



INTERNAL CAMERA LINK CABLES

INTERNAL RIBBON CABLE APPLICATIONS

PART NUMBER REFERENCE



Select Connector Type: End "1"

- MDR Female Straight Exit = 1
- MDR Male Low Profile R/A Exit **UP** = 2
- MDR Male Low Profile R/A Exit **DOWN** = 3
- HDR / SDR Male Low Profile R/A Exit **UP** = 4
- HDR / SDR Male Low Profile R/A Exit **DOWN** = 5
- MDR Male Straight Exit = 6
- HDR / SDR Female R/A **UP** w/Standoffs = 7
- HDR / SDR Female R/A **DOWN** w/Standoffs = 8
- HDR / SDR Male Straight Exit Recessed Screws = 9

Cable Type Options.

- Pleated Foil Shielded Ribbon = 1

Select Connector Type: End "2"

- MDR Female Straight Exit = 1
- MDR Male Low Profile R/A Exit **UP** = 2
- MDR Male Low Profile R/A Exit **DOWN** = 3
- HDR / SDR Male Low Profile R/A Exit **UP** = 4
- HDR / SDR Male Low Profile R/A Exit **DOWN** = 5
- MDR Male Straight Exit = 6
- HDR / SDR Female R/A **UP** w/Standoffs = 7
- HDR / SDR Female R/A **DOWN** w/Standoffs = 8
- HDR / SDR Male Straight Exit Recessed Screws = 9

Physical:

- Cable Color: Gray
- Shell Color: Black
- Shell Construction: Pre-molded in Polyethylene, fully shielded and over-molded in black PVC.
- Cable construction: Utilizes pleated foil shielded ribbon

Option: Length in Meters

ICL Ribbon Cables are currently available in a standard length of 0.2 to 0.6 meters (8" to 24").
Call for custom length applications.

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: 5-29-19

CONNECTOR TYPE OPTIONS:



1
MDR Female
Straight Exit
w/Removeable Hardware



2
MDR Male Low
Profile R/A Exit UP



3
MDR Male Low
Profile R/A Exit DOWN



4
HDR / SDR Male Low
Profile R/A Exit UP



5
HDR / SDR Male Low
Profile R/A Exit DOWN



6
MDR Male
Straight Exit



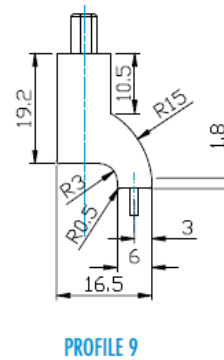
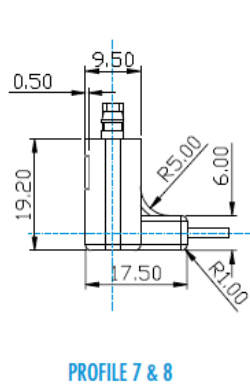
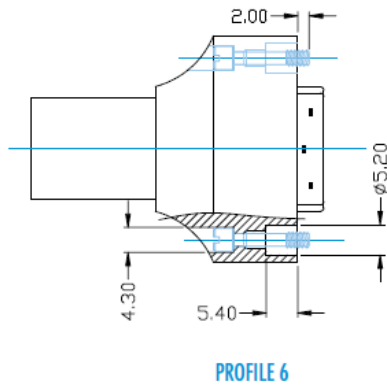
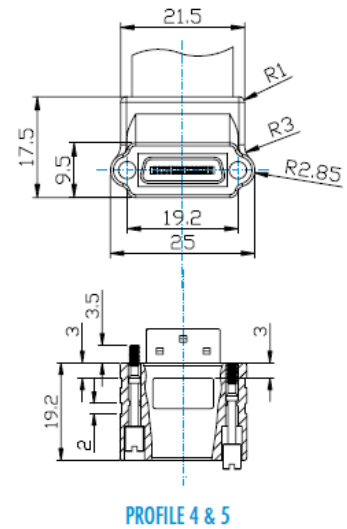
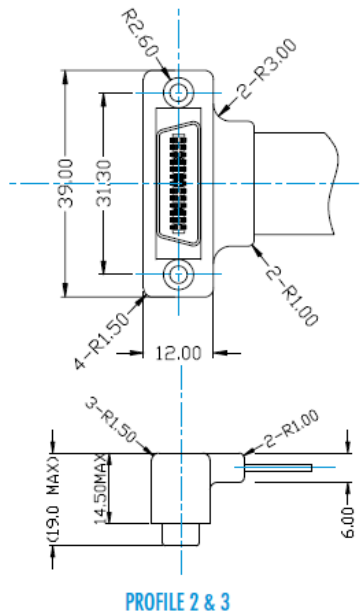
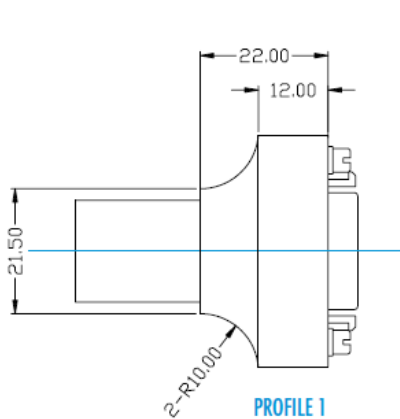
7
HDR / SDR Female
R/A UP
w/Removeable Hardware



8
HDR / SDR Female
R/A DOWN
w/Removeable Hardware



9
HDR / SDR Male
Straight Exit
w/Recessed Screws

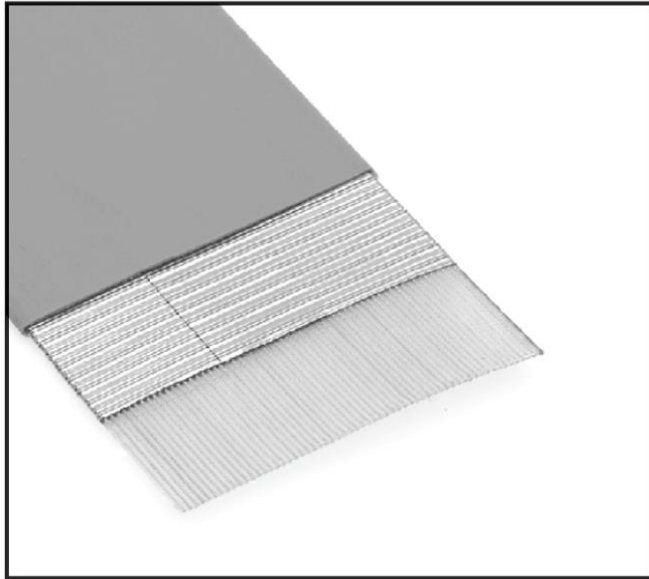


Temp:
5-29-19



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

ICL Cable Type #: 1
OEM Rev. C, 9/3/2013



- Can be used with IDC mass termination connectors
- Can be used in applications requiring standard impedance of 100 Ω balanced (differential)
- Perfect for board-to-board applications within electronic equipment, TPE covering prevents pleated copper foil from accidental shorting
- Solid pleated copper foil provides flexibility and 35 db average shielding effectiveness
- See Regulatory Information Appendix (RIA) for chemical compliance information (RIA E1 & C1 apply)

Date Modified: September 3, 2013

TS-0402-C
Sheet 1 of 2

Physical

Cover Material: Thermoplastic Elastomer (TPE)
Cover Color: Gray
Primary Material: Thermoplastic Elastomer (TPE)
Marking:
Standard: None
Canadian Option: AWM 20674 105C 150V VW1 3M NU
 AWM IA 105C 150V FT1 EU <50V
Conductors: 30 AWG [0.254] Tinned Solid Copper
Shielding: Solid, Pleated, Copper Foil

Electrical

Voltage Rating:	USA: 150V	Canada: 150V	EU: <50V
Insulation Resistance:	(Primary Cable) $> 1 \times 10^{10} \Omega/10 \text{ ft. [3 m]}$		
Characteristic Impedance:	Unbalanced	Balanced	
	53 Ω	104 Ω	
Capacitance:	28.4 pF/ft [93.2 pF/m]	14.5 pF/ft [47.6 pF/m]	
Inductance:	0.08 $\mu\text{H}/\text{ft}$ [0.26 $\mu\text{H}/\text{m}$]	0.16 $\mu\text{H}/\text{ft}$ [0.52 $\mu\text{H}/\text{m}$]	
Propagation Delay:	1.52 ns/ft [4.99 ns/m]	1.50 ns/ft [4.95 ns/m]	
Velocity of Propagation:	67%	67%	

Note: Unbalanced is measured between ground-signal-ground conductors with shield grounded. Balanced is measured between signal conductors within a pair with the shield floating.

Environmental

Temperature Rating: -20°C to +105°C
Flammability Rating: USA: VW-1 Canada: FT1

UL File No.: E42769, Style No.: 20674

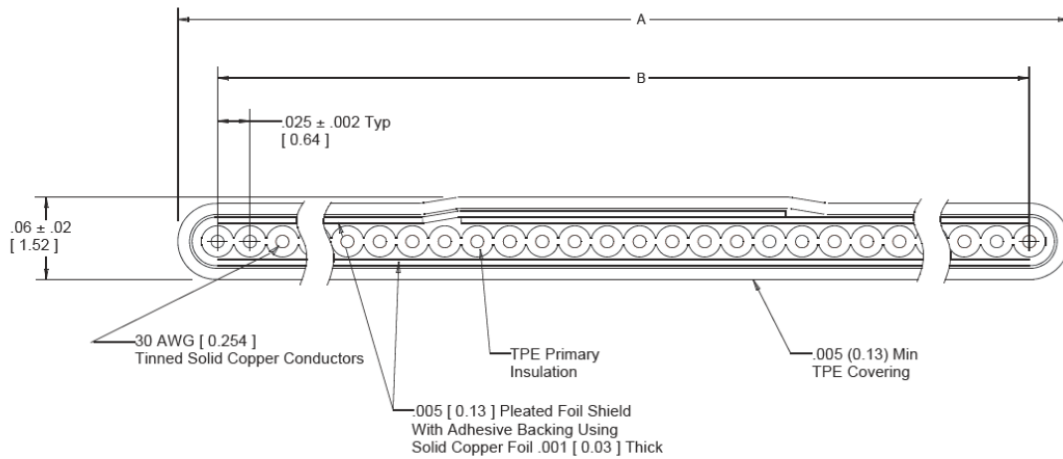


COMPONENTS EXPRESS, INC.
 10330 Argonne Woods Drive, Ste100
 Woodridge, IL 60517

ICL Cable Type #: 1
OEM Rev. C, 9/3/2013



Number of Conductors	3M Part Number	Dimension A	Dimension B
20	90201/20	0.54 [13.7]	0.475 ± .006 [12.06]
26	90201/26	0.69 [17.5]	0.625 ± .006 [15.88]
36	90201/36	0.94 [23.9]	0.875 ± .009 [22.23]
40	90201/40	1.04 [26.4]	0.975 ± .009 [24.77]
50	90201/50	1.29 [32.8]	1.225 ± .009 [31.11]
60	90201/60	1.54 [39.1]	1.475 ± .012 [37.47]
68	90201/68	1.74 [44.2]	1.675 ± .012 [42.55]
80	90201/80	2.04 [51.8]	1.975 ± .015 [50.17]
100	90201/100	2.54 [64.5]	2.475 ± .017 [62.87]

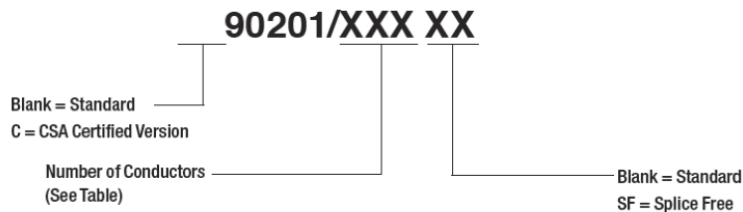


Tolerance Unless Noted			
	Inch [mm]		
	.0	.00	.000
Inch	±.1	±.05	±.010

[] Dimensions for Reference Only

Note: Blue marking on edge of primary cable designates wire #1.

Ordering Information



Note: Available in standard 100 ft or 300 ft rolls, please specify when ordering. Contact 3M for availability of additional conductor counts and/or custom roll lengths.

TS-0402-C
 Sheet 2 of 2