



CAMERA LINK MACHINE VISION CABLES

PART NUMBER REFERENCE



Select Connector Type: End "1"

- | | |
|---|---|
| MDR Male Straight Exit = 1 | MDR Male Exit LEFT w/Recessed Screws = 11 |
| MDR Female Straight Exit = 2 | HDR / SDR Female Straight Exit = 12 |
| MDR Male Low Profile R/A Exit UP = 3 | MDR Male R/A UP 135° Exit LEFT = 13 |
| MDR Male Low Profile R/A Exit DWN = 4 | MDR Male R/A DWN 135° Exit LEFT = 14 |
| HDR / SDR Male Straight Exit = 5 | 14P HDR / SDR PoCL Lite Straight Exit w/Recessed Screws = 15 |
| HDR / SDR Male R/A Exit UP w/Recessed Screws = 6 | MDR Latch Type Straight Exit = 16 |
| HDR / SDR Male R/A Exit DOWN w/Recessed Screws = 7 | HDR / SDR Male Exit RIGHT w/Recessed Screws = 17 |
| MDR Male Ext. Profile R/A Exit UP = 8 | HDR / SDR Male Exit LEFT w/Recessed Screws = 18 |
| MDR Male Ext. Profile R/A Exit DWN = 9 | HDR / SDR Male R/A UP Ext. Profile w/Recessed Screws = 19 |
| MDR Male Exit RIGHT w/Recessed Screws = 10 | HDR / SDR Male R/A DWN Ext. Profile w/Recessed Screws = 20 |

Cable Type Options:

- | | | |
|-------------------------------------|-------------------------------------|---------------|
| HIFLEX (Robotic / C-Track) = 1 | 30 AWG (Robotic / C-Track) = 3 | PoCL Lite = 5 |
| HIFLEX PoCL (Robotic / C-Track) = 2 | 30 AWG PoCL (Robotic / C-Track) = 4 | |

Select Connector Type: End "2"

- | | |
|---|---|
| MDR Male Straight Exit = 1 | MDR Male Exit LEFT w/Recessed Screws = 11 |
| MDR Female Straight Exit = 2 | HDR / SDR Female Straight Exit = 12 |
| MDR Male Low Profile R/A Exit UP = 3 | MDR Male R/A UP 135° Exit LEFT = 13 |
| MDR Male Low Profile R/A Exit DWN = 4 | MDR Male R/A DWN 135° Exit LEFT = 14 |
| HDR / SDR Male Straight Exit = 5 | 14P HDR / SDR PoCL Lite Straight Exit w/Recessed Screws = 15 |
| HDR / SDR Male R/A Exit UP w/Recessed Screws = 6 | MDR Latch Type Straight Exit = 16 |
| HDR / SDR Male R/A Exit DOWN w/Recessed Screws = 7 | HDR / SDR Male Exit RIGHT w/Recessed Screws = 17 |
| MDR Male Ext. Profile R/A Exit UP = 8 | HDR / SDR Male Exit LEFT w/Recessed Screws = 18 |
| MDR Male Ext. Profile R/A Exit DWN = 9 | HDR / SDR Male R/A UP Ext. Profile w/Recessed Screws = 19 |
| MDR Male Exit RIGHT w/Recessed Screws = 10 | HDR / SDR Male R/A DWN Ext. Profile w/Recessed Screws = 20 |

Option: Length in Meters

Physical:

- | | |
|---------------------|--|
| Cable Color: | Black |
| Shell Color: | Black |
| Shell Construction: | Pre-molded in Polyethelene, fully shielded and over-molded in black PVC. |
| Cable Construction: | Meets Automated Imaging Association Camera Link Standard. Skew-within pair; 35 ps/m max Skew-channel skew per chipset; 50 ps/m max. All cables are Camera Link approved. |

Temp: 8-14-19

CONNECTOR TYPE OPTIONS:

- 1



MDR Male
Straight Exit
- 2



MDR Female
Straight Exit
w/Removable Hardware
- 3



MDR Male Low Profile
R/A UP
- 4



MDR Male Low Profile
R/A DOWN
- 5



HDR / SDR Male
Straight Exit
- 6



HDR / SDR Male R/A
Exit UP
w/Recessed Screws
- 7



HDR / SDR Male R/A
Exit DOWN
w/Recessed Screws
- 8



MDR Male Ext. Profile
R/A Exit UP
- 9



MDR Male Ext. Profile
R/A Exit DOWN
- 10



MDR Male
Exit RIGHT
w/Recessed Screws
- 11



MDR Male
Exit LEFT
w/Recessed Screws
- 12



HDR / SDR Female
Straight Exit
- 13



MDR Male R/A UP 135°
Exit LEFT
- 14



MDR Male R/A DOWN 135°
Exit LEFT
- 15



14P HDR / SDR PoCL Lite
Straight Exit
w/Recessed Screws
- 16



MDR Latch Type
Straight Exit
Diecast
- 17



HDR / SDR Male
Exit RIGHT
w/Recessed Screws
- 18



HDR / SDR Male
Exit LEFT
w/Recessed Screws
- 19



HDR / SDR Male R/A UP
Ext. Profile
w/Recessed Screws
- 20

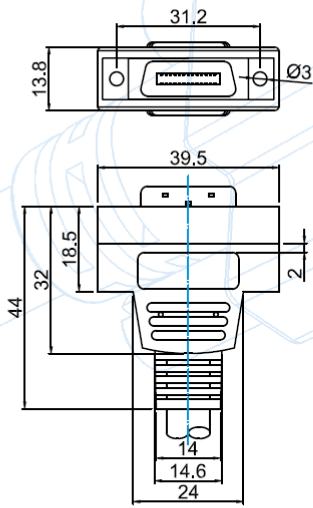


HDR / SDR Male R/A DOWN
Ext. Profile
w/Recessed Screws

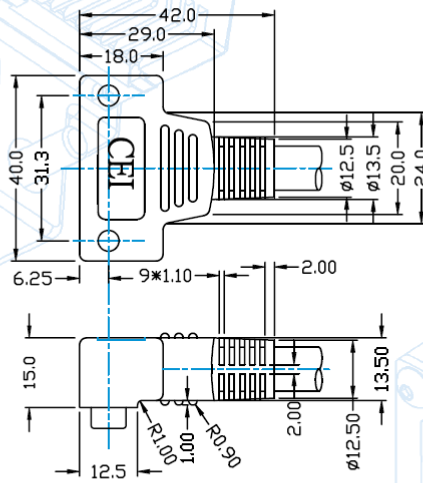
* Connector #12 & 16 are ONLY compatible with cable types 3 & 4.
 ** Cable type 5 is ONLY compatible with connector #15.

See pages 4 – 5 for profile drawings.

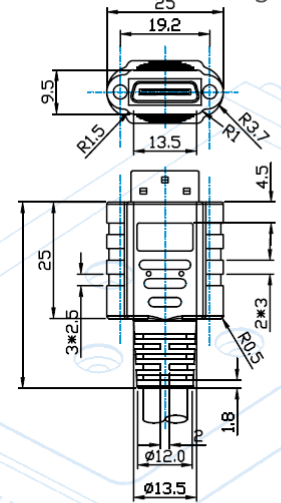
Temp:
8-14-19



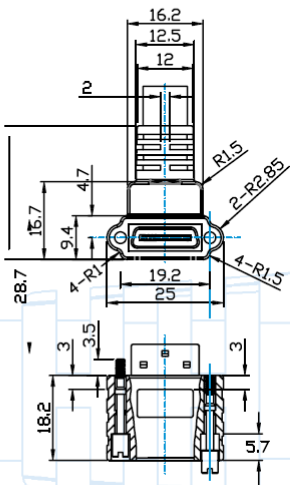
PROFILES 1 & 2



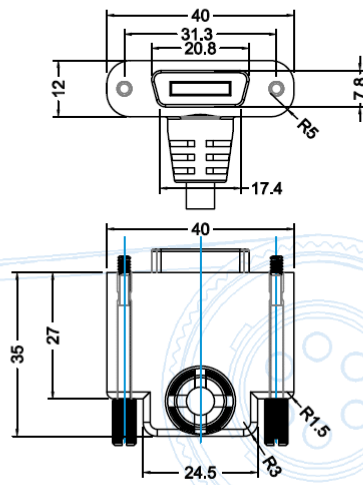
PROFILES 3 & 4



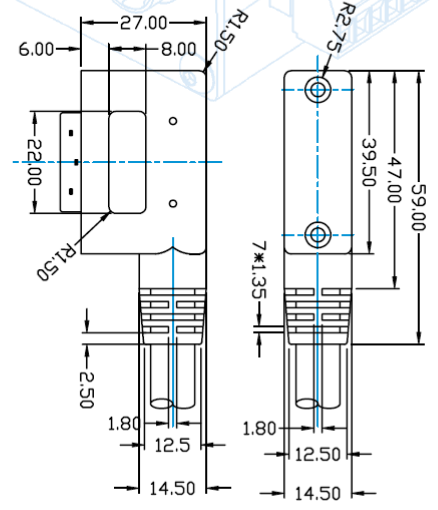
PROFILE 5



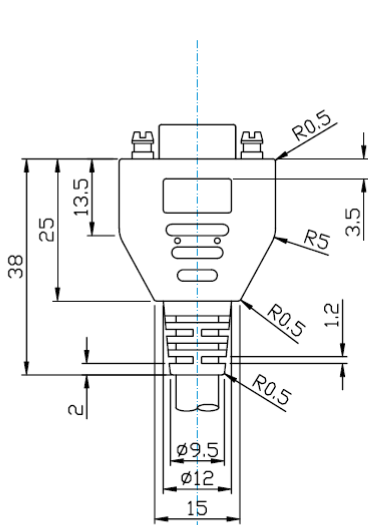
PROFILES 6 & 7



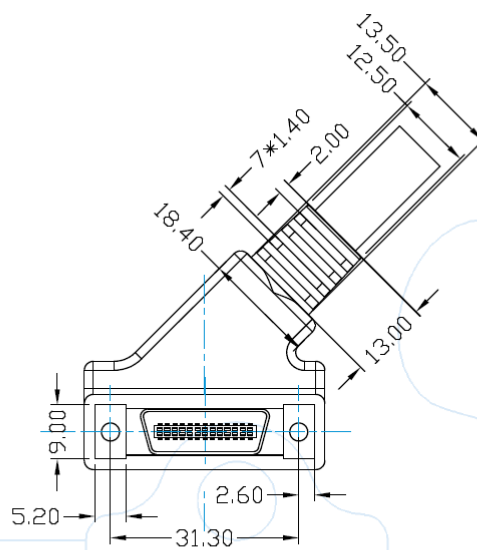
PROFILES 8 & 9



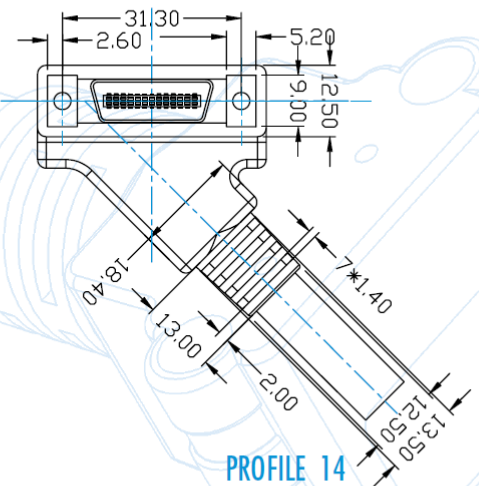
PROFILES 10 & 11



PROFILE 12

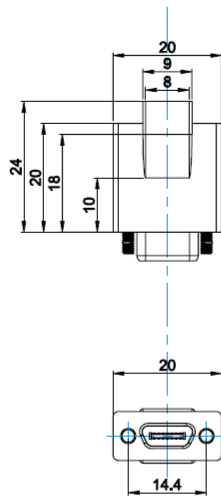


PROFILE 13

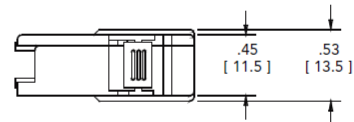
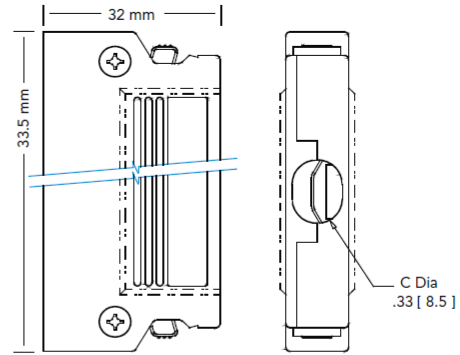


PROFILE 14

Temp: 8-14-19

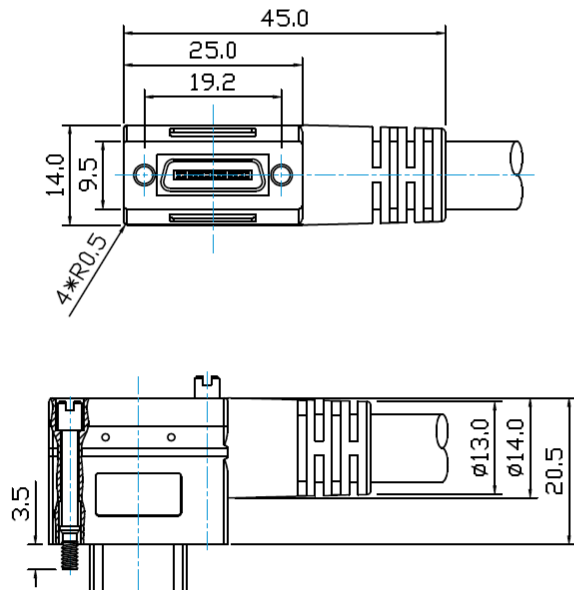


PROFILE 15

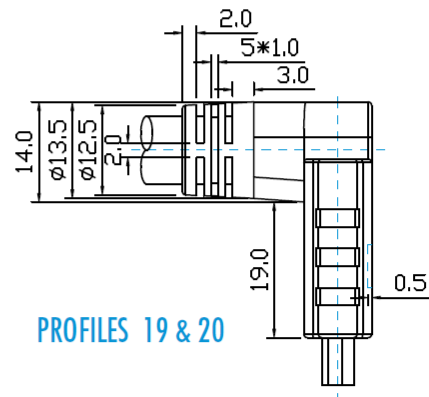
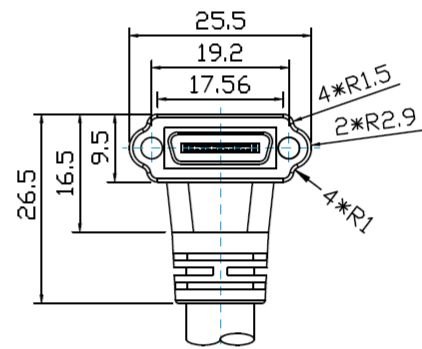


Assembled Junction Shell

PROFILE 16



PROFILES 17 & 18



PROFILES 19 & 20

For more information please contact:

BOCK OPTRONICS INC.

14 Steinway Blvd., Unit 7
Toronto, Ontario M9W 6M6

Tel: (416) 674-2804
sales@bockoptronics.ca
www.bockoptronics.ca



Temp: 8-14-19

MVC-Cable Type #: 1

Please Note that Cable Type #: 2 (pg. 2) may be substituted for Cable Type #: 1, For non-PoCL assemblies.

SPECIFICATION: (1P*28#+AL)*11C+4D+ FEP tape + Free-edge-AL-MYLAR +B		CONSTRUCTION	D.W.G
ITEM	SPECIFICATION		
CONDUCTOR	28AWG TINNED COPPER		
INSULATION	19/0.08±0.008 mm 0.25 mm FM-PE+SKIN		
Face Outside AL.Mylar	1.02±0.05 mm 100% 25% MIN (1P+AL)*11C		
DRAIN	28AWG TINNED COPPER		
FEP tape	19/0.08±0.008 mm×4PCS 100%		
Free-edge-AL-MYLAR	25% MIN 100% 25% MIN		
DRAIN	/		
BRAID	/		
JACKET	TINNED COPPER 24*10/0.12±0.008 mm 90% MIN 0.51 mm HALF MATT PVC UL813 9.50 ± 0.20 mm		
ELECTRICAL CHARACTERISTICS		COLOUR CODE: (1P-AL)*11C: 1. white ^h white/black 2. white ^h white/red 3. white ^h white/green 4. white ^h white/blue 5. white ^h white/purple 6. white ^h white/gray 7. white ^h white/yellow 8. white ^h white/orange 9. white ^h white/brown 10. white/blue ^h white/green 11. white/black ^h white/red	
1. Rating: TEMP: 80°C; VOLTAGE: 30V 2. Conductor Resistance: at 20°C: MAX 28AWG: 237.25Ω/km; 3. Insulation Resistance: 100MΩ-km min. at 20°C 4. Dielectric Strength: AC 500V/1 minute no breakdown. 5. Impedance: 100±10Ω 6. Time Delay Skew: within a pair(max) 50ps/M; 7. Delay Max 5.20ns/m		机(機)器人 / 拖链 MINIMUM BEND RADIUS: 10X O.D. COMPONENTS EXPRESS, INC. 10330 Argonne Woods Drive, Ste 100 Woodridge, IL 60517	
PHYSICAL PROPERTIES OF JACKET		APPROVED CHECKED DRAWING: CHJ	
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		CUSTOMER REV: A DATE: 16/11/03 CC-EW-206A	
2065940066 (E0755-1) 8/8/19		DATE: 16/11/03	

MVC-Cable Type #: 2

Please Note that Cable Type #: 2 (pg. 2) may be substituted for Cable Type #: 1, For non-PoCL assemblies.

SPECIFICATION: (1P*28#+AL)*11C+2C*24#+2D+ FEP tape + Free-edge-AL-MYLAR +B		CONSTRUCTION D.W.G			
ITEM	SPECIFICATION				
CONDUCTOR	28AWG TINNED COPPER COND.SIZE 19/0.08±0.008 mm MIN.AVG.THICK 0.25 mm			<p>COLOUR CODE:</p> <p>(1P+AL)*11C: 1.white*white/black 2.white*white/red 3.white*white/green 4.white*white/blue 5.white*white/purple 6.white*white/gray 7.white*white/yellow 8.white*white/orange 9.white*white/brown 10.white/blue*white/green 11.white/black*white/red 2C*24#:12.red 13.black</p>	
INSULATION	24AWG TINNED COPPER COND.SIZE 19/0.127±0.008 mm MIN.AVG.THICK 0.25 mm				
Face Outside AL.Mylar	FM-PE+SKIN O.D 1.02±0.05 mm COVERAGE 100%				
DRAIN	SR-PVC O.D 1.10±0.05 mm OVERLAP / N.O. / 2C				
FEP tape	24AWG TINNED COPPER SIZE 19/0.127±0.008 mmx2PCS COVERAGE 100%				
Free-edge-AL-MYLAR	25% MIN COVERAGE 100% OVERLAP 25% MIN AWG /				
DRAIN	/				
BRAID	/				
COPPER	TINNED COPPER SIZE 24*10/0.12±0.008 mm 90% MIN MIN.AVG.THICK 0.51 mm				
JACKET	HALF MATT PVC -20°C ~80°C COLOUR UL813 O.D 9.50 ± 0.20 mm				
ELECTRICAL CHARACTERISTICS 1.Rating: TEMP 80°C ; VOLTAGE 30V 2. Conductor Resistance: at 20°C MAX 28AWG: 237.25Ω/km; 24AWG: 93.25Ω/km 3. Insulation Resistance: 28AWG 100MΩ-km min at 20°C 24AWG 10MΩ-km min at 20°C 4. Dielectric Strength: AC 500V/1minute no breakdown. 5. Impedance: 100±10Ω 6. Time Delay Skew: within a pair(max) 50ps/M; 7. Delay Max 5.20ns/m		PHYSICAL PROPERTIES OF JACKET 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			
		<p>COMPONENTS EXPRESS, INC. 10330 Argonne Woods Drive, Ste 100 Woodridge, IL 60517</p>			
		<p>机(機)器人 / 拖链</p> <p>MINIMUM BEND RADIUS: 10X O.D.</p>			
		<p>206594006900 8/8/19</p>			
		APPROVED	CUSTOMER		
		CHECKED	REV A		
		DRAWING	CH/J DATE 16/11/03		

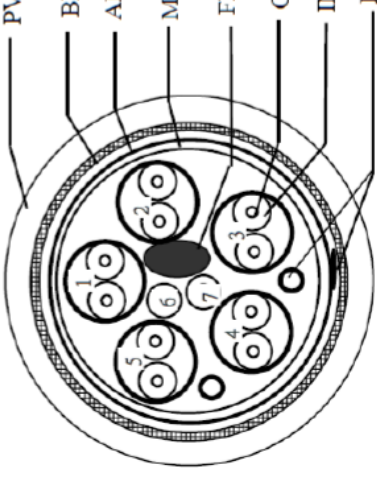

MVC-Cable Type #: 3

SPECIFICATION:		(1P*30#+AL)*11C+4D+ FEP tape + Free-edge-AL-MYLAR +B	
ITEM	SPECIFICATION	CONSTRUCTION	D.W.G
CONDUCTOR	AWG MATERIAL COND.SIZE	30AWG TINNED COPPER 19/0.06±0.008 mm	<p>PVC JACKET AL.MYLAR BRAID Free-edge-AL-MYLAR FEP tape CONDUCTOR INSULATION FILLER DRAIN</p>
INSULATION	MIN.AVG.THICK MATERIAL O.D	0.25 mm FM-PE+SKIN 0.79±0.05 mm	
Face Outside AL.Mylar	COVERAGE OVERLAP	100% 25% MIN	
DRAIN	N.O. AWG MATERIAL	(1P+AL)*11C 28AWG TINNED COPPER	
FEP tape	SIZE	19/0.08±0.008 mm×4PCS	
Free-edge-AL-MYLAR	COVERAGE OVERLAP COVERAGE OVERLAP AWG	100% 25% MIN 100% 25% MIN /	
DRAIN	MATERIAL SIZE	/	
BRAID	MATERIAL SIZE	TINNED COPPER 16*11/0.12±0.008 mm 0.51 mm	
COPPER	MATERIAL COLOUR O.D	MATT PVC UL815 8.00 ± 0.30 mm	
JACKET			
ELECTRICAL CHARACTERISTICS		<p>PHYSICAL PROPERTIES OF JACKET</p> <ol style="list-style-type: none"> Tensile Strength: Unaged: 1500PSI min Aged: 70% min Elongation: Unaged: 100% min Aged: 65% Heat shock test: NO CRACKING Cold bend test: NO CRACKING Deformation test: MAX 50% Flame test: PASS VW-1 	
<ol style="list-style-type: none"> Conductor Resistance: at 20°C MAX 30AWG: 376.96Ω km; Insulation Resistance: 10MΩ-km min at 20°C dc 500V (EIA-364-21) Dielectric Strength: AC 500V/1 minute no breakdown. (EIA-364-20) Impedance: 100±10Ω 		<p>COLOUR CODE:</p> <p>(1P+AL)*11C: 1. white*white/black 2. white*white/red 3. white*white/green 4. white*white/blue 5. white*white/purple 6. white*white/gray 7. white*white/yellow 8. white*white/orange 9. white*white/brown 10. white/blue*white/green 11. white/black*white/red</p>	
		<p>机(機)器人 / 拖链</p> <p>MINIMUM BEND RADIUS: 10X O.D.</p>	
		<p>COMPONENTS EXPRESS, INC. 10330 Argonne Woods Drive, Ste100 Woodridge, IL 60517</p>	
		<p>96599030004 8/8/19</p>	
APPROVED		CUSTOMER	
CHECKED		REV	A
DRAWING	CWJ	DATE	16.12.10
			CC-EW-206A

MVC-Cable Type #: 4

SPECIFICATION: (1P*30#+AL)*11C+2C*28#+2D+ FEP tape +M +AL+B		CONSTRUCTION D.W.G	
ITEM	SPECIFICATION		
CONDUCTOR	30AWG TINNED COPPER	PVC JACKET	
	19/0.06± 0.008 mm	FEP tape	
INSULATION	0.20 mm FM-PE+SKIN	BRAID	
Face Outside AL.Mylar	0.78± 0.05 mm 100% 25% MIN	AL.MYLAR	
	(1P+AL)*11C	MYLAR	
DRAIN	28AWG TINNED COPPER	CONDUCTOR	
	19/0.08± 0.008 mmx2PCS	INSULATION	
FEP tape	100%	FILLER	
Mylar	100%	DRAIN	
Face Outside AL.Mylar	25% MIN	COLOUR CODE: (1P+AL)*11C: 1. white/black 2. white/white/red 3. white/white/green 4. white/white/blue 5. white/white/purple 6. white/white/gray 7. white/white/yellow 8. white/white/orange 9. white/white/brown 10. white/blue/white/green 11. white/black/white/red 2C*28#: 12.black 13.red	
DRAIN	25% MIN		
BRAID	100%	机(機)器人 / 拖链 MINIMUM BEND RADIUS: 10X O.D.	
COPPER	16*11/0.12± 0.008 mm		
JACKET	0.51 mm MATT PVC	 COMPONENTS EXPRESS, INC. 10330 Argonne Woods Drive, Ste100 Woodridge, IL 60517	
	UL813 BLACK 7.60 ± 0.20 mm		
ELECTRICAL CHARACTERISTICS 1. Conductor Resistance: at 20°C MAX 30AWG: 376.96Ω/km; 28AWG: 237.25Ω/km; 2. Insulation Resistance: 30AWG 100MΩ-km min at 20°C dc 500V 28AWG 10MΩ-km min at 20°C dc 500 3. Dielectric Strength: AC 500V/1minute no breakdown. 4. Impedance: 100±10Ω 5. Time Delay Skew: within a pair(max) 50ps/M;		PHYSICAL PROPERTIES OF JACKET 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 CHECKED DRAWING		CUSTOMER REV DATE	
		96599261002 8/8/19	
		CC-EW-206A	

MVC-Cable Type #: 5

SPECIFICATION:		(1P*30# +AL)*5C+2C*30# +2D+M+AL+B	
ITEM	SPECIFICATION		
CONDUCTOR	30AWG	30AWG	30AWG
MATERIAL	TINNED COPPER	TINNED COPPER	TINNED COPPER
COND.SIZE	7/0.10±0.008 mm	7/0.10±0.008 mm	7/0.10±0.008 mm
MIN.AVG.THICK	0.18 mm	0.10 mm	0.10 mm
MATERIAL	FM-PE+SKIN	SR-PVC	SR-PVC
O . D	0.72±0.06 mm	0.60±0.05 mm	0.60±0.05 mm
N.O.	1P*5C	2C	2C
AWG	/	/	/
MATERIAL	/	/	/
SIZE	/	/	/
COVERAGE	100%	/	/
OVERLAP	25%MIN	/	/
COVERAGE	/	/	/
OVERLAP	/	/	/
MATERIAL	/	TINNED COPPER	TINNED COPPER
SIZE	/	7/0.127±0.008 mm*2PCS	7PICH 90%MIN
COVERAGE	100%	100%	100%
OVERLAP	25%MIN	25%MIN	25%MIN
COVERAGE	100%	100%	100%
OVERLAP	25%MIN	25%MIN	25%MIN
MATERIAL	/	TINNED COPPER	TINNED COPPER
SIZE	/	16*10/0.10±0.008 mm	7PICH 90%MIN
MIN.AVG.THICK	/	0.51 mm	0.51 mm
MATERIAL	/	MATT PVC	MATT PVC
COLOUR	/	UL813 BLACK	UL813 BLACK
O . D	/	5.50±0.20 mm	5.50±0.20 mm
JACKET	MINIMUM BEND RADIUS: 10X O.D.		
			
COLOUR CODE: 5P*30AWG: 1. WHITE*WHITE/BLACK 2. WHITE*WHITE/RED 3. WHITE*WHITE/GREEN 4. WHITE*WHITE/BLUE 5. WHITE*WHITE/PURPLE 2C*30AWG: 6.BLACK 7.RED			
 <p>COMPONENTS EXPRESS, INC. 10330 Argonne Woods Drive, Ste 100 Woodridge, IL 60517</p> <p>96595230002 8/8/19</p>			
APPROVED		CUSTOMER	
CHECKED		REV	
DRAWING		DATE	
		A	
		2017.02.16	
ELECTRICAL CHARACTERISTICS		PHYSICAL PROPERTIES OF JACKET	
1. Rating: TEMP: 80C; VOLTAGE: 30V 2. Conductor Resistance: at 20C MAX 30AWG: 376.96Ω/km 3. Insulation Resistance: 30# SR 100MΩ-km min at 20C dc 500V (EIA-364-21) 30# FM-PE-SKIN 100MΩ-km min at 20C dc 500V (EIA-364-21) 4. Dielectric Strength: AC 300V/Inmate no breakdown. (EIA-364-20) 5. Impedance: Pairs (differential mode) 100±10Ω 6. Delay Skew: 50ps/in		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	