9 | 0.210 [5.33] | 0.656 [16.66] | 0.530 [13.46] | 29 | 0.270 [6.86] | 1.09 [27.69] | 0.970 [24.64] |
| 11 | 0.270 [6.86] | 0.532 [13.51] | 0.410 [10.41] | 34 | 0.380 [9.65] | 1.03 [26.16] | 0.910 [23.11] |
| 14 | 0.270 [6.86] | 0.625 [15.88] | 0.500 [12.70] | 44 | 0.380 [9.65] | 1.28 [32.51] | 1.16 [29.46] |
| 18 | 0.380 [9.65] | 0.656 [16.66] | 0.530 [13.46] | 50 | 0.380 [9.65] | 1.41 [35.81] | 1.28 [32.51] |

## DIMENSIONS in inches [millimeters]

**NOTE:** The views below show the wiring side of a pin model connector (socket style is opposite). Socket hardware is assembled at "A" contact end of pin connector.

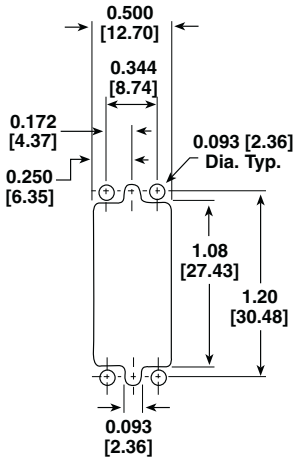



"C50" Configuration

## PANEL CUTOUT

in inches [millimeters]




"C50" Configuration

### DIP SOLDER PC BOARD MOUNTING PATTERNS

Male (MMP) connector shown - female is opposite. Contact, contact row and mating hole $C_L$ to $C_L$ dimensions also applies to solder cup style connectors.



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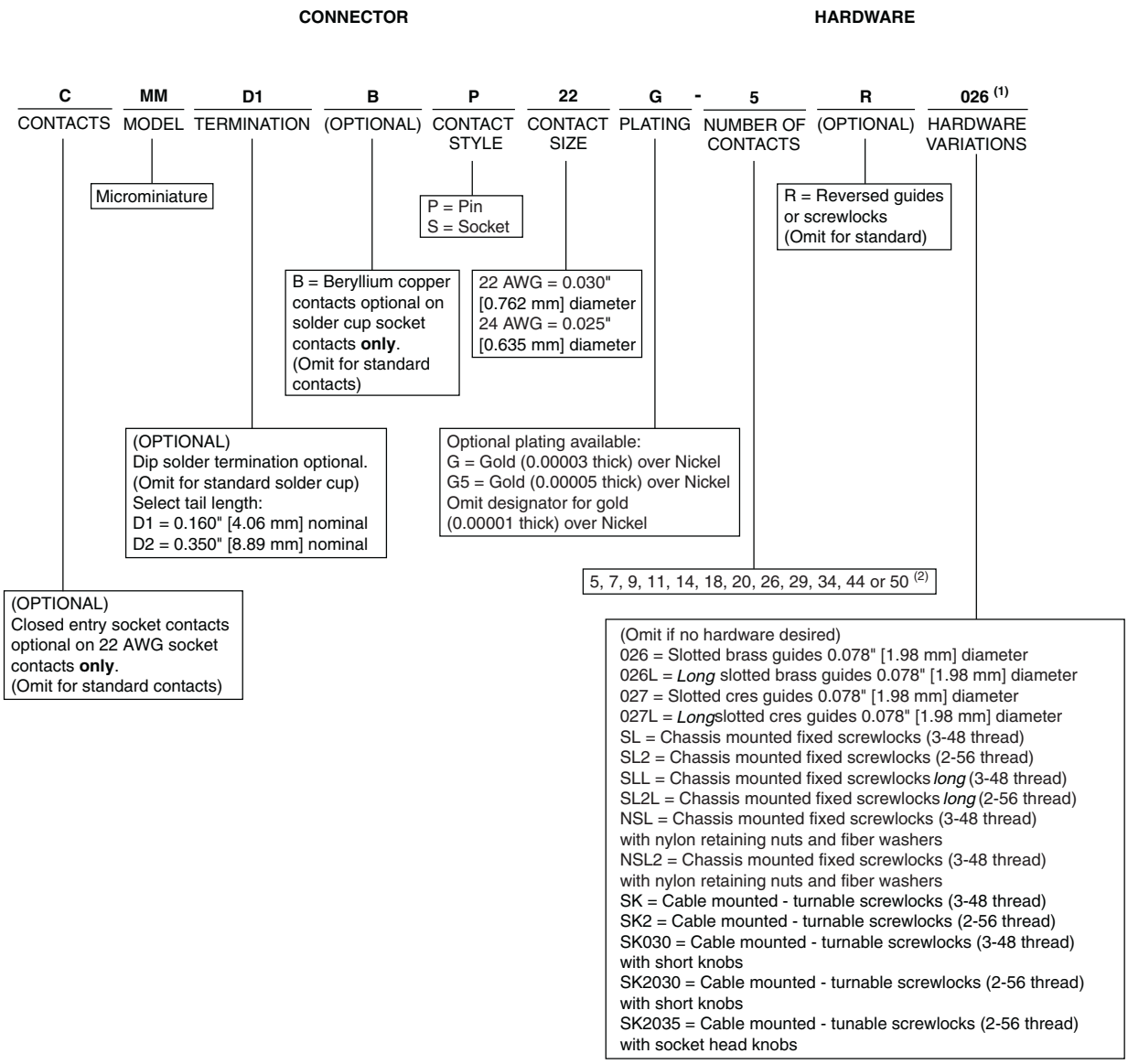
## ORDERING INFORMATION




**Notes**

(1) To order complete connector with hardware supplied unassembled, add suffix “UA” on end of hardware designation.

(2) 50 contact connectors are available in either the standard 4-row contact arrangement per MIL-C-28748 or a special 5-row contact arrangement. To order the special 5-row contact arrangement, use the designator “C50” for the number of contacts.



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