



COS

CPE Optical Solutions



CPE Italia Group

CPE Italia SpA - Componenti Professionali per l'Elettronica

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M28876 CONNECTORS

PRODUCT PROFILE

MIL-PRF-28876 Connectors are used extensively by the United States and allied naval forces in shipboard applications, and have been on the United States government's Qualified Product List (QPL) since 1983.

Typical Applications:

- Navy shipboard
- Military and commercial
- Hybrid configurations for electro-optical signal transmission

Benefit/Features:

- Low optical insertion loss
- Available in 2, 4, 6, 8, 18 and 31 channel configurations
- In-line and wall mount receptacles
- Singlemode and multimode capabilities
- Hybrid (electro-optic) versions available

Performance Characteristics:

- Optical insertion loss:
 - 9/125 SM fiber: 0.25 dB avg.
 - 62.5/125 MM fiber: 0.6 dB avg.
- Operating temperature: -28°C to +65°C
- Vibration: per TIA/EIA-455-11, Condition II & VII
- Shock: MIL-S-901, GR.A, CL.1, high impact
- Mating durability: 500 cycles

ORDERING INFORMATION

M28876 CONNECTORS

1							2			3	4	5	6
1	2	3	4	5	6	7	8-9	10	11-12	13	14	15	16
M28876						/	XX	-	XX	X	X	X	X

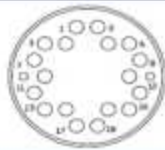
CPE KEY CODE

SERIES M28876

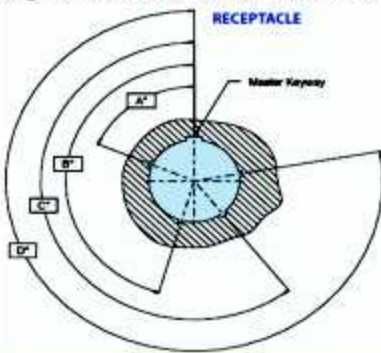
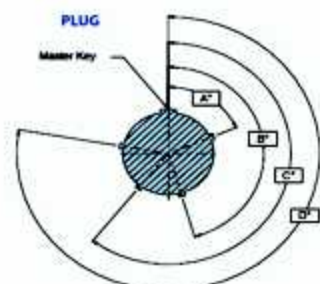
CONNECTOR TYPE

1	CONNECTOR TYPE	STRAIN RELIEF	PART NUMBER
	RECEPTACLE WALL MOUNT	NONE	M28876/1
		STRAIGHT	M28876/2
		45°	M28876/3
		90°	M28876/4
	PLUG	NONE	M28876/6
		STRAIGHT	M28876/7
		45°	M28876/8
		90°	M28876/9
	RECEPTACLE JAM NUT	NONE	M28876/11
		STRAIGHT	M28876/12
		45°	M28876/13
		90°	M28876/14

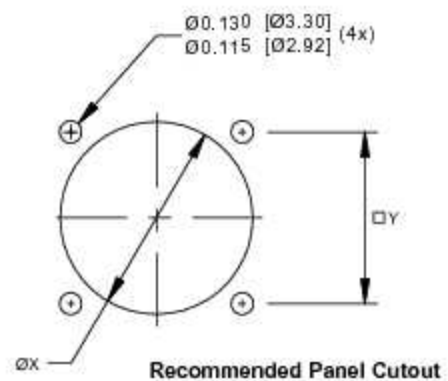
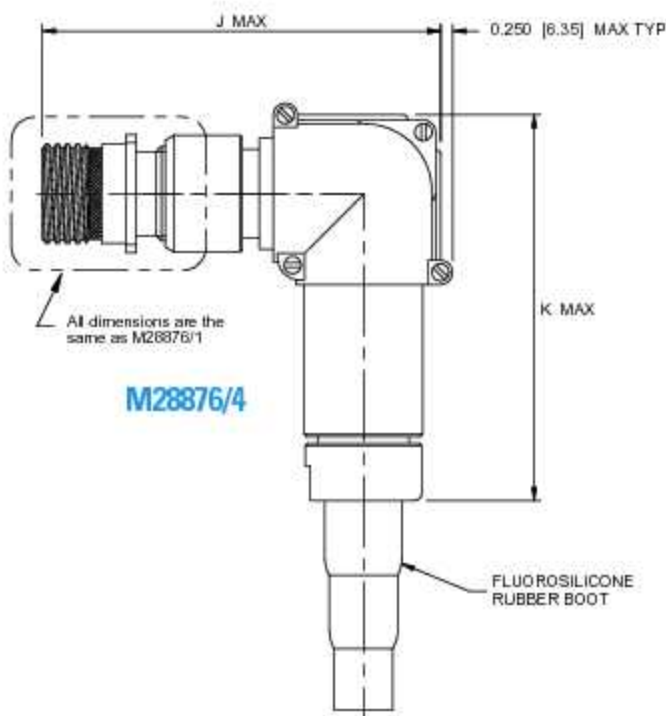
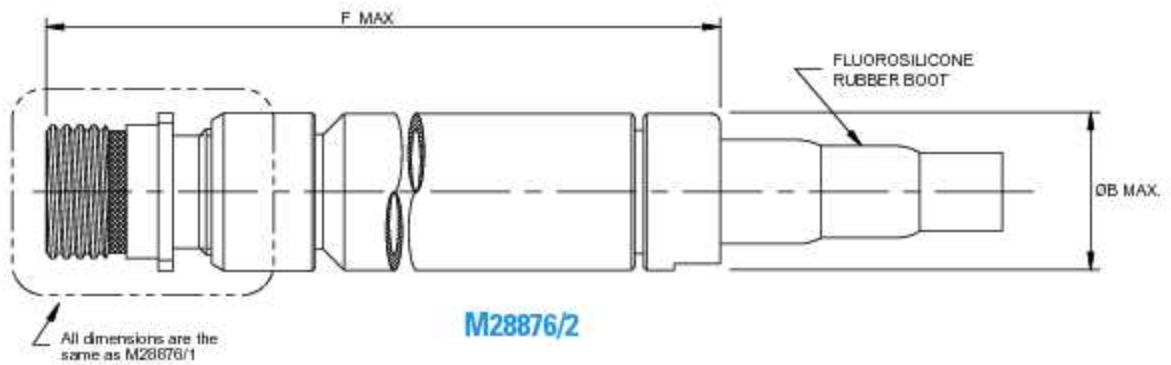
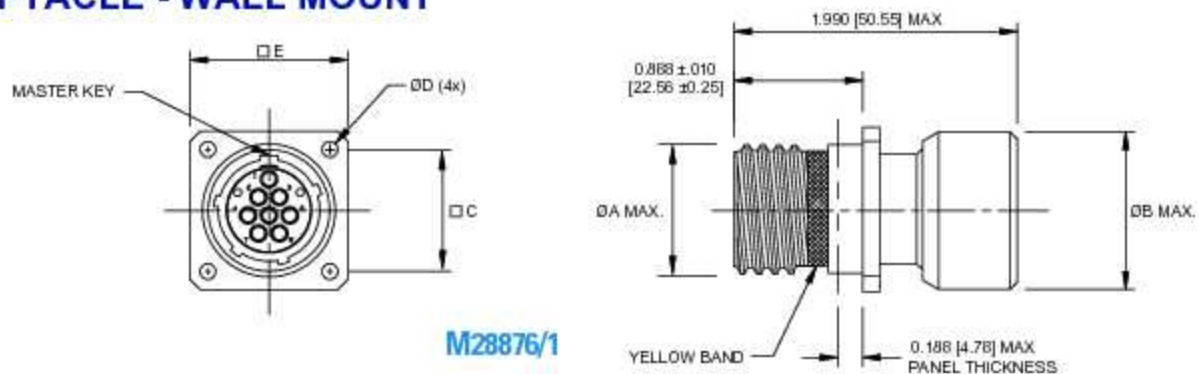
SHELL SIZE AND INSERT

2	NUMBER OF WAYS	SHELL SIZE	PART NUMBER
	2	11 	A1
	4	13 	B1
	6	15 	C2
	8	15 	C1
	23	23 	F2
	31	23 	F1

ORDERING INFORMATION

BACKSHELL							
3	SHELL SIZE		MAXIMUM CABLE DIAMETER		PART NUMBER		
	A		0,250 (6,4mm)		1		
	B		0,285 (7,2mm)				
	C		0,500 (12,7mm)				
	F		0,866 (22,0mm)				
	A		0,346 (8,8mm)		2		
	B		0,346 (8,8mm)				
	C		0,250 (6,4mm)				
	F		1,000 (25,4mm)				
TERMINATION							
4	PIN				P		
	SOCKET				S		
KEYING POSITION							
5	SHELL SIZE	A°	B°	C°	D°	PART NUMBER	
	11 and 13	-	-	-	-	0*	
		95	141	208	236	1	
		113	156	182	292	2	
		90	145	195	252	3	
		53	156	220	255	4	
		119	146	176	298	5	
		51	141	184	242	6	
	15 and 23	-	-	-	-	0*	
		80	142	196	293	1	
		135	170	200	310	2	
		49	169	200	244	3	
		66	140	200	257	4	
		62	145	180	280	5	
		79	153	197	272	6	
	* 0 indicates universal keying arrangement and is available on commercial equivalent plug connector only.						
	RECEPTACLE  PLUG 						
	BACKSHELL ACCESSORIES						
	6	RETENTION NUT AND PRESSURE SLEEVE					PART NUMBER
		NONE					N
		STRAIGHT BOOT*					S
		FLEXIBLE SLEEVE ADAPTER*					F
		CONDUIT ADAPTER*					C
	* Available upon request. Dimension to be provided by Customer.						

RECEPTACLE - WALL MOUNT



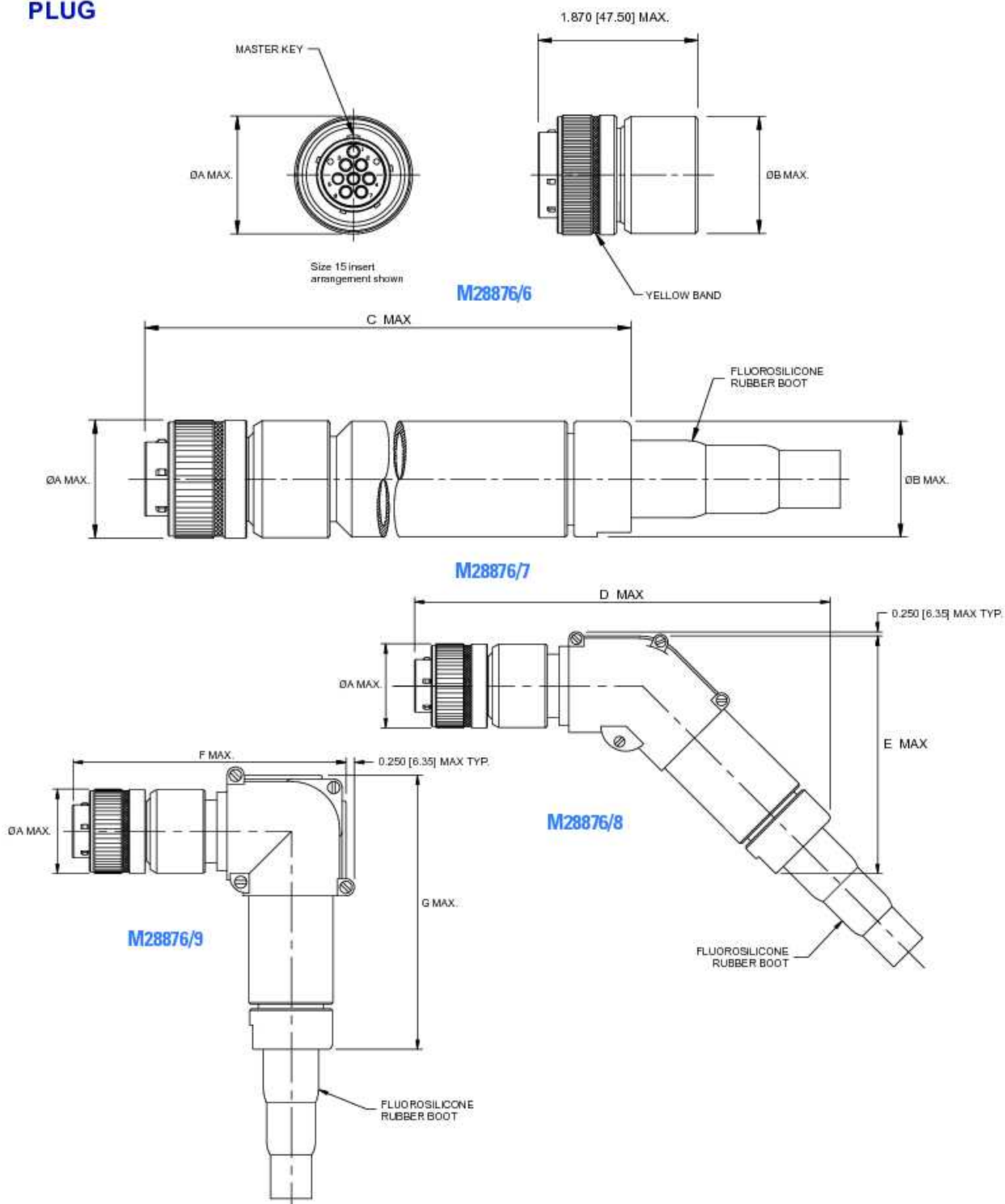
RECEPTACLE - WALL MOUNT

Table Dimensions:

Connector Size	ØA Max.	ØB Max.	C	ØD	E	F Max.	G Max.	H Max.	J Max.	K Max.	ØX ± 0.05 [0.13]	ØY ± 0.05 [0.13]
11	0.750 [19.05]	0.960 [24.38]	0.750 [19.05]	0.130 [3.30] 0.115 [2.92]	1.043 [26.49] 1.001 [25.43]	6.150 [156.21]	6.150 [156.21]	3.540 [89.92]	4.250 [107.95]	4.250 [107.95]	0.812 [20.62]	0.750 [19.05]
13	0.875 [22.23]	1.085 [27.56]	0.843 [21.41]	0.130 [3.30] 0.115 [2.92]	1.158 [29.41] 1.116 [28.35]	6.150 [156.21]	6.250 [158.75]	3.580 [90.93]	4.250 [107.95]	4.250 [107.95]	0.937 [23.80]	0.843 [21.41]
15	1.062 [26.97]	1.257 [31.93]	0.968 [24.59]	0.130 [3.30] 0.115 [2.92]	1.278 [32.46] 1.236 [31.39]	6.150 [156.21]	6.500 [165.10]	3.850 [97.79]	4.500 [114.30]	4.500 [114.30]	1.124 [28.55]	0.968 [24.59]
23	1.500 [38.10]	1.703 [43.26]	1.281 [32.54]	0.130 [3.30] 0.115 [2.92]	1.738 [44.15] 1.698 [43.13]	6.150 [156.21]	7.500 [190.50]	5.000 [127.00]	5.000 [127.00]	5.000 [127.00]	1.562 [39.67]	1.281 [32.54]

Dimensions shown are for reference only. Unless otherwise specified, dimensions are in inches and [millimeters].

PLUG



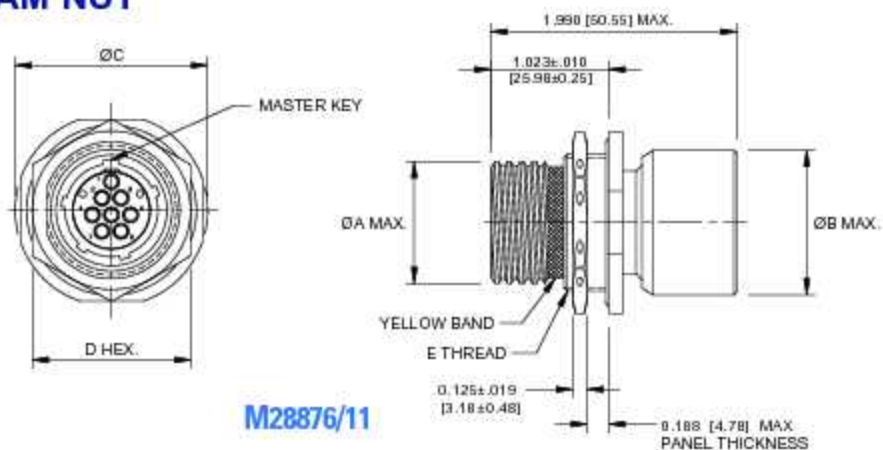
PLUG

Table Dimensions:

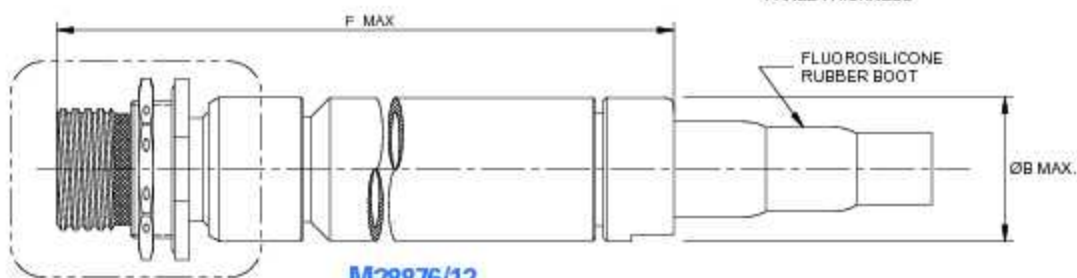
Connector Size	ØA Max.	ØB Max.	C Max.	D Max.	E Max.	F Max.	G Max.
11	1.028 [26.11]	0.960 [24.38]	5.960 [151.38]	6.090 [154.69]	3.540 [89.92]	4.190 [106.43]	4.250 [107.95]
13	1.141 [28.98]	1.085 [27.56]	5.960 [151.38]	6.160 [156.46]	3.580 [90.93]	4.190 [106.43]	4.250 [107.95]
15	1.263 [32.08]	1.257 [31.93]	5.960 [151.38]	6.440 [163.58]	3.850 [97.79]	4.440 [112.78]	4.500 [114.30]
23	1.705 [43.31]	1.703 [43.26]	5.960 [151.38]	7.350 [186.69]	5.000 [127.00]	4.850 [123.19]	5.000 [127.00]

Dimensions shown are for reference only. Unless otherwise specified, dimensions are in inches and [millimeters].

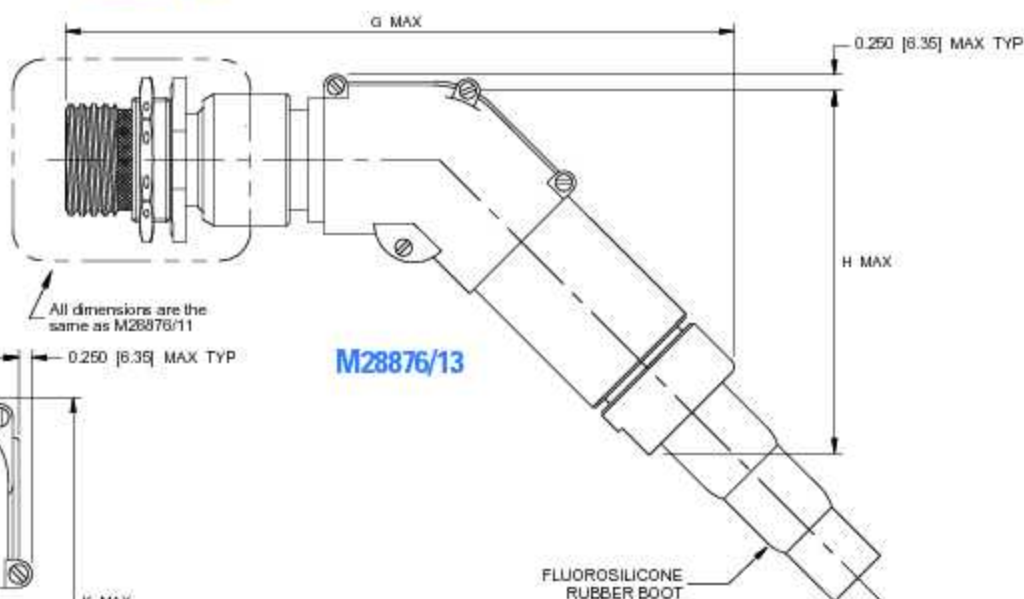
RECEPTACLE - JAM NUT



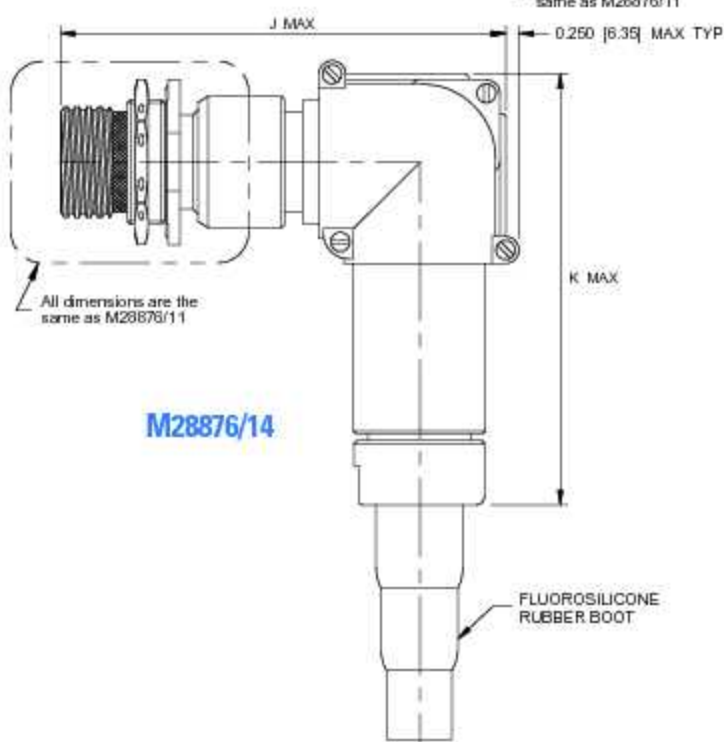
M28876/11



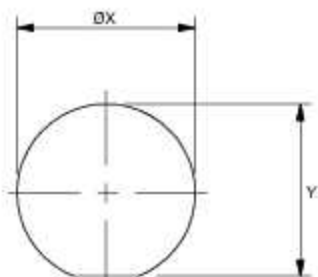
M28876/12



M28876/13



M28876/14



Recommended Panel Cutout

RECEPTACLE - JAM NUT

Table Dimensions:

Connector Size	ØA Max.	ØB Max.	ØC	D Hex.	E Thread	F Max.	G Max.	H Max.	J Max.	K Max.	ØX ± 0.05 [0.13]	ØY ± 0.05 [0.13]
11	0.750 [19.05]	0.960 [24.38]	1.368 [34.75] 1.345 [34.16]	1.079 [27.41] 1.045 [26.54]	0.875-20 UNEF	6.150 [156.21]	6.150 [156.21]	3.540 [89.92]	4.250 [107.95]	4.250 [107.95]	0.885 [22.48]	0.848 [21.54]
13	0.875 [22.23]	1.085 [27.56]	1.508 [38.30] 1.485 [37.72]	1.205 [30.61] 1.171 [29.74]	1.000-20 UNEF	6.150 [156.21]	6.250 [158.75]	3.580 [90.93]	4.250 [107.95]	4.250 [107.95]	1.010 [25.65]	0.973 [24.71]
15	1.062 [26.97]	1.257 [31.93]	1.680 [42.67] 1.600 [40.64]	1.392 [35.36] 1.358 [34.49]	1.187-18 UNEF	6.150 [156.21]	6.500 [165.10]	3.850 [97.79]	4.500 [114.30]	4.500 [114.30]	1.198 [30.43]	1.160 [29.46]
23	1.500 [38.10]	1.703 [43.26]	2.118 [53.80] 2.095 [53.21]	1.829 [46.46] 1.795 [45.59]	1.625-18 UNEF	6.150 [156.21]	7.500 [190.50]	5.000 [127.00]	5.000 [127.00]	5.000 [127.00]	1.635 [41.53]	1.598 [40.59]

Dimensions shown are for reference only. Unless otherwise specified, dimensions are in inches and [millimeters].

ORDERING INFORMATION

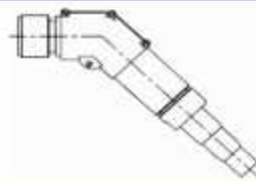
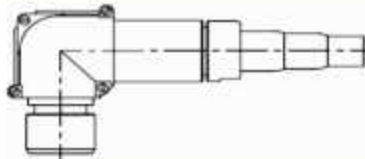
M28876 REMOVABLE BACKSHELLS

1						2				3
1	2	3	4	5	6	7	8-9	10	11-12	13
M28876						/	XX	-	X	X

CPE KEY CODE

SERIES M28876

BACKSHELL TYPE

1			PART NUMBER
	STRAIGHT BACKSHELL ASSEMBLY ONLY		M28876/27
	45° BACKSHELL ASSEMBLY ONLY		M28876/28
	90° BACKSHELL ASSEMBLY ONLY		M28876/29

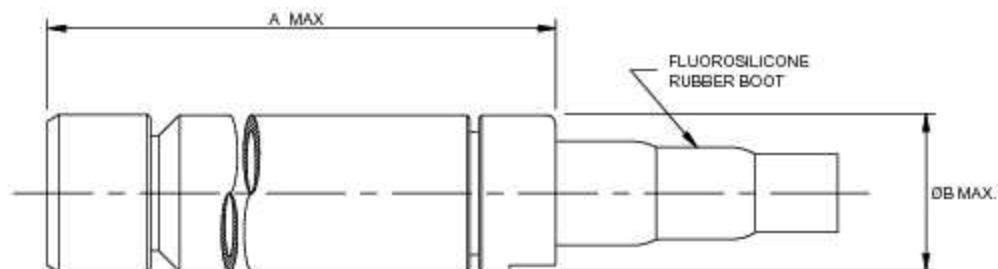
SHELL SIZE

2		PART NUMBER
11		A
13		B
15		C
23		F

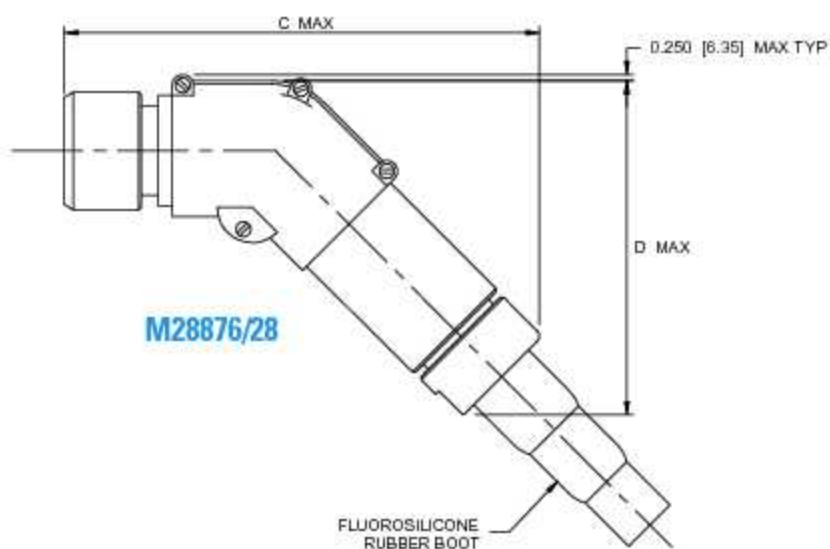
CABLE DIAMETER

3	SHELL SIZE	MAXIMUM CABLE DIAMETER	PART NUMBER
	11	0,250 (6,4mm)	1
	13	0,285 to 0,315 (7,2 to 8,0mm)	
	15	0,500 to 0,515 (12,7 to 13,08mm)	
	23	0,768 to 0,866 (19,5 to 22,0mm)	
	11	0,346 (8,8mm)	2
	13	0,305 to 0,346 (7,75 to 8,8mm)	
	15	0,380 to 0,423 (9,65 to 10,74mm)	
	23	0,900 to 1,000 (22,86 to 25,4mm)	

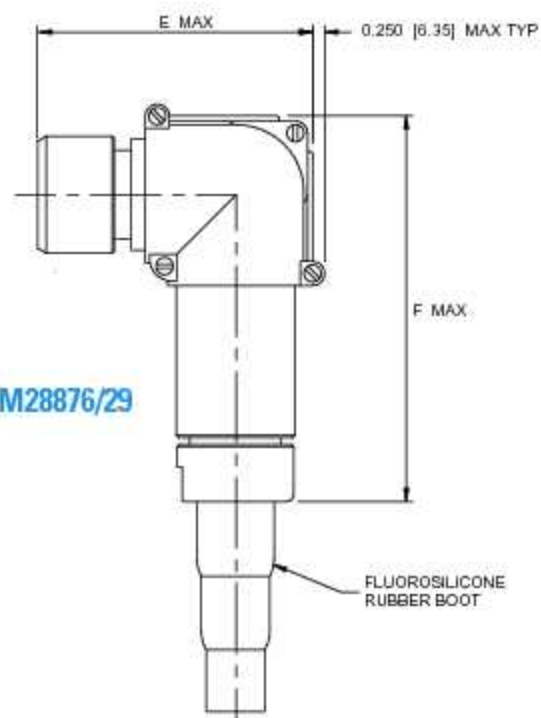
REMOVABLE BACKSHELLS



M28876/27



M28876/28



M28876/29

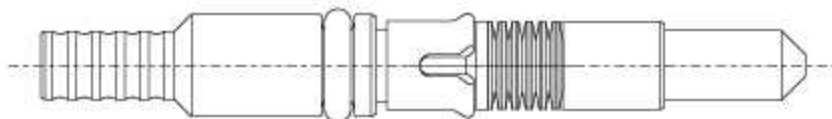
Table Dimensions:

Connector Size	A Max.	ØB Max.	C Max.	D Max.	E Max.	F Max.
11	4.970 [126.24]	0.960 [24.38]	4.970 [126.24]	3.540 [89.92]	3.069 [77.95]	4.250 [107.95]
13	4.970 [126.24]	1.085 [27.56]	5.069 [128.75]	3.580 [90.93]	3.069 [77.95]	4.250 [107.95]
15	4.970 [126.24]	1.257 [31.93]	5.319 [135.10]	3.850 [97.79]	3.319 [84.30]	4.500 [114.30]
23	4.970 [126.24]	1.703 [43.26]	6.319 [160.50]	5.000 [127.00]	3.819 [97.00]	5.000 [127.00]

Dimensions shown are for reference only. Unless otherwise specified, dimensions are in inches and [millimeters].

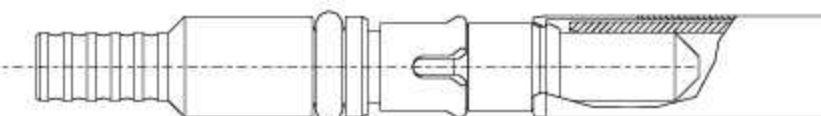
ORDERING INFORMATION

M29504 (TERMINI & DUMMY FOR M28876)



Plug Termini

Size 16 Fiber Optic Plug Termini			
ØA (Microns)	Fiber Type	Fiber Size Core/Cladding (Microns)	Mil-Spec Part Number
125.0	Single Mode	9/125	M29504/14-4140C
126.0	Single Mode	9/125	M29504/14-4141C
126.0	Multi Mode	50/125, 62.5/125	M29504/14-4131C
127.0	Multi Mode	50/125, 62.5/125	M29504/14-4132C
142.0	Multi Mode	100/140	M29504/14-4135C



Receptacle Termini

Size 16 Fiber Optic Receptacle Termini			
ØA (Microns)	Fiber Type	Fiber Size Core/Cladding (Microns)	Mil-Spec Part Number
125.0	Single Mode	9/125	M29504/15-4180C
126.0	Single Mode	9/125	M29504/15-4181C
126.0	Multi Mode	50/125, 62.5/125	M29504/15-4171C
127.0	Multi Mode	50/125, 62.5/125	M29504/15-4172C
142.0	Multi Mode	100/140	M29504/15-4175C



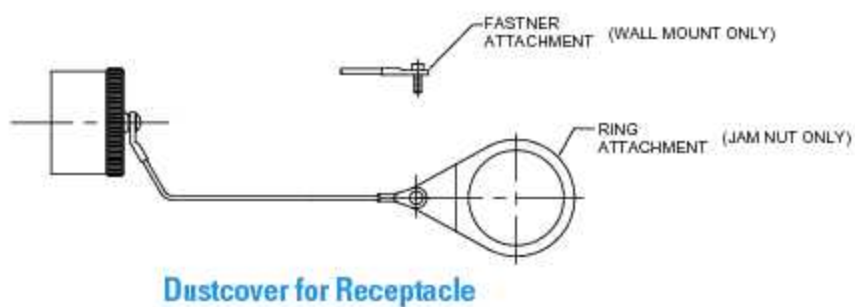
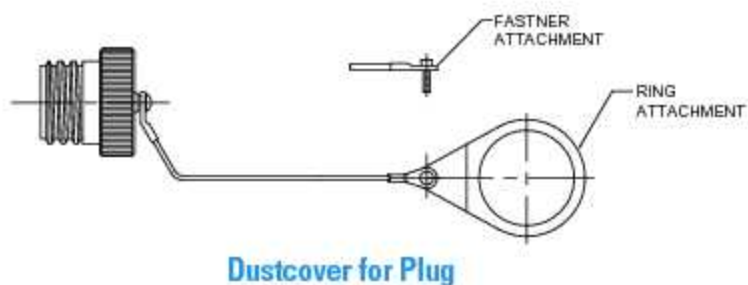
Dummy Termini

Dummy Termini/ MIL-T-29504/3
M29504/03-4038

Use Dummy Termini to fill any unused cavities.

ORDERING INFORMATION

M28876 DUSTCOVERS



Dustcover Type	Mil-Spec Part Number
Plug	M28876/10
Receptacle	M28876/15

For Your Notes

M83526 CONNECTORS

PRODUCT PROFILE

MIL-PRF-83526 connectors are next-generation hermaphroditic fiber optic connectors engineered for harsh environments and military tactical applications.

These connectors are designed to military specifications MIL-PRF83526 and MIL-PRF-29504.

CPE Italia is able to provide solutions:

- M83526/16, /17 and /18 (Termini contact);
- M83526/20 and /21 (Expanded beam contact);
- MINI-83526-20P, 21J, 21S, 21R (Mini expanded beam contact)

Typical Applications:

- Tactical field communications
- Radar systems
- Missile defense systems
- Mobile launchers

Benefit/Features:

- Designed and built to MIL-PRF-83526
- Genderless connection
- Singlemode and multimode
- Removable endforce
- Reduced assembly complexity
- Innovative one-piece insertion/removal tool

Performance Characteristics:

- Optical insertion loss:
 - 9/125 SM fiber: 0.25 dB avg.
 - 62.5/125 MM fiber: 0.6 dB avg.
- Operating temperature: -46°C to +71°C
- Mating durability: 2,000 cycles
- Crush resistance: 450 lbs.

ORDERING INFORMATION

M83526/16, /17 & /18 CONNECTORS (TERMINI CONTACTS)

1														2		3		4		5	
1	2	3	4	5	6	7	8-9	10	11	12	13	14									
M83526							/	XX	-	X	X	X	X								
CPE KEY CODE																					
SERIES M83526																					
CONNECTOR TYPE																					
1	PLUG														PART NUMBER						
	RECEPTACLE JAM NUT														M28876/16						
	RECEPTACLE WALL MOUNT														M28876/17						
NUMBER OF WAYS																					
2	4														PART NUMBER						
														B							
CABLE SIZE																					
3	FROM DIAMETER					TO DIAMETER					PART NUMBER										
	4,5mm					5,48mm					1										
	5,5mm					6,5mm					2										
FIBER OD																					
4	126,0 µm														PART NUMBER						
														B							
KEYING POSITION																					
5	4 CH - Key 1										PART NUMBER										
											1										
	4 CH - Key 2										2										
4CH - Key 3										3											
4 CH - Key U										U											

M83526/16 - PLUG



M83526/17 - RECEPTACLE JAM NUT

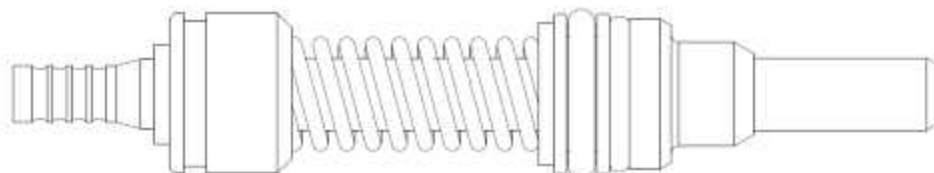
M83526/18 - RECEPTACLE WALL MOUNT



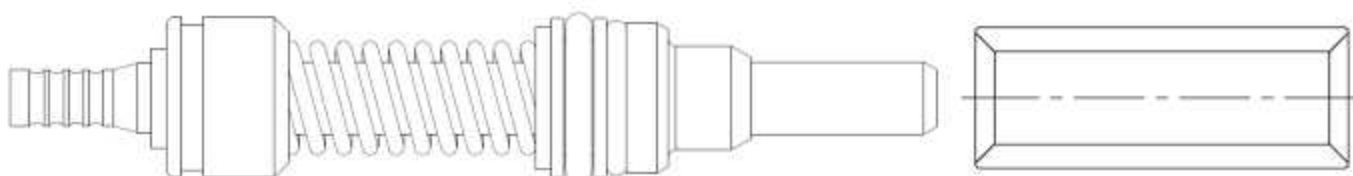
Rappresentation of M83526/17

ORDERING INFORMATION

M29504 (TERMINI FOR M83526)



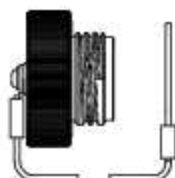
Size 16 Fiber Optic Plug Termini			
Ø Hole (microns)	Fiber Type	Description	CPE Part Number
126.0	Single Mode or Multi Mode	Genderless Termini without Alignment Sleeve	M29504/16-1260L



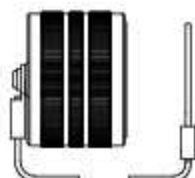
Size 16 Fiber Optic Plug Termini			
Ø Hole (microns)	Fiber Type	Description	CPE Part Number
126.0	Single Mode	Termini for Singlemode Fiber	M29504/16-1260S
126.0	Multi Mode	Termini for Multimode Fiber	M29504/16-1260M

ORDERING INFORMATION

M83526 DUSTCOVERS



Dustcover for Plug



Dustcover for Receptacle

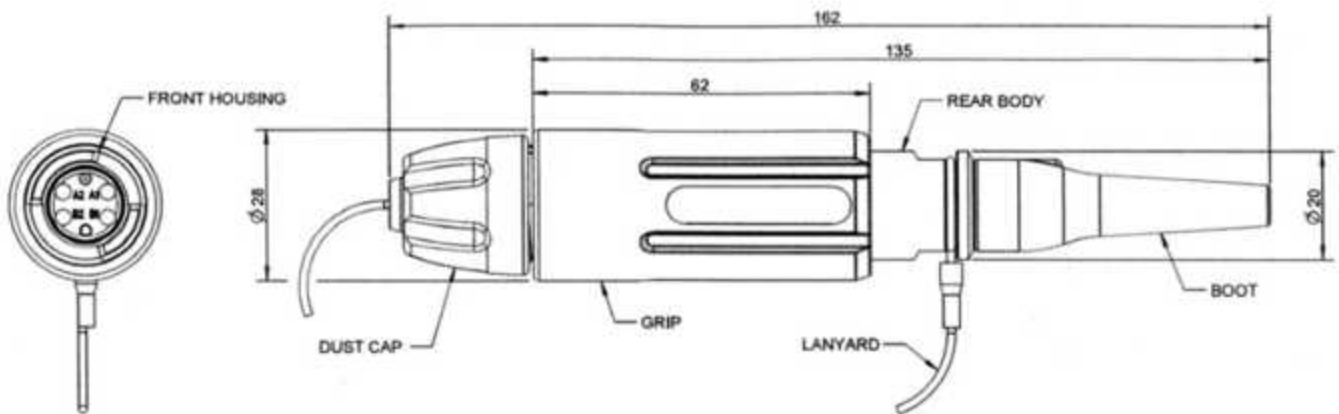
Dustcover Type	Mil-Spec Part Number
Plug	M83526/6
Receptacle	M83526/7

M83526/20, /21 CONNECTORS (EXPANDED BEAM)

The connectors shown in this page, compliance to the 83526 spec., are provided with Expanded Beam contacts. These connectors are recommended for use in harsh environment.

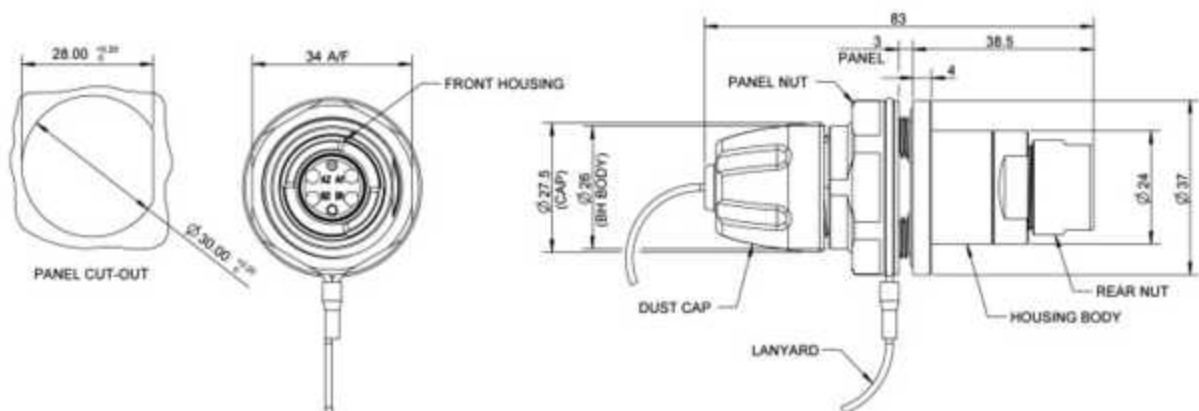
These connectors are provided in cable assembly only.

M83526/20 - PLUG



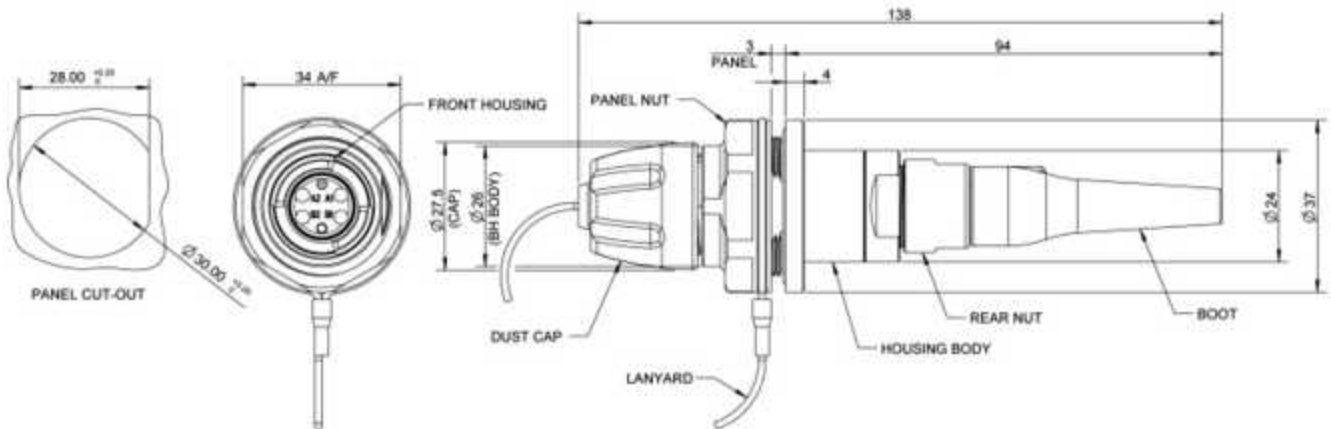
This connector is used for single mode and multimode and can be supplied in 2-channel or 4-channel version.

M83526/21 - BULKHEAD JAM-NUT



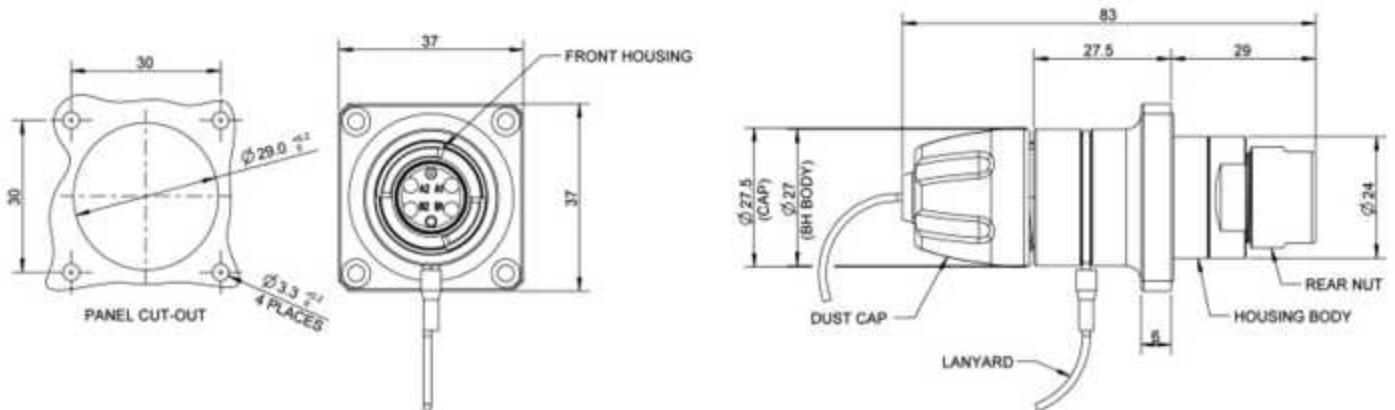
This connector is used for single mode and multimode and can be supplied in 2-channel or 4-channel version.

M83526/21B - BULKHEAD JAM-NUT (WITH BOOT)



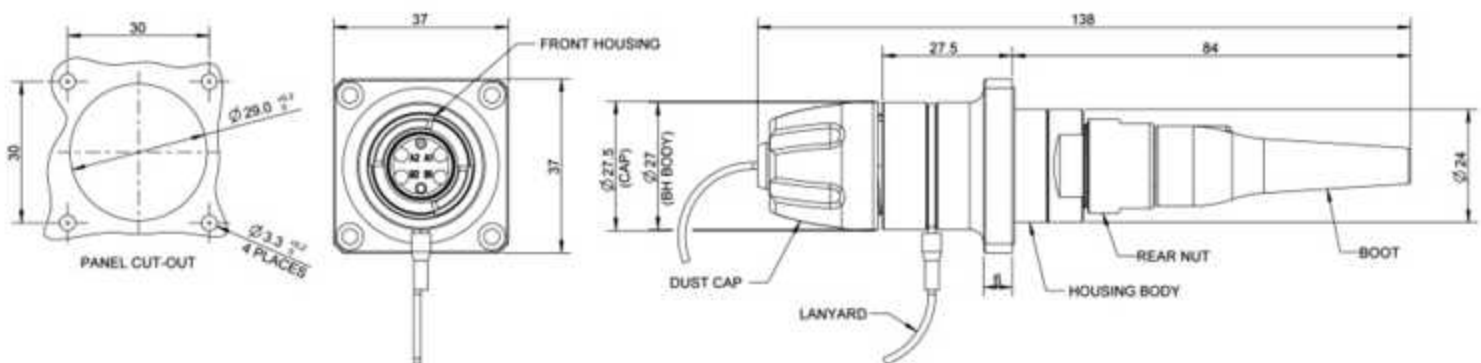
This connector is used for single mode and multimode and can be supplied in 2-channel or 4-channel version. Connector is provided with boot.

M83526/21F - BULKHEAD SQUARE FLANGE



This connector is used for single mode and multimode and can be supplied in 2-channel or 4-channel version.

M83526/21FB - BULKHEAD SQUARE FLANGE (WITH BOOT)



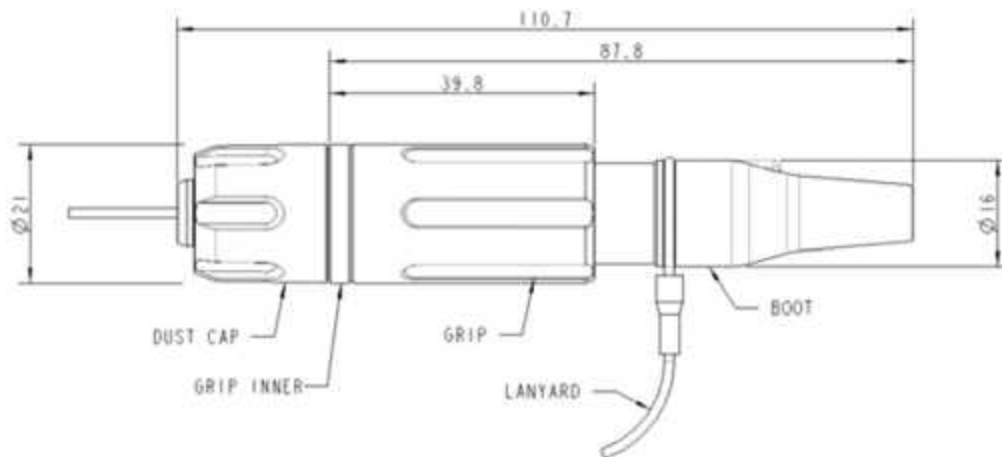
This connector is used for single mode and multimode and can be supplied in 2-channel or 4-channel version. Connector is provided with boot.

MINI-83526 CONNECTORS (MINI EXPANDED BEAM)

The connectors shown in this page, compliance to the 83526 spec., are provided with Mini Expanded Beam contacts. These connectors are recommended for use in harsh environment.

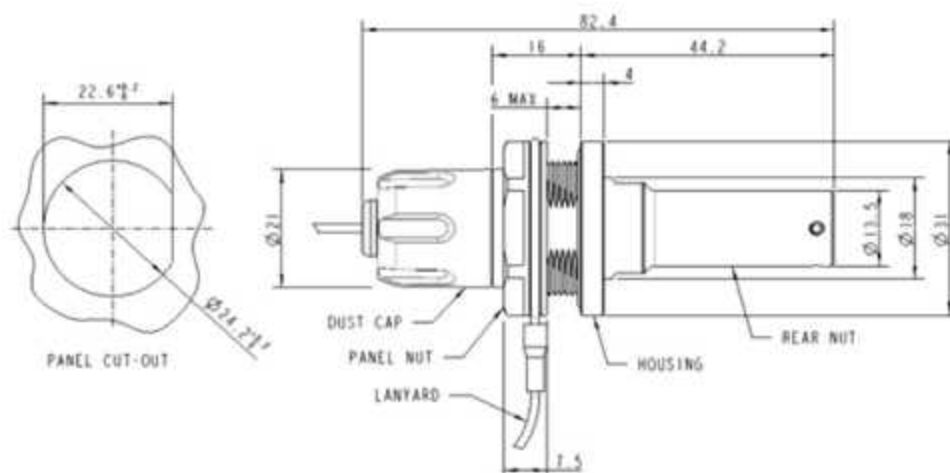
These connectors are provided in cable assembly only.

MINI-83526-20P - PLUG



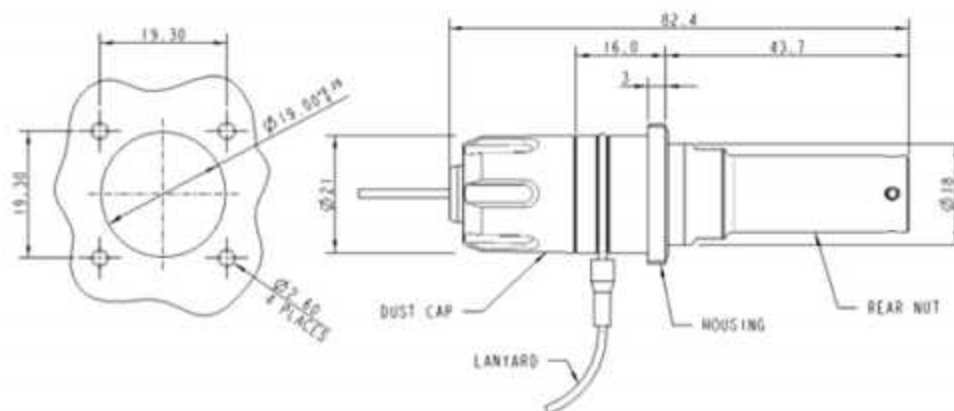
This connector is used for single mode and multimode and can be supplied in 2-channel or 4-channel version.

MINI-83526-21J - BULKHEAD JAM-NUT



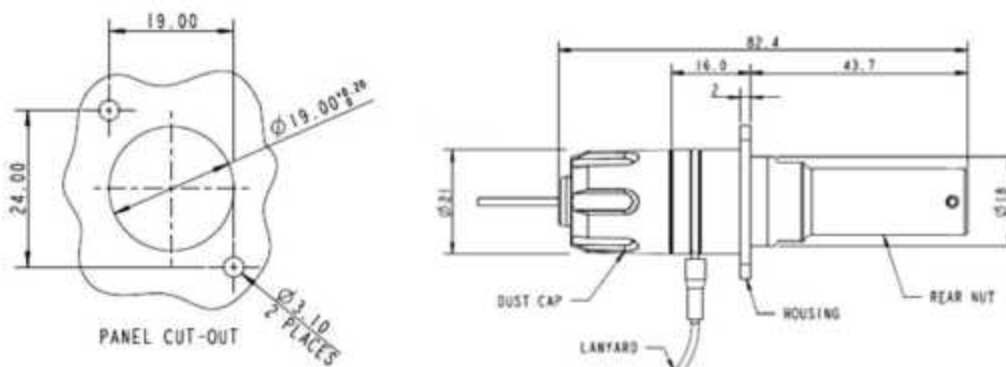
This connector is used for single mode and multimode and can be supplied in 2-channel or 4-channel version.

MINI-83526-21S - BULKHEAD SQUARE FLANGE



This connector is used for single mode and multimode and can be supplied in 2-channel or 4-channel version. Connector is provided with boot.

M83526/21F - BULKHEAD RECTANGULAR FLANGE



This connector is used for single mode and multimode and can be supplied in 2-channel or 4-channel version.

For Your Notes

D38999 CONNECTORS (FIBER OPTIC VERSION) PRODUCT PROFILE

D38999 (Fiber Optic version) connectors are according to MIL-DTL-38999 Series III.

Unlike the D38999 standard, the D38999 Fiber Optic version connectors has a metallic contacts insert.

Typical Applications:

- Navy shipboard
- Military and commercial

Benefit/Features:

- Available in 2, 4, 5, 8, 11, 16, 21, 29 and 37 channel configurations
- Utilizes field proven M29504/4 and M29504/5 termini
- In-line and wall mount receptacles
- Singlemode and multimode capabilities
- Fully environmental sealed
- Field maintainable
- Point-to-point interconnect system

Performance Characteristics:

- Optical insertion loss:
 - 9/125 SM fiber: 0.25 dB avg.
 - 62.5/125 MM fiber: 0.6 dB avg.
- Operating temperature: -65°C to +150°C
- Vibration: per TIA/EIA-455-11, Condition II & VII
- Shock: MIL-S-901, GR.A, CL.1, high impact
- Mating durability: 500 cycles

ORDERING INFORMATION

D38999 CONNECTORS

1				2		3	4			5	6
1	2	3	4	5	6	7	8-9	10	11-12-13	14	15
D38999						/	XX	X	XXX	X	X

CPE KEY CODE

D38999 FIBER OPTIC VERSION

CONNECTOR TYPE

1									PART NUMBER
	RECEPTACLE WALL MOUNT								D38999/20
	RECEPTACLE JAM NUT								D38999/24
	PLUG								D38999/26

SERVICE CLASS

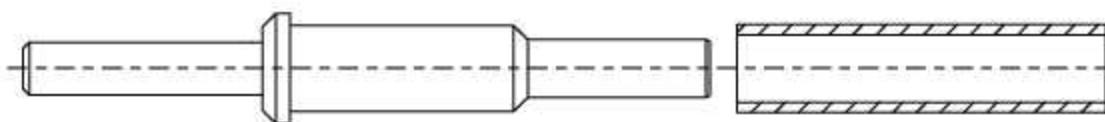
2	TYPE	SHELL MATERIAL	FINISHING	TEMPERATURE RANGE	FEATURES	PART NUMBER
	Environment Resistant	Aluminum	Nickel (electroless)	-65°C to +200°C	Conductive plating	F
	Environment Resistant	Composite	Cadmium olive drab	-65°C to +175°C	Conductive plating	J
	Environment Resistant	Corrosion resistant steel	Passivated	-65°C to +200°C	Firewall, conductive	K
	Environment Resistant	Composite	Nickel (electroless or electrodeposited)	-65°C to +200°C	Conductive plating	M
	Environment Resistant	Aluminum	Cadmium olive drab	-65°C to +175°C	Conductive plating	W

ORDERING INFORMATION

SHELL SIZE / CONTACT ARRANGEMENT			PART NUMBER			
3	2 CH - Shell Size 11		B2			
	4 CH - Shell Size 13		C4			
	5 CH - Shell Size 15		D5			
	8 CH - Shell Size 17		E8			
	11 CH - Shell Size 19		F11			
	16 CH - Shell Size 21		G16			
	21 CH - Shell Size 23		H21			
	29 CH - Shell Size 29		J29			
CONTACT STYLE			PART NUMBER			
4	PIN CONTACTS		P			
	SOCKET CONTACTS		S			
	LESS PIN CONTACTS		A			
	LESS SOCKET CONTACTS		B			
KEYING POSITION						
5	SHELL SIZE	A*	B*	C*	D*	PART NUMBER
		80	141	208	236	N
		113	136	182	292	A
		90	145	195	252	B
		53	136	220	255	C
		119	146	196	298	D
	11, 13 and 15	51	141	184	242	E
		80	142	196	299	N
		135	170	200	310	A
		49	169	200	244	B
		66	140	200	257	C
		62	145	180	280	D
	17 and 19	79	133	197	272	E
		80	142	196	299	N
		135	170	200	310	A
		49	169	200	244	B
		66	140	200	257	C
		62	145	180	280	D
	21, 23 and 29	79	133	197	272	E
		80	142	196	299	N
		135	170	200	310	A
		49	169	200	244	B
		66	140	200	257	C
		62	145	180	280	D
RECEPTACLE (Front face shown)		PLUG (Front face shown)				

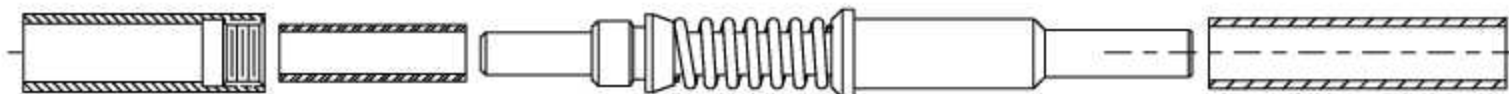
ORDERING INFORMATION

M29504 (CRIMP SLEEVE TERMINI FOR D38999)



Plug Termini

Size 16 Fiber Optic Plug Termini			
ØA (Microns)	Fiber Type	Fiber Size Core/Cladding (Microns)	Mil-Spec Part Number
125.0	Single Mode	9/125	M29504/4-4265
126.0	Single Mode	9/125	M29504/4-4267
126.0	Multi Mode	50/125, 62.5/125	M29504/4-4268
142.0	Multi Mode	100/140	M29504/4-4272

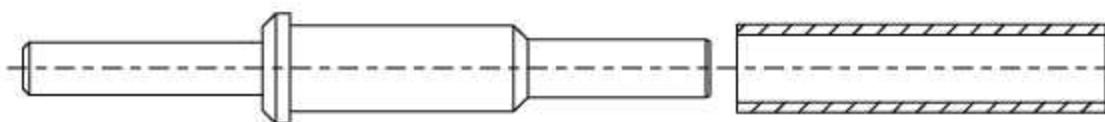


Receptacle Termini

Size 16 Fiber Optic Receptacle Termini			
ØA (Microns)	Fiber Type	Fiber Size Core/Cladding (Microns)	Mil-Spec Part Number
125.0	Single Mode	9/125	M29504/5-4279
126.0	Single Mode	9/125	M29504/5-4281
126.0	Multi Mode	50/125, 62.5/125	M29504/5-4282
142.0	Multi Mode	100/140	M29504/5-4286

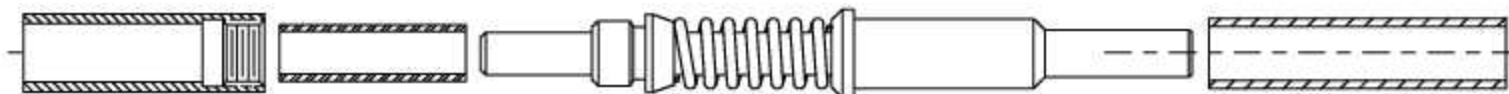
ORDERING INFORMATION

M29504 (HEAT-SHRINK SLEEVE TERMINI FOR D38999)



Plug Termini

Size 16 Fiber Optic Plug Termini			
ØA (Microns)	Fiber Type	Fiber Size Core/Cladding (Microns)	Mil-Spec Part Number
125.0	Single Mode	9/125	M29504/4-4207
126.0	Single Mode	9/125	M29504/4-4209
126.0	Multi Mode	50/125, 62.5/125	M29504/4-4210
142.0	Multi Mode	100/140	M29504/4-4043



Receptacle Termini

Size 16 Fiber Optic Receptacle Termini			
ØA (Microns)	Fiber Type	Fiber Size Core/Cladding (Microns)	Mil-Spec Part Number
125.0	Single Mode	9/125	M29504/5-4236
126.0	Single Mode	9/125	M29504/5-4238
126.0	Multi Mode	50/125, 62.5/125	M29504/5-4239
142.0	Multi Mode	100/140	M29504/5-4049

ORDERING INFORMATION

D38999 DUSTCOVERS

1						2		3	4	
1	2	3	4	5	6	7	8-9	10	11-12	13
D38999						/	XX	X	XX	X

CPE KEY CODE

D38999 DUSTCOVERS

DUSTCOVER TYPE

1	PART NUMBER
PLUG	D38999/32
RECEPTACLE	D38999/33

MATERIAL AND FINISHING

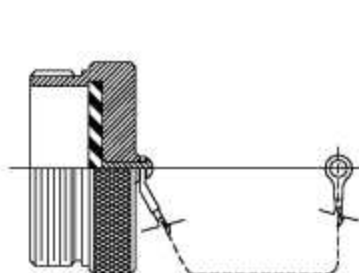
2	PART NUMBER
ALUMINUM, ELECTROLESS NICKEL	F
COMPOSITE, CADMIUM PLATED, OLIVE DRAB	J
CORROSION-RESISTANT STEEL PASSIVATED	K
COMPOSITE, ELECTROLESS NICKEL PLATED	M
ALUMINUM, 500 HOUR CADMIUM OLIVE DRAB	W

SHELL SIZE

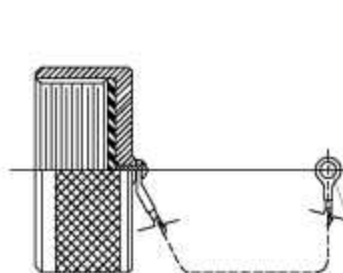
3	PART NUMBER
11	11
13	13
15	15
17	17
19	19
21	21
23	23
25	25

ATTACHMENT STYLE

4	PART NUMBER
RING	N
FASTNER	R



Dustcover for Plug



Dustcover for Receptacle



For Your Notes

For Your Notes

O-MIX CONNECTORS

PRODUCT PROFILE

O-MIX connectors are hermaphroditic fiber optic connectors engineered for harsh environments. These connectors are designed to allow intermating of "like connectors" used on cable assemblies, and for this reason they can be used without concern for having a male or female connector at the end of the cable.

Typical Applications:

- Broadcast industry
- Military pierside and tactical field usage
- Field deployment
- Petroleum field exploration

Benefit/Features:

- Cable connectors can link together in series without regard to connector gender
- Available in 4, 6 and 12 fiber optic channels
- Singlemode and multimode capabilities
- Tactical field type, distribution and breakout
- Designed to withstand crush, impact, cable pull-out, cable twist, water and mud immersion and many other environments
- Proven field performance in harsh environment applications

Performance Characteristics:

- Optical insertion loss:
 - 9/125 SM fiber: 0.4 dB avg.
 - 62.5/125 MM fiber: 0.7 dB avg.
- Operating temperature: -54°C to +85°C
- Corrosion: 500 hours salt spray per TIA/EIA-455-16
- Water pressure sealing: up to 25 PSI for 48 hours
- Mating durability: 1000 cycles minimum

ORDERING INFORMATION

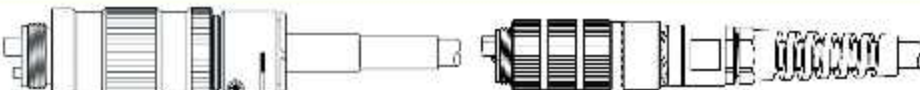
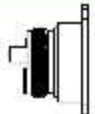
O-MIX CONNECTORS

1					2				3
1	2	3	4	5	6	7-8	9	10-11	12
O-MIX					/	XX	-	X	X

CPE KEY CODE

SERIES O-MIX

CONNECTOR TYPE

1			PART NUMBER
PLUG			O-MIX/16
RECEPTACLE JAM NUT			O-MIX/17
RECEPTACLE WALL MOUNT			O-MIX/18

NUMBER OF CHANNEL

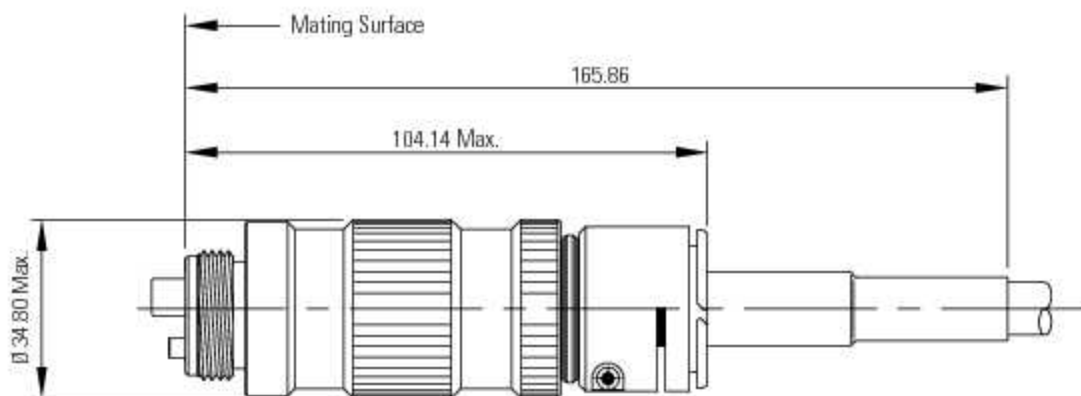
2	PART NUMBER
4	4
6	6
12	12

ACCESSORIES (ONLY FOR PLUG)

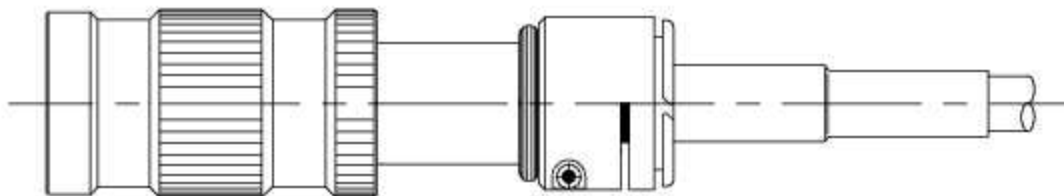
3	PART NUMBER
STRAIGHT BOOT*	S
FLEXIBLE SLEEVE ADAPTER*	F
CONDUIT ADAPTER*	C

* Available upon request. Dimension to be provided by Customer.

PLUG - 4 CHANNEL (O-MIX/16-4)

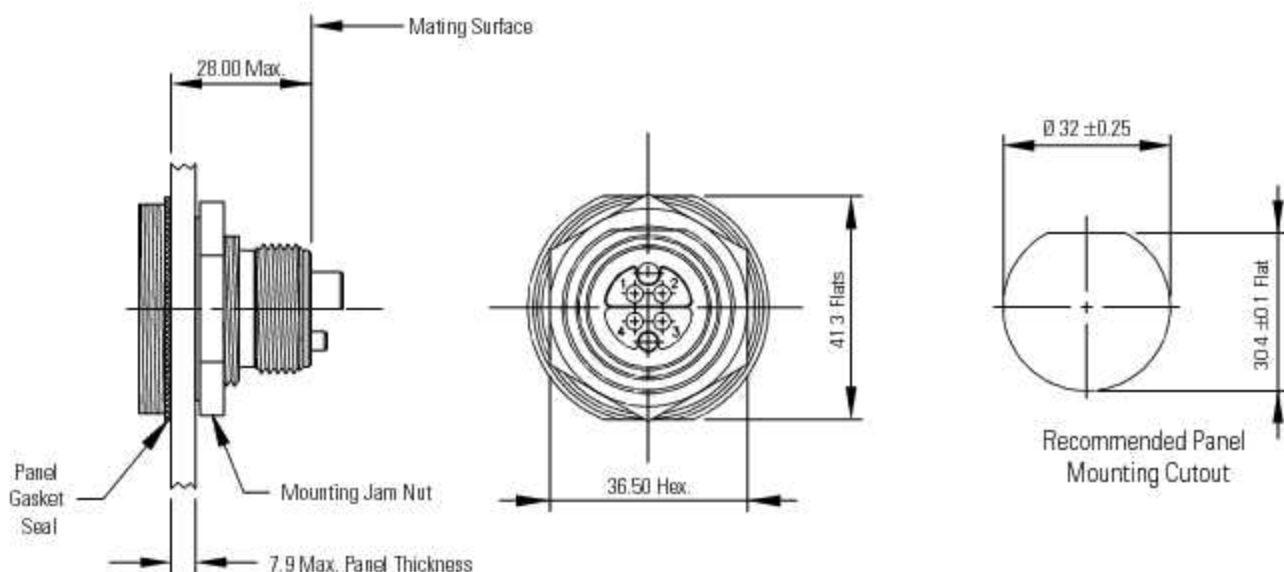


Coupling nut shown in retracted position
(male configuration) for plug to plug mating.



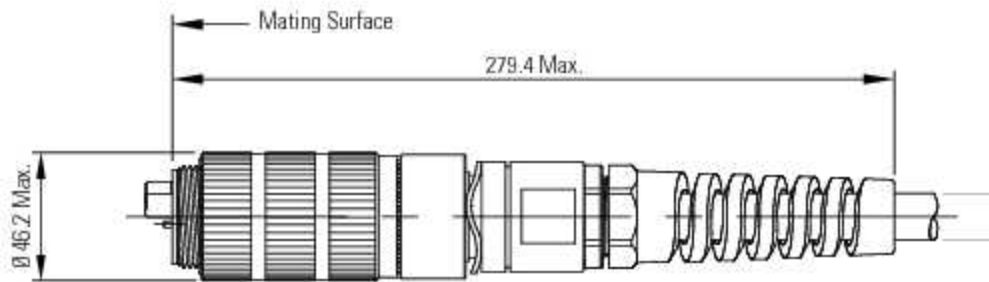
Coupling nut shown in forward position
(female configuration) for plug to receptacle mating.

RECEPTACLE JAM NUT - 4 CHANNEL (O-MIX/17-4) RECEPTACLE WALL MOUNT - 4 CHANNEL (O-MIX/18-4)

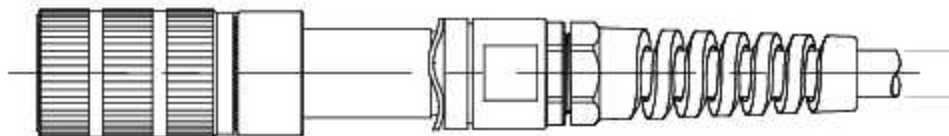


Rappresentation of Receptacle Jam Nut

PLUG - 6 / 12 CHANNEL (O-MIX/16-6 ; O-MIX/16-12)

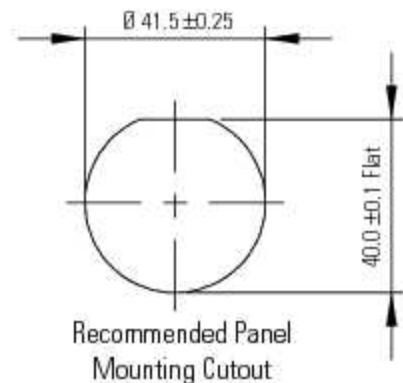
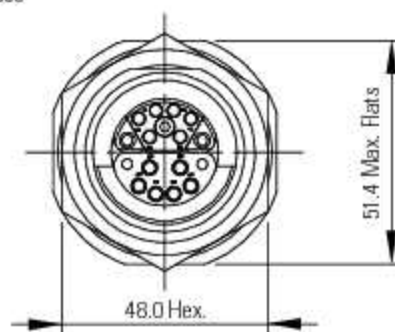
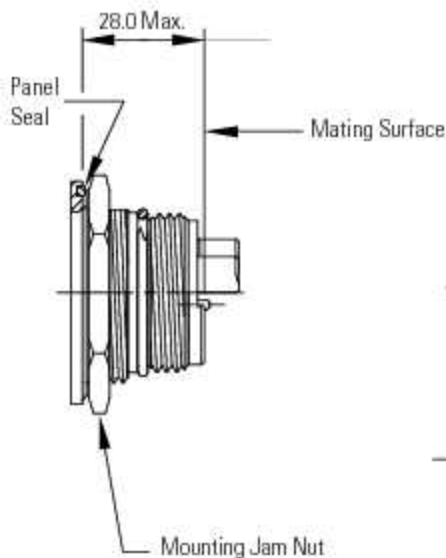


Coupling nut shown in retracted position
(male configuration) for plug to plug mating.



Coupling nut shown in forward position
(female configuration) for plug to receptacle mating.

RECEPTACLE JAM NUT - 6 / 12 CHANNEL (O-MIX/17-6 ; O-MIX/17-12)
RECEPTACLE WALL MOUNT - 6 / 12 CHANNEL (O-MIX/18-6 ; O-MIX/18-12)



Rappresentation of Receptacle Jam Nut

ORDERING INFORMATION

M29504 (TERMINI & DUMMY FOR O-MIX)



Plug Termini

Receptacle Termini



Size 16 Fiber Optic Termini - 4 Channel O-Mix Connector			
ØA (Microns)	Fiber Type	Fiber Size Core/Cladding (Microns)	Mil-Spec Part Number
126.0	Single Mode	9/125	M29504/14-4131C Plug Termini
	Multi Mode	50/125, 62.5/125	
126.0	Single Mode	9/125	M29504/15-4181C Recept. Termini
	Multi Mode	50/125, 62.5/125	



Plug Termini

Receptacle Termini



Size 16 Fiber Optic Termini - 6 / 12 Channel O-Mix Connector			
ØA (Microns)	Fiber Type	Fiber Size Core/Cladding (Microns)	Mil-Spec Part Number
126.0	Single Mode	9/125	M29504/14-4131C Plug Termini
	Multi Mode	50/125, 62.5/125	
126.0	Single Mode	9/125	M29504/15-4181C Recept. Termini
	Multi Mode	50/125, 62.5/125	

(without Alignment Sleeve)



Dummy Termini

Dummy Termini/ MIL-T-29504/3
M29504/03-4038

Use Dummy Termini to fill any unused cavities.

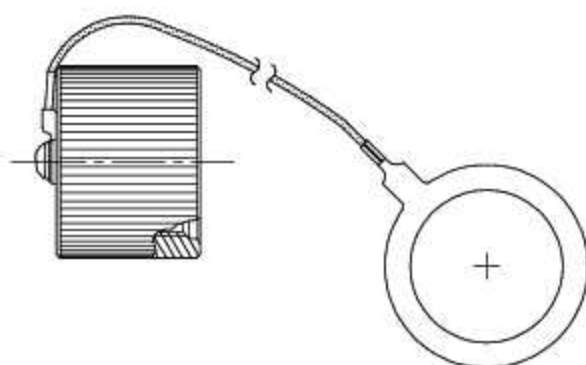
ORDERING INFORMATION

O-MIX DUSTCOVERS

1					2			
1	2	3	4	5	6	7	8	9
O-MIX					/	X	-	X

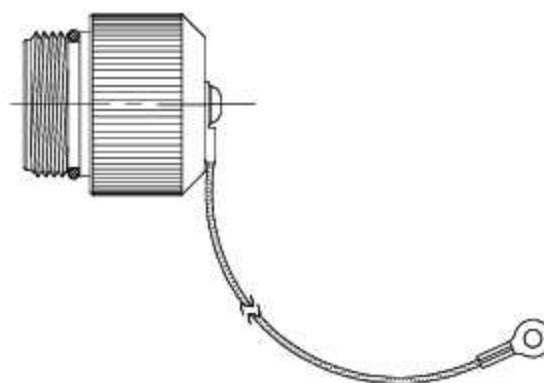
CPE KEY CODE		
O-MIX DUSTCOVERS		
DUSTCOVER TYPE		
1	PLUG	PART NUMBER O-MIX/6
	RECEPTACLE	O-MIX/7
NUMBER OF CHANNELS		
2	4	PART NUMBER 4
	6 / 12	12

Dustcover for Receptacle



O-MIX/7-4 ; O-MIX/7-12

Dustcover for Plug



O-MIX/6-4 ; O-MIX/6-12

For Your Notes

For Your Notes

M64266 CONNECTORS

PRODUCT PROFILE

M64266 Connectors combine proven technology from M28876 and D38999 designs. The termini are designed to meet the requirements of MIL-PRF-29504/18.

Typical Applications:

- Maritime
- Aerospace
- Industrial

Benefit/Features:

- Removable alignment sleeve retainer (ASR) for easy cleaning of terminations on both sides of the connector
- Tighter mechanical tolerances than D38999, allowing interoperability
- High density arrangements available
- Removable genderless design
- Rear insertion / rear release
- 1,25mm ferrules
- Singlemode and multimode capabilities
- Captive alignment sleeves
- Environmental sealing on the termini
- Allows for multiple backshell designs, many styles and configurations available off the shelf

Performance Characteristics:

- Optical insertion loss:
 - 9/125 SM fiber: 0.25 dB avg.
 - 62.5/125 MM fiber: 0.6 dB avg.
- Operating temperature: -28°C to +65°C
- Vibration: per TIA/EIA-455-11, Condition II, IV & VII
- Shock: MIL-S-901, GR.A, CL.1, high impact
- Mating durability: 500 cycles

ORDERING INFORMATION

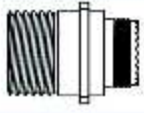
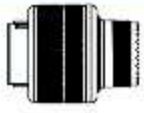
M64266 CONNECTORS

1										2	3	4	5
1	2	3	4	5	6	7	8-9	10	11	12	13	14-15-16	
M64266							/	XX	-	X	X	X	XXX

CPE KEY CODE

SERIES M64266

CONNECTOR TYPE

1									PART NUMBER
	RECEPTACLE WALL MOUNT								M64266/01
	PLUG								M64266/02
	RECEPTACLE JAM NUT								M64266/03

SHELL SIZE

2									PART NUMBER
	11								B
	13								C
	15								D
	23								H

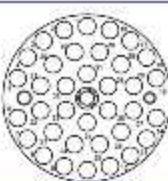
MATERIAL AND FINISHING

3									PART NUMBER
	ALUMINUM WITH CONDUCTIVE PLATING								A
	CRES, PASSIVATED								B
	COMPOSITE WITH CONDUCTIVE PLATING								C
	ALUMINUM WITH NON-CONDUCTIVE FINISH								D
	COMPOSITE WITH NON-CONDUCTIVE FINISH								E

KEYING POSITION

4	SHELL SIZE	P DEGREES $\pm 5^\circ$	PART NUMBER
	11	55	1
		80	2
		105	3
		130	4
		230	5
		255	6
		280	7
		305	8
	13 / 15 / 23	30	1
		55	2
		80	3
		105	4
		130	5
		155	6
		205	7
		230	8
		255	9
		280	A
		305	B
		330	C

ORDERING INFORMATION

INSERT ARRANGEMENT			
5	SHELL SIZE		PART NUMBER
	11		021
			042
	13		061
	15		081
			102
	23		361
			182

M64266/01 - RECEPTACLE WALL MOUNT

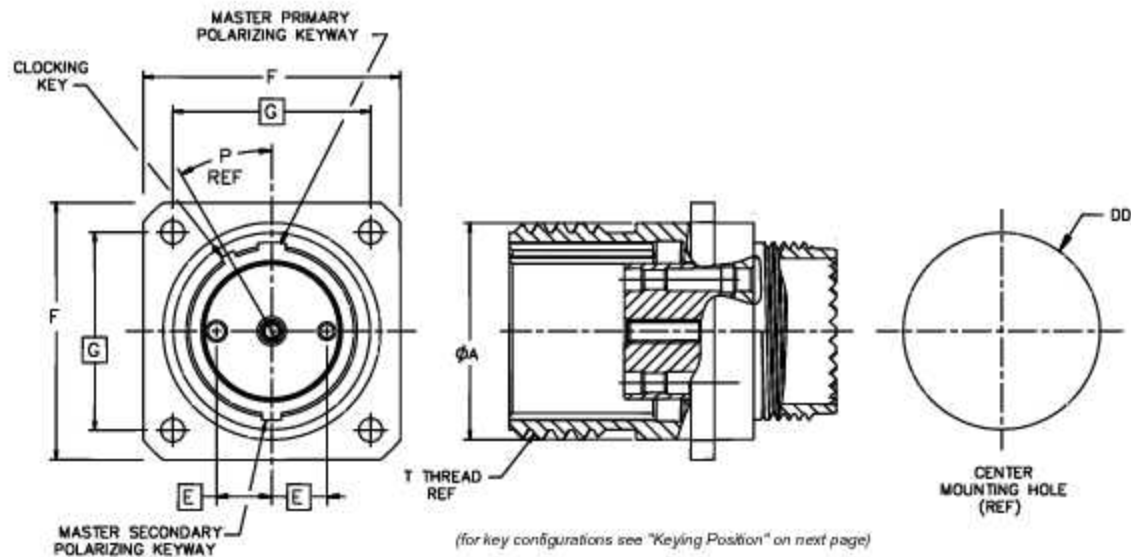


Table Dimensions:

Connector Size	ØA	DD	E	F	G	T thread Class 2A
11	0.750 [19.05]	0.812 [20.62]	0.140 [3.56]	1.023 [25.98]	0.750 [19.05]	0.750-0.1P-0.2L-DS
13	0.875 [22.26]	0.937 [23.80]	0.178 [4.52]	1.138 [28.91]	0.843 [21.41]	0.875-0.1P-0.2L-DS
15	1.062 [26.98]	1.124 [28.55]	0.270 [6.86]	1.258 [31.95]	0.968 [24.59]	1.062-0.1P-0.2L-DS
23	1.500 [38.10]	1.562 [39.68]	0.400 [10.16]	1.718 [43.64]	1.281 [32.54]	1.500-0.1P-0.2L-DS

Dimensions shown are for reference only. Unless otherwise specified, dimensions are in inches and [millimeters].

M64266/02 - PLUG

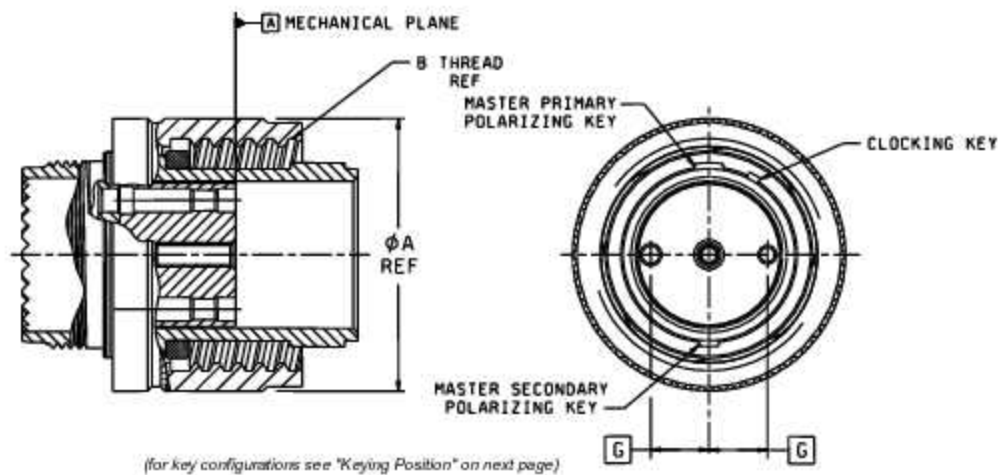


Table Dimensions:

Connector Size	ØA Max.	G	T thread Class 2A
11	1.028 [26.11]	0.140 [3.56]	0.750-0.1P- 0.2L-DS
13	1.141 [28.98]	0.178 [4.52]	0.875-0.1P- 0.2L-DS
15	1.263 [32.08]	0.270 [6.86]	1.062-0.1P- 0.2L-DS
23	1.705 [43.31]	0.400 [10.16]	1.500-0.1P- 0.2L-DS

Dimensions shown are for reference only. Unless otherwise specified, dimensions are in inches and [millimeters].

M64266/03 - RECEPTACLE JAM NUT

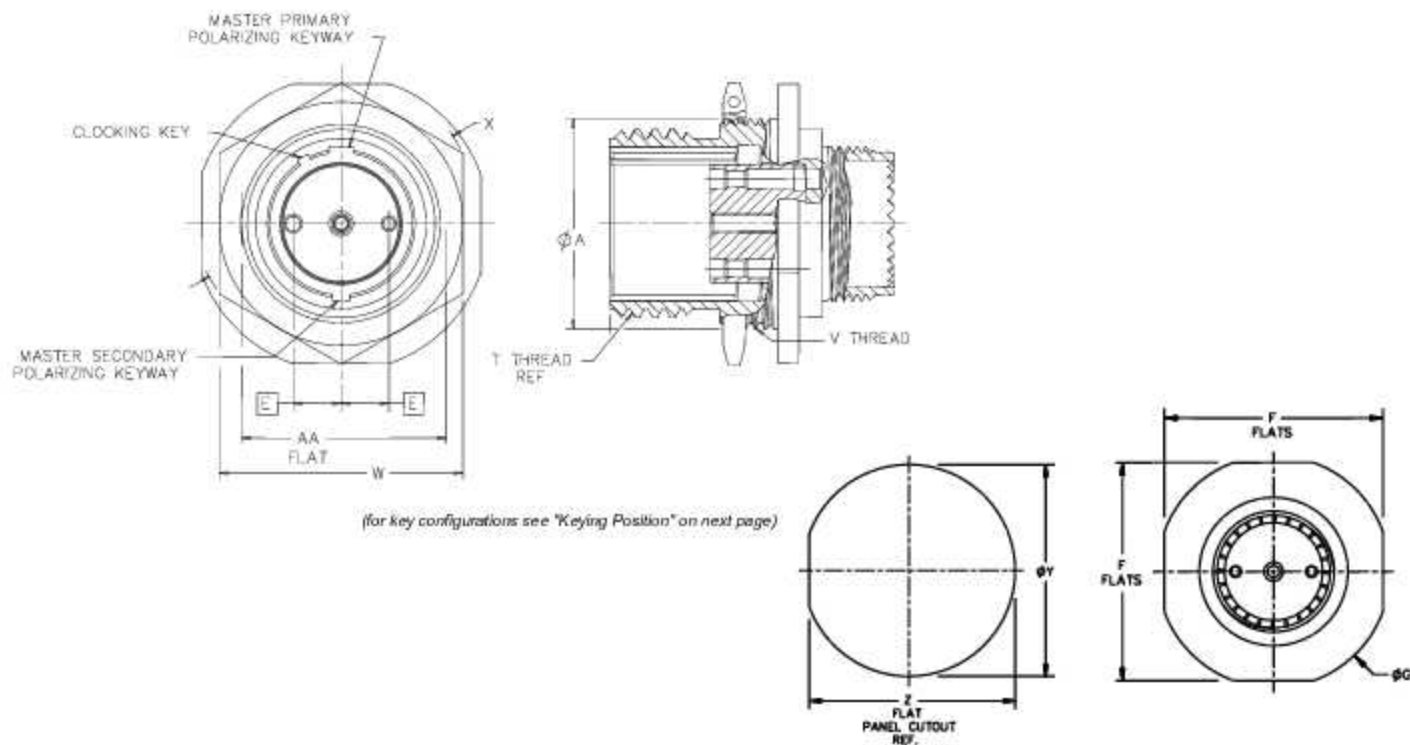


Table Dimensions:

Connector Size	ØA Max.	F Flat	ØG	T thread Class 2A	V thread Class 2A	W	X Max.	ØY	Z Flat	AA Flat
11	0.875 [22.23]	1.264 [32.11]	1.358 [34.49]	0.750-0.1P-0.2L-DS	0.875-20 UNEF	1.075 [27.30]	1.290 [32.77]	0.885 [22.48]	0.848 [21.54]	0.841 [21.36]
						1.045 [26.54]				0.832 [21.13]
13	1.000 [25.40]	1.264 [32.11]	1.498 [38.05]	0.875-0.1P-0.2L-DS	1.000-20 UNEF	1.205 [30.61]	1.435 [36.45]	1.010 [25.65]	0.973 [24.71]	0.966 [24.54]
						1.171 [29.74]				0.957 [24.31]
15	1.1875 [30.17]	1.264 [32.11]	1.671 [42.44]	1.062-0.1P-0.2L-DS	1.1875-18 UNEF	1.392 [35.36]	1.650 [41.91]	1.198 [30.43]	1.160 [29.46]	1.153 [29.29]
						1.358 [34.49]				1.144 [29.06]
23	1.625 [41.28]	2.004 [50.90]	2.098 [53.29]	1.500-0.1P-0.2L-DS	1.625-18 UNEF	1.812 [46.03]	2.093 [53.16]	1.630 [41.40]	1.593 [40.46]	1.587 [40.31]
						1.778 [45.16]				1.578 [40.08]

Dimensions shown are for reference only. Unless otherwise specified, dimensions are in inches and [millimeters].

M64266 - KEYING POSITION

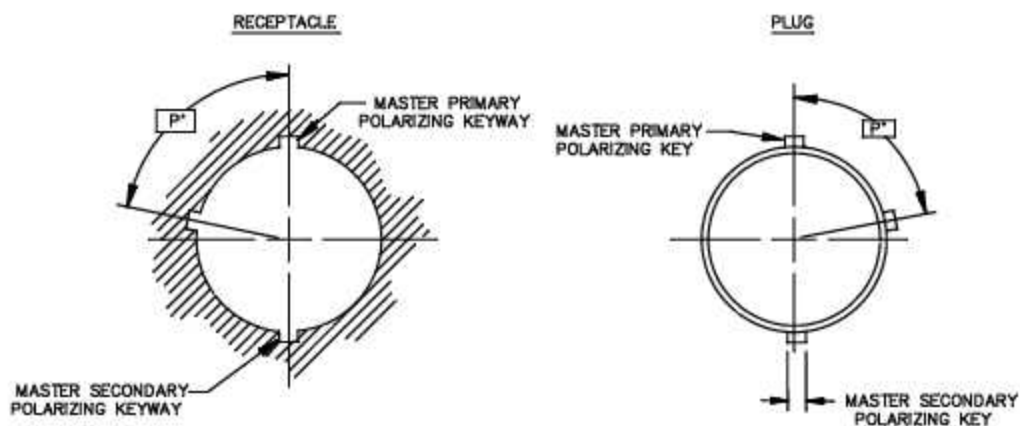


Table Dimensions:

Connector Size	P degrees ± 5	Key Identifier
11	55	1
	80	2
	105	3
	130	4
	230	5
	255	6
	280	7
	305	8
13 / 15 / 23	30	1
	55	2
	80	3
	105	4
	130	5
	155	6
	205	7
	230	8
	255	9
	280	A
	305	B
	330	C

Dimensions shown are for reference only.

ORDERING INFORMATION

M64266 REMOVABLE BACKSHELLS

1	2	3	4	5	6	7	8-9	10	11-12	13	14	15
M64266						/	18	-	XX	X	X	X

CPE KEY CODE

1 SERIES M64266/18

SHELL SIZE AND CABLE DIAMETER

2	SHELL SIZE	CABLE DIAMETER	PART NUMBER
11	11	6,1 ÷ 6,35	B1
		7,11 ÷ 8,00	B2
		7,75 ÷ 8,79	B3
	13	7,11 ÷ 8,00	C1
		7,75 ÷ 8,79	C2
		12,57 ÷ 13,08	D1
15	15	9,65 ÷ 10,74	D2
		10,4 ÷ 11,81	D3
		7,75 ÷ 8,78	D4
	23	19,50 ÷ 22,00	H1
		22,86 ÷ 25,40	H2
			H2

MATERIAL

3		PART NUMBER
	ALUMINUM WITH CADMIUM ELECTROLYTIC COMPATIBLE PLATING	A
	STAINLESS STEEL PASSIVATED	B
	COMPOSITE WITH CADMIUM ELECTROLYTIC COMPATIBLE PLATING	C
	ALUMINUM WITH NON-CONDUCTIVE FINISH	D
	COMPOSITE WITH NON-CONDUCTIVE FINISH	E

CABLE ENTRY

4		PART NUMBER
	STRAIGHT	1
	45°	2
	90°	3

REAR ADAPTER

5		PART NUMBER
	REAR ADAPTER WITH BENDING STRAP PLATFORM AND STRAIN RELIEF PLATFORM	1
	REAR ADAPTER WITH COMPRESSION FITTING PLATFORM	2

REMOVABLE BACKSHELLS

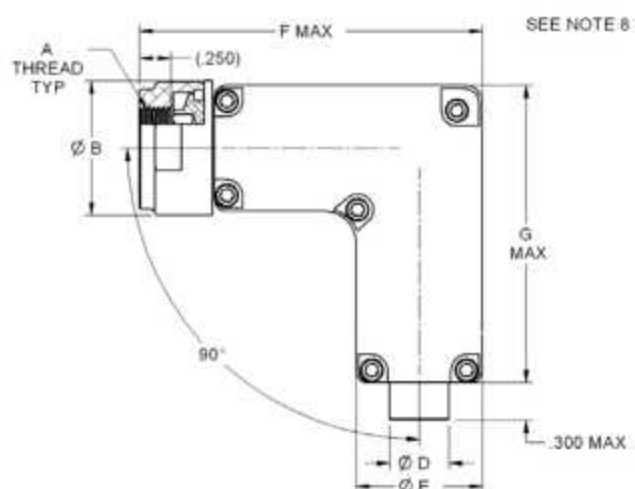
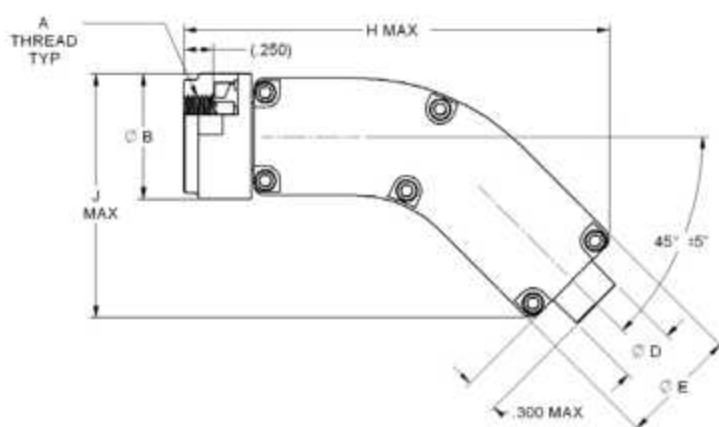
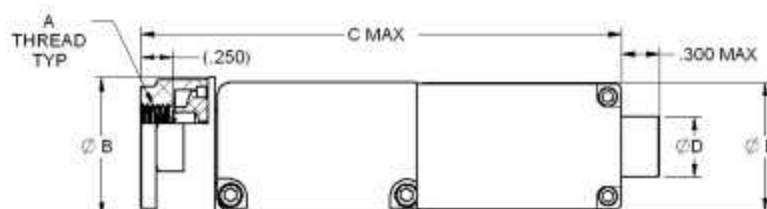


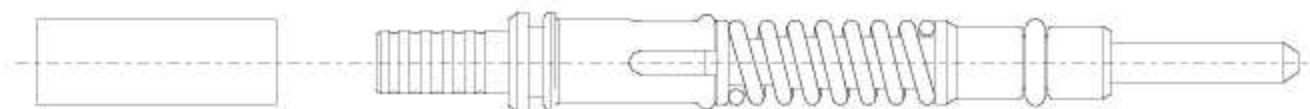
Table Dimensions:

Connector Size	A Thread ISO metric	ØB Max.	ØD Max.	ØE Max.	F Max.	G Max.	J Max.	H Max.	C Max.
11	M15x1.0-6H	1.00 [25.40]	0.50 [12.70]	1.00 [25.40]	3.00 [76.20]	3.50 [88.90]	3.50 [88.90]	4.90 [124.5]	4.00 [101.6]
13	M18x1.0-6H	1.13 [28.7]	0.50 [12.70]	1.25 [31.80]	3.00 [76.20]	3.60 [91.40]	3.60 [91.40]	5.00 [127.0]	4.00 [101.6]
15	M22x1.0-6H	1.25 [31.80]	0.75 [19.50]	1.25 [31.80]	3.20 [81.30]	3.70 [94.00]	3.80 [94.00]	5.30 [134.6]	4.70 [119.4]
23	M34x1.0-6H	1.75 [44.50]	1.25 [31.80]	1.75 [44.50]	3.70 [94.00]	5.00 [127.0]	5.00 [127.0]	6.10 [154.9]	4.70 [119.4]

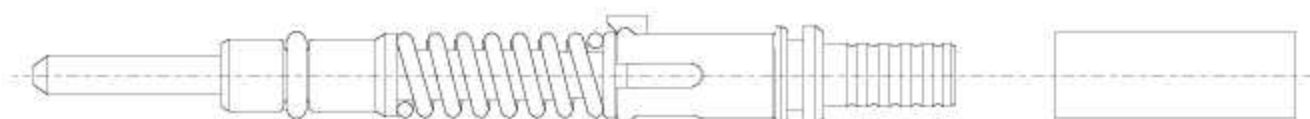
Dimensions shown are for reference only. Unless otherwise specified, dimensions are in inches and [millimeters].

ORDERING INFORMATION

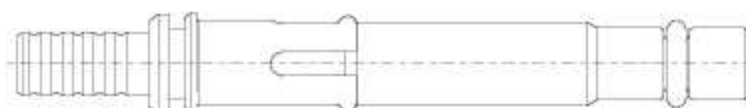
M29504 (TERMINI & DUMMY FOR M64266)



Size 16 Fiber Optic Plug Termini			
Ø Hole (microns)	Fiber Type	Description	CPE Part Number
126.0	Single Mode or Multi Mode	Genderless Termini	M29504/18



Size 16 Fiber Optic Plug Termini			
Ø Hole (microns)	Fiber Type	Description	CPE Part Number
126.0	Single Mode or Multi Mode	Keyed Genderless Termini	M29504/20



Dummy Termini
M29504/19

Use Dummy Termini to fill any unused cavities.

ORDERING INFORMATION

M64266 ALIGNMENT SLEEVE RETAINER (ASR)

1	2	3	4	5	6	7	8	9	10	11	12	13
M64266						/	9	-	X	X	X	X

CPE KEY CODE

1 M64266 ALIGNMENT SLEEVE RETAINER (ASR)

SHELL SIZE

2	PART NUMBER
11	B
13	C
15	D
23	H

MATERIAL AND FINISHING

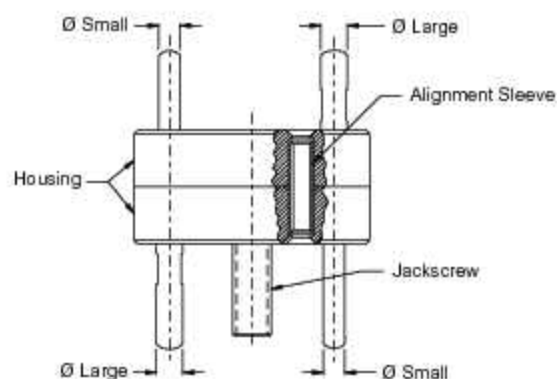
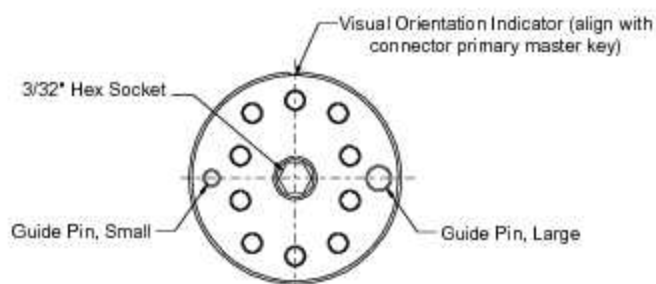
3	PART NUMBER
ALUMINUM CONDUCTIVE PLATING	A
CRES, PASSIVATED	B
COMPOSITE WITH CONDUCTIVE PLATING	C
ALUMINUM WITH NON-CONDUCTIVE FINISH	D

INSERT ARRANGEMENT

4	SHELL SIZE	NUMBER OF INSERT	PART NUMBER
	11	2	1
		4	2
	13	6	1
		8	1
	15	10	2
		36	1
	23	18	2

TYPE

5	PART NUMBER
PLUG	P
RECEPTACLE	R



Representation of Shell Size 15 - Arrangement 10

ORDERING INFORMATION

M64266 DUSTCOVERS

1					2					3	4
1	2	3	4	5	6	7	8	9	10	11	12
M64266						/	XX	-	X	X	X

CPE KEY CODE

M64266 DUSTCOVERS

DUSTCOVER TYPE

1		PART NUMBER
	PLUG	M64266/10
	RECEPTACLE	M64266/11

SHELL SIZE

2		PART NUMBER
	11	B
	13	C
	15	D
	23	H

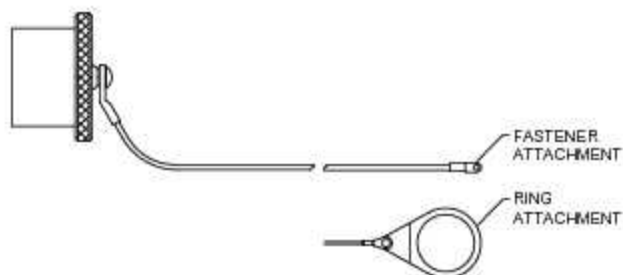
MATERIAL AND FINISHING

3		PART NUMBER
	ALUMINUM WITH CONDUCTIVE PLATING	A
	STAINLESS STEEL, PASSIVATED	B
	COMPOSITE WITH CONDUCTIVE PLATING	C
	ALUMINUM WITH NON-CONDUCTIVE FINISH	D
	COMPOSITE WITH NON-CONDUCTIVE FINISH	E

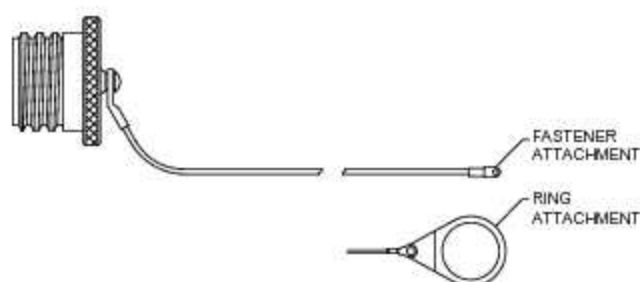
LAYNARD ATTACHMENT

4		PART NUMBER
	LAYNARD WITH FASTENER	1
	LAYNARD WITH RING	2

Dustcover for Receptacle



Dustcover for Plug



For Your Notes



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