



Inline REM CB Terminal System

Contents/目录

1 GENERAL	2
1 综述.....	2
2 REFERENCE DOCUMENTS	2
2 参考文件.....	2
2.1 Customer Drawing.....	2
2.1 客户图纸	2
2.2 Product Specification.....	2
2.2 产品规范	2
2.3 Application Specifications	2
2.3 应用规范	2
2.4 Information Sheets.....	3
2.4 信息表	3
3 DESCRIPTION.....	3
3 描述.....	3
4 REQUIRMENTS	4
4 要求.....	4
4.1 WIRE	4
4.1 导线	4
4.2 Cut off and Burrs	4
4.2 裁切及毛边	4
4.3 Wire Crimp	4
4.3 导线压接	4
4.4 Insulation Crimp/SWS crimp.....	5
4.4 绝缘层压接/防水塞压接	5
4.5 Contact Area	5
4.5 接触区域	5
4.6 Shape and Positional Tolerance of the Crimped Contact (see fig.2).....	6
4.6 压接端子外形及位置公差	6
5 CRIMP DATA FOR REM 0.63 ONE PIECE TAB (FOR QUADLOK SYSTEM)	7
5 REM 0.63 ONE PIECE TAB 压接参数 (FOR QUADLOK 系统)	7



1 GENERAL

1 综述

This specification contains the guidelines for the application of inline REM CB Terminal System. These requirements are applicable to the fully or semi-automatic machine crimping tools.

本规范阐述了 inline REM CB Terminal System 的应用要求。这些要求适用于自动压接机械。

The contacts are listed by their use, the wire size ranges and the crimping data in section 5.

端子的线径范围与压接参数在本规范的第五部分。

Note: Only the TE crimp tool specified in section 5 and 6 may be used for application of the contacts. Any exceptions to this rule are defined by customer-specific documents.

备注：本规范中第五及第六章的压接参数仅适用于 TE 压接工具。任何本规范所涉及例外情况均由客户指定。

2 REFERENCE DOCUMENTS

2 参考文件

2.1 Customer Drawing

2.1 客户图纸

This application specification is based on the latest valid customer drawings. The dimension and materials of the contacts are shown in the TE customer drawings.

本规范基于以下有效客户图纸的最新版本。端子的尺寸和选用的材料于 TE 的客户图中所定义。

C-2396127	Inline REM 064 CB MALE UNSEAL TERMINAL, TIN PLATED,
C-2389205	Inline REM 064 CB FEMALE UNSEAL TERMINAL, TIN PLATED,
C-2396126	Inline REM 1.2 CB MALE UNSEAL TERMINAL, TIN PLATED,
C-2396128	Inline REM 2.8 CB MALE UNSEAL TERMINAL, TIN PLATED,
C-2396127	Inline REM 064 CB MALE SWS TERMINAL, TIN PLATED,
C-2387544	Inline REM 064 CB FEMALE SWS TERMINAL, TIN PLATED,
C-2396126	Inline REM 1.2 CB MALE SWS TERMINAL, TIN PLATED,
C-2396128	Inline REM 2.8 CB MALE SWS TERMINAL, TIN PLATED,

2.2 Product Specification

2.2 产品规范

Latest valid production specification

最新有效产品测试规范

108-160283 Product Specification for Inline Terminal System

2.3 Application Specifications

2.3 应用规范

The crimp quality must also comply with the general guidelines laid down in the application specification 114-18022. If this is not available, it must be ordered separately.

压接品质也必须符合压接规范 114-18022 中所阐述的通用的压接指导方针。如果本产品应用规范尚未可用，则必须参考文件 114-18022。

2.4 Information Sheets

2.4 信息表

IS 7424 explains how to measure the crimp height.

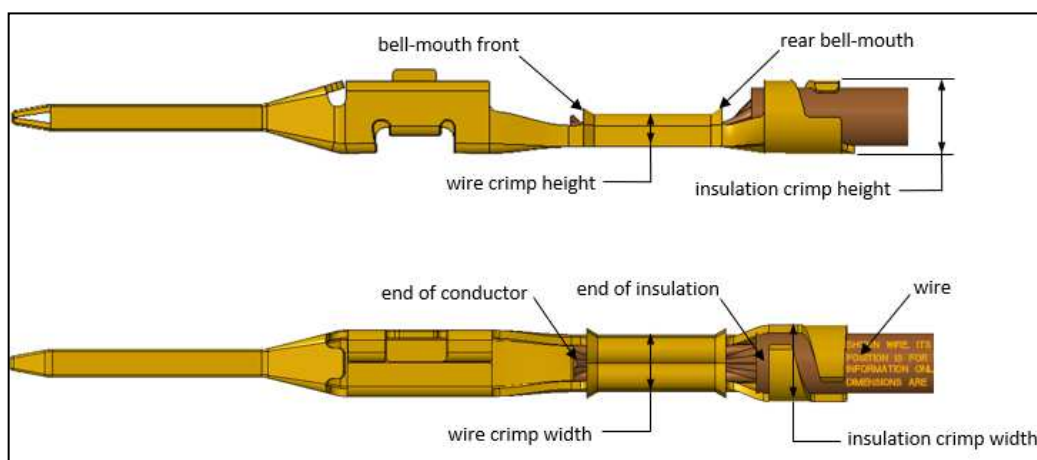
IS 7427 说明了如何测量压接高度。

3 DESCRIPTION

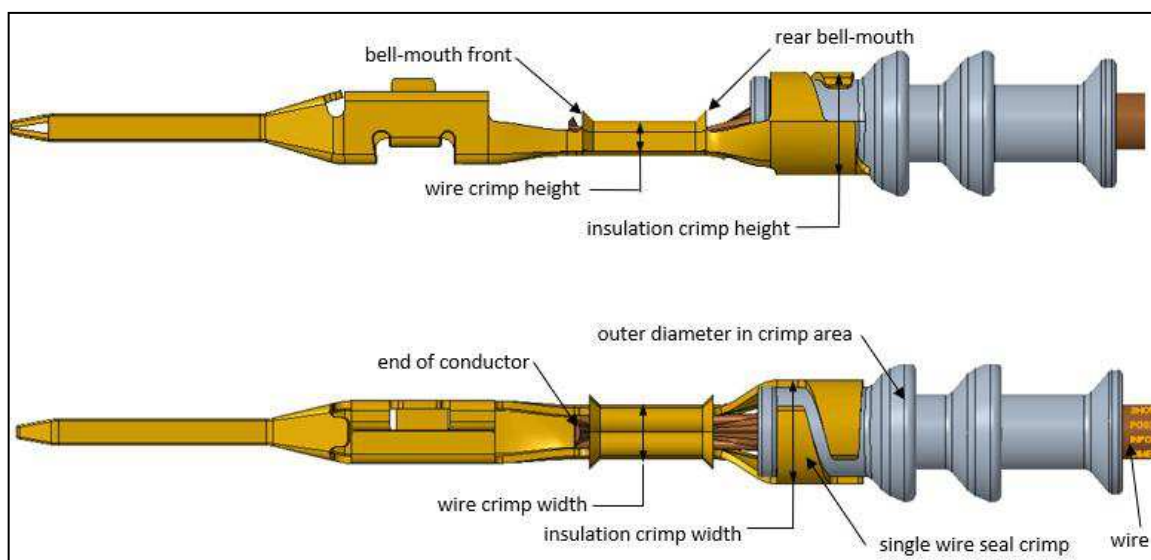
3 描述

The following terms are used in this specification. 下图中的术语被应用于本规范中。

Fig.1 (图1)



Contact with Wire Insulation Crimp



Contact with Single Wire Seal Crimp



4 REQUIRMENTS

4 要求

4.1 WIRE

4.1 导线

A Selection

Only wires in accordance with DIN 72551-FLR Parts 5 and 6 which comply with the conditions specified in Table 1 of this specification may be used. Other wires require approval from the development department. Only single termination is permitted.

A 选择

只可使用遵循DIN 72551-FLR 第五和第六部分且满足本规范中表1所定义的条件导线。其它导线的使用需要得到产品开发部门的认可，仅允许单根端子。

B Preparation

The wire must be stripped to the length specified in Table 1, taking care that the individual strands are neither bent nor cut off.

压线前需要按照表1所定义的规格对导线进行剥线作业，并注意不要折弯及裁断导线。

4.2 Cut off and Burrs

4.2 裁切及毛边

The cut off must be visible after crimping. Its length may not exceed 0,3mm. The burr at the cut off point may not exceed 0,1mm.

切断处在压接后可见，其长度不可超过 0.3mm，且切断处的毛边长度不可超过 0.1mm。

4.3 Wire Crimp

4.3 导线压接

A Wire position (导线位置)

After crimping, the end of the wire must extend 0.1 to 0.7mm beyond the front edge of the wire crimp. The mating and locking function of the contact must not be affected by the wire extension of single strands. In no case may the end of the insulation be crimped under the wire crimp. For terminals used in connectors with family seal, the conductor end protrusion must be max. 0,4mm. Upcoming strands, which can harm the family seal, are not allowed.

压接后，导体前端必须超过压接区域前杯口 0.1~0.7mm。端子的互配及锁扣功能不可受到导体伸出长度影响。导线绝缘层不可压接在导线压接区域。若为防水垫应用，压接微端超出杯口最大 0.4mm，不可以破坏防水垫。

B Crimping data (压接参数)

The shape, height and width of the crimp, and the wire range, are shown in Table 1. The crimp data also can be adjusted by the harness maker according to the used applicator. Harness maker should responsible for crimp quality.

Note: measure the crimp height in accordance with operating instructions IS 7424 with a crimp height micrometer, TE Order No. 675836-0. The crimp width is a tool-related dimension and is defined as the distance between the two tangential points of the rolling radii and the edges of the crimp. It is not possible to measure the crimp width for production monitoring purposes.

表 1 列出了端子压接线径范围，压接后的外形，高度及宽度尺寸。线束厂也可使用非 TE 卡模自行调整压接参数，但是线束厂需对压接品质负责。

备注：依照作业指导 IS 7424，使用千分尺测量压接高度，千分尺的 TE 采购料号 675836-0。导线区域压接宽度取决于压接工具，该尺寸是压接区域底部两个滚动半径与直边相切区域之间的距离。无需在生产过程中监测压接区域的宽度。

C Extraction forces (导线拔出力)

The crimp extraction forces must comply with the requirements of DIN EN 60352-2.

导线拔出力必须满足DIN EN 60352-2的要求。



D Crimp bell mouth (压接杯口)

The rear of the wire crimp barrel must feature bell mouth. The dimensions of the bell mouth are dependent on the wire range as below. At the front end of the wire crimp barrel (terminal side) is not mandatory.

线压接末端必须要有杯口特征, 杯口尺寸取决于压接线径的大小如下所示. 靠近端子侧的杯口并非强制要有.

0,03 - 0,35 mm² : 0,25 +/- 0,15 mm

> 0,35 - 1,00 mm² : 0,30 +/- 0,15 mm

> 1,00 - 2,50 mm² : 0,40 +/- 0,20 mm

E Burr on base of crimp (压接区域底部毛边) refer to general application 114-18022

毛边依据通用的规格114-18022。

4.4 Insulation Crimp or Single Wire Seal crimp

4.4 绝缘层压接/防水塞压接

A Position of the insulation crimp (绝缘层压接位置)

The end of the insulation must be visible in the transition between the wire crimp and the insulation crimp. In no case may the end of the insulation be crimped in the wire crimp; conversely, the insulation must extend at least to the front edge of the insulation crimp.

在导线压接和绝缘层压接过渡区域必须可以观察到绝缘层。绝缘层不可以进入导线压接区域; 相反地, 绝缘层必须超出绝缘层压接区域的前端。

B Crimping data for insulation crimp (绝缘层压接参数)

The shape, width and height of the crimp are shown in Table 1. The crimp height is set after the bending test to former DIN 41611 Part 3 or the winding test to DIN IEC 352 Part 2. The iso-crimp height also can be adjusted by the harness maker according to the used wire or combination of wire and seal. Harness maker should responsible for crimp quality. 于表1可见绝缘层压接外形, 宽度及高度, 压接高度按照折弯测试DIN 41611 Part 3或者圈绕测试DIN IEC 352 Part 2定义。线束厂也可以根据所选用的线缆以及防水圈进行对应调整, 但是线束厂需对此压接品质负责。

C Crimping data for contact with SWS crimp (防水塞压接参数)

The shape, width and height of the crimp and the part number of the single wire seal, are shown in Table 1. The crimp height is correctly adjusted if the crimp encloses the seal in the shape of a circle. Oval enclosures as the result of differing insulation diameters are permissible. The SWS crimp height also can be adjusted by the harness maker according to the used SWS or wire and applicator. Harness maker should responsible for crimp quality.

于表1可见防水塞压接外形, 宽度及高度. 可以调整压接高度将压接密封圈围成圆形。由于绝缘直径的不同, 椭圆形外壳是允许的。线束厂也可以根据所选用非TE定义的卡模, 线缆以及防水圈进行对应调整, 但是线束厂需对此压接品质负责。

D Position of the SWS (防水塞位置)

Single-wire seals without a collar on the sleeve must be flush with the front edge of the crimp or may extend up to 1 mm from the crimp. In the case of single-wire seals with a collar on the sleeve, this collar is positioned in front of the front edge of the crimp. The collar must be centered within the window on the bottom of the crimp.

防水塞如果没有压接突起挡墙, 防水塞必须与压接的前边缘齐平, 或从压接延伸最多1毫米压接外形。如果防水塞有压接突起挡墙, 那么挡墙必须位于压接前缘的前面。挡墙必须在压接底部窗口内居中。

4.5 Contact Area

4.5 接触区域

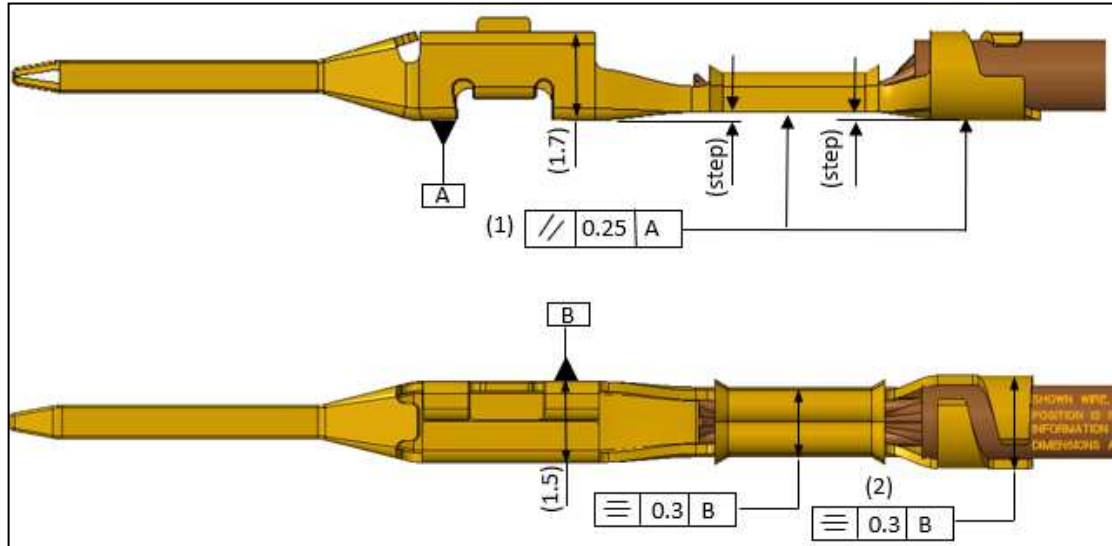
After crimping, neither the cantilever spring with locking lances nor the contact body with collar for secondary retention may be bent or deformed.

压接后, 一次锁的悬臂及端子主体的二次锁结构都不可以被弯折或者变形。

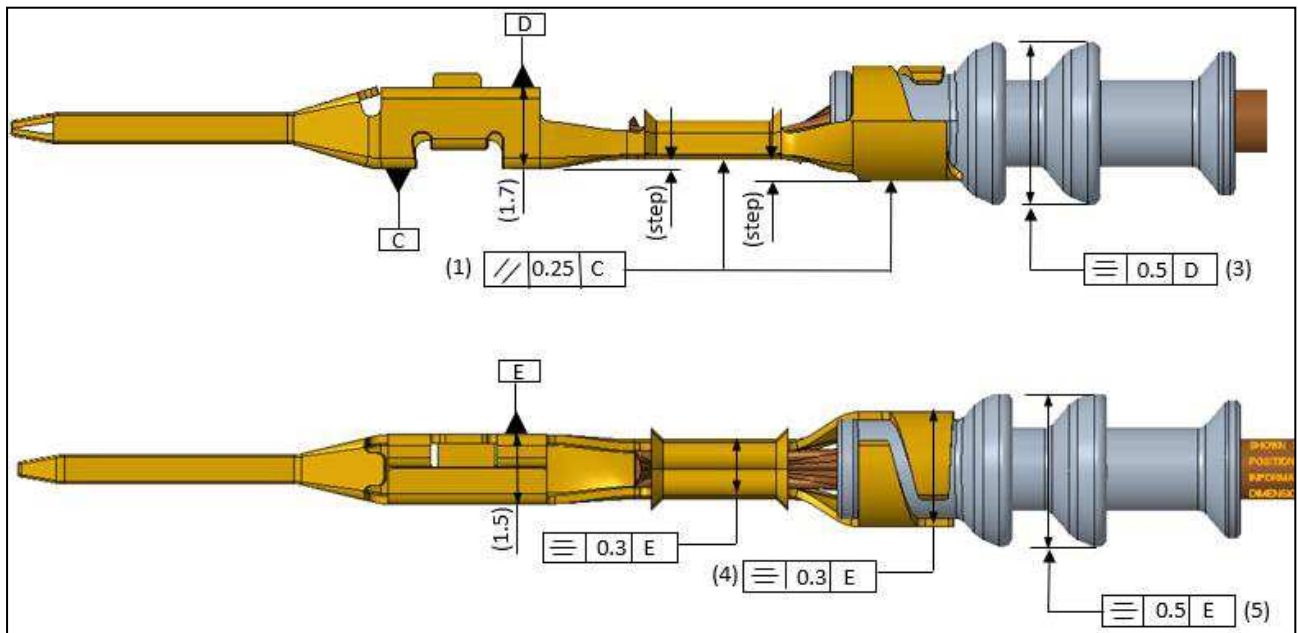
4.6 Shape and Positional Tolerance of the Crimped Contact (see fig.2)

4.6 压接端子外形及位置公差

Fig.2 (图2)



Shape and Position Tolerances



Shape and Position Tolerances (SWS)

- (1) for 2.8 terminal 0.30mm Max/ 2.8 端子对称度 0.30mm Max.
- (2) for 2.8 terminal 0.50mm Max/ 2.8 端子对称度 0.5mm Max.
- (3) for 2.8 terminal 1.0mm Max/ 2.8 端子对称度 1.0mm Max.
- (4) for 2.8 terminal 0.50mm Max/ 2.8 端子对称度 0.5mm Max.
- (5) for 2.8 terminal 1.0mm Max/ 2.8 端子对称度 1.0mm Max.



APPLICATION SPECIFICATION **114-160148**

应用规范

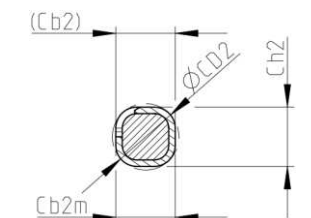
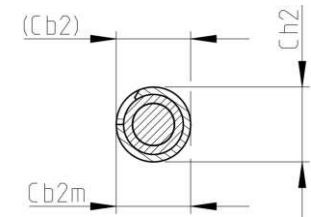
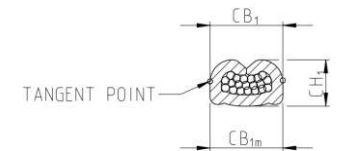
28 SEP 2024

Rev. C

5 CRIMP DATA FOR REM CB TERMINAL SYSTEM

5 REM CB TERMINAL SYSTEM 压接参数

Inline REM Terminal System															
Order No	Cable		Strip Length ±0.15 [mm]	Wire Crimp				Insulation Crimp				Single Wire Seal			
Strip	Wire Size [mm ²] FLR	insulation Dia. Range [mm]		Width CB ₁ [mm]	Width CB _{1m} [mm]	Height CH ₁ [mm]	Shape	Width CB ₂ [mm]	Width CB _{2m} [mm]	Circle Dia. ΦCD ₂ [mm]	Height CH ₂ [mm]	Shape	Cavity Dia. [mm]	Single Wire Seal	Crimp Tool
2385474-1	0.22	1.1 - 1.2	3.8	1.17	1.17 ^{+0.12}	0.68±0.02	F	1.57	1.57 ^{+0.16}	1.5±0.1	1.4±0.1	WRAP			2391505-1
	0.35	1.2 - 1.4	3.8	1.17	1.17 ^{+0.12}	0.76±0.03	F	1.57	1.57 ^{+0.16}	1.5±0.1	1.5±0.1	WRAP			2391505-1
2385474-2	0.50	1.4 - 1.6	3.8	1.4	1.4 ^{+0.12}	0.79±0.03	F	1.83	1.83 ^{+0.18}	1.8±0.18/-0.1	1.7±0.2	WRAP			2406610-1
2385474-3	0.13	0.95 - 1.05	3.5	0.94	0.94 ^{+0.10}	0.65±0.02	F	1.17	1.17 ^{+0.15}	1.17±0.1	1.17±0.1	WRAP			4151290-1
	0.17	1.0 - 1.1	3.5	0.94	0.94 ^{+0.10}	0.68±0.02	F	1.17	1.17 ^{+0.15}	1.17±0.1	1.17±0.1	WRAP			4151290-1
2389205-1	0.22	1.1 - 1.2	3.8	1.27	1.27 ^{+0.12}	0.74±0.02	F	1.4	1.4 ^{+0.15}	1.35±0.1	1.35±0.1	WRAP			TBD
	0.35	1.2 - 1.4	3.8	1.4	1.4 ^{+0.16}	0.76±0.03	F	1.4	1.4 ^{+0.15}	1.4±0.1	1.7±0.1	WRAP			2391500-1
2389205-2	0.50	1.4 - 1.6	3.8	1.4	1.4 ^{+0.16}	0.84±0.03	F	1.4	1.4 ^{+0.15}	1.4±0.1	1.85±0.2	WRAP			2391500-1
2389205-3	0.13	0.95 - 1.05	3.5	1	1.0 ^{+0.12}	0.69±0.02	F	1.07	1.07 ^{+0.15}	1.07±0.15	1.45 Max	WRAP			4151289-1
	0.17	1.0 - 1.1	3.5	1	1.0 ^{+0.12}	0.72±0.02	F	1.07	1.07 ^{+0.15}	1.07±0.15	1.45 Max	WRAP			4151289-1





Inline REM Terminal System														
Order No	Cable		Strip Length ±0.15 [mm]	Wire Crimp				Insulation Crimp					Single Wire Seal	
Strip	Wire Size [mm ²] FLR	insulation Dia. Range [mm]		Width CB ₁ [mm]	Width CB _{1m} [mm]	Height CH ₁ [mm]	Shape	Width CB ₂ [mm]	Width CB _{2m} [mm]	Circle Dia. ΦCD ₂ [mm]	Height CH ₂ [mm]	Shape	Cavity Dia. [mm]	Crimp Tool
2386053-1	0.35	1.2 - 1.4	3.6	1.27	1.27 ^{+0.13}	0.80±0.03	F	1.83	1.83 ^{+0.22}	1.83±0.15	1.5 Max	WRAP		4151294-1
2386053-2	0.50	1.4 - 1.6	4.0	1.4	1.4 ^{+0.16}	0.84±0.03		1.83	1.83 ^{+0.22}	2.05 Max	2.05 Max			2391502-1
2386053-3	0.75	1.7 - 1.9		1.57	1.57 ^{+0.16}	0.96±0.03		1.83	1.83 ^{+0.22}	2.05 Max	2.05 Max			2391503-1
2386053-4	1.00	1.9 - 2.1		1.78	1.78 ^{+0.17}	1.05±0.03		2.29	2.29 ^{+0.16}	2.5 Max	2.25 Max	O		2391504-1
2386301-1	1.50	2.2 - 2.4	4.8	2.79	2.79 ^{+0.3}	1.43±0.05	F	4.19	3.94±0.3	3.3 max	3.3 max	O		2391501-1
	2.50	2.7 - 3.0				1.67±0.05				3.3 max	3.3 max			
2386301-2	1.00	1.9 - 2.1	4.2	2.03	2.03 ^{+0.3}	1.3±0.05	F	2.54	2.54±0.2	2.54±0.2	2.6±0.3	WRAP		TBD
	0.75	1.7 - 1.9				1.2±0.05				2.54±0.2	2.6±0.3			
2386301-3	0.50	1.4 - 1.6	4.2	1.78	1.78±0.2	1.08±0.03	F	2.29	2.29±0.2	2.29±0.2	2.29±0.2	WRAP		TBD
2377023-1	0.35	1.2 - 1.4	3.8	1.17	1.17 ^{+0.12}	0.76±0.03	F	2.3	2.30 ^{+0.2}	2.30 ^{+0.2}	2.25±0.15	WRAP	2.6*3.0	2377665-5
2377023-2	0.50	1.4 - 1.6	3.8	1.4	1.4 ^{+0.12}	0.79±0.03	F	2.54	2.54 ^{+0.2}	2.54 ^{+0.2}	2.50±0.1	WRAP	2.6*3.0	2377665-4
2387544-1	0.35	1.2 - 1.4	3.8	1.27	1.27 ^{+0.13}	0.84±0.03	F	2.36	2.36 ^{+0.2}	2.65±0.15	2.65±0.15	WRAP	2.6*3.0	2377665-5
2387544-2	0.50	1.4 - 1.6	3.8	1.27	1.27 ^{+0.13}	0.87±0.03	F	2.36	2.36 ^{+0.2}	2.65±0.15	2.65±0.15	WRAP	2.6*3.0	2377665-4



Inline REM Terminal System															
Order No	Cable		Strip Length ±0.15 [mm]	Wire Crimp				Insulation Crimp					Single Wire Seal		Crimp Tool
Strip	Wire Size [mm²] FLR	insulation Dia. Range [mm]		Width CB ₁ [mm]	Width CB _{1m} [mm]	Height CH ₁ [mm]	Shape	Width CB ₂ [mm]	Width CB _{2m} [mm]	Circle Dia. ΦCD ₂ [mm]	Height CH ₂ [mm]	Shape	Cavity Dia. [mm]	Single Wire Seal	
2377789-1	0.35	1.2 - 1.4	3.4	1.27	1.27 ^{+0.13}	0.78±0.03	F	2.9	2.90 ^{+0.3}	2.7±0.15	2.7±0.15	WRAP	3.95	963142-2	4151319-1
2377789-2	0.50	1.4 - 1.6	4.2	1.4	1.4 ^{+0.16}	0.84±0.03		2.9	2.90 ^{+0.3}	2.75±0.15	2.75±0.15		3.95	963142-1	2390125-1
2377789-3	0.75	1.7 - 1.9		1.57	1.57 ^{+0.16}	0.96±0.03		3	3.00 ^{+0.3}	2.95±0.15	2.95±0.15		3.95	963142-1	2390126-1
2377789-4	1.00	1.9 - 2.1		1.78	1.78 ^{+0.17}	1.05±0.03		3.3	3.30 ^{+0.3}	3.2±0.15	3.2±0.15		3.95	963142-1	2390127-1
2387045-1	1.50	2.2 - 2.4	4.8	2.79	2.79 ^{+0.3}	1.43±0.05	F	4.19	4.19 ^{+0.2}	4.1±0.2	4.1±0.2	WRAP	5.2	963293-1 828905-1	2390128-1
	2.50	2.7 - 3.0				1.67±0.05				4.9 max	4.9 max		5.2	963292-1 828905-1	
2387045-2	1.25	2.0 - 2.2	4.5	2.03	2.03 ^{±0.1}	1.53±0.05	F	4.06	4.06 ±0.1	4.06 ±0.3	4.06 ±0.3	O	5.2	828904-1	TBD
	1.00	1.9 - 2.1	4.3		2.03 ^{±0.2}	1.3±0.05			4.5 ±0.3	WRAP	5.2	828904-1	4151291-1		
	0.75	1.7 - 1.9			2.03 ^{±0.2}	1.2±0.05			4.06 ±0.3	4.06 ±0.3	4.2 ±0.3	WRAP	5.2	828904-1	4151291-1
2387045-3	0.50	1.4 - 1.6	4.2	1.78	1.78 ^{±0.2}	1.08±0.03						4.0 ±0.3	WRAP	5.2	828904-1
1-2434955-1	1.25	2.0 - 2.2	4.5	2.03	2.03 ^{±0.1}	1.53±0.05	F	4.06	4.06 ±0.1	4.06 ±0.3	4.06 ±0.3	O	5.2	828904-1	TBD