

# Microminiature Circular - .050" Contact Spacing

# MICRO-K

MICRO-K microminiature circular connectors are rugged yet lightweight - and meet or exceed the applicable requirements of MIL-DTL-83513. Applications include biomedical, instrumentation and miniature black boxes.

**MIK:** Accommodate up to 55 contacts on .050 (1.27) centers (equivalent to 420 contacts per square inch). Five keyway polarization prevents cross plugging. The threaded coupling nuts provide strong, reliable coupling. MIK receptacles can be either front or back panel mounted; in back mounting applications, panel thickness of up to 3/32" can be used on the larger sizes. Maximum temperature range - 55°C to + 125°C.

Standard MIK connectors are available in two shell sizes accommodating two contact arrangements pre-wired to your specific requirements.

**MIKM:** Similar to our MIK, except has a steel shell and receptacle for improved ruggedness and RFI resistance. It accommodates up to 85 twist pin contacts. Maximum temperature range - 55°C to + 125° C.

**MIKQ:** A quick disconnect metal shell and receptacle version that can be instantaneously disconnected yet provides a solid lock when engaged. Applications include commercial TV cameras, portable

radios, military gun sights, airborne landing systems and medical equipment. Maximum temperature range - 55°C to +125°C.



## Specifications

### STANDARD MATERIAL AND FINISHES

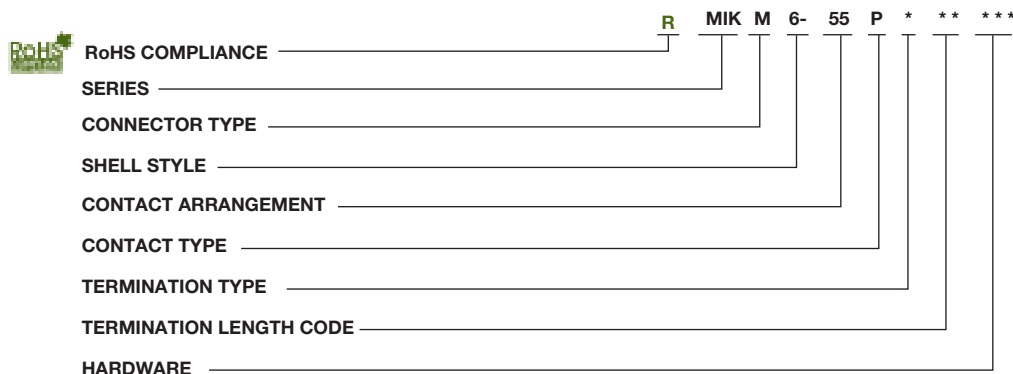
	MIK	MIKM	MIKQ
Shell	Thermoplastic	Stainless Steel	Brass
Coupling Nut	Stainless Steel Passivated	Stainless Steel Passivated	Brass, Electroless Nickel Plated*
Insulator	Glass-reinforced Thermoplastic	Glass-reinforced Thermoplastic	Glass-reinforced Thermoplastic
Contacts	50 Microinch Gold Plated Copper Alloy	50 Microinch Gold Plated Copper Alloy	50 Microinch Gold Plated Copper Alloy

\*For plug only  
Electrodeposited for receptacle.

### ELECTRO/MECHANICAL FEATURES

	MIK	MIKM	MIKQ
No. of Contacts	7,55	7,55, 85	7,19, 37
Wire Size	#24 AWG thru #32 AWG	#24 AWG thru #32 AWG	#24 AWG thru #32 AWG
Contact Termination	Crimp	Crimp	Crimp
Contact Rating	3 Amps	3 Amps	3 Amps
Coupling	Threaded	Threaded	Push/Pull
Polarization	Keyways	Keyways	Keyways
Contact Spacing	.050 (1.27) Centers	.050 (1.27) Centers	.050 (1.27) Centers
Shell Styles	0-Wall Mtg. 6-Straight Plug	0-Wall Mtg. 6-Straight Plug	7-Jam Nut 6-Straight Plug 9-Rear Panel Mtg. Receptacle

## How to Order



### SERIES

MIK: Microminiature Circular

### CONNECTOR TYPES

No Letter - Screw coupling, plastic shell  
M - Screw coupling, metal shell  
Q - Push/Pull, metal shell

### SHELL STYLES

0 - Wall mounting receptacle (MIK and MIKM only)  
6 - Straight plug (MIK, MIKM and MIKQ)  
7 - Jam nut mount (MIKQ only)  
9 - Rear panel mounted receptacle (MIKQ)

### CONTACT ARRANGEMENTS

7, 19, 37, 55, 85

### CONTACT TYPE

P - Pin  
S - Socket

### TERMINATION TYPES

H - Insulated round hook-up wire  
L - Uninsulated round solid wire

### TERMINATION LENGTH CODE (STANDARDS)

(H) 001 - 18", 7/34 strand, #26 AWG, MIL-W-16878/4, Type E Teflon, yellow.  
(H) 003 - 18", 7/34 strand, #26 AWG, MIL-W-16878/4, Type E Teflon, color coded to MIL-STD-681 System I.  
(L) 1 - 1/2" uninsulated solid #25 AWG gold plated copper.  
(L) 2 - 1" uninsulated solid #25 AWG gold plated copper.

### HARDWARE

G - Cable nut and grip (MIKQ plug only)  
N - Nut only (MIKQ plug only)

NOTE: Contact types cannot be interchanged between shell styles.



Dimensions shown in inch (mm)  
Specifications and dimensions subject to change

www.ittcannon.com

## Standard Wire Termination Codes

The following termination codes are listed for your information. For additional codes please refer to Appendix on page 79 and 81. **All wire lengths are minimum.**

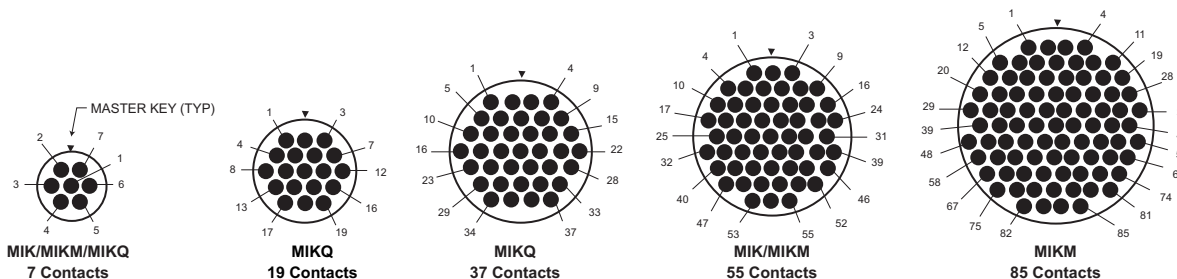
### HARNESS TYPES (H)

#26 AWG per MIL-W-16878 Type E, Teflon Stranded

Length	-All Yellow	Color Coded
3 (76.2)	020	027
6 (152.4)	019	016
8 (203.2)	026	034
10 (254.0)	029	025
12 (304.8)	028	002
18 (457.2)	001	003
20 (508.0)	038	023
24 (609.6)	009	004
30 (762.0)	010	005
36 (914.4)	011	006
48 (1219.2)	013	048
72 (1828.8)	017	046
120 (3048.0)	042	041

## Contact Arrangements

### Face View, Pin Side-(Male Twist Pin Contacts)

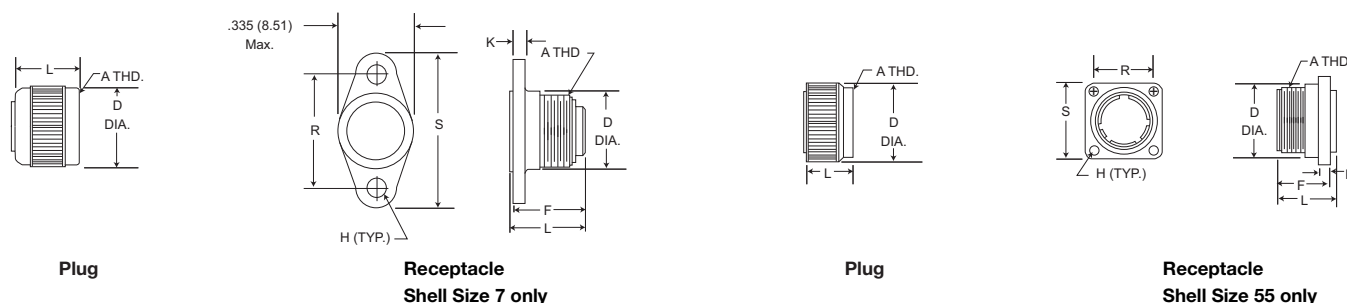


Cavity identification numbers are for reference only, they do not appear on connectors.

## Shell Dimensions

### MIK (Rear Panel Mount Thickness - see Tabulation "T")

Weight given is 1/2" uninsulated, solid #25 AWG gold plated copper pigtails



Plug	A Thread	D Max.	L Max.	Avg. Weight oz. (gm.) ±5%
MIK6-7P	5/16-24UNF-2B	.375 (9.52)	.315 (8.00)	.054 (1.54)
MIK6-55P	9/16-24UNF-2A	.755 (19.18)	.460 (11.68)	.202 (5.72)

### Receptacle

Part Number by Shell Size	A Thread	D ±.010 (0.25)	F Max.	H ±.003 (0.08)	K ±.010 (0.25)	L Max.	R ±.005 (0.13)	S Max.	T Max.	Avg. Weight oz. (gm.) ± 5%
MIK0-7S	5/16-24UNF-2B	.325 (8.26)	.315 (8.00)	.078 (1.98)	.062 (1.57)	.355 (9.02)	.460 (11.68)	.630 (16.00)	.032 (0.81)	.022 (.635)
MIK0-55S	9/16-24UNF-2A	.625 (15.88)	.440 (11.18)	.089 (2.26)	.100 (2.54)	.495 (12.57)	.580 (14.73)	.760 (19.30)	.062 (1.57)	.134 (3.81)

Dimensions shown in inch (mm)

Specifications and dimensions subject to change

www.ittcannon.com

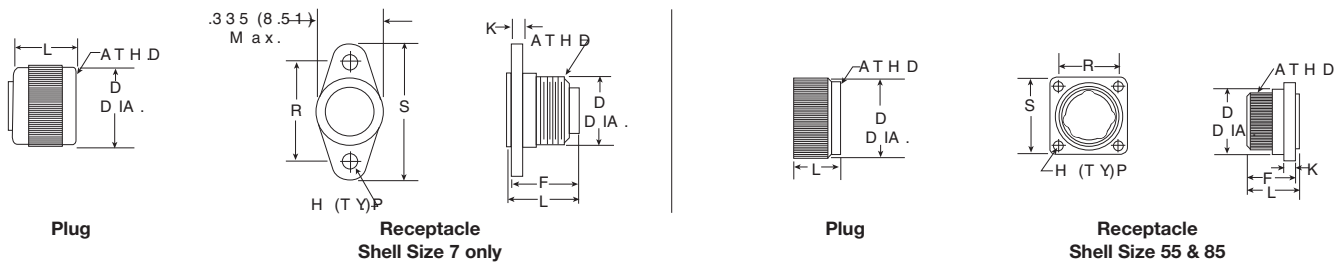


# Microminiature Circular - .050" Contact Spacing

# MIKM/MIKQ

## Shell Dimensions (Continued)

MIKM (Rear Panel Mount Thickness .335 (8.51) max. - see Tabulation "T")



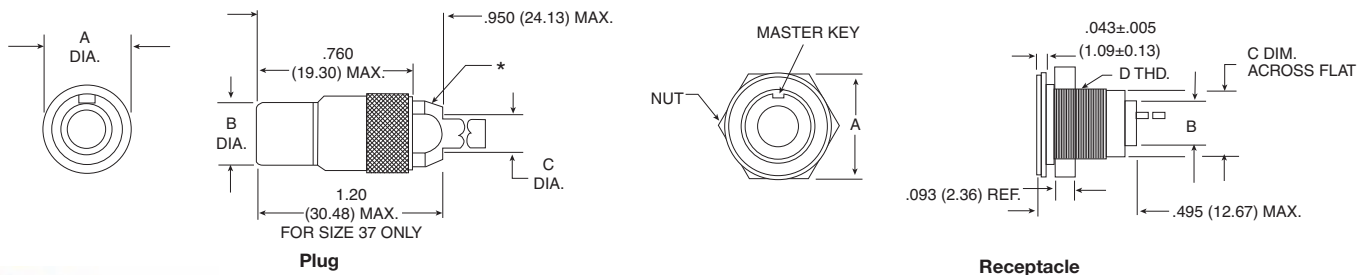
### Plug

Part Number by Shell Size	A Thread	D Max.	L Max.	Avg. Weight oz. (gm.)±5%
MIKM6-7P	5/16-24UNF-2A	.375 (9.52)	.315 (8.00)	.054 (1.54)
MIKM6-55P	5/8-24UNEF-2B	.775 (19.18)	.440 (11.18)	.333 (9.44)
MIKM6-85P	11/16-24UNEF-2B	.860 (21.84)	.460 (11.68)	.419 (11.88)

### Receptacle

Part Number by Shell Size	A Thread	D	F Max.	H ± .003 (0.08)	K	L Max.	R ± .005 (0.13)	S Max.	T Max.	Avg. Weight oz. (gm.)±5%
MIKM0-7S	5/16-24UNF-2A	.325 (8.26)	.320 (8.13)	.078 (1.98)	.062 (1.57)	.400 (10.16)	.460 (11.68)	.630 (16.00)	.032 (0.81)	.051 (1.45)
MIKM0-55S	5/8-24UNEF-2A	.625 (15.88)	.440 (11.18)	.091 (2.31)	.062 (1.57)	.490 (12.45)	.580 (14.73)	.760 (19.30)	.125 (3.18)	.269 (7.62)
MIKM0-85S	11/16-24UNEF-2A	.745 (18.92)	.440 (11.18)	.091 (2.31)	.062 (1.57)	.490 (12.45)	.674 (17.12)	.845 (21.46)	.125 (3.18)	.346 (9.80)

MIKQ (Front Panel Mounting Type Shown-.093 (2.36) Thickness)



### Plug

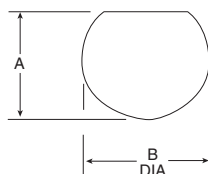
Part Number by Shell Size	A MAX.	B MAX.	C Ref.	Avg. Weight oz. (gm.)±5%
MIKQ6-7S	.385 (9.78)	.305 (7.75)	.180 (4.57)	.214 (6.08)
MIKQ6-19S	.515 (13.08)	.405 (10.29)	.260 (6.60)	.376 (10.70)
MIKQ6-37S	.760 (19.30)	.635 (16.13)	.350 (8.89)	.714 (20.23)

\*Std. Conn. not supplied with Cable Nut & Grip, See Mod Codes. Lanyard Release Is Available. Consult factory.

### Receptacle

Part Number by Shell Size	A MAX.	B MAX.	C MAX.	D Thread	Avg. Weight oz. (gm.)±5%
MIKQ6-7S	.510 (12.95)	.245 (6.22)	.359 (9.12)	3/8-32UNEF-2A	.128 (3.63)
MIKQ7-19P	.575 (14.60)	.345 (8.76)	.470 (11.94)	1/2-28UNEF-2A	.214 (6.08)
MIKQ7-37P	.855 (21.71)	.520 (13.20)	.740 (18.80)	3/4-20UNEF-2A	.300 (8.52)

MIKQ Front Panel Mounting



### Front Panel Mounting-MIKQ7

Shell Size	A ± .005 (0.13)	B DIA.
MIKQ7-7P	.364 (9.24)	.390 (9.91)
MIKQ7-19P	.475 (12.06)	.515 (13.08)
MIKQ7-37P	.740 (18.78)	.755 (19.17)

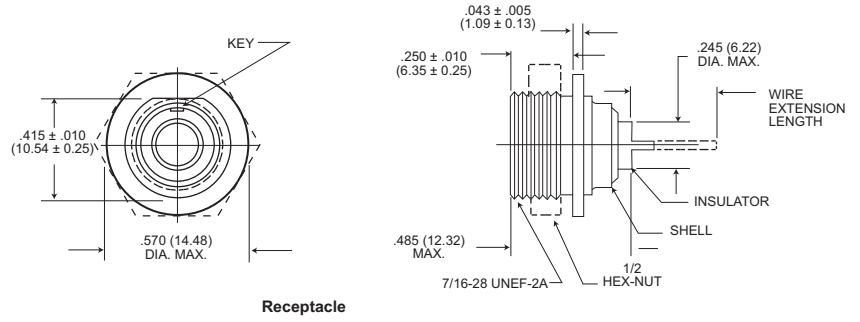


Dimensions shown in inch (mm)  
Specifications and dimensions subject to change

www.ittcannon.com

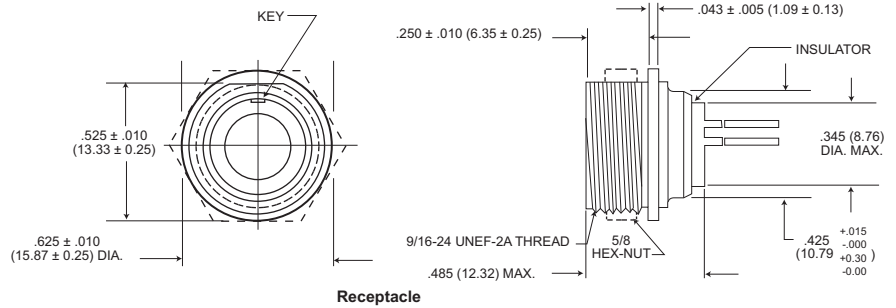
## Shell Dimensions (Continued)

### MIKQ9-7P (Back Panel Mounting)



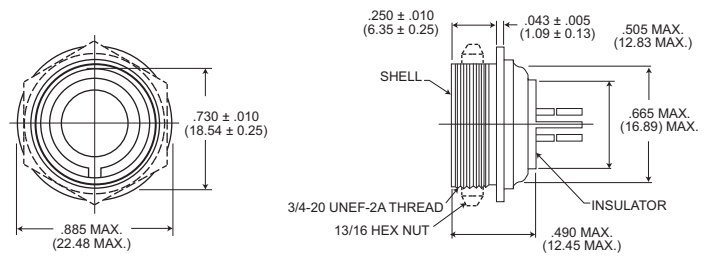
Receptacle

### MIKQ9-19P (Back Panel Mounting)



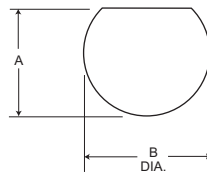
Receptacle

### MIKQ9-37P (Back Panel Mounting)



Receptacle

### MIKQ Rear Panel Mounting



### Rear Panel Mounting-MIKQ9

Shell Size	A ± .005 (0.13)	B Dia.
MIKQ9-7P	.425 (10.76)	.440 (11.18)
MIKQ9-19P	.535 (13.58)	.564 (14.33)
MIKQ9-37P	.740 (18.78)	.755 (19.17)