

ANALOG CABLES

PART NUMBER REFERENCE



Select Connector Type: 1-8 End "1"

Gender, Body and Pin Count

Connector Orientation:

See example at right

Straight = 0
Right Angle 360° = 1
Right Angle 45° = 2
Right Angle 90° = 3
Right Angle 135° = 4
Right Angle 180° = 5
Right Angle 225° = 6
Right Angle 270° = 7
Right Angle 315° = 8

Select Cable Type:

24 AWG x 12C (I/O) = 1 *
ULTRAFLEX (Video) = 2 *
28 AWG x 6C (I/O) = 3 *
26 AWG x 8C (I/O) = 4 *
26 AWG x 6P (I/O) = 5 *
<i>C-Track / Robotic</i>

Select Connector Type: 1-8 End "2"

Gender, Body, and Pin Count

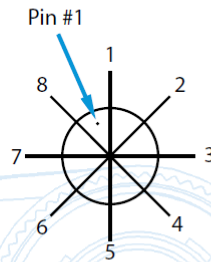
X on End "2" denotes flying leads

Option: Length in Meters

NOTES:

- *X End option for step #: 4 denotes flying leads for cable.
- *Cable type #: 1, is ONLY available for connectors #: 1-4, going to Flying Leads (X)
- *Cable type #: 2, is ONLY available for connectors #: 1-4.
- *Cable type #: 3, is ONLY available for connectors #: 5, 6 & Flying Leads (X).
- *Cable type #: 4, is ONLY available for connectors #: 7, 8 & Flying Leads (X).
- *Cable type #: 5, is ONLY available for connectors #: 1-4 & Flying Leads (X).
- *Customer specified pin-out / color code for configurations going to Flying Leads
- *Step #: 2, Right Angle options are NOT available for connectors #: 3 & 4.
- *Step #: 2, Right Angle options for connectors #: 7 & 8 are 1, 3, 5, 7.
- *Connector P/N is for reference only.

Example: Right Angle orientation #3 (90°)



PHYSICAL:

- Cable Color: Black
- Shell Color: Black
- Shell Construction: Pre-molded in Polyethylene, fully shielded, over-molded in black PVC.
- Cable Construction: Mini Coaxial lines plus discrete wires for all standard RGB, HD and VD applications.

Temp: 7-1-20

CONNECTOR TYPE OPTIONS:

1



12 Pin Female Plug
HR10A-10P-12S*

2



12 Pin Male Plug
HR10A-10P-12P*

3



12 Pin Female Jack
HR10A-10J-12S*

4



12 Pin Male Jack
HR10A-10J-12P*

5



6 Pin Female Plug
HR10A-7P-6S*

6



6 Pin Male Plug
HR10A-7P-6P*

7



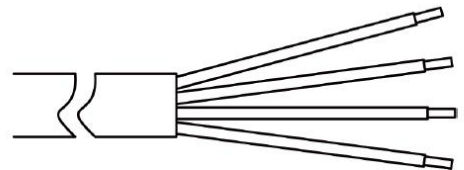
8 Pin Female Plug
HR25-7TP-8S*

8



8 Pin Male Plug
HR25-7TP-8P*

X



Flying Leads
for End "2"

* Connector P/N is for reference only.

Temp:
7-1-20

MVA Type #: 1 & MI Type #: 3

SPEC No.:	7/0.2TA*12C+EA						
Customer		Customer NO.		8 Code:	341201--	Sample NO:	W97012404
UL File NO.	E101344	UL Style:	UL 2464	Date:	1/24/08	Spec NO:	12E7BB1P006517-----
CSA File NO.	0	CSA Style:	0	Edition.:	Original Edition	Operation NO:	0
Structure			Structure A				
Conductors	Structure AWG	AWG	24# (7/32)				
	Material	--	Tinned Copper				
	O.D.	mm	0.6 Ref				
Insulation	Material	--	SR-PVC				
	Diameter	mm	1.07±0.07				
	Average Thickness	mm	0.235 Ref				
	Color	--	AS Color Code				
Layer	Direction	--	Right (S)				
	Pitch	mm	85 Ref				
	Diameter	mm	4.87 Ref				
Shielding	Material	--	--	AL-foil/mylar			--
	Conductive Side	--	--	Inside			--
	Overlap Rate	%	--	25			--
Drain wire	Structure AWG	AWG	24# (7/32)				
	Material	--	Tinned Copper				
Jacket	Material	--	PVC				
	Diameter	mm	6.5 ± 0.19				
	Average Thickness	mm	0.78 Ref				
	Extrusion	--	Solid				
	Externals	--	Plane				
	Color	--	P001				

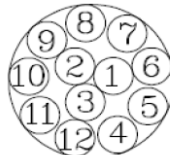
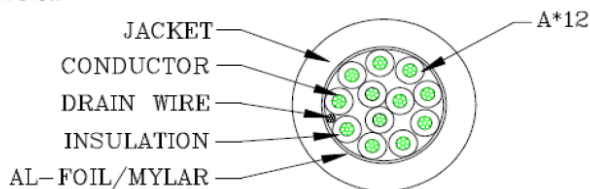


COMPONENTS EXPRESS, INC.
10330 Argonne Woods Drive,
Ste 100 Woodridge, IL 60517

W97012404

Rev. A, 1/24/2008, Updated: 8/8/19

Draw NO.: **1/151.DWG**



COLOR CODE

- | | |
|-----------------|-----------------------|
| 1.BLACK (P570) | 9.GRAY (P578) |
| 2.BROWN (P571) | 10.WHITE (P579) |
| 3.RED (P572) | 11.PINK (P600) |
| 4.ORANGE (P573) | 12.LIGHT GREEN (P601) |
| 5.YELLOW (P574) | |
| 6.GREEN (P575) | |
| 7.BLUE (P576) | |
| 8.VIOLET (P577) | |

MINIMUM BEND RADIUS: 10X O.D.

MVA Type #: 1 & MI Type #: 3

SPEC No.:	7/0.2TA*12C+EA						
Customer		Customer NO		8 Code:	341201--	Sample NO:	W97012404
UL File NO.	E101344	UL Style:	UL 2464	Date:	1/24/08	Spec NO:	12E7BB1P006517-----
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 : 24AWG- 93.2Ω/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/mm²
 - 2.2 Insulation : >2.11kg/mm²
- 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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10330 Argonne Woods Drive, Ste100
Woodridge, IL 60517

W97012404

Pg. 2/2

Rev. A, 1/24/2008, Updated: 8/8/19

Approve	Frend	Auditing	Joan	Producer	Tina
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MVA TYPE 2 CABLE

SPEC No.:	1354(S)43/0.04BA*4C+41/0.08BA*4C+TS 90%						
Customer		Customer NO.		8Code:	311201--	Sample NO:	W96060808
UL File NO.	0	UL Style:	0	Date:	6/8/07	Spec NO:	5D4684DU11704607-U--
CSA File NO.	0	CSA Style:	0	Edition:	Secondly Edition	Operation NO:	0
Structure			Structure A			Structure B	
Conductors	Structure AWG	AWG	30# (43/45)			24# (41/40)	
	Material	--	Bare Copper			Bare Copper	
	O.D.	mm	0.303 Ref			0.599 Ref	
Insulation	Material	--	FOAM-PE			SR-PVC	
	Diameter	mm	1.35 ± 0.09			1.07 ± 0.07	
	Average Thickness	mm	0.524 Ref			0.236 Ref	
	Color	--	AS Color Code			AS Color Code	
Shielding1	Shield	--	Spiral			--	
	Material	--	Bare Copper			--	
	Coverage Rate	%	93			--	
Jacket 1	Material	--	PVC			--	
	Diameter	mm	1.85 Ref			--	
	Average Thickness	mm	0.168			--	
	Extrusion	--	Solid			--	
	Color	--	AS Color Code			--	
Layer	Direction	--	Right (S)				
	Pitch	mm	70 Ref				
	Diameter	mm	5 Ref				
Shielding 2	Material	--	--	Tissue Paper			--
	Conductive Side	--	--	--			--
	Overlap Rate	%	--	25			--
Shielding3	Shield	--	Spiral				
	Material	--	Bare Copper				
	Coverage Rate	%	90 MIN				
Jacket 2	Material	--	PU				
	Diameter	mm	7 ± 0.19				
	Average Thickness	mm	0.80 Ref				
	Extrusion	--	Fill-Tubing				
	Externals	--	Plane				
	Color	--	U209				



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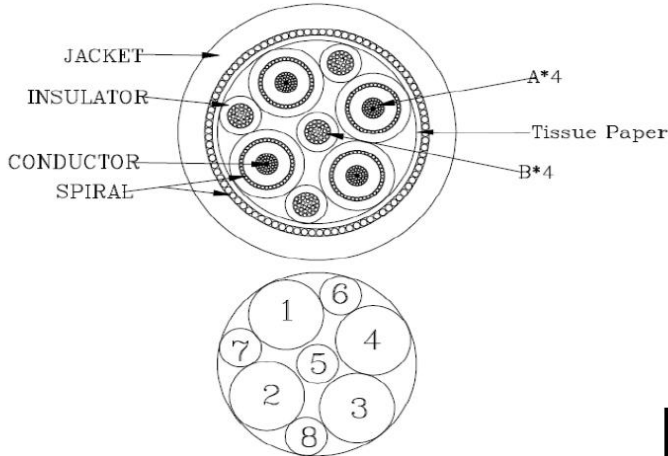
W96060808

Rev. A, 6/8/2007, 8/8/19

MVA TYPE 2 CABLE

SPEC No.:	1354(S)43/0.04BA*4C+41/0.08BA*4C+TS 90%						
Customer		Customer NO.		8Code:	311201--	Sample NO:	W96060808
UL File NO.	0	UL Style:	0	Date:	6/8/07	Spec NO:	5D4684DU11704607-U--
CSA File NO.	0	CSA Style:	0	Edition:	Secondly Edition	Operation NO:	0
Structure			Structure A			Structure B	

Draw NO.: 5/0032062.DWG



COLOR CODE

1. Inside:NATURE,Outside:RED (P581)
2. Inside:NATURE,Outside:ORANGE(P587)
3. Inside:NATURE,Outside:BLACK(P580)
4. Inside:NATURE,Outside:WHITE(P585)
5. BROWN (P571)
6. BLUE (P576)
7. YELLOW (P574)
8. GRAY (P578)

MINIMUM BEND RADIUS: 10X O.D.

Physical Characteristics

1.Flame test of cable :

1.1--

2.Tensile strength test (before aging):

2.1 Sheath : >1.05kg/mm²

2.2 Insulation : >2.11kg/mm² (SR)

3.Tensile strength test(after aging):

3.1 Sheath: >70%

3.2 Insulation : >70% (SR)

4.Elongation(before aging):

4.1 Sheath : >100%

4.2 Insulation : >100% (SR)

5. Elongation(after aging):

5.1 Sheath : >65%

5.2 Insulation: >70% (SR)

6.Requirements for green environment protection : Accord with RoHS

Electric Characteristics

1.Voltage rating : 30V

2.Temperature rating:60°C

3.Spark test : AC- 500V/0.15 sec MIN.

4.Dielectric strength: AC- 750V/1 sec MIN.

5.Insulation resistance: FPE: DC- 500V 100 MΩ/KM MIN. at 20°C

SR: DC- 500V 10 MΩ/KM MIN. at 20°C

6.Conductor resistance: 30AWG- 376Ω/KM MAX. at 20°C

26AWG- 148Ω/KM MAX. at 20°C

Transmission Characters

1.Capacitance : 1.Coaxial cable:56 pf/M at 1KHzs. (Nominal)

2.Impedance : 75 ± 5 Ω (Coaxial cable)

3.Attenuation : 110 dB/KM at 10 MHz

4.Time delay : 4.6 ns/M

5.Velocity of propagation : 78% nominal.

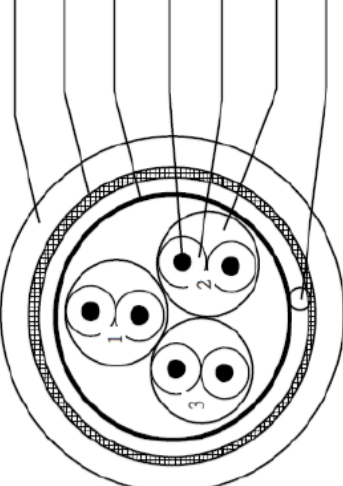



COMPONENTS EXPRESS, INC.
10330 Argonne Woods Drive,
Ste100 Woodridge, IL 60517

W96060808

Rev. A, 6/8/2007, 8/8/19

MVA Type #: 3

SPECIFICATION: 3P*28AWG +AL.MYLAR +DRAIN +BRAID		CONSTRUCTION	D.W.G
ITEM	SPECIFICATION		
CONDUCTOR	28AWG TINNED COPPER	JACKET BRAID AL.MYLAR CONDUCTOR INSULATION PAIR 1 TWISTED DRAIN	
INSULATION	7/0.127±0.008 mm 0.20 mm HD-PE 0.90 ± 0.05 mm 3P 100% 25% MIN 28AWG		
Face Outside AL.MYLAR			
DRAIN	TINNED COPPER 7/0.127±0.008 mmx1PC		
BRAID	TINNED COPPER 16*8/0.12±0.008 mm 90% MIN 0.51 mm HAIF MATT CL2 PVC BLACK 5.60 ± 0.20 mm		
JACKET			
MINIMUM BEND RADIUS: 10X O.D.			
 COMPONENTS EXPRESS, INC. 10330 Argonne Woods Drive, Ste100 Woodridge, IL 60517			
94490628002 (E0943), 8/8/19			
ELECTRICAL CHARACTERISTICS		PHYSICAL PROPERTIES OF JACKET	
1. Rating : TEMP 60°C ; VOLTAGE 30V 2. Conductor Resistance: at 20°C MAX 28AWG: 237.25Ω/km; 3. Insulation Resistance: Min 100 mega ohms-km at 20°C 4. Dielectric Strength, AC 500V/1minute no breakdown. (EIA-364-20)		1. Tensile Strength: Unaged: 1500PSI min Aged: 70% min 2. Elongation: Unaged: 100% min Aged: 65% 3. Heat shock test: NO CRACKING 4. Cold bend test: NO CRACKING 5. Deformation test: MAX 50% 6. Flame test: PASS VW-1	
APPROVED	CUSTOMER		
CHECKED	REV	A	
DRAWING	CWJ	DATE	2016/09/23
CC-EW-206A			

MVA TYPE 4 CABLE

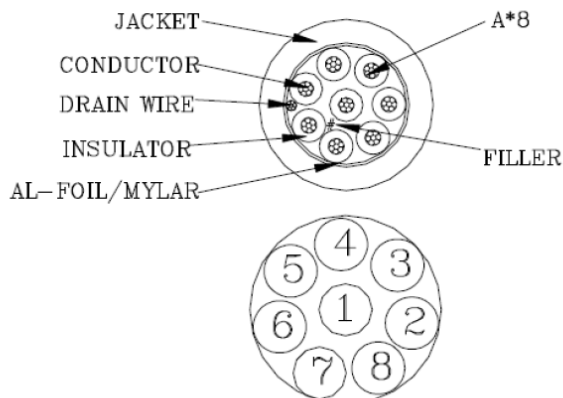
SPEC No.:	7/0.16TA*8C+EA						
Customer		Customer NO.		8 Code:	341211--	Sample NO:	W96101125
UL File NO.	E101344	UL Style:	UL2464	Date:	10/11/07	Spec NO:	12B7801P00504FE-----
CSA File NO.	0	CSA Style:	0	Edition:	Original Edition	Operation NO:	0
Structure			Structure A				
Conductors	Structure AWG	AWG	26# (7/34)				
	Material	--	Tinned Copper				
	O.D.	mm	0.48 Ref				
Insulators	Material	--	SR-PVC				
	Diameter	mm	1.00 ± 0.07				
	Average Thickness	mm	0.260 Ref				
	Color	--	AS Color Code				
Layer	Direction	--	Right (S)				
	Pitch	mm	60 Ref				
	Diameter	mm	3.3 Ref				
Shielding	Material	--	--	AL-foil/mylar			--
	Conductive Side	--	--	Inside			--
	Overlap Rate	%	--	25 MIN			--
Drain wire	Structure AWG	AWG	24# (7/32)				
	Material	--	Tinned Copper				
Jacket	Material	--	PVC				
	Diameter	mm	5 ± 0.15				
	Average Thickness	mm	0.81 Ref				
	Extrusion	--	Solid				
	Externals	--	Plane				



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

W96101125

Rev. A, 10/11/2007, 8/8/19



COLOR CODE

- 1.BLACK (P570)
- 2.BROWN (P571)
- 3.RED (P572)
- 4.ORANGE (P573)
- 5.YELLOW (P574)
- 6.GREEN (P575)
- 7.BLUE (P576)
- 8.VIOLET (P577)

MVA TYPE 4 CABLE

SPEC No.:	7/0.16TA*8C+EA						
Customer		Customer NO.		8 Code:	341211--	Sample NO:	W96101125
UL File NO.	E101344	UL Style:	UL2464	Date:	10/11/07	Spec NO:	12B7801P00504FE-----
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: 26AWG- 148Ω/KM MAX. at 20°C

Physical Characters

MINIMUM BEND RADIUS: 10X O.D.

1. Falme Test of cable:
 - 1.1 Cable Flame Test
- 2.Tensil strength test(before aging)
 - 2.1 Sheath : > 1.05kg/mm2
 - 2.2 Insulation : >2.11kg/mm2
- 3.Tensil 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



COMPONENTS EXPRESS, INC.

10330 Argonne Woods Drive, Ste100
Woodridge, IL 60517

W96101125

Rev. A, 10/11/2007, 8/8/19

Approve	Frend	Auditing	Joan	Producer	Kekeli
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MVA Type #: 5 & MI Type #: 4

SPEC No.:	19/0.1TA*8.5PR+AB 85%						
Customer		Customer NO.		8Code:	34120131	Sample NO:	W99021103
UL File NO.	E101344	UL Style:	UL 20279	Date:	2/11/10	Spec NO:	6250G11U11754FT7----
CSA File NO.		CSA Style:		Edition:	Secondly edition	Operation NO:	0
Structure				Structure A			
Conductors	Structure AWG	AWG	26# (19/38)				
	Material	--	Tinned Copper				
	O.D.	mm	0.53 Ref				
Insulation	Material	--	SR-PVC				
	Diameter	mm	1.00±0.07				
	Average Thickness	mm	0.235 Ref				
	Color	--	AS Color Code				
Twist	Direction	--	Right (S)				
	Diameter	mm	2.00				
Layer	Direction	--	Right (S)				
	Pitch	mm	90 Ref				
	Diameter	mm	5.62 Ref				
Shielding 1	Material	--	--	AL-foil/mylar			--
	Conductive Side	--	--	Outside			--
	Overlap Rate	%	--	25			--
Shielding 2	Shield	--	Braid				
	Material	--	Tinned Copper				
	Coverage Rate	%	85MIN				
Jacket	Material	--	PU				
	Diameter	mm	7.5 ± 0.19				
	Average Thickness	mm	0.76				
	Extrusion	--	Solid				
	Externals	--	Plane				
Color	--	U209 (黑色)					

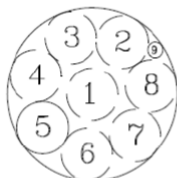
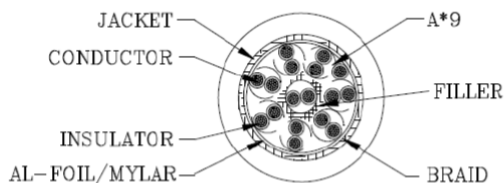


COMPONENTS EXPRESS, INC.
10330 Argonne Woods Drive, Ste100
Woodridge, IL 60517

W99021103 (E0914)

Rev. A, 2/11/2010, 8/8/19

Draw NO.:



MINIMUM BEND RADIUS: 10X O.D.

COLOR CODE

- 1.BLACK*BLACK/WHITE (P570*P570/P579)
- 2.BROWN*BROWN/WHITE (P571*P571/P579)
- 3.YELLOW*YELLOW/BLACK (P574*P574/P570)
- 4.VIOLET*VIOLET/WHITE (P577*P577/P579)
- 5.PINK*PINK/BLACK (P600*P600/P570)
- 6.LIGHT-GREEN*LIGHT-GREEN/BLACK (P601*P601/P570)
- 7.LIGHT-BLUE*LIGHT-BLUE/BLACK (P602*P602/P570)
- 8.BLUE*BLUE/WHITE (P576*P576/P579)
- 9.GRAY (P578)

MI Type #: 4

SPEC No.:	19/0.1TA*8.5PR+AB 85%						
Customer		Customer NO.		8Code:	34120131	Sample NO:	W99021103
UL File NO.	E101344	UL Style:	UL 20279	Date:	2/11/10	Spec NO:	6250G11U11754FT7----
CSA File NO.		CSA Style:		Edition:	Secondly edition	Operation NO:	0

Electric Characters

- 1.Voltage rating : 30V
- 2.Temperature rating : 80°C
- 3.Spark test : AC- 500V/0.15 sec MIN.
- 4.Dielectric strength : AC- 750V/1 sec MIN.
- 5.Insulation resistance :SR-PVC: DC- 500V 10 MΩ/KM MIN. at 20°C
- 6.Conductor resistance : 26AWG -148 Ω/KM MAX. at 20°C

Physical Characters

1.Flame test of cable:

1.1 :Cable Flame Test

2.Tensile strength test (before aging) :

2.1 Sheath : > 1.05kg/mm²

2.2 Insulation : > 2.11kg/mm²

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

For more information please contact:



BOCK OPTRONICS INC.

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Toronto, Ontario M9W 6M6

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COMPONENTS EXPRESS, INC.

10330 Argonne Woods Drive, Ste100
Woodridge, IL 60517

W99021103 (E0914)

Rev. A, 2/11/2010, 8/8/19

Approval	Frend	Auditor	Joan	Producer	ping
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