



重载连接器系列产品



HA系列.....	重载-19
HE系列.....	重载-22
HEE系列.....	重载-27
HD系列.....	重载-31
HDD系列.....	重载-36
HSB系列.....	重载-40
HK系列.....	重载-43
HQ系列.....	重载-46
HM模块框架系列.....	重载-49
外壳.....	重载-56
插针.....	重载-68



开孔安装 Open hole installation



电缆对接 Cable connection



表面安装 surface install



IP防护等级 (根据DINEN60529)

The following table shows the different degrees of protection

Code letters
(International Protection)

IP

First Index Figure
(Foreign bodies protection)

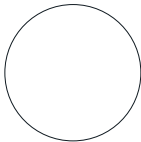
6

Second Index Figure
(Water protection)

5

第一位数：防固体物侵入的级别

0



无防护

1



防护大于50mm的物体 (如手背)

2



防护大于12.5mm的物体 (如手指)

3



防护大于2.5mm的物体 (如工具或导线)

4



防护大于1.0mm的物体 (如导线或细棍)

5



防护足以造成危害的粉尘侵入

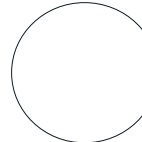
6



粉尘无法侵入

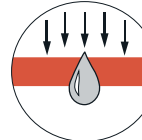
第二位数：防液体侵入级别

0



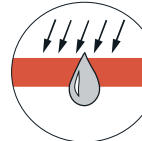
无防护

1



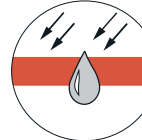
防护垂直滴水 (如凝结液)

2



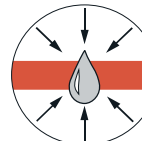
防护下滴倾斜角度小于15度的滴水

3



防护下滴倾斜角度小于60度的滴水

4



防护来自各个方向的溅水

5



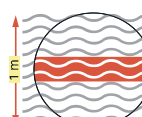
防护来自各个方向的水柱

6



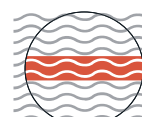
防护水塘或高疏水柱

7



埋于水中150mm-1m深, 防止水的侵入

8



埋于水中, 适合长时间浸于水中

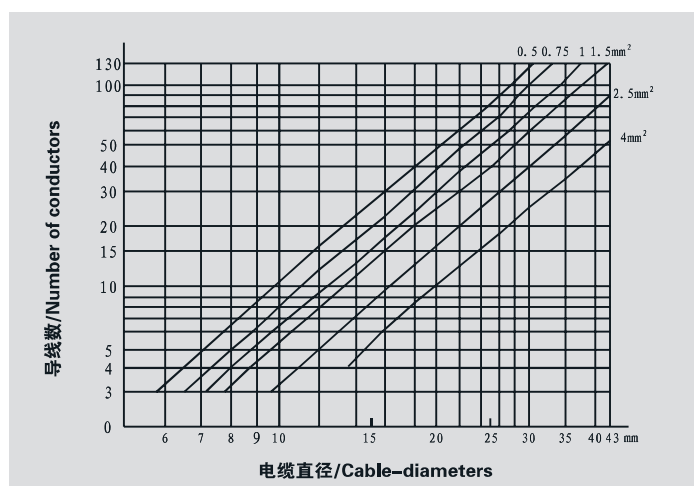


Cross reference from PG thread to metric cable thread

PG 公制/M

PG	公制/M
PG11	M20
PG13.5	M20
PG16	M25
PG21	M32
PG29	M40
PG36	M50
PG42	M63
PG48	M63

The diagram shows different cable-diameters, being dependent on wire gauges and number of conductors.



Below is shown the cable range of metric and PG glands:

[illegible]

电网额定电压 (= 设备的额定绝缘电压) Nominal voltage of the supply system (= rated insulation voltage of equipment)					额定脉冲电压优选值, 单位kV (1.2/50 μs) Preferred values for the rated impulse voltage kV (1.2/50 μs)			
					过电压种类/ Overvoltage category			
					I	II	III	IV
从交流或直流标称电压导出线对中心点的电压/Voltage line to earth derived from the nominal voltage of the supply system to the a. c. voltage (r. m. s. value) or d. c. voltage	交流电压有效值 AC voltage (r. m. s. value) 	交流电压有效值 AC voltage   	交流电压 (有效值、直流电压) AC voltage (r. m. s. value d. c. voltage) 	交流电压 (有效值、直流电压) AC voltage (r. m. s. value d. c. voltage) 	特殊防护等级 Special protected levels	电气设备的等级(家用电器和其它) Level for electrical equipment (household and others)	配电装置电路等级 Level for distribution supply systems	电源处设备等级 Input level
V	V	V	V	V				
100	66/115	66	60	—	0.5	0.8	1.5	2.5
150	120/208; 127/220	115; 120; 127	110; 120	220–110; 240–120	0.8	1.5	2.5	4
300	220/380; 230/400; 240/415; 260/440; 277/480	220; 230; 240; 260; 277	220	440–220	1.5	2.5	4	6
600	347/600; 380/660; 400/690; 415/720; 480/830	347; 380; 400; 415; 440; 480; 500; 577; 600	480	960–480	2.5	4	6	8
1000		660; 690; 720; 830; 1000	1000	—	4	6	8	12



从1997年开始，爬电距离的大小根据DIN VDE0110, 第一部分“低电压系统电气设备的绝缘标准”确定。DIN VDE0110, 第一部分包括了IEC Report 664-1(IEC 664-1/Oct 1992)。

2003年四月起，电气间隙和爬电距离由DIN EN 60664-1/11.03与DIN 61984/09.02共同制定。

设计参数由这些标准决定——如果可以应用——会在每个产品目录中加以详述。

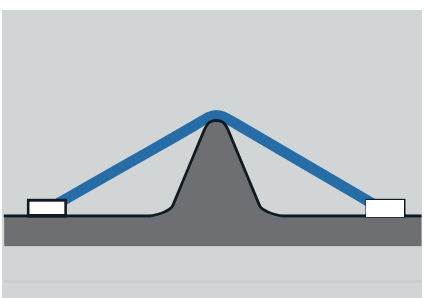
为了设计电气间隙和爬电距离，绝缘规格有以下规定：

电气间隙

电气间隙根据以下几点决定：

根据额定脉冲电压预设电压：

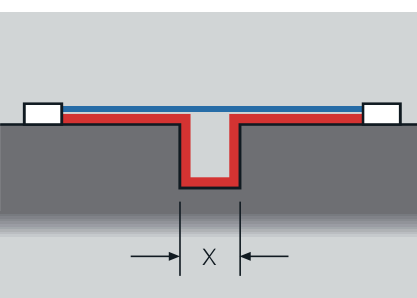
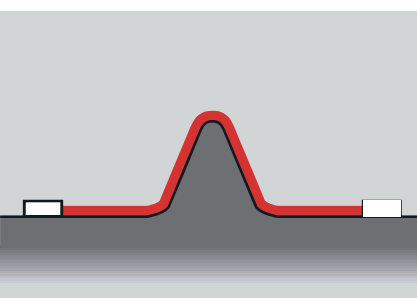
- 过压保护预警
- 污染级别
- 爬电距离



爬电距离

漏电距离根据以下几点决定：

- 额定电压
- 绝缘组
- 污染级别
- 在测量爬电距离时，如果它们的最小宽度与以下表格吻合，需将缝隙考虑在内。



在测量爬电距离时，如果它们的最小宽度与以下表格吻合，需将缝隙考虑在内。

污染级别	污染等级最小宽度
	单位：mm
1	0.25
2	1.0
3	1.5
4	2.5

如果设想的爬电距离小于3mm时，最小的缝隙为间隔距离的 3 分之2。



过电压种类/Over-voltage Category

以下分类符合IEC 60664-1/The following categories in line with the standard IEC 60664-1

过电压依据电网电压及设备的安装位置分类。它描述了当供电系统发生故障时（如：雷击），设备可承受最大过电压的能力。依据标准规定，过电压可分为4个类别。

The overvoltage category is dependent on the mains voltage and the location at which the equipment is installed. It describes the maximum overvoltage resistance of a device in the event of a power supply system fault, e. g. in the event of a lightening strike. According to the relevant standards, there are 4 overvoltage categories.

过电压种类Ⅰ的设备是连接至具有限制瞬态过电压至相当低水平措施的电路的设备

注：例如，具有过电压保护的电子电路。

- 一. 属于过电压种类Ⅰ的设备：

过电压种类Ⅰ的设备是连接至具有限制瞬态过电压至相当低水平措施的电路的设备

注：例如，具有过电压保护的电子电路。

Equipment of overvoltage category I is equipment for connection to circuits in which measures are taken to limit transient overvoltages to an appropriately low level.

Note: Examples are protected electronic circuits

- 二. 属于过电压种类Ⅱ的设备：

过电压种类Ⅱ的设备是由配电装置供电的耗能设备。

注：此类设备包含如器具，可移动式工具及其它家用和类似用途负载。

Equipment of overvoltage category II is energy-consuming equipment to be supplied from the fixed installation.

Note: Examples of such equipment are appliances, portable tools and other household equipment with similar loads.

- 三. 属于过电压种类Ⅲ的设备：

过电压种类Ⅲ的设备是安装在配电装置中的设备，以及设备的使用安全（工作可靠）性和适用性必须符合特殊要求者。

注：此类设备包含如安装在配电装置中的开关电器和永久连接至配电装置的工业用设备。

Equipment of overvoltage category III is equipment in fixed installations and for cases where the reliability and the availability of the equipment is subject to special requirements.

Note: Examples of such equipment are switches in the fixed installation and equipment for industrial use with permanent connection to the fixed installation.

- 四. 属于过电压种类Ⅳ的设备：

过电压种类Ⅳ的设备是使用在配电装置电源端得设备。

注：此类设备包含如电表和前级过电流保护设备。

Equipment of overvoltage category IV is for use at the origin of the installation.

Note: Examples of such equipment are electricity meters and primary overcurrent protection equipment.



电气设备的电气间隙和爬电距离设计

影响因素：
额定电压
额定电压由电源的额定电压与相应的网络类型决定。

单相
2或3线直流或交流系统

电源的额定电压（主要）*	表4的电压	
	绝缘体相电压 ¹⁾	绝缘体线电压
	所有系统	3线制公共接地点
V	V	V
12.5	12.5	
24 / 25 30	25 32	
42 / 48 / 50**)	50 63	
30-60	63	32
100**)	100	
110 / 120 150**)	125 160	
220	250	
110-220 120-240	250	125
300**)	320	
220-440	500	250
600**)	630	
480-960	1000	500
1000**)	1000	

三相
3相3线或4线交流系统

电源的额定电压（主要）	表4的电压		
	绝缘体相电压	绝缘体线电压	
	所有系统	3相4线制 ²⁾	3相4线制 ¹⁾
V	V	V	V
60	63	32	63
110/120/127	125	80	125
150**)	160		160
208	200	125	200
220/230/240	250	160	250
300**)	320		320
380/400/415	400	250	400
440	500	250	500
480/500	500	320	500
575	630	400	630
600**)	630		630
660/690	630	400	630
720/830	800	500	800
960	1000	630	1000
1000**)	1000		1000

1) 不带中线或带接地电阻的相系统的绝缘程度与相相之间的绝缘程度是一样的。这是因为每相的工作电压实际上都能达到理论相电压值。而且由于实际的相对地电压是由每相的接地绝缘阻抗和电容所决定的；因此，一相的低绝缘阻抗（仍可行）接地后，可以提高另外压。

2) 对于接地或不接地的3相4线和3相3线电气设备，只使用三线系统的电压值。

*) 需保证电气设备的额定电压不低于电源的额定电压。

) 因为总会存在误差，表1不用标符，也就是说，“/”表示了3相4线离散系统。较低的电压值为线电压，而较高的电压值为相电压。如果只提到一个电压值，那它指的是3相3线系统，并且所用的电压是相电压。表1的电压值仍需在表3a与表3b中用到标符**。

绝缘材料
绝缘材料根据他们的CTI

绝缘材料	
I	600 ≤ CTI
II	400 ≤ CTI < 600
III a	175 ≤ CTI < 400
III b	100 ≤ CTI < 175



元件的电流,外部温度和温度增长的关系

这一下降曲线表明了当外部温度低于其上限温度时，电流会实时得连续不断地流过所有可能的连接部位。

元件的上限温度根据所用材料的额定值而决定。外部温度再加上电流负载（接触时的能量损耗）所引起的温度上升不能超过元件的上限温度，否则元件会损坏甚至报废。因此载流能力不是一个连续值，但是它会根据元件外部温度的增加而降低。而且，电流电容受元件形状，插针数和与之连接导体的影响。

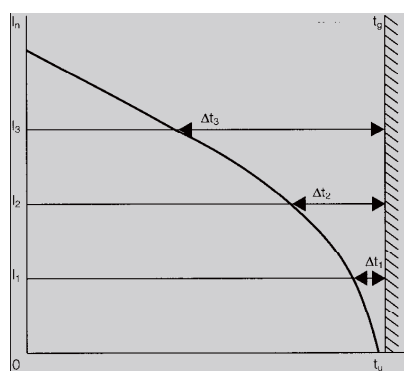
电流电容根据DIN IEC 60512-3决定。为了达到这个目的，元件的温度 t_{b1}, t_{b2} —以及其外部温度 t_{u1}, t_{u2} 要在不同的电流 I_1, I_2, I_3 状态下被测量。电流值标于以下线性图表上，表示了元件的电流，外部温度和温度增长的关系。

负载电流标于Y轴上，元件外部温度标于X轴上。上限温度 t_g 用一条垂直于X轴的直线表示，这完成了整个元件参数系统的说明。元件上升温度的理想平均值，标于电流曲线上，处于垂直线的左侧。这些点就构成了粗略的描述曲线。

因为我们不可能选择最大允许接触阻抗用于测量，所以基本曲线就需下降。据经验，将电流降为原来的80%就产生了下降曲线，这样就把最大允许接触阻抗和温度测量误差都考虑在内了，可以用于实际应用。如果下降曲线超过了外部低温区的电流，导致这一低温区的是连接跨度部分的载流能力，然后下降曲线在这一区域内的电流限定值需更小。

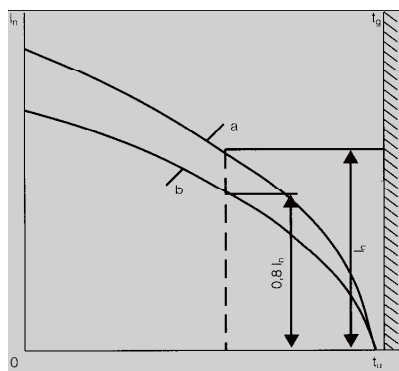
基本曲线

元件上限温度



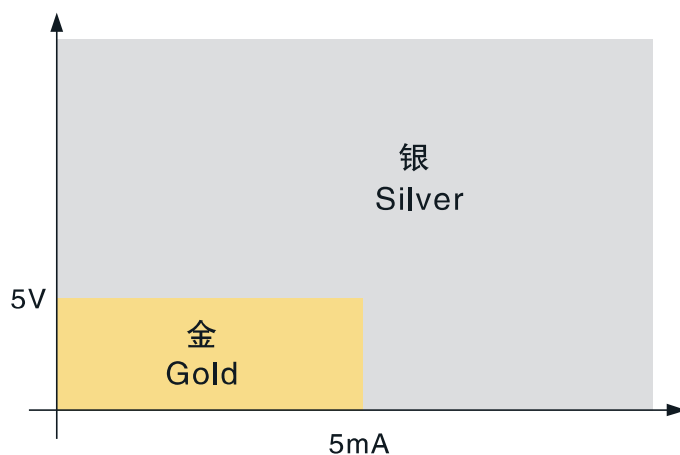
t_g = 元件上限温度
 t_u = 环境温度
 I_n = 电流

衰减温度



t_g = 元件上限温度
 t_u = 环境温度
 I_n = 电流
 a= 基本曲线
 b= 衰减曲线

Below is a table derived from actual experiences



污染程度/Pollution degree

以下分类符合IEC60664-1/The following categories in line with the standard IEC 60664-1

设备的测定与环境条件有关，可能出现的污染会影响其导电能力，并和湿度一起影响表面绝缘性能。污染程度会通过爬电距离影响部件的结构。污染程度根据环境条件为无防护的裸露隔离层定义。

The dimensioning of operating equipment is dependent on environmental conditions. Any pollution or contamination may give rise to conductivity that, in combination with moisture, may affect the insulating properties of the surface on which it is deposited. The pollution degree influences the design of components in terms of the creepage distance. The pollution degree is defined for exposed, unprotected insulation on the basis of environmental conditions.

污染等级 I /Pollution degree 1

无污染或仅出现干燥的非导电污染，该污染没有任何影响。如计算机房和测量设备房。

No pollution or only dry, non-conductive pollution occurs. The pollution has no influence. such as computer and measuring instrument rooms, for example.

污染等级 II /Pollution degree II

仅出现非导电污染，但是必须预期到凝露会偶尔发生短暂的导电性污染。如住宅、商厦、实验室、精密机械车间。

Only non-conductive pollution occurs except that occasionally a temporary conductivity caused by condensation is to be expected. such as residential, sales, laboratories, precision engineering workshops, for example.

污染等级 III /Pollution degree III

有导电污染或由于预期的凝露使干燥的非导电性污染变为导电性污染。如未加热的仓库、车间或锅炉房内以及机组的电器设备或机床。

Conductive pollution occurs or dry nonconductive pollution occurs which becomes conductive

due to condensation which is to be expected. such as unheated storage premises, workshops or boiler rooms, also for the electrical components of assembly or mounting equipment and machine tools, for example.

污染等级 IV /Pollution degree IV

造成持久导电性污染，例如由于导电尘埃或雨或雪所引起的。如在露天或户外空间、火车或有轨电车的车顶设备。

The pollution generates persistent conductivity caused by conductive dust or by rain or snow. such as in outdoor or exterior areas such as equipment mounted on the roofs of locomotives or tramcars.

连接器特殊规定/Special ruling for connectors

依据连接器标准，若符合特定的条件，设备上可使用适用于更低污染等级的连接器。也就是说，在污染等级3时，可使用连接器在污染等级2时的电气参数。

Subject to compliance with certain preconditions, the standard for connectors permits a lower pollution degree than that which applies to the installation as a whole. This means that in a pollution degree 3 environment, connectors may be used which are electrically rated for pollution degree 2.



摘自DIN EN 61 984, Para. 6.19.2.2. / Extract from DIN EN 61 984, Para. 6.19.2.2.

对于防护等级为IP54或更高（依据IEC 60529）的连接器，密闭外壳内的绝缘件会处于更低的污染等级的环境。由连接器外壳确保密闭性，且只有在测试或维护时才会脱开，配合在一起的连接器也是如此。

For a connector with a degree of protection IP 54 or higher according to IEC 60529, the insulating parts inside the enclosure may be dimensioned for a lower pollution degree. This also applies to mated connectors where enclosure is ensured by the connector housing and which may only be disengaged for test and maintenance purposes.

在下列情况下满足上述条件：

- 防护等级至少为IP54（根据 IEC 60 529 IP54）的连接器。
- 安装在外壳内，且如标准中所述仅为检测和维护目的而脱开的连接器。
- 安装在外壳内，且在脱开状态下通过护盖达到至少IP54防护等级的连接器。
- 安装在防护等级不低于IP54控制柜的连接器。

注：如果在脱开状态下，连接器暴露工业氛围中一段时间，该连接器就不适用上述条件。

The conditions fulfills:

- A connector which is protected to at least IP 54 as per IEC 60 529.
- A connector which is installed in a housing and which as described in the standard is disconnected for testing and maintenance purposes only.
- A connector which is installed in a housing and which when disconnected is protected by a cap or cover to at least IP 54.
- A connector located inside a switching cabinet to at least IP 54.

Note: These conditions do not extend to connectors which when disconnected remain exposed to the industrial atmosphere for an indefinite period.

污染程度 II 的连接器应用示例

- 驱动电机上的连接器，仅在更换损坏的电机时才脱开，即使用场合的污染程度为 III。
- 防护等级达到IP54的控制柜内连接器，此时甚至可以不需要连接器自有的防护等级为IP54的外壳。
- 模块化安装的设备上的连接器，仅在运输时才脱开，能快速的安装及调试，利用保护盖或适宜的包装能确保运输中连接器免受污染。

Typical applications in which to choose pollution degree 2 connectors:

- A connector serving a drive motor which is disconnected only for the purpose of replacing a defective motor, even when the plant or system otherwise calls for pollution degree 3.
- Connectors located inside a switching cabinet to IP 54. In such cases, it is even possible to dispense with the IP 54 housings of the connectors themselves.
- Connectors serving a machine of modular design which are disconnected for transport purposes only and enable rapid erection and reliable commissioning. In transit, protective covers or adequate packing must be provided to ensure that the connectors are not affected by pollution/contamination.



松拧工具和螺钉工具

螺钉尺寸	接插件类型	锁紧力矩 (Nm为单位)		推荐刀头与六角AF尺寸
M 2.5	S 6/6 和 S 6/12			
	接线点			
	单个插针	0.5	0.55	0.6 x 3.5 mm ± Gr. PZ0
M 3	螺钉连接			
	HA 3; HA 4; HQ 5	0.5	0.55	0.6 x 3.5 mm ± Gr. PZ0
M 3	螺钉连接			
	HA 10 – HA 48	0.5	0.55	0.6 x 3.5 mm ± Gr. PZ0
M 3	HE 螺钉连接			
	HVE 系列			
	锁紧螺钉	0.5	0.55	0.6 x 3.5 mm ± Gr. PZ0
	编码插针	0.5	0.55	0.6 x 3.5 mm ± Gr. PZ0
	编码插套	0.5	0.55	0.6 x 3.5 mm ± Gr. PZ0
	编码销	0.4 – 0.5		0.6 x 3.5 mm ± Gr. PZ0
M 4	PE 接地螺钉			
	HA 系列	1.2 – 1.5		0.6 x 3.5 or 0.8 x 4 mm ± Gr PZ1
	HE 系列	1.2 – 1.5		0.6 x 3.5 or 0.8 x 4 mm ± Gr PZ1
	HVE 系列	1.2 – 1.5		0.6 x 3.5 or 0.8 x 4 mm ± Gr PZ1
	HD 系列	1.2 – 1.5		0.6 x 3.5 or 0.8 x 4 mm ± Gr PZ1
	HDD 系列	1.2 – 1.5		0.6 x 3.5 or 0.8 x 4 mm ± Gr PZ1
M 4	螺钉连接			
	HSB 系列	1.2 – 1.5		0.6 x 3.5 or 0.8 x 4 mm ± Gr PZ1
M 5	PE 接地螺钉			
	HSB 系列	2 – 2.5		1 x 5.5 mm ± Gr. PZ2
M 7 x 0.75 S 4	同轴连接 (电力)	1.1	1.7	SW 2
M 4	S 4 PE 接地螺钉 (插针)	1.2	1.5	SD 0.6 x 3.5 mm
M 3	S 4 PE 接地螺钉 (插套)	0.5	0.55	SD 0.6 x 3.5 mm
M 7 x 0.75	S 6/6 同轴连接 (电力)	6	8	SW 4
M 8 x 0.75	S 6/12 同轴连接 (电力)	1.1	1.7	SW 2
M 10 x 1	S 4/0 同轴连接 (电力)	2	3	SW 3

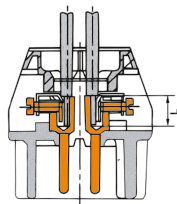
拧得越紧并不表示越牢固。规定的拧紧尺度提供了最佳的机械，温度和电气状态。超过规定值甚至会损坏导体和接线端



导线压接类型总览 / Terminal type overview

螺钉压接形式
Screw terminal

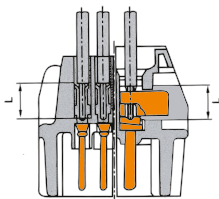
HA series
HE series
HSB series
HK series
HEAV series



接插芯 Inserts	最大线规 max.wire gauge		剥线长度 Stripping length L (mm)
	(mm²)	AWG	
HA-003, HA-004	2.5	14	4.5
HE, HA, HEAV	2.5	14	7.5
HE	4.0	12	7.5
HSB	6.0	10	11.5
HK	16.0	5	14.0

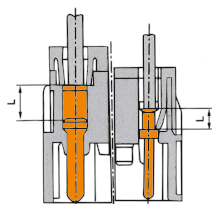
冷压针压接形式
Crimp terminal

HD series
HDD series
HM series (10A)



接插芯 Inserts	线规 Wire gauge		剥线长度 Stripping length L (mm)	
	(mm²)	AWG	HDD / HD	HEC/HAC
HD HDD HM(10A)	0.5	20	8.0	7.5
	0.75	18	8.0	7.5
	1.0	18	8.0	7.5
	1.5	16	8.0	7.5
	2.5	14	8.0	7.5
	4.0	12	—	7.5

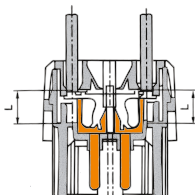
HEE series
HM series (16A)



接插芯 Inserts	线规 Wire gauge		剥线长度 Stripping length L (mm)	
	(mm²)	AWG	HEE/HM(16A)	
HEE HM(16A)	0.5	20	7.5	
	0.75	18	7.5	
	1.0	18	7.5	
	1.5	16	7.5	
	2.5	14	7.5	
	4.0	12	7.5	

弹片压接端子
Cage-clamp terminal

HES series
HEAVS series



接插芯 Inserts	最大线规 max.wire gauge		剥线长度 Stripping length L (mm)
	(mm²)	AWG	
HES, HEAVS	0.14 - 2.5	26 - 14	9...11

压接导线时对拧紧力矩的要求 Tightening torque for screw terminal

螺钉接线端子符合标准 VDE 0609/EN 60 999，不同螺钉尺寸对应的拧紧力矩数据详见表格。

螺钉接线端子可以分为带压线保护和不带压线保护两种：

- 带压线保护的接线端子
不需使用管状压线端头，HE、HSB、HEAV等系列接插件均为此类型。
- 不带压线保护的接线端子
必须使用管状压线端头，HK系列接插件为此类型。

Screw terminals meet VDE 0609/EN 60 999. Dimensions and tightening torques for testing are shown opposite.

The relevant regulations state that in the case of

- Terminals with wire protection.

No special preparation of the conductor is required, the use of ferrules is not necessary, for HE, HSB, HEAV series.

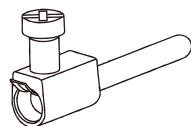
- Terminals without wire protection.

The insulation is first stripped and then a wire ferrule must be used. For HK series.

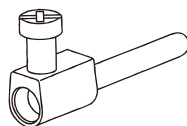
螺钉尺寸及对应要求的拧紧力矩

Screw dimensions and tightening torque for screw terminals

线规 Wire gauge (mm²)	1.5	2.5	4	6	10	16
螺钉类型 Screw thread	M 3	M 3	M 3,5	M 4	M 4	M 6
测试力矩 Test moment of torque (Nm)	0.5	0.5	0.8	1.2	1.2	1.2
最小拔出力 min. pull-out for stranded wire (N)	40	50	60	80	90	100



带压线保护
with wire protection



不带压线保护
without wire protection



接插件针数及对应额定工作参数对照表/Overview: Rating vs. No. of poles

额定电压/Rated voltage		250V	250V	400V	500V	500V	690V	690V
额定电流/Rated current		10A	16A	16A	16A	35A	80A	100A
接插件针数 Poles	3	HA-003					HK4/0-012	
	4	HA-004						
	5			HQ-005				
	6			HE-006		HSB-006	HK4/2-012	
	7	HD-007		HQ-007				
	8	HD-008						
	10		HA-010	HE-010	HEE-010			
	12					HSB-012	HK4/8-012	HK6/6-012
	15	HD-015						
	16		HA-016	HE-016				
	18				HEE-018			
	24	HDD-024		HE-024				
	25	HD-025						
	32		HA-032	HE-032	HEE-032			
	40	HD-040						
	42	HDD-042						
	46				HEE-046			
	48			HE-048				
	50	HD-050						
	64	HD-064			HEE-064			
	72	HDD-072						
	80	HD-080						
	92				HEE-092			
	108	HDD-108						
	128	HD-128						
	144	HDD-144						
	216	HDD-216						

防护外壳及接插体选型对照表/ hoods and inserts overview

防护外壳/hood	接插体/insert					
HA3外壳(金属)	HA-003/HA-004		HD-007/HD-008	HQ-005/HD-007		
HA3外壳(塑料)	HA-003/HA-004		HD-007/HD-008	HQ-005/HD-005		
HA10, EMC	HA-10		HD-015			
HA16, EMC	HA-16		HD-025			
HA32, EMC	HA-032(16X2)		HD-050(25X2)			
HB6, EMC	HE-006	HE-010		HDD-024	HSB-006	HK4/0, HK4/2
HB10, EMC	HE-010	HE-018		HDD-42		HK4/8, HK6/6
HB16, EMC	HE-016	HE-032	HD-040	HDD-072		
HB24, EMC	HE-024	HE-046	HD-064	HDD-108		
HB32, EMC	HE-032(16X2)	HE-064(32X2)	HD-080(40X2)	HDD-144(72X2)	HSB-012(6X2)	
HB48, EMC	HE-048(24X2)	HE-092(46X2)	HD-128(64X2)	HDD-216(108X2)		





1. 电缆接头/Cable gland

尼龙或铜合金镀镍/Nylon or brass nickel plated
通用电缆接头/Universal cable glands
平口电缆接头(带单层密封圈或多层密封圈)
Cable gland with normal or multiple seal
其它电缆接头/Other cable gland

2. 上壳/Hoods

标准或高结构/Low or high construction
顶部进线或侧面进线/Top or side cable entry
2耳, 4耳或2扣/2blots or 4blots or 2 locking levers

3. 公插体、母插体/Male insert or Female insert

螺丝连接/Screw terminal
冷压连接/Crimp terminal
弹片连接/Cage-clamp terminal

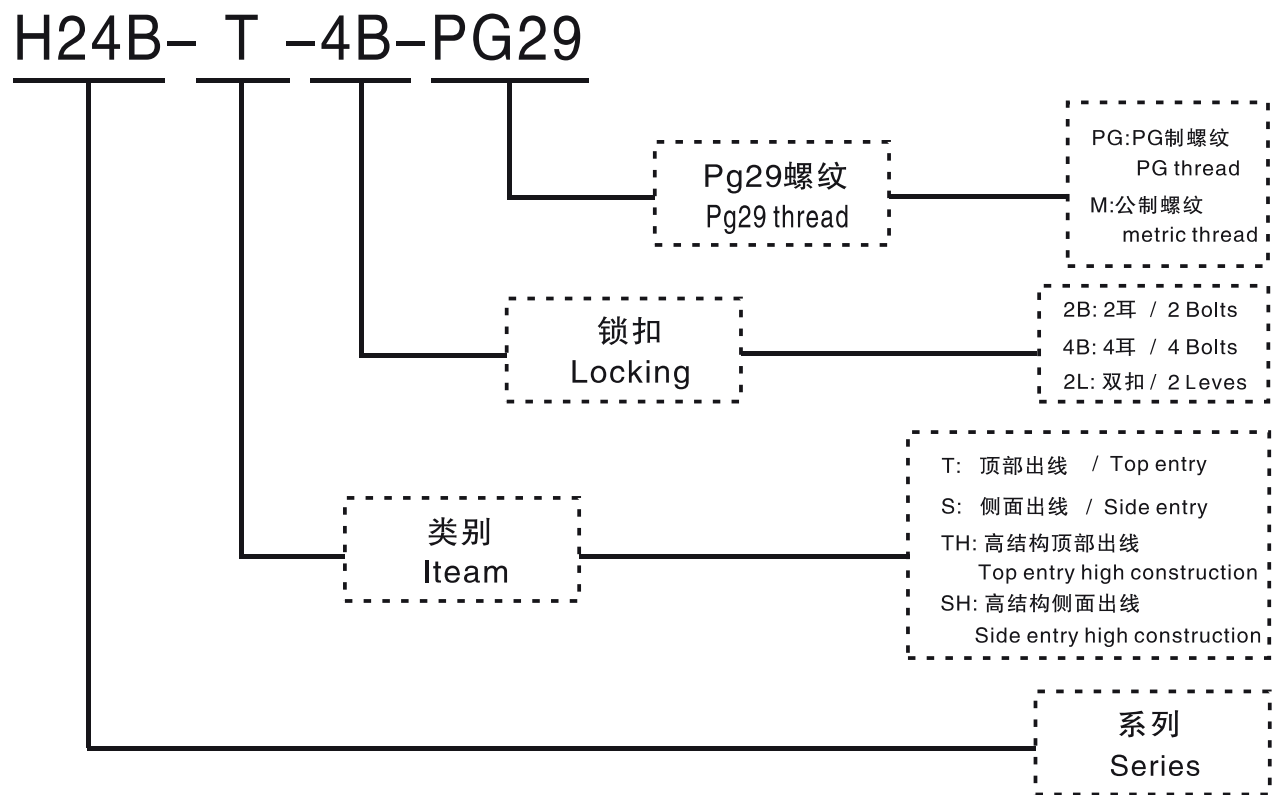
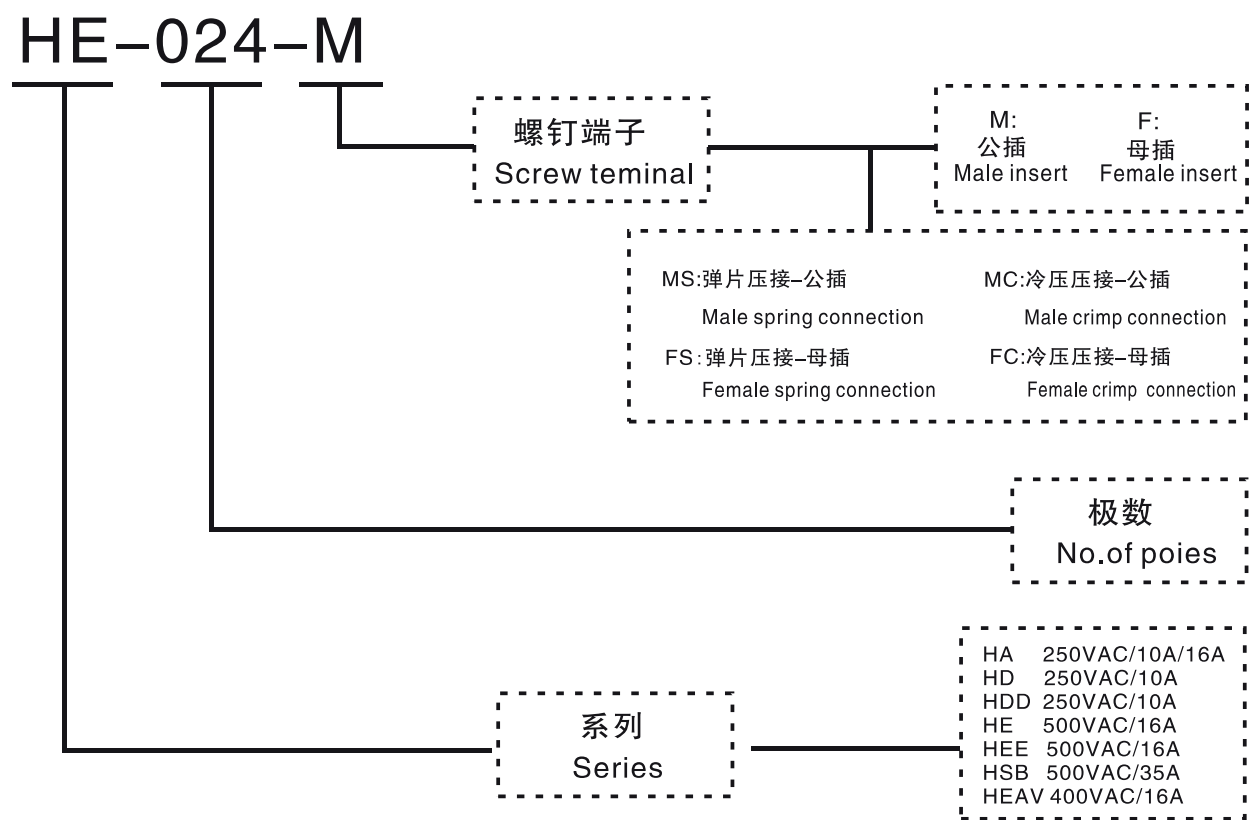
4. 冷压针 (适用于冷压接线的插体)/Crimp contacts (only for crimp connection insert)

镀金或镀银/Golden plated or silver plated
额定电流/Rated current: 5A, 10A, 16A, 40A

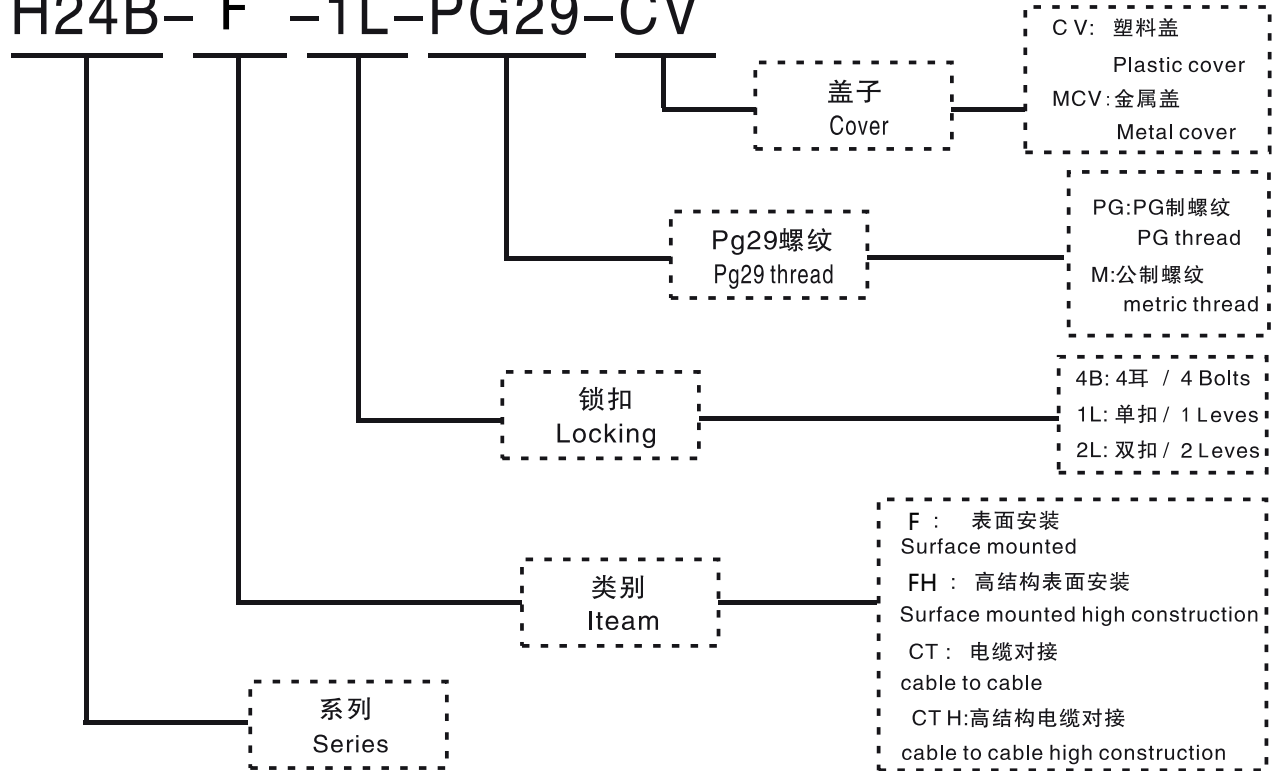
5. 下壳/Housings

开孔安装, 表面安装或电缆对接/Bulkhead
mounting or surface mounting or cable to cable
标准或高结构/Low or high construction
1扣, 2扣或4耳/1 or 2 locking levers or 4bolts
带塑料盖或带金属盖或不带盖/With or without
thermoplastic / metal covers

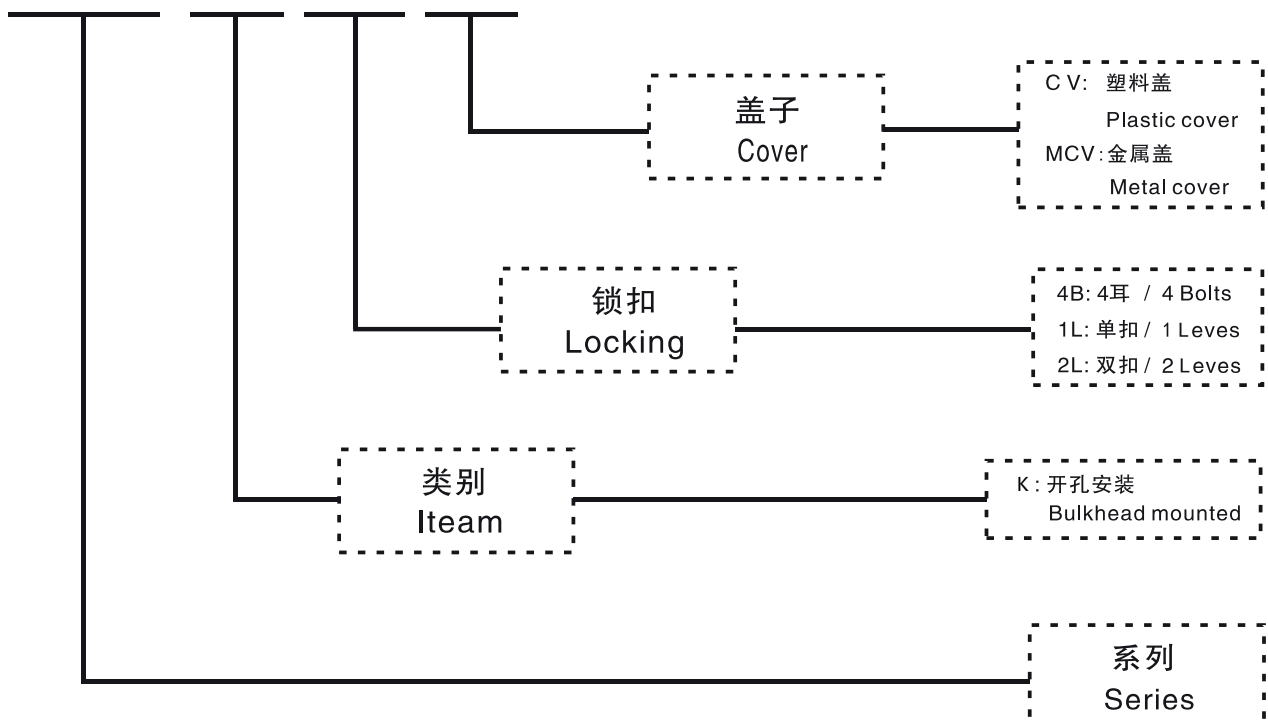




H24B- F -1L-PG29-CV



H24B- K -4B-CV



紧凑型标准连接器



HA 系列技术特性 HA technical characteristics



HA 系列技术特性 /technical characteristics

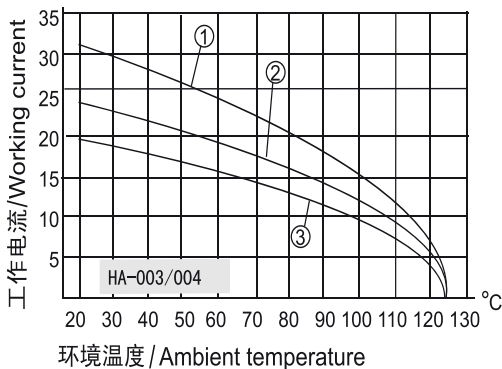
电流负载能力

Current carrying capacity

电流负载能力所受的限制主要来自包含接插针的接插体可承受的最大温度

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

测试和控制过程依据DIN IEC 60512-3
Control and test procedures according to DIN IEC 60512-3

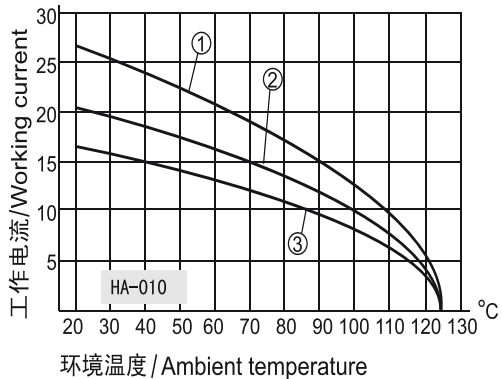


规范/Specifications

DIN VDE 0627
DIN VDE 0110
DIN EN 61984

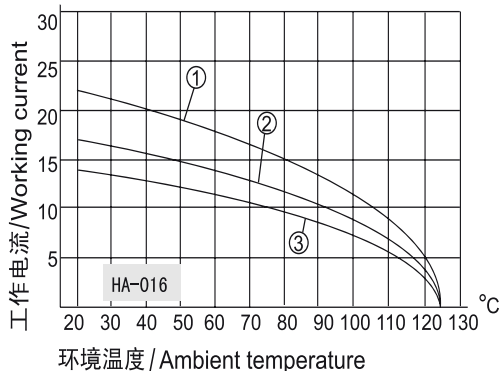
插接体/Inserts

接插件针数/Number of contacts	3,4,10,16,32(2x16) +PE
HA-003/004 工作电流/working current (见负载图/see current carrying capacity)	10A
工作电压/working voltage Pollution degree 2	230/400V
HA-010/016 工作电流/working current (见负载图/see current carrying capacity)	16A
工作电压/working voltage	250V
污染等级/Pollution degree	3
额定脉冲耐受电压/Rated impulse voltage	4KV
绝缘电阻/Insulation resistance	$\geq 10^{10} \Omega$
材料/Material	Polycarbonate
工作温度范围/Temperature range	-40°C...+125°C
阻燃等级 (UL94)/Flammability acc.to UL94	V0
据UL/CSA工作电压/working voltage acc.to UL/CSA	600V
可按插次数/Mechanical working life(mating cycles)	≥ 500



接插针/Contacts

材料/Material	铜/Copper alloy
表面处理/Surface	镀银/Hard silver-plated 镀金/Hard gold-plated
接触电阻/Contact resistance	$\leq 1m\Omega$ or $3m\Omega$
接线形式/Terminal	
螺钉连接/Screw terminal	
导线规格/Wire gauge	1.0-2.5mm² AWG 18-14
拧紧力矩/Tightening torque	0.25Nm(HA-003/004) or 0.5Nm(HA-010/016)
冷压连接/Crimp terminal	
导线规格/Wire gauge	0.14-4.0mm² AWG 26-12



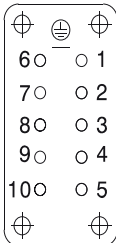
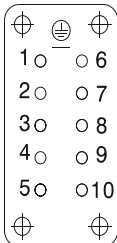
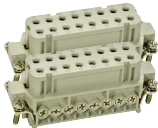
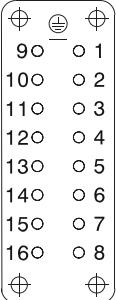
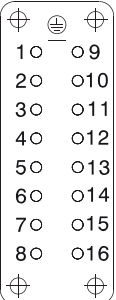
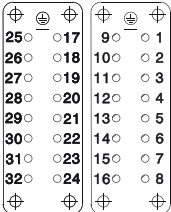
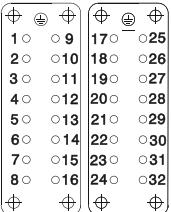
- ① 线径/Wire gauge: 2.5mm²
② 线径/Wire gauge: 1.5mm²
③ 线径/Wire gauge: 1.0mm²



重载连接器 Heavy-duty connector

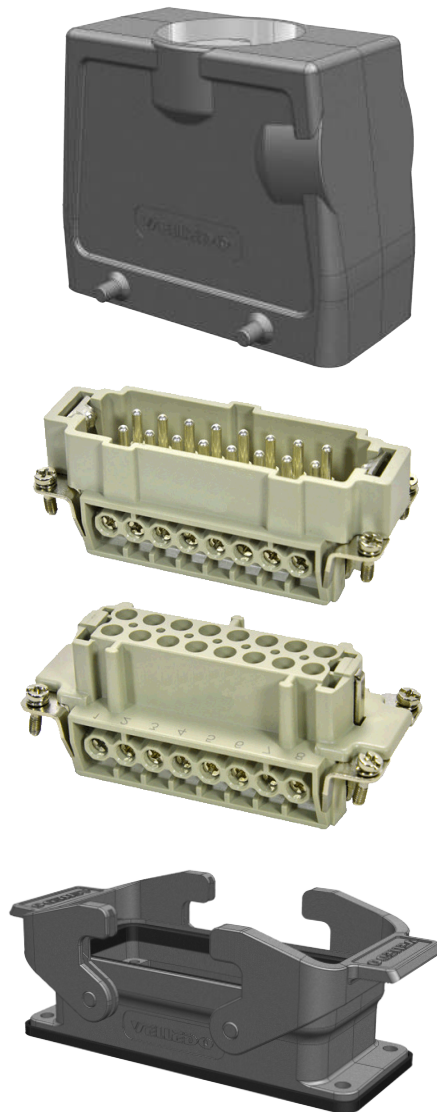
VELLEDQ
— 为乐电气 —

螺钉连接/Screw connection

						
型号 Form	HA-003-M	HA-003-F	HA-004-M	HA-004-F	HA-010-M	HA-010-F
						
额定电流	10A	10A	10A	10A	16A	16A
额定电压	230/400V	230/400V	230/400V	230/400V	250V	250V
搭配外壳	H3A系列	H3A系列	H3A系列	H3A系列	H10A系列	H10A系列
						
型号 Form	HA-016-M	HA-016-F	HA-032-M	HA-032-F		
						
额定电流	16A	16A	16A	16A		
额定电压	250V	250V	250V	250V		
搭配外壳	H16A系列	H16A系列	H32A系列	H32A系列		



最常规的标准型产品



重载连接器 Heavy-duty connector

VELLEDQ
— 为乐电气 —

HE 系列技术特性 HE technical characteristics



HE 系列技术特性 HE technical characteristics

测试和控制过程依据DIN IEC 60512-3
Control and test procedures according to DIN IEC 60512-3

电流负载能力

Current carrying capacity

电流负载能力所受的限制主要来自包含接插针的接插体可承受的最大温度

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

规范/Specifications

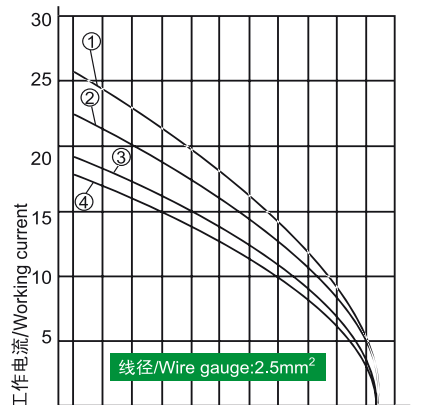
DIN VDE 0627
DIN VDE 0110
DIN EN 61984

插接体/Inserts

接插件针数/Number of contacts	6, 10, 16, 24, 32(2x16) 48(2x24)+PE
工作电流/working current (见负载图/see current carrying capacity)	16A
工作电压/ working voltage	500V
污染等级/Pollution degree	3
额定脉冲耐受电压/Rated impulse voltage	6KV
绝缘电阻/Insulation resistance	$\geq 10^{10} \Omega$
材料/Material	Polycarbonate
工作温度范围/Temperature range	-40°C... +125°C
阻燃等级 (UL94) / Flammability acc.to UL94	V0
据UL/CSA工作电压/working voltage acc.to UL/CSA	600V
可拔插次数/Mechanical working life(mating cycles)	≥ 500

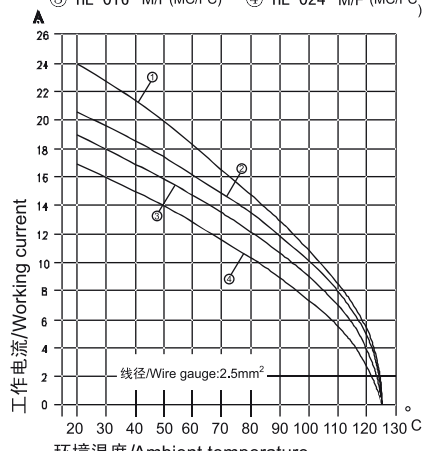
接插针/Contacts

材料/Material	铜/Copper alloy
表面处理/Surface	镀银/Hard silver-plat 镀金/Hard gold-plated
接触电阻/Contact resistance	$\leq 1m \Omega$
接线形式/Terminal	
螺钉压接/Screw terminal	
导线规格/Wire gauge	1.0-2.5mm ² AWG 18-14
螺钉拧紧力矩/Screw terminal tightening	0.5Nm
剥线长度/Stripping length	7.0mm
冷压连接/Crimp terminal	
导线规格/Wire gauge	0.14-4.0mm ² AWG 26-12
剥线长度/Stripping length	7.5mm
弹片连接/Spring terminal	
导线规格/Wire gauge	0.14-2.5mm ² AWG 26-14
剥线长度/Stripping length	7-9mm



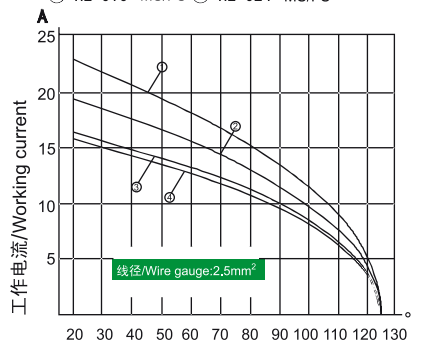
20 30 40 50 60 70 80 90 100 110 120 130°C
环境温度/Ambient temperature

① HE-006-M/F (MC/FC) ② HE-010-M/F (MC/FC)
③ HE-016-M/F (MC/FC) ④ HE-024-M/F (MC/FC)



20 30 40 50 60 70 80 90 100 110 120 130°C
环境温度/Ambient temperature

① HE-006-MS/FS ② HE-010-MS/FS
③ HE-016-MS/FS ④ HE-024-MS/FS



20 30 40 50 60 70 80 90 100 110 120 130°C
环境温度/Ambient temperature

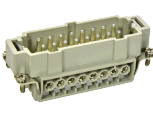
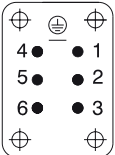
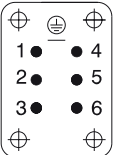
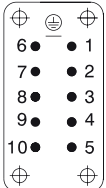
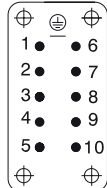
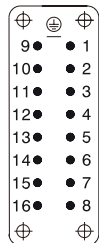
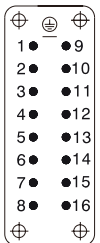
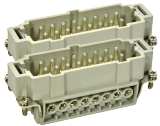
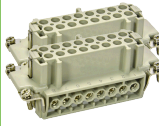
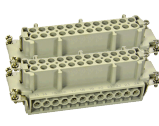
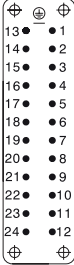
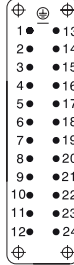
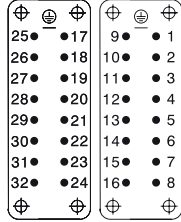
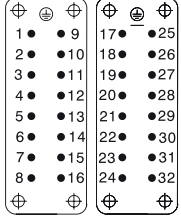
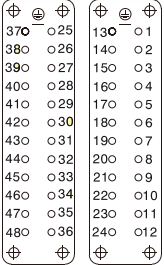
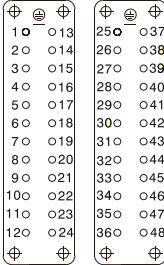
① HE-006-MSS/FSS ② HE-010-MSS/FSS
③ HE-016-MSS/FSS ④ HE-024-MSS/FSS



重载连接器 Heavy-duty connector

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螺钉连接/Screw connection

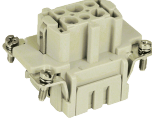
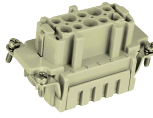
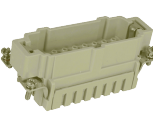
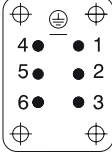
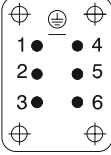
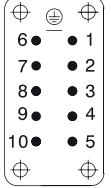
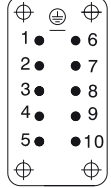
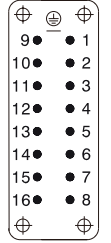
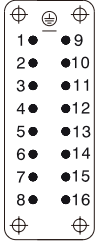
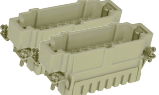
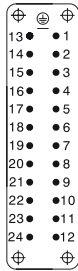
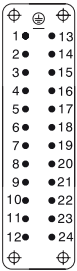
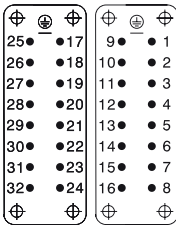
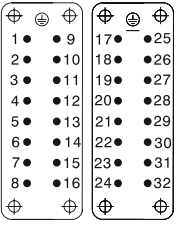
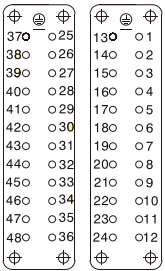
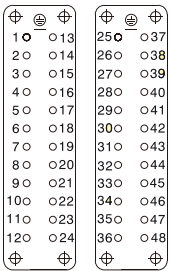
						
型号 Form	HE-006-M	HE-006-F	HE-010-M	HE-010-F	HE-016-M	HE-016-F
						
额定电流	16A	16A	16A	16A	16A	16A
额定电压	500V	500V	500V	500V	500V	500V
搭配外壳	H6B系列	H6B系列	H10B系列	H10B系列	H16B系列	H16B系列
						
型号 Form	HE-024-M	HE-024-F	HE-032-M	HE-032-F	HE-048-M	HE-048-F
						
额定电流	16A	16A	16A	16A	16A	16A
额定电压	500V	500V	500V	500V	500V	500V
搭配外壳	H24B系列	H24B系列	H32B系列	H32B系列	H48B系列	H48B系列



重载连接器 Heavy-duty connector

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冷压连接/Crimp connection

						
型号 Form	HE-006-MC	HE-006-FC	HE-010-MC	HE-010-FC	HE-016-MC	HE-016-FC
						
额定电流	16A	16A	16A	16A	16A	16A
额定电压	500V	500V	500V	500V	500V	500V
搭配外壳	H6B系列	H6B系列	H10B系列	H10B系列	H16B系列	H16B系列
						
型号 Form	HE-024-MC	HE-024-FC	HE-032-MC	HE-032-FC	HE-048-MC	HE-048-FC
						
额定电流	16A	16A	16A	16A	16A	16A
额定电压	500V	500V	500V	500V	500V	500V
搭配外壳	H24B系列	H24B系列	H32B系列	H32B系列	H48B系列	H48B系列

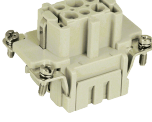
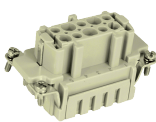
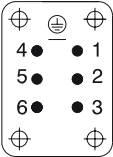
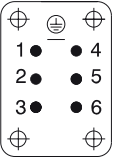
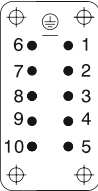
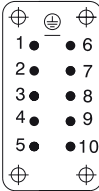
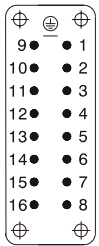
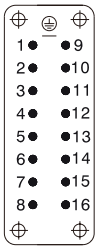
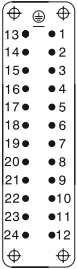
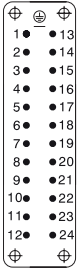
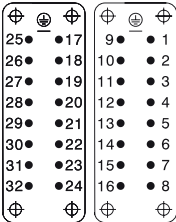
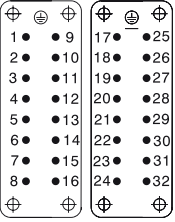
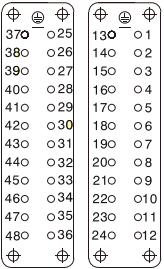
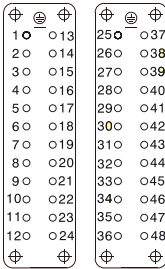


电子档资料，CAD图纸3维数模请前往: WWW.VELLEDQ.COM 下载

重载连接器 Heavy-duty connector

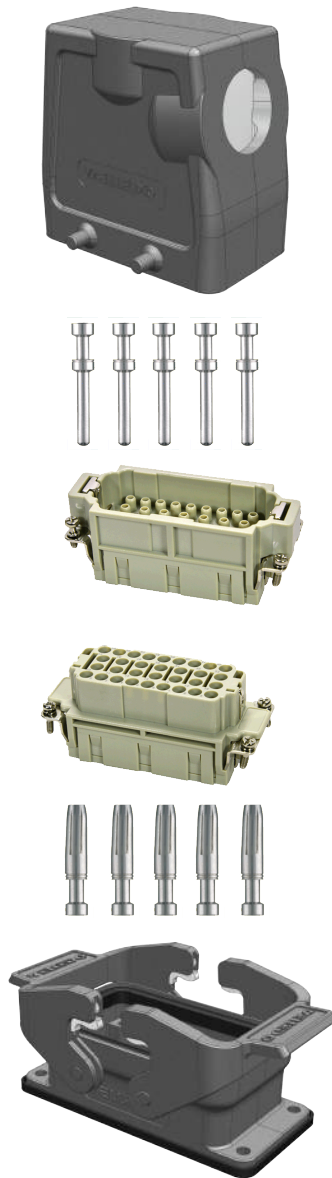
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弹片连接/ Shrapnel pressing

						
型号 Form	HE-006-MS	HE-006-FS	HE-010-MS	HE-010-FS	HE-016-MS	HE-016-FS
						
额定电流	16A	16A	16A	16A	16A	16A
额定电压	500V	500V	500V	500V	500V	500V
搭配外壳	H6B系列	H6B系列	H10B系列	H10B系列	H16B系列	H16B系列
						
型号 Form	HE-024-MS	HE-024-FS	HE-032-MS	HE-032-FS	HE-048-MS	HE-048-FS
						
额定电流	16A	16A	16A	16A	16A	16A
额定电压	500V	500V	500V	500V	500V	500V
搭配外壳	H24B系列	H24B系列	H32B系列	H32B系列	H48B系列	H48B系列



高密度连接器



HEE系列/ HEE Series

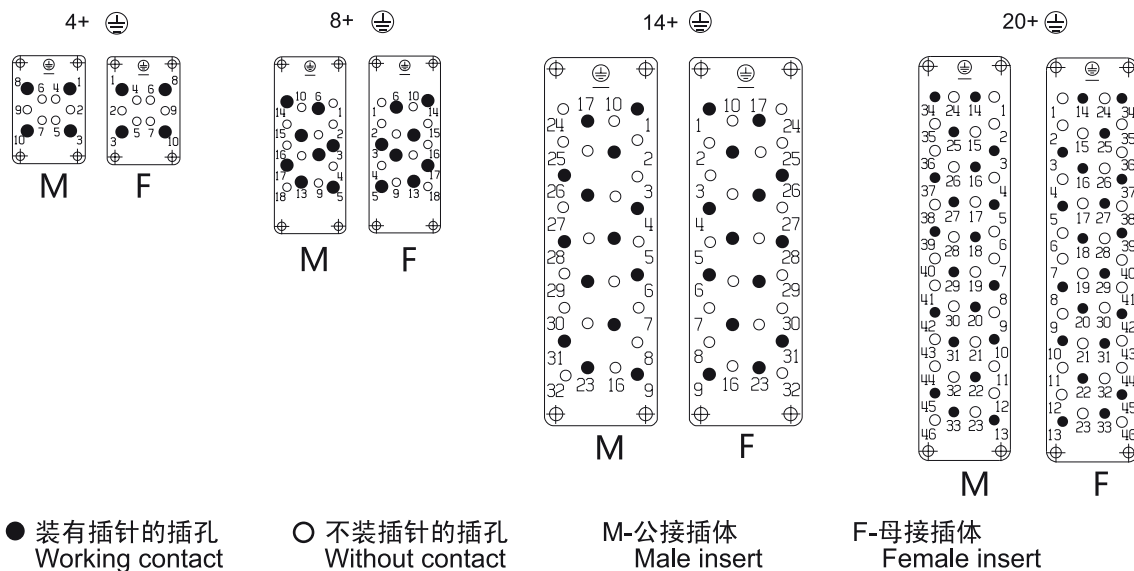
HEE调整插针分布可提高工作电压至1000V
HEE modified contact arrangement up to 1000V

HEE接插体在装满插针时，在绝缘等级3(C)时，其工作电压可达500V。但其插针分布经过调整，同样在绝缘等级3(C)时，其工作电压允许值可达1000V。

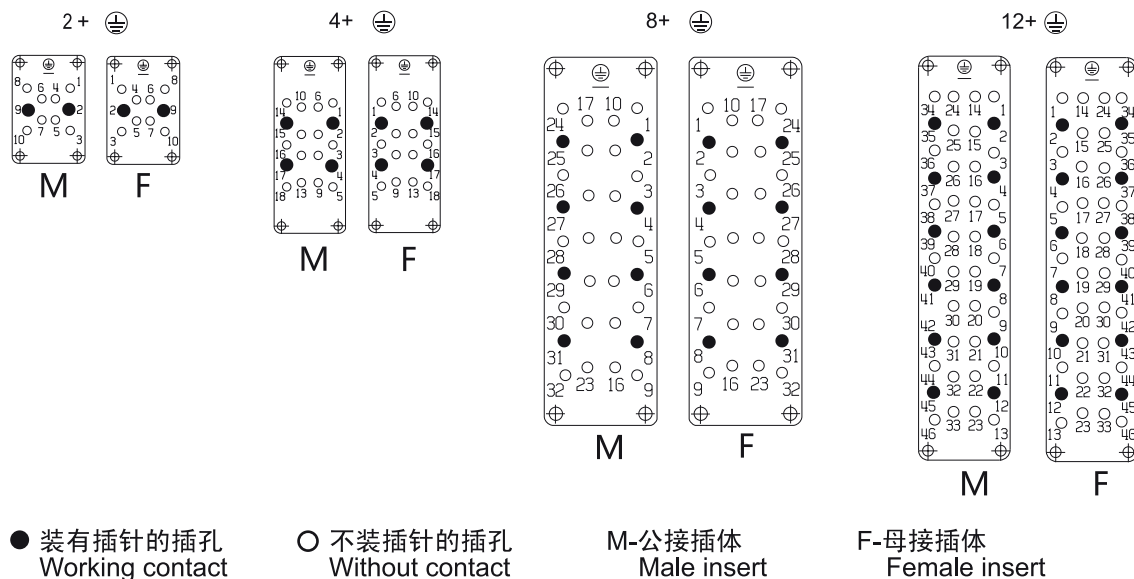
The connector series HEE equipped with all contacts may be used for voltage up to 500V at insulation group C, but modified contact loading arrangement permits use up to 1000V at insulation group C.

插针分布图 Contact arrangement view from termination side.

690V-绝缘等级C Insulation group C



1000V-绝缘等级C Insulation group C



重载连接器 Heavy-duty connector



HEE 系列技术特性
HEE technical characteristics



HEE 系列技术特性 HEE technical characteristics

测试和控制过程依据DIN IEC 60512-3
Control and test procedures according to DIN IEC 60512-3

电流负载能力 Current carrying capacity

电流负载能力所受的限制主要来自包含接插针的接插体可承受的最大温度
The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

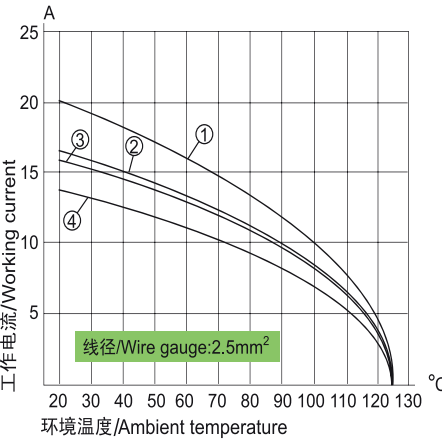
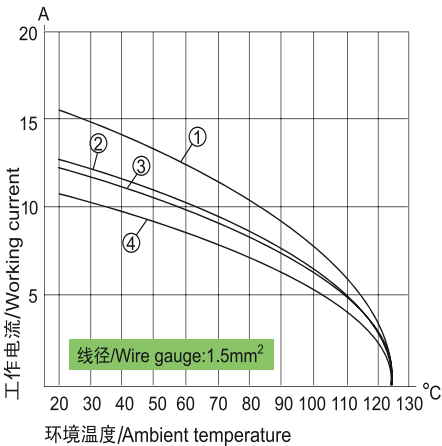
测试和控制过程依据DIN IEC 60512-3
Control and test procedures according to DIN IEC 60512-3

规范/Specifications

DIN VDE 0627
DIN VDE 0110
DIN EN 61984

插接体/Inserts	
接插件针数/Number of contacts	10,18,32,46,64(2x32) 92(2x46)+PE
工作电流/Working current (见负载图/see current carrying capacity)	16A
工作电压/Working voltage	500V
污染等级/Pollution degree	3
额定脉冲耐受电压/Rated impulse voltage	6KV
绝缘电阻/Insulation resistance	$\geq 10^{10} \Omega$
材料/Material	Polycarbonate
工作温度范围/Temperature range	-40℃...+125℃
阻燃等级 (UL94)/Flammability acc.to UL94	V0
据UL/CSA工作电压/Working voltage acc to UL/CSA	600V
可拨插次数/Mechanical working life(mating cycles)	≥ 500

接插针/Contacts	
材料/Material	铜/Copper alloy
表面处理/Surface	镀银/Hard silver-plated 镀金/Hard gold-plated
接触电阻/Contact resistance	$\leq 1m \Omega$
接线形式/Terminal	冷压压接/Crimp terminal
导线规格/Wire gauge	0.14-4.0mm ² AWG 26-12
剥线长度/Stripping length	7.5mm



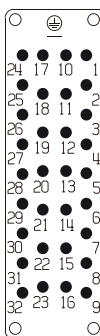
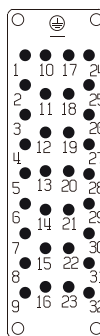
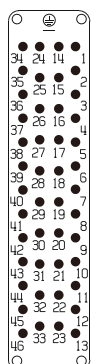
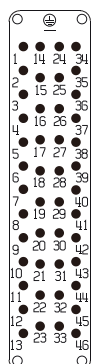
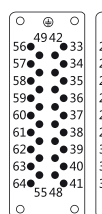
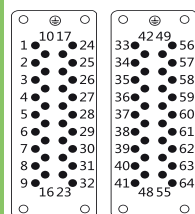
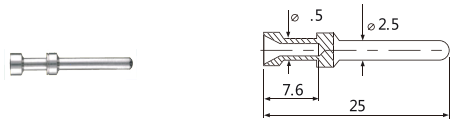
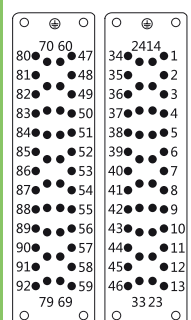
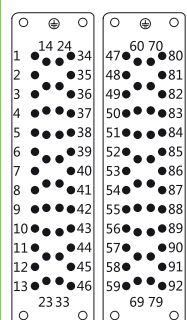
①HEE-010 ②HEE-018 ③HEE-032 ④HEE-046



重载连接器 Heavy-duty connector

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冷压连接/Crimp connection

																																		
型号 Form	HEE-032-M	HEE-032-F	HEE-046-M	HEE-046-F	HEE-064-M	HEE-064-F																												
																																		
额定电流	16A	16A	16A	16A	16A	16A																												
额定电压	500V	500V	500V	500V	500V	500V																												
搭配外壳	H16B系列	H16B系列	H24B系列	H24B系列	H32B系列	H32B系列																												
			公接插针/Mate crimp contacts																															
型号 Form	HEE-092-M	HEE-092-F	母接插针/Female crimp contacts																															
			<table><tr><td>镀银冷压针型号 Contacts, Silver-plated</td><td>订货号 Order No.</td><td>镀金冷压针型号 Contacts, Gold-plated</td><td>订货号 Order No.</td></tr><tr><td>ESM-0.5</td><td>4 016 51 150</td><td>EGM-0.5</td><td>4 016 53 170</td></tr><tr><td>ESM-0.75</td><td>4 016 51 151</td><td>EGM-0.75</td><td>4 016 53 171</td></tr><tr><td>ESM-1.0</td><td>4 016 51 152</td><td>EGM-1.0</td><td>4 016 53 172</td></tr><tr><td>ESM-1.5</td><td>4 016 51 153</td><td>EGM-1.5</td><td>4 016 53 173</td></tr><tr><td>ESM-2.5</td><td>4 016 51 154</td><td>EGM-2.5</td><td>4 016 53 174</td></tr><tr><td>ESM-4.0</td><td>4 016 51 155</td><td>EGM-4.0</td><td>4 016 53 175</td></tr></table>				镀银冷压针型号 Contacts, Silver-plated	订货号 Order No.	镀金冷压针型号 Contacts, Gold-plated	订货号 Order No.	ESM-0.5	4 016 51 150	EGM-0.5	4 016 53 170	ESM-0.75	4 016 51 151	EGM-0.75	4 016 53 171	ESM-1.0	4 016 51 152	EGM-1.0	4 016 53 172	ESM-1.5	4 016 51 153	EGM-1.5	4 016 53 173	ESM-2.5	4 016 51 154	EGM-2.5	4 016 53 174	ESM-4.0	4 016 51 155	EGM-4.0	4 016 53 175
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额定电流	16A	16A	<table><tr><td>镀银冷压针型号 Contacts, Silver-plated</td><td>订货号 Order No.</td><td>镀金冷压针型号 Contacts, Gold-plated</td><td>订货号 Order No.</td></tr><tr><td>ESF-0.5</td><td>4 016 52 156</td><td>EGF-0.5</td><td>4 016 54 176</td></tr><tr><td>ESF-0.75</td><td>4 016 52 157</td><td>EGF-0.75</td><td>4 016 54 177</td></tr><tr><td>ESF-1.0</td><td>4 016 52 158</td><td>EGF-1.0</td><td>4 016 54 178</td></tr><tr><td>ESF-1.5</td><td>4 016 52 159</td><td>EGF-1.5</td><td>4 016 54 179</td></tr><tr><td>ESF-2.5</td><td>4 016 52 160</td><td>EGF-2.5</td><td>4 016 54 180</td></tr><tr><td>ESF-4.0</td><td>4 016 52 161</td><td>EGF-4.0</td><td>4 016 54 181</td></tr></table>				镀银冷压针型号 Contacts, Silver-plated	订货号 Order No.	镀金冷压针型号 Contacts, Gold-plated	订货号 Order No.	ESF-0.5	4 016 52 156	EGF-0.5	4 016 54 176	ESF-0.75	4 016 52 157	EGF-0.75	4 016 54 177	ESF-1.0	4 016 52 158	EGF-1.0	4 016 54 178	ESF-1.5	4 016 52 159	EGF-1.5	4 016 54 179	ESF-2.5	4 016 52 160	EGF-2.5	4 016 54 180	ESF-4.0	4 016 52 161	EGF-4.0	4 016 54 181
镀银冷压针型号 Contacts, Silver-plated	订货号 Order No.	镀金冷压针型号 Contacts, Gold-plated	订货号 Order No.																															
ESF-0.5	4 016 52 156	EGF-0.5	4 016 54 176																															
ESF-0.75	4 016 52 157	EGF-0.75	4 016 54 177																															
ESF-1.0	4 016 52 158	EGF-1.0	4 016 54 178																															
ESF-1.5	4 016 52 159	EGF-1.5	4 016 54 179																															
ESF-2.5	4 016 52 160	EGF-2.5	4 016 54 180																															
ESF-4.0	4 016 52 161	EGF-4.0	4 016 54 181																															
额定电压	500V	500V																																
搭配外壳	H48B系列	H48B系列																																



超高密度连接器



HD系列/ HD Series

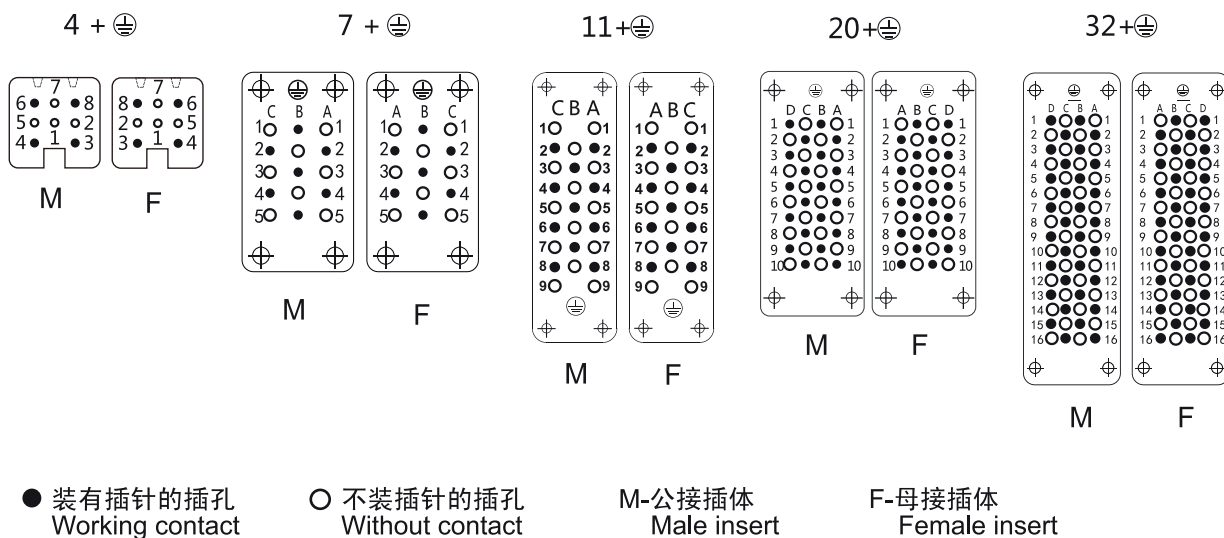
HD调整插针分布可提高工作电压至 500V
HD modified contact arrangement up to 500V

HD接插体在装满插针时，在绝缘等级3(C)时，其工作电压可达 250V。但其插针分布经过调整，同样在绝缘等级3(C)时，其工作电压允许值可达 500V。

The connector series HD equipped with all contacts may be used for voltage up to 250V at insulation group C, but modified contact loading arrangement permits use up to 500V at insulation group C.

HD插针分布图 Contact arrangement view from termination side.

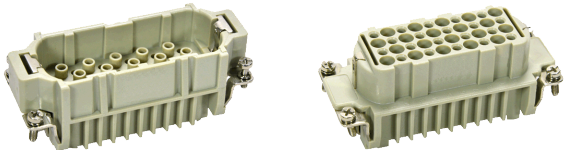
10A 500V 6KV 3



重载连接器 Heavy-duty connector



HD 系列技术特性
HD technical characteristics



HD系列技术特性 HD technical characteristics

电流负载能力 Current carrying capacity

电流负载能力所受的限制主要来自包含接插针的接插体可承受的最大温度
The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

测试和控制过程依据DIN IEC 60512-3
Control and test procedures according to DIN IEC 60512-3

规范/Specifications

DIN VDE 0627
DIN VDE 0110
DIN EN 61984

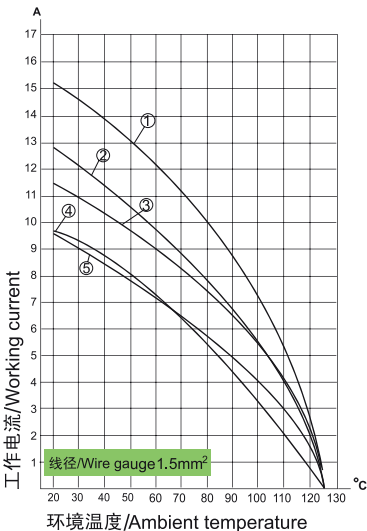
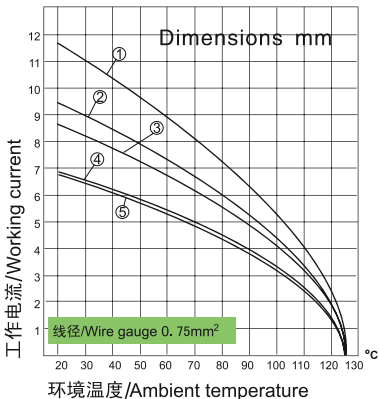
插接体/Inserts

接插件针数/Number of contacts 7, 8, 15, 25, 40, 50 (2x25)
64, 80 (2x40), 128 (2x64)+PE

工作电流/ Working current (见负载图/see current carrying capacity)	10A
工作电压/ Working voltage -Pollution degree 2	250V 230/400V
污染等级/Pollution degree	3
额定脉冲耐受电压/Rated impulse voltage	4KV
绝缘电阻/Insulation resistance	$\geq 10^{10} \Omega$
材料/Material	Polycarbonate
工作温度范围/Temperature range	-40℃... +125℃
阻燃等级 (UL94)/Flammability acc.to UL94	V0
据UL/CSA工作电压/ Working voltage acc.to UL/CSA	600V
可拨插次数/Mechanical working life(mating cycles)	≥ 500

接插针/Contacts

材料/Material	铜/Copper alloy
表面处理/Surface	镀银/Hard silver-plated 镀金/Hard gold-plated
接触电阻/Contact resistance	$\leq 3m \Omega$
接线形式/Terminal 导线规格/Wire gauge	冷压压接/Crimp terminal 0.14-2.5mm ² AWG26-14



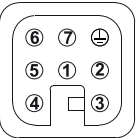
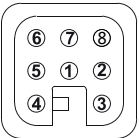
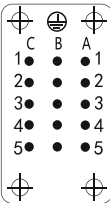
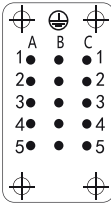
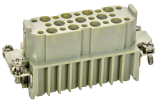
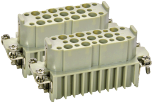
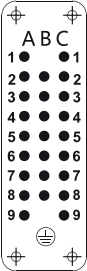
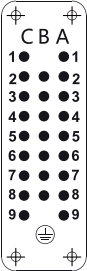
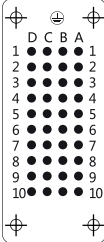
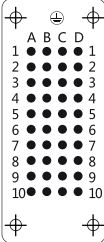
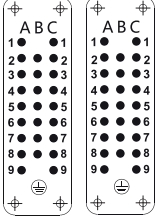
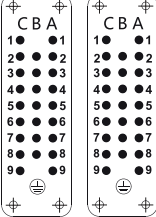
①HD-007 ②HD-015
③HD-025 ④HD-040 ⑤HD-064



重载连接器 Heavy-duty connector

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冷压连接/Crimp connection

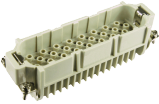
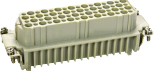
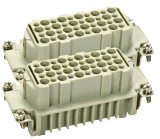
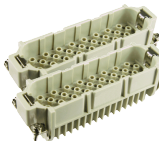
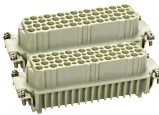
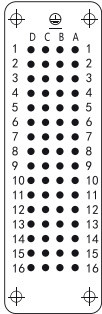
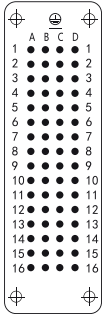
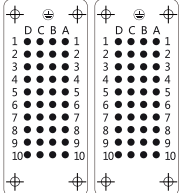
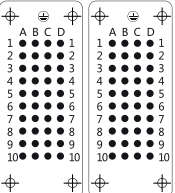
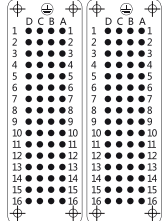
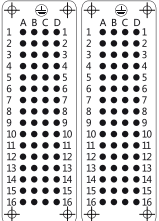
						
型号 Form	HD-007-M	HD-007-F	HD-008-M	HD-008-F	HD-015-M	HD-015-F
						
额定电流	10A	10A	10A	10A	10A	10A
额定电压	250V	250V	250V	250V	250V	250V
搭配外壳	H3A系列	H3A系列	H3A系列	H3A系列	H10B系列	H10B系列
						
型号 Form	HD-025-M	HD-025-F	HD-040-M	HD-040-F	HD-050-M	HD-050-F
						
额定电流	10A	10A	10A	10A	10A	10A
额定电压	250V	250V	250V	250V	250V	250V
搭配外壳	H16A系列	H16A系列	H16B系列	H16B系列	H32A系列	H32A系列



重载连接器 Heavy-duty connector

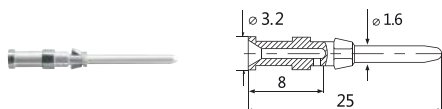
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冷压连接/Crimp connection

						
型号 Form	HD-064-M	HD-064-F	HD-080-M	HD-080-F	HD-128-M	HD-128-F
						
额定电流	10A	10A	10A	10A	10A	10A
额定电压	250V	250V	250V	250V	250V	250V
搭配外壳	H24B系列	H24B系列	H32B系列	H32B系列	H48B系列	H48B系列

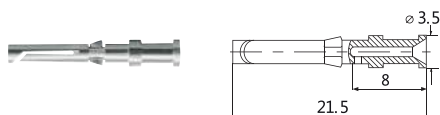
10A 冷压接插针 10A Crimp contacts

公接插针/Mate crimp contacts



镀银冷压针型号 Contacts, Silver-plated	订货号 Order No.	镀金冷压针型号 Contacts, Gold-plated	订货号 Order No.
DSM-0.5	4 010 51 101	DGM-0.5	4 010 53 120
DSM-0.75	4 010 51 102	DGM-0.75	4 010 53 121
DSM-1.0	4 010 51 103	DGM-1.0	4 010 53 122
DSM-1.5	4 010 51 104	DGM-1.5	4 010 53 123
DSM-2.5	4 010 51 105	DGM-2.5	4 010 53 124

母接插针/Female crimp contacts



镀银冷压针型号 Contacts, Silver-plated	订货号 Order No.	镀金冷压针型号 Contacts, Gold-plated	订货号 Order No.
DSF-0.5	4 010 52 106	DGF-0.5	4 010 54 125
DSF-0.75	4 010 52 107	DGF-0.75	4 010 54 126
DSF-1.0	4 010 52 108	DGF-1.0	4 010 54 127
DSF-1.5	4 010 52 109	DGF-1.5	4 010 54 128
DSF-2.5	4 010 52 110	DGF-2.5	4 010 54 129



重载连接器 Heavy-duty connector

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HDD系列/ HDDSeries

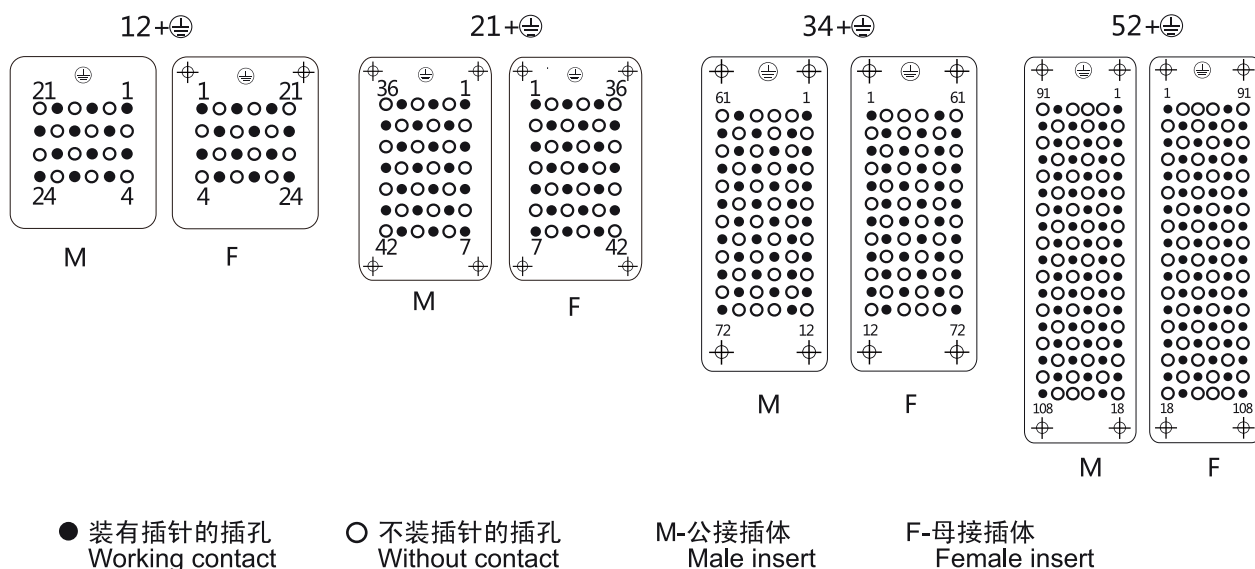
HDD 调整插针分布可提高工作电压至 500V
HDD modified contact arrangement up to 500V

HDD接插体在装满插针时，在绝缘等级3(C)时，其工作电压可达 250V。但其插针分布经过调整，同样在绝缘等级3(C)时，其工作电压允许值可达500V。

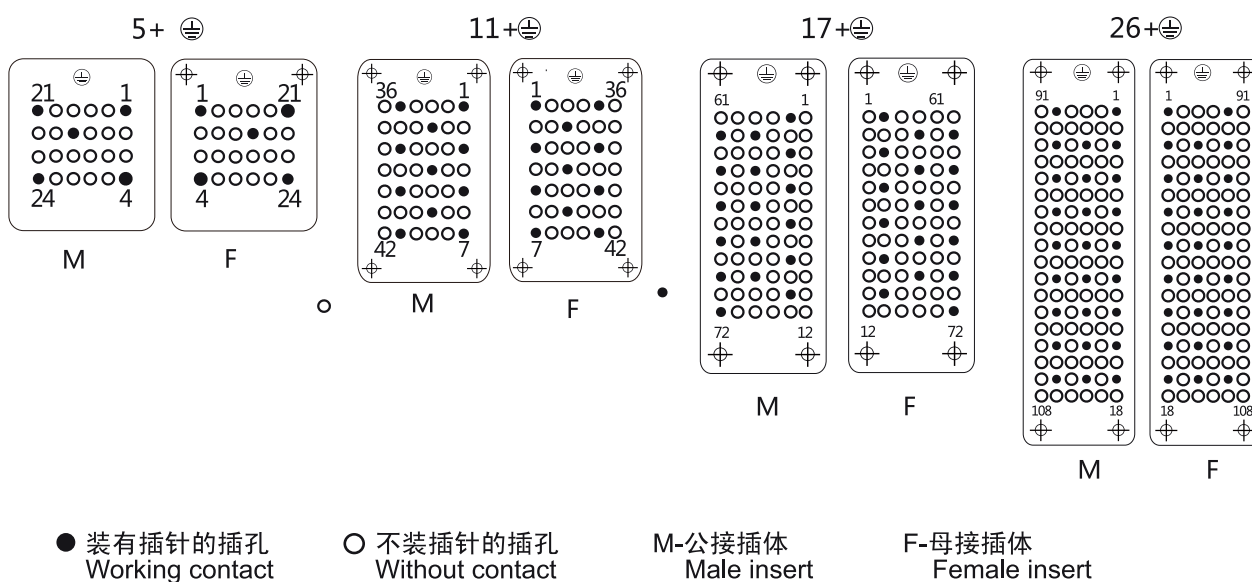
The connector series HDD equipped with all contacts may be used for voltage up to 250V at insulation group C, but modified contact loading arrangement permits use up to 500V at insulation group C.

HDD 插针分布图 Contact arrangement view from termination side.

10A 400V 6KV 3



10A 500V 6KV 3



重载连接器 Heavy-duty connector



HDD系列技术特性
HDD technical characteristics



HDD系列技术特性 HDD technical characteristics

测试和控制过程依据DIN IEC 60512-3
Control and test procedures according to DIN IEC 60512-3

电流负载能力 Current carrying capacity

电流负载能力所受的限制主要来自包含接插针的接插体可承受的最大温度
The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

规范/Specifications

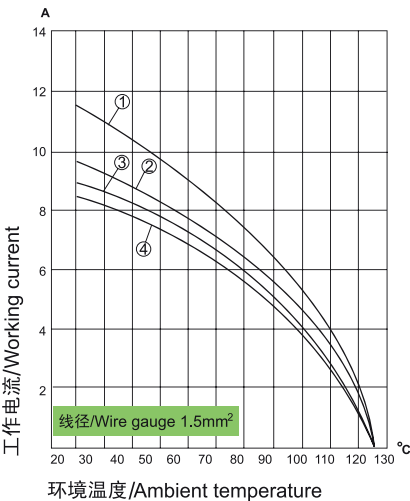
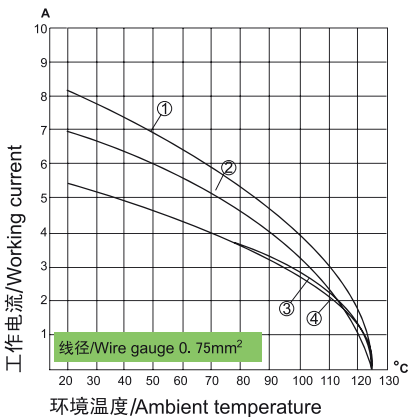
DIN VDE 0627
DIN VDE 0110
DIN EN 61984

插接体/Inserts

接插件针数/Number of contacts	24,42,72,108,144(2x72) 216(2x108)+PE
工作电流/working current (见负载图/see current carrying capacity)	10A
工作电压/working voltage -Pollution degree 2	250V 230/400V
污染等级/Pollution degree	3
额定脉冲耐受电压/Rated impulse voltage	4KV
绝缘电阻/Insulation resistance	$\geq 10^{10} \Omega$
材料/Material	Polycarbonate
工作温度范围/Temperature range	-40℃... +125℃
阻燃等级 (UL94)/Flammability acc.to UL94	V0
据UL/CSA工作电压/working voltage acc.to UL/CSA	600V
可拔插次数/Mechanical working life(mating cycles)	≥ 500

接插针/Contacts

材料/Material	铜/Copper alloy
表面处理/Surface	镀银/Hard silver-plated 镀金/Hard gold-plated
接触电阻/Contact resistance	$\leq 3m \Omega$
接线形式/Terminal 导线规格/Wire gauge	冷压压接/Crimp terminal 0.14-2.5mm ² 26-14



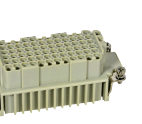
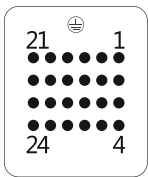
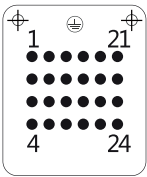
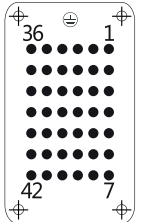
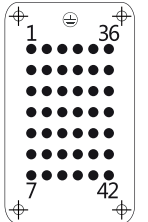
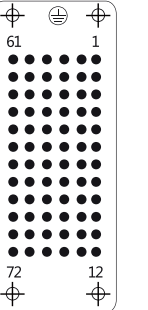
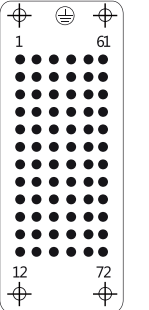
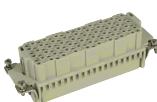
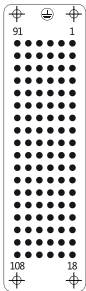
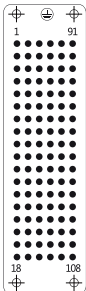
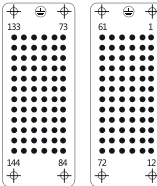
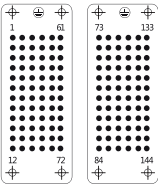
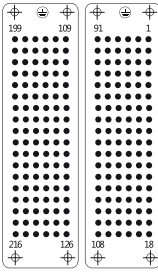
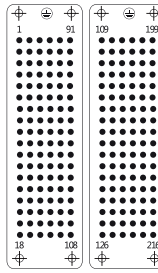
①HDD-024, ②HDD-042,
③HDD-072, ④HDD-0108



重载连接器 Heavy-duty connector

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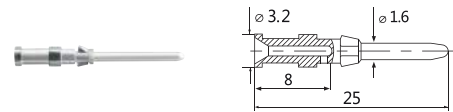
冷压连接/Crimp connection

						
型号 Form	HDD-024-M	HDD-024-F	HDD-042-M	HDD-042-F	HDD-072-M	HDD-072-F
						
额定电流	10A	10A	10A	10A	10A	10A
额定电压	250V	250V	250V	250V	250V	250V
搭配外壳	H6B系列	H6B系列	H10B系列	H10B系列	H16B系列	H16B系列
						
型号 Form	HDD-108-M	HDD-108-F	HDD-144-M	HDD-144-F	HDD-216-M	HDD-216-F
						
额定电流	10A	10A	10A	10A	10A	10A
额定电压	250V	250V	250V	250V	250V	250V
搭配外壳	H24B系列	H24B系列	H32B系列	H32B系列	H48B系列	H48B系列



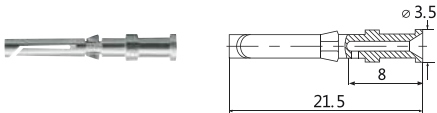
10A 冷压接插针 10A Crimp contacts

公接插针/Mate crimp contacts



镀银冷压针型号 Contacts , Silver-plated	订货号 Order No.	镀金冷压针型号 Contacts , Gold-plated	订货号 Order No.
DSM-0.5	4 010 51 101	DGM-0.5	4 010 53 120
DSM-0.75	4 010 51 102	DGM-0.75	4 010 53 121
DSM-1.0	4 010 51 103	DGM-1.0	4 010 53 122
DSM-1.5	4 010 51 104	DGM-1.5	4 010 53 123
DSM-2.5	4 010 51 105	DGM-2.5	4 010 53 124

母接插针/Female crimp contacts



镀银冷压针型号 Contacts , Silver-plated	订货号 Order No.	镀金冷压针型号 Contacts , Gold-plated	订货号 Order No.
DSF-0.5	4 010 52 106	DGF-0.5	4 010 54 125
DSF-0.75	4 010 52 107	DGF-0.75	4 010 54 126
DSF-1.0	4 010 52 108	DGF-1.0	4 010 54 127
DSF-1.5	4 010 52 109	DGF-1.5	4 010 54 128
DSF-2.5	4 010 52 110	DGF-2.5	4 010 54 129



35A大电流连接器



重载连接器 Heavy-duty connector



HSB 系列技术特性
HSB technical characteristics



HSB系列技术特性 HSB technical characteristics

电流负载能力 Current carrying capacity

电流负载能力所受的限制主要来自包含接插针的接插体可承受的最大温度
The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

测试和控制过程依据DIN IEC 60512-3
Control and test procedures according to DIN IEC 60512-3

规范/Specifications

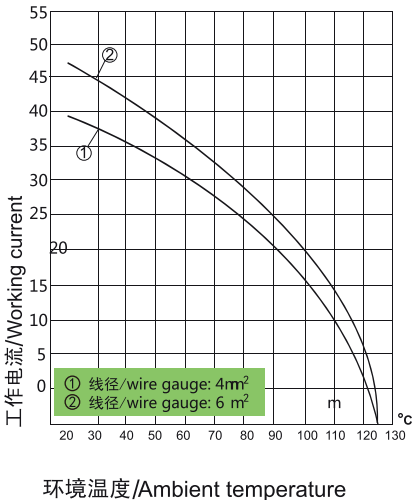
DIN VDE 0627
DIN VDE 0110
DIN EN 61984

插接体/Inserts

接插件针数/Number of contacts	6,12 (2x6)+PE
工作电流/working current (见负载图/see current carrying capacity)	35A
工作电压/working voltage -Pollution degree 2	400/690V
污染等级/Pollution degree	3
额定脉冲耐受电压/Rated impulse voltage	6KV
绝缘电阻/Insulation resistance	$\geq 10^{10} \Omega$
材料/Material	Polycarbonate
工作温度范围/Temperature range	-40℃... +125℃
阻燃等级 (UL94)/Flammability acc.to UL94	V0
据UL/CSA工作电压/working voltage acc.to UL/CSA	600V
可拔插次数/Mechanical working life(mating cycles)	≥ 500

接插针/Contacts

材料/Material	铜/Copper alloy
表面处理/Surface	镀银/Hard silver-plated 镀金/Hard gold-plated
接触电阻/Contact resistance	$\leq 1m \Omega$
接线形式/Terminal 导线规格/Wire gauge	螺钉连接/Screwterminal 4-6 mm ² AWG 12-10
螺钉拧紧力矩 Tightening torque 12-10	1.2Nm



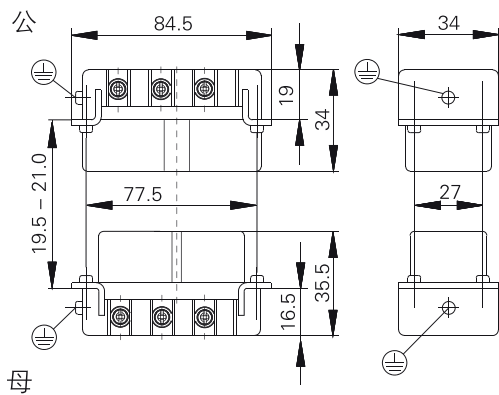
重载连接器 Heavy-duty connector



冷压连接/Crimp connection



型号 Form	HSB-006-M	HSB-006-F	HSB-012-M	HSB-012-F
额定电流	35A	35A	35A	35A
额定电压	400V/690	400V/690	400V/690	400V/690
搭配外壳	H16B系列	H16B系列	H32B系列	H32B系列



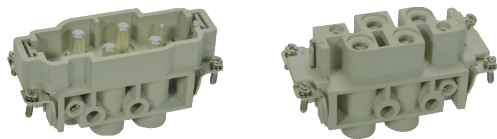
接插体之间最大距离21mm
Distance for contact max.21mm



大电流连接器



HK-004/0,004/2技术特性 technical characteristics



HK-004/0,004/2技术特性/technical characteristics

电流负载能力

Current carrying capacity

电流负载能力所受的限制主要来自包含接插针的接插体可承受的最大温度

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

测试和控制过程依据DIN IEC 60512-3

Control and test procedures according to DIN IEC 60512-3

规范/Specifications

DIN VDE 0627

DIN VDE 0110

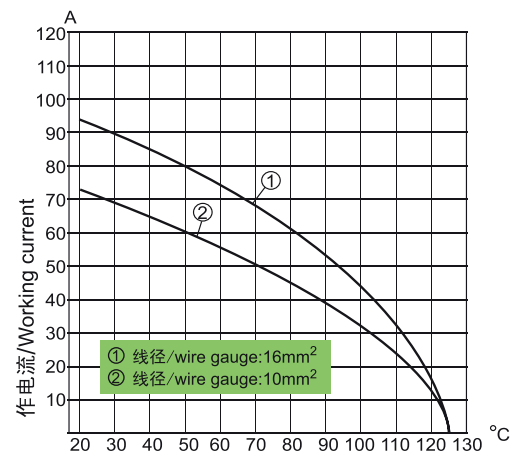
DIN EN 61984

插接体/Inserts

接插件针数/Number of contacts	4/0,4/2+PE
工作电流/working current (见负载图/see current carrying capacity)	
电力区/power area	80A
信号区/Signal area	16A
工作电压/ working voltage	
-电力区/power area	830V
-信号区/Signal area	400V
污染等级/ Pollution degree 2	
-电力区/power area	1000V
-信号区/Signal area	400/690V
污染等级/Pollution degree	3
额定脉冲耐受电压/Rated impulse voltage	
-电力区/power area	8KV
-信号区/Signal area	6KV
绝缘电阻/Insulation resistance	$\geq 10^{10} \Omega$
材料/Material	Polycarbonate
工作温度范围/Temperature range	-40℃...+125℃
阻燃等级 (UL94)/Flammability acc.to UL94	V0
据UL/CSA工作电压/working voltage acc.to UL/CSA	600V/300V
可拨插次数/Mechanical working life(mating cycles)	≥ 500

接插针/Contacts

材料/Material	铜/Copper alloy																				
表面处理/Surface	镀银/Hard silver-plated 镀金/Hard gold-plated																				
接触电阻/Contact resistance	电力区/power area	≤0.3mΩ																			
	信号区/Signal area	≤1 m Ω																			
接线形式/Terminal	螺钉压接/Screw terminal																				
导线规格/Wire gauge	电力区/power area	1.5-16mm ² AWG16-6																			
	信号区/Signal area	1.0-2.5mm ² AWG18-14																			
螺钉拧紧力矩	电力区/power area																				
Tighening torque	<table><tr><td>mm²</td><td>1.5</td><td>2.5</td><td>4</td><td>6</td><td>10</td><td>16</td></tr><tr><td>N.m</td><td>1.2</td><td>2</td><td>3</td><td>3</td><td>3</td><td>3</td></tr></table>							mm ²	1.5	2.5	4	6	10	16	N.m	1.2	2	3	3	3	3
mm ²	1.5	2.5	4	6	10	16															
N.m	1.2	2	3	3	3	3															
	信号区/Signal area	0.5 N.m																			



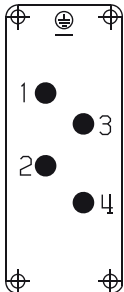
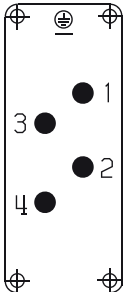
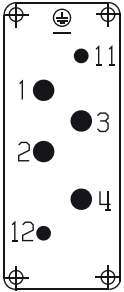
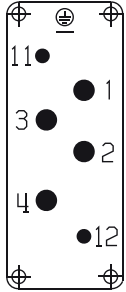
H 环境温度/Ambient temperature

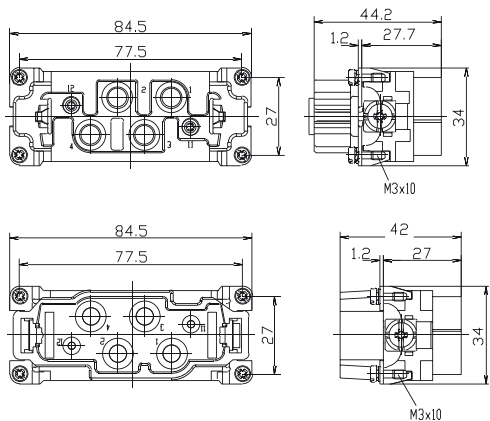


重载连接器 Heavy-duty connector

VELLEDQ
— 为乐电气 —

冷压连接/Crimp connection

				
型号 Form	HK-004/0-M	HK-004/0-F	HK-004/2-M	HK-004/2-F
				
额定电流	80A	80A	80/16A	80/16A
额定电压	830V	830V	830V/400V	830V/400V
搭配外壳	H16B系列	H16B系列	H16B系列	H16B系列



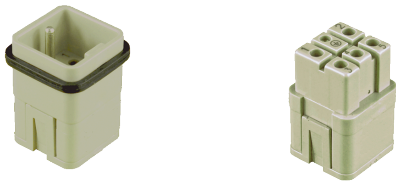
接插体之间最大距离21mm
Distance for contact max.21mm



紧凑的小体积连接器



HQ005/0 系列技术特性 HQ005/0 technical characteristics



HQ005/0 系列技术特性 HQ005/0 technical characteristics

电流负载能力 Current carrying capacity

电流负载能力所受的限制主要来自包含接插针的接插体可承受的最大温度
the current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

测试和控制过程依据DIN IEC 60512-3
Control and test procedures according to DIN IEC 60512-3

规范/Specifications

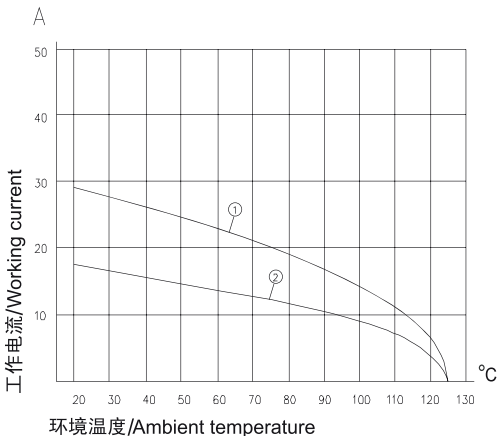
DIN VDE 0110
DIN EN 61984

插接体/Inserts

接插件针数/Number of pin	5+PE			
按照DIN EN 61984的电气数据 Electrical data acc. to EN 61984	16A	230/400V	4kV	3
—工作电流/ Working current				
—相对地电压电压 Working voltage conductor—ground				
—相间电压 Working voltage conductor—conductor				
—耐冲击电压/Rated impulse voltage				
—污染等级/Pollution degree				
污染等级2/Pollution degree 2	16A	320/500V	4kV	2
依据UL/CSA额定电压/Rated voltage acc.to UL/CSA	600V			
绝缘电阻/Insulation resistance	$\geq 10^{10} \Omega$			
材料/Material	PC			
工作温度范围/Temperature range	$-40^{\circ} \text{C} \dots +125^{\circ} \text{C}$			
阻燃等级/Flammability acc.to UL94	V0			
可拔插次数 Mechanical working life (mating cycles)	≥ 500			

接插针/Contacts

材料/Material	铜合金/Copper alloy
表面处理/Surface	
镀银/silver plated	$3 \mu \text{m Ag}$
接触电阻/Contact resistance	$\leq 1 \text{m} \Omega$
冷压连接/Crimp terminal	
—mm ²	0.14—4mm ²
—AWG	26—12



①导线截面/wire gauge:2.5mm²

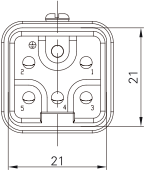
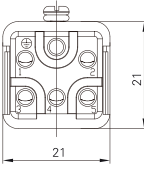
②导线截面/wire gauge:1.5mm²



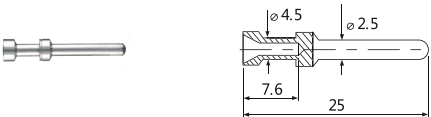
重载连接器 Heavy-duty connector



冷压连接/Crimp connection

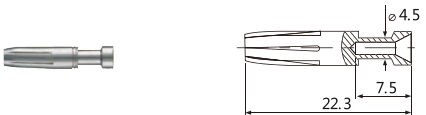
		
型号 Form	HQ-005-M	HQ-005-F
		
额定电流	16A	16A
额定电压	230V/400	230V/400
搭配外壳	H3A系列	H3A系列

公接插针/Mate crimp contacts



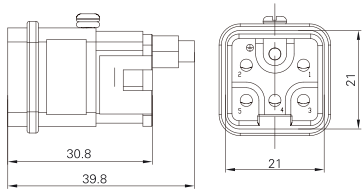
镀银冷压针型号 Contacts, Silver-plated	订货号 Order No.	镀金冷压针型号 Contacts, Gold-plated	订货号 Order No.
ESM-0.5	4 016 51 150	EGM-0.5	4 016 53 170
ESM-0.75	4 016 51 151	EGM-0.75	4 016 53 171
ESM-1.0	4 016 51 152	EGM-1.0	4 016 53 172
ESM-1.5	4 016 51 153	EGM-1.5	4 016 53 173
ESM-2.5	4 016 51 154	EGM-2.5	4 016 53 174
ESM-4.0	4 016 51 155	EGM-4.0	4 016 53 175

母接插针/Female crimp contacts

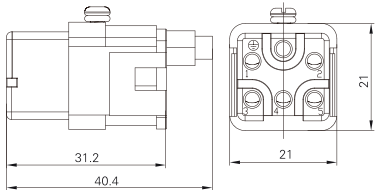


镀银冷压针型号 Contacts, Silver-plated	订货号 Order No.	镀金冷压针型号 Contacts, Gold-plated	订货号 Order No.
ESF-0.5	4 016 52 156	ESF-0.5	4 016 54 176
ESF-0.75	4 016 52 157	ESF-0.75	4 016 54 177
ESF-1.0	4 016 52 158	ESF-1.0	4 016 54 178
ESF-1.5	4 016 52 159	ESF-1.5	4 016 54 179
ESF-2.5	4 016 52 160	ESF-2.5	4 016 54 180
ESF-4.0	4 016 52 161	ESF-4.0	4 016 54 181

M

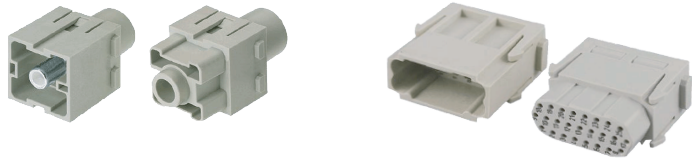


F



组合型模块框架





组合型模块框架/Composite modular framework

组合模块产品系列具有一种全新的连接系统，能满足用户的各种要求。通过与用户的紧密合作开发出一一种模块化安装的连接体。它可以根据使用条件，由不同的基本模块组装而成

The modular product series has a brand-new connection system, which can meet the various requirements of users. Through close cooperation with users, a modular installation connector is developed. It can be assembled from different basic modules according to the use conditions.

所以，组合模块是对产品系列保持持续的后续开发，能够将控制电路和功率电路的插针组合在一个连接器中

Therefore, the modular module is a continuous follow-up development of the product series, which can combine the pins of control circuit and power circuit in a connector.

模块产品系列的单个模块允许客户将电源、光纤和气动信号集成在一起

Individual modules in the modular product family allow customers to integrate power, optical and pneumatic signals.

气动针则适合于插接液态介质。但须注意，根据VDE准则，电气液体不允许组合在同一个连接器中

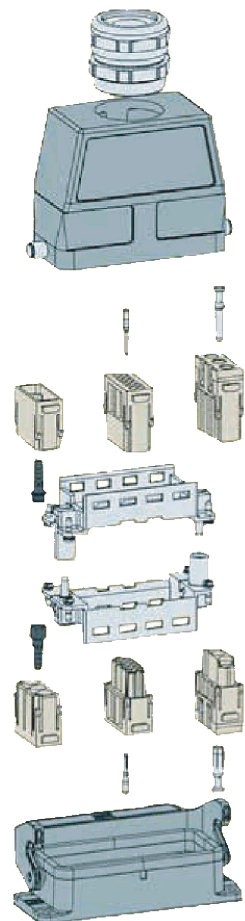
Pneumatic needle is suitable for plugging liquid medium. However, it should be noted that according to VDE criteria, electrical fluids are not allowed to be combined in the same connector.

经实践检验的标准插针和标准外壳可继续使用在该新产品系列中。根据外壳的大小不同，它可以集成一至十二个模块

Practically tested standard pins and standard housing can continue to be used in this new product series. Depending on the size of the shell, it can integrate one to twelve modules.

装配时，单个的基本模块嵌入在固定框架中，它们在拆卸时也可以单独更换

When assembled, individual basic modules are embedded in a fixed frame and can be replaced separately when disassembled.



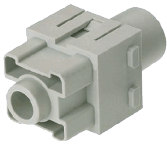
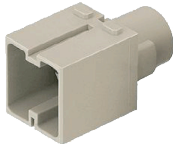
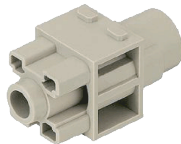
优点：

- ★ 可以根据专门的要求组装连接体
Connectors can be assembled according to specific requirements
- ★ 和当前和将来任务的最佳解决方案
And the best solutions for current and future tasks
- ★ 降低库存
Reduce inventory
- ★ 安装及拆卸时不需要专用工具
No special tools are required for installation and disassembly



重载连接器 Heavy-duty connector

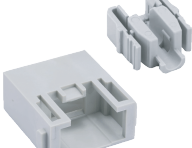
VELLEDQ
— 为乐电气 —

					
型号 Form	H2MK-001.1-M	H2MK-001.1-F	H2MK-001-MC	H2MK-001-FC	H2MK-002.1-M
额定电流	200A	200A	200A	200A	100A
额定电压	1000V	1000V	1000V	1000V	1000V
连接方式	轴向压接	轴向压接	冷压接线	冷压接线	轴向压接
					
型号 Form	H2MK-002.1-F	H2MK-002-MC	H2MK-002-FC	HMK70-002.1-M	HMK70-002.1-F
额定电流	100A	100A	100A	70A	70A
额定电压	1000V	1000V	1000V	1000V	1000V
连接方式	轴向压接	冷压接线	冷压接线	轴向压接	轴向压接
					
型号 Form	HMK70-002-MC	HMK70-002-FC	HMK-002.1-M	HMK-002.1-F	HMK-002-MC
额定电流	70A	70A	40A	40A	40A
额定电压	1000V	1000V	1000V	1000V	1000V
连接方式	冷压接线	冷压接线	轴向压接	轴向压接	冷压接线
					
型号 Form	HMK-002-FC	HMK-003-MC	HMK-003-FC	HMK-004-MC	HMK-004-FC
额定电流	40A	40A	40A	40A	40A
额定电压	1000V	1000V	1000V	830V	830V
连接方式	冷压接线	冷压接线	冷压接线	冷压接线	冷压接线



重载连接器 Heavy-duty connector

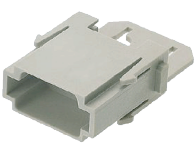
VELLEDQ
— 为乐电气 —

					
型号 Form	HME-006-MC	HME-006-FC	HVME-006-MC	HVME-006-FC	HMEE-008-MC
额定电流	16A	16A	16A	16A	16A
额定电压	500V	500V	830V	830V	400V
连接方式	冷压接线	冷压接线	冷压接线	冷压接线	冷压接线
					
型号 Form	HMEE-008-FC	HMD-012-MC	HMD-012-FC	HMDD-017-MC	HMDD-017-FC
额定电流	16A	10A	10A	10A	10A
额定电压	400V	250V	250V	160V	160V
连接方式	冷压接线	冷压接线	冷压接线	冷压接线	冷压接线
					
型号 Form	H2MEE-020-MC	H2MEE-020-FC	HMDS-025-MC	HMDS-025-FC	HMK-003/4-MC
额定电流	16A	16A	5A	5A	40A/10A
额定电压	500V	500V	50V	50V	400V/250V
连接方式	冷压接线	冷压接线	冷压接线	冷压接线	冷压接线
					
型号 Form	HMK-003/4-FC	HM-RJ45-M	HM-RJ45-F	HMDS-009-MC	HMK-004-FC
额定电流	40A/10A	1A	1A	5A	40A
额定电压	400V/250V	50V	50V	50V	830V
连接方式	冷压接线	冷压接线	冷压接线	冷压接线	冷压接线



重载连接器 Heavy-duty connector

VELLEDQ
— 为乐电气 —

					
型号 Form	H2M-002-MC	H2M-002-FC	EMC-001-MC/E	EMC-001-FC/E	EMC-004-MC
额定电流	10A	16A	16A	16A	10A
额定电压	50V	50V	50V	50V	50V
连接方式	冷压接线	冷压接线	冷压接线	冷压接线	冷压接线
					
型号 Form	EMC-004-FC	EMC-008-MC	EMC-008-FC	HM-USB-M	HM-USB-F
额定电流	10A	5A	5A	1A	1A
额定电压	50V	50V	50V	50V	50V
连接方式	冷压接线	冷压接线	冷压接线	冷压接线	冷压接线
					
型号 Form	HM-000	HMP-002	HMP-003	PCM-1.6	PCM-3.0
额定电流					
额定电压					
连接方式	空置模块	用于6.0mm气嘴	用于1.6 ; 3.0 ; 4.0气嘴	用于内径1.6mm软管	用于内径3.0mm软管
					
型号 Form	PCM-4.0	PCM-6.0	PCF-1.6	PCF-3.0	PCF-4.0
额定电流					
额定电压					
连接方式	用于内径4.0mm软管	用于内径6.0mm软管	用于内径1.6mm软管	用于内径3.0mm软管	用于内径4.0mm软管



重载连接器 Heavy-duty connector

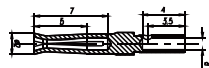
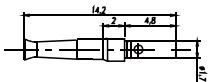
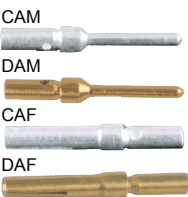
VELLEDQ
— 为乐电气 —

					
型号 Form	PCF-6.0	PCFS-1.6	PCFS-3.0	PCFS-4.0	PCFS-6.0
额定电流					
额定电压					
适用场合	用于内径6.0mm软管	用于内径6.0mm软管	用于内径3.0mm软管	用于内径4.0mm软管	用于内径4.0mm软管

		
型号 Form	RJ45-T-M20	RJ45-K-MCV
额定电流	1A	1A
额定电压	50V	50V
适用场合	CAT.5e	CAT.5e

5A 插针

技术参数 材质: 铜
镀银 / 金 接触电阻: $\leq 4\Omega$ 接线形式: 冷压接线

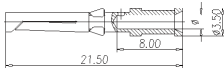
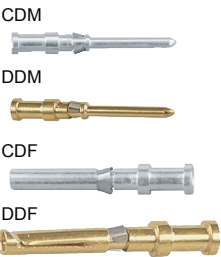


线径	AWG	接线长度	镀银冷压针		镀金冷压针	
			型号	订货号	型号	订货号
0.08-0.21mm ²	28-24	5.0mm	CSSM-0.25	5 78 111 8677	CSGM-0.25	5 78 111 8687
0.13-0.33mm ²	26-22	5.0mm	CSSM-0.33	5 78 111 6677	CSGM-0.33	5 78 111 6687
0.33-0.52mm ²	22-20	5.0mm	CSSM-0.52	5 78 111 9677	CSGM-0.52	5 78 111 9687

线径	AWG	接线长度	镀银冷压针		镀金冷压针	
			型号	订货号	型号	订货号
0.08-0.21mm ²	28-24	5.0mm	CSSF-0.25	5 78 111 8577	CSGF-0.25	5 78 111 8587
0.13-0.33mm ²	26-22	5.0mm	CSSF-0.33	5 78 111 6577	CSGF-0.33	5 78 111 6587
0.33-0.52mm ²	22-20	5.0mm	CSSF-0.52	5 78 111 9577	CSGF-0.52	5 78 111 9587

10A 插针

技术参数 材质: 铜镀银 / 金
接触电阻: $\leq 3\Omega$
接线形式: 冷压接线



线径 (mm ²)	接线长度		镀银冷压针		镀金冷压针	
			型号	订货号	型号	订货号
0.14-0.37	AWG26-22	8.0mm	CDSM-0.37	5 26 111 7215	CDGM-0.37	5 26 111 7235
0.5	AWG20	8.0mm	CDSM-0.5	5 26 111 7214	CDGM-0.5	5 26 111 7234
0.75	AWG18	8.0mm	CDSM-0.75	5 26 111 7216	CDGM-0.75	5 26 111 7236
1.0	AWG18	8.0mm	CDSM-1	5 26 111 7213	CDGM-1	5 26 111 7233
1.5	AWG16	8.0mm	CDSM-1.5	5 26 111 7212	CDGM-1.5	5 26 111 7232
2.5	AWG14	8.0mm	CDSM-2.5	5 26 111 7217	CDGM-2.5	5 26 111 7237

线径 (mm ²)	接线长度		镀银冷压针		镀金冷压针	
			型号	订货号	型号	订货号
0.14-0.37	AWG26-22	8.0mm	CDSF-0.37	5 26 111 7315	CDGF-0.37	5 26 111 7335
0.5	AWG20	8.0mm	CDSF-0.5	5 26 111 7314	CDGF-0.5	5 26 111 7334
0.75	AWG18	8.0mm	CDSF-0.75	5 26 111 7316	CDGF-0.75	5 26 111 7336
1.0	AWG18	8.0mm	CDSF-1	5 26 111 7313	CDGF-1	5 26 111 7333
1.5	AWG16	8.0mm	CDSF-1.5	5 26 111 7312	CDGF-1.5	5 26 111 7332
2.5	AWG14	8.0mm	CDSF-2.5	5 26 111 7317	CDGF-2.5	5 26 111 7337



重载连接器 Heavy-duty connector



40A 抽针

技术参数 材质:

铜镀银 / 金

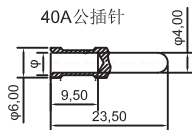
接触电阻: $\leq 4\Omega$

接线形式: 冷压接线

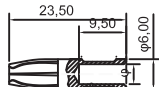
CMM



CMF



40A母插针



线径 (mm ²)	接线长度		型号	镀银冷压针
				订货号
1.5	AWG16	8.0mm	CCSM-1.5	5 43 111 7215
2.5	AWG14	8.0mm	CCSM-2.5	5 43 111 7216
4.0	AWG12	8.0mm	CCSM-4.0	5 43 111 7218
6.0	AWG10	8.0mm	CCSM-6.0	5 43 111 7219
10.0	AWG7	8.0mm	CCSM-10.0	5 43 111 7210

线径 (mm ²)	接线长度		型号	镀银冷压针
				订货号
1.5	AWG16	8.0mm	CCSF-1.5	5 43 111 7315
2.5	AWG14	8.0mm	CCSF-2.5	5 43 111 7316
4.0	AWG12	8.0mm	CCSF-4.0	5 43 111 7318
6.0	AWG10	8.0mm	CCSF-6.0	5 43 111 7319
10.0	AWG7	8.0mm	CCSF-10.0	5 43 111 7310

70A 插针

技术参数 材质:

铜镀银 / 金

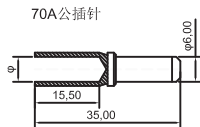
接触电阻: $\leq 1\Omega$

接线形式: 冷压接线

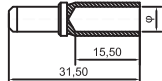
CIM



CIF



70A母插针



线径 (mm ²)		接线长度 (mm)	型号	镀银冷压针
				订货号
10	4.3	15.5	CKSM70-10	5 25 111 7242
16	5.5	15.5	CKSM70-16	5 25 111 7243
25	7	15.5	CKSM70-25	5 25 111 7244

线径 (mm ²)		接线长度 (mm)	型号	镀银冷压针
				订货号
10	4.3	19	CKSF70-10	5 25 111 7342
16	5.5	19	CKSF70-16	5 25 111 7343
25	7	19	CKSF70-25	5 25 111 7344

100A 插针

技术参数 材质:

铜镀银 / 金

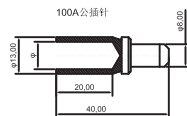
接触电阻: $\leq 1\Omega$

接线形式: 冷压接线

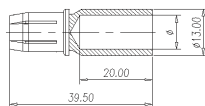
CNM



CNF



100A母插针



线径 (mm ²)		接线长度 (mm)	型号	镀银冷压针
				订货号
10	4.3	19	CKSM-10	5 22 111 7225
16	5.5	19	CKSM-16	5 22 111 7227
25	7	19	CKSM-25	5 22 111 7236
35	8.2	19	CKSM-35	5 22 111 7246

线径 (mm ²)		接线长度 (mm)	型号	镀银冷压针
				订货号
10	4.3	19	CKSF-10	5 22 111 7325
16	5.5	19	CKSF-16	5 22 111 7327
25	7	19	CKSF-25	5 22 111 7336
35	8.2	19	CKSF-35	5 22 111 7346

200A 插针

技术参数 材质:

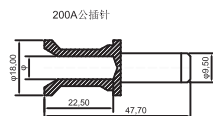
铜镀银 / 金

接线形式: 冷压接线

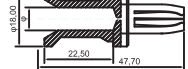
CHM



CHF



200A母插针



线径 (mm ²)	Ø	接线长度 (mm)	型号	镀银冷压针
				订货号
25	7	22.5	CHSM200-25	5 22 111 7231
35	8.2	22.5	CHSM200-35	5 22 111 7232
50	10	22.5	CHSM200-50	5 22 111 7233
70	11.5	22.5	CHSM200-70	5 22 111 7234

线径 (mm ²)	Ø	接线长度 (mm)	型号	镀银冷压针
				订货号
25	7	22.5	CHSF200-25	5 22 111 7331
35	8.2	22.5	CHSF200-35	5 22 111 7332
50	10	22.5	CHSF200-50	5 22 111 7333
70	11.5	22.5	CHSF200-70	5 22 111 7334



SIZE 3A 塑料外壳/Size 3A Plastic Hoods/Housings

材料/ Material	聚碳酸酯/PC
颜色/Colour	灰白/light grey (RAL 7032)
联锁元件/ Locking element	
---连锁方式/ Lever type	扣子,塑料/lever, plastic
---材料/ Material	聚酰胺/ polyamide
密封元件/ Hoods/Housings sealing	NBR
适用温度范围 / Limiting temperatures	- 40 ~ + 125℃
阻燃等级/ Flammability acc. to UL94)	V0
防护等级 (连锁状态, EN60529)	IP65
Degree of protection acc.to EN 60529 for coupled connector	

标准金属外壳/Standard Hoods/Housings

材料/ Material	压铸铝合金/ aluminium die-cast
---SIZE 3A 外壳/Size 3A Hoods/Housings	压铸铝合金/ aluminium die-cast
颜色/Colour	灰色/ grey
联锁元件/ Locking element	
---连锁方式/ Lever type	扣子,金属/lever, metal
---材料/ Material	不锈钢或镀锌钢 stainless steel or steel zinc-plated
密封元件/ Hoods/Housings sealing	NBR
适用温度范围 / Limiting temperatures	- 40 ~ + 125℃
阻燃等级/ Flammability acc. to UL94)	V0
防护等级 (连锁状态, 依据EN60529)	IP65
Degree of protection acc.to EN 60529 for coupled connector	

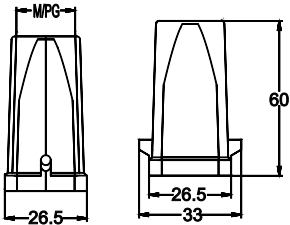
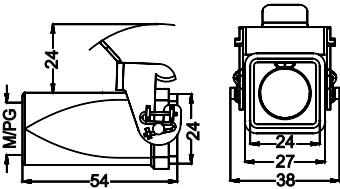
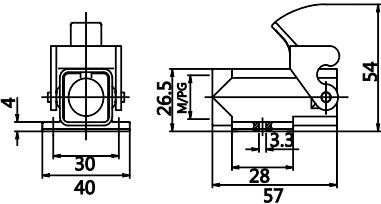
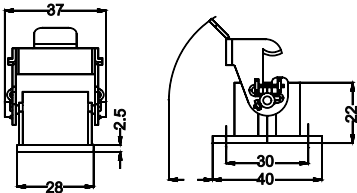
高防护等级外壳/ Hoods/Housings, pressure tight

材料/ Material	耐腐蚀铸铝合金 aluminium die-cast, corrosion resistant
颜色/Colour	黑色或灰色/black or grey (RAL 9005 or 7037)
联锁元件/ Locking element	
---连锁方式/ Lever type	螺栓连接/ Screw locking
---材料/ Material	不锈钢/ stainless steel
密封元件/ Hoods/Housings sealing	NBR
适用温度范围 / Limiting temperatures	- 40 ~ + 125℃
阻燃等级/ Flammability acc. to UL94)	V0
防护等级 (连锁状态, 依据EN60529)	IP68
Degree of protection acc.to EN 60529 for coupled connector	



重载连接器 Heavy-duty connector



外形 Appearance	型号 Form	尺寸图 Dimension map
	M20 PG21 H3A.P-T-2B-M20 H3A.P-T-2B-PG21	
	M20 PG11 H3A.P-CT-1L-M20 H3A.P-CT-1L-PG11	
	H3A.P-K-1L-S	
	H3A.P-K-1L	



重载连接器 Heavy-duty connector

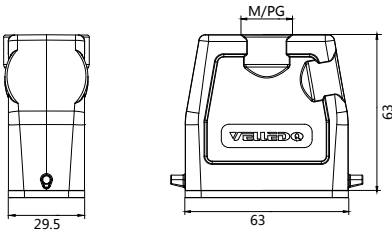
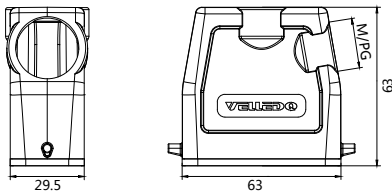
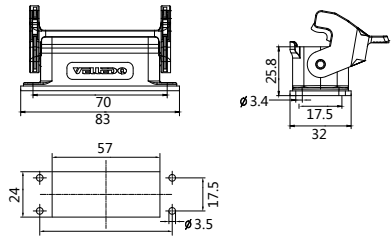
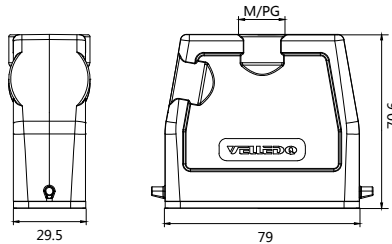
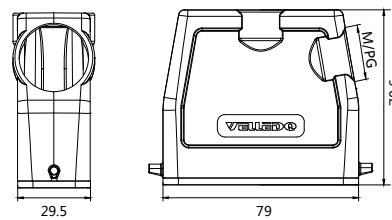
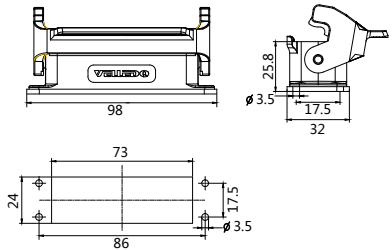


外形 Appearance	型号 Form	尺寸图 Dimension map
	M20 H3A-T-2B-M20 PG11 H3A-T-2B-PG11	
	M20 H3A-S-2B-M20 PG11 H3A-S-2B-PG11	
	M20 H3A-CT-2B-M20 PG11 H3A-CT-2B-PG11	
	H3A-K-1L	
	H3A-K-1L-MCV	



重载连接器 Heavy-duty connector

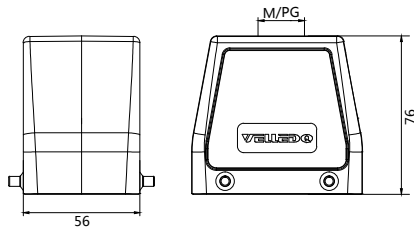
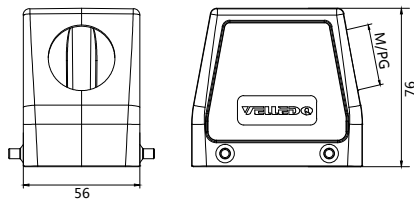
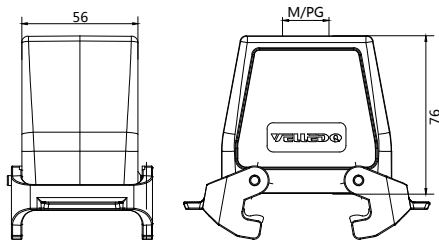
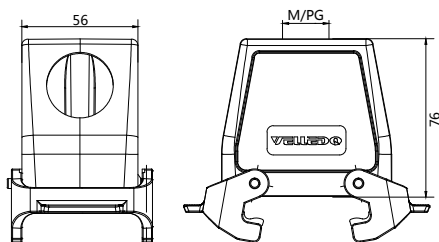
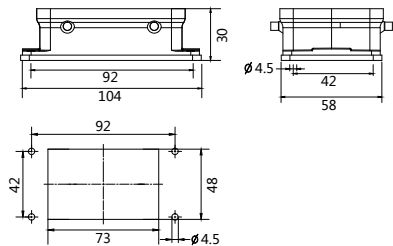
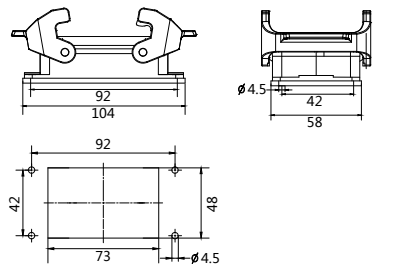
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外形 Appearance	型号 Form	尺寸图 Dimension map
	M20 H10A-T-2B-M20	
	M25 H10A-T-2B-M25	
	PG16 H10A-T-2B-PG16	
	PG21 H10A-T-2B-PG21	
	M20 H10A-S-2B-M20	
	M25 H10A-S-2B-M25	
	PG16 H10A-S-2B-PG16	
	PG21 H10A-S-2B-PG21	
	H10A-K-1L	
	M20 H16A-T-2B-M20	
	M25 H10A-T-2B-M25	
	PG16 H10A-T-2B-PG16	
	PG21 H10A-T-2B-PG21	
	M20 H16A-S-2B-M20	
	M25 H16A-S-2B-M25	
	PG16 H16A-S-2B-PG16	
	PG21 H16A-S-2B-PG21	
	H16A-K-1L	



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外形 Appearance	型号 Form	尺寸图 Dimension map
	M25 H32A-T-4B-M25 M32 H32A-T-4B-M32 PG21 H32A-T-4B-PG21 PG29 H32A-T-4B-PG29	
	M25 H32A-S-4B-M25 M32 H32A-S-4B-M32 PG21 H32A-S-4B-PG21 PG29 H32A-S-4B-PG29	
	M25 H32A-T-2L-M25 M32 H32A-T-2L-M32 PG21 H32A-T-2L-PG21 PG29 H32A-T-2L-PG29	
	M25 H32A-S-2L-M25 M32 H32A-S-2L-M32 PG21 H32A-S-2L-PG21 PG29 H32A-S-2L-PG29	
	H32A-K-4B	
	H32A-K-2L	



重载连接器 Heavy-duty connector

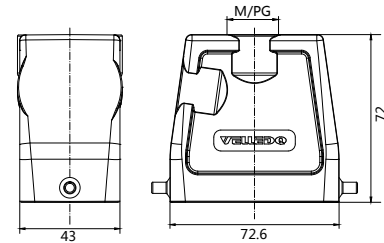
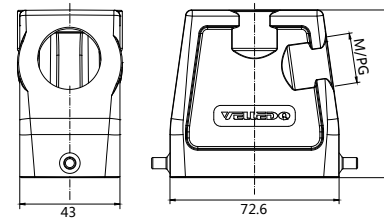
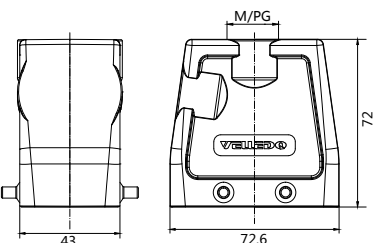
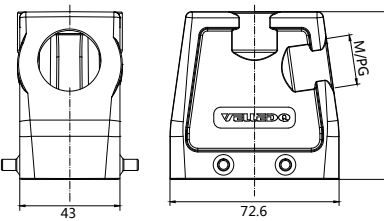
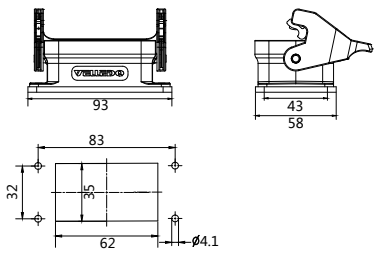
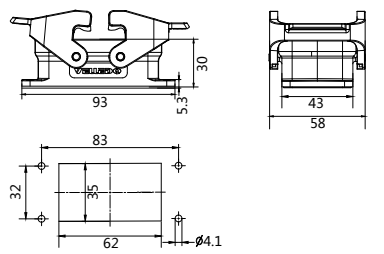


外形 Appearance	型号 Form	尺寸图 Dimension map
	M20 H6B-T-2B-M20	
	M25 H6B-T-2B-M25	
	M32 H6B-T-2B-M32	
	PG13.5 H6B-T-2B-PG13.5	
	PG16 H6B-T-2B-PG16	
	PG21 H6B-T-2B-PG21	
	M20 H6B-T-2B-M20	
	M25 H6B-T-2B-M25	
	M32 H6B-T-2B-M32	
	PG13.5 H6B-T-2B-PG13.5	
	PG16 H6B-T-2B-PG16	
	PG21 H6B-T-2B-PG21	
	M20 H6B-F-1L-M20	
	2M20 H6B-F-1L-2M20	
	M25 H6B-T-2B-M25	
	2M25 H6B-T-2B-2M25	
	PG16 H6B-T-2B-PG16	
	2PG16 H6B-T-2B-2PG16	
	H6B-K-1L	
	H6B-K-1L-CV	



重载连接器 Heavy-duty connector

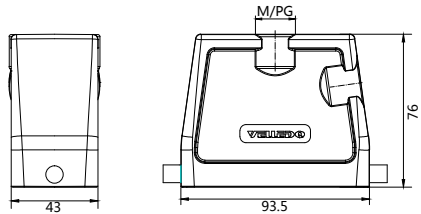
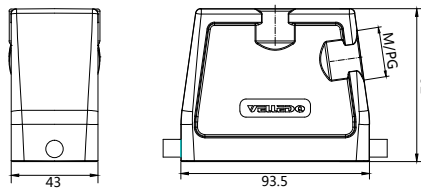
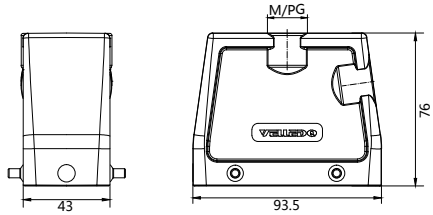
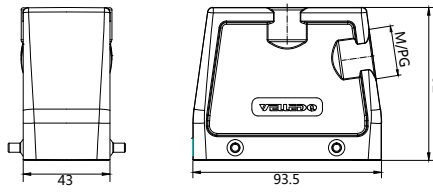
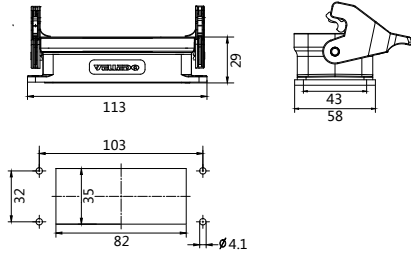
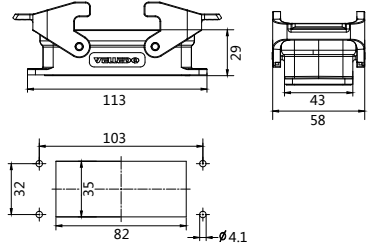
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外形 Appearance	型号 Form	尺寸图 Dimension map
	M20 H10B-T-2B-M20 M25 H10B-T-2B-M25 PG16 H10B-T-2B-PG16 PG21 H10B-T-2B-PG21	
	M20 H10B-S-2B-M20 M25 H10B-S-2B-M25 PG16 H10B-S-2B-PG16 PG21 H10B-S-2B-PG21	
	M20 H10B-T-4B-M20 M25 H10B-T-4B-M25 PG16 H10B-T-4B-PG16 PG21 H10B-T-4B-PG21	
	M20 H10B-S-4B-M20 M25 H10B-S-4B-M25 PG16 H10B-S-4B-PG16 PG21 H10A-S-4B-PG21	
	H10B-K-1L	
	H10B-K-2L	



重载连接器 Heavy-duty connector

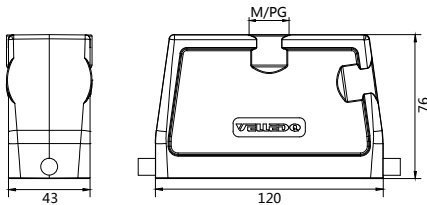
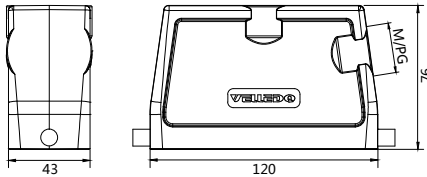
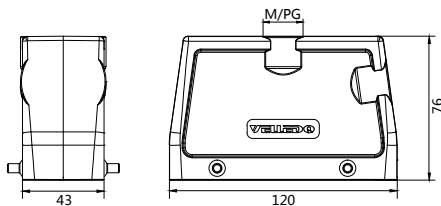
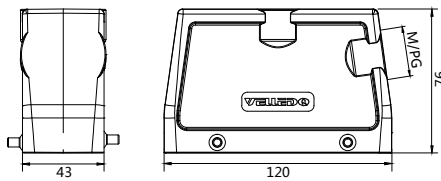
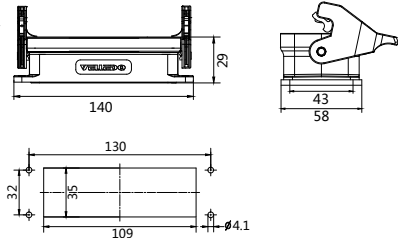
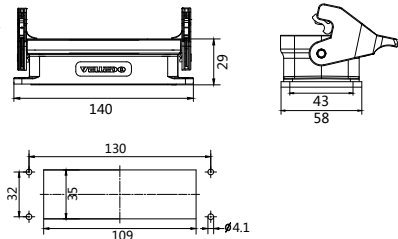
VELLEDQ
— 为乐电气 —

外形 Appearance	型号 Form	尺寸图 Dimension map
	M25 H16B-T-2B-M25	
	M32 H16B-T-2B-M32	
	M40 H16B-T-2B-M40	
	PG21 H16B-T-2B-PG21	
	PG29 H16B-T-2B-PG29	
	M25 H16B-S-2B-M25	
	M32 H16B-S-2B-M32	
	M40 H16B-S-2B-M40	
	PG21 H16B-S-2B-PG21	
	PG29 H16B-S-2B-PG29	
	M25 H16B-T-4B-M25	
	M32 H16B-T-4B-M32	
	M40 H16B-T-4B-M40	
	PG21 H16B-T-4B-PG21	
	PG29 H16B-T-4B-PG29	
	M25 H16B-S-4B-M25	
	M32 H16B-S-4B-M32	
	M40 H16B-S-4B-M40	
	PG21 H16B-S-4B-PG21	
	PG29 H16B-S-4B-PG29	
	H16B-K-1L	
	H16B-K-2L	



重载连接器 Heavy-duty connector

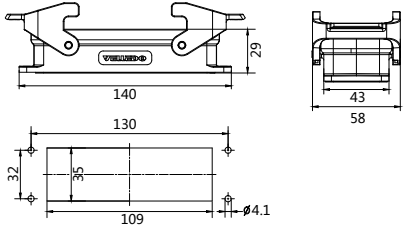
VELLEDQ
— 为乐电气 —

外形 Appearance	型号 Form	尺寸图 Dimension map
	M25 H24B-T-2B-M25	
	M32 H24B-T-2B-M32	
	M40 H24B-T-2B-M40	
	PG21 H24B-T-2B-PG21	
	PG29 H24B-T-2B-PG29	
	M25 H24B-S-2B-M25	
	M32 H24B-S-2B-M32	
	M40 H24B-S-2B-M40	
	PG21 H24B-S-2B-PG21	
	PG29 H24B-S-2B-PG29	
	M25 H24B-T-4B-M25	
	M32 H24B-T-4B-M32	
	M40 H24B-T-4B-M40	
	PG21 H24B-T-4B-PG21	
	PG29 H24B-T-4B-PG29	
	M25 H24B-S-4B-M25	
	M32 H24B-S-4B-M32	
	M40 H24B-S-4B-M40	
	PG21 H24B-S-4B-PG21	
	PG29 H24B-S-4B-PG29	
	H24B-K-1L	
	H24B-K-1L-CV	



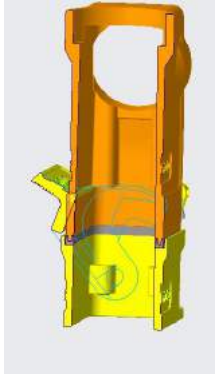
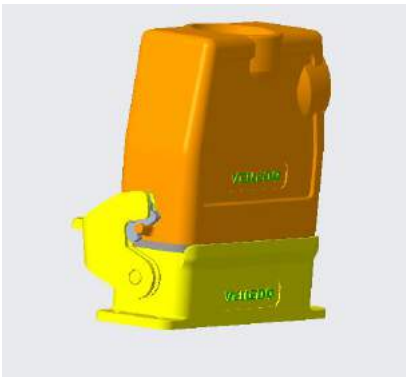
重载连接器 Heavy-duty connector



外形 Appearance	型号 Form	尺寸图 Dimension map
	H24B-K-2L	

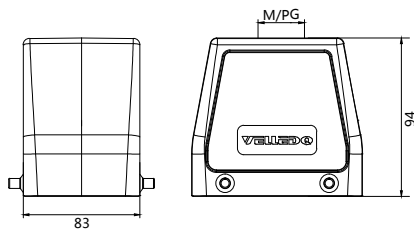
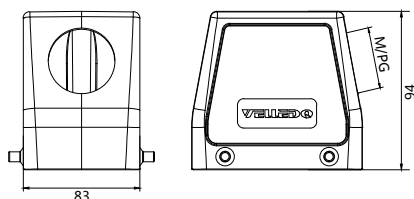
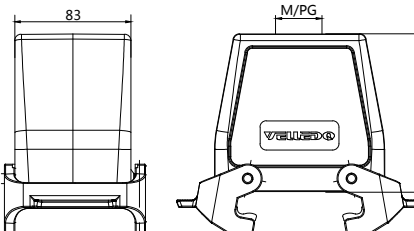
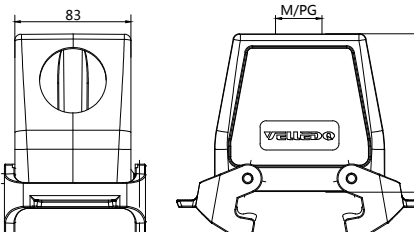
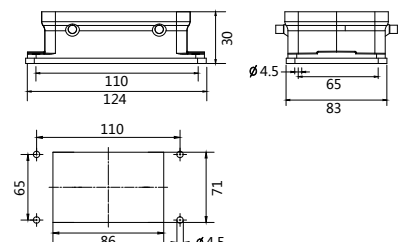
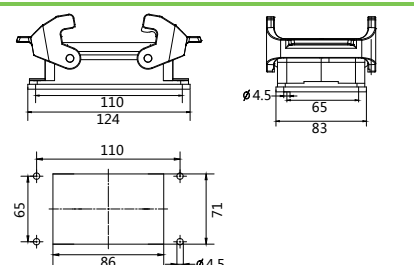


新型专利结构,防护性能明显优于旧款产品. 且还可与行业内产品通用.



重载连接器 Heavy-duty connector

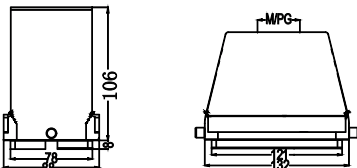
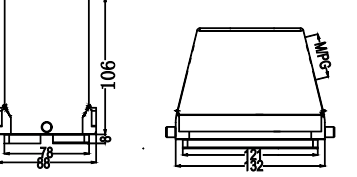
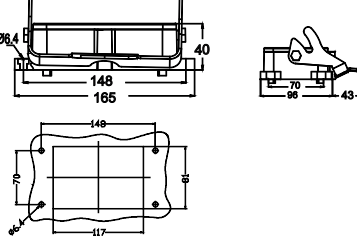
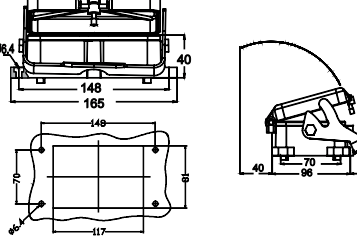
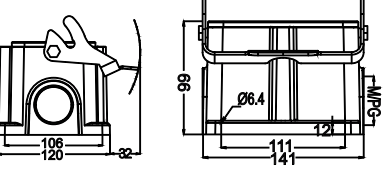
VELLEDQ
— 为乐电气 —

外形 Appearance	型号 Form	尺寸图 Dimension map
	M32 H32B-T-4B-M32 M40 H32B-T-4B-M40 M50 H32B-T-4B-M50 PG29 H32B-T-4B-PG29 PG36 H32B-T-4B-PG36 PG42 H32B-T-4B-PG42	
	M32 H32B-S-4B-M32 M40 H32B-S-4B-M40 M50 H32B-S-4B-M50 PG29 H32B-S-4B-PG29 PG36 H32B-S-4B-PG36 PG42 H32B-S-4B-PG42	
	M32 H32B-T-2L-M32 M40 H32B-T-2L-M40 M50 H32B-T-2L-M50 PG29 H32B-T-2L-PG29 PG36 H32B-T-2L-PG36 PG42 H32B-T-2L-PG42	
	M32 H32B-S-2L-M32 M40 H32B-S-2L-M40 M50 H32B-S-2L-M50 PG29 H32B-S-2L-PG29 PG36 H32B-S-2L-PG36 PG42 H32B-S-2L-PG42	
	H32B-K-4B	
	H32B-K-2L	



重载连接器 Heavy-duty connector

VELLEDQ
— 为乐电气 —

外形 Appearance	型号 Form	尺寸图 Dimension map
	M32 H48B-T-2B-M32	
	M40 H48B-T-2B-M40	
	M50 H48B-T-2B-M50	
	PG29 H48B-T-2B-PG29	
	PG36 H48B-T-2B-PG36	
	PG42 H48B-T-2B-PG42	
	M32 H48B-S-2B-M32	
	M40 H48B-S-2B-M40	
	M50 H48B-S-2B-M50	
	PG29 H48B-S-2B-PG29	
	PG36 H48B-S-2B-PG36	
	PG42 H48B-S-2B-PG42	
	H48B-K-1L	
	H48B-K-1L-CV	
	H48B-K-1L-MCV	
	M32 H48B-F-1L-M32	
	2M32 H48B-F-1L-2M32	
	M40 H48B-F-1L-M40	
	2M40 H48B-F-1L-2M40	
	PG29 H48B-F-1L-PG29	
	2PG29 H48B-F-1L-2PG29	
	PG36 H48B-F-1L-PG36	
	2PG36 H48B-F-1L-2PG36	
	M32 H48B-F-1L-CV-M32	
	2M32 H48B-F-1L-CV-2M32	
	M40 H48B-F-1L-CV-M40	
	2M40 H48B-F-1L-CV-2M40	
	PG29 H48B-F-1L-CV-PG29	
	2PG29 H48B-F-1L-CV-2PG29	
	PG36 H48B-F-1L-CV-PG36	
	2PG36 H48B-F-1L-CV-2PG36	



10A 冷压接插针 10A Crimp contacts

技术参数/Technical data

材料：铜

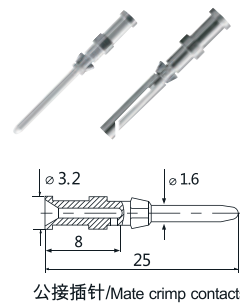
接线形式：冷压工具压接

接触电阻/Contacts resistance : $\leq 3\text{m}\Omega$

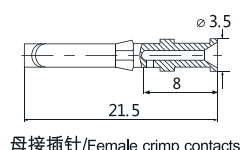
Material : copper

Terminal : crimp connection

线径/Wire gauge	接线长度/Stripping length		镀银冷压针型号 Contacts, Silver-plated	订货号 rder No.	镀金冷压针型号 Contacts, Gold-plated	订货号 rder No.
0.5mm ²	AWG 20	8.0mm	C DSM-0.5	4 010 51 101	C DGM-0.5	4 010 53 120
0.75mm ²	AWG 18	8.0mm	C DSM-0.75	4 010 51 102	C DGM-0.75	4 010 53 121
1.0mm ²	AWG 18	8.0mm	C DSM-1.0	4 010 51 103	C DGM-1.0	4 010 53 122
1.5mm ²	AWG 16	8.0mm	C DSM-1.5	4 010 51 104	C DGM-1.5	4 010 53 123
2.5mm ²	AWG 14	8.0mm	C DSM-2.5	4 010 51 105	C DGM-2.5	4 010 53 124



线径/Wire gauge	接线长度/Stripping length		镀银冷压针型号 Contacts, Silver-plated	订货号 rder No.	镀金冷压针型号 Contacts, Gold-plated	订货号 rder No.
0.5mm ²	AWG 20	8.0mm	C DSF-0.5	4 010 52 106	C DGF-0.5	4 010 54 125
0.75mm ²	AWG 18	8.0mm	C DSF-0.75	4 010 52 107	C DGF-0.75	4 010 54 126
1.0mm ²	AWG 18	8.0mm	C DSF-1.0	4 010 52 108	C DGF-1.0	4 010 54 127
1.5mm ²	AWG 16	8.0mm	C DSF-1.5	4 010 52 109	C DGF-1.5	4 010 54 128
2.5mm ²	AWG 14	8.0mm	C DSF-2.5	4 010 52 110	C DGF-2.5	4 010 54 129



16A 冷压接插针 16A Crimp contacts

技术参数/Technical data

材料：铜

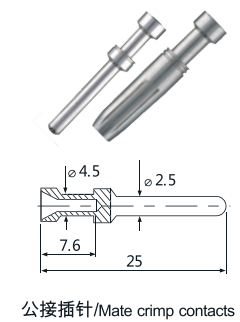
接线形式：冷压工具压接

接触电阻/Contacts resistance : $\leq 1\text{m}\Omega$

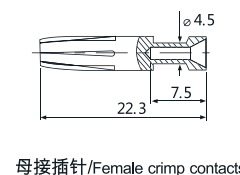
Material : copper

Terminal : crimp connection

线径/Wire gauge	接线长度/Stripping length		镀银冷压针型号 Contacts, Silver-plated	订货号 Order No.	镀金冷压针型号 Contacts, Gold-plated	订货号 Order No.
0.5mm ²	AWG 20	7.5mm	C ESM-0.5	4 016 51 150	C EGM-0.5	4 016 53 170
0.75mm ²	AWG 18	7.5mm	C ESM-0.75	4 016 51 151	C EGM-0.75	4 016 53 171
1.0mm ²	AWG 18	7.5mm	C ESM-1.0	4 016 51 152	C EGM-1.0	4 016 53 172
1.5mm ²	AWG 16	7.5mm	C ESM-1.5	4 016 51 153	C EGM-1.5	4 016 53 173
2.5mm ²	AWG 14	7.5mm	C ESM-2.5	4 016 51 154	C EGM-2.5	4 016 53 174
4.0mm ²	AWG 12	7.5mm	C ESM-4.0	4 016 51 155	C EGM-4.0	4 016 53 175



线径/Wire gauge	接线长度/Stripping length		镀银冷压针型号 Contacts, Silver-plated	订货号 Order No.	镀金冷压针型号 Contacts, Gold-plated	订货号 Order No.
0.5mm ²	AWG 20	7.5mm	C ESF-0.5	4 016 52 156	C EGF-0.5	4 016 54 176
0.75mm ²	AWG 18	7.5mm	C ESF-0.75	4 016 52 157	C EGF-0.75	4 016 54 177
1.0mm ²	AWG 18	7.5mm	C ESF-1.0	4 016 52 158	C EGF-1.0	4 016 54 178
1.5mm ²	AWG 16	7.5mm	C ESF-1.5	4 016 52 159	C EGF-1.5	4 016 54 179
2.5mm ²	AWG 14	7.5mm	C ESF-2.5	4 016 52 160	C EGF-2.5	4 016 54 180
4.0mm ²	AWG 12	7.5mm	C ESF-4.0	4 016 52 161	C EGF-4.0	4 016 54 181



40A 冷压接插针 40A Crimp contacts

技术参数/Technical data

材料：铜

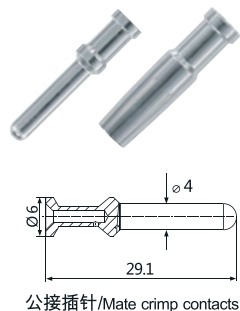
接线形式：冷压工具压接

接触电阻/Contacts resistance : $\leq 4\text{m}\Omega$

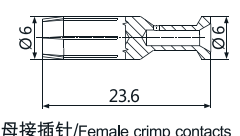
Material : copper

Terminal : crimp connection

线径/Wire gauge	接线长度/Stripping length		镀银冷压针型号 Contacts, Silver-plated	订货号 rder No.	镀金冷压针型号 Contacts, Gold-plated	订货号 rder No.
1.75mm ²	AWG 16	8.0mm	C MSM-1.5	4 040 51 200	C MGM-1.5	4 040 53 220
2.25mm ²	AWG 14	8.0mm	C MSM-2.5	4 040 51 201	C MGM-2.5	4 040 53 221
2.85mm ²	AWG 12	8.0mm	C MSM-4.0	4 040 51 202	C MGM-4.0	4 040 53 222
3.50mm ²	AWG 10	8.0mm	C MSM-6.0	4 040 51 203	C MGM-6.0	4 040 53 223



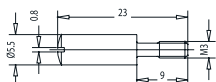
线径/Wire gauge	接线长度/Stripping length		镀银冷压针型号 Contacts, Silver-plated	订货号 rder No.	镀金冷压针型号 Contacts, Gold-plated	订货号 rder No.
1.75mm ²	AWG 16	8.0mm	C MSF-1.5	4 040 52 204	C MGF-1.5	4 040 54 224
2.25mm ²	AWG 14	8.0mm	C MSF-2.5	4 040 52 205	C MGF-2.5	4 040 54 225
2.85mm ²	AWG 12	8.0mm	C MSF-4.0	4 040 52 206	C MGF-4.0	4 040 54 226
3.50mm ²	AWG 10	8.0mm	C MSF-6.0	4 040 52 207	C MGF-6.0	4 040 54 227



重载连接器 Heavy-duty connector

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编码销/Code pin

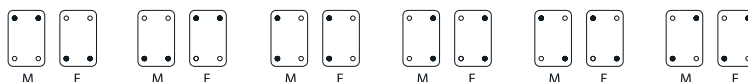


订货号/Order NO.:

编码销				
CODE-M3	5	000	10	501

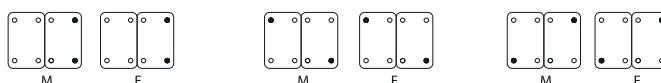
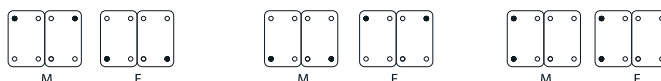
适用于可安装一个插体或框架的外壳

For hoods/housings with one insert/one frame



适用于可安装两个插体或框架的外壳

For hoods/housings with two inserts/two frames



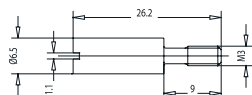
● 编码销/Code pins

○ 正常螺丝 normal mounting screw

M-公插体/Male connector

F-母插体/Female connector

导向孔/Guide bush

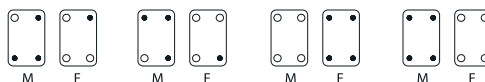
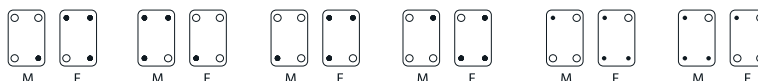
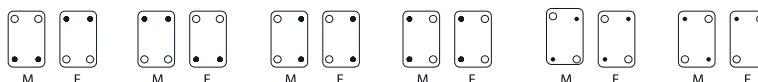


订货号/Order NO.:

导向孔				
GBUSH-M3	5	000	10	502

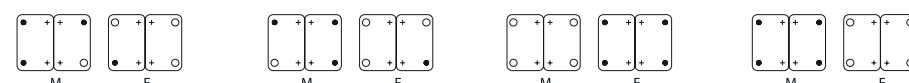
适用于可安装一个插体或框架的外壳

For hoods/housings with one insert/one frame

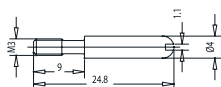


适用于可安装两个插体或框架的外壳

For hoods/housings with two inserts/two frames



导向销/Guide pin



订货号/Order NO.:

导向销				
GPIN-M3	5	000	10	503

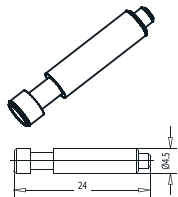
○ 导向套/Guide bush M-公插体/Male connector

● 导向销/Guide pin F-母插体/Female connector

+ Normal mounting screw



编号销/Code pin



编码销

CODE-E	5	000	10	504
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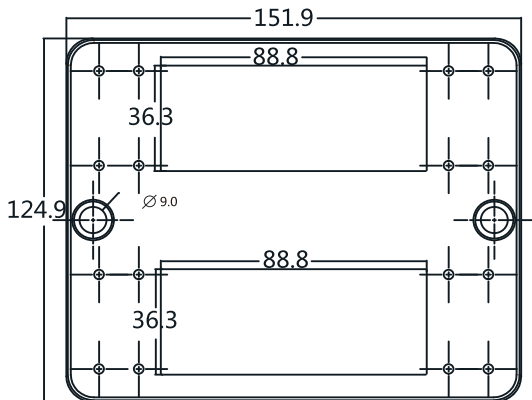
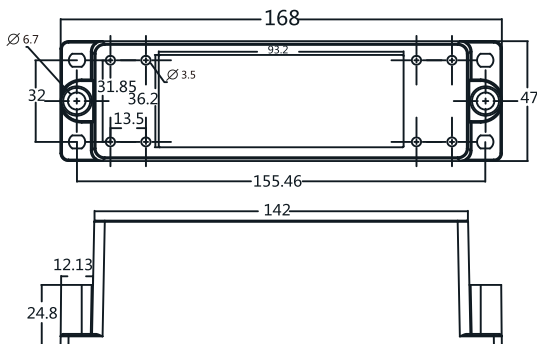
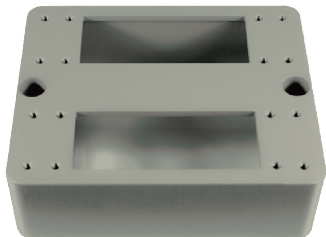
- ① 使用此编码销，可避免相同连接器的误插，
Use of the coding pin prevents incorrect mating to other connectors of the same type.
- ② 适用于 HEC,HEE,HQ 5/0,HM-006,HM-008
For HEC,HEE,HQ 5/0,HM-006,HM-008
- ③ 使用编码销时，公插对应孔不能装插针
The male pin should be omitted from the opposing cavity in the male insert.

接线盒 / Terminal box



接线盒

WL-16/24-1T (蓝色)	5	101	69	101
WL-16/24-2T (蓝色)	5	102	70	102
WL-16/24-1T (灰色)	5	201	69	103
WL-16/24-2T (灰色)	5	202	70	104
WL-16/24-1T (橙色)	5	301	69	105
WL-16/24-2T (橙色)	5	302	70	106
WL-16/24-1T (黑色)	5	401	69	107
WL-16/24-2T (黑色)	5	402	70	108



工具/Tools



HD退针器

TL00				
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HD退针器
Removal tool for
crimp contacts (HD,HDD,HM)



HEE退针器

TL01				
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HEE退针器
Removal tool for
crimp contacts (HEC,HEE,HM)



冷压钳

TL02				
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冷压钳
Crimping tool

