HIGH VOLTAGE APPLICATIONS

Product Catalog

HIRSCHMANN AUTOMOTIVE

Index

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About us

WE CREATE THE MOBILITY OF TOMORROW

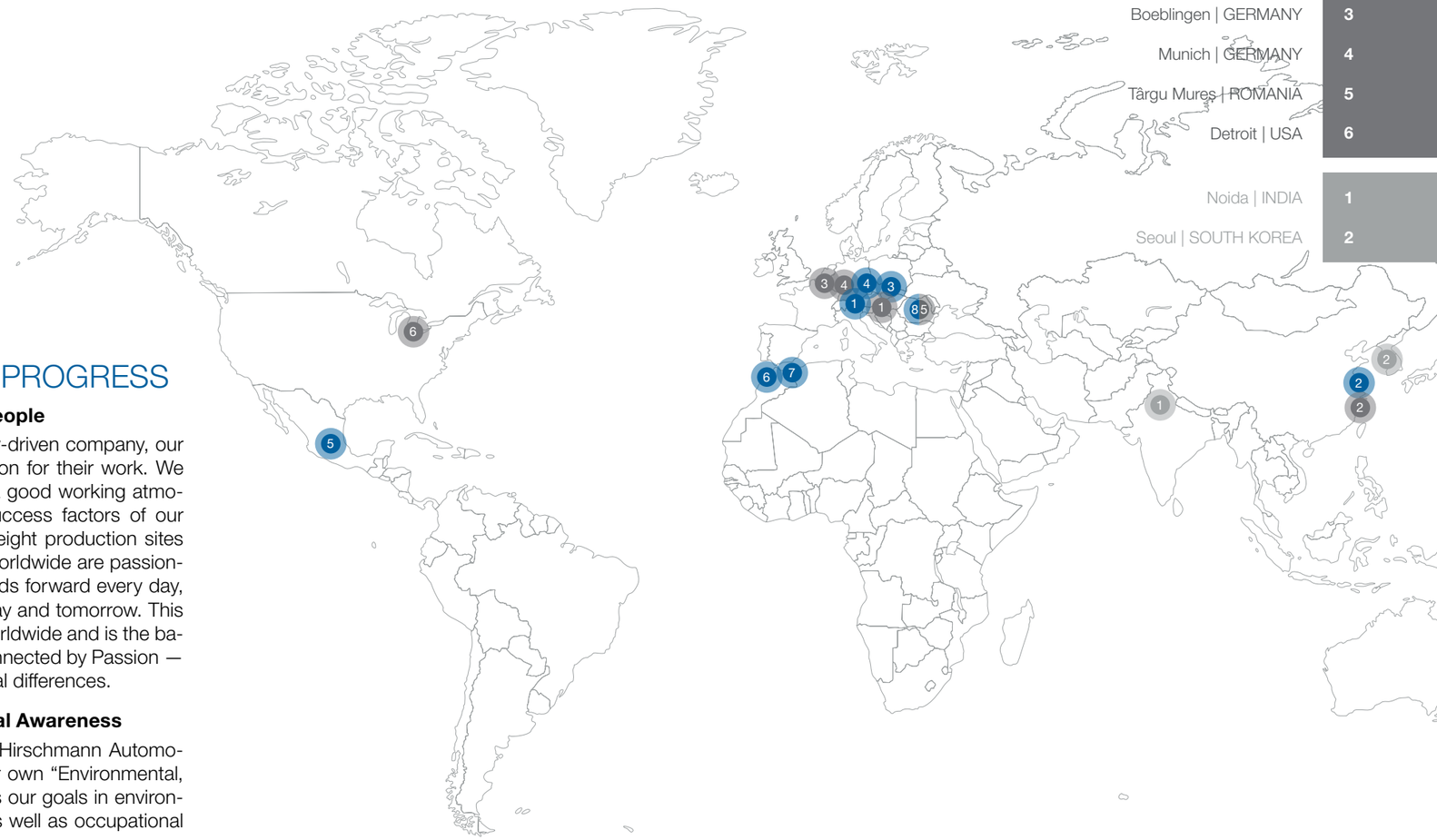
For more than 60 years, we have been driving progress in the automotive industry. Our specialty? Connectors, cable assemblies, sensors, and application-specific connectivity solutions. For the current megatrends of eMobility and autonomous driving, we develop systems that set new benchmarks.

The components are developed for applications that withstand the life cycle of the vehicle and extreme environmental requirements. Whether for cars with combustion engines or for electrified vehicles, whether standard products or individual customer solutions – we develop systems that set new standards and support you in making the most of your idea. To fully exploit its potential, the company is digitizing and optimizing the entire value chain.

Under the most extreme conditions, this is our self-conception.

COMPANY KEY FIGURES

Number of Employees worldwide	6,900
Plant Locations Production	8
Competence Centers	6
Distributor	2
Founding Year	1959



MOTION AND RELIABILITY: THAT IS OUR DEFINITION OF PROGRESS

A Competent Partner in Every Regard

We regard it as our duty to constantly develop and offer the automotive industry and especially our customers cutting-edge technologies. With professional tools and special machine construction, we create the best conditions for the efficient implementation of new products and special parts.

Quality Comes First

The central measuring and testing laboratory is the guarantor for fully tested components, from the design and construction phase through to series production. With vibration tests, metallography, microscopy, x-rays, tightness, infrared thermal analysis, or environmental impact analyses, you can be ensured that mature and flawless products leave our premises. Laboratory tests complete the extensive and indispensable quality process.

Good Connections Start with People

While we are an entirely technology-driven company, our true core is people and their passion for their work. We believe that good employees and a good working atmosphere are the most important success factors of our time. Around 6,900 employees at eight production sites as well as 5 competence centers worldwide are passionately driving the major industry trends forward every day, actively shaping the mobility of today and tomorrow. This “we” concept connects the sites worldwide and is the basis of our corporate philosophy: Connected by Passion — across borders, oceans, and cultural differences.

Sustainability and Environmental Awareness

The same standard applies to the Hirschmann Automotive Group worldwide, following our own “Environmental, Health & Safety Policy”. It describes our goals in environmental and energy management as well as occupational health and safety.

HPS40-1 2+2

INTRODUCTION

In cooperation with well-known OEMs, Hirschmann Automotive developed a future-oriented system:

The HIRSCHMANN AUTOMOTIVE PowerStar high-voltage connectors. The innovative solutions fulfill highest quality requirements and comply with global automotive standards.

The HIRSCHMANN AUTOMOTIVE PowerStar 40-1 is particularly impressive due to it’s optimized design and low weight. The connector is watertight and fully efficient even at high temperatures – thus ensuring safe operation even under harsh environmental conditions. The system is easy to assemble, have an integrated interlock and a circumferential shield transition for secure connection and disconnection.

HPS40-1 2+2 FEMALE CONNECTOR MCC

SYSTEM NUMBER	805-972-…00
GENDER	female
CONNECTION TYPE	multicore cable
PRODUCT SPECIFICATION	EPS-100043
PROCESS SPECIFICATION	EVS-100097
APPLICATIONS	auxiliary units

TECHNICAL PRODUCT INFORMATION

CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	2 (high voltage) + 2 (HVIL optional)
OPERATING CONDITION	750 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	62 A at 80° C (6.0 mm^2), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 mm^2)	> 70 dB (10 kHz to 5 MHz) > 65 dB (5 MHz to 500 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 10 mΩ (total from sheathed cable until aggregate housing)
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (without fixation point)
VIBRATION STRENGTH 3	according to LV214/215 - PG17 (first fixation point at < 100 mm)
MATING/UNMATING FORCE	< 85 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 300 N
HVIL SYSTEM	minimum 1.0 mm (nominal 2.0 mm), leading
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

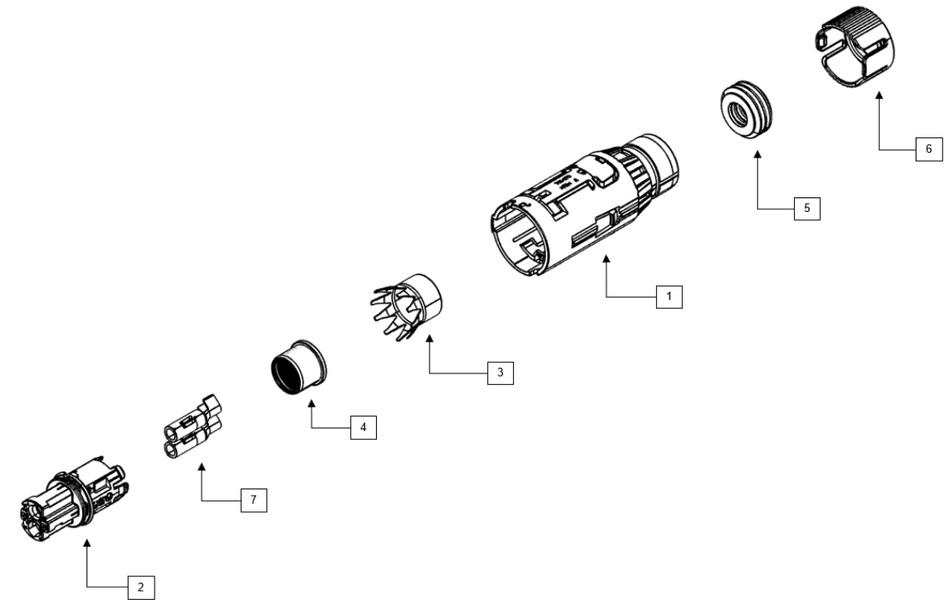
CONTACT SYSTEM	HCT4 (4.0 mm round terminal), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	2.5 mm^2, 4.0 mm^2, 6.0 mm^2
CONTACT CARRIER CODINGS	A, B, C, Z

DESCRIPTION SINGLE PARTS

			REQUIRED	OPTIONAL
1	HPS40-1 LOCKING DEVICE	806-230-515	•	
2	HPS40-1 FEMALE CONTACT CARRIER	806-229-…	•	
3	HPS40-1 SHIELD CRIMP SOCKET	709-115-511	•	
4	HPS40-1 STRESS RELIEF MCC	709-107-…	•	
5	HPS40-1 CABLE SEAL MCC	709-113-…	•	
6	HPS40-1 COVER CAP MCC	705-749-…	•	
7	HCT4 TERMINAL	709-427-…	•	
*	… different indices depending on the used variant (see single part drawings)			
*	… shielded high voltage cable (see possible cable suppliers in the process specification)			



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MATING CONNECTOR

HPS40-1 2+2 MALE CONNECTOR Page 20, 22, 24

HPS40-1 2+2 FEMALE CONNECTOR SCC

SYSTEM NUMBER	805-972-…00
GENDER	female
CONNECTION TYPE	singlecore cable
PRODUCT SPECIFICATION	EPS-100043
PROCESS SPECIFICATION	EVS-100097
APPLICATIONS	auxiliary units

TECHNICAL PRODUCT INFORMATION

CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	2 (high voltage) + 2 (HVIL optional)
OPERATING CONDITION	750 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	62 A at 80° C (6.0 mm^2), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 mm^2)	> 70 dB (10 kHz to 5 MHz) > 65 dB (5 MHz to 500 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 10 mΩ (total from sheathed cable until aggregate housing)
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (without fixation point)
VIBRATION STRENGTH 3	according to LV214/215 - PG17 (first fixation point at < 100 mm)
MATING/UNMATING FORCE	< 85 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 300 N
HVIL SYSTEM	minimum 1.0 mm (nominal 2.0 mm), leading
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

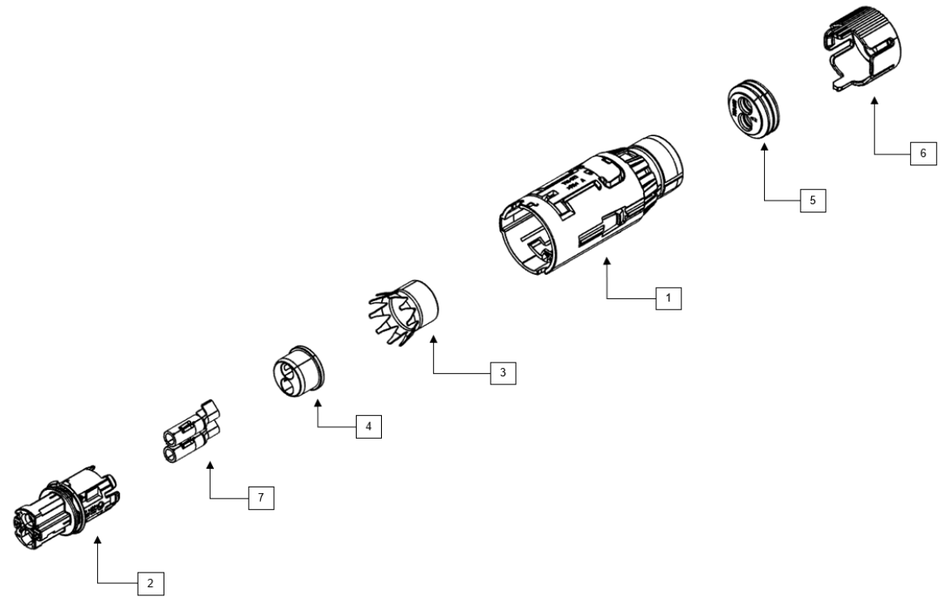
CONTACT SYSTEM	HCT4 (4.0 mm round terminal), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	3.0 mm^2, 5.0 mm^2
CONTACT CARRIER CODINGS	A, B, C, Z

DESCRIPTION SINGLE PARTS

			REQUIRED	OPTIONAL
1	HPS40-1 LOCKING DEVICE	806-230-515	•	
2	HPS40-1 FEMALE CONTACT CARRIER	806-229-…	•	
3	HPS40-1 SHIELD CRIMP SOCKET	709-115-511	•	
4	HPS40-1 STRESS RELIEF SCC	709-973-...	•	
5	HPS40-1 CABLE SEAL SCC	709-972-501	•	
6	HPS40-1 COVER CAP SCC	706-541-501	•	
7	HCT4 TERMINAL	709-427-504	•	
*	… different indices depending on the used variant (see single part drawings)			
*	… shielded high voltage cable (see possible cable suppliers in the process specification)			



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MATING CONNECTOR

HPS40-1 2+2 MALE CONNECTOR Page 20, 22, 24

HPS40-1 2+2 FEMALE CONNECTOR MCC WITH CPA

SYSTEM NUMBER	805-972-…00
GENDER	female
CONNECTION TYPE	multicore cable
PRODUCT SPECIFICATION	EPS-100043
PROCESS SPECIFICATION	EVS-100097
APPLICATIONS	auxiliary units

TECHNICAL PRODUCT INFORMATION

CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	2 (high voltage) + 2 (HVIL optional)
OPERATING CONDITION	750 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	62 A at 80° C (6.0 mm^2), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 mm^2)	> 70 dB (10 kHz to 5 MHz) > 65 dB (5 MHz to 500 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 10 mΩ (total from sheathed cable until aggregate housing)
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (without fixation point)
VIBRATION STRENGTH 3	according to LV214/215 - PG17 (first fixation point at < 100 mm)
MATING/UNMATING FORCE	< 85 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 300 N
CPA SYSTEM	operating force < 30 N
HVIL SYSTEM	minimum 1.0 mm (nominal 2.0 mm), leading
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

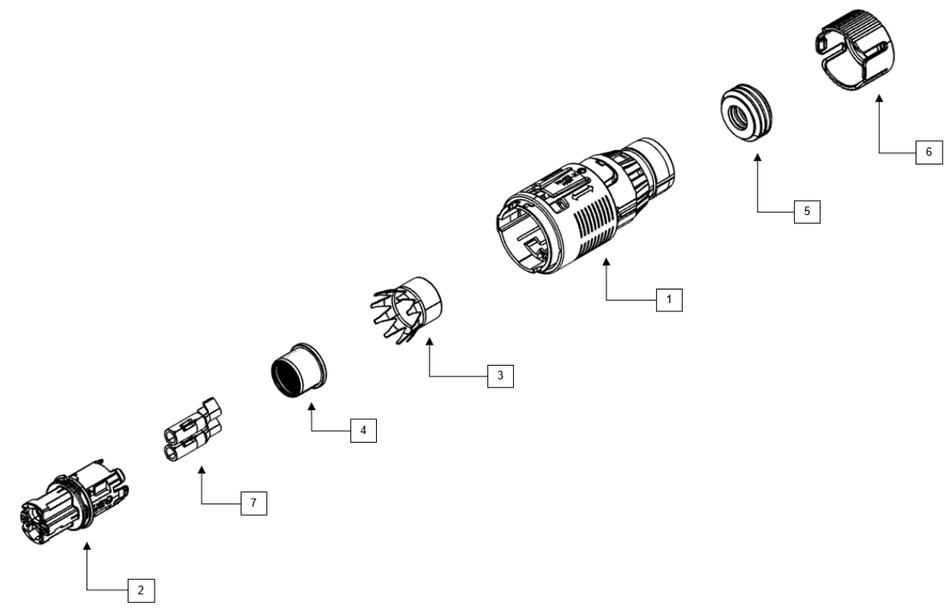
CONTACT SYSTEM	HCT4 (4.0 mm round terminal), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	2.5 mm^2, 4.0 mm^2, 6.0 mm^2
CONTACT CARRIER CODINGS	A, B, C, Z

DESCRIPTION SINGLE PARTS

			REQUIRED	OPTIONAL
1	HPS40-1 LOCKING DEVICE	806-230-516	•	
2	HPS40-1 FEMALE CONTACT CARRIER	806-229-…	•	
3	HPS40-1 SHIELD CRIMP SOCKET	709-115-511	•	
4	HPS40-1 STRESS RELIEF MCC	709-107-…	•	
5	HPS40-1 CABLE SEAL MCC	709-113-…	•	
6	HPS40-1 COVER CAP MCC	705-749-…	•	
7	HCT4 TERMINAL	709-427-…	•	
*	… different indices depending on the used variant (see single part drawings)			
*	… shielded high voltage cable (see possible cable suppliers in the process specification)			



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MATING CONNECTOR

HPS40-1 2+2 MALE CONNECTOR Page 20, 22, 24

HPS40-1 2+2 FEMALE CONNECTOR SCC WITH CPA

SYSTEM NUMBER	805-972-…00
GENDER	female
CONNECTION TYPE	singlecore cable
PRODUCT SPECIFICATION	EPS-100043
PROCESS SPECIFICATION	EVS-100097
APPLICATIONS	auxiliary units

TECHNICAL PRODUCT INFORMATION

CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	2 (high voltage) + 2 (HVIL optional)
OPERATING CONDITION	750 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	62 A at 80° C (6.0 mm^2), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 mm^2)	> 70 dB (10 kHz to 5 MHz) > 65 dB (5 MHz to 500 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 10 mΩ (total from sheathed cable until aggregate housing)
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (without fixation point)
VIBRATION STRENGTH 3	according to LV214/215 - PG17 (first fixation point at < 100 mm)
MATING/UNMATING FORCE	< 85 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 300 N
CPA SYSTEM	operating force < 30 N
HVIL SYSTEM	minimum 1.0 mm (nominal 2.0 mm), leading
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

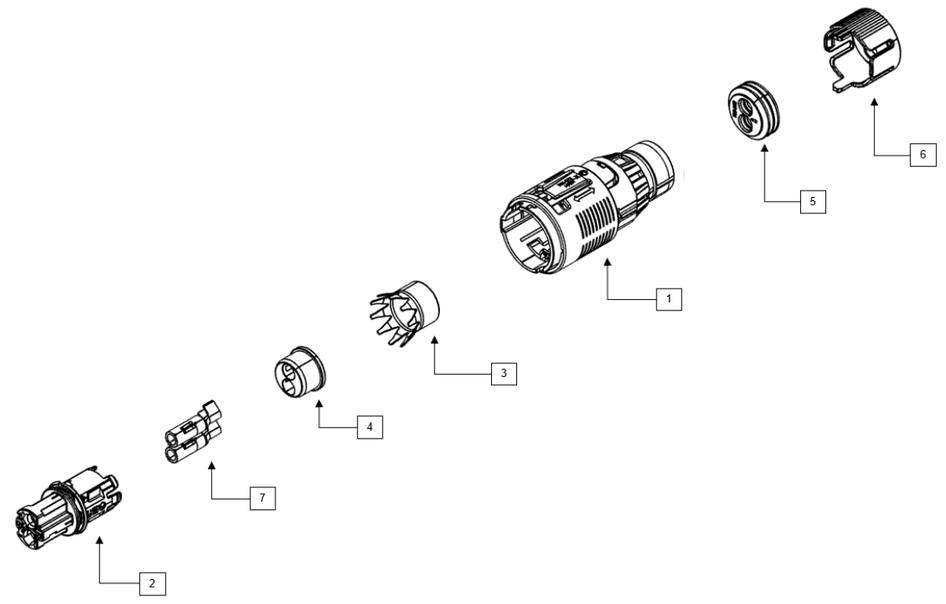
CONTACT SYSTEM	HCT4 (4.0 mm round terminal), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	3.0 mm^2, 5.0 mm^2
CONTACT CARRIER CODINGS	A, B, C, Z

DESCRIPTION SINGLE PARTS

			REQUIRED	OPTIONAL
1	HPS40-1 LOCKING DEVICE	806-230-516	•	
2	HPS40-1 FEMALE CONTACT CARRIER	806-229-…	•	
3	HPS40-1 SHIELD CRIMP SOCKET	709-115-511	•	
4	HPS40-1 STRESS RELIEF SCC	709-973-...	•	
5	HPS40-1 CABLE SEAL SCC	709-972-501	•	
6	HPS40-1 COVER CAP SCC	706-541-501	•	
7	HCT4 TERMINAL	709-427-504	•	
*	… different indices depending on the used variant (see single part drawings)			
*	… shielded high voltage cable (see possible cable suppliers in the process specification)			



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MATING CONNECTOR

HPS40-1 2+2 MALE CONNECTOR Page 20, 22, 24

HPS40-1 2+2 FEMALE CONNECTOR BLIND PLUG

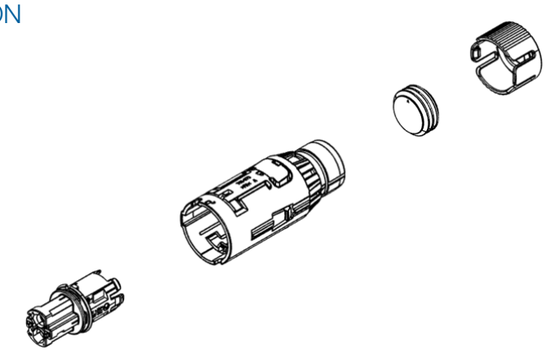
SYSTEM NUMBER	906-151-…00
GENDER	female
CONNECTION TYPE	blind plug
APPLICATIONS	auxiliary units

TECHNICAL PRODUCT INFORMATION

CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	2 (HVIL optional)
OPERATING CONDITION	750 VDC
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
SHIELDED AREA	360° circumferential
MATING/UNMATING FORCE	< 85 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 300 N
HVIL SYSTEM	minimum 1.0 mm (nominal 2.0 mm), leading
VALIDATION NORMS	compliant with several automotive test specifications

CUSTOMER SPECIFIC INFORMATION

CONTACT CARRIER CODINGS	Z



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MATING CONNECTOR

HPS40-1 2+2 MALE CONNECTOR	Page 20, 22, 24

HPS40-1 2+2 MALE CONNECTOR 180° WIRE WPT

SYSTEM NUMBER	806-029-…00
GENDER	male
CONNECTION TYPE	singlecore cable
PRODUCT SPECIFICATION	EPS-100042
APPLICATIONS	auxiliary units

TECHNICAL PRODUCT INFORMATION

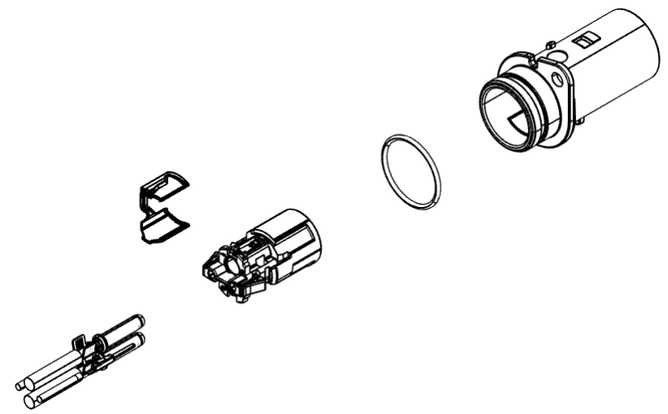
CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	2 (high voltage) + 2 (HVIL optional)
OPERATING CONDITION	750 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	62 A at 80° C (6.0 mm^2), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 mm^2)	> 70 dB (10 kHz to 5 MHz) > 65 dB (5 MHz to 500 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 10 mΩ (total from sheathed cable until aggregate housing)
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (without fixation point)
VIBRATION STRENGTH 3	according to LV214/215 - PG17 (first fixation point at < 100 mm)
MATING/UNMATING FORCE	< 85 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 300 N
CPA SYSTEM	operating force < 30 N
HVIL SYSTEM	minimum 1.0 mm (nominal 2.0 mm), leading
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

CONTACT SYSTEM	HCT4 (4.0 mm round terminal), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	2.5 mm^2, 4.0 mm^2, 6.0 mm^2
CONTACT CARRIER CODINGS	A, B, C
CONFIGURATION	customer specific wire configuration possible on request
SCREW TYPE	M4



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MATING CONNECTOR

HPS40-1 2+2 FEMALE CONNECTOR Page 10, 12, 14, 16, 18

HPS40-1 2+2 MALE CONNECTOR 90° WIRE WPT

SYSTEM NUMBER	806-029-…00
GENDER	male
CONNECTION TYPE	singlecore cable
PRODUCT SPECIFICATION	EPS-100042
APPLICATIONS	auxiliary units

TECHNICAL PRODUCT INFORMATION

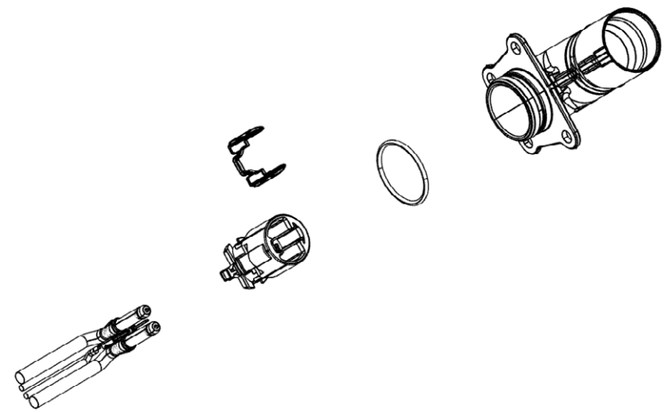
CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	2 (high voltage) + 2 (HVIL optional)
OPERATING CONDITION	750 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	62 A at 80° C (6.0 mm^2), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 mm^2)	> 70 dB (10 kHz to 5 MHz) > 65 dB (5 MHz to 500 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 10 mΩ (total from sheathed cable until aggregate housing)
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (without fixation point)
VIBRATION STRENGTH 3	according to LV214/215 - PG17 (first fixation point at < 100 mm)
MATING/UNMATING FORCE	< 85 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 300 N
CPA SYSTEM	operating force < 30 N
HVIL SYSTEM	minimum 1.0 mm (nominal 2.0 mm), leading
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

CONTACT SYSTEM	HCT4 (4.0 mm round terminal), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	2.5 mm^2, 4.0 mm^2, 6.0 mm^2
CONTACT CARRIER CODINGS	A, B, C
CONFIGURATION	customer specific wire configuration possible on request
SCREW TYPE	M4



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MATING CONNECTOR

HPS40-1 2+2 FEMALE CONNECTOR Page 10, 12, 14, 16, 18

HPS40-1 2+2 MALE CONNECTOR 124° WIRE WPT

SYSTEM NUMBER	906-504-…00
GENDER	male
CONNECTION TYPE	singlecore cable
PRODUCT SPECIFICATION	EPS-100042
APPLICATIONS	auxiliary units

TECHNICAL PRODUCT INFORMATION

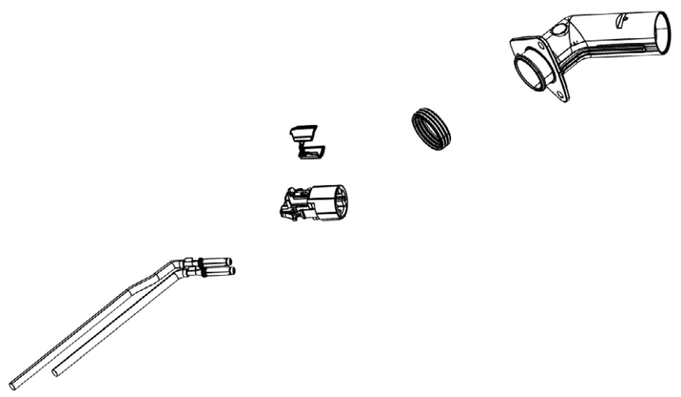
CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	2 (high voltage) + 2 (HVIL optional)
OPERATING CONDITION	750 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	62 A at 80° C (6.0 mm^2), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 mm^2)	> 70 dB (10 kHz to 5 MHz) > 65 dB (5 MHz to 500 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 10 mΩ (total from sheathed cable until aggregate housing)
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (without fixation point)
VIBRATION STRENGTH 3	according to LV214/215 - PG17 (first fixation point at < 100 mm)
MATING/UNMATING FORCE	< 85 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 300 N
CPA SYSTEM	operating force < 30 N
HVIL SYSTEM	minimum 1.0 mm (nominal 2.0 mm), leading
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

CONTACT SYSTEM	HCT4 (4.0 mm round terminal), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	2.5 mm^2, 4.0 mm^2, 6.0 mm^2
CONTACT CARRIER CODINGS	A, B, C
CONFIGURATION	customer specific wire configuration possible on request
SCREW TYPE	M4



MATING CONNECTOR

HPS40-1 2+2 FEMALE CONNECTOR Page 10, 12, 14, 16, 18

HPS40-1 3+2 FEMALE CONNECTOR MCC

SYSTEM NUMBER	807-135-…00
GENDER	female
CONNECTION TYPE	multicore cable
PRODUCT SPECIFICATION	EPS-100043
PROCESS SPECIFICATION	EVS-100071
APPLICATIONS	auxiliary units

TECHNICAL PRODUCT INFORMATION

CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	3 (high voltage) + 2 (HVIL optional)
OPERATING CONDITION	750 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	35 A at 80° C (2.5 mm^2), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 mm^2)	> 70 dB (10 kHz to 5 MHz) > 65 dB (5 MHz to 500 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 10 mΩ (total from sheathed cable until aggregate housing)
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (without fixation point)
VIBRATION STRENGTH 3	according to LV214/215 - PG17 (first fixation point at < 100 mm)
MATING/UNMATING FORCE	< 85 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 300 N
HVIL SYSTEM	minimum 1.0 mm (nominal 2.0 mm), leading
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

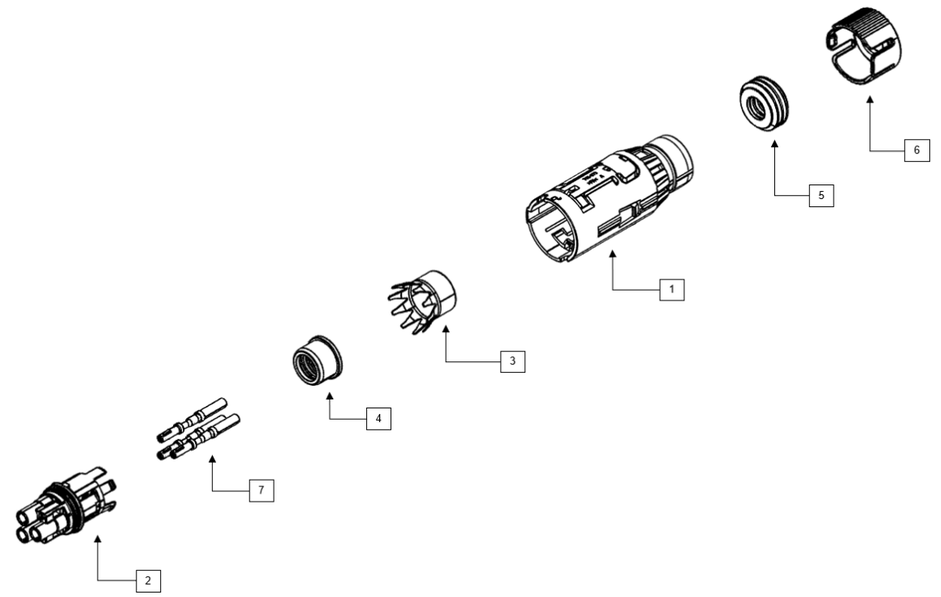
CONTACT SYSTEM	Kostal LKS (1.5 mm terminal)
MATERIAL/SURFACE	CuBe, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	2.5 mm^2
CONTACT CARRIER CODINGS	A

DESCRIPTION SINGLE PARTS

			REQUIRED	OPTIONAL
1	HPS40-1 LOCKING DEVICE	806-230-515	•	
2	HPS40-1 FEMALE CONTACT CARRIER	807-137-501	•	
3	HPS40-1 SHIELD CRIMP SOCKET	709-115-511	•	
4	HPS40-1 STRESS RELIEF MCC	709-107-518	•	
5	HPS40-1 CABLE SEAL MCC	709-113-512	•	
6	HPS40-1 COVER CAP MCC	705-749-518	•	
7	KOSTAL LKS 1.5 MM TERMINAL	2 21 24 49288 0 (KOSTAL NO.)	•	
*	… shielded high voltage cable (see possible cable suppliers in the process specification)			



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MATING CONNECTOR

HPS40-1 3+2 MALE CONNECTOR Page 30, 32

HPS40-1 3+2 FEMALE CONNECTOR MCC WITH CPA

SYSTEM NUMBER	807-135-…00
GENDER	female
CONNECTION TYPE	multicore cable
PRODUCT SPECIFICATION	EPS-100043
PROCESS SPECIFICATION	EVS-100071
APPLICATIONS	auxiliary units

TECHNICAL PRODUCT INFORMATION

CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	3 (high voltage) + 2 (HVIL optional)
OPERATING CONDITION	750 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	35 A at 80° C (2.5 mm^2), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 mm^2)	> 70 dB (10 kHz to 5 MHz) > 65 dB (5 MHz to 500 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 10 mΩ (total from sheathed cable until aggregate housing)
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (without fixation point)
VIBRATION STRENGTH 3	according to LV214/215 - PG17 (first fixation point at < 100 mm)
MATING/UNMATING FORCE	< 85 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 300 N
CPA SYSTEM	operating force < 30 N
HVIL SYSTEM	minimum 1.0 mm (nominal 2.0 mm), leading
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

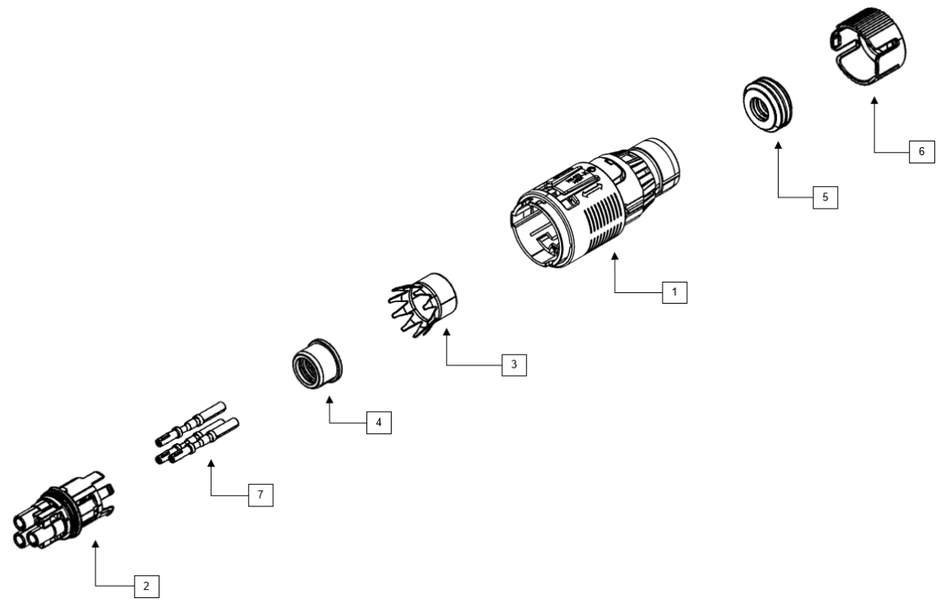
CONTACT SYSTEM	Kostal LKS (1.5 mm terminal)
MATERIAL/SURFACE	CuBe, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	2.5 mm^2
CONTACT CARRIER CODINGS	A

DESCRIPTION SINGLE PARTS

			REQUIRED	OPTIONAL
1	HPS40-1 LOCKING DEVICE	806-230-516	•	
2	HPS40-1 FEMALE CONTACT CARRIER	807-137-501	•	
3	HPS40-1 SHIELD CRIMP SOCKET	709-115-511	•	
4	HPS40-1 STRESS RELIEF MCC	709-107-518	•	
5	HPS40-1 CABLE SEAL MCC	709-113-512	•	
6	HPS40-1 COVER CAP MCC	705-749-518	•	
7	KOSTAL LKS 1.5 MM TERMINAL	2 21 24 49288 0 (KOSTAL NO.)	•	
*	… shielded high voltage cable (see possible cable suppliers in the process specification)			



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MATING CONNECTOR

HPS40-1 3+2 MALE CONNECTOR Page 30, 32

HPS40-1 3+2 MALE CONNECTOR 180° WIRE WPT

SYSTEM NUMBER	807-136-…00
GENDER	male
CONNECTION TYPE	singlecore cable
PRODUCT SPECIFICATION	EPS-100042
APPLICATIONS	auxiliary units

TECHNICAL PRODUCT INFORMATION

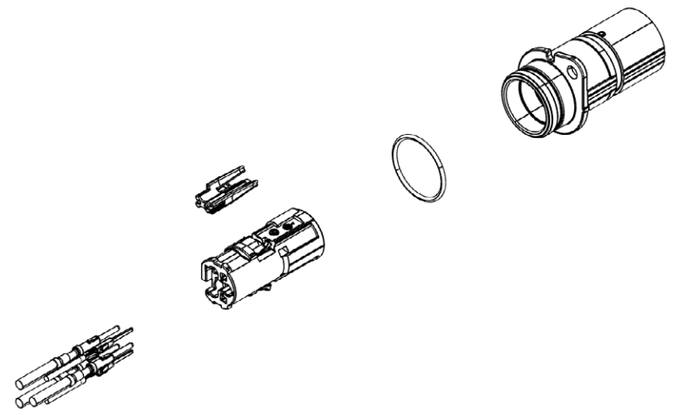
CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	3 (high voltage) + 2 (HVIL optional)
OPERATING CONDITION	750 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	35 A at 80° C (2.5 mm^2), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 mm^2)	> 70 dB (10 kHz to 5 MHz) > 65 dB (5 MHz to 500 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 10 mΩ (total from sheathed cable until aggregate housing)
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (without fixation point)
VIBRATION STRENGTH 3	according to LV214/215 - PG17 (first fixation point at < 100 mm)
MATING/UNMATING FORCE	< 85 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 300 N
CPA SYSTEM	operating force < 30 N
HVIL SYSTEM	minimum 1.0 mm (nominal 2.0 mm), leading
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

CONTACT SYSTEM	Kostal LKS (1.5 mm terminal)
MATERIAL/SURFACE	CuBe, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	2.5 mm^2
CONTACT CARRIER CODINGS	A



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MATING CONNECTOR

HPS40-1 3+2 FEMALE CONNECTOR Page 26, 28

HPS40-1 3+2 MALE CONNECTOR 90° WIRE WPT

SYSTEM NUMBER	807-136-…00
GENDER	male
CONNECTION TYPE	singlecore cable
PRODUCT SPECIFICATION	EPS-100042
APPLICATIONS	auxiliary units

TECHNICAL PRODUCT INFORMATION

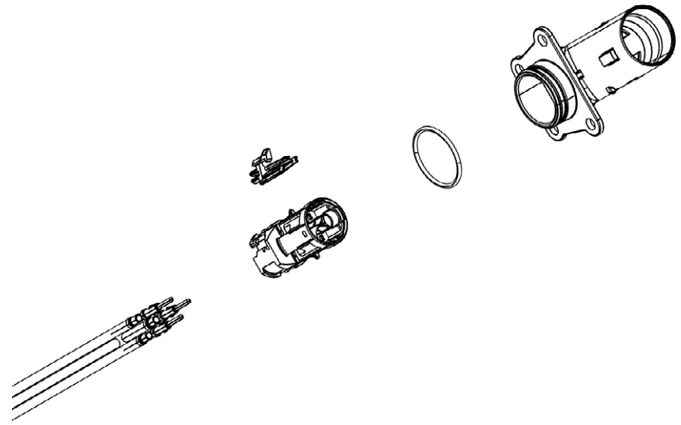
CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	3 (high voltage) + 2 (HVIL optional)
OPERATING CONDITION	750 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	35 A at 80° C (2.5 mm^2), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 mm^2)	> 70 dB (10 kHz to 5 MHz) > 65 dB (5 MHz to 500 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 10 mΩ (total from sheathed cable until aggregate housing)
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (without fixation point)
VIBRATION STRENGTH 3	according to LV214/215 - PG17 (first fixation point at < 100 mm)
MATING/UNMATING FORCE	< 85 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 300 N
CPA SYSTEM	operating force < 30 N
HVIL SYSTEM	minimum 1.0 mm (nominal 2.0 mm), leading
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

CONTACT SYSTEM	Kostal LKS (1.5 mm terminal)
MATERIAL/SURFACE	CuBe, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	2.5 mm^2
CONTACT CARRIER CODINGS	A



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MATING CONNECTOR

HPS40-1 3+2 FEMALE CONNECTOR Page 26, 28

HPS40-2 2+2

INTRODUCTION

In cooperation with well-known OEMs, Hirschmann Automotive developed a future-oriented system:

The HIRSCHMANN AUTOMOTIVE PowerStar high-voltage connectors. The innovative solutions fulfill highest quality requirements and comply with global automotive standards.

The HIRSCHMANN AUTOMOTIVE PowerStar 40-2 is particularly impressive due to it’s optimized design and low weight. The connector is watertight and fully efficient even at high temperatures – thus ensuring safe operation even under harsh environmental conditions. The system is easy to assemble, have an integrated interlock and a circumferential shield transition for secure connection and disconnection.

HPS40-2 2+2 FEMALE CONNECTOR MCC

SYSTEM NUMBER	807-655-...00
GENDER	female
CONNECTION TYPE	multicore cable
PRODUCT SPECIFICATION	EPS-100096
PROCESS SPECIFICATION	EVS-100096
APPLICATIONS	auxiliary units

TECHNICAL PRODUCT INFORMATION

CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	2 (high voltage) + 2 (HVIL optional)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	60 A at 80° C (6.0 mm^2), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 mm^2)	until 30 MHz < 1 mΩ/m > 75 dB (10 kHz to 500 MHz) > 65 dB (500 MHz to 1,000 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 2.0 mΩ (total from sheathed cable until aggregate housing)
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (without fixation point)
VIBRATION STRENGTH 3	according to LV214/215 - PG17 (first fixation point at < 200 mm)
VIBRATION STRENGTH 4	according to LV214/215 - PG17 (first fixation point at < 50 mm)
MATING/UNMATING FORCE	< 65 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 200 N
CPA SYSTEM	operating force < 30 N
HVIL SYSTEM	minimum 1.0 mm (nominal 2.0 mm), leading
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

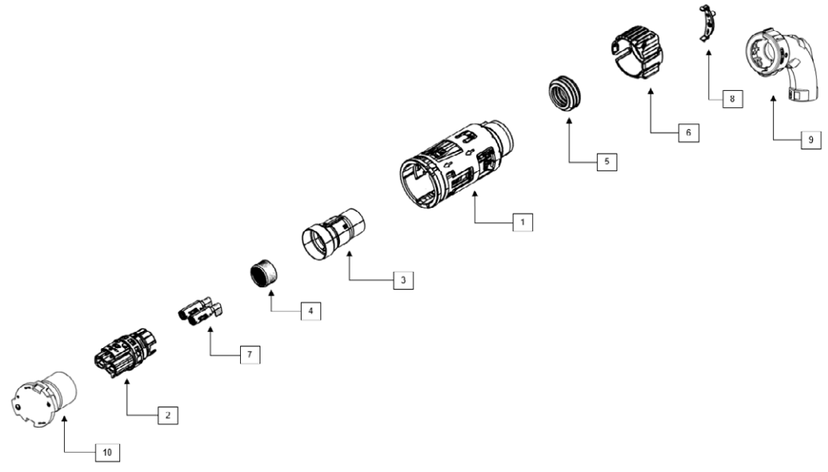
CONTACT SYSTEM	HCT4 (4.0 mm round terminal), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	2.5 mm^2, 4.0 mm^2, 6.0 mm^2
CONTACT CARRIER CODINGS	A, B, C, D, Z

DESCRIPTION SINGLE PARTS

			REQUIRED	OPTIONAL
1	HPS40-2 LOCKING DEVICE	807-656-…	•	
2	HPS40-2 FEMALE CONTACT CARRIER	807-657-…	•	
3	HPS40-2 SHIELDING SLEEVE MCC	709-840-501	•	
4	HPS40-2 STRESS RELIEF MCC	709-841-…	•	
5	HPS40-2 CABLE SEAL MCC	709-113-…	•	
6	HPS40-2 COVER CAP MCC	706-430-…	•	
7	HCT4 TERMINAL	709-427-…	•	
8	HPS40-2 CODING CLIP	706-505-…		•
9	HPS40-2 90° ANGLE CAP	706-506-503		•
10	HPS40-2 PROTECTION CAP	706-672-501		•
*	… different indices depending on the used variant (see single part drawings)			
*	… shielded high voltage cable (see possible cable suppliers in the process specification)			



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MATING CONNECTOR

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HPS IN-LINE MALE CONNECTOR	Page 104, 106

HPS40-2 2+2 FEMALE CONNECTOR SCC

SYSTEM NUMBER	807-655-...00
GENDER	female
CONNECTION TYPE	singlecore cable
PRODUCT SPECIFICATION	EPS-100096
PROCESS SPECIFICATION	EVS-100111
APPLICATIONS	auxiliary units

TECHNICAL PRODUCT INFORMATION

CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	2 (high voltage) + 2 (HVIL optional)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	63 A at 80° C (6.0 mm^2), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 mm^2)	until 30 MHz < 1 mΩ/m > 75 dB (10 kHz to 500 MHz) > 65 dB (500 MHz to 1,000 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 2.0 mΩ (total from sheathed cable until aggregate housing)
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (without fixation point)
VIBRATION STRENGTH 3	according to LV214/215 - PG17 (without fixation point)
VIBRATION STRENGTH 4	according to LV214/215 - PG17 (first fixation point at < 200 mm)
MATING/UNMATING FORCE	< 65 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 200 N
CPA SYSTEM	operating force < 30 N
HVIL SYSTEM	minimum 1.0 mm (nominal 2.0 mm), leading
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

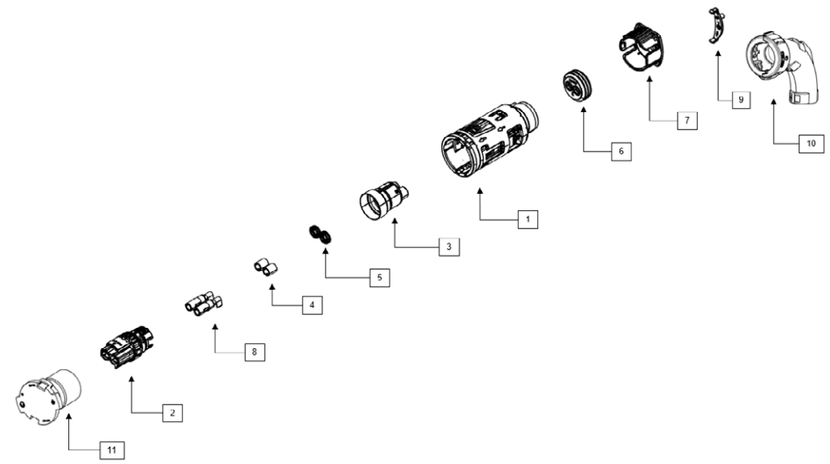
CONTACT SYSTEM	HCT4 (4.0 mm round terminal), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	4.0 mm^2, 6.0 mm^2
CONTACT CARRIER CODINGS	A, B, C, D, Z

DESCRIPTION SINGLE PARTS

			REQUIRED	OPTIONAL
1	HPS40-2 LOCKING DEVICE	807-656-…	•	
2	HPS40-2 FEMALE CONTACT CARRIER	807-657-…	•	
3	HPS40-2 SHIELDING SLEEVE SCC	710-161-…	•	
4	HPS40-2 STRESS RELIEF SCC	710-195-502 (4.0 MM^2), 710-671-501 (6.0 MM^2)	•	
5	HPS40-2 X-RING	710-675-501 (6.0MM^2)	•	
6	HPS40-2 CABLE SEAL SCC	709-972-…	•	
7	HPS40-2 COVER CAP SCC	706-822-…	•	
8	HCT4 TERMINAL	709-427-…	•	
9	HPS40-2 CODING CLIP	706-505-…		•
10	HPS40-2 90° ANGLE CAP	706-506-503		•
11	HPS40-2 PROTECTION CAP	706-672-501		•
*	… different indices depending on the used variant (see single part drawings)			
*	… shielded high voltage cable (see possible cable suppliers in the process specification)			



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MATING CONNECTOR

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HPS IN-LINE MALE CONNECTOR	Page 104, 106

HPS40-2 2+2 FEMALE CONNECTOR BLIND PLUG

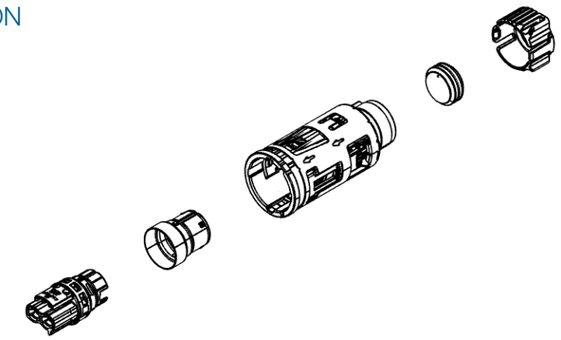
SYSTEM NUMBER	809-472-…00
GENDER	female
CONNECTION TYPE	blind plug
APPLICATIONS	auxiliary units

TECHNICAL PRODUCT INFORMATION

CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	2 (HVIL optional)
OPERATING CONDITION	1,000 VDC
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
SHIELDED AREA	360° circumferential
MATING/UNMATING FORCE	< 65 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 200 N
CPA SYSTEM	operating force < 30 N
HVIL SYSTEM	minimum 1.0 mm (nominal 2.0 mm), leading
VALIDATION NORMS	compliant with several automotive test specifications

CUSTOMER SPECIFIC INFORMATION

CONTACT CARRIER CODINGS	Z



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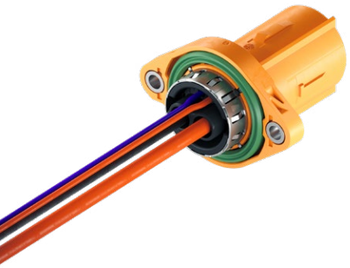
MATING CONNECTOR

HPS40-2 2+2 MALE CONNECTOR	Page 42, 44, 46, 48, 50, 52, 54, 56



HPS40-2 2+2 MALE CONNECTOR 180° WIRE

SYSTEM NUMBER	807-652-…00
GENDER	male
CONNECTION TYPE	singlecore cable
PRODUCT SPECIFICATION	EPS-100132
APPLICATIONS	auxiliary units

TECHNICAL PRODUCT INFORMATION

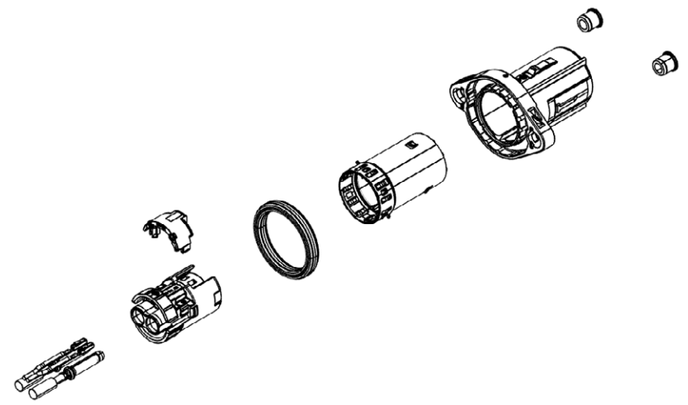
CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	2 (high voltage) + 2 (HVIL optional)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	63 A at 80° C (6.0 mm^2), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 mm^2)	until 30 MHz < 1 mΩ/m > 75 dB (10 kHz to 500 MHz) > 65 dB (500 MHz to 1,000 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 2.0 mΩ (total from sheathed cable until aggregate housing)
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (without fixation point)
VIBRATION STRENGTH 3	according to LV214/215 - PG17 (first fixation point at < 200 mm)
VIBRATION STRENGTH 4	according to LV214/215 - PG17 (first fixation point at < 50 mm)
MATING/UNMATING FORCE	< 65 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 200 N
CPA SYSTEM	operating force < 30 N
HVIL SYSTEM	minimum 1.0 mm (nominal 2.0 mm), leading
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

CONTACT SYSTEM	HCT4 (4.0 mm round terminal), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	2.5 mm^2, 4.0 mm^2, 6.0 mm^2
CONTACT CARRIER CODINGS	A, B, C, D
CONFIGURATION	customer specific wire configuration possible on request
SCREW TYPE	M4



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MATING CONNECTOR

HPS40-2 2+2 FEMALE CONNECTOR Page 36, 38, 40

HPS40-2 2+2 MALE CONNECTOR 180° BLADE

SYSTEM NUMBER	809-855-…00
GENDER	male
CONNECTION TYPE	blade
PRODUCT SPECIFICATION	EPS-100128
APPLICATIONS	auxiliary units

TECHNICAL PRODUCT INFORMATION

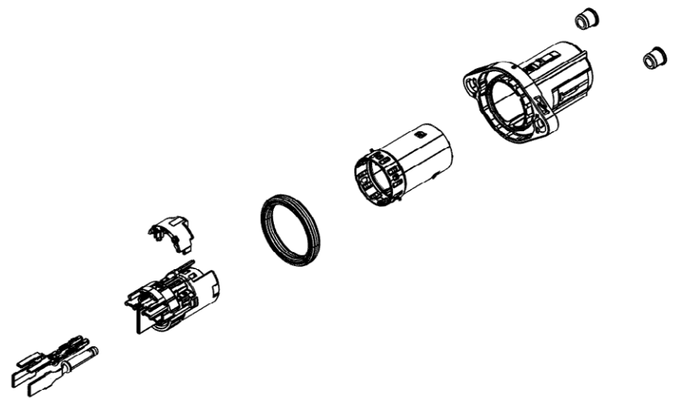
CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	2 (high voltage) + 2 (HVIL optional)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	60 A at 80° C, see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 mm^2)	until 30 MHz < 1 mΩ/m > 75 dB (10 kHz to 500 MHz) > 65 dB (500 MHz to 1,000 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 2.0 mΩ (total from sheathed cable until aggregate housing)
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (without fixation point)
VIBRATION STRENGTH 3	according to LV214/215 - PG17 (first fixation point at < 200 mm)
VIBRATION STRENGTH 4	according to LV214/215 - PG17 (first fixation point at < 50 mm)
MATING/UNMATING FORCE	< 65 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 200 N
CPA SYSTEM	operating force < 30 N
HVIL SYSTEM	minimum 1.0 mm (nominal 2.0 mm), leading
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

CONTACT SYSTEM	HCT4 (4.0 mm round terminal), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CONTACT CARRIER CODINGS	A, B, C, D
CONFIGURATION	customer specific blade configuration possible on request
SCREW TYPE	M4



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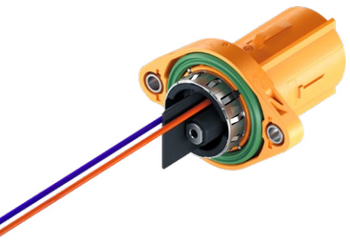
MATING CONNECTOR

HPS40-2 2+2 FEMALE CONNECTOR Page 36, 38, 40



HPS40-2 2+2 MALE CONNECTOR 180° BUSBAR

SYSTEM NUMBER	809-226-…00
GENDER	male
CONNECTION TYPE	busbar
PRODUCT SPECIFICATION	in progress
APPLICATIONS	auxiliary units

TECHNICAL PRODUCT INFORMATION

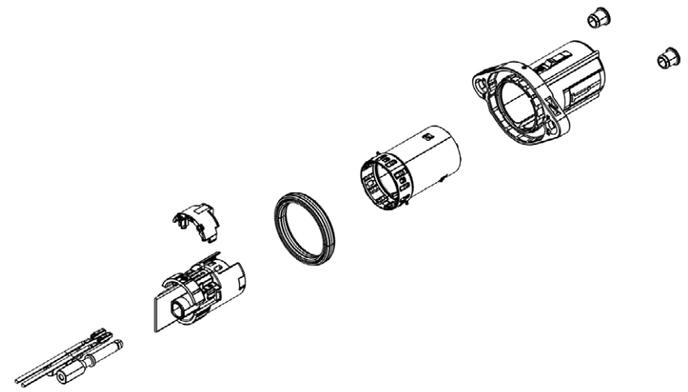
CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	2 (high voltage) + 2 (HVIL optional)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	63 A at 80° C, see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 mm^2)	until 30 MHz < 1 mΩ/m > 75 dB (10 kHz to 500 MHz) > 65 dB (500 MHz to 1,000 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 2.0 mΩ (total from sheathed cable until aggregate housing)
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (without fixation point)
VIBRATION STRENGTH 3	according to LV214/215 - PG17 (first fixation point at < 200 mm)
VIBRATION STRENGTH 4	according to LV214/215 - PG17 (first fixation point at < 50 mm)
MATING/UNMATING FORCE	< 65 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 200 N
CPA SYSTEM	operating force < 30 N
HVIL SYSTEM	minimum 1.0 mm (nominal 2.0 mm), leading
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

CONTACT SYSTEM	HCT4 (4.0 mm round terminal), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CONTACT CARRIER CODINGS	A, B, C, D
CONFIGURATION	customer specific wire configuration possible on request
SCREW TYPE	M4



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MATING CONNECTOR

HPS40-2 2+2 FEMALE CONNECTOR Page 36, 38, 40

HPS40-2 2+2 MALE CONNECTOR 180° WIRE DUPLEX

SYSTEM NUMBER	809-547-…00
GENDER	male
CONNECTION TYPE	singlecore cable
PRODUCT SPECIFICATION	in progress
APPLICATIONS	auxiliary units

TECHNICAL PRODUCT INFORMATION

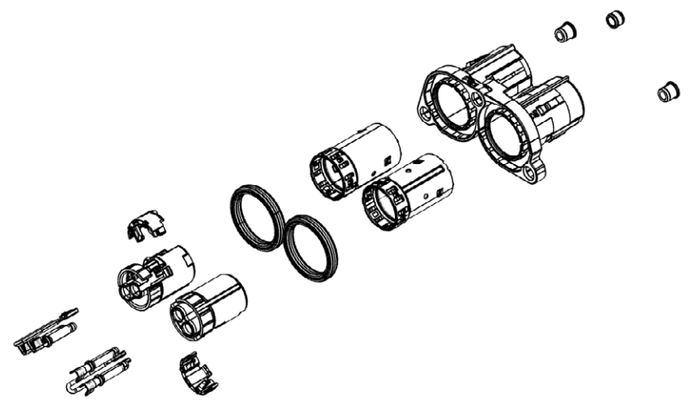
CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	2 (high voltage) + 2 (HVIL optional)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	63 A at 80° C (6.0 mm^2), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 mm^2)	until 30 MHz < 1 mΩ/m > 75 dB (10 kHz to 500 MHz) > 65 dB (500 MHz to 1,000 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 2.0 mΩ (total from sheathed cable until aggregate housing)
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (without fixation point)
VIBRATION STRENGTH 3	according to LV214/215 - PG17 (first fixation point at < 200 mm)
VIBRATION STRENGTH 4	according to LV214/215 - PG17 (first fixation point at < 50 mm)
MATING/UNMATING FORCE	< 65 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 200 N
CPA SYSTEM	operating force < 30 N
HVIL SYSTEM	minimum 1.0 mm (nominal 2.0 mm), leading
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

CONTACT SYSTEM	HCT4 (4.0 mm round terminal), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	2.5 mm^2, 4.0 mm^2, 6.0 mm^2
CONTACT CARRIER CODINGS	A, B, C, D
CONFIGURATION	customer specific wire configuration possible on request
SCREW TYPE	M4



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MATING CONNECTOR

HPS40-2 2+2 FEMALE CONNECTOR Page 36, 38, 40

HPS40-2 2+2 MALE CONNECTOR 90° WIRE

SYSTEM NUMBER	809-366-…00
GENDER	male
CONNECTION TYPE	singlecore cable
PRODUCT SPECIFICATION	EPS-100132
APPLICATIONS	auxiliary units

TECHNICAL PRODUCT INFORMATION

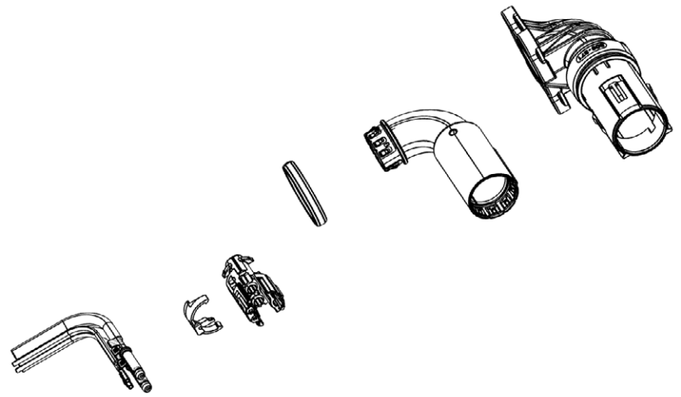
CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	2 (high voltage) + 2 (HVIL optional)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	63 A at 80° C (6.0 mm^2), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 mm^2)	until 30 MHz < 1 mΩ/m > 75 dB (10 kHz to 500 MHz) > 65 dB (500 MHz to 1,000 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 2.0 mΩ (total from sheathed cable until aggregate housing)
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (without fixation point)
VIBRATION STRENGTH 3	according to LV214/215 - PG17 (first fixation point at < 200 mm)
VIBRATION STRENGTH 4	according to LV214/215 - PG17 (first fixation point at < 50 mm)
MATING/UNMATING FORCE	< 65 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 200 N
CPA SYSTEM	operating force < 30 N
HVIL SYSTEM	minimum 1.0 mm (nominal 2.0 mm), leading
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

CONTACT SYSTEM	HCT4 (4.0 mm round terminal), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	2.5 mm^2, 4.0 mm^2, 6.0 mm^2
CONTACT CARRIER CODINGS	A, B, C, D
CONFIGURATION	customer specific wire configuration possible on request
SCREW TYPE	M4



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MATING CONNECTOR

HPS40-2 2+2 FEMALE CONNECTOR Page 36, 38, 40

HPS40-2 2+2 MALE CONNECTOR 90° WIRE

SYSTEM NUMBER	810-104-…01
GENDER	male
CONNECTION TYPE	singlecore cable
PRODUCT SPECIFICATION	EPS-100132
APPLICATIONS	auxiliary units

TECHNICAL PRODUCT INFORMATION

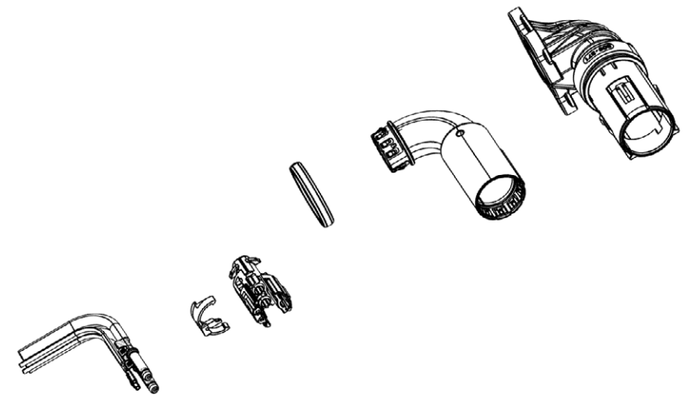
CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	2 (high voltage) + 2 (HVIL optional)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	63 A at 80° C (6.0 mm^2), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 mm^2)	until 30 MHz < 1 mΩ/m > 75 dB (10 kHz to 500 MHz) > 65 dB (500 MHz to 1,000 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 2.0 mΩ (total from sheathed cable until aggregate housing)
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (without fixation point)
VIBRATION STRENGTH 3	according to LV214/215 - PG17 (first fixation point at < 200 mm)
VIBRATION STRENGTH 4	according to LV214/215 - PG17 (first fixation point at < 50 mm)
MATING/UNMATING FORCE	< 65 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 200 N
CPA SYSTEM	operating force < 30 N
HVIL SYSTEM	minimum 1.0 mm (nominal 2.0 mm), leading
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

CONTACT SYSTEM	HCT4 (4.0 mm round terminal), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	2.5 mm^2, 4.0 mm^2, 6.0 mm^2
CONTACT CARRIER CODINGS	A, B, C, D
CONFIGURATION	customer specific wire configuration possible on request
SCREW TYPE	M5



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MATING CONNECTOR

HPS40-2 2+2 FEMALE CONNECTOR Page 36, 38, 40

HPS40-2 2+2 MALE CONNECTOR 90° WIRE

SYSTEM NUMBER	810-200-…00
GENDER	male
CONNECTION TYPE	singlecore cable
PRODUCT SPECIFICATION	EPS-100132
APPLICATIONS	auxiliary units

TECHNICAL PRODUCT INFORMATION

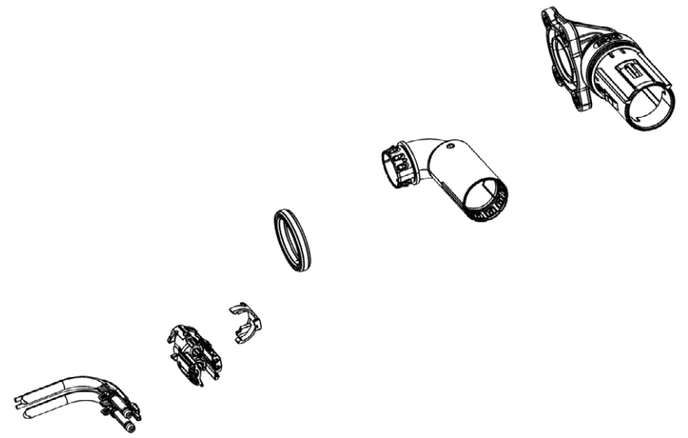
CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	2 (high voltage) + 2 (HVIL optional)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	63 A at 80° C (6.0 mm^2), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 mm^2)	until 30 MHz < 1 mΩ/m > 75 dB (10 kHz to 500 MHz) > 65 dB (500 MHz to 1,000 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 2.0 mΩ (total from sheathed cable until aggregate housing)
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (without fixation point)
VIBRATION STRENGTH 3	according to LV214/215 - PG17 (first fixation point at < 200 mm)
VIBRATION STRENGTH 4	according to LV214/215 - PG17 (first fixation point at < 50 mm)
MATING/UNMATING FORCE	< 65 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 200 N
CPA SYSTEM	operating force < 30 N
HVIL SYSTEM	minimum 1.0 mm (nominal 2.0 mm), leading
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

CONTACT SYSTEM	HCT4 (4.0 mm round terminal), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	2.5 mm^2, 4.0 mm^2, 6.0 mm^2
CONTACT CARRIER CODINGS	A, B, C, D
CONFIGURATION	customer specific wire configuration possible on request
SCREW TYPE	M4



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MATING CONNECTOR

HPS40-2 2+2 FEMALE CONNECTOR Page 36, 38, 40

HPS40-2 2+2 MALE CONNECTOR 90° BLADE

SYSTEM NUMBER	810-200-…00
GENDER	male
CONNECTION TYPE	singlecore cable
PRODUCT SPECIFICATION	EPS-100132
APPLICATIONS	auxiliary units

TECHNICAL PRODUCT INFORMATION

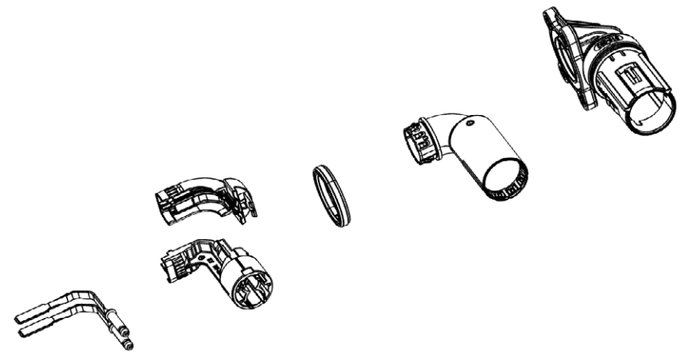
CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	2 (high voltage) + 2 (HVIL optional)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	63 A at 80° C (6.0 mm^2), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 mm^2)	until 30 MHz < 1 mΩ/m > 75 dB (10 kHz to 500 MHz) > 65 dB (500 MHz to 1,000 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 2.0 mΩ (total from sheathed cable until aggregate housing)
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (without fixation point)
VIBRATION STRENGTH 3	according to LV214/215 - PG17 (first fixation point at < 200 mm)
VIBRATION STRENGTH 4	according to LV214/215 - PG17 (first fixation point at < 50 mm)
MATING/UNMATING FORCE	< 65 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 200 N
CPA SYSTEM	operating force < 30 N
HVIL SYSTEM	minimum 1.0 mm (nominal 2.0 mm), leading
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

CONTACT SYSTEM	HCT4 (4.0 mm round terminal), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CONTACT CARRIER CODINGS	A, B, C, D
CONFIGURATION	customer specific wire configuration possible on request
SCREW TYPE	M4



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MATING CONNECTOR

HPS40-2 2+2 FEMALE CONNECTOR Page 36, 38, 40

HPS40-2 2+2 FEMALE CONNECTOR NAFTA MCC

SYSTEM NUMBER	809-886-…106
GENDER	female
CONNECTION TYPE	multicore cable
PRODUCT SPECIFICATION	EPS-100096
PROCESS SPECIFICATION	EVS-100096
APPLICATIONS	auxiliary units

TECHNICAL PRODUCT INFORMATION

CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	2 (high voltage) + 2 (HVIL optional)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	60 A at 80° C (6.0 mm^2), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 mm^2)	until 30 MHz < 1 mΩ/m > 75 dB (10 kHz to 500 MHz) > 65 dB (500 MHz to 1,000 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 2.0 mΩ (total from sheathed cable until aggregate housing)
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (without fixation point)
VIBRATION STRENGTH 3	according to LV214/215 - PG17 (first fixation point at < 200 mm)
VIBRATION STRENGTH 4	according to LV214/215 - PG17 (first fixation point at < 50 mm)
MATING/UNMATING FORCE	< 65 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 200 N
CPA SYSTEM	operating force < 30 N
HVIL SYSTEM	minimum 1.0 mm (nominal 2.0 mm), leading
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

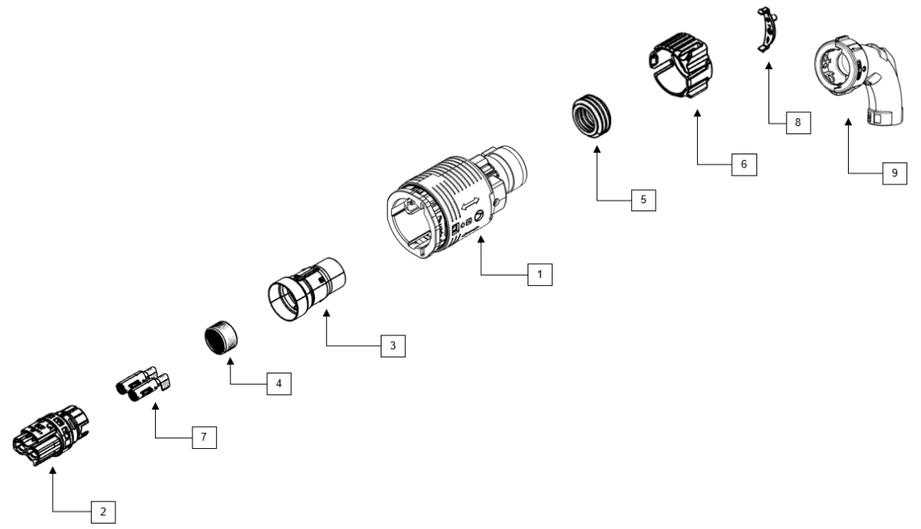
CONTACT SYSTEM	HCT4 (4.0 mm round terminal), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	2.5 mm^2, 4.0 mm^2, 6.0 mm^2
CONTACT CARRIER CODINGS	A, B, C, D, Z

DESCRIPTION SINGLE PARTS

			REQUIRED	OPTIONAL
1	HPS40-2 LOCKING DEVICE	807-656-503	•	
2	HPS40-2 FEMALE CONTACT CARRIER	807-657-…	•	
3	HPS40-2 SHIELDING SLEEVE MCC	709-840-501	•	
4	HPS40-2 STRESS RELIEF MCC	709-841-…	•	
5	HPS40-2 CABLE SEAL MCC	709-113-…	•	
6	HPS40-2 COVER CAP MCC	706-430-…	•	
7	HCT4 TERMINAL	709-427-…	•	
8	HPS40-2 CODING CLIP	706-505-…		•
9	HPS40-2 90° ANGLE CAP	706-506-503		•
*	… different indices depending on the used variant (see single part drawings)			
*	… shielded high voltage cable (see possible cable suppliers in the process specification)			



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MATING CONNECTOR

HPS40-2 2+2 MALE CONNECTOR	in progress

HPS40-2 2+2 FEMALE CONNECTOR NAFTA SCC

SYSTEM NUMBER	809-886-...106
GENDER	female
CONNECTION TYPE	singlecore cable
PRODUCT SPECIFICATION	EPS-100096
PROCESS SPECIFICATION	EVS-100101
APPLICATIONS	auxiliary units

TECHNICAL PRODUCT INFORMATION

CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	2 (high voltage) + 2 (HVIL optional)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	63 A at 80° C (6.0 mm^2), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 mm^2)	until 30 MHz < 1 mΩ/m > 75 dB (10 kHz to 500 MHz) > 65 dB (500 MHz to 1,000 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 2.0 mΩ (total from sheathed cable until aggregate housing)
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (without fixation point)
VIBRATION STRENGTH 3	according to LV214/215 - PG17 (without fixation point)
VIBRATION STRENGTH 4	according to LV214/215 - PG17 (first fixation point at < 200 mm)
MATING/UNMATING FORCE	< 65 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 200 N
CPA SYSTEM	operating force < 30 N
HVIL SYSTEM	minimum 1.0 mm (nominal 2.0 mm), leading
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

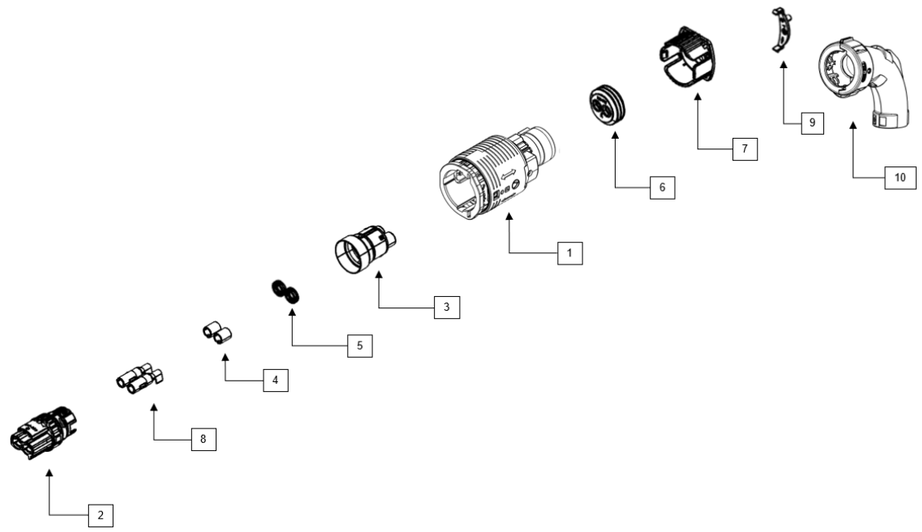
CONTACT SYSTEM	HCT4 (4.0 mm round terminal), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	4.0 mm^2, 6.0 mm^2
CONTACT CARRIER CODINGS	A, B, C, D, Z

DESCRIPTION SINGLE PARTS

			REQUIRED	OPTIONAL
1	HPS40-2 LOCKING DEVICE	807-656-503	•	
2	HPS40-2 FEMALE CONTACT CARRIER	807-657-...	•	
3	HPS40-2 SHIELDING SLEEVE SCC	710-161-...	•	
4	HPS40-2 STRESS RELIEF SCC	710-195-502 (4.0 MM^2), 710-671-501 (6.0 MM^2)	•	
5	HPS40-2 X-RING	710-675-501 (6.0MM^2)	•	
6	HPS40-2 CABLE SEAL SCC	709-972-...	•	
7	HPS40-2 COVER CAP SCC	706-822-...	•	
8	HCT4 TERMINAL	709-427-...	•	
9	HPS40-2 CODING CLIP	706-505-...		•
10	HPS40-2 90° ANGLE CAP	706-506-503		•
*	... different indices depending on the used variant (see single part drawings)			
*	... shielded high voltage cable (see possible cable suppliers in the process specification)			



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- ► PRODUCT SPECIFICATION
- ► PROCESS SPECIFICATION
- ► SYSTEM DRAWING
- ► 3D SPACE MODEL
- ► SINGLE PART DRAWINGS

MATING CONNECTOR

HPS40-2 2+2 MALE CONNECTOR	in progress

HPS40-2 2+2 FEMALE CONNECTOR NAFTA BLIND PLUG

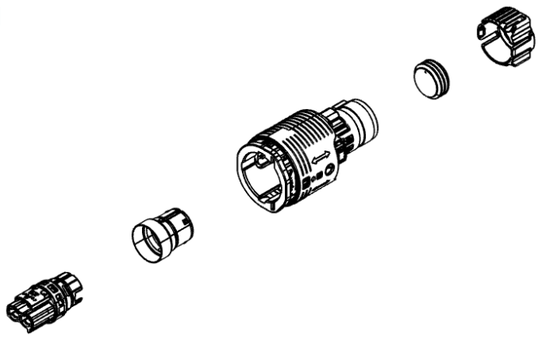
SYSTEM NUMBER	809-472-…106
GENDER	female
CONNECTION TYPE	blind plug
APPLICATIONS	auxiliary units

TECHNICAL PRODUCT INFORMATION

CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	2 (HVIL optional)
OPERATING CONDITION	1,000 VDC
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
SHIELDED AREA	360° circumferential
MATING/UNMATING FORCE	< 65 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 200 N
CPA SYSTEM	operating force < 30 N
HVIL SYSTEM	minimum 1.0 mm (nominal 2.0 mm), leading
VALIDATION NORMS	compliant with several automotive test specifications

CUSTOMER SPECIFIC INFORMATION

CONTACT CARRIER CODINGS	A, B, C, D, Z



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- ► SYSTEM DRAWING
- ► 3D SPACE MODEL

MATING CONNECTOR

HPS40-2 2+2 MALE CONNECTOR	in progress

HPS40-2 PLUS FEMALE CONNECTOR MCC

SYSTEM NUMBER	810-473-…00
GENDER	female
CONNECTION TYPE	multicore cable
PRODUCT SPECIFICATION	EPS-100153
PROCESS SPECIFICATION	EVS-100137
APPLICATIONS	auxiliary units

TECHNICAL PRODUCT INFORMATION

CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	2 (high voltage)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	60 A at 80° C (6.0 mm^2), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB+ UL (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 mm^2)	until 30 MHz < 1 mΩ/m > 75 dB (10 kHz to 500 MHz) > 65 dB (500 MHz to 1,000 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 2.0 mΩ (total from sheathed cable until aggregate housing)
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (without fixation point)
VIBRATION STRENGTH 3	according to LV214/215 - PG17 (first fixation point at < 200 mm)
VIBRATION STRENGTH 4	according to LV214/215 - PG17 (first fixation point at < 50 mm)
MATING/UNMATING FORCE	< 65 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 200 N
CPA SYSTEM	operating force < 30 N
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

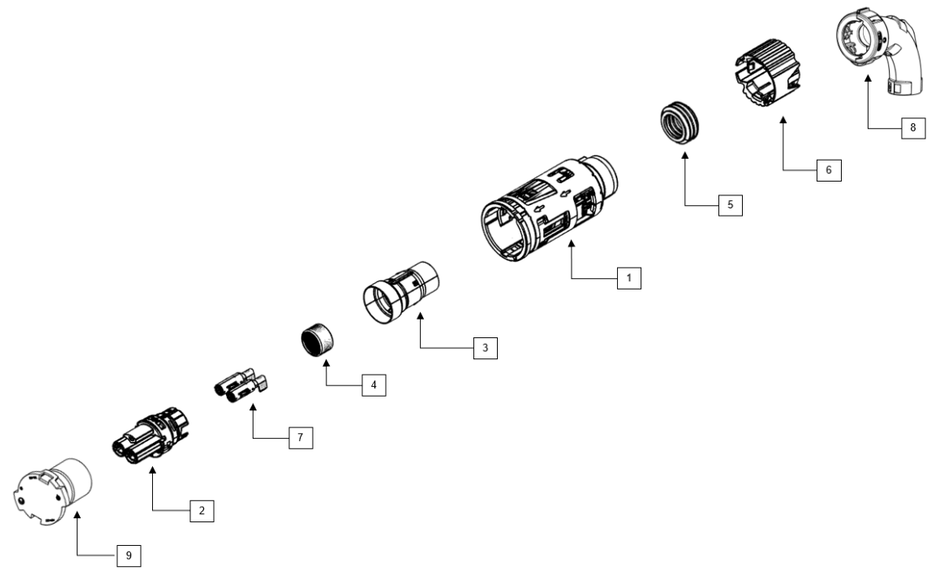
CONTACT SYSTEM	HCT4 (4.0 mm round terminal), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	4.0 mm^2, 6.0 mm^2
CONTACT CARRIER CODINGS	A, B, C, D, Z

DESCRIPTION SINGLE PARTS

			REQUIRED	OPTIONAL
1	HPS40-2 LOCKING DEVICE	807-656-…	•	
2	HPS40-2 PLUS FEMALE CONTACT CARRIER	810-474-…	•	
3	HPS40-2 SHIELDING SLEEVE MCC	709-840-501	•	
4	HPS40-2 STRESS RELIEF MCC	709-841-…	•	
5	HPS40-2 CABLE SEAL MCC	709-113-…	•	
6	HPS40-2 PLUS COVER CAP MCC	707-208-…	•	
7	HCT4 TERMINAL	709-427-…	•	
8	HPS40-2 90° ANGLE CAP	706-506-503		•
9	HPS40-2 PROTECTION CAP	706-672-511		•
*	… different indices depending on the used variant (see single part drawings)			
*	… shielded high voltage cable (see possible cable suppliers in the process specification)			



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► PROCESS SPECIFICATION

MATING CONNECTOR

HPS40-2 PLUS MALE CONNECTOR	Page 68, 70, 72, 74, 76
HPS IN-LINE CONNECTOR PLUS	Page 112

HPS40-2 PLUS FEMALE CONNECTOR BLIND PLUG

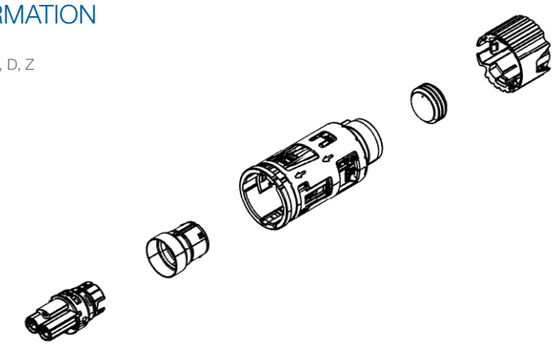
SYSTEM NUMBER	in progress
GENDER	female
CONNECTION TYPE	blind plug
APPLICATIONS	auxiliary units

TECHNICAL PRODUCT INFORMATION

CURRENT CLASS	current class 1 and 2 connector
OPERATING CONDITION	1,000 VDC
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
IP-DEGREE OF PROTECTION	IPXXB+ UL (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
SHIELDED AREA	360° circumferential
MATING/UNMATING FORCE	< 65 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 200 N
CPA SYSTEM	operating force < 30 N
VALIDATION NORMS	compliant with several automotive test specifications

CUSTOMER SPECIFIC INFORMATION

CONTACT CARRIER CODINGS	A, B, C, D, Z



MATING CONNECTOR

HPS40-2 PLUS MALE CONNECTOR Page 68, 70, 72, 74, 76

HPS40-2 PLUS MALE CONNECTOR 180° WIRE

SYSTEM NUMBER	810-475-…03
GENDER	male
CONNECTION TYPE	singlecore cable
PRODUCT SPECIFICATION	in progress
APPLICATIONS	auxiliary units

TECHNICAL PRODUCT INFORMATION

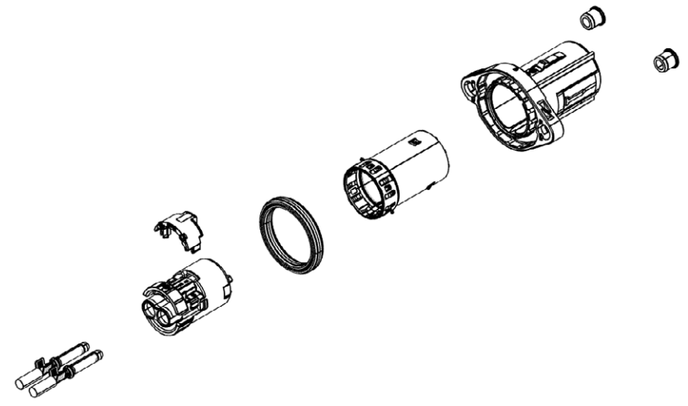
CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	2 (high voltage)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	63 A at 80° C (6.0 mm^2), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB+ UL (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 mm^2)	until 30 MHz < 1 mΩ/m > 75 dB (10 kHz to 500 MHz) > 65 dB (500 MHz to 1,000 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 2.0 mΩ (total from sheathed cable until aggregate housing)
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (without fixation point)
VIBRATION STRENGTH 3	according to LV214/215 - PG17 (first fixation point at < 200 mm)
VIBRATION STRENGTH 4	according to LV214/215 - PG17 (first fixation point at < 50 mm)
MATING/UNMATING FORCE	< 65 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 200 N
CPA SYSTEM	operating force < 30 N
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

CONTACT SYSTEM	HCT4 (4.0 mm round terminal), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	2.5 mm^2, 4.0 mm^2, 6.0 mm^2
CONTACT CARRIER CODINGS	A, B, C, D
CONFIGURATION	customer specific wire configuration possible on request
SCREW TYPE	M4



MATING CONNECTOR

HPS40-2 PLUS FEMALE CONNECTOR Page 64, 66

HPS40-2 PLUS MALE CONNECTOR 180° BLADE

SYSTEM NUMBER	in progress
GENDER	male
CONNECTION TYPE	blade
PRODUCT SPECIFICATION	in progress
APPLICATIONS	auxiliary units

TECHNICAL PRODUCT INFORMATION

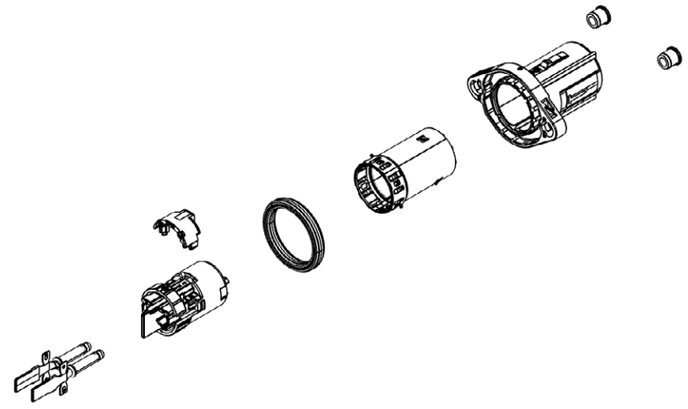
CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	2 (high voltage)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	60 A at 80° C, see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB+ UL (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 mm^2)	until 30 MHz < 1 mΩ/m > 75 dB (10 kHz to 500 MHz) > 65 dB (500 MHz to 1,000 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 2.0 mΩ (total from sheathed cable until aggregate housing)
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (without fixation point)
VIBRATION STRENGTH 3	according to LV214/215 - PG17 (first fixation point at < 200 mm)
VIBRATION STRENGTH 4	according to LV214/215 - PG17 (first fixation point at < 50 mm)
MATING/UNMATING FORCE	< 65 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 200 N
CPA SYSTEM	operating force < 30 N
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

CONTACT SYSTEM	HCT4 (4.0 mm round terminal), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CONTACT CARRIER CODINGS	A, B, C, D
CONFIGURATION	customer specific blade configuration possible on request
SCREW TYPE	M4



MATING CONNECTOR

HPS40-2 PLUS FEMALE CONNECTOR Page 64, 66

HPS40-2 PLUS MALE CONNECTOR 90° WIRE

SYSTEM NUMBER	810-333-…03
GENDER	male
CONNECTION TYPE	singlecore cable
PRODUCT SPECIFICATION	in progress
APPLICATIONS	auxiliary units

TECHNICAL PRODUCT INFORMATION

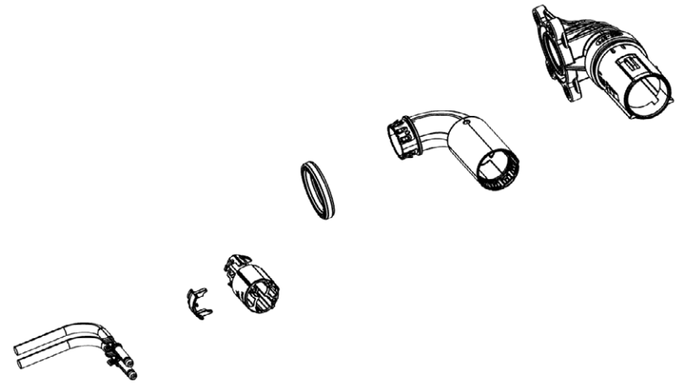
CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	2 (high voltage)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	63 A at 80° C (6.0 mm^2), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB+ UL (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 mm^2)	until 30 MHz < 1 mΩ/m > 75 dB (10 kHz to 500 MHz) > 65 dB (500 MHz to 1,000 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 2.0 mΩ (total from sheathed cable until aggregate housing)
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (without fixation point)
VIBRATION STRENGTH 3	according to LV214/215 - PG17 (first fixation point at < 200 mm)
VIBRATION STRENGTH 4	according to LV214/215 - PG17 (first fixation point at < 50 mm)
MATING/UNMATING FORCE	< 65 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 200 N
CPA SYSTEM	operating force < 30 N
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

CONTACT SYSTEM	HCT4 (4.0 mm round terminal), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	2.5 mm^2, 4.0 mm^2, 6.0 mm^2
CONTACT CARRIER CODINGS	A, B, C, D
CONFIGURATION	customer specific wire configuration possible on request
SCREW TYPE	M4



MATING CONNECTOR

HPS40-2 PLUS FEMALE CONNECTOR Page 64, 66

HPS40-2 PLUS MALE CONNECTOR 90° WIRE

SYSTEM NUMBER	810-477-…03
GENDER	male
CONNECTION TYPE	singlecore cable
PRODUCT SPECIFICATION	in progress
APPLICATIONS	auxiliary units

TECHNICAL PRODUCT INFORMATION

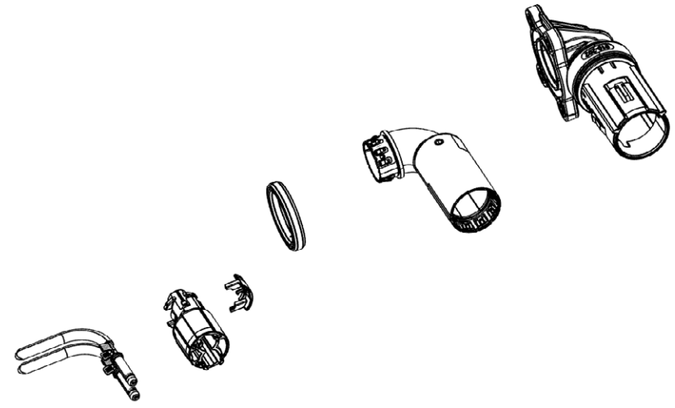
CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	2 (high voltage)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	63 A at 80° C (6.0 mm^2), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB+ UL (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 mm^2)	until 30 MHz < 1 mΩ/m > 75 dB (10 kHz to 500 MHz) > 65 dB (500 MHz to 1,000 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 2.0 mΩ (total from sheathed cable until aggregate housing)
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (without fixation point)
VIBRATION STRENGTH 3	according to LV214/215 - PG17 (first fixation point at < 200 mm)
VIBRATION STRENGTH 4	according to LV214/215 - PG17 (first fixation point at < 50 mm)
MATING/UNMATING FORCE	< 65 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 200 N
CPA SYSTEM	operating force < 30 N
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

CONTACT SYSTEM	HCT4 (4.0 mm round terminal), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	2.5 mm^2, 4.0 mm^2, 6.0 mm^2
CONTACT CARRIER CODINGS	A, B, C, D
CONFIGURATION	customer specific wire configuration possible on request
SCREW TYPE	M4



MATING CONNECTOR

HPS40-2 PLUS FEMALE CONNECTOR Page 64, 66

HPS40-2 PLUS MALE CONNECTOR 90° BLADE

SYSTEM NUMBER	810-477-…03
GENDER	male
CONNECTION TYPE	singlecore cable
PRODUCT SPECIFICATION	in progress
APPLICATIONS	auxiliary units

TECHNICAL PRODUCT INFORMATION

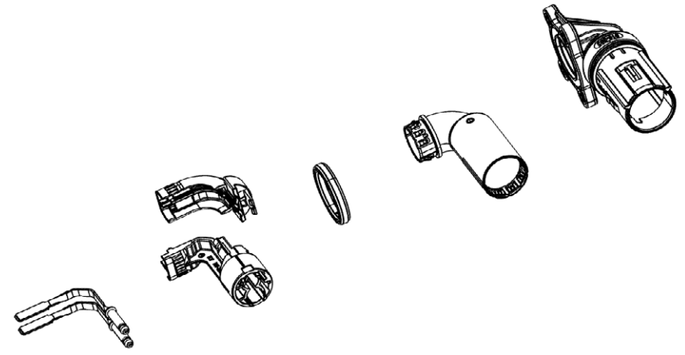
CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	2 (high voltage)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	63 A at 80° C (6.0 mm^2), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB+ UL (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 mm^2)	until 30 MHz < 1 mΩ/m > 75 dB (10 kHz to 500 MHz) > 65 dB (500 MHz to 1,000 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 2.0 mΩ (total from sheathed cable until aggregate housing)
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (without fixation point)
VIBRATION STRENGTH 3	according to LV214/215 - PG17 (first fixation point at < 200 mm)
VIBRATION STRENGTH 4	according to LV214/215 - PG17 (first fixation point at < 50 mm)
MATING/UNMATING FORCE	< 65 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 200 N
CPA SYSTEM	operating force < 30 N
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

CONTACT SYSTEM	HCT4 (4.0 mm round terminal), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CONTACT CARRIER CODINGS	A, B, C, D
CONFIGURATION	customer specific wire configuration possible on request
SCREW TYPE	M4



MATING CONNECTOR

HPS40-2 PLUS FEMALE CONNECTOR Page 64, 66

HPS40 4+2

INTRODUCTION

The HIRSCHMANN AUTOMOTIVE PowerStar 40 4+2 connection system is shielded and sealed. It is designed for all high-voltage on-board chargers available on the market that are used in electric vehicles. Needless to say, the high-voltage connectors comply with the global standards of the automotive industry.

The products not only impress with their optimized design and low weight. Their operating flexibility is also hard to beat. As the smallest connection system available in this segment, it guarantees optimum performance and top processing.

HPS40 4+2 FEMALE CONNECTOR MCC

SYSTEM NUMBER	809-981-…00
GENDER	female
CONNECTION TYPE	multicore cable
PRODUCT SPECIFICATION	EPS-100108
PROCESS SPECIFICATION	EVS-100108
APPLICATIONS	3-phase charging

TECHNICAL PRODUCT INFORMATION

CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	4 (high voltage) + 2 (HVIL optional)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	53 A at 80° C (4 x 6.0 mm^2), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 mm^2)	until 2 MHz < 2.5 mΩ/m until 30 MHz < 5 mΩ/m > 65 dB (30 MHz to 300 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 2.0 mΩ (total from sheathed cable until aggregate housing)
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (first fixation point at < 200 mm)
MATING/UNMATING FORCE	< 75 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 225 N
CPA SYSTEM	operating force < 30 N
HVIL SYSTEM	minimum 1.0 mm (nominal 2.0 mm), leading
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

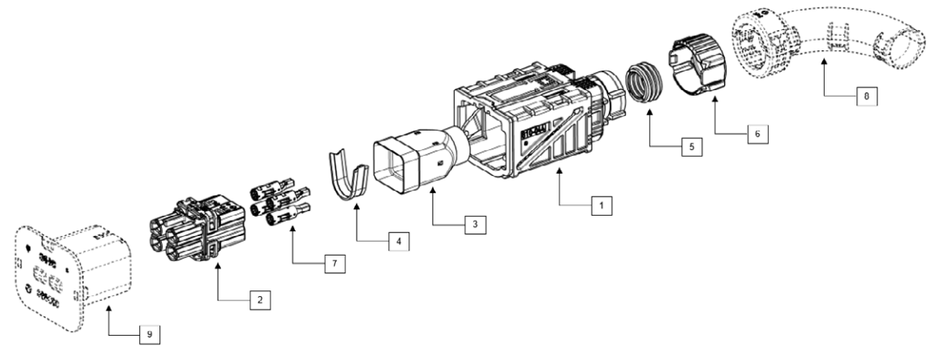
CONTACT SYSTEM	HCT4 (4.0 mm round terminal), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	4.0 mm^2, 6.0 mm^2 as MCC solution with different pole numbers
CONTACT CARRIER CODINGS	A, B, Z

DESCRIPTION SINGLE PARTS

			REQUIRED	OPTIONAL
1	HPS40 4+2 LOCKING DEVICE	810-044-…	•	
2	HPS40 4+2 FEMALE CONTACT CARRIER	810-045-…	•	
3	HPS40 4+2 SHIELDING SLEEVE MCC	710-237-511	•	
4	HPS40 4+2 FERRULE CRIMP MCC	710-387-…, 710-455-…	•	
5	HPS40 4+2 CABLE SEAL MCC	710-245-…	•	
6	HPS40 4+2 COVER CAP MCC	706-847-…	•	
7	HCT4 TERMINAL	709-427-…	•	
8	HPS40 4+2 90° ANGLE CAP	706-990-501		•
9	HPS40 4+2 PROTECTION CAP	706-991-501		•
*	… different indices depending on the used variant (see single part drawings)			
*	… shielded high voltage cable (see possible cable suppliers in the process specification)			

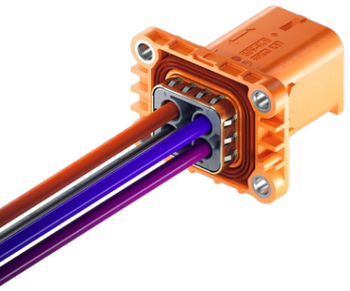


DOWNLOADS

- ► PRODUCT SPECIFICATION
- ► PROCESS SPECIFICATION
- ► SYSTEM DRAWING
- ► 3D SPACE MODEL
- ► SINGLE PART DRAWINGS

MATING CONNECTOR

HPS40 4+2 MALE CONNECTOR Page 82, 84, 86



HPS40 4+2 MALE CONNECTOR 180° WIRE

SYSTEM NUMBER	809-980-…00
GENDER	male
CONNECTION TYPE	singlecore cable
PRODUCT SPECIFICATION	EPS-100139
APPLICATIONS	3-phase charging

TECHNICAL PRODUCT INFORMATION

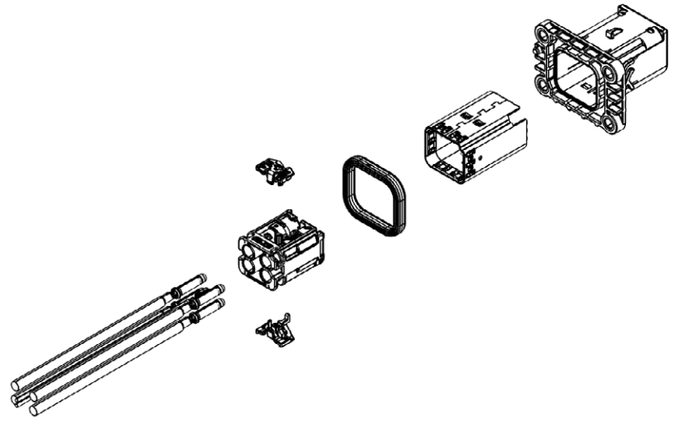
CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	4 (high voltage) + 2 (HVIL optional)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	60 A at 80° C (4 x 6.0 mm^2), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 mm^2)	until 2 MHz < 2.5 mΩ/m until 30 MHz < 5 mΩ/m > 65 dB (30 MHz to 300 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 2.0 mΩ (total from sheathed cable until aggregate housing)
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (first fixation point at < 200 mm)
MATING/UNMATING FORCE	< 75 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 225 N
CPA SYSTEM	operating force < 30 N
HVIL SYSTEM	minimum 1.0 mm (nominal 2.0 mm), leading
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

CONTACT SYSTEM	HCT4 (4.0 mm round terminal), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	4.0 mm^2, 6.0 mm^2 with different pole numbers
CONTACT CARRIER CODINGS	A, B
CONFIGURATION	customer specific wire configuration possible on request
SCREW TYPE	M4



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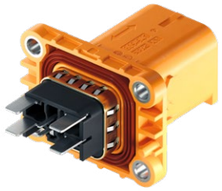
MATING CONNECTOR

HPS40 4+2 FEMALE CONNECTOR Page 80



HPS40 4+2 MALE CONNECTOR 180° BLADE

SYSTEM NUMBER	809-490-…00
GENDER	male
CONNECTION TYPE	blade
PRODUCT SPECIFICATION	EPS-100139
APPLICATIONS	3-phase charging

TECHNICAL PRODUCT INFORMATION

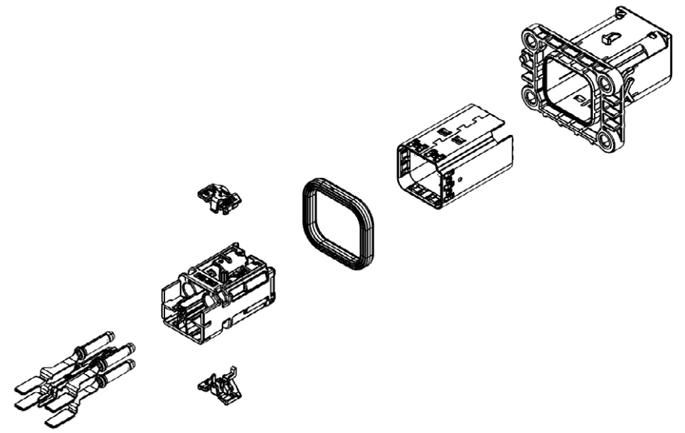
CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	4 (high voltage) + 2 (HVIL optional)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	38 A at 80° C (4 x 6.0 mm^2), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 mm^2)	until 2 MHz < 2.5 mΩ/m until 30 MHz < 5 mΩ/m > 65 dB (30 MHz to 300 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 2.0 mΩ (total from sheathed cable until aggregate housing)
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (first fixation point at < 200 mm)
MATING/UNMATING FORCE	< 75 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 225 N
CPA SYSTEM	operating force < 30 N
HVIL SYSTEM	minimum 1.0 mm (nominal 2.0 mm), leading
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

CONTACT SYSTEM	HCT4 (4.0 mm round terminal), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CONTACT CARRIER CODINGS	A, B
CONFIGURATION	customer specific blade configuration possible on request
SCREW TYPE	M4



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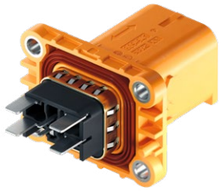
MATING CONNECTOR

HPS40 4+2 FEMALE CONNECTOR Page 80



HPS40 4+2 MALE CONNECTOR 180° BLADE HP

SYSTEM NUMBER	810-343-…00
GENDER	male
CONNECTION TYPE	high performance blade
PRODUCT SPECIFICATION	EPS-100139
APPLICATIONS	3-phase charging

TECHNICAL PRODUCT INFORMATION

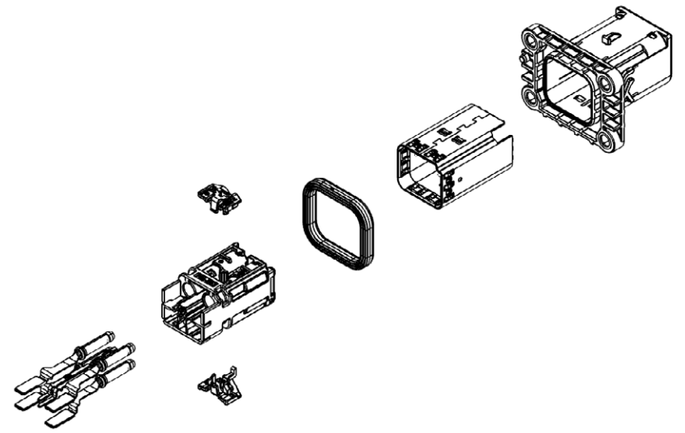
CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	4 (high voltage) + 2 (HVIL optional)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	49 A at 80° C (4 x 6.0 mm^2), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 mm^2)	until 2 MHz < 2.5 mΩ/m until 30 MHz < 5 mΩ/m > 65 dB (30 MHz to 300 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 2.0 mΩ (total from sheathed cable until aggregate housing)
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (first fixation point at < 200 mm)
MATING/UNMATING FORCE	< 75 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 225 N
CPA SYSTEM	operating force < 30 N
HVIL SYSTEM	minimum 1.0 mm (nominal 2.0 mm), leading
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

CONTACT SYSTEM	HCT4 (4.0 mm round terminal), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CONTACT CARRIER CODINGS	A, B
CONFIGURATION	customer specific blade configuration possible on request
SCREW TYPE	M4



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MATING CONNECTOR

HPS40 4+2 FEMALE CONNECTOR Page 80

HPS Distributor

INTRODUCTION

The electrification of the mobility sector requires, among other things, an efficient connection of current-carrying lines in high-voltage vehicle electrical systems. For example, it becomes increasingly necessary to distribute power to two HV units. With our HPS Distributors, this can be achieved safely.

The product design of our power distributors impresses with its extremely compact construction and its high scalability – due the use of standard components, we can cover a wide range of cross-sections.

HPS Y-DISTRIBUTOR MCC

SYSTEM NUMBER	809-852-…00
CONNECTION TYPE	multicore cable
PRODUCT SPECIFICATION	EPS-100130
PROCESS SPECIFICATION	EVS-100130
APPLICATIONS	power distribution

TECHNICAL PRODUCT INFORMATION

CURRENT CLASS	current class 1 and 2 connector
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	88 A at 80° C (6.0 mm^2), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXD (assembled)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 mm^2)	until 30 MHz < 1 mΩ/m > 75 dB (10 kHz to 500 MHz) > 65 dB (500 MHz to 1,000 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 2.0 mΩ (total from sheathed cable until aggregate housing)
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (without fixation point)
VIBRATION STRENGTH 3	according to LV214/215 - PG17 (first fixation point at < 200 mm)
VIBRATION STRENGTH 4	according to LV214/215 - PG17 (first fixation point at < 50 mm)
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

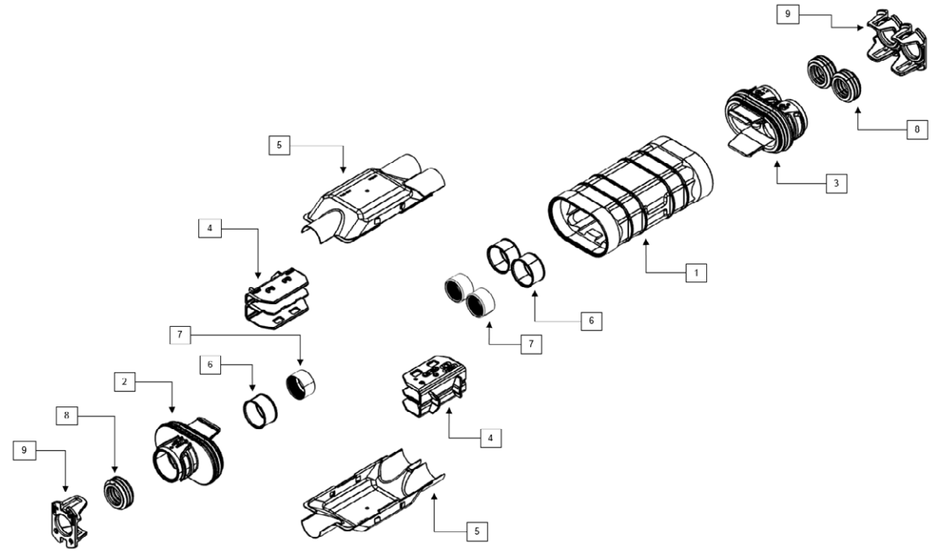
CONNECTION	ultrasonic welding

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	4.0 mm^2, 6.0 mm^2

DESCRIPTION SINGLE PARTS

			REQUIRED	OPTIONAL
1	HPS DISTRIBUTOR SHIELDHOUSING	706-669-…	•	
2	HPS DISTRIBUTOR CABLEHOUSING ONE	809-853-501	•	
3	HPS DISTRIBUTOR CABLEHOUSING TWO	809-853-502	•	
4	HPS DISTRIBUTOR INSULATOR	706-671-…	•	
5	HPS DISTRIBUTOR SHIELD Y MCC	710-097-501	•	
6	HPS DISTRIBUTOR SHIELDSLEEVE MCC	710-099-501	•	
7	HPS40-2 STRESS RELIEF MCC	709-841-…	•	
8	HPS40-2 CABLE SEAL MCC	709-113-…	•	
9	HPS DISTRIBUTOR CAP MCC	706-668-…	•	
*	… different indices depending on the used variant (see single part drawings)			
*	… shielded high voltage cable (see possible cable suppliers in the process specification)			



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HPS Y-DISTRIBUTOR SCC

SYSTEM NUMBER	809-852-…00
CONNECTION TYPE	singlecore cable
PRODUCT SPECIFICATION	EPS-100130
PROCESS SPECIFICATION	EVS-100131
APPLICATIONS	power distribution

TECHNICAL PRODUCT INFORMATION

CURRENT CLASS	current class 1 and 2 connector
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	88 A at 80° C (6.0 mm^2), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXD (assembled)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 mm^2)	until 30 MHz < 1 mΩ/m > 75 dB (10 kHz to 500 MHz) > 65 dB (500 MHz to 1,000 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 2.0 mΩ (total from sheathed cable until aggregate housing)
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (without fixation point)
VIBRATION STRENGTH 3	according to LV214/215 - PG17 (first fixation point at < 200 mm)
VIBRATION STRENGTH 4	according to LV214/215 - PG17 (first fixation point at < 50 mm)
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

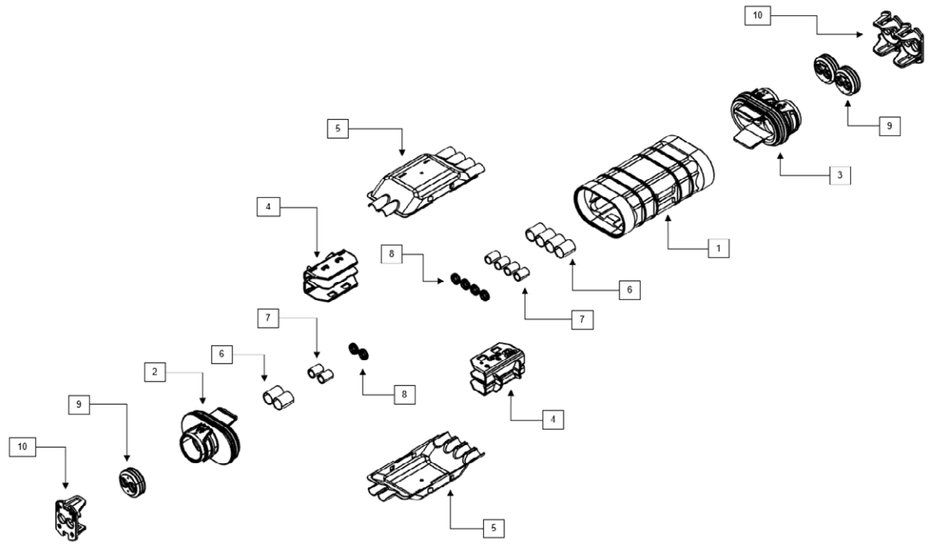
CONNECTION	ultrasonic welding

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	4.0 mm^2, 6.0 mm^2

DESCRIPTION SINGLE PARTS

			REQUIRED	OPTIONAL
1	HPS DISTRIBUTOR SHIELDHOUSING	706-669-…	•	
2	HPS DISTRIBUTOR CABLEHOUSING ONE	809-853-501	•	
3	HPS DISTRIBUTOR CABLEHOUSING TWO	809-853-502	•	
4	HPS DISTRIBUTOR INSULATOR	706-671-…	•	
5	HPS DISTRIBUTOR SHIELD Y SCC	710-097-511	•	
6	HPS DISTRIBUTOR SHIELDSLEEVE SCC	710-099-511	•	
7	HPS40-2 STRESS RELIEF SCC	710-195-502 (4.0 MM^2), 710-671-501 (6.0 MM^2)	•	
8	HPS40-2 X-RING	710-675-501 (6.0MM^2)	•	
9	HPS40-2 CABLE SEAL SCC	709-972-…	•	
10	HPS DISTRIBUTOR CAP SCC	706-668-…	•	
*	… different indices depending on the used variant (see single part drawings)			
*	… shielded high voltage cable (see possible cable suppliers in the process specification)			



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HPS H-DISTRIBUTOR MCC

SYSTEM NUMBER	809-852-…00
CONNECTION TYPE	multicore cable
PRODUCT SPECIFICATION	EPS-100130
PROCESS SPECIFICATION	EVS-100130
APPLICATIONS	power distribution

TECHNICAL PRODUCT INFORMATION

CURRENT CLASS	current class 1 and 2 connector
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	88 A at 80° C (6.0 mm^2), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXD (assembled)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 mm^2)	until 30 MHz < 1 mΩ/m > 75 dB (10 kHz to 500 MHz) > 65 dB (500 MHz to 1,000 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 2.0 mΩ (total from sheathed cable until aggregate housing)
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (without fixation point)
VIBRATION STRENGTH 3	according to LV214/215 - PG17 (first fixation point at < 200 mm)
VIBRATION STRENGTH 4	according to LV214/215 - PG17 (first fixation point at < 50 mm)
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

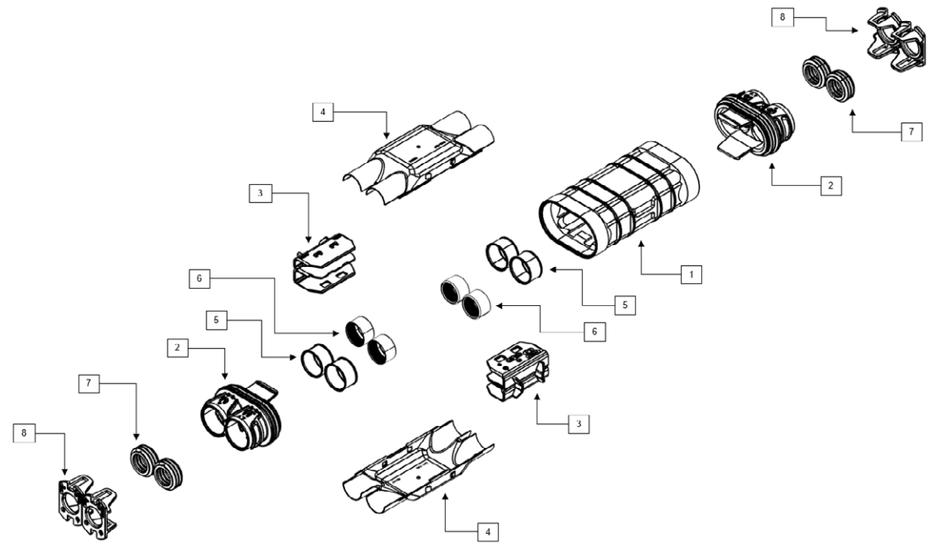
CONNECTION	ultrasonic welding

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	4.0 mm^2, 6.0 mm^2

DESCRIPTION SINGLE PARTS

			REQUIRED	OPTIONAL
1	HPS DISTRIBUTOR SHIELDHOUSING	706-669-…	•	
2	HPS DISTRIBUTOR CABLEHOUSING TWO	809-853-502	•	
3	HPS DISTRIBUTOR INSULATOR	706-671-…	•	
4	HPS DISTRIBUTOR SHIELD H MCC	710-197-501	•	
5	HPS DISTRIBUTOR SHIELDSLEEVE MCC	710-099-501	•	
6	HPS40-2 STRESS RELIEF MCC	709-841-…	•	
7	HPS40-2 CABLE SEAL MCC	709-113-…	•	
8	HPS DISTRIBUTOR CAP MCC	706-668-…	•	
*	… different indices depending on the used variant (see single part drawings)			
*	… shielded high voltage cable (see possible cable suppliers in the process specification)			



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HPS H-DISTRIBUTOR SCC

SYSTEM NUMBER	809-852-…00
CONNECTION TYPE	singlecore cable
PRODUCT SPECIFICATION	EPS-100130
PROCESS SPECIFICATION	EVS-100131
APPLICATIONS	power distribution

TECHNICAL PRODUCT INFORMATION

CURRENT CLASS	current class 1 and 2 connector
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	88 A at 80° C (6.0 mm^2), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXD (assembled)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 mm^2)	until 30 MHz < 1 mΩ/m > 75 dB (10 kHz to 500 MHz) > 65 dB (500 MHz to 1,000 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 2.0 mΩ (total from sheathed cable until aggregate housing)
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (without fixation point)
VIBRATION STRENGTH 3	according to LV214/215 - PG17 (first fixation point at < 200 mm)
VIBRATION STRENGTH 4	according to LV214/215 - PG17 (first fixation point at < 50 mm)
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

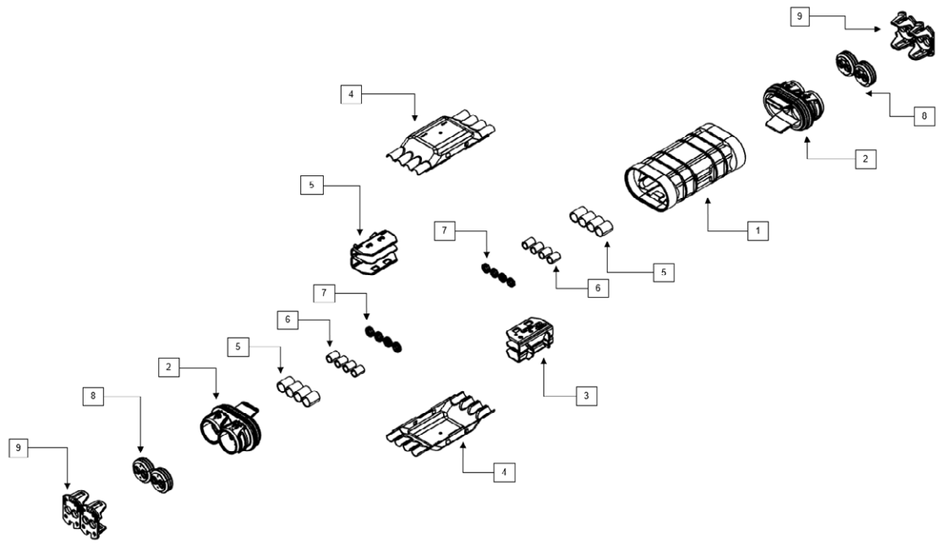
CONNECTION	ultrasonic welding

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	4.0 mm^2, 6.0 mm^2

DESCRIPTION SINGLE PARTS

			REQUIRED	OPTIONAL
1	HPS DISTRIBUTOR SHIELDHOUSING	706-669-…	•	
2	HPS DISTRIBUTOR CABLEHOUSING TWO	809-853-502	•	
3	HPS DISTRIBUTOR INSULATOR	706-671-…	•	
4	HPS DISTRIBUTOR SHIELD Y SCC	710-197-511	•	
5	HPS DISTRIBUTOR SHIELDSLEEVE SCC	710-099-511	•	
6	HPS40-2 STRESS RELIEF SCC	710-195-502 (4.0 MM^2), 710-671-501 (6.0 MM^2)	•	
7	HPS40-2 X-RING	710-675-501 (6.0MM^2)	•	
8	HPS40-2 CABLE SEAL SCC	709-972-…	•	
9	HPS DISTRIBUTOR CAP SCC	706-668-…	•	
*	… different indices depending on the used variant (see single part drawings)			
*	… shielded high voltage cable (see possible cable suppliers in the process specification)			



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HPS In-Line Connector

INTRODUCTION

The shielded and sealed HIRSCHMANN AUTOMOTIVE PowerStar In-Line Connector offers an optimal separating point. Its compact design enables top installation conditions.

Optionally, the connection system is also available with interlock. The product series complies with all global standards and norms of the automotive industry.

HPS IN-LINE CONNECTOR MALE MCC WITH HVIL

SYSTEM NUMBER	809-999-…00
GENDER	male
CONNECTION TYPE	multicore cable
PRODUCT SPECIFICATION	EPS-100137
PROCESS SPECIFICATION	EVS-100113
APPLICATIONS	inline connection

TECHNICAL PRODUCT INFORMATION

CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	2 (high voltage) + 2 (HVIL optional)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	56 A at 80° C (6.0 mm^2), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 mm^2)	until 30 MHz < 5 mΩ/m > 75 dB (10 kHz to 500 MHz) > 75 dB (500 MHz to 1,000 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 2.0 mΩ (total from sheathed cable until aggregate housing)
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (without fixation point)
VIBRATION STRENGTH 3	according to LV214/215 - PG17 (first fixation point at < 200 mm)
VIBRATION STRENGTH 4	according to LV214/215 - PG17 (first fixation point at < 50 mm)
MATING/UNMATING FORCE	< 65 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 200 N
CPA SYSTEM	operating force < 30 N
HVIL SYSTEM	minimum 1.0 mm (nominal 2.0 mm), leading
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

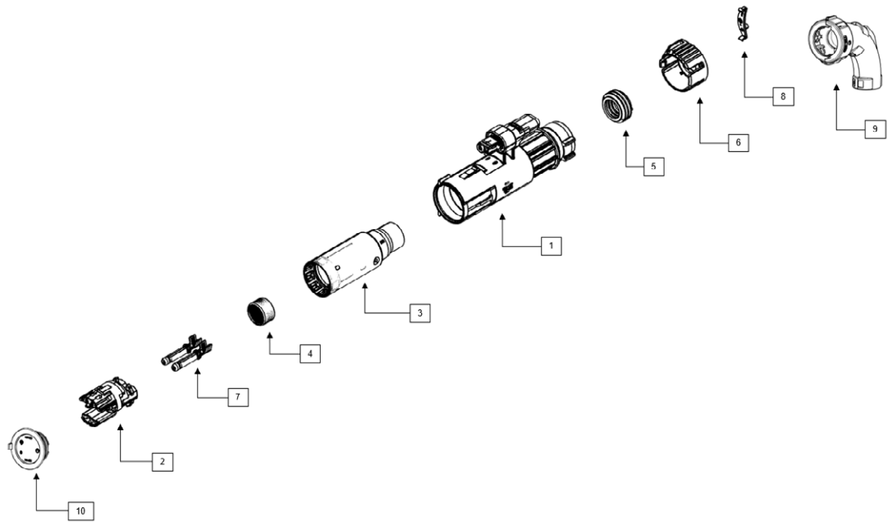
CONTACT SYSTEM	HCT4 (4.0 mm round terminal), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	2.5 mm^2, 4.0 mm^2, 6.0 mm^2
CONTACT CARRIER CODINGS	A, B, C, D

DESCRIPTION SINGLE PARTS

			REQUIRED	OPTIONAL
1	HPS IN-LINE LOCKING DEVICE WITH HVIL	810-000-501	•	
2	HPS IN-LINE CONTACT CARRIER MCC	809-365-…	•	
3	HPS IN-LINE SHIELDING SLEEVE MCC	810-001-501	•	
4	HPS40-2 STRESS RELIEF MCC	709-841-…	•	
5	HPS40-2 CABLE SEAL MCC	709-113-…	•	
6	HPS40-2 COVER CAP MCC	706-430-…	•	
7	HCT4 SHORT TERMINAL	709-633-…	•	
8	HPS40-2 CODING CLIP	706-505-…		•
9	HPS40-2 90° ANGLE CAP	706-506-…		•
10	HPS40-2 PROTECTION CAP MALE	706-673-…		•
*	… different indices depending on the used variant (see single part drawings)			
*	… shielded high voltage cable (see possible cable suppliers in the process specification)			



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MATING CONNECTOR

HPS IN-LINE FEMALE CONNECTOR Page 108, 110

HPS IN-LINE CONNECTOR MALE SCC WITH HVIL

SYSTEM NUMBER	809-999-…00
GENDER	male
CONNECTION TYPE	singlecore cable
PRODUCT SPECIFICATION	EPS-100137
PROCESS SPECIFICATION	EVS-100132
APPLICATIONS	inline connection

TECHNICAL PRODUCT INFORMATION

CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	2 (high voltage) + 2 (HVIL optional)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	59 A at 80° C (6.0 mm^2), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 mm^2)	until 30 MHz < 5 mΩ/m > 75 dB (10 kHz to 500 MHz) > 75 dB (500 MHz to 1,000 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 2.0 mΩ (total from sheathed cable until aggregate housing)
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (without fixation point)
VIBRATION STRENGTH 3	according to LV214/215 - PG17 (without fixation point)
VIBRATION STRENGTH 4	according to LV214/215 - PG17 (first fixation point at < 200 mm)
MATING/UNMATING FORCE	< 65 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 200 N
CPA SYSTEM	operating force < 30 N
HVIL SYSTEM	minimum 1.0 mm (nominal 2.0 mm), leading
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

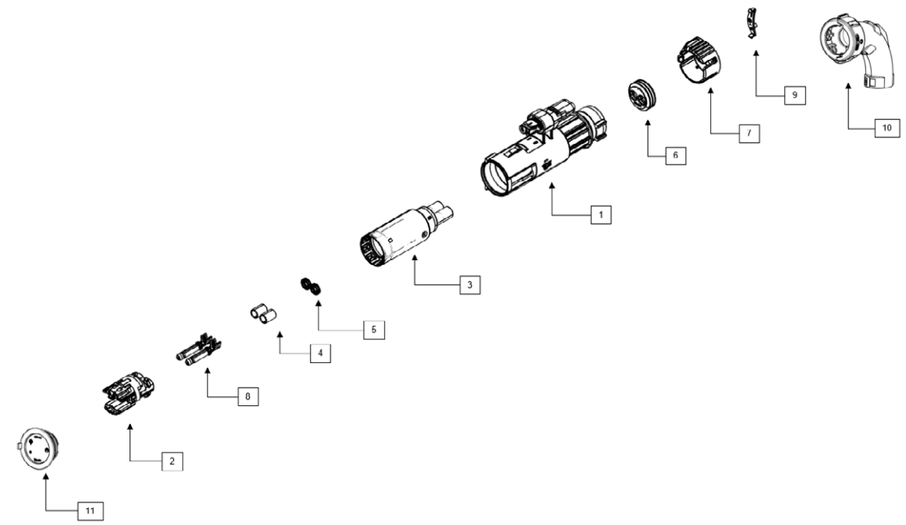
CONTACT SYSTEM	HCT4 (4.0 mm round terminal), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	4.0 mm^2, 6.0 mm^2
CONTACT CARRIER CODINGS	A, B, C, D

DESCRIPTION SINGLE PARTS

			REQUIRED	OPTIONAL
1	HPS IN-LINE LOCKING DEVICE WITH HVIL	810-000-501	•	
2	HPS IN-LINE CONTACT CARRIER SCC	809-365-…	•	
3	HPS IN-LINE SHIELDING SLEEVE SCC	810-001-…	•	
4	HPS40-2 STRESS RELIEF SCC	710-195-502 (4.0 MM^2), 710-671-501 (6.0 MM^2)	•	
5	HPS40-2 X-RING	710-675-501 (6.0MM^2)	•	
6	HPS40-2 CABLE SEAL SCC	709-972-…	•	
7	HPS40-2 COVER CAP SCC	706-822-…	•	
8	HCT4 SHORT TERMINAL	709-633-…	•	
9	HPS40-2 CODING CLIP	706-505-…		•
10	HPS40-2 90° ANGLE CAP	706-506-503		•
11	HPS40-2 PROTECTION CAP MALE	706-673-501		•
*	… different indices depending on the used variant (see single part drawings)			
*	… shielded high voltage cable (see possible cable suppliers in the process specification)			



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MATING CONNECTOR

HPS IN-LINE FEMALE CONNECTOR Page 108, 110

HPS IN-LINE CONNECTOR MALE MCC WITHOUT HVIL

SYSTEM NUMBER	809-999-…00
GENDER	male
CONNECTION TYPE	multicore cable
PRODUCT SPECIFICATION	EPS-100137
PROCESS SPECIFICATION	EVS-100113
APPLICATIONS	inline connection

TECHNICAL PRODUCT INFORMATION

CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	2 (high voltage)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	56 A at 80° C (6.0 mm^2), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 mm^2)	until 30 MHz < 5 mΩ/m > 75 dB (10 kHz to 500 MHz) > 75 dB (500 MHz to 1,000 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 2.0 mΩ (total from sheathed cable until aggregate housing)
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (without fixation point)
VIBRATION STRENGTH 3	according to LV214/215 - PG17 (first fixation point at < 200 mm)
VIBRATION STRENGTH 4	according to LV214/215 - PG17 (first fixation point at < 50 mm)
MATING/UNMATING FORCE	< 65 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 200 N
CPA SYSTEM	operating force < 30 N
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

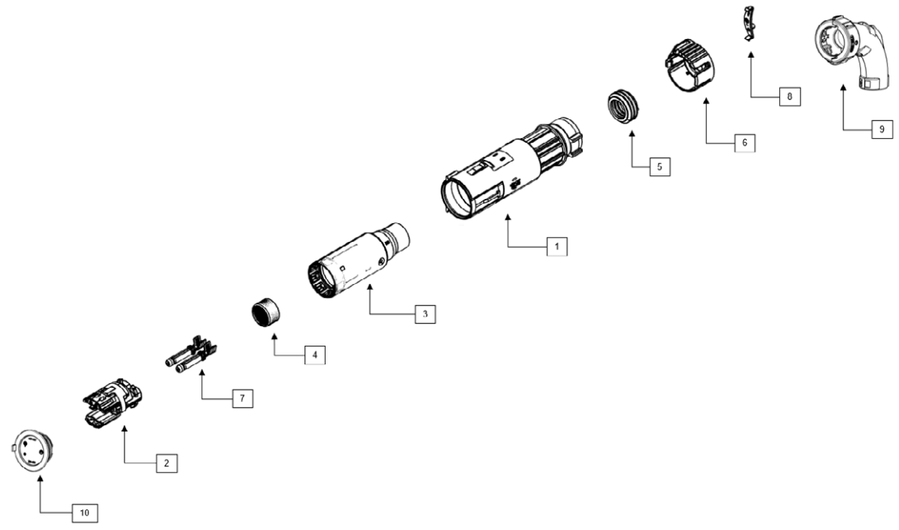
CONTACT SYSTEM	HCT4 (4.0 mm round terminal), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	2.5 mm^2, 4.0 mm^2, 6.0 mm^2
CONTACT CARRIER CODINGS	A, B, C, D

DESCRIPTION SINGLE PARTS

			REQUIRED	OPTIONAL
1	HPS IN-LINE LOCKING DEVICE	706-880-502	•	
2	HPS IN-LINE CONTACT CARRIER MCC	809-365-…	•	
3	HPS IN-LINE SHIELDING SLEEVE MCC	810-001-501	•	
4	HPS40-2 STRESS RELIEF MCC	709-841-…	•	
5	HPS40-2 CABLE SEAL MCC	709-113-…	•	
6	HPS40-2 COVER CAP MCC	706-430-…	•	
7	HCT4 SHORT TERMINAL	709-633-…	•	
8	HPS40-2 CODING CLIP	706-505-…		•
9	HPS40-2 90° ANGLE CAP	706-506-503		•
10	HPS40-2 PROTECTION CAP MALE	706-673-501		•
*	… different indices depending on the used variant (see single part drawings)			
*	… shielded high voltage cable (see possible cable suppliers in the process specification)			



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MATING CONNECTOR

HPS40-2 2+2 FEMALE CONNECTOR Page 36, 38

HPS IN-LINE CONNECTOR MALE SCC WITHOUT HVIL

SYSTEM NUMBER	809-999-...00
GENDER	male
CONNECTION TYPE	singlecore cable
PRODUCT SPECIFICATION	EPS-100137
PROCESS SPECIFICATION	EVS-100132
APPLICATIONS	inline connection

TECHNICAL PRODUCT INFORMATION

CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	2 (high voltage)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	59 A at 80° C (6.0 mm^2), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 mm^2)	until 30 MHz < 5 mΩ/m > 75 dB (10 kHz to 500 MHz) > 75 dB (500 MHz to 1,000 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 2.0 mΩ (total from sheathed cable until aggregate housing)
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (without fixation point)
VIBRATION STRENGTH 3	according to LV214/215 - PG17 (without fixation point)
VIBRATION STRENGTH 4	according to LV214/215 - PG17 (first fixation point at < 200 mm)
MATING/UNMATING FORCE	< 65 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 200 N
CPA SYSTEM	operating force < 30 N
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

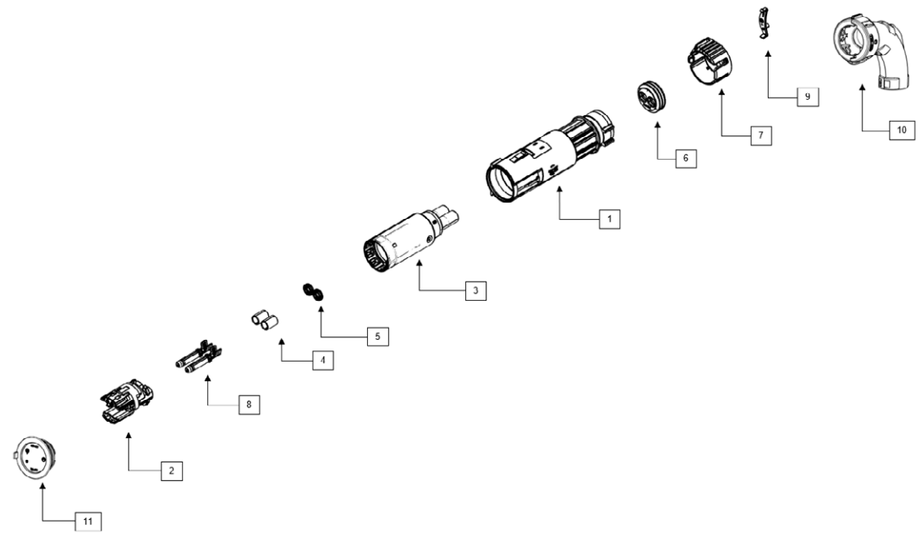
CONTACT SYSTEM	HCT4 (4.0 mm round terminal), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	4.0 mm^2, 6.0 mm^2
CONTACT CARRIER CODINGS	A, B, C, D

DESCRIPTION SINGLE PARTS

			REQUIRED	OPTIONAL
1	HPS IN-LINE LOCKING DEVICE	706-880-502	•	
2	HPS IN-LINE CONTACT CARRIER SCC	809-365-...	•	
3	HPS IN-LINE SHIELDING SLEEVE SCC	810-001-...	•	
4	HPS40-2 STRESS RELIEF SCC	710-195-502 (4.0 MM^2), 710-671-501 (6.0 MM^2)	•	
5	HPS40-2 X-RING	710-675-501 (6.0MM^2)	•	
6	HPS40-2 CABLE SEAL SCC	709-972-...	•	
7	HPS40-2 COVER CAP SCC	706-822-...	•	
8	HCT4 SHORT TERMINAL	709-633-...	•	
9	HPS40-2 CODING CLIP	706-505-...		•
10	HPS40-2 90° ANGLE CAP	706-506-503		•
11	HPS40-2 PROTECTION CAP MALE	706-673-501		•
*	... different indices depending on the used variant (see single part drawings)			
*	... shielded high voltage cable (see possible cable suppliers in the process specification)			



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MATING CONNECTOR

HPS IN-LINE FEMALE CONNECTOR Page 36, 38

HPS IN-LINE CONNECTOR FEMALE MCC WITH HVIL

SYSTEM NUMBER	810-385-…00
GENDER	female
CONNECTION TYPE	multicore cable
PRODUCT SPECIFICATION	EPS-100096
PROCESS SPECIFICATION	EVS-100096
APPLICATIONS	inline connection

TECHNICAL PRODUCT INFORMATION

CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	2 (high voltage) + 2 (HVIL with additional SealStar 1.2 connector)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	60 A at 80° C (6.0 mm^2), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 mm^2)	until 30 MHz < 1 mΩ/m > 75 dB (10 kHz to 500 MHz) > 65 dB (500 MHz to 1,000 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 2.0 mΩ (total from sheathed cable until aggregate housing)
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (without fixation point)
VIBRATION STRENGTH 3	according to LV214/215 - PG17 (first fixation point at < 200 mm)
VIBRATION STRENGTH 4	according to LV214/215 - PG17 (first fixation point at < 50 mm)
MATING/UNMATING FORCE	< 65 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 200 N
CPA SYSTEM	operating force < 30 N
HVIL SYSTEM	minimum 1.0 mm (nominal 2.0 mm), leading
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

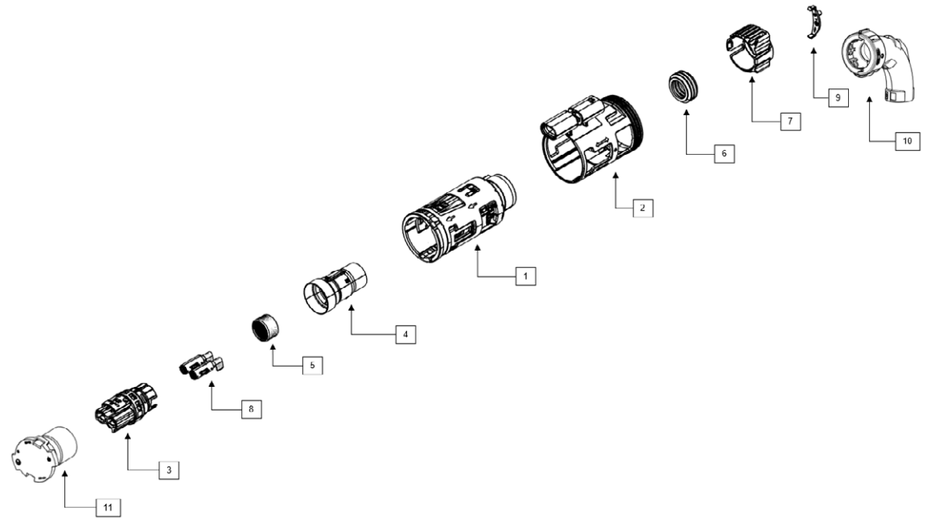
CONTACT SYSTEM	HCT4 (4.0 mm round terminal), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	2.5 mm^2, 4.0 mm^2, 6.0 mm^2
CONTACT CARRIER CODINGS	A, B, C, D, Z

DESCRIPTION SINGLE PARTS

			REQUIRED	OPTIONAL
1	HPS40-2 LOCKING DEVICE	807-656-…	•	
2	HPS IN-LINE CPA COVER	810-287-501	•	
3	HPS40-2 FEMALE CONTACT CARRIER	807-657-…	•	
4	HPS40-2 SHIELDING SLEEVE MCC	709-840-501	•	
5	HPS40-2 STRESS RELIEF MCC	709-841-…	•	
6	HPS40-2 CABLE SEAL MCC	709-113-…	•	
7	HPS40-2 COVER CAP MCC	706-430-…	•	
8	HCT4 TERMINAL	709-427-…	•	
9	HPS40-2 CODING CLIP	706-505-…		•
10	HPS40-2 90° ANGLE CAP	706-506-503		•
11	HPS40-2 PROTECTION CAP	706-672-501		•
*	… different indices depending on the used variant (see single part drawings)			
*	… shielded high voltage cable (see possible cable suppliers in the process specification)			



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MATING CONNECTOR

HPS IN-LINE MALE CONNECTOR Page 100, 102

HPS IN-LINE CONNECTOR FEMALE SCC WITH HVIL

SYSTEM NUMBER	810-385-…00
GENDER	female
CONNECTION TYPE	singlecore cable
PRODUCT SPECIFICATION	EPS-100096
PROCESS SPECIFICATION	EVS-100111
APPLICATIONS	inline connection

TECHNICAL PRODUCT INFORMATION

CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	2 (high voltage) + 2 (HVIL with additional SealStar 1.2 Connector)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	63 A at 80° C (6.0 mm^2), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 mm^2)	until 30 MHz < 1 mΩ/m > 75 dB (10 kHz to 500 MHz) > 65 dB (500 MHz to 1,000 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 2.0 mΩ (total from sheathed cable until aggregate housing)
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (without fixation point)
VIBRATION STRENGTH 3	according to LV214/215 - PG17 (without fixation point)
VIBRATION STRENGTH 4	according to LV214/215 - PG17 (first fixation point at < 200 mm)
MATING/UNMATING FORCE	< 65 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 200 N
CPA SYSTEM	operating force < 30 N
HVIL SYSTEM	minimum 1.0 mm (nominal 2.0 mm), leading
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

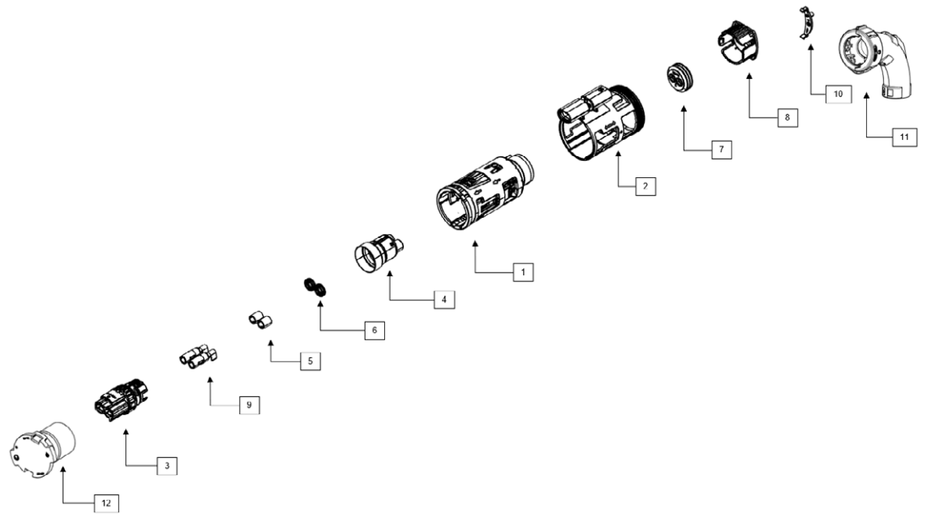
CONTACT SYSTEM	HCT4 (4.0 mm round terminal), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	4.0 mm^2, 6.0 mm^2
CONTACT CARRIER CODINGS	A, B, C, D, Z

DESCRIPTION SINGLE PARTS

			REQUIRED	OPTIONAL
1	HPS40-2 LOCKING DEVICE	807-656-…	•	
2	HPS IN-LINE CPA COVER	810-287-501	•	
3	HPS40-2 FEMALE CONTACT CARRIER	807-657-…	•	
4	HPS40-2 SHIELDING SLEEVE SCC	710-161-…	•	
5	HPS40-2 STRESS RELIEF SCC	710-195-502 (4.0 MM^2), 710-671-501 (6.0 MM^2)	•	
6	HPS40-2 X-RING	710-675-501 (6.0MM^2)	•	
7	HPS40-2 CABLE SEAL SCC	709-972-…	•	
8	HPS40-2 COVER CAP SCC	706-822-…	•	
9	HCT4 TERMINAL	709-427-…	•	
10	HPS40-2 CODING CLIP	706-505-…		•
11	HPS40-2 90° ANGLE CAP	706-506-503		•
12	HPS40-2 PROTECTION CAP	706-672-501		•
*	… different indices depending on the used variant (see single part drawings)			
*	… shielded high voltage cable (see possible cable suppliers in the process specification)			



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MATING CONNECTOR

HPS IN-LINE MALE CONNECTOR Page 100, 102

HPS IN-LINE CONNECTOR PLUS MALE MCC

SYSTEM NUMBER	810-480-…03
GENDER	male
CONNECTION TYPE	multicore cable
PRODUCT SPECIFICATION	in progress
PROCESS SPECIFICATION	EVS-100139
APPLICATIONS	inline connection

TECHNICAL PRODUCT INFORMATION

CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	2 (high voltage)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	56 A at 80° C (6.0 mm^2), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB+ UL (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 mm^2)	until 30 MHz < 5 mΩ/m > 75 dB (10 kHz to 500 MHz) > 75 dB (500 MHz to 1,000 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 2.0 mΩ (total from sheathed cable until aggregate housing)
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (without fixation point)
VIBRATION STRENGTH 3	according to LV214/215 - PG17 (first fixation point at < 200 mm)
VIBRATION STRENGTH 4	according to LV214/215 - PG17 (first fixation point at < 50 mm)
MATING/UNMATING FORCE	< 65 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 200 N
CPA SYSTEM	operating force < 30 N
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

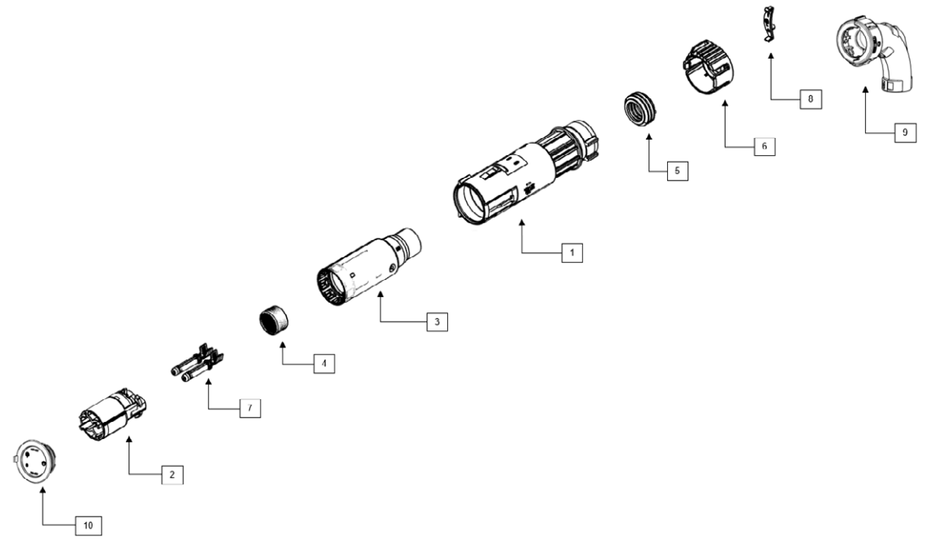
CONTACT SYSTEM	HCT4 (4.0 mm round terminal), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	4.0 mm^2, 6.0 mm^2
CONTACT CARRIER CODINGS	A, B, C, D

DESCRIPTION SINGLE PARTS

			REQUIRED	OPTIONAL
1	HPS IN-LINE LOCKING DEVICE	706-880-503	•	
2	HPS IN-LINE CONTACT CARRIER MCC	810-478-…	•	
3	HPS IN-LINE SHIELDING SLEEVE MCC	810-481-501	•	
4	HPS40-2 STRESS RELIEF MCC	709-841-…	•	
5	HPS40-2 CABLE SEAL MCC	709-113-…	•	
6	HPS40-2 COVER CAP MCC	706-430-…	•	
7	HCT4 SHORT TERMINAL	709-633-…	•	
8	HPS40-2 CODING CLIP	706-505-…		•
9	HPS40-2 90° ANGLE CAP	706-506-503		•
10	HPS40-2 PROTECTION CAP MALE	706-673-501		•
*	… different indices depending on the used variant (see single part drawings)			
*	… shielded high voltage cable (see possible cable suppliers in the process specification)			



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MATING CONNECTOR

HPS40-2 PLUS FEMALE CONNECTOR Page 64

HPS40-E 2+2

INTRODUCTION

With a legacy of years of expertise, we proudly present our HIRSCHMANN AUTOMOTIVE PowerStar eLine – an epitome of innovation in high voltage connectors.

Experience ergonomic design, effortless processing, and unmatched efficiency, all shaping the future of eMobility. Elevate your connection with the seamless connectivity of the HPS eLine.

The HPS40-E 2+2 connector system is your go-to solution for auxiliary unit connections. Designed for efficiency and watertight reliability, it excels even in high temperatures, ensuring safe and secure operations. Welcome to innovation and dependability in one seamless package.

HPS40-E 2+2 FEMALE CONNECTOR

SYSTEM NUMBER	812-776-...
GENDER	female
CONNECTION TYPE	singlecore cable
PRODUCT SPECIFICATION	EPS-100175
PROCESS SPECIFICATION	EVS-100175
APPLICATIONS	auxiliary units

TECHNICAL PRODUCT INFORMATION

CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	2 (high voltage) + 2 (HVIL optional)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 700 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +125° C
MAXIMUM ALTITUDE	5,000 m
MAXIMUM CURRENT LOAD	64 A at 80° C (6.0 mm^2)
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 mm^2)	until 30 MHz < 1 mΩ/m > 75 dB (10 kHz to 500 MHz) > 65 dB (500 MHz to 1,000 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 2.0 mΩ (total from sheathed cable until aggregate housing)
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (first fixation point at < 200 mm)
MATING/UNMATING FORCE	< 75 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 200 N
CPA SYSTEM	operating force < 30 N
HVIL SYSTEM	minimum 1.0 mm, leading
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

CONTACT SYSTEM	HCT4 (4.0 mm round terminal), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	2.5 mm^2, 4.0 mm^2, 6.0 mm^2
CONTACT CARRIER CODINGS	A

HPS40-E 2+2 MALE CONNECTOR 180° WIRE

SYSTEM NUMBER	812-777-...
GENDER	male
CONNECTION TYPE	singlecore cable
PRODUCT SPECIFICATION	n/a
PROCESS SPECIFICATION	n/a
APPLICATIONS	auxiliary units

TECHNICAL PRODUCT INFORMATION

CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	2 (high voltage) + 2 (HVIL optional)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 700 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +125° C
MAXIMUM ALTITUDE	5,000 m
MAXIMUM CURRENT LOAD	64 A at 80° C (6.0 mm^2)
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 MM^2)	until 30 MHz < 1 mΩ/m > 75 dB (10 kHz to 500 MHz) > 65 dB (500 MHz to 1,000 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 2.0 mΩ (total from sheathed cable until aggregate housing)
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (first fixation point at < 200 mm)
MATING/UNMATING FORCE	< 75 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 200 N
CPA SYSTEM	operating force < 30 N
HVIL SYSTEM	minimum 1.0 mm, leading
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

CONTACT SYSTEM	HCT4 (4.0 mm round terminal), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	2.5 mm^2, 4.0 mm^2, 6.0 mm^2
CONTACT CARRIER CODINGS	A

HPS40-E 4+2

INTRODUCTION

With a legacy of years of expertise, we proudly present our HIRSCHMANN AUTOMOTIVE PowerStar eLine – an epitome of innovation in high voltage connectors.

Experience ergonomic design, effortless processing, and unmatched efficiency, all shaping the future of eMobility. Elevate your connection with the seamless connectivity of the HPS eLine.

The HPS40-E 4+2 connector system is your go-to solution for on-board charger connections. Designed for efficiency and watertight reliability, it excels even in high temperatures, ensuring safe and secure operations. Welcome to innovation and dependability in one seamless package.

HPS40-E 4+2 FEMALE CONNECTOR

SYSTEM NUMBER	812-568-...
GENDER	female
CONNECTION TYPE	singlecore cable
PRODUCT SPECIFICATION	EPS-100174
PROCESS SPECIFICATION	EVS-100174
APPLICATIONS	3-phase charging

TECHNICAL PRODUCT INFORMATION

CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	4 (high voltage) + 2 (HVIL optional)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +125° C
MAXIMUM ALTITUDE	5,000 m
MAXIMUM CURRENT LOAD	55 A at 80° C (4 x 6.0 mm^2)
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 mm^2)	until 2 MHz < 2.5 mΩ/m until 30 MHz < 5 mΩ/m > 65 dB (30 MHz to 300 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 2.0 mΩ (total from sheathed cable until aggregate housing)
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (first fixation point at < 200 mm)
MATING/UNMATING FORCE	< 54 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 200 N
CPA SYSTEM	operating force < 30 N
HVIL SYSTEM	minimum 1.0 mm, leading
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

CONTACT SYSTEM	HCT4 (4.0 mm round terminal), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	2.5 mm^2, 4.0 mm^2, 6.0 mm^2
CONTACT CARRIER CODINGS	A

HPS40-E 4+2 MALE CONNECTOR 180° WIRE

SYSTEM NUMBER	812-569-...
GENDER	male
CONNECTION TYPE	singlecore cable
PRODUCT SPECIFICATION	n/a
PROCESS SPECIFICATION	n/a
APPLICATIONS	3-phase charging

TECHNICAL PRODUCT INFORMATION

CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	4 (high voltage) + 2 (HVIL optional)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +125° C
MAXIMUM ALTITUDE	5,000 m
MAXIMUM CURRENT LOAD	55 A at 80° C (4 x 6.0 mm^2)
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 MM^2)	until 2 MHz < 2.5 mΩ/m until 30 MHz < 5 mΩ/m > 65 dB (30 MHz to 300 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 2.0 mΩ (total from sheathed cable until aggregate housing)
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (first fixation point at < 200 mm)
MATING/UNMATING FORCE	< 54 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 200 N
CPA SYSTEM	operating force < 30 N
HVIL SYSTEM	minimum 1.0 mm, leading
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

CONTACT SYSTEM	HCT4 (4.0 mm round terminal), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	2.5 mm^2, 4.0 mm^2, 6.0 mm^2
CONTACT CARRIER CODINGS	A

HPS40 4+2 unshielded

INTRODUCTION

The HIRSCHMANN AUTOMOTIVE PowerStar 40 4+2 unshielded connection system is unshielded and sealed. It is designed for all high-voltage onboard chargers available on the market that are used in electric vehicles. Needless to say, the high-voltage connectors comply with the global standards of the automotive industry.

The products not only impress with their optimized design and low weight. Their operating flexibility is also hard to beat. As the smallest connection system available in this segment, it guarantees optimum performance and top processing.

HPS40 4+2 UNSHIELDED FEMALE CONNECTOR

SYSTEM NUMBER	809-981-...
GENDER	female
CONNECTION TYPE	multicore cable
PRODUCT SPECIFICATION	EPS-100108
PROCESS SPECIFICATION	EVS-100108
APPLICATIONS	3-phase charging

TECHNICAL PRODUCT INFORMATION

CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	4 (high voltage) + 2 (HVIL optional)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +145° C
MAXIMUM ALTITUDE	5,600 m
MAXIMUM CURRENT LOAD	50 A at 80° C (4 x 6.0 mm^2), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 mm^2)	until 30 MHz < 1 mΩ/m > 75 dB (10 kHz to 500 MHz) > 65 dB (500 MHz to 1,000 MHz)
SHIELDED AREA	unshielded
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (without fixation point)
VIBRATION STRENGTH 3	according to LV214/215 - PG17 (first fixation point at < 200 mm)
MATING/UNMATING FORCE	< 75 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 225 N
CPA SYSTEM	operating force < 30 N
HVIL SYSTEM	minimum 1.0 mm, leading
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

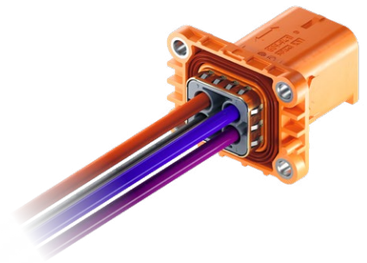
CONTACT SYSTEM	HCT4 (4.0 mm round terminal), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	6.0mm^2 as MCC solution with different pole numbers
CONTACT CARRIER CODINGS	A

HPS40 4+2 UNSHIELDED MALE CONNECTOR 180° WIRE

SYSTEM NUMBER	809-980-...
GENDER	male
CONNECTION TYPE	multicore cable
PRODUCT SPECIFICATION	EPS-100139
PROCESS SPECIFICATION	n/a
APPLICATIONS	3-phase charging



TECHNICAL PRODUCT INFORMATION

CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	4 (high voltage) + 2 (HVIL optional)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +145° C
MAXIMUM ALTITUDE	5,600 m
MAXIMUM CURRENT LOAD	50 A at 80° C (4 x 6.0 mm^2), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 MM^2)	until 30 MHz < 1 mΩ/m > 75 dB (10 kHz to 500 MHz) > 65 dB (500 MHz to 1,000 MHz)
SHIELDED AREA	unshielded
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (without fixation point)
VIBRATION STRENGTH 3	according to LV214/215 - PG17 (first fixation point at < 200 mm)
MATING/UNMATING FORCE	< 75 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 225 N
CPA SYSTEM	operating force < 30 N
HVIL SYSTEM	minimum 1.0 mm, leading
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

CONTACT SYSTEM	HCT4 (4.0 mm round terminal), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	6.0mm^2 as MCC solution with different pole numbers
CONTACT CARRIER CODINGS	A

HPS40 4+2 UNSHIELDED MALE CONNECTOR 180° BLADE

SYSTEM NUMBER	809-490-...
GENDER	male
CONNECTION TYPE	blade
PRODUCT SPECIFICATION	EPS-100184
PROCESS SPECIFICATION	n/a
APPLICATIONS	3-phase charging

TECHNICAL PRODUCT INFORMATION

CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	4 (high voltage) + 2 (HVIL optional)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +145° C
MAXIMUM ALTITUDE	5,600 m
MAXIMUM CURRENT LOAD	50 A at 80° C (4 x 6.0 mm^2), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 mm^2)	until 30 MHz < 1 mΩ/m > 75 dB (10 kHz to 500 MHz) > 65 dB (500 MHz to 1,000 MHz
SHIELDED AREA	unshielded
VIBRATION STRENGTH 2	according to LV214/215 - PG17 (without fixation point)
VIBRATION STRENGTH 3	according to LV214/215 - PG17 (first fixation point at < 200 mm)
MATING/UNMATING FORCE	< 75 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 225 N
CPA SYSTEM	operating force < 30 N
HVIL SYSTEM	minimum 1.0 mm, leading
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

CONTACT SYSTEM	HCT4 (4.0 mm round terminal), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	6.0mm^2 as MCC solution with different pole numbers
CONTACT CARRIER CODINGS	A

HPS28 2+2 unshielded

INTRODUCTION

Step into a new era of high voltage connectivity with our unshielded high voltage connection system, designed to redefine the way auxiliary units in electric vehicles are connected. Whether you're an automotive manufacturer or a technology enthusiast, our connector offers a seamless solution for efficient and streamlined connections of auxiliary units.

Driven by innovation, our unshielded high voltage connector system sets a new standard for auxiliary unit integration. Its cutting-edge design ensures quick, secure, and effortless processing, making it an essential component for enhancing the connection of auxiliary units in electric vehicles.

HPS28 2+2 UNSHIELDED FEMALE CONNECTOR

SYSTEM NUMBER	813-294-...
GENDER	female
CONNECTION TYPE	singlecore cable, different technical configurations possible
PRODUCT SPECIFICATION	EPS-100197
PROCESS SPECIFICATION	EVS-100185
APPLICATIONS	auxiliary units

TECHNICAL PRODUCT INFORMATION

CURRENT CLASS	current class 1 connector
NUMBER OF PINS	2 (high voltage) + 2 (HVIL optional)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +125° C
MAXIMUM ALTITUDE	5,600 m
MAXIMUM CURRENT LOAD	related on choosen contacts, for details have a look at the product specification
MAXIMUM OPERATING TEMPERATURE	+180° C, depending on the contact system used
IP-DEGREE OF PROTECTION	IPXXB+ UL (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
SHIELDED AREA	unshielded
VIBRATION STRENGTH	according to TFL 0214 / PG17 V2 Tmax +140° C (first fixation point at 200 mm)
MATING/UNMATING FORCE	< 50 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 150 N
CPA SYSTEM	operating force < 30 N optional opening only with tool, closed CPA position recognizable by scannable DMC code
HVIL SYSTEM	minimum 1.0 mm, leading
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

CONTACT SYSTEM	2.8 x 0.8 (MCP), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles
ADDITIONAL CONTACTS	MCP, CTS, MAK

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	1.5 mm^2, 2.5 mm^2, 4.0 mm^2, 6.0 mm^2
CONTACT CARRIER CODINGS	A, B, C, D, Z

HPS28 2+2 UNSHIELDED IN-LINE CONNECTOR

SYSTEM NUMBER	813-307-...
GENDER	male
CONNECTION TYPE	singlecore cable, different technical configurations possible
PRODUCT SPECIFICATION	EPS-100198
PROCESS SPECIFICATION	EVS-100186
APPLICATIONS	inline connection

TECHNICAL PRODUCT INFORMATION

CURRENT CLASS	current class 1 connector
NUMBER OF PINS	2 (high voltage) + 2 (HVIL optional)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +125° C
MAXIMUM ALTITUDE	5,600 m
MAXIMUM CURRENT LOAD	related on choosen contacts, for details have a look at the product specification
MAXIMUM OPERATING TEMPERATURE	+180° C, depending on the contact system used
IP-DEGREE OF PROTECTION	IPXXB+ UL (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
SHIELDED AREA	unshielded
VIBRATION STRENGTH	according to TFL 0214 / PG17 V2 Tmax +140° C (first fixation point at 200 mm)
MATING/UNMATING FORCE	< 50 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 150 N
CPA SYSTEM	operating force < 30 N optional opening only with tool, closed CPA position recognizable by scannable DMC code
HVIL SYSTEM	minimum 1.0 mm, leading
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

CONTACT SYSTEM	2.8 x 0.8 (system with HVIL: HFT2.8 / system without HVIL: HFT2.8 or MCP), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles
ADDITIONAL CONTACTS	MCP, CTS, MAK

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	1.5 mm^2, 2.5 mm^2, 4.0 mm^2, 6.0 mm^2
CONTACT CARRIER CODINGS	A, B, C, D, Z

HPS28 2+2 UNSHIELDED MALE CONNECTOR 180° WIRE

SYSTEM NUMBER	n/a
GENDER	male
CONNECTION TYPE	singlecore cable
PRODUCT SPECIFICATION	n/a
PROCESS SPECIFICATION	n/a
APPLICATIONS	auxiliary units

TECHNICAL PRODUCT INFORMATION

CURRENT CLASS	current class 1 connector
NUMBER OF PINS	2 (high voltage) + 2 (HVIL optional)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +125° C
MAXIMUM ALTITUDE	5,600 m
MAXIMUM CURRENT LOAD	related on choosen contacts, for details have a look at the product specification
MAXIMUM OPERATING TEMPERATURE	+180° C, depending on the contact system used
IP-DEGREE OF PROTECTION	IPXXB+ UL (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
SHIELDED AREA	unshielded
VIBRATION STRENGTH	according to TFL 0214 / PG17 V2 Tmax +140° C (first fixation point at 200 mm)
MATING/UNMATING FORCE	< 50 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 150 N
CPA SYSTEM	operating force < 30 N optional opening only with tool, closed CPA position recognizable by scannable DMC code
HVIL SYSTEM	minimum 1.0 mm, leading
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

CONTACT SYSTEM	2.8 x 0.8 (system with HVIL: HFT2.8 / system without HVIL: HFT2.8 or MCP), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles
ADDITIONAL CONTACTS	MCP, CTS, MAK

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	1.5 mm^2, 2.5 mm^2, 4.0 mm^2, 6.0 mm^2
CONTACT CARRIER CODINGS	A, B, C, D, Z

HPS28 2+2 UNSHIELDED MALE CONNECTOR 180° BLADE

SYSTEM NUMBER	n/a
GENDER	male
CONNECTION TYPE	blade
PRODUCT SPECIFICATION	n/a
PROCESS SPECIFICATION	n/a
APPLICATIONS	auxiliary units

TECHNICAL PRODUCT INFORMATION

CURRENT CLASS	current class 1 connector
NUMBER OF PINS	2 (high voltage) + 2 (HVIL optional)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +125° C
MAXIMUM ALTITUDE	5,600 m
MAXIMUM CURRENT LOAD	related on choosen contacts, for details have a look at the product specification
MAXIMUM OPERATING TEMPERATURE	+180° C, depending on the contact system used
IP-DEGREE OF PROTECTION	IPXXB+ UL (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
SHIELDED AREA	unshielded
VIBRATION STRENGTH	according to TFL 0214 / PG17 V2 Tmax +140° C (first fixation point at 200 mm)
MATING/UNMATING FORCE	< 50 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 150 N
CPA SYSTEM	operating force < 30 N optional opening only with tool, closed CPA position recognizable by scannable DMC code
HVIL SYSTEM	minimum 1.0 mm, leading
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

CONTACT SYSTEM	2.8 x 0.8 (system with HVIL: HFT2.8 / system without HVIL: HFT2.8 or MCP), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles
ADDITIONAL CONTACTS	MCP, CTS, MAK

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	1.5 mm^2, 2.5 mm^2, 4.0 mm^2, 6.0 mm^2
CONTACT CARRIER CODINGS	A, B, C, D, Z

HPS40 2+2 unshielded

INTRODUCTION

Step into a new era of high voltage connectivity with our unshielded high voltage connection system, designed to redefine the way auxiliary units in electric vehicles are connected. Whether you're an automotive manufacturer or a technology enthusiast, our connector offers a seamless solution for efficient and streamlined connections of auxiliary units.

Driven by innovation, our unshielded high voltage connector system sets a new standard for auxiliary unit integration. Its cutting-edge design ensures quick, secure, and effortless processing, making it an essential component for enhancing the connection of auxiliary units in electric vehicles.

HPS40 2+2 UNSHIELDED FEMALE CONNECTOR

SYSTEM NUMBER	813-580-...
GENDER	female
CONNECTION TYPE	singlecore cable, different technical configurations possible
PRODUCT SPECIFICATION	EPS-100195
PROCESS SPECIFICATION	EVS-100183
APPLICATIONS	auxiliary units

TECHNICAL PRODUCT INFORMATION

CURRENT CLASS	current class 2 connector
NUMBER OF PINS	2 (high voltage) + 2 (HVIL optional)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 700 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +125° C
MAXIMUM ALTITUDE	5,600 m
MAXIMUM CURRENT LOAD	52 A at 80° C (4.0 mm^2 Cu) 60 A at 80° C (6.0 mm^2 Cu)
IP-DEGREE OF PROTECTION	IPXXB+ UL (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
SHIELDED AREA	unshielded
VIBRATION STRENGTH	according to TFL 0214 / PG17 V2 Tmax +140° C (first fixation point at 200 mm)
MATING/UNMATING FORCE	< 50 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 150 N
CPA SYSTEM	operating force < 30 N optional opening only with tool, closed CPA position recognizable by scannable DMC code
HVIL SYSTEM	minimum 1.0 mm, leading
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

CONTACT SYSTEM	HCT4 (4.0 mm round terminal), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	4.0 mm^2, 6.0 mm^2
CONTACT CARRIER CODINGS	A, B, C, D, Z

HPS40 2+2 UNSHIELDED IN-LINE CONNECTOR

SYSTEM NUMBER	813-581-...
GENDER	male
CONNECTION TYPE	singlecore cable, different technical configurations possible
PRODUCT SPECIFICATION	EPS-100196
PROCESS SPECIFICATION	EVS-100184
APPLICATIONS	inline connection

TECHNICAL PRODUCT INFORMATION

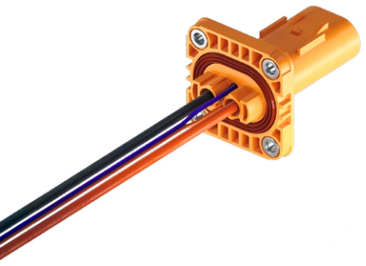
CURRENT CLASS	current class 2 connector
NUMBER OF PINS	2 (high voltage) + 2 (HVIL optional)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 700 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +125° C
MAXIMUM ALTITUDE	5,600 m
MAXIMUM CURRENT LOAD	52 A at 80° C (4.0 mm^2 Cu) 60 A at 80° C (6.0 mm^2 Cu)
IP-DEGREE OF PROTECTION	IPXXB+ UL (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
SHIELDED AREA	unshielded
VIBRATION STRENGTH	according to TFL 0214 / PG17 V2 Tmax +140° C (first fixation point at 200 mm)
MATING/UNMATING FORCE	< 50 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 150 N
CPA SYSTEM	operating force < 30 N optional opening only with tool, closed CPA position recognizable by scannable DMC code
HVIL SYSTEM	minimum 1.0 mm, leading
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

CONTACT SYSTEM	HCT4 (4.0 mm round terminal), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	4.0 mm^2, 6.0 mm^2
CONTACT CARRIER CODINGS	A, B, C, D, Z



HPS40 2+2 UNSHIELDED MALE CONNECTOR 180° WIRE

SYSTEM NUMBER	n/a
GENDER	male
CONNECTION TYPE	singlecore cable
PRODUCT SPECIFICATION	n/a
PROCESS SPECIFICATION	n/a
APPLICATIONS	auxiliary units

TECHNICAL PRODUCT INFORMATION

CURRENT CLASS	current class 2 connector
NUMBER OF PINS	2 (high voltage) + 2 (HVIL optional)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 700 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +125° C
MAXIMUM ALTITUDE	5,600 m
MAXIMUM CURRENT LOAD	52 A at 80° C (4.0 mm^2 Cu) 60 A at 80° C (6.0 mm^2 Cu)
IP-DEGREE OF PROTECTION	IPXXB+ UL (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
SHIELDED AREA	unshielded
VIBRATION STRENGTH	according to TFL 0214 / PG17 V2 Tmax +140° C (first fixation point at 200 mm)
MATING/UNMATING FORCE	< 50 N
SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 150 N
CPA SYSTEM	operating force < 30 N optional opening only with tool, closed CPA position recognizable by scannable DMC code
HVIL SYSTEM	minimum 1.0 mm, leading
VALIDATION NORMS	compliant with several automotive test specifications

CONTACT SYSTEM INFORMATION

CONTACT SYSTEM	HCT4 (4.0 mm round terminal), Ag, crimped
MATERIAL/SURFACE	Cu-Leg., CuNiSi, Ag
CONNECTION	crimped
MATING CYCLES	maximum 50 cycles

CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION	4.0 mm^2, 6.0 mm^2
CONTACT CARRIER CODINGS	A, B, C, D, Z

Get in Touch

If you are interested in our High Voltage products, contact our Global Product Manager Daniel Engstler.

More information and insights about Hirschmann Automotive can be found on our website or on our social media channels.

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