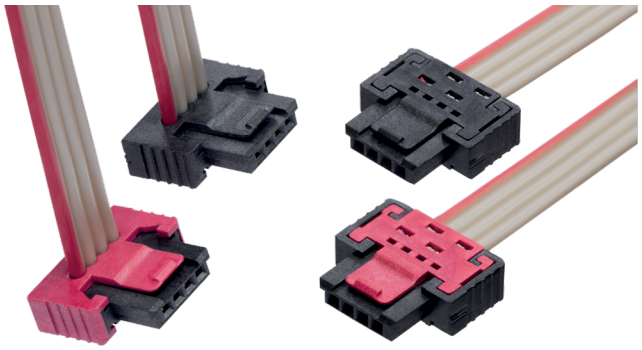
FLAT RIBBON CABLE ASSEMBLY (IDCCS)

MINIBRIDGE (SRC) CONNECTOR TYPE



FEATURES

- 1.27 mm pitch
- Current rating per contact up to 8 A (depends on cable)
- Female connector IDC termination technology
- Ribbon cable AWG 26/7
- Variants
  - Female connector type A with 180° cable outlet.
  - Female connector type P with 90° cable outlet.
- Interlocking
  - Positive lock - Female connector red (high vibration/shock load) - Unlockable only with a tool, e.g. pen with a round tip
  - Friction lock - Female connector black / white (normal vibration/shock load) - unlockable without any tool

APPLICATIONS

- Board to Wire and Wire to Board Connections
- Signal and Data transfer
- Source line - current up to 8A
- Reliable connection on higher environmental conditions
- Field of application:
  - » Internal wiring
  - » Automation controls
  - » Internal Sensor Connections

APPROVALS

- UL/ CSA of connector and wire in acc. to technical data
- Cable assemblies in accordance to IPC/WHMA-A-620 class 2

Downloaded from Arrow.com.

TECHNICAL DATA - CONNECTOR

Description	Standard	Male Connector SMT Type A and P	Female Connector SMT Type P	Male Connector IDC Type P	Female Connector IDC Type A and P
Climate category	DIN EN 60068-1 test b	55 / 150 / 56	55 / 125 / 56	55 / 150 / 56	
Temperature range		-55 / 150 °C	-55 / 125 °C	-55 / 150 °C	
Current rating per contact	IEC60512 test 5b	see IDC or SMT female connector	20 C° max. 4.8 A 70 C° max. 3.2 A 100 C° max. 2.0 A	see IDC or SMT female connector	20 C° max. 8.7 A 70 C° max. 6.8 A 100 C° max. 5.4 A depends on cable
Air- and creepage distance		contact - contact 0.4 mm			
Operating voltage	IEC 60664	The permissible operating voltages depend on the customer application and on the applicable or specified safety requirements. Insulation coordination according to IEC 60664-1 has to be regarded for the complete electrical device. Therefore, the maximum creepage and clearance distances of the mated connectors are specified for consideration as a part of the whole current path. In practice, reductions in creepage or clearance distances may occur due to the conductive pattern of the printed board or the wiring used, and have to be taken into account separately. As a result the creepage and clearance distances for the application may be reduced compared to those of the connector.			
Dielectric strength	IEC 60512 test 4a	contact – contact 500 V_{rms}			
Contact resistance	IEC 60512 test 2a	≤ 25 mΩ			
Insulation resistance	IEC 60512 test 3a	≥ 10^4 MΩ			
Vibration, sine	IEC 60512 test 6d	10 – 2000 Hz 20 g			
Contact disturbance (while vibration test)	IEC 60512 test 2e	< 1 µs			
Shock halfsine	IEC 60512 test 6c	50 g 11 ms			
Mechanical operation	IEC 60512 test 9a	500 mating cycles			
Insertion and withdrawal force	IEC 60512 test 13b	1 N per contact			
Gauge retention force	IEC 60512 test 16e	> 0.1 N			
Polarization	IEC 60512-13-5	60 N			
Interlocking noise				40 dB (A)	
Process-conditions					
Solder temperature max.	IEC 60068-2-20				
Hand soldering temperature max.		3.5 s at 350 °C			
Reflow soldering temperature max.	JEDEC J-STD-020	20 - 40 s at 260 °C			
Coplanarity		< 0.1 mm			

Downloaded from Arrow.com.

TECHNICAL DATA - CONNECTOR

Description	Standard	Male Connector SMT Type A and P	Female Connector SMT Type P	Male Connector IDC Type P	Female Connector IDC Type A and P
Housing Material					
Plastic material		LCP			
CTI value	IEC 112	175			
UL flame rating		UL 94 V-0*			
UL file		E83005			
Contact Material					
Base material		Cu alloy			
Mating area		gold plating			
Termination area		Sn			
Environment compatibility					
Recycling		no flame-retardant additives, no toxic additives allow easy recycling			
Product-approval					
UL		E84703			

*Not valid for SMT female connectorsin red color (positive lock)

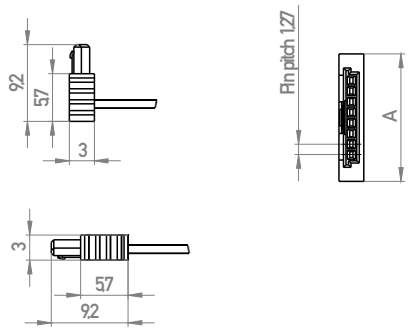
TECHNICAL DATA - WIRE

Description	Standard Cable (PVC)	High Temperature Cable (TPE-ET)	Halogen-free Cable (TPE-O)
Cross Section	AWG-26/ 7/ 0.14 mm^2		
Conductor	Cu wire tin-plated		
Marking	available		
Insulation	PVC wall thickness min. 0.178 mm	TPE-ET wall thickness min. 0.2 mm	Polyolefin wall thickness min. 0.178 mm
Shore hardness	94 ±3 (Shore A)	96 ±3 (Shore A)	90 ±3 (Shore A)
Technical data			
Temperature range	-30/105 °C (unmoved) -20/105 °C (moved)	-60/125 °C (unmoved) -40/125 °C (moved)	-40/105 °C (unmoved) -20/105 °C (moved)
Voltage rating	max. 300 V		
Dielectric strength	2000 V_{rms}	1500 V_{rms}	1500 V_{rms}
Conductor resistance	≤ 135 Ω/km	≤ 138 Ω/km at 20 °C	max. 135 Ω/km at 20 °C
Insulation resistance	≥ 100 MΩ x km at 20 °C	≥ 20 MΩ x km at 20 °C	min. 20 MΩ x km at 20 °C
Capacitance at 1 kHz	GSG ≤ 60 pF/m	GSG 40 pF/m	GSG 40 pF/m
Inductance	GSG 0.9 µH/m at 10 KHz	GSG 0.79 µH/m at 10 KHz	GSG 0.95 µH/m at 1 KHz
Impedance	GSG 100 Ω	GSG 110 Ω	GSG 95 Ω
Crosstalk in %	Cable length 3 m: NE 5.4 / FE 6.8	-	-
Propagation delay	4.6 ns/m	6.2 ns/m	-
Flammability	UL VW-1; CSA FT-1	UL 1581 Sec. 1080, VW-1	UL 1581
Product-approval			
UL	UL Style 2651	- *	AWM 21151
CSA	Yes	No	Yes

Downloaded from Arrow.com.

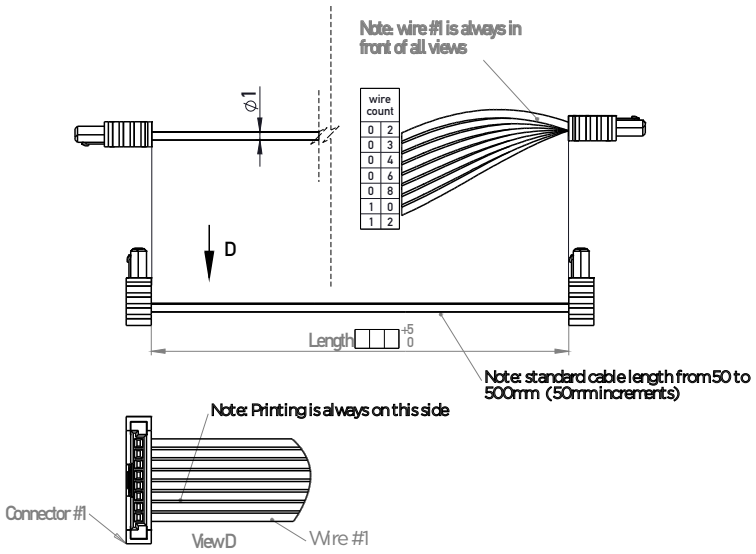
DIMENSIONS (Unit:mm)

Connector typical dimension

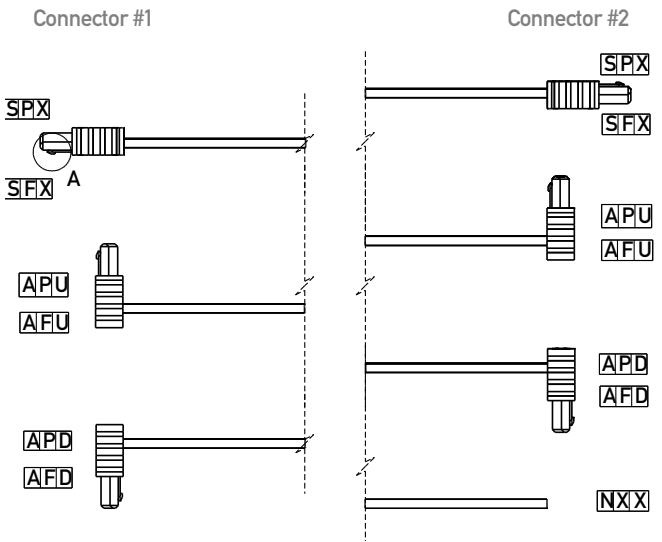


No. of Contacts	A
2	7.62
3	8.89
4	10.16
6	12.70
8	15.24
10	17.78
12	20.32

Attachment, Connector Coding & Locking Specification



CODING AND INTERLOCKING



Downloaded from Arrow.com.

PRODUCT CODE STRUCTURE

Part Number

IDCCS _ SRC _ 1,27 _ 2 _ SFX _ SFX _ 100 _ PVC

Class

IDCCS	Configurable cable assembly

Connector type

SRC

Pin pitch

1,27	AWG-30
R	Ribbon cable

Pin count

2
3
4
6
8
10
12

*Secure Lock

Isolation of wire

PVC	-10 °C to +105 °C
HT	-40 °C to +125 °C
HF	-20 °C to +105 °C, halogen free

Cable lengths

100	100 mm / 50 mm - 500 mm possible

Orientation connector right Connector #2

SFX
AFU
SPX
APU
NXX
APD
AFD

Orientation connector left Connector #1

SFX
AFU
SPX
APU
AFD
APD

Downloaded from Arrow.com.

PRODUCT SPECIFIC TECHNICAL NOTES

- Intended use: the offered products, i.e, cable assemblies, are components used in devices for internal wiring in non-critical industrial applications.
- Not intended to be used in live-support applications, no safety-classified applications, not intended for automotive use, not intended for applications with danger to life and limb
- Desired audience: (professional) company customers who assume the full responsibility for their products including the ERNI cable assembly product under consideration.
- Product solely ERNI-internally sampled
- Released-customer FAI report will not be provided (also includes PPaPs, CofCs, acceptance test certificates and IMDS Data).
- Summary drawing and datasheet available. No individual product drawings by part number.
- ERNI may change suppliers or mix materials from various sources as long as the specification laid down herein will be maintained (assumption of fit-form-function)
- Customer-specific assemblies outside these product offerings to be inquired separately.

Customer has to carefully check the product's appropriateness for the desired use (application) with the help of its technical specifications and additionally verify that the operation of the product in said application is in agreement with all requirements that may be applicable under the scope of the actual application (applicable regulation, law, and whatever more)

te.com

©2024 TE Connectivity Plc. Family of Companies. All Rights Reserved.

TE Connectivity, TE connectivity (logo) and Every Connection Counts are trademarks owned or licensed by the TE Connectivity Plc. family of companies. All other logos, products and/or company names referred to herein might be trademarks of their respective owners.

While TE has made every reasonable effort to ensure the accuracy of the information in this document, TE does not guarantee that it is error-free, nor does TE make any other representation, warranty or guarantee that the information is accurate, correct, reliable or current. TE reserves the right to make any changes to the information contained herein without prior notice. TE Connectivity assumes only those obligations set forth in the terms and conditions for this product and shall in no event be liable for any incidental, indirect, or consequential damages arising out of the sale, resale, use, or misapplication of the product. TE expressly disclaims any implied warranties with respect to the information contained herein, including, but not limited to, implied warranties of merchantability or fitness for a particular purpose. Dimensions, specifications and/or information contained herein are for reference purposes only and are subject to change without notice. Consult TE for the latest dimensions, specifications and/or information. Users of TE Connectivity products must make their own assessment as to whether the respective product is suitable for the respective desired application.

11/24 ED

Downloaded from Arrow.com.