



M8

## INDUSTRIAL I/O CABLES

PART NUMBER REFERENCE: **M8 - XX - X - XX - XX M**

## Select Connector Type: End "1" (See Next Pg. )

M8, 2P Female = A	M8, 5P Female = G
M8, 2P Male = B	M8, 5P Male = H
M8, 3P Female = C	M8, 6P Female = J
M8, 3P Male = D	M8, 6P Male = K
M8, 4P Female = E	M8, 8P Female = L
M8, 4P Male = F	M8, 8P Male = M

## Select Connector Orientation: End "1" Straight Exit = A

Right Angle: B = 360°, C = 145°, D = 90°, E = 135°, F = 180°, G = 225°, H = 270°, J = 315°

## Cable Type Options:

28 AWG, 5C = 1
22 AWG, 5C, HIFLEX = 2
26 AWG, 5C HIFLEX = 3
28 AWG, 8C = 4

## Select Connector Type: End "2" (See Next Pg. )

M8, 2P Female = A	M8, 5P Female = G
M8, 2P Male = B	M8, 5P Male = H
M8, 3P Female = C	M8, 6P Female = J
M8, 3P Male = D	M8, 6P Male = K
M8, 4P Female = E	M8, 8P Female = L
M8, 4P Male = F	M8, 8P Male = M

X on end "2" denotes Flying Leads = X

## Select Connector Orientation: End "2" Straight Exit = A

Right Angle: B = 360°, C = 145°, D = 90°, E = 135°, F = 180°, G = 225°, H = 270°, J = 315°

Length in Meters: **0.3 – 60**

Temp: 02-28-22

# CONNECTOR TYPES: M8

**A**



M8, 2P Female

**B**



M8, 2P Male

**C**



M8, 3P Female

**D**



M8, 3P Male

**E**



M8, 4P Female

**F**



M8, 4P Male

**G**



M8, 5P Female

**H**



M8, 5P Male

**J**



M8, 6P Female

**K**



M8, 6P Male

**L**



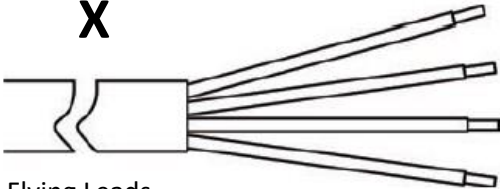
M8, 8P Female

**M**



M8, 8P Male

**X**



Flying Leads  
( Approximate 50 mm. Cut-Back )

### Additional Dimensional Information:

For additional information regarding the physical dimensions of our connector profiles, Please visit our Web-Site: [www.ComponentsExpress.com](http://www.ComponentsExpress.com)  
Or call to speak to one of our sales associates and we will be happy to assist.

Temp: 02-28-22

# MI & M8, Type #: 1

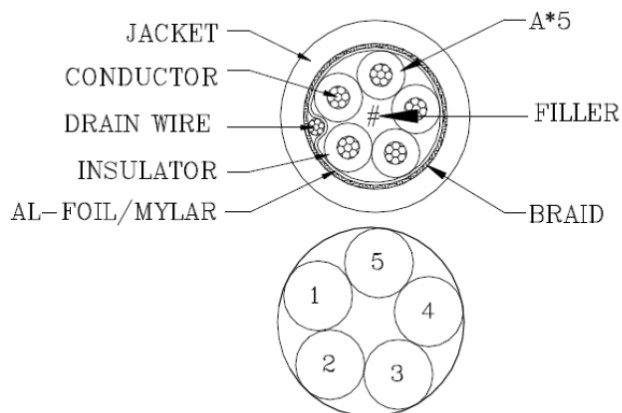
SPEC No.:	7/0.127TA*5C+AEB 85%						
Customer		Customer NO.		8 Code:	34120130	Sample NO:	W99011904
UL File NO.	E101344	UL Style:	UL 2464	Date:	1/19/10	Spec NO:	1275588P005017
CSA File NO.	0	CSA Style:	0	Edition.:	Original edition	Operation NO:	0
Structure			Structure A				
Conductors	Structure AWG	AWG	28# (7/36)				
	Material	--	Tinned Copper				
	O.D.	mm	0.381 Ref				
Insulation	Material	--	SR-PVC				
	Diameter	mm	0.82±0.06				
	Average Thickness	mm	0.220 Ref				
	Color	--	AS Color Code				
Layer	Direction	--	Right (S)				
	Pitch	mm	45 Ref				
	Diameter	mm	2.21 Ref				
Shielding 1	Material	--	--	AL-foil/mylar			--
	Conductive Side	--	--	<b>Outside</b>			--
	Overlap Rate	%	--	25 MIN			--
Drain wire	Structure AWG	AWG	26# (7/34)				
	Material	--	Tinned Copper				
Shielding 2	Shield	--	<b>Braid</b>				
	Material	--	Tinned Copper				
	Coverage Rate	%	85MIN				
Jacket	Material	--	PVC				
	Diameter	mm	5 ± 0.15				
	Min Thickness	mm	0.76				
	Extrusion	--	<b>Solid</b>				
	Externals	--	<b>Plane</b>				
	Color	--	P001 (BLACK)				



**COMPONENTS EXPRESS, INC.**  
10330 Argonne Woods Drive, Ste100  
Woodridge, IL 60517

**W99011904 (E0898)**

Rev. A, 1/19/2010, Updated 2/17/22



COLOR CODE  
1.BLACK (P570)  
2.BROWN (P571)  
3.YELLOW (P574)  
4.BLUE (P576)  
5.WHITE (P579)

**MINIMUM BEND RADIUS: 10X O.D.**

# MI & M8, Type #: 1

## CABLE CHARACTERS

SPEC No.:	7/0.127TA*5C+AEB 85%							
Customer		Customer NO.		8 Code:	34120130	Sample NO:	W99011904	
UL File NO.	E101344	UL Style:		UL 2464	Date:	1/19/10	Spec NO:	1275588P005017
CSA File NO.	0	CSA Style:		0	Edition:.	Original edition	Operation NO:	0

### Electric Characters

- 1.Voltage rating: 300V
- 2.Temperature rating: 80°C
- 3.Spark test: AC- 2500V/0.15 sec MIN.
- 4.Dielectric strength : AC-1500V/3 sec MIN.
- 5.Insulation resistance :SR-PVC: DC- 500V 10 MΩ/KM MIN. at 20°C
- 6.Conductor resistance : 28AWG- 237 Ω/KM MAX. at 20°C

### Physical Characters

- 1.Flame test of cable:
  - 1.1 VW-1
- 2.Tensile strength test (before aging) :
  - 2.1 Sheath : > 1.05kg/mm<sup>2</sup>
  - 2.2 Insulation : > 2.11kg/mm<sup>2</sup>
- 3.Tensile strength test (after aging) :
  - 3.1 Sheath : > 70%
  - 3.2 Insulation : > 70%
- 4.Elongation (before aging) :
  - 4.1 Sheath : > 100%
  - 4.2 Insulation : > 100%
- 5.Elongation (after aging) :
  - 5.1 Sheath : > 65%
  - 5.2 Insulation : > 70%
- 6.Requirements for green environment protection : Accord with RoHS



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**W99011904 (E0898)**

Rev. A, 1/19/2010, Updated 2/17/22

## MI Type #: C / M8 Type #: 2

**Description:** Five conductor unshielded cable manufactured as UL AWM Style 2586 105C 600V, C(UL) CMX OUTDOOR-CMG 105C, & CSA AWM I/II A/B 105C 600V FT4. Insulated conductors manufactured as UL AWM Style 10708 105C 600V.

### (5) 22 AWG SINGLE CONDUCTORS:

**Conductor:** (5) 22 AWG stranded (19/.0058) tin copper conductors.

**Insulation:** 16 mils nominal wall of 105C rated PVC.

Nominal O.D. over insulation: .060"

### OVERALL CABLE CONSTRUCTION:

**Fillers:** Central fibrillated foamed polypropylene filler used for roundness.

**Jacket:** .041" nominal wall of 105C rated PVC.

Nominal O.D.: .244" **MINIMUM BEND RADIUS: 10X O.D.**

**Jacket Color:** Black

**Assembly:** (5) 22 AWG single conductors twisted with fillers and left hand lay. Pressure extruded with PVC jacket and tissue separator between jacket and cable core.



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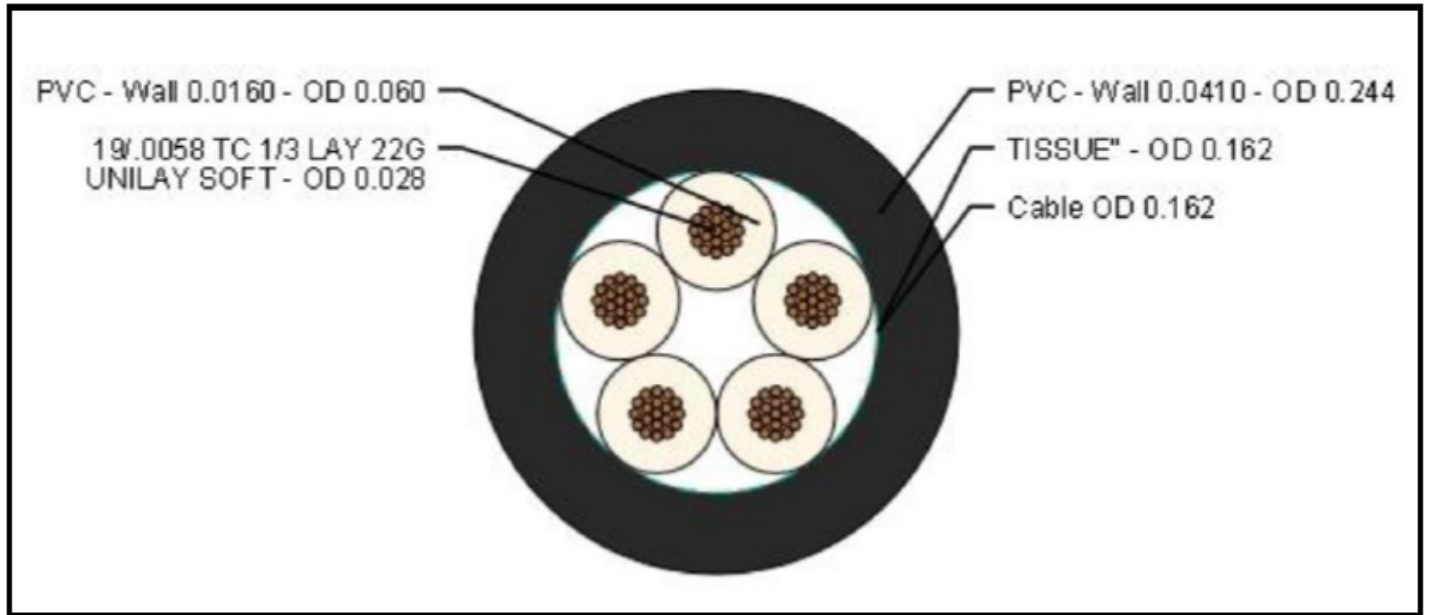
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Woodridge, IL 60517

**REF: 2205CU**

**Rev. A, 2/6/2020**

Updated: 2/17/22

## MI Type #: C



<b>Cable Rotation:</b>	1 – BLACK	4 – BROWN
	2 – BLUE	5 – WHITE
	3 – GREEN	
<b>RoHS Compliant:</b>	YES	
<b>Temperature Range:</b>	-40°C to 105°C (Static)	
<b>Test Voltage:</b>	2000 Volts Conductor to Conductor	
<b>Conductor Resistance:</b>	22 AWG – 15.04 Ohms/1,000 ft	



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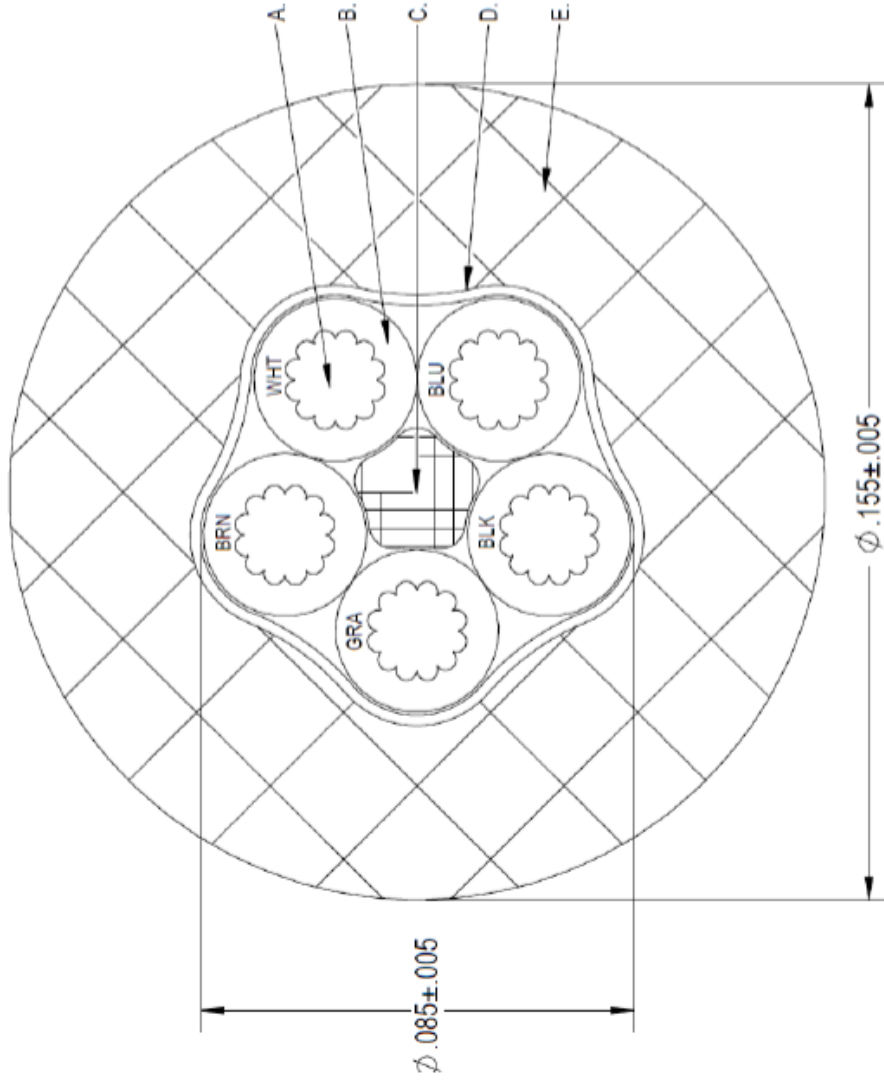
**REF: 2205CU**

**Rev. A, 2/6/2020**

Updated: 2/17/22



# MI Type #: D / M8 Type #: 3



ITEM	SPECIFICATIONS
A.	26 AWG 19X.0040" TINNED COPPER STRANDING
B.	6 MIL SR-PVC INSULATION PER AWM 10535 5 MIL MIN SR-PVC INSULATION OD: .031±.001"
C.	POLY FILLER AS NEEDED FOR ROUNDNESS
D.	TISSUE PAPER SEPARATOR
E.	30 MIL PRESSURED TPU JACKET 24 MIL MIN BLACK TPU JACKET
	UL RECOGNIZED & CSA CERTIFIED
	ROHS3 DIRECTIVE (EU) 2015/863 TO AMEND ANNEX II TO EU ROHS 2, 2011/65/EU WITH NO EXEMPTIONS

MINIMUM BEND RADIUS: 10X O.D.



**COMPONENTS EXPRESS, INC.**  
10330 Argonne Woods Drive, Ste 100  
Woodridge, IL 60517

REF: 2605CU  
Rev. 1, 11/26/2019 Update: 2/17/22  
Pg. 1/1

**MI Cable Type #: 2 / M8 Cable Type #: 4**

<b>SPECIFICATION:</b> 8C*28AWG +AL..MYLAR+DRAIN+BRAID /UL2464		<b>CONSTRUCTION DWG</b>	
<b>ITEM</b>	<b>SPECIFICATION</b>		
CONDUCTOR	28AWG TINNED COPPER	PVC JACKET	
	COND.SIZE 7/0.127±0.008 mm	BRAID	
	MIN.AVG.THICK 0.23 mm	AL. MYLAR	
INSULATION	SR-PVC	CONDUCTOR	
	O . D 0.90 ± 0.05 mm	INSULATION	
	N.O. 8C	DRAIN	
Face Outside AL.MYLAR	COVERAGE 100%		
	OVERLAP 25% MIN		
DRAIN	28AWG TINNED COPPER		
	SIZE 7/0.127±0.008 mm		
BRAID	TINNED COPPER	<b>COLOR CODE:</b>	
	SIZE 16*8/0.10±0.008 mm 85%MIN	1.WHITE 2.BROWN 3.GREEN 4.YELLOW 5.GRAY	
	MIN.AVG.THICK 0.76 mm	6.PINK 7.BLUE 8.RED	
JACKET	MATERIAL HALF MATT PVC		
	COLOR 5.50 ± 0.15 mm		
	O . D		
		<b>MINIMUM BEND RADIUS: 10X O.D.</b>	
		<b>COMPONENTS EXPRESS, INC.</b> 10330 Argonne Woods Drive, Ste 100 Woodridge, IL 60517	
		<b>93190828*** (E0897), 2/17/22</b>	
		<b>APPROVED</b>	<b>CUSTOMER</b>
		<b>CHECKED</b>	<b>REV</b> A
		<b>DRAWING</b> CWJ	<b>DATE</b> 16/11/08
<b>ELECTRICAL CHARACTERISTICS</b>		<b>PHYSICAL PROPERTIES OF JACKET</b>	
1. Rating : TEMP 80°C ; VOLTAGE 300V		STYLE	JACKET
2. Conductor Resistance: at 20°C MAX		Tensile Strength	MIN 1500PSI
28AWG: 237.25Ω/km;		Elongation	MIN 70%
3. Insulation Resistance: 10MΩ-km min at 20°C dc 500V (EIA-364-21)		Heat shock test	MIN 100%
4. Dielectric Strength: AC 1500V/1 minute no breakdown. (EIA-364-20)		Cold bend test	MIN 65%
		Deformation test	NO CRACKING
		Flame retardant test	NO CRACKING
			MAX 50%
			PASS UL VW-1
			PASS UL VW-1