

NP 307

PowerCINCH™ — The Modular Power Distribution and Motor Control Connection System for Machinery Applications

- NFPA-79-2002 Standard Compliance
- Eliminates the need for Conduit or Raceways
- Ideal for Machine Expansion or Reconfiguration
- No Tools Required



The Lumberg Automation™ PowerCINCH™ Connection System for On-Machine Applications Delivers Uncompromising Performance and Flexibility

The PowerCINCH™ solution from Lumberg Automation™ is a quick-disconnect modular wiring solution comprised of factory-applied connectors over-molded onto cable to provide up to 25A feeder and 15A branch power distribution circuits up to 600V AC. Eliminating the need for conduit or raceway installations on machines and replacing them with a PowerCINCH™ solution is cost-effective and provides expansion and reconfiguration capability without additional hardware.

NFPA-79-2002 Standard Compliance

In cooperation with the National Electric Code®, the National Fire and Protection Association made major revisions to NFPA-79 Electrical Standard for Industrial Machinery in 2002, which opened the door to a practical alternative to hard-wired power distribution and motor control within industrial machinery and coordination of multiple machines.

With these changes, machine manufacturers and system designers can now streamline machine commissioning and significantly reduce machine wiring costs with the innovative modular PowerCINCH™ connection system.

All PowerCINCH™ systems are fully compliant with the NFPA-79-2002 Standard for Industrial Machinery and meet UL direct support requirements that enable compliant installations when installed and maintained properly.

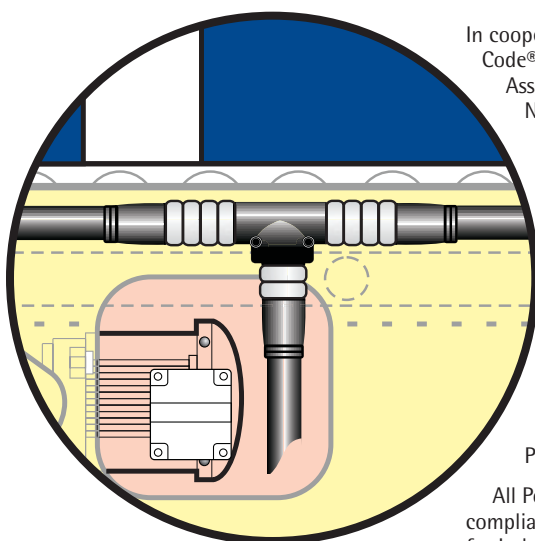
System Components

Cordsets & Connectors

At the heart of the PowerCINCH™ system is the design of the rugged trunk and drop cordsets and connectors. This includes: Over molded trunk cables for feeder circuits up to 25A, 600V AC and drop cables for branch circuits up to 15A, 600V AC. These quick disconnect cables are dual-rated (ST00W and TC/ER) and provide for the installation of a trunk/feeder line along the machines structure or by daisy-chaining they can accommodate power distribution for multiple machines while providing drops/branches for convenient point of access for power as required. The over-molded quick-disconnect connectors have NEMA 6P and IP67 industrial ratings – meaning they can withstand the harsh industrial challenges of moisture, shock, and vibration.

Tees and Reducers

No matter the complexity of the machine or motor control system design, Tees and Reducers provide the flexibility for modular wiring design. Combining Tees and Drop Connectors provide the connection of field devices via a branch connection, while Tees with a trunk connector split the main feeder circuit into sub-segments. The PowerCINCH™ system provides multiple keying options to differentiate circuits on trunk feeder lines.



For fast and easy deployment of On-Machine Power Distribution Systems - PowerCINCH™

Receptacles

PowerCINCH™ Receptacles offer a quick-connect interface to the device or cabinet and are well suited for installation on motors and drives to serve as a termination point.

Locking Clips

Reusable Locking Clips snap over the outside of the Trunk/Feeder or Drop/Branch connection point, providing a sense of security to the connection points within the PowerCINCH™ wiring system.

Closure Caps

For unused connection/stop points, closure caps are used to maintain the sealing integrity of the system, while providing the flexibility for system expansion.

PowerCINCH™ Products meet NFPA-79 Standards

The PowerCINCH™ product line brings a flexible and cost effective alternative to designers and users of industrial machines by capitalizing on recent changes to the NFPA-79 standard which governs electrical installations on industrial equipment. The NFPA-79 standard focuses on best practices and guidelines for safe, robust electrical design and electrical installation on industrial machinery. It complements the National Electric Code by clarifying the proper implementation of NEC requirements in industrial equipment applications.

The scope of NFPA-79 includes all electrical and electronic elements on industrial equipment operating at 600V or less. In 2002, the NFPA-79 code underwent significant revisions. Significant changes to the wiring practices in NFPA-79 allow the implementation of a fully compliant installation using the PowerCINCH™ modular power system. The changes with the most impact on the applicability of the PowerCINCH™ system are:



Typical Double-Ended Trunk Cable, 10 AWG, 4-Pole, Single Key

Description	1997 Edition	2007 Edition	Benefits
Conductor Sizing for Power Circuits	Conductors shall not be smaller than 14 AWG (section 15.3 (a))	Conductors shall not be smaller than 14 AWG for power circuits unless otherwise permitted. 16 AWG and 18 AWG may be used under certain circumstances. (section 12.6.1.1 and 12.6.1.2)	<ul style="list-style-type: none"> Greater flexibility for drop or branch circuits Use of PowerCINCH 16 AWG drop cordsets for power distribution
Wiring Methods and Practices on Connectors	Conductors and cables shall be run without splices from terminal to terminal (section 16.1.4)	Conductors and cables shall be run from terminal to terminal without splices or joints. See Exceptions No 1 and 2 However... Factory-applied connectors molded onto cables shall be permitted. Such connectors shall not be considered as splices or joints. (section 13.1.2.1 and 13.1.2.2)	<ul style="list-style-type: none"> Mis-wiring is eliminated Quick replacement Maintenance simplified Reconfiguration optimized Use of Tee's and transitional components are permitted
Wiring Methods and Practices on Exposed Cable	Conductors and their connections external to the control panel shall be totally enclosed in suitable raceways or enclosures... (section 16.3.1)	Exposed cables installed along the structure of the equipment or system or in the chassis of the machinery shall be permitted. Exposed cables shall be installed to closely follow the surface and structural members of the machinery. (section 13.1.5.2)	<ul style="list-style-type: none"> No need for conduit or raceways Fast installation – ideal for machine expansion No tools required Cables can be dressed along existing structures without additional hardware Reduced commissioning Easy to troubleshoot, maintain, and replace

PowerCINCH™ 1 3/8" Double-Ended Trunk Cordsets, 4-Pole, 10 AWG, Single Key, Black PVC Cable

Male Straight to Female Straight		Male Straight to Female 90°		Male 90° to Female Straight		Male 90° to Female 90°	
Part NO.	Description	Part NO.	Description	Part NO.	Description	Part NO.	Description
510000004	RSRK 40D-10T/0.5M	510000027	RSRKW 40D-10T/0.5M	510000050	RSWRK 40D-10T/0.5M	510000073	RSWRKW 40D-10T/0.5M
510000005	RSRK 40D-10T/1M	510000028	RSRKW 40D-10T/1M	510000051	RSWRK 40D-10T/1M	510000074	RSWRKW 40D-10T/1M
510000006	RSRK 40D-10T/1.5M	510000029	RSRKW 40D-10T/1.5M	510000052	RSWRK 40D-10T/1.5M	510000075	RSWRKW 40D-10T/1.5M
510000007	RSRK 40D-10T/2M	510000030	RSRKW 40D-10T/2M	510000053	RSWRK 40D-10T/2M	510000076	RSWRKW 40D-10T/2M
510000008	RSRK 40D-10T/2.5M	510000031	RSRKW 40D-10T/2.5M	510000054	RSWRK 40D-10T/2.5M	510000077	RSWRKW 40D-10T/2.5M
510000009	RSRK 40D-10T/3M	510000032	RSRKW 40D-10T/3M	510000055	RSWRK 40D-10T/3M	510000078	RSWRKW 40D-10T/3M
510000010	RSRK 40D-10T/4M	510000033	RSRKW 40D-10T/4M	510000056	RSWRK 40D-10T/4M	510000079	RSWRKW 40D-10T/4M
510000011	RSRK 40D-10T/5M	510000034	RSRKW 40D-10T/5M	510000057	RSWRK 40D-10T/5M	510000080	RSWRKW 40D-10T/5M
510000012	RSRK 40D-10T/6M	510000035	RSRKW 40D-10T/6M	510000058	RSWRK 40D-10T/6M	510000081	RSWRKW 40D-10T/6M
510000013	RSRK 40D-10T/8M	510000036	RSRKW 40D-10T/8M	510000059	RSWRK 40D-10T/8M	510000082	RSWRKW 40D-10T/8M
510000014	RSRK 40D-10T/10M	510000037	RSRKW40D-10T/10M	510000060	RSWRK 40D-10T/10M	510000083	RSWRKW 40D-10T/10M
510000015	RSRK 40D-10T/12M	510000038	RSRKW 40D-10T/12M	510000061	RSWRK 40D-10T/12M	510000084	RSWRKW 40D-10T/12M
510000016	RSRK 40D-10T/14M	510000039	RSRKW 40D-10T/14M	510000062	RSWRK 40D-10T/14M	510000085	RSWRKW 40D-10T/14M
510000017	RSRK 40D-10T/15M	510000040	RSRKW 40D-10T/15M	510000063	RSWRK 40D-10T/15M	510000086	RSWRKW 40D-10T/15M
510000018	RSRK 40D-10T/18M	510000041	RSRKW 40D-10T/18M	510000064	RSWRK 40D-10T/18M	510000087	RSWRKW 40D-10T/18M
510000019	RSRK 40D-10T/20M	510000042	RSRKW 40D-10T/20M	510000065	RSWRK 40D-10T/20M	510000088	RSWRKW 40D-10T/20M
510000020	RSRK 40D-10T/22M	510000043	RSRKW 40D-10T/22M	510000066	RSWRK 40D-10T/22M	510000089	RSWRKW 40D-10T/22M
510000021	RSRK 40D-10T/25M	510000044	RSRKW 40D-10T/25M	510000067	RSWRK 40D-10T/25M	510000090	RSWRKW 40D-10T/25M
510000022	RSRK 40D-10T/30M	510000045	RSRKW40D-10T/30M	510000068	RSWRK 40D-10T/30M	510000091	RSWRKW 40D-10T/30M
510000023	RSRK 40D-10T/35M	510000046	RSRKW40D-10T/35M	510000069	RSWRK 40D-10T/35M	510000092	RSWRKW 40D-10T/35M
510000024	RSRK 40D-10T/40M	510000047	RSRKW 40D-10T/40M	510000070	RSWRK 40D-10T/40M	510000093	RSWRKW 40D-10T/40M
510000025	RSRK 40D-10T/45M	510000048	RSRKW 40D-10T/45M	510000071	RSWRK 40D-10T/45M	510000094	RSWRKW 40D-10T/45M
510000026	RSRK 40D-10T/50M	510000049	RSRKW 40D-10T/50M	510000072	RSWRK 40D-10T/50M	510000095	RSWRKW 40D-10T/50M

PowerCINCH™ 1 3/8" Single-Ended Trunk Cordsets, 4-Pole, 10 AWG, Single Key, Black PVC Cable

Male Straight		Male 90°		Female Straight		Female 90°	
Part NO.	Description	Part NO.	Description	Part NO.	Description	Part NO.	Description
510000096	RS 40D-10T/0.5M	510000119	RSW 40D-10T/0.5M	510000142	RK 40D-10T/0.5M	510000165	RKW 40D-10T/0.5M
510000097	RS 40D-10T/1M	510000120	RSW 40D-10T/1M	510000143	RK 40D-10T/1M	510000166	RKW 40D-10T/1M
510000098	RS 40D-10T/1.5M	510000121	RSW 40D-10T/1.5M	510000144	RK 40D-10T/1.5M	510000167	RKW 40D-10T/1.5M
510000099	RS 40D-10T/2M	510000122	RSW 40D-10T/2M	510000145	RK 40D-10T/2M	510000168	RKW 40D-10T/2M
510000100	RS 40D-10T/2.5M	510000123	RSW 40D-10T/2.5M	510000146	RK 40D-10T/2.5M	510000169	RKW 40D-10T/2.5M
510000101	RS 40D-10T/3M	510000124	RSW 40D-10T/3M	510000147	RK 40D-10T/3M	510000170	RKW 40D-10T/3M
510000102	RS 40D-10T/4M	510000125	RSW 40D-10T/4M	510000148	RK 40D-10T/4M	510000171	RKW 40D-10T/4M
510000103	RS 40D-10T/5M	510000126	RSW 40D-10T/5M	510000149	RK 40D-10T/5M	510000172	RKW 40D-10T/5M
510000104	RS 40D-10T/6M	510000127	RSW 40D-10T/6M	510000150	RK 40D-10T/6M	510000173	RKW 40D-10T/6M
510000105	RS 40D-10T/8M	510000128	RSW 40D-10T/8M	510000151	RK 40D-10T/8M	510000174	RKW 40D-10T/8M
510000106	RS 40D-10T/10M	510000129	RSW 40D-10T/10M	510000152	RK 40D-10T/10M	510000175	RKW 40D-10T/10M
510000107	RS 40D-10T/12M	510000130	RSW 40D-10T/12M	510000153	RK 40D-10T/12M	510000176	RKW 40D-10T/12M
510000108	RS 40D-10T/14M	510000131	RSW 40D-10T/14M	510000154	RK 40D-10T/14M	510000177	RKW 40D-10T/14M
510000109	RS 40D-10T/15M	510000132	RSW 40D-10T/15M	510000155	RK 40D-10T/15M	510000178	RKW 40D-10T/15M
510000110	RS 40D-10T/18M	510000133	RSW 40D-10T/18M	510000156	RK 40D-10T/18M	510000179	RKW 40D-10T/18M
510000111	RS 40D-10T/20M	510000134	RSW 40D-10T/20M	510000157	RK 40D-10T/20M	510000180	RKW 40D-10T/20M
510000112	RS 40D-10T/22M	510000135	RSW 40D-10T/22M	510000158	RK 40D-10T/22M	510000181	RKW 40D-10T/22M
510000113	RS 40D-10T/25M	510000136	RSW 40D-10T/25M	510000159	RK 40D-10T/25M	510000182	RKW 40D-10T/25M
510000114	RS 40D-10T/30M	510000137	RSW 40D-10T/30M	510000160	RK 40D-10T/30M	510000183	RKW40D-10T/30M
510000115	RS 40D-10T/35M	510000138	RSW 40D-10T/35M	510000161	RK 40D-10T/35M	510000184	RKW40D-10T/35M
510000116	RS 40D-10T/40M	510000139	RSW 40D-10T/40M	510000162	RK 40D-10T/40M	510000185	RKW 40D-10T/40M
510000117	RS 40D-10T/45M	510000140	RSW 40D-10T/45M	510000163	RK 40D-10T/45M	510000186	RKW 40D-10T/45M
510000118	RS 40D-10T/50M	510000141	RSW 40D-10T/50M	510000164	RK 40D-10T/50M	510000187	RKW 40D-10T/50M

Specifications

Materials				Electrical		Mechanical		Cable			
Molded Body	Coupling Nut	Contacts	Insert	Current Rating	Voltage Rating	Temperature Rating	Protection Rating	Cable Jacket	Cable O.D.	Conductors	UL Recognition
PVC, black	Aluminum, anodized	Brass, gold over nickel plated	PVC, black	25A	600V	-20° to +105° C	IP67, NEMA 6P	PVC, black	.79"	10 AWG, stranded copper	TC-ER, ST00W

NOTE: Descriptions highlighted in "Blue" and "Bold" are considered to be "Stocked" items.



lumbergautomation

A BELDEN BRAND

PowerCINCH™ 7/8" Double-Ended Drop Cordsets, 4-Pole, 14 AWG, Single Key, Black PVC Cable

Male Straight to Female Straight		Male Straight to Female 90°		Male 90° to Female Straight		Male 90° to Female 90°	
Part NO.	Description	Part NO.	Description	Part NO.	Description	Part NO.	Description
510000188	RSRK 40A-14D/0.5M	510000211	RSRKW 40A-14D/0.5M	510000234	RSWRK 40A-14D/0.5M	510000257	RSWRKW 40A-14D/0.5M
510000189	RSRK 40A-14D/1M	510000212	RSRKW 40A-14D/1M	510000235	RSWRK 40A-14D/1M	510000258	RSWRKW 40A-14D/1M
510000190	RSRK 40A-14D/1.5M	510000213	RSRKW 40A-14D/1.5M	510000236	RSWRK 40A-14D/1.5M	510000259	RSWRKW 40A-14D/1.5M
510000191	RSRK 40A-14D/2M	510000214	RSRKW 40A-14D/2M	510000237	RSWRK 40A-14D/2M	510000260	RSWRKW 40A-14D/2M
510000192	RSRK 40A-14D/2.5M	510000215	RSRKW 40A-14D/2.5M	510000238	RSWRK 40A-14D/2.5M	510000261	RSWRKW 40A-14D/2.5M
510000193	RSRK 40A-14D/3M	510000216	RSRKW 40A-14D/3M	510000239	RSWRK 40A-14D/3M	510000262	RSWRKW 40A-14D/3M
510000194	RSRK 40A-14D/4M	510000217	RSRKW 40A-14D/4M	510000240	RSWRK 40A-14D/4M	510000263	RSWRKW 40A-14D/4M
510000195	RSRK 40A-14D/5M	510000218	RSRKW 40A-14D/5M	510000241	RSWRK 40A-14D/5M	510000264	RSWRKW 40A-14D/5M
510000196	RSRK 40A-14D/6M	510000219	RSRKW 40A-14D/6M	510000242	RSWRK 40A-14D/6M	510000265	RSWRKW 40A-14D/6M
510000197	RSRK 40A-14D/8M	510000220	RSRKW 40A-14D/8M	510000243	RSWRK 40A-14D/8M	510000266	RSWRKW 40A-14D/8M
510000198	RSRK 40A-14D/10M	510000221	RSRKW 40A-14D/10M	510000244	RSWRK 40A-14D/10M	510000267	RSWRKW 40A-14D/10M
510000199	RSRK 40A-14D/12M	510000222	RSRKW 40A-14D/12M	510000245	RSWRK 40A-14D/12M	510000268	RSWRKW 40A-14D/12M
510000200	RSRK 40A-14D/14M	510000223	RSRKW 40A-14D/14M	510000246	RSWRK 40A-14D/14M	510000269	RSWRKW 40A-14D/14M
510000201	RSRK 40A-14D/15M	510000224	RSRKW 40A-14D/15M	510000247	RSWRK 40A-14D/15M	510000270	RSWRKW 40A-14D/15M
510000202	RSRK 40A-14D/18M	510000225	RSRKW 40A-14D/18M	510000248	RSWRK 40A-14D/18M	510000271	RSWRKW 40A-14D/18M
510000203	RSRK 40A-14D/20M	510000226	RSRKW 40A-14D/20M	510000249	RSWRK 40A-14D/20M	510000272	RSWRKW 40A-14D/20M
510000204	RSRK 40A-14D/22M	510000227	RSRKW 40A-14D/22M	510000250	RSWRK 40A-14D/22M	510000273	RSWRKW 40A-14D/22M
510000205	RSRK 40A-14D/25M	510000228	RSRKW 40A-14D/25M	510000251	RSWRK 40A-14D/25M	510000274	RSWRKW 40A-14D/25M
510000206	RSRK 40A-14D/30M	510000229	RSRKW 40A-14D/30M	510000252	RSWRK 40A-14D/30M	510000275	RSWRKW 40A-14D/30M
510000207	RSRK 40A-14D/35M	510000230	RSRKW 40A-14D/35M	510000253	RSWRK 40A-14D/35M	510000276	RSWRKW 40A-14D/35M
510000208	RSRK 40A-14D/40M	510000231	RSRKW 40A-14D/40M	510000254	RSWRK 40A-14D/40M	510000277	RSWRKW 40A-14D/40M
510000209	RSRK 40A-14D/45M	510000232	RSRKW 40A-14D/45M	510000255	RSWRK 40A-14D/45M	510000278	RSWRKW 40A-14D/45M
510000210	RSRK 40A-14D/50M	510000233	RSRKW 40A-14D/50M	510000256	RSWRK 40A-14D/50M	510000279	RSWRKW 40A-14D/50M

PowerCINCH™ 7/8" Single-Ended Drop Cordsets, 4-Pole, 14 AWG, Single Key, Black PVC Cable

Male Straight		Male 90°		Female Straight		Female 90°	
Part NO.	Description	Part NO.	Description	Part NO.	Description	Part NO.	Description
510000280	RS 40A-14D/0.5M	510000303	RSW 40A-14D/0.5M	510000326	RK 40A-14D/0.5M	510000349	RKW 40A-14D/0.5M
510000281	RS 40A-14D/1M	510000304	RSW 40A-14D/1M	510000327	RK 40A-14D/1M	510000350	RKW 40A-14D/1M
510000282	RS 40A-14D/1.5M	510000305	RSW 40A-14D/1.5M	510000328	RK 40A-14D/1.5M	510000351	RKW 40A-14D/1.5M
510000283	RS 40A-14D/2M	510000306	RSW 40A-14D/2M	510000329	RK 40A-14D/2M	510000352	RKW 40A-14D/2M
510000284	RS 40A-14D/2.5M	510000307	RSW 40A-14D/2.5M	510000330	RK 40A-14D/2.5M	510000353	RKW 40A-14D/2.5M
510000285	RS 40A-14D/3M	510000308	RSW 40A-14D/3M	510000331	RK 40A-14D/3M	510000354	RKW 40A-14D/3M
510000286	RS 40A-14D/4M	510000309	RSW 40A-14D/4M	510000332	RK 40A-14D/4M	510000355	RKW 40A-14D/4M
510000287	RS 40A-14D/5M	510000310	RSW 40A-14D/5M	510000333	RK 40A-14D/5M	510000356	RKW 40A-14D/5M
510000288	RS 40A-14D/6M	510000311	RSW 40A-14D/6M	510000334	RK 40A-14D/6M	510000357	RKW 40A-14D/6M
510000289	RS 40A-14D/8M	510000312	RSW 40A-14D/8M	510000335	RK 40A-14D/8M	510000358	RKW 40A-14D/8M
510000290	RS 40A-14D/10M	510000313	RSW 40A-14D/10M	510000336	RK 40A-14D/10M	510000359	RKW 40A-14D/10M
510000291	RS 40A-14D/12M	510000314	RSW 40A-14D/12M	510000337	RK 40A-14D/12M	510000360	RKW 40A-14D/12M
510000292	RS 40A-14D/14M	510000315	RSW 40A-14D/14M	510000338	RK 40A-14D/14M	510000361	RKW 40A-14D/14M
510000293	RS 40A-14D/15M	510000316	RSW 40A-14D/15M	510000339	RK 40A-14D/15M	510000362	RKW 40A-14D/15M
510000294	RS 40A-14D/18M	510000317	RSW 40A-14D/18M	510000340	RK 40A-14D/18M	510000363	RKW 40A-14D/18M
510000295	RS 40A-14D/20M	510000318	RSW 40A-14D/20M	510000341	RK 40A-14D/20M	510000364	RKW 40A-14D/20M
510000296	RS 40A-14D/22M	510000319	RSW 40A-14D/22M	510000342	RK 40A-14D/22M	510000365	RKW 40A-14D/22M
510000297	RS 40A-14D/25M	510000320	RSW 40A-14D/25M	510000343	RK 40A-14D/25M	510000366	RKW 40A-14D/25M
510000298	RS 40A-14D/30M	510000321	RSW 40A-14D/30M	510000344	RK 40A-14D/30M	510000367	RKW 40A-14D/30M
510000299	RS 40A-14D/35M	510000322	RSW 40A-14D/35M	510000345	RK 40A-14D/35M	510000368	RKW 40A-14D/35M
510000300	RS 40A-14D/40M	510000323	RSW 40A-14D/40M	510000346	RK 40A-14D/40M	510000369	RKW 40A-14D/40M
510000301	RS 40A-14D/45M	510000324	RSW 40A-14D/45M	510000347	RK 40A-14D/45M	510000370	RKW 40A-14D/45M
510000302	RS 40A-14D/50M	510000325	RSW 40A-14D/50M	510000348	RK 40A-14D/50M	510000371	RKW 40A-14D/50M

Specifications

Materials				Electrical		Mechanical		Cable			
Molded Body	Coupling Nut	Contacts	Insert	Current Rating	Voltage Rating	Temperature Rating	Protection Rating	Cable Jacket	Cable O.D.	Conductors	UL Recognition
PVC, black	Aluminum, e-coated black	Brass, gold over nickel plated	PVC, black	15A	600V	-20° to +105° C	IP67, NEMA 6P	PVC, black	.62"	14 AWG, stranded copper	TC-ER, ST00W

NOTE: Descriptions highlighted in "Blue" and "Bold" are considered to be "Stocked" items.

PowerCINCH™ T TAP (1 3/8") with 10 AWG Power Drop, 4-Pole, Single Key



Part NO.	Description						
510000001	TAP 40D-RK 40D						
Materials				Electrical		Mechanical	
Molded Body	Coupling Nut	Contacts	Insert	Current Rating	Voltage Rating	Temperature Rating	Protection Rating
PVC, black	Aluminum, anodized	Brass, gold over nickel plated	PVC, black	25A	600V	-20° to +105° C	IP67, NEMA 6P

PowerCINCH™ T TAP (1 3/8") with 14 AWG Power Drop, 4-Pole, Single Key



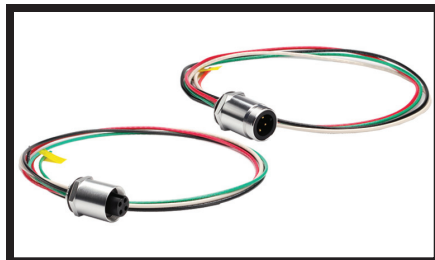
Part NO.	Description						
510000002	TAP 40D-RK 40A						
Materials				Electrical		Mechanical	
Molded Body	Coupling Nut	Contacts	Insert	Current Rating	Voltage Rating	Temperature Rating	Protection Rating
PVC, black	Aluminum, anodized	Brass, gold over nickel plated	PVC, black	25A	600V	-20° to +105° C	IP67, NEMA 6P

PowerCINCH™ In-Line Trunk Reducers



Part NO.	Description						
510000003	RS40D-RK40A						
Materials				Electrical		Mechanical	
Molded Body	Coupling Nut	Contacts	Insert	Current Rating	Voltage Rating	Temperature Rating	Protection Rating
PVC, black	Aluminum, anodized	Copper Alloy	PVC, black	10A	600V	-20° to +105° C	IP67, NEMA 6P

PowerCINCH™ Trunk-Feeder Receptacles



Trunk-Feeder Receptacles, 10 AWG, 4-Pole Female, 3/4-14NPT, Single Key	
Part NO.	Description
510000372	RKF 40D-3/4-10T/0.5M
510000373	RKF 40D-3/4-10T/1M
510000374	RKF 40D-3/4-10T/3M

Trunk-Feeder Receptacles, 10 AWG, 4-Pole Male, 3/4-14NPT, Single Key	
Part NO.	Description
510000384	RSF 40D-3/4-10T/0.5M
510000385	RSF 40D-3/4-10T/1M
510000386	RSF 40D-3/4-10T/3M

Trunk-Feeder Receptacles, 10 AWG, 4-Pole Female, 1/2-14NPT, Single Key	
Part NO.	Description
510000375	RKF 40D-1/2-10T/0.5M
510000376	RKF 40D-1/2-10T/1M
510000377	RKF 40D-1/2-10T/3M

Trunk-Feeder Receptacles, 10 AWG, 4-Pole Male, 1/2-14NPT, Single Key	
Part NO.	Description
510000387	RSF 40D-1/2-10T/0.5M
510000388	RSF 40D-1/2-10T/1M
510000389	RSF 40D-1/2-10T/3M

Materials				Electrical		Mechanical	
Molded Insert	Shell	Contacts	Wire	Current Rating	Voltage Rating	Temperature Rating	Protection Rating
PVC, black	Aluminum, anodized	Brass, gold over nickel plated	10 AWG stranded copper	25A	600V	-20° to +105° C	IP67, NEMA 6P

NOTE: Descriptions highlighted in "Blue" and "Bold" are considered to be "Stocked" items.



PowerCINCH™ Drop Receptacles



Drop-Branch Receptacles, 14 AWG, 4-Pole Male, 1/2-14NPT, Single Key

Part NO.	Description
510000378	RSF 40A-14D/0.5M
510000379	RSF 40A-14D/1M
510000380	RSF 40A-14D/3M

Drop-Branch Receptacle, 14 AWG, 4-Pole Female, 1/2-14NPT, Single Key

Part NO.	Description
510000381	RKF 40A-14D/0.5M
510000382	RKF 40A-14D/1M
510000383	RKF 40A-14D/3M

Materials				Electrical		Mechanical	
Molded Insert	Shell	Contacts	Wire	Current Rating	Voltage Rating	Temperature Rating	Protection Rating
PVC, black	Aluminum, anodized	Brass, gold over nickel plated	14 AWG stranded copper	15A	600V	-20° to +105° C	IP67, NEMA 6P

PowerCINCH™ Accessories



Closure Caps, Trunk For Male Connector (Internal Threads)

Part NO.	Description
510000392	RSV -D

Closure Caps, Drop For Male Connector (Internal Threads)

Part NO.	Description
510000394	RSV -A

Closure Caps, Trunk For Female Connector (External Threads)

Part NO.	Description
510000393	RKV -D

Closure Caps, Drop For Female Connector (External Threads)

Part NO.	Description
510000395	RKV -A

Locking Ring, Trunk Size For Trunk Connections

Part NO.	Description
510000390	LC-D

Locking Ring, Drop Size For Drop Connections

Part NO.	Description
510000391	LC-A



NOTE: Descriptions highlighted in "Blue" and "Bold" are considered to be "Stocked" items.

About Tray Cables (TC) - Exposed Runs (ER)

With the economic challenges of today, plant managers are continually challenged continue to find opportunities to reduce costs and improve quality while speeding up the process of reconfiguring production lines. With advancements in technology and changes to the National Electrical Code (NEC) and Underwriter Laboratories (UL) standards, new ratings for tray cables – TC-ER have been created.

UL permits the manufacturer to add the -ER suffix to the basic listing on the cable as long as the cable meets the additional basic UL cable type crush and impact requirements. In doing so, manufacturers can now add the -ER

suffix on the cable as part of its basic listing – signifying that the cable meets the physical and toughness requirements, permitting the cable to be installed as exposed wiring in specific applications. With the -ER suffix printed on the cable, the electrical inspector can verify that the cable meets Code requirements for use as exposed wiring.

In certain applications, tray cables with the -ER suffix can extend much further as long as adequate protection and support are provided resulting in the reduction of conduit and the overall installation costs.

Excerpt from the 2005 National Electrical Code®

Type TC Cables Article 336.10 (7) In industrial establishments where the conditions of maintenance and supervision ensure that only qualified persons service the installation and where the cable is continuously supported and protected against physical damage using mechanical protection, such as struts, angles or channel, Type TC tray cable that complies with the crush and impact requirements of Type MC cable and is identified for such use with the marking Type TC-ER shall be permitted between a cable tray and the utilization equipment or device. The cable shall be secured at intervals not exceeding 1.8m (6ft). Equipment grounding for the utilization equipment shall be provided by an equipment grounding conductor within the cable.

Typical Application - Multiple Conveyor System with Motor Control

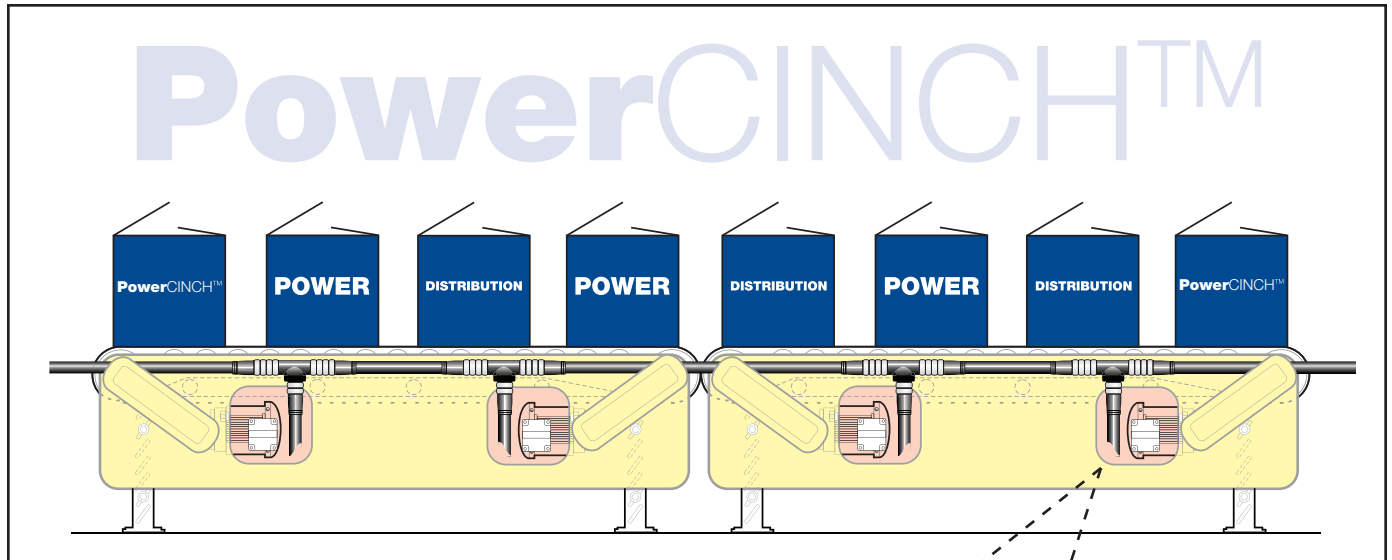
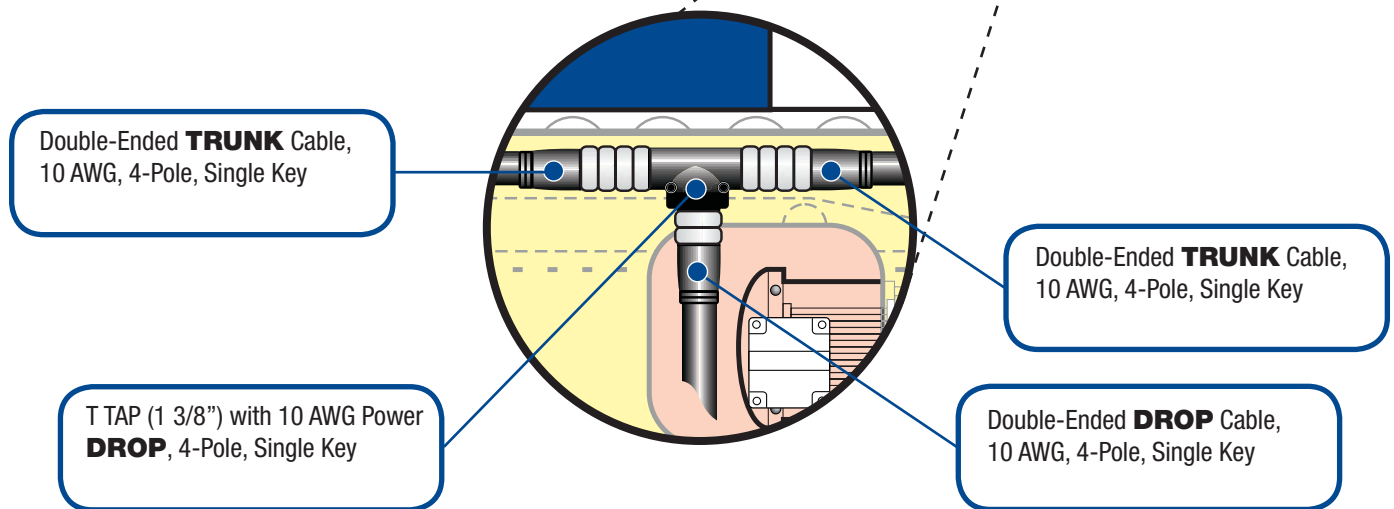


Illustration 1. PowerCINCH installed on a conveyor system with one trunk line and multiple drops to motors.





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