# HIGH-VOLTAGE APPLICATIONS

Product Catalogue







# Index

#### **ABOUT US** 06

#### HPS40-1 2+2 09

10 HPS40-1 2+2 FEMALE CONNECTOR MCC 12 HPS40-1 2+2 FEMALE CONNECTOR SCC 14 HPS40-1 2+2 FEMALE CONNECTOR MCC WITH CPA HPS40-1 2+2 FEMALE CONNECTOR SCC WITH CPA 16 18 HPS40-1 2+2 FEMALE CONNECTOR BLIND PLUG 20 HPS40-1 2+2 MALE CONNECTOR 180° WIRE WPT 22 HPS40-1 2+2 MALE CONNECTOR 90° WIRE WPT 24 HPS40-1 2+2 MALE CONNECTOR 124° WIRE WPT 26 HPS40-1 3+2 FEMALE CONNECTOR MCC 28 HPS40-1 3+2 FEMALE CONNECTOR MCC WITH CPA 30 HPS40-1 3+2 MALE CONNECTOR 180° WIRE WPT 32 HPS40-1 3+2 MALE CONNECTOR 90° WIRE WPT

#### 35 HPS40-2 2+2

36	HPS40-2 2+2 FEMALE CONNECTOR MCC
38	HPS40-2 2+2 FEMALE CONNECTOR SCC
40	HPS40-2 2+2 FEMALE CONNECTOR BLIND PLUG
42	HPS40-2 2+2 MALE CONNECTOR 180° WIRE
44	HPS40-2 2+2 MALE CONNECTOR 180° BLADE
46	HPS40-2 2+2 MALE CONNECTOR 180° BUSBAR
48	HPS40-2 2+2 MALE CONNECTOR 180° WIRE DUPL
50	HPS40-2 2+2 MALE CONNECTOR 90° WIRE
52	HPS40-2 2+2 MALE CONNECTOR 90° WIRE
54	HPS40-2 2+2 MALE CONNECTOR 90° WIRE
56	HPS40-2 2+2 MALE CONNECTOR 90° BLADE
58	HPS40-2 2+2 FEMALE CONNECTOR NAFTA MCC
60	HPS40-2 2+2 FEMALE CONNECTOR NAFTA SCC
62	HPS40-2 2+2 FEMALE CONNECTOR NAFTA BLIND

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BUSBAR WIRE DUPLEX WIRE WIRE WIRE BLADE JAFTA MCC JAFTA SCC IAFTA BLIND PLUG

- 64 HPS40-2 PLUS FEMALE CONNECTOR MCC
- 66 HPS40-2 PLUS FEMALE CONNECTOR BLIND PLUG
- 68 HPS40-2 PLUS MALE CONNECTOR 180° WIRE
- 70 HPS40-2 PLUS MALE CONNECTOR 180° BLADE
- 72 HPS40-2 PLUS MALE CONNECTOR 90° WIRE
- 74 HPS40-2 PLUS MALE CONNECTOR 90° WIRE
- 76 HPS40-2 PLUS MALE CONNECTOR 90° BLADE

#### 79 HPS40 4+2

- 80 HPS40 4+2 FEMALE CONNECTOR MCC
- 82 HPS40 4+2 MALE CONNECTOR 180° WIRE
- 84 HPS40 4+2 MALE CONNECTOR 180° BLADE
- 86 HPS40 4+2 MALE CONNECTOR 180° BLADE HP

#### 89 HPS DISTRIBUTOR

- 90 HPS Y-DISTRIBUTOR MCC
- 92 HPS Y-DISTRIBUTOR SCC
- 94 HPS H-DISTRIBUTOR MCC
- 96 HPS H-DISTRIBUTOR SCC

#### 99 HPS IN-LINE CONNECTOR

- 100 HPS IN-LINE CONNECTOR MALE MCC WITH HVIL
- 102 HPS IN-LINE CONNECTOR MALE SCC WITH HVIL
- 104 HPS IN-LINE CONNECTOR MALE MCC WITHOUT HVIL
- 106 HPS IN-LINE CONNECTOR MALE SCC WITHOUT HVIL
- 108 HPS IN-LINE CONNECTOR FEMALE MCC WITH HVIL
- 110 HPS IN-LINE CONNECTOR FEMALE SCC WITH HVIL
- 112 HPS IN-LINE CONNECTOR PLUS MALE MCC

#### 114 GET IN TOUCH



### 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 e-mobility 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	7,400
	Plant Locations Production	7
2	Sales and R&D Offices	5
820 I	Founding Year	1959
4000	Founding Year	

#### 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.

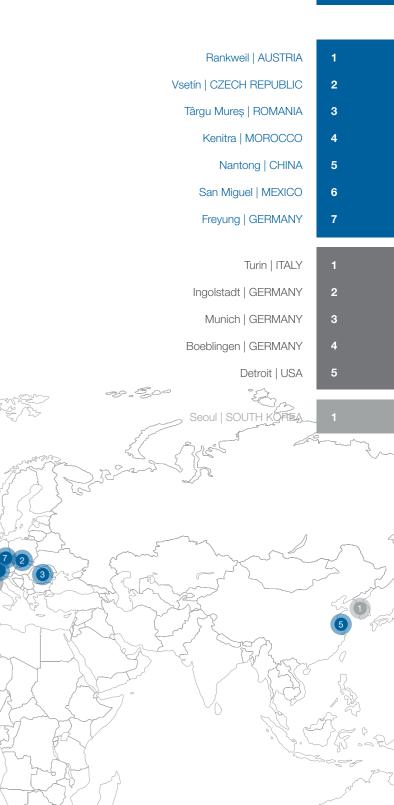
#### **Good Connections Start with People**

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 7,400 employees at seven production sites as well as 5 sales and R&D offices 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.





#### PRODUCTION SITE SALES AND R&D OFFICES

DISTRIBUTOR



# 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	805-97200
GENDER	female
INTERFACE	EMEA
CONNECTION TYPE	multicore cable
PRODUCT SPECIFICATION	EPS-100043
PROCESS SPECIFICATION	EVS-100097
APPLICATIONS	auxiliary units



#### 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 sir		nt (see single part drawings)		

\* ... shielded high voltage cable (see possible cable suppliers in the process specification)

#### 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
	$60 \text{ VDC} < \text{U} \le 1,000 \text{ VDC}$
	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 mm²), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 MM <sup>2</sup> )	> 70 dB (10 kHz to 5 MHz)
	> 65 dB (5 MHz to 500 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	$<$ 10 m $\Omega$ (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

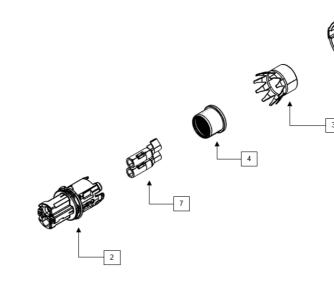
#### CONTACT SYSTEM INFORMATION

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<sup>2</sup>, 4.0 mm<sup>2</sup>, 6.0 mm<sup>2</sup> CONTACT CARRIER CODINGS

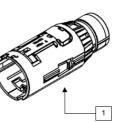
A, B, C, Z

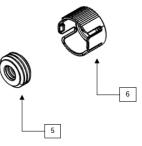


#### DOWNLOADS

- ► PRODUCT SPECIFICATION
- ► PROCESS SPECIFICATION
- ► 3D SPACE MODEL

#### MATING CONNECTOR





#### HPS40-1 2+2 FEMALE CONNECTOR SCC

SYSTEM NUMBER	805-97200
GENDER	female
INTERFACE	EMEA
CONNECTION TYPE	singlecore cable
PRODUCT SPECIFICATION	EPS-100043
PROCESS SPECIFICATION	EVS-100097
APPLICATIONS	auxiliary units



#### 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)

#### TECHNICAL PRODUCT INFORMATION

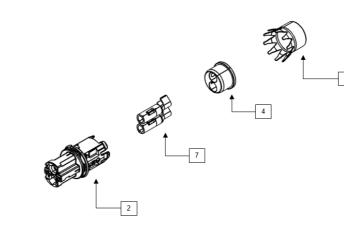
CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	2 (high voltage) + 2 (HVIL optional)
OPERATING CONDITION	750 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011
	$60 \text{ VDC} < \text{U} \leq 1,000 \text{ VDC}$
	25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	62 A at 80° C (6.0 mm <sup>2</sup> ), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 MM <sup>2</sup> )	> 70 dB (10 kHz to 5 MHz)
	> 65 dB (5 MHz to 500 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	$<$ 10 m $\Omega$ (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

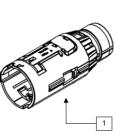
CABLE CROSS SECTION	3.0 mm², 5.0 mm²	
CONTACT CARRIER CODINGS	A, B, C, Z	

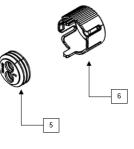


#### DOWNLOADS

- ► PRODUCT SPECIFICATION
- ► PROCESS SPECIFICATION
- ► 3D SPACE MODEL

#### MATING CONNECTOR





#### HPS40-1 2+2 FEMALE CONNECTOR MCC WITH CPA

SYSTEM NUMBER	805-97200
GENDER	female
INTERFACE	EMEA
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 <sup>2</sup> ), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 MM <sup>2</sup> )	> 70 dB (10 kHz to 5 MHz)
	> 65 dB (5 MHz to 500 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	$<$ 10 m $\Omega$ (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	URFACE Cu-Leg., CuNiSi, Ag	
CONNECTION	crimped	
MATING CYCLES	maximum 50 cycles	

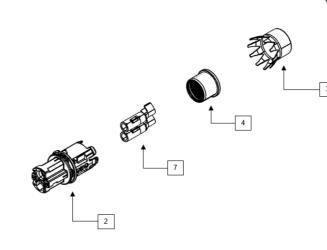
#### CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION 2.5 mm<sup>2</sup>, 4.0 mm<sup>2</sup>, 6.0 mm<sup>2</sup> 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 varia	ant (see single part drawings)		

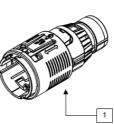
\* ... shielded high voltage cable (see possible cable suppliers in the process specification)

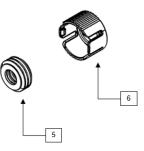


#### DOWNLOADS

- ► PRODUCT SPECIFICATION
- ► PROCESS SPECIFICATION
- ► 3D SPACE MODEL

#### MATING CONNECTOR





#### HPS40-1 2+2 FEMALE CONNECTOR SCC WITH CPA

SYSTEM NUMBER	805-97200
GENDER	female
INTERFACE	EMEA
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
	$60 \text{ VDC} < \text{U} \le 1,000 \text{ VDC}$
	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 <sup>2</sup> ), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 MM <sup>2</sup> )	> 70 dB (10 kHz to 5 MHz)
	> 65 dB (5 MHz to 500 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 10 m $\Omega$ (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	URFACE Cu-Leg., CuNiSi, Ag	
CONNECTION	crimped	
MATING CYCLES	maximum 50 cycles	

#### CUSTOMER SPECIFIC INFORMATION

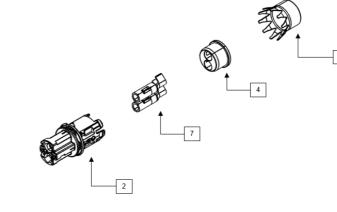
CABLE CROSS SECTION	3.0 mm², 5.0 mm²
CONTACT CARRIER CODINGS	A, B, C, Z



#### 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 varia	nt (see single part drawings)		

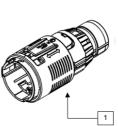
\* .... shielded high voltage cable (see possible cable suppliers in the process specification)

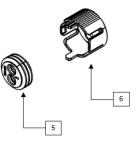


#### DOWNLOADS

- ► PRODUCT SPECIFICATION
- ► PROCESS SPECIFICATION
- ► 3D SPACE MODEL

#### MATING CONNECTOR





#### HPS40-1 2+2 FEMALE CONNECTOR BLIND PLUG

SYSTEM NUMBER	906-15100
GENDER	female
INTERFACE	EMEA
CONNECTION TYPE	blind plug
APPLICATIONS	auxiliary units

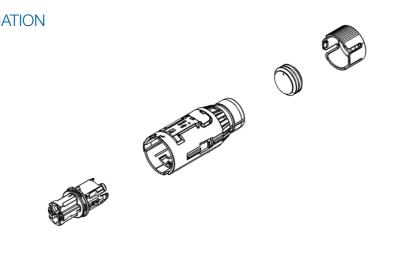
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#### TECHNICAL PRODUCT INFORMATION

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



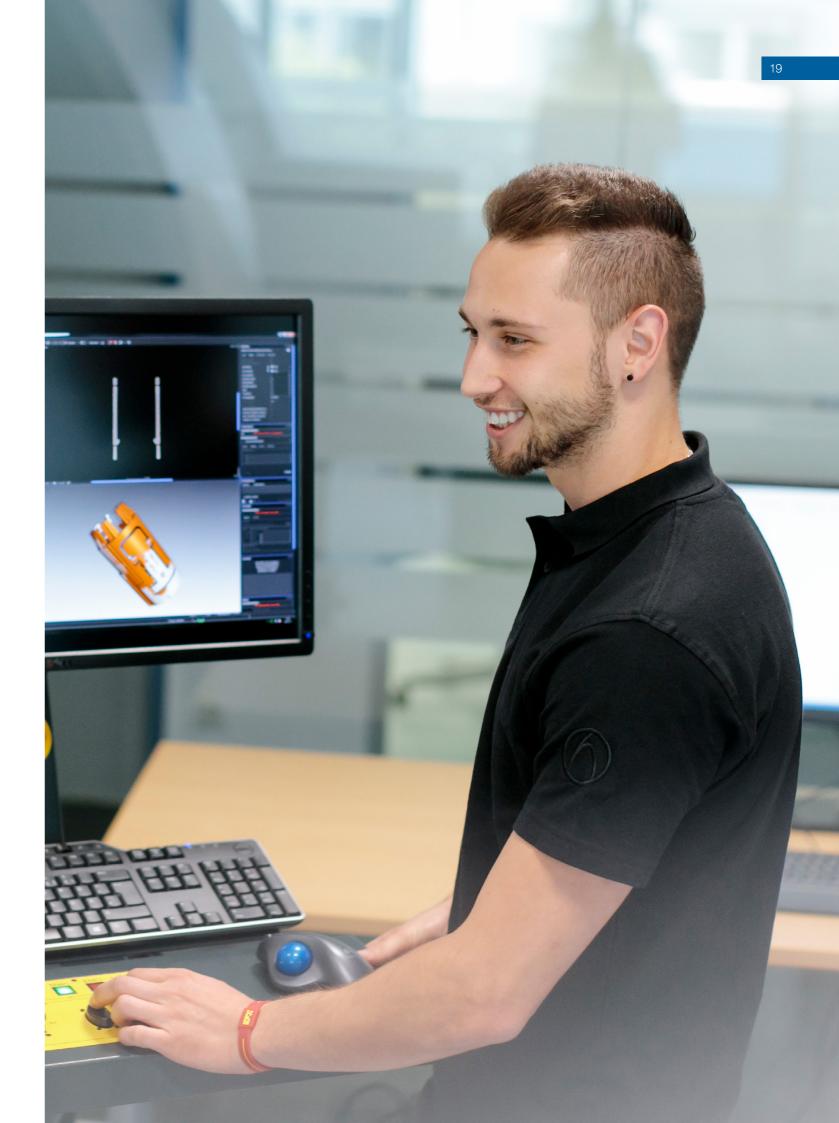
#### DOWNLOADS

- ► SYSTEM DRAWING
- ► 3D SPACE MODE

#### MATING CONNECTOR

HPS40-1 2+2 MALE CONNECTOR

Page 20, 22, 24





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

SYSTEM NUMBER	806-02900
GENDER	male
INTERFACE	EMEA
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
	$60 \text{ VDC} < \text{U} \le 1,000 \text{ VDC}$
	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 <sup>2</sup> ), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 MM <sup>2</sup> )	> 70 dB (10 kHz to 5 MHz)
	> 65 dB (5 MHz to 500 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 10 m $\Omega$ (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

# 

#### DOWNLOADS

- ► PRODUCT SPECIFICATION
- ► SYSTEM DRAWING
- ► 3D SPACE MODEL

#### MATING CONNECTOR

HPS40-1 2+2 FEMALE CONNECTOR

Page 10, 12, 14, 16, 18

#### 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 mm², 4.0 mm², 6.0 mm²
CONTACT CARRIER CODINGS	A, B, C
CONFIGURATION	customer specific wire configuration possible on request
SCREW TYPE	M4





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

SYSTEM NUMBER	806-02900
GENDER	male
INTERFACE	EMEA
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 <sup>2</sup> ), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 MM <sup>2</sup> )	> 70 dB (10 kHz to 5 MHz)
	> 65 dB (5 MHz to 500 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	$<$ 10 m $\Omega$ (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

# E O

#### DOWNLOADS

- ► PRODUCT SPECIFICATION
- ► SYSTEM DRAWING
- ► 3D SPACE MODEL

#### MATING CONNECTOR

HPS40-1 2+2 FEMALE CONNECTOR

Page 10, 12

#### 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 mm², 4.0 mm², 6.0 mm²
CONTACT CARRIER CODINGS	A, B, C
CONFIGURATION	customer specific wire configuration possible on request
SCREW TYPE	M4





23



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

SYSTEM NUMBER	906-50400
GENDER	male
INTERFACE	EMEA
CONNECTION TYPE	singlecore cable
PRODUCT SPECIFICATION	EPS-100042
APPLICATIONS	auxiliary units

#### TECHNICAL PRODUCT INFORMATION

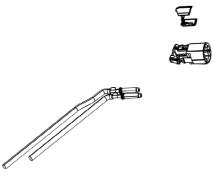
CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	2 (high voltage) + 2 (HVIL optional)
OPERATING CONDITION	750 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011
	60 VDC < U ≤ 1,000 VDC
	25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	62 A at 80° C (6.0 mm <sup>2</sup> ), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 MM <sup>2</sup> )	> 70 dB (10 kHz to 5 MHz)
	> 65 dB (5 MHz to 500 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	$<$ 10 m $\Omega$ (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 <sup>2</sup> , 4.0 mm <sup>2</sup> , 6.0 mm <sup>2</sup>
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	807-13500
GENDER	female
INTERFACE	EMEA
CONNECTION TYPE	multicore cable
PRODUCT SPECIFICATION	EPS-100043
PROCESS SPECIFICATION	EVS-100071
APPLICATIONS	auxiliary units



#### DESCRIPTION SINGLE PARTS

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 (KC
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 $^{\ast}$   $\qquad$  ... shielded high voltage cable (see possible cable suppliers in the process specification)

#### TECHNICAL PRODUCT INFORMATION

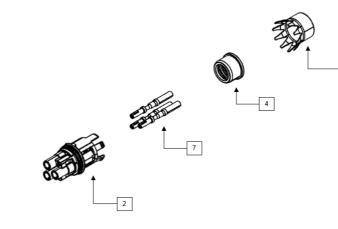
CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	3 (high voltage) + 2 (HVIL optional)
OPERATING CONDITION	750 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011
	$60 \text{ VDC} < \text{U} \le 1,000 \text{ VDC}$
	25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	35 A at 80° C (2.5 mm <sup>2</sup> ), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 MM <sup>2</sup> )	> 70 dB (10 kHz to 5 MHz)
	> 65 dB (5 MHz to 500 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 10 m $\Omega$ (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 <sup>2</sup>
CONTACT CARRIER CODINGS	А



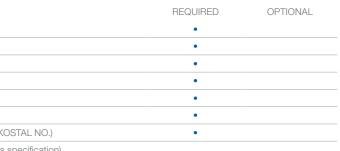
#### DOWNLOADS

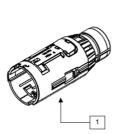
- ► PROCESS SPECIFICATION
- ► SYSTEM DRAWING
- ► 3D SPACE MODEL

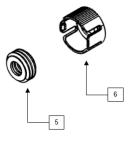
#### MATING CONNECTOR

HPS40-1 3+2 MALE CONNECTOR

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#### HPS40-1 3+2 FEMALE CONNECTOR MCC WITH CPA

SYSTEM NUMBER	807-13500
GENDER	female
INTERFACE	EMEA
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 <sup>2</sup> ), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 MM <sup>2</sup> )	> 70 dB (10 kHz to 5 MHz)
	> 65 dB (5 MHz to 500 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 10 m $\Omega$ (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

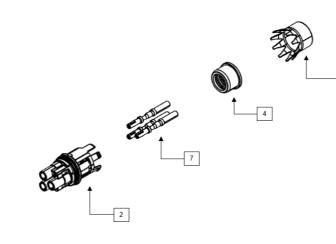
CABLE CROSS SECTION	2.5 mm <sup>2</sup>
CONTACT CARRIER CODINGS	A



#### 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 ca	ble suppliers in the process specification)		

able (see possible cable suppliers in the process specification) nign itage



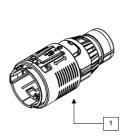
#### DOWNLOADS

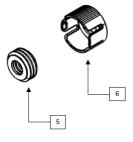
- ► PROCESS SPECIFICATION

#### MATING CONNECTOR

HPS40-1 3+2 MALE CONNECTOR

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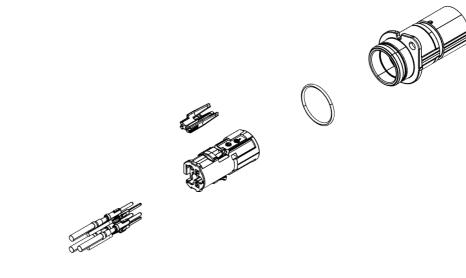


#### HPS40-1 3+2 MALE CONNECTOR 180° WIRE WPT

SYSTEM NUMBER	807-13600
GENDER	male
INTERFACE	EMEA
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
	$60 \text{ VDC} < \text{U} \leq 1,000 \text{ VDC}$
	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 mm²), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 MM <sup>2</sup> )	> 70 dB (10 kHz to 5 MHz)
	> 65 dB (5 MHz to 500 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	$<$ 10 m $\Omega$ (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



#### DOWNLOADS

► SYSTEM DRAWING

► 3D SPACE MODEL

#### MATING CONNECTOR

HPS40-1 3+2 FEMALE CONNECTOR

Page 26, 28

#### 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<sup>2</sup> CONTACT CARRIER CODINGS А





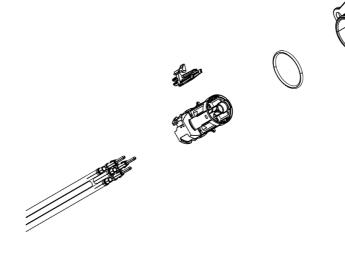


#### HPS40-1 3+2 MALE CONNECTOR 90° WIRE WPT

SYSTEM NUMBER	807-13600
GENDER	male
INTERFACE	EMEA
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
	$60 \text{ VDC} < \text{U} \leq 1,000 \text{ VDC}$
	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 mm²), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 MM <sup>2</sup> )	> 70 dB (10 kHz to 5 MHz)
	> 65 dB (5 MHz to 500 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	$<$ 10 m $\Omega$ (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



#### DOWNLOADS

► SYSTEM DRAWING

► 3D SPACE MODEL

#### MATING CONNECTOR

HPS40-1 3+2 FEMALE CONNECTOR

Page 26, 28

#### 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<sup>2</sup>

 CONTACT CARRIER CODINGS
 A



33

### 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	807-65500
GENDER	female
INTERFACE	EMEA
CONNECTION TYPE	multicore cable
PRODUCT SPECIFICATION	EPS-100096
PROCESS SPECIFICATION	EVS-100096
APPLICATIONS	auxiliary units



#### DESCRIPTION SINGLE PARTS

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	t (see single part drawings)
*	shielded high voltage cable (see possible cable	e suppliers in the process specification)

#### **TECHNICAL PRODUCT INFORMATION**

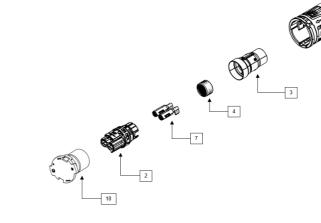
CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	2 (high voltage) + 2 (HVIL optional)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011
	$60 \text{ VDC} < \text{U} \le 1,000 \text{ VDC}$
	25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	60 A at 80° C (6.0 mm <sup>2</sup> ), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 MM <sup>2</sup> )	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 m $\Omega$ (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<sup>2</sup>, 4.0 mm<sup>2</sup>, 6.0 mm<sup>2</sup> CONTACT CARRIER CODINGS A, B, C, D, Z



#### DOWNLOADS

- ► PROCESS SPECIFICATION

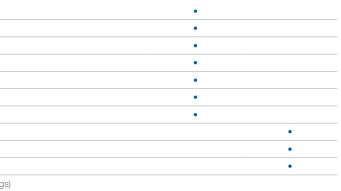
- ► SINGLE PART DRAWINGS

#### MATING CONNECTOR

HPS40-2 2+2 MALE CONNECTOR	
HPS IN-LINE MALE CONNECTOR	

Page 104, 106

5



REQUIRED

OPTIONAL

#### HPS40-2 2+2 FEMALE CONNECTOR SCC

SYSTEM NUMBER	807-65500
GENDER	female
INTERFACE	EMEA
CONNECTION TYPE	singlecore cable
PRODUCT SPECIFICATION	EPS-100096
PROCESS SPECIFICATION	EVS-100111
APPLICATIONS	auxiliary units



#### 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 <sup>2</sup> ), 710-671-501 (6.0 MM <sup>2</sup> )	•	
5	HPS40-2 X-RING	710-675-501 (6.0MM <sup>2</sup> )	•	
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 varia	ant (see single part drawings)		
*				

 $^{\star}$  ... shielded high voltage cable (see possible cable suppliers in the process specification)

#### 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 <sup>2</sup> ), see deratings product specification	
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)	
WATERTIGHTNESS	IP6K9K, IPX8	
EMC PERFORMANCE (6.0 MM <sup>2</sup> )	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 m $\Omega$ (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 <sup>2</sup> , 6.0 mm <sup>2</sup>
CONTACT CARRIER CODINGS	A, B, C, D, Z

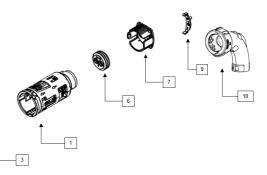
#### DOWNLOADS

► PRODUCT	SPECIFICATION
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#### MATING CONNECTOR

HPS40-2 2+2 MALE CONNECTOR	
HPS IN-LINE MALE CONNECTOR	

Page 104, 106



#### HPS40-2 2+2 FEMALE CONNECTOR BLIND PLUG

SYSTEM NUMBER	809-47200	
GENDER	female	
INTERFACE	EMEA	
CONNECTION TYPE	blind plug	
APPLICATIONS	auxiliary units	



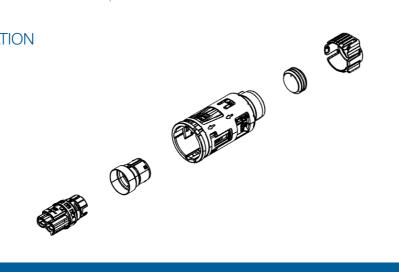
#### TECHNICAL PRODUCT INFORMATION

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



#### DOWNLOADS

- ► SYSTEM DRAWING
- ► 3D SPACE MODEL

#### 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	807-65200
GENDER	male
INTERFACE	EMEA
CONNECTION TYPE	singlecore cable
PRODUCT SPECIFICATION	EPS-100132
APPLICATIONS	auxiliary units

#### TECHNICAL PRODUCT INFORMATION

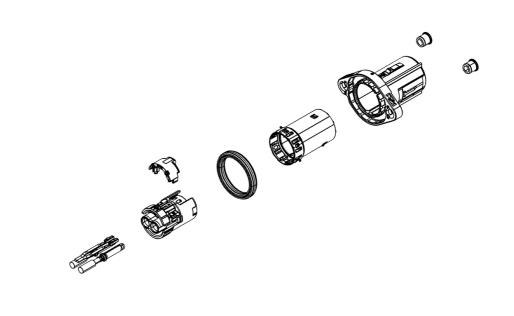
CURRENT CLASS	current class 1 and 2 connector	
NUMBER OF PINS	2 (high voltage) + 2 (HVIL optional)	
OPERATING CONDITION	1,000 VDC	
VOLTAGE CLASS	class B according ISO 6469-3:2011	
	$60 \text{ VDC} < \text{U} \le 1,000 \text{ VDC}$	
	25 VAC < Ueff ≤ 707 VAC (15-150 Hz)	
AMBIENT CONDITION	-40° C to +140° C	
MAXIMUM ALTITUDE	4,000 m	
MAXIMUM CURRENT LOAD	63 A at 80° C (6.0 mm <sup>2</sup> ), see deratings product specification	
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)	
WATERTIGHTNESS	IP6K9K, IPX8	
EMC PERFORMANCE (6.0 MM <sup>2</sup> )	until 30 MHz < 1 m $\Omega$ /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 m $\Omega$ (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 mm², 4.0 mm², 6.0 mm²
CONTACT CARRIER CODINGS	A, B, C, D
CONFIGURATION	customer specific wire configuration possible on request
SCREW TYPE	M4

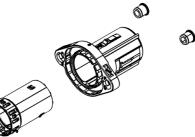


#### DOWNLOADS

- ► PRODUCT SPECIFICATION
- ► SYSTEM DRAWING
- ► 3D SPACE MODEL

#### MATING CONNECTOR

HPS40-2 2+2 FEMALE CONNECTOR







#### HPS40-2 2+2 MALE CONNECTOR 180° BLADE

SYSTEM NUMBER	809-85500
GENDER	male
INTERFACE	EMEA
CONNECTION TYPE	blade
PRODUCT SPECIFICATION	EPS-100128
APPLICATIONS	auxiliary units

#### TECHNICAL PRODUCT INFORMATION

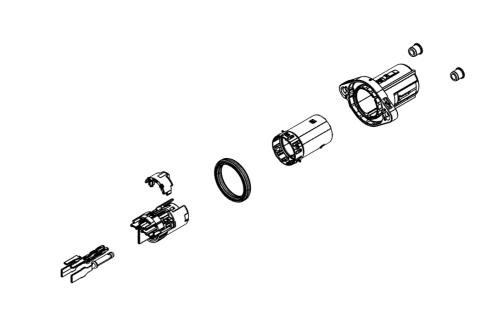
CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	2 (high voltage) + 2 (HVIL optional)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011
	$60 \text{ VDC} < \text{U} \le 1,000 \text{ VDC}$
	25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM 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 <sup>2</sup> )	until 30 MHz < 1 m $\Omega$ /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 m $\Omega$ (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

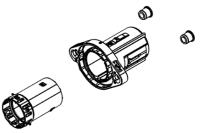


#### DOWNLOADS

- ► PRODUCT SPECIFICATION
- ► SYSTEM DRAWING
- ► 3D SPACE MODEL

#### MATING CONNECTOR

HPS40-2 2+2 FEMALE CONNECTOR







#### HPS40-2 2+2 MALE CONNECTOR 180° BUSBAR

SYSTEM NUMBER	809-22600
GENDER	male
INTERFACE	EMEA
CONNECTION TYPE	busbar
PRODUCT SPECIFICATION	in progress
APPLICATIONS	auxiliary units

#### TECHNICAL PRODUCT INFORMATION

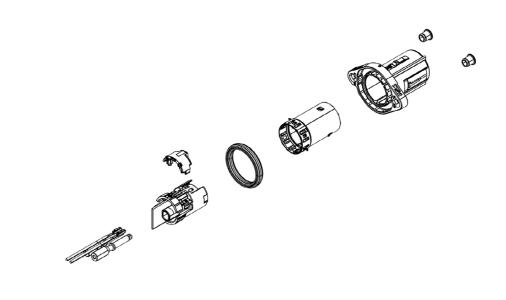
PPERATING CONDITION1,000 VDC//OLTAGE CLASSclass B according ISO 6469-3:2011 60 VDC < U $\leq$ 1,000 VDC 25 VAC < Ueff $z$ 707 VAC (15-150 Hz)MBIENT CONDITION-40° C to +140° C 4AXIMUM ALTITUDE4.000 m-40° C to +140° C 4AXIMUM ALTITUDE4.000 m63 A at 80° C, see deratings product specificationP-DEGREE OF PROTECTIONIPXXB (unmated), IPXXD (mated)VATERTIGHTNESSIP6K9K, IPX8EMC PERFORMANCE (6.0 MM°)until 30 MHz < 1 mQ/m > 75 dB (10 kHz to 500 MHz) > 66 dB (500 MHz to 1,000 MHz)SHIELDE D AREA360° circumferentialSHIELD CONTACT RESISTANCE< 2.0 mQ (total from sheathed cable until aggregate housing) / IBRATION STRENGTH 2 according to LV214/215 - PG17 (first fixation point at < 200 mm) / IBRATION STRENGTH 3 according to LV214/215 - PG17 (first fixation point at < 200 mm) / AITING/UNMATING FORCEAGNINGY LOCK SYSTEMactivating force < 40 N, no unintentional opening possible KOSHIRI SAFETYVas SYSTEMoperating force < 30 N	CURRENT CLASS	current class 1 and 2 connector
Class B according ISO 6469-3:2011 60 VDC < U $\leq$ 1,000 VDC 25 VAC < Ueff $\leq$ 707 VAC (15-150 Hz)MMBIENT CONDITION-40° C to +140° CAAXIMUM ALITITUDE4,000 mAAXIMUM CURRENT LOAD63 A at 80° C, see deratings product specificationP-DEGREE OF PROTECTIONIPXXB (unmated), IPXXD (mated)VATERTIGHTNESSIP6K9K, IPX8EMC PERFORMANCE (6.0 MM <sup>2</sup> ) > 65 dB (500 MHz to 1,000 MHz)SHIELDED AREA360° circumferentialSHIELDE ONTACT RESISTANCE< 2.0 mQ (total from sheathed cable until aggregate housing)	NUMBER OF PINS	2 (high voltage) + 2 (HVIL optional)
60 VDC < U ≤ 1.000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)VMBLENT CONDITION-40° C to +140° C/AXIMUM ALTITUDE4,000 m/AXIMUM CURRENT LOAD63 A at 80° C, see deratings product specificationP-DEGREE OF PROTECTIONIPXXB (unmated), IPXXD (mated)VATERTIGHTNESSIP6K9K, IPX8EMC PERFORMANCE (6.0 MM <sup>6</sup> )until 30 MHz < 1 mΩ/m > 75 dB (10 kHz to 500 MHz) > 65 dB (500 MHz to 1,000 MHz)SHIELDED AREA360° circumferentialSHIELDE ONTACT RESISTANCE<2.0 mΩ (total from sheathed cable until aggregate housing)	OPERATING CONDITION	1,000 VDC
25 VAC < Ueff ≤ 707 VAC (15-150 Hz)	VOLTAGE CLASS	class B according ISO 6469-3:2011
MBIENT CONDITION         -40° C to +140° C           AXIMUM ALTITUDE         4,000 m           MAXIMUM CURRENT LOAD         63 A at 80° C, see deratings product specification           P-DEGREE OF PROTECTION         IPXXB (unmated), IPXXD (mated)           VATERTIGHTNESS         IP6K9K, IPX8           EMC PERFORMANCE (6.0 MM <sup>2</sup> )         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)		$60 \text{ VDC} < \text{U} \le 1,000 \text{ VDC}$
AXIMUM ALTITUDE4,000 mMAXIMUM CURRENT LOAD63 A at 80° C, see deratings product specificationP-DEGREE OF PROTECTIONIPXXB (unmated), IPXXD (mated)VATERTIGHTNESSIP6K9K, IPX8VATERTIGHTNESSIP6K9K, IPX8EMC PERFORMANCE (6.0 MM²)until 30 MHz < 1 mΩ/m > 75 dB (10 kHz to 500 MHz) > 65 dB (500 MHz to 1,000 MHz)SHIELDED AREA360° circumferentialSHIELDED AREA360° circumferentialSHIELD CONTACT RESISTANCE< 2.0 mQ (total from sheathed cable until aggregate housing)		25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AXIMUM CURRENT LOAD63 A at 80° C, see deratings product specificationP-DEGREE OF PROTECTIONIPXXB (unmated), IPXXD (mated)VATERTIGHTNESSIP6K9K, IPX8EMC PERFORMANCE (6.0 MM°)until 30 MHz < 1 mΩ/m > 75 dB (10 kHz to 500 MHz) > 65 dB (500 MHz to 1,000 MHz)SHIELDED AREA360° circumferentialSHIELD CONTACT RESISTANCE< 2.0 mΩ (total from sheathed cable until aggregate housing) / iBRATION STRENGTH 2according to LV214/215 - PG17 (without fixation point)iBRATION STRENGTH 3according to LV214/215 - PG17 (first fixation point at < 200 mm) / according to LV214/215 - PG17 (first fixation point at < 50 mm)	AMBIENT CONDITION	-40° C to +140° C
P-DEGREE OF PROTECTION         IPXXB (unmated), IPXXD (mated)           VATERTIGHTNESS         IP6K9K, IPX8           EMC PERFORMANCE (6.0 MM <sup>2</sup> )         until 30 MHz < 1 mΩ/m	MAXIMUM ALTITUDE	4,000 m
VATERTIGHTNESS         IP6K9K, IPX8           EMC PERFORMANCE (6.0 MM <sup>2</sup> )         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           SHIELDED AREA         360° circumferential           SHIELD CONTACT RESISTANCE         < 2.0 mΩ (total from sheathed cable until aggregate housing)	MAXIMUM CURRENT LOAD	63 A at 80° C, see deratings product specification
EMC PERFORMANCE (6.0 MM²)       until 30 MHz < 1 mΩ/m	IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
> 75 dB (10 kHz to 500 MHz) > 65 dB (500 MHz to 1,000 MHz)SHIELDED AREA360° circumferentialSHIELD CONTACT RESISTANCE< 2.0 mΩ (total from sheathed cable until aggregate housing)	WATERTIGHTNESS	IP6K9K, IPX8
> 65 dB (500 MHz to 1,000 MHz)SHIELDED AREA360° circumferentialSHIELD CONTACT RESISTANCE< 2.0 mΩ (total from sheathed cable until aggregate housing)	EMC PERFORMANCE (6.0 MM <sup>2</sup> )	until 30 MHz < 1 m $\Omega$ /m
SHIELDED AREA360° circumferentialSHIELD CONTACT RESISTANCE< 2.0 mΩ (total from sheathed cable until aggregate housing)		> 75 dB (10 kHz to 500 MHz)
SHIELD CONTACT RESISTANCE< 2.0 mΩ (total from sheathed cable until aggregate housing)GHIELD CONTACT RESISTANCE< 2.0 mΩ (total from sheathed cable until aggregate housing)		> 65 dB (500 MHz to 1,000 MHz)
//BRATION STRENGTH 2       according to LV214/215 - PG17 (without fixation point)         //BRATION STRENGTH 3       according to LV214/215 - PG17 (first fixation point at < 200 mm)	SHIELDED AREA	360° circumferential
//BRATION STRENGTH 3     according to LV214/215 - PG17 (first fixation point at < 200 mm)	SHIELD CONTACT RESISTANCE	< 2.0 m $\Omega$ (total from sheathed cable until aggregate housing)
//IBRATION STRENGTH 4     according to LV214/215 - PG17 (first fixation point at < 50 mm)	VIBRATION STRENGTH 2	according to LV214/215 - PG17 (without fixation point)
MATING/UNMATING FORCE       < 65 N	VIBRATION STRENGTH 3	according to LV214/215 - PG17 (first fixation point at < 200 mm)
SECONDARY LOCK SYSTEM     activating force < 40 N, no unintentional opening possible	VIBRATION STRENGTH 4	according to LV214/215 - PG17 (first fixation point at < 50 mm)
KOSHIRI SAFETY     yes       POLARIZATION/CODING     incorrect insertion force > 200 N       CPA SYSTEM     operating force < 30 N	MATING/UNMATING FORCE	< 65 N
POLARIZATION/CODING     incorrect insertion force > 200 N       CPA SYSTEM     operating force < 30 N	SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
CPA SYSTEM operating force < 30 N	KOSHIRI SAFETY	yes
	POLARIZATION/CODING	incorrect insertion force > 200 N
IVIL SYSTEM minimum 1.0 mm (nominal 2.0 mm), leading	CPA SYSTEM	operating force < 30 N
	HVIL SYSTEM	minimum 1.0 mm (nominal 2.0 mm), leading
/ALIDATION NORMS compliant with several automotive test specifications	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



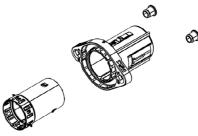
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#### MATING CONNECTOR

HPS40-2 2+2 FEMALE CONNECTOR







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

SYSTEM NUMBER	809-54700
GENDER	male
INTERFACE	EMEA
CONNECTION TYPE	singlecore cable
PRODUCT SPECIFICATION	in progress
APPLICATIONS	auxiliary units

#### TECHNICAL PRODUCT INFORMATION

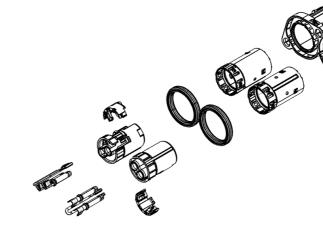
OPERATING CONDITION1,000 VDCVOLTAGE CLASSclass B according ISO 6469-3:2011 60 VDC < U $\leq$ 1,000 VDC 25 VAC < U $\leq$ 1,000 VDC 25 VAC (15-150 Hz)AMBIENT CONDITION-40° C to +140° CMAXIMUM ALTITUDE4,000 mMAXIMUM ALTITUDE4,000 mMAXIMUM CURRENT LOAD63 A at 80° C (6.0 mm <sup>2</sup> ), see deratings product specificationIP-DEGREE OF PROTECTIONIPXXB (unmated), IPXXD (mated)WATERTIGHTNESSIP6K9K, IPX8EMC PERFORMANCE (6.0 MM <sup>2</sup> )until 30 MHz < 1 mQ/m > 75 dB (10 kHz to 500 MHz) > 66 dB (500 MHz to 1,000 MHz) > 66 dB (500 MHz to 1,000 MHz)SHIELDED AREA360° circumferentialSHIELDED AREA360° circumferentialSHIELDED AREAaccording to LV214/215 - PG17 (without fixation point) vIBRATION STRENGTH 2 according to LV214/215 - PG17 (first fixation point at < 200 mm) MATING/UNMATING FORCEVIBRATION STRENGTH 4 according to LV214/215 - PG17 (first fixation point at < 50 mm) MATING/UNMATING FORCEKECONDARY LOCK SYSTEM activating force < 40 N, no unintentional opening possible KCOSHIRI SAFETYVIBRATION/CODING CPA SYSTEMHVIL SYSTEMHVIL SYSTEMHVIL SYSTEM	CURRENT CLASS	current class 1 and 2 connector
VOLTAGE CLASS       class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz)	NUMBER OF PINS	2 (high voltage) + 2 (HVIL optional)
60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 H2)AMBIENT CONDITION-40° C to +140° CMAXIMUM ALTITUDE4,000 mMAXIMUM CURRENT LOAD63 A at 80° C (6.0 mm²), see deratings product specificationIP-DEGREE OF PROTECTIONIPXXB (unmated), IPXXD (mated)WATERTIGHTNESSIP6K9K, IPX8EMC PERFORMANCE (6.0 MM²)until 30 MH2 < 1 mΩ/m > 75 dB (10 kHz to 500 MH2) > 65 dB (500 MHz to 1,000 MHz)SHIELDED AREA360° circumferentialSHIELD CONTACT RESISTANCE< 2.0 mΩ (total from sheathed cable until aggregate housing)	OPERATING CONDITION	1,000 VDC
25 VAC < Ueff ≤ 707 VAC (15-150 Hz)AMBIENT CONDITION-40° C to +140° CMAXIMUM ALTITUDE4,000 mMAXIMUM CURRENT LOAD63 A at 80° C (6.0 mm²), see deratings product specificationIP-DEGREE OF PROTECTIONIPXXB (unmated), IPXXD (mated)WATERTIGHTNESSIP6K9K, IPX8EMC PERFORMANCE (6.0 MM²) > 75 dB (10 KHz < 1 mΩ/m > 75 dB (10 KHz to 500 MHz) > 75 dB (10 KHz to 500 MHz) > 65 dB (500 MHz to 1,000 MHz) > 65 dB (500 MHz to 1,000 MHz) > 65 dB (500 MHz to 1,000 MHz) > 65 dB (500 CircumferentialSHIELDED AREA60° circumferentialSHIELD CONTACT RESISTANCE< 2.0 m2 (total from sheathed cable until aggregate housing)	VOLTAGE CLASS	class B according ISO 6469-3:2011
AMBIENT CONDITION-40° C to +140° CMAXIMUM ALTITUDE4,000 mMAXIMUM CURRENT LOAD63 A at 80° C (6.0 mm <sup>9</sup> ), see deratings product specificationIP-DEGREE OF PROTECTIONIPXXB (unmated), IPXXD (mated)WATERTIGHTNESSIP6K9K, IPX8EMC PERFORMANCE (6.0 MM <sup>9</sup> )until 30 MHz < 1 mΩ/m > 75 dB (10 kHz to 500 MHz) > 65 dB (500 MHz to 1,000 MHz)SHIELDED AREA360° circumferentialSHIELDED AREA360° circumferentialSHIELD CONTACT RESISTANCE< 2.0 mΩ (total from sheathed cable until aggregate housing)		$60 \text{ VDC} < \text{U} \le 1,000 \text{ VDC}$
MAXIMUM ALTITUDE4,000 mMAXIMUM ALTITUDE63 A at 80° C (6.0 mm²), see deratings product specificationMAXIMUM CURRENT LOAD63 A at 80° C (6.0 mm²), see deratings product specificationIP-DEGREE OF PROTECTIONIPXXB (unmated), IPXXD (mated)WATERTIGHTNESSIP6K9K, IPX8EMC PERFORMANCE (6.0 MM²)until 30 MHz < 1 mΩ/m > 75 dB (10 kHz to 500 MHz) > 65 dB (500 MHz to 1,000 MHz)SHIELDED AREA360° circumferentialSHIELD CONTACT RESISTANCE< 2.0 mΩ (total from sheathed cable until aggregate housing)		25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
MAXIMUM CURRENT LOAD63 A at 80° C (6.0 mm²), see deratings product specificationIP-DEGREE OF PROTECTIONIPXXB (unmated), IPXXD (mated)WATERTIGHTNESSIP6K9K, IPX8EMC PERFORMANCE (6.0 MM²)until 30 MHz < 1 mΩ/m > 75 dB (10 kHz to 500 MHz) > 65 dB (500 MHz) > 65 dB (500 MHz) > 65 dB (500 MHz)SHIELDED AREA360° circumferentialSHIELD CONTACT RESISTANCE< 2.0 mΩ (total from sheathed cable until aggregate housing)	AMBIENT CONDITION	-40° C to +140° C
IP-DEGREE OF PROTECTION         IPXXB (unmated), IPXXD (mated)           WATERTIGHTNESS         IP6K9K, IPX8           EMC PERFORMANCE (6.0 MM <sup>2</sup> )         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)	MAXIMUM ALTITUDE	4,000 m
WATERTIGHTNESS       IP6K9K, IPX8         EMC PERFORMANCE (6.0 MM²)       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 mQ (total from sheathed cable until aggregate housing)	MAXIMUM CURRENT LOAD	63 A at 80° C (6.0 mm <sup>2</sup> ), see deratings product specification
EMC PERFORMANCE (6.0 MM <sup>2</sup> )       until 30 MHz < 1 mΩ/m	IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
A 75 dB (10 kHz to 500 MHz) > 65 dB (500 MHz to 1,000 MHz)SHIELDED AREA360° circumferentialSHIELD CONTACT RESISTANCE< 2.0 mΩ (total from sheathed cable until aggregate housing)VIBRATION STRENGTH 2according to LV214/215 - PG17 (without fixation point)VIBRATION STRENGTH 3according to LV214/215 - PG17 (first fixation point at < 200 mm)VIBRATION STRENGTH 4according to LV214/215 - PG17 (first fixation point at < 50 mm)MATING/UNMATING FORCE< 65 NSECONDARY LOCK SYSTEMactivating force < 40 N, no unintentional opening possibleKOSHIRI SAFETYyesPOLARIZATION/CODINGincorrect insertion force > 200 NCPA SYSTEMoperating force < 30 NHVIL SYSTEMminimum 1.0 mm (nominal 2.0 mm), leading	WATERTIGHTNESS	IP6K9K, IPX8
> 65 dB (500 MHz to 1,000 MHz)SHIELDED AREA360° circumferentialSHIELD CONTACT RESISTANCE< 2.0 mΩ (total from sheathed cable until aggregate housing)	EMC PERFORMANCE (6.0 MM <sup>2</sup> )	until 30 MHz < 1 m $\Omega$ /m
SHIELDED AREA360° circumferentialSHIELD CONTACT RESISTANCE< 2.0 mΩ (total from sheathed cable until aggregate housing)		> 75 dB (10 kHz to 500 MHz)
SHIELD CONTACT RESISTANCE< 2.0 mΩ (total from sheathed cable until aggregate housing)VIBRATION STRENGTH 2according to LV214/215 - PG17 (without fixation point)VIBRATION STRENGTH 3according to LV214/215 - PG17 (first fixation point at < 200 mm)		> 65 dB (500 MHz to 1,000 MHz)
VIBRATION STRENGTH 2according to LV214/215 - PG17 (without fixation point)VIBRATION STRENGTH 3according to LV214/215 - PG17 (first fixation point at < 200 mm)	SHIELDED AREA	360° circumferential
VIBRATION STRENGTH 3       according to LV214/215 - PG17 (first fixation point at < 200 mm)	SHIELD CONTACT RESISTANCE	$<$ 2.0 m $\Omega$ (total from sheathed cable until aggregate housing)
VIBRATION STRENGTH 4       according to LV214/215 - PG17 (first fixation point at < 50 mm)	VIBRATION STRENGTH 2	according to LV214/215 - PG17 (without fixation point)
MATING/UNMATING FORCE       < 65 N	VIBRATION STRENGTH 3	according to LV214/215 - PG17 (first fixation point at < 200 mm)
SECONDARY LOCK SYSTEM       activating force < 40 N, no unintentional opening possible	VIBRATION STRENGTH 4	according to LV214/215 - PG17 (first fixation point at < 50 mm)
KOSHIRI SAFETY     yes       POLARIZATION/CODING     incorrect insertion force > 200 N       CPA SYSTEM     operating force < 30 N	MATING/UNMATING FORCE	< 65 N
POLARIZATION/CODING     incorrect insertion force > 200 N       CPA SYSTEM     operating force < 30 N	SECONDARY LOCK SYSTEM	activating force < 40 N, no unintentional opening possible
CPA SYSTEM     operating force < 30 N	KOSHIRI SAFETY	yes
HVIL SYSTEM     minimum 1.0 mm (nominal 2.0 mm), leading	POLARIZATION/CODING	incorrect insertion force > 200 N
	CPA SYSTEM	operating force < 30 N
VALIDATION NORMS compliant with several automotive test specifications	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 mm², 4.0 mm², 6.0 mm²
CONTACT CARRIER CODINGS	A, B, C, D
CONFIGURATION	customer specific wire configuration possible on request
SCREW TYPE	M4



#### DOWNLOADS

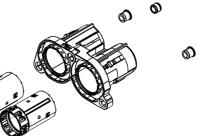
► SYSTEM DRAWING

► 3D SPACE MODEL

#### MATING CONNECTOR

HPS40-2 2+2 FEMALE CONNECTOR

Page 36, 38, 40



#### -4



#### HPS40-2 2+2 MALE CONNECTOR 90° WIRE

SYSTEM NUMBER	809-36600
GENDER	male
INTERFACE	EMEA
CONNECTION TYPE	singlecore cable
PRODUCT SPECIFICATION	EPS-100132
APPLICATIONS	auxiliary units

#### TECHNICAL PRODUCT INFORMATION

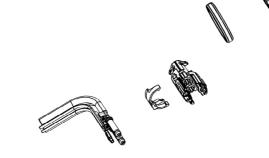
CURRENT CLASS	current class 1 and 2 connector	
NUMBER OF PINS	2 (high voltage) + 2 (HVIL optional)	
OPERATING CONDITION	1,000 VDC	
VOLTAGE CLASS	class B according ISO 6469-3:2011	
	$60 \text{ VDC} < \text{U} \le 1,000 \text{ VDC}$	
	25 VAC < Ueff ≤ 707 VAC (15-150 Hz)	
AMBIENT CONDITION	-40° C to +140° C	
MAXIMUM ALTITUDE	4,000 m	
MAXIMUM CURRENT LOAD	63 A at 80° C (6.0 mm <sup>2</sup> ), see deratings product specification	
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)	
WATERTIGHTNESS	ITIGHTNESS IP6K9K, IPX8	
EMC PERFORMANCE (6.0 MM <sup>2</sup> )	until 30 MHz < 1 m $\Omega$ /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 m $\Omega$ (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 <sup>2</sup> , 4.0 mm <sup>2</sup> , 6.0 mm <sup>2</sup>	
CONTACT CARRIER CODINGS	A, B, C, D	
CONFIGURATION customer specific wire configuration possible on request		
SCREW TYPE	M4	



#### DOWNLOADS

- ► PRODUCT SPECIFICATION
- ► SYSTEM DRAWING
- ► 3D SPACE MODEL

#### MATING CONNECTOR

HPS40-2 2+2 FEMALE CONNECTOR









#### HPS40-2 2+2 MALE CONNECTOR 90° WIRE

SYSTEM NUMBER	810-10401
GENDER	male
INTERFACE	EMEA
CONNECTION TYPE	singlecore cable
PRODUCT SPECIFICATION	EPS-100132
APPLICATIONS	auxiliary units

#### TECHNICAL PRODUCT INFORMATION

$\begin{array}{ c c c c } \hline NUMBER OF PINS & 2 (high voltage) + 2 (HVIL optional) \\ \hline OPERATING CONDITION & 1,000 VDC \\ \hline VOLTAGE CLASS & class B according ISO 6469-3:2011 \\ & 60 VDC < U \leq 1,000 VDC \\ & 25 VAC < Ueff \leq 707 VAC (15-150 Hz) \\ \hline AMBIENT CONDITION & -40° C to +140° C \\ \hline MAXIMUM ALTITUDE & 4,000 m \\ \hline MAXIMUM CURRENT LOAD & 63 A at 80° C (6.0 mm2), see deratings product specification \\ \hline IP-DEGREE OF PROTECTION & IPXXB (unmated), IPXXD (mated) \\ \hline WATERTIGHTNESS & IP6K9K, IPX8 \\ \hline EMC PERFORMANCE (6.0 MM2) & until 30 MHz < 1 m\Omega/m \\ \hline \end{array}$	
VOLTAGE CLASSclass B according ISO 6469-3:2011 $60 VDC < U \le 1,000 VDC$ $25 VAC < Ueff \le 707 VAC (15-150 Hz)$ AMBIENT CONDITION $-40^{\circ}$ C to $+140^{\circ}$ CMAXIMUM ALTITUDE $4,000$ mMAXIMUM CURRENT LOAD $63$ A at 80° C ( $6.0$ mm²), see deratings product specificationIP-DEGREE OF PROTECTIONIPXXB (unmated), IPXXD (mated)WATERTIGHTNESSIP6K9K, IPX8	
$\begin{array}{llllllllllllllllllllllllllllllllllll$	
25 VAC < Ueff ≤ 707 VAC (15-150 Hz)	
AMBIENT CONDITION-40° C to +140° CMAXIMUM ALTITUDE4,000 mMAXIMUM CURRENT LOAD63 A at 80° C (6.0 mm²), see deratings product specificationIP-DEGREE OF PROTECTIONIPXXB (unmated), IPXXD (mated)WATERTIGHTNESSIP6K9K, IPX8	
MAXIMUM ALTITUDE     4,000 m       MAXIMUM CURRENT LOAD     63 A at 80° C (6.0 mm²), see deratings product specification       IP-DEGREE OF PROTECTION     IPXXB (unmated), IPXXD (mated)       WATERTIGHTNESS     IP6K9K, IPX8	
MAXIMUM CURRENT LOAD       63 A at 80° C (6.0 mm²), see deratings product specification         IP-DEGREE OF PROTECTION       IPXXB (unmated), IPXXD (mated)         WATERTIGHTNESS       IP6K9K, IPX8	
IP-DEGREE OF PROTECTION     IPXXB (unmated), IPXXD (mated)       WATERTIGHTNESS     IP6K9K, IPX8	
WATERTIGHTNESS IP6K9K, IPX8	
EMC PERFORMANCE (6.0 MM <sup>2</sup> ) until 30 MHz < 1 m $\Omega$ /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 <sup>2</sup> , 4.0 mm <sup>2</sup> , 6.0 mm <sup>2</sup>	
CONTACT CARRIER CODINGS A, B, C, D		
CONFIGURATION customer specific wire configuration possible on request		
SCREW TYPE	M5	



#### DOWNLOADS

► PRODUCT SPECIFICATION

#### MATING CONNECTOR

HPS40-2 2+2 FEMALE CONNECTOR

Page 36, 38, 4



0

53



#### HPS40-2 2+2 MALE CONNECTOR 90° WIRE

SYSTEM NUMBER	810-20000
GENDER	male
INTERFACE	EMEA
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	
	$60 \text{ VDC} < \text{U} \le 1,000 \text{ VDC}$	
	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 <sup>2</sup> ), see deratings product specification	
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)	
WATERTIGHTNESS	IP6K9K, IPX8	
EMC PERFORMANCE (6.0 MM <sup>2</sup> )	until 30 MHz < 1 m $\Omega$ /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 m $\Omega$ (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 <sup>2</sup> , 4.0 mm <sup>2</sup> , 6.0 mm <sup>2</sup>	
CONTACT CARRIER CODINGS	A, B, C, D	
CONFIGURATION customer specific wire configuration possible on request		
SCREW TYPE	M4	



#### DOWNLOADS

- ► PRODUCT SPECIFICATION
- ► SYSTEM DRAWING
- ► 3D SPACE MODEL

#### MATING CONNECTOR

HPS40-2 2+2 FEMALE CONNECTOR

Page 36, 38, 40







55



#### HPS40-2 2+2 MALE CONNECTOR 90° BLADE

SYSTEM NUMBER	810-20000
GENDER	male
INTERFACE	EMEA
CONNECTION TYPE	singlecore cable
PRODUCT SPECIFICATION	EPS-100132
APPLICATIONS	auxiliary units

#### TECHNICAL PRODUCT INFORMATION

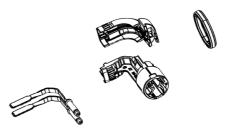
NUMBER OF PINS 2	2 (high voltage) + 2 (HVIL optional)	
OPERATING CONDITION	1,000 VDC	
VOLTAGE CLASS	class B according ISO 6469-3:2011	
6	$60 \text{ VDC} < \text{U} \le 1,000 \text{ VDC}$	
2	25 VAC < Ueff ≤ 707 VAC (15-150 Hz)	
AMBIENT CONDITION	-40° C to +140° C	
MAXIMUM ALTITUDE	4,000 m	
MAXIMUM CURRENT LOAD	63 A at 80° C (6.0 mm²), see deratings product specification	
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)	
WATERTIGHTNESS	IP6K9K, IPX8	
EMC PERFORMANCE (6.0 MM <sup>2</sup> )	until 30 MHz < 1 m $\Omega$ /m	
	> 75 dB (10 kHz to 500 MHz)	
	> 65 dB (500 MHz to 1,000 MHz)	
SHIELDED AREA 3	360° circumferential	
SHIELD CONTACT RESISTANCE	< 2.0 m $\Omega$ (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 i	incorrect insertion force > 200 N	
CPA SYSTEM (	operating force < 30 N	
HVIL SYSTEM r	minimum 1.0 mm (nominal 2.0 mm), leading	

#### 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



#### DOWNLOADS

- ► PRODUCT SPECIFICATION
- ► 3D SPACE MODEL

#### MATING CONNECTOR

HPS40-2 2+2 FEMALE CONNECTOR





#### HPS40-2 2+2 FEMALE CONNECTOR NAFTA MCC

SYSTEM NUMBER	809-886106
GENDER	female
INTERFACE	NAFTA
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		
	$60 \text{ VDC} < \text{U} \leq 1,000 \text{ VDC}$		
	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 <sup>2</sup> ), see deratings product specification		
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)		
WATERTIGHTNESS	IP6K9K, IPX8		
EMC PERFORMANCE (6.0 MM <sup>2</sup> )	until 30 MHz < 1 m $\Omega$ /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 m $\Omega$ (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

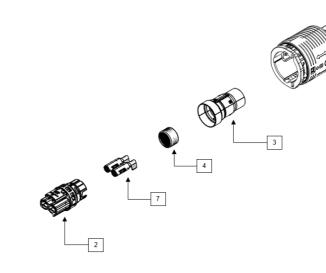
CABLE CROSS SECTION 2.5 mm<sup>2</sup>, 4.0 mm<sup>2</sup>, 6.0 mm<sup>2</sup> CONTACT CARRIER CODINGS A, B, C, D, Z



#### 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		•
*	$\ldots$ different indices depending on the used variant (s	see single part drawings)		

\* ... shielded high voltage cable (see possible cable suppliers in the process specification)

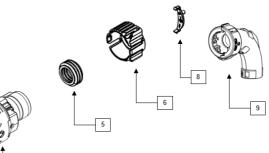


#### DOWNLOADS

- ► PRODUCT SPECIFICATION
- ► PROCESS SPECIFICATION
- ► 3D SPACE MODEL

#### MATING CONNECTOR

HPS40-2 2+2 MALE CONNECTOR



#### HPS40-2 2+2 FEMALE CONNECTOR NAFTA SCC

SYSTEM NUMBER	809-886106
GENDER	female
INTERFACE	EMEA
CONNECTION TYPE	singlecore cable
PRODUCT SPECIFICATION	EPS-100096
PROCESS SPECIFICATION	EVS-100101
APPLICATIONS	auxiliary units

#### TECHNICAL PRODUCT INFORMATION

CUBBENT 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 <sup>2</sup> ), see deratings product specification	
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)	
WATERTIGHTNESS	IP6K9K, IPX8	
EMC PERFORMANCE (6.0 MM <sup>2</sup> )	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 m $\Omega$ (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	

#### 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

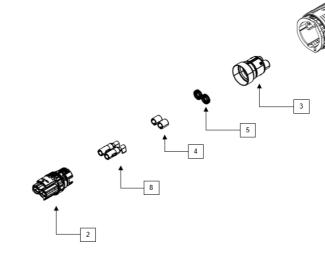
CABLE CROSS SECTION	4.0 mm², 6.0 mm²
CONTACT CARRIER CODINGS	A, B, C, D, Z



#### 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 <sup>2</sup> ), 710-671-501 (6.0 MM <sup>2</sup> )	•	
5	HPS40-2 X-RING	710-675-501 (6.0MM <sup>2</sup> )	•	
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 varia	ant (see single part drawings)		
*	shielded high voltage cable (acc possible or	ble suppliers in the process aposition		

\* ... shielded high voltage cable (see possible cable suppliers in the process specification)

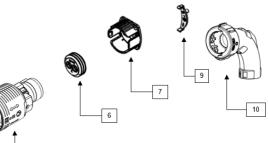


#### DOWNLOADS

- ► PRODUCT SPECIFICATION
- ► PROCESS SPECIFICATION
- ► 3D SPACE MODEL

#### MATING CONNECTOR

HPS40-2 2+2 MALE CONNECTOR



#### HPS40-2 2+2 FEMALE CONNECTOR NAFTA BLIND PLUG

SYSTEM NUMBER	809-472106
GENDER	female
INTERFACE	EMEA
CONNECTION TYPE	blind plug
APPLICATIONS	auxiliary units



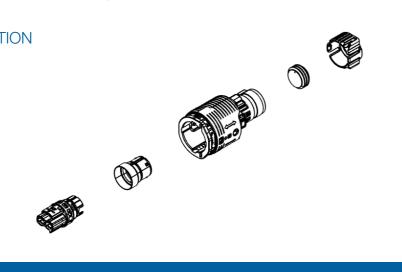
#### TECHNICAL PRODUCT INFORMATION

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

A, B, C, D, Z

CONTACT CARRIER CODINGS



DO\	ΝN	LOA	DS

- ► SYSTEM DRAWING
- ► 3D SPACE MODEL

MATING CONNECTOR

HPS40-2 2+2 MALE CONNECTOR

in progress



#### HPS40-2 PLUS FEMALE CONNECTOR MCC

SYSTEM NUMBER	810-47300
GENDER	female
INTERFACE	PLUS
CONNECTION TYPE	multicore cable
PRODUCT SPECIFICATION	EPS-100153
PROCESS SPECIFICATION	EVS-100137
APPLICATIONS	auxiliary units



#### DESCRIPTION SINGLE PARTS

	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 (s	ee single part drawings
-			

\* .... shielded high voltage cable (see possible cable suppliers in the process specification)

#### TECHNICAL PRODUCT INFORMATION

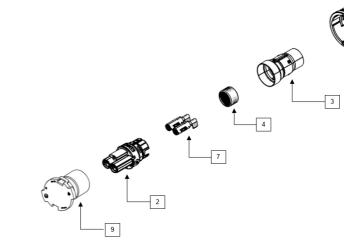
CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	2 (high voltage)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011
	$60 \text{ VDC} < \text{U} \leq 1,000 \text{ VDC}$
	25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	60 A at 80° C (6.0 mm <sup>2</sup> ), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB+ (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 MM <sup>2</sup> )	until 30 MHz < 1 m $\Omega$ /m
	> 75 dB (10 kHz to 500 MHz)
	> 65 dB (500 MHz to 1,000 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	$< 2.0 \text{ m}\Omega$ (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

#### 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 mm², 6.0 mm²
CONTACT CARRIER CODINGS	A, B, C, D, Z



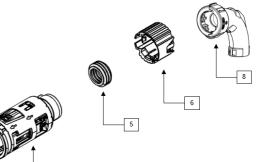
#### DOWNLOADS

► PROCESS SPECIFICATION

#### MATING CONNECTOR

HPS40-2 PLUS MALE CONNECTOR	Page 68, 70, 7
HPS IN-LINE CONNECTOR PLUS	Page 112

#### REQUIRED OPTIONAL • • • • • • • • • IS)



#### HPS40-2 PLUS FEMALE CONNECTOR BLIND PLUG

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



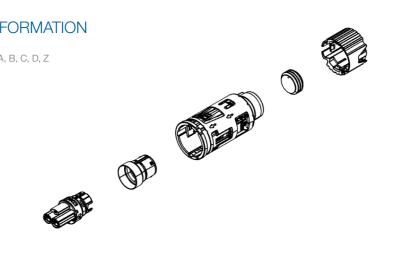
#### TECHNICAL PRODUCT INFORMATION

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+ (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	810-47503
GENDER	male
INTERFACE	PLUS
CONNECTION TYPE	singlecore cable
PRODUCT SPECIFICATION	in progress
APPLICATIONS	auxiliary units

#### TECHNICAL PRODUCT INFORMATION

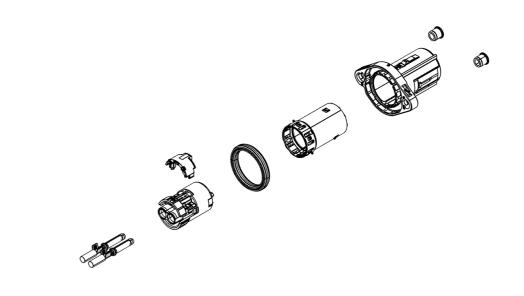
CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	2 (high voltage)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011
	$60 \text{ VDC} < \text{U} \le 1,000 \text{ VDC}$
	25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	63 A at 80° C (6.0 mm <sup>2</sup> ), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB+ (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 MM <sup>2</sup> )	until 30 MHz < 1 m $\Omega$ /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 m $\Omega$ (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

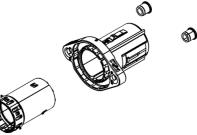
CABLE CROSS SECTION	2.5 mm <sup>2</sup> , 4.0 mm <sup>2</sup> , 6.0 mm <sup>2</sup>
CONTACT CARRIER CODINGS	A, B, C, D
CONFIGURATION	customer specific wire configuration possible on request
SCREW TYPE	M4



#### MATING CONNECTOR

HPS40-2 PLUS FEMALE CONNECTOR

Page 64, 66





#### HPS40-2 PLUS MALE CONNECTOR 180° BLADE

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

#### TECHNICAL PRODUCT INFORMATION

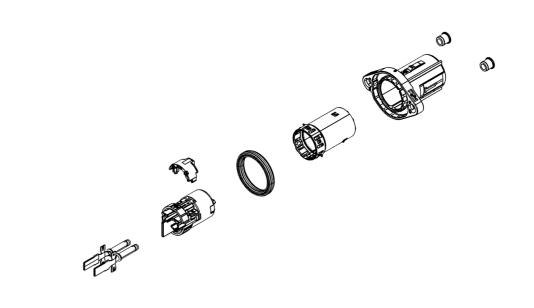
CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	2 (high voltage)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011
	$60 \text{ VDC} < \text{U} \leq 1,000 \text{ VDC}$
	25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 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 <sup>2</sup> )	until 30 MHz < 1 m $\Omega$ /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 m $\Omega$ (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

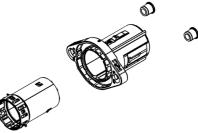
#### CUSTOMER SPECIFIC INFORMATION

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





# HPS40-2 PLUS MALE CONNECTOR 90° WIRE

	SYSTEM NUMBER	810-33303
	GENDER	male
	INTERFACE	EMEA
	CONNECTION TYPE	singlecore cable
	PRODUCT SPECIFICATION	in progress
	APPLICATIONS	auxiliary units

# TECHNICAL PRODUCT INFORMATION

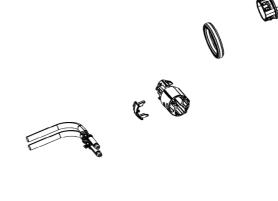
CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	2 (high voltage)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011
	$60 \text{ VDC} < U \leq 1,000 \text{ VDC}$
	25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	63 A at 80° C (6.0 mm <sup>2</sup> ), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB+ (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 MM <sup>2</sup> )	until 30 MHz < 1 m $\Omega$ /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 m $\Omega$ (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

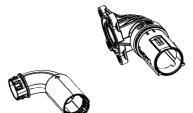
CABLE CROSS SECTION	2.5 mm², 4.0 mm², 6.0 mm²
CONTACT CARRIER CODINGS	A, B, C, D
CONFIGURATION	customer specific wire configuration possible on request
SCREW TYPE	M4



# MATING CONNECTOR

HPS40-2 PLUS FEMALE CONNECTOR

Page 64, 66





# HPS40-2 PLUS MALE CONNECTOR 90° WIRE

SYSTEM NUMBER	810-47703
GENDER	male
INTERFACE	EMEA
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
	$60 \text{ VDC} < U \leq 1,000 \text{ VDC}$
	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 <sup>2</sup> ), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB+ (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 MM <sup>2</sup> )	until 30 MHz < 1 m $\Omega/m$
	> 75 dB (10 kHz to 500 MHz)
	> 65 dB (500 MHz to 1,000 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 2.0 m $\Omega$ (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 mm², 4.0 mm², 6.0 mm²
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	810-47703
GENDER	male
INTERFACE	EMEA
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
	$60 \text{ VDC} < U \leq 1,000 \text{ VDC}$
	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 <sup>2</sup> ), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB+ (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 MM <sup>2</sup> )	until 30 MHz < 1 m $\Omega$ /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 m $\Omega$ (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



77





# INTRODUCTION

industry.

processing.

# HPS40 4+2

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

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

# HPS40 4+2 FEMALE CONNECTOR MCC

SYSTEM NUMBER	809-98100
GENDER	female
INTERFACE	EMEA
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 mm²), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 MM <sup>2</sup> )	until 2 MHz < 2.5 mΩ/m
	until 30 MHz < 5 m $\Omega$ /m
	> 65 dB (30 MHz to 300 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 2.0 m $\Omega$ (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

A, B, Z

CABLE CROSS SECTION CONTACT CARRIER CODINGS

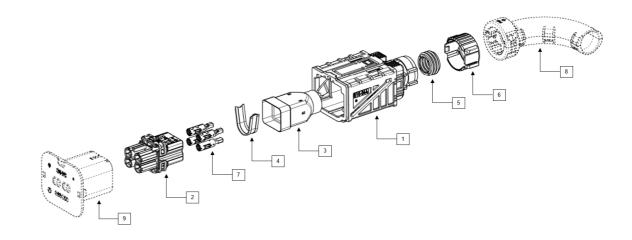
4.0 mm<sup>2</sup>, 6.0 mm<sup>2</sup> as MCC solution with different pole numbers



# DESCRIPTION SINGLE PARTS

	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 (se	e single part drawings)
_			

 $^{*}$  ... shielded high voltage cable (see possible cable suppliers in the process specification)



# DOWNLOADS

- ► PRODUCT SPECIFICATION
- ► PROCESS SPECIFICATION
- ► 3D SPACE MODEL

# MATING CONNECTOR

HPS40 4+2 MALE CONNECTOR

REQUIRED	OPTIONAL
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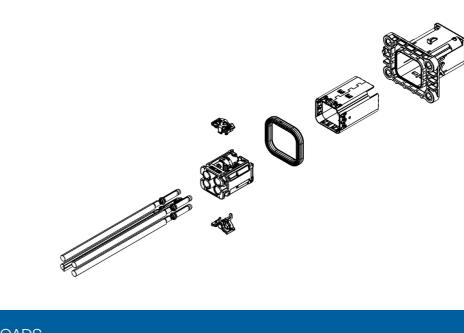


# HPS40 4+2 MALE CONNECTOR 180° WIRE

SYSTEM NUMBER	809-98000
GENDER	male
INTERFACE	EMEA
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 <sup>2</sup> ), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 MM <sup>2</sup> )	until 2 MHz < 2.5 m $\Omega$ /m
	until 30 MHz < 5 m $\Omega$ /m
	> 65 dB (30 MHz to 300 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	$<$ 2.0 m $\Omega$ (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



# DOWNLOADS

- ► PRODUCT SPECIFICATION
- ► SYSTEM DRAWING
- ► 3D SPACE MODEL

# MATING CONNECTOR

HPS40 4+2 FEMALE CONNECTOR

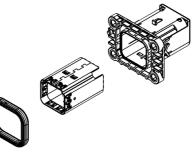
Page 80

# 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 <sup>2</sup> , 6.0 mm <sup>2</sup> with different pole numbers
CONTACT CARRIER CODINGS	A, B
CONFIGURATION	customer specific wire configuration possible on request
SCREW TYPE	M4



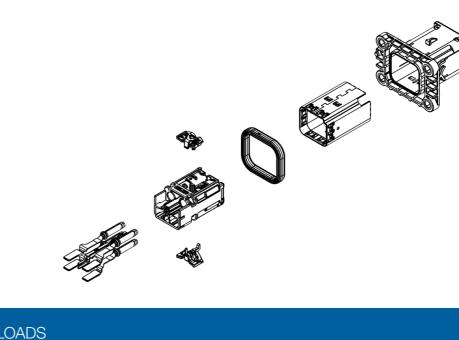


# HPS40 4+2 MALE CONNECTOR 180° BLADE

SYSTEM NUMBER	809-49000
GENDER	male
INTERFACE	EMEA
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
	$60 \text{ VDC} < \text{U} \leq 1,000 \text{ VDC}$
	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 <sup>2</sup> ), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 MM <sup>2</sup> )	until 2 MHz < 2.5 m $\Omega$ /m
	until 30 MHz < 5 m $\Omega/m$
	> 65 dB (30 MHz to 300 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	$<$ 2.0 m $\Omega$ (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



# DOWNLOADS

- ► PRODUCT SPECIFICATION
- ► SYSTEM DRAWING
- ► 3D SPACE MODEL

# MATING CONNECTOR

HPS40 4+2 FEMALE CONNECTOR

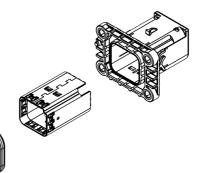
Page 80

# 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	ATION customer specific blade configuration possible on request	
SCREW TYPE	M4	



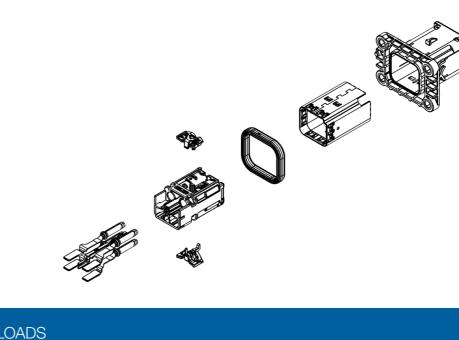


# HPS40 4+2 MALE CONNECTOR 180° BLADE HP

SYSTEM NUMBER	810-34300
GENDER	male
INTERFACE	EMEA
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	
	$60 \text{ VDC} < \text{U} \leq 1,000 \text{ VDC}$	
	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 mm²), see deratings product specification	
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)	
WATERTIGHTNESS	IP6K9K, IPX8	
EMC PERFORMANCE (6.0 MM <sup>2</sup> )	until 2 MHz < 2.5 m $\Omega$ /m	
	until 30 MHz < 5 m $\Omega/m$	
	> 65 dB (30 MHz to 300 MHz)	
SHIELDED AREA	360° circumferential	
SHIELD CONTACT RESISTANCE	$<$ 2.0 m $\Omega$ (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	



# DOWNLOADS

- ► PRODUCT SPECIFICATION
- ► SYSTEM DRAWING
- ► 3D SPACE MODEL

# MATING CONNECTOR

HPS40 4+2 FEMALE CONNECTOR

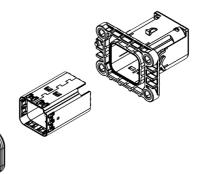
Page 80

# 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	ONFIGURATION customer specific blade configuration possible on request	
SCREW TYPE	M4	



# 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.

# **HPS Distributor**

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	809-85200
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	
	$60 \text{ VDC} < \text{U} \le 1,000 \text{ VDC}$	
	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 <sup>2</sup> ), see deratings product specification	
IP-DEGREE OF PROTECTION	IPXXD (assembled)	
WATERTIGHTNESS	IP6K9K, IPX8	
EMC PERFORMANCE (6.0 MM <sup>2</sup> )	until 30 MHz < 1 m $\Omega$ /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 m $\Omega$ (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

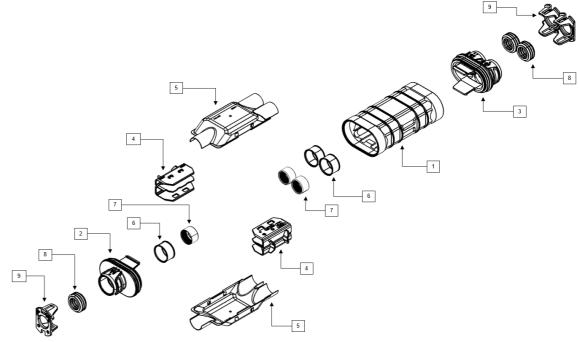
4.0 mm<sup>2</sup>, 6.0 mm<sup>2</sup>



# 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)



# DOWNLOADS

- ► PRODUCT SPECIFICATION
- ► PROCESS SPECIFICATION
- ► 3D SPACE MODEL

91

# HPS Y-DISTRIBUTOR SCC

SYSTEM NUMBER	809-85200
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	
	$60 \text{ VDC} < \text{U} \le 1,000 \text{ VDC}$	
	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 <sup>2</sup> ), see deratings product specification	
IP-DEGREE OF PROTECTION	IPXXD (assembled)	
WATERTIGHTNESS	IP6K9K, IPX8	
EMC PERFORMANCE (6.0 MM <sup>2</sup> )	until 30 MHz < 1 m $\Omega$ /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 m $\Omega$ (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

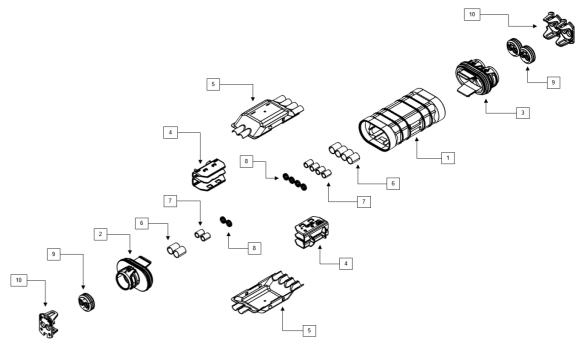
4.0 mm<sup>2</sup>, 6.0 mm<sup>2</sup>



# 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 <sup>2</sup> ), 710-671-501 (6.0 MM <sup>2</sup> )	•	
8	HPS40-2 X-RING	710-675-501 (6.0MM <sup>2</sup> )	•	
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)



# DOWNLOADS

- ► PRODUCT SPECIFICATION
- ► PROCESS SPECIFICATION
- ► 3D SPACE MODEL

# HPS H-DISTRIBUTOR MCC

SYSTEM NUMBER	809-85200
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 <sup>2</sup> ), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXD (assembled)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 MM <sup>2</sup> )	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 m $\Omega$ (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

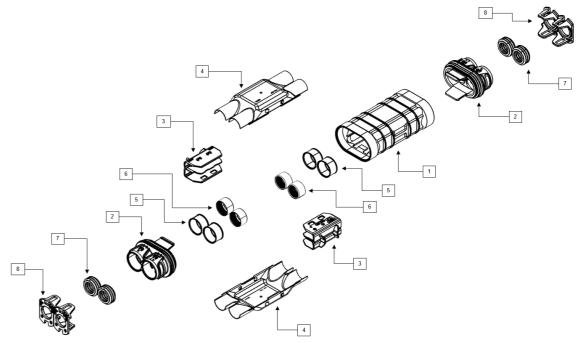
4.0 mm<sup>2</sup>, 6.0 mm<sup>2</sup>



# 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 varian	t (see single part drawings)		

\* ... shielded high voltage cable (see possible cable suppliers in the process specification)



# DOWNLOADS

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

# HPS H-DISTRIBUTOR SCC

SYSTEM NUMBER	809-85200
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
	$60 \text{ VDC} < \text{U} \le 1,000 \text{ VDC}$
	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 <sup>2</sup> ), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXD (assembled)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 MM <sup>2</sup> )	until 30 MHz < 1 m $\Omega$ /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 m $\Omega$ (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

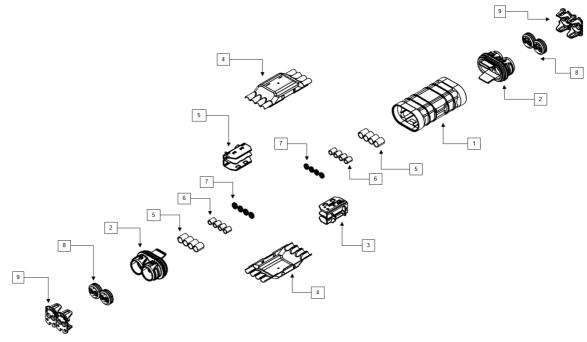
4.0 mm<sup>2</sup>, 6.0 mm<sup>2</sup>



# 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 <sup>2</sup> ), 710-671-501 (6.0 MM <sup>2</sup> )	•	
7	HPS40-2 X-RING	710-675-501 (6.0MM <sup>2</sup> )	•	
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)



# DOWNLOADS

- ► PRODUCT SPECIFICATION
- ► PROCESS SPECIFICATION
- ► 3D SPACE MODEL

# **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	809-99900
GENDER	male
INTERFACE	EMEA
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 <sup>2</sup> ), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 MM <sup>2</sup> )	until 30 MHz < 5 m $\Omega/m$
	> 75 dB (10 kHz to 500 MHz)
	> 75 dB (500 MHz to 1,000 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	$<$ 2.0 m $\Omega$ (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

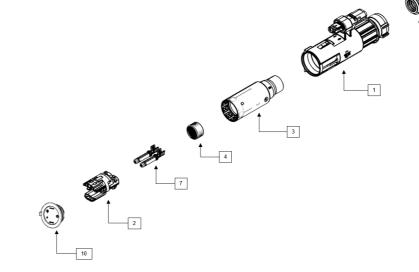
# CUSTOMER SPECIFIC INFORMATION

CABLE CROSS SECTION 2.5 mm<sup>2</sup>, 4.0 mm<sup>2</sup>, 6.0 mm<sup>2</sup> 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 varian	t (see single part drawings)		
*	shielded high voltage cable (see possible cable	e suppliers in the process specification)		

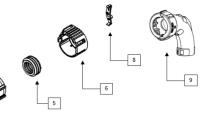


# DOWNLOADS

- ► PRODUCT SPECIFICATION
- ► PROCESS SPECIFICATION
- ► 3D SPACE MODEL

# MATING CONNECTOR

HPS IN-LINE FEMALE CONNECTOR





# HPS IN-LINE CONNECTOR MALE SCC WITH HVIL

SYSTEM NUMBER	809-99900
GENDER	male
INTERFACE	EMEA
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 <sup>2</sup> ), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 MM <sup>2</sup> )	until 30 MHz < 5 m $\Omega$ /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 m $\Omega$ (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

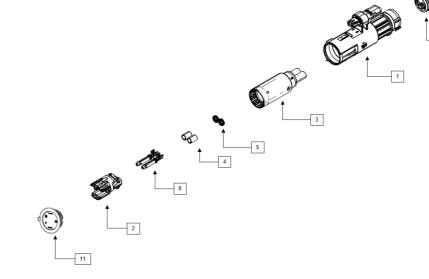
CABLE CROSS SECTION	4.0 mm <sup>2</sup> , 6.0 mm <sup>2</sup>
CONTACT CARRIER CODINGS	A, B, C, D



# 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 <sup>2</sup> ), 710-671-501 (6.0 MM <sup>2</sup> )	•	
5	HPS40-2 X-RING	710-675-501 (6.0MM <sup>2</sup> )	•	
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 varian	t (see single part drawings)		
*	abialdad bizb valtaza aabla (asa passibla aabl	a auraliara in tha areasan ana sifisation)		

\* ... shielded high voltage cable (see possible cable suppliers in the process specification)

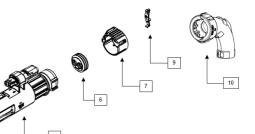


# DOWNLOADS

- ► PRODUCT SPECIFICATION
- ► PROCESS SPECIFICATION
- ► 3D SPACE MODEL

# MATING CONNECTOR

HPS IN-LINE FEMALE CONNECTOR



# HPS IN-LINE CONNECTOR MALE MCC WITHOUT HVIL

SYSTEM NUMBER	809-99900
GENDER	male
INTERFACE	EMEA
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 <sup>2</sup> ), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 MM <sup>2</sup> )	until 30 MHz < 5 m $\Omega$ /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 m $\Omega$ (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

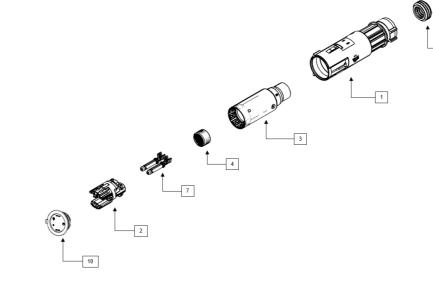
# CUSTOMER SPECIFIC INFORMATION

2.5 mm<sup>2</sup>, 4.0 mm<sup>2</sup>, 6.0 mm<sup>2</sup> CABLE CROSS SECTION CONTACT CARRIER CODINGS A, B, C, D



# DESCRIPTION SINGLE PARTS

	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 specificat	
_	*		

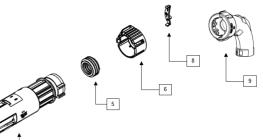


# DOWNLOADS

- ► PRODUCT SPECIFICATION
- ► PROCESS SPECIFICATION
- ► 3D SPACE MODEL

# MATING CONNECTOR





# HPS IN-LINE CONNECTOR MALE SCC WITHOUT HVIL

SYSTEM NUMBER	809-99900
GENDER	male
INTERFACE	EMEA
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 <sup>2</sup> ), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 MM <sup>2</sup> )	until 30 MHz < 5 m $\Omega$ /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 m $\Omega$ (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

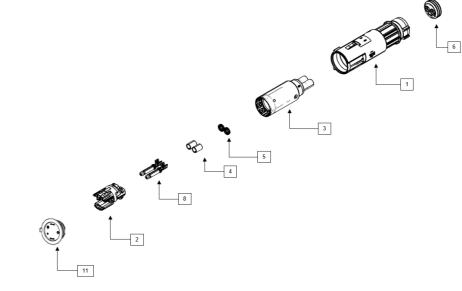
CABLE CROSS SECTION	4.0 mm², 6.0 mm²
CONTACT CARRIER CODINGS	A, B, C, D



# 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 <sup>2</sup> ), 710-671-501 (6.0 MM <sup>2</sup> )	•	
5	HPS40-2 X-RING	710-675-501 (6.0MM <sup>2</sup> )	•	
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 vari	ant (see single part drawings)		
*	abialdad bigb valtaga aabla (aaa paasibla aa	ble europliana in the presses energification)		

\* ... shielded high voltage cable (see possible cable suppliers in the process specification)

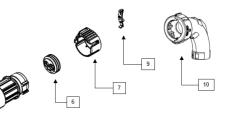


# DOWNLOADS

- ► PRODUCT SPECIFICATION
- ► PROCESS SPECIFICATION
- ► 3D SPACE MODEL

# MATING CONNECTOR

HPS IN-LINE FEMALE CONNECTOR



# HPS IN-LINE CONNECTOR FEMALE MCC WITH HVIL

SYSTEM NUMBER	810-38500
GENDER	female
INTERFACE	EMEA
CONNECTION TYPE	multicore cable
PRODUCT SPECIFICATION	EPS-100096
PROCESS SPECIFICATION	EVS-100096
APPLICATIONS	inline connection

# **TECHNICAL PRODUCT INFORMATION**

current class 1 and 2 connector

CURRENT CLASS

J

# **DESCRIPTION SINGLE PARTS**

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 (se	e single part drawings
+		

 $\ldots$  shielded high voltage cable (see possible cable suppliers in the process specification)

## 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) -40° C to +140° C AMBIENT CONDITION MAXIMUM ALTITUDE 4,000 m MAXIMUM CURRENT LOAD 60 A at 80° C (6.0 mm<sup>2</sup>), see deratings product specification **IP-DEGREE OF PROTECTION** IPXXB (unmated), IPXXD (mated) WATERTIGHTNESS IP6K9K, IPX8 EMC PERFORMANCE (6.0 MM<sup>2</sup>) until 30 MHz < 1 m $\Omega/m$ > 75 dB (10 kHz to 500 MHz) > 65 dB (500 MHz to 1,000 MHz) SHIELDED AREA 360° circumferential SHIELD CONTACT RESISTANCE $< 2.0 \text{ m}\Omega$ (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) according to LV214/215 - PG17 (first fixation point at < 50 mm) VIBRATION STRENGTH 4 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<sup>2</sup>, 4.0 mm<sup>2</sup>, 6.0 mm<sup>2</sup> CONTACT CARRIER CODINGS A, B, C, D, Z

# 

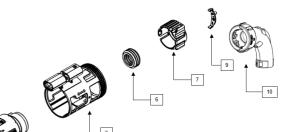
# DOWNLOADS

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

# MATING CONNECTOR

HPS IN-LINE MALE CONNECTOR





# HPS IN-LINE CONNECTOR FEMALE SCC WITH HVIL

SYSTEM NUMBER	810-38500
GENDER	female
INTERFACE	EMEA
CONNECTION TYPE	singlecore cable
PRODUCT SPECIFICATION	EPS-100096
PROCESS SPECIFICATION	EVS-100111
APPLICATIONS	inline connection

# **TECHNICAL PRODUCT INFORMATION**

current class 1 and 2 connector

2 (high voltage) + 2 (HVIL with additional SealStar 1.2 Connector)

CURRENT CLASS

NUMBER OF PINS

# **DESCRIPTION SINGLE PARTS**

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
6	HPS40-2 X-RING	710-675-501 (6.0MN
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 (se	e single part drawings

... shielded high voltage cable (see possible cable suppliers in the process specification)

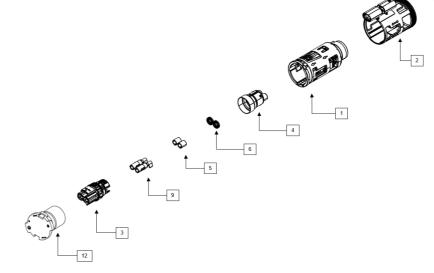
## OPERATING CONDITION 1,000 VDC VOLTAGE CLASS class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < Ueff ≤ 707 VAC (15-150 Hz) AMBIENT CONDITION -40° C to +140° C MAXIMUM ALTITUDE 4,000 m MAXIMUM CURRENT LOAD 63 A at 80° C (6.0 mm<sup>2</sup>), see deratings product specification IP-DEGREE OF PROTECTION IPXXB (unmated), IPXXD (mated) WATERTIGHTNESS IP6K9K, IPX8 EMC PERFORMANCE (6.0 MM<sup>2</sup>) until 30 MHz < 1 m $\Omega/m$ > 75 dB (10 kHz to 500 MHz) > 65 dB (500 MHz to 1,000 MHz) SHIELDED AREA 360° circumferential SHIELD CONTACT RESISTANCE $< 2.0 \text{ m}\Omega$ (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) according to LV214/215 - PG17 (first fixation point at < 200 mm) VIBRATION STRENGTH 4 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 <sup>2</sup> , 6.0 mm <sup>2</sup>
CONTACT CARRIER CODINGS	A, B, C, D, Z



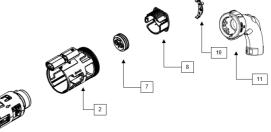
# DOWNLOADS

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

## MATING CONNECTOR

HPS IN-LINE MALE CONNECTOR

REQUIRED OPTIONAL • • • • /IM<sup>2</sup>), 710-671-501 (6.0 MM<sup>2</sup>) • M<sup>2</sup>) • . • • • ٠ •



# HPS IN-LINE CONNECTOR PLUS MALE MCC

SYSTEM NUMBER	810-48003
GENDER	male
INTERFACE	PLUS
CONNECTION TYPE	multicore cable
PRODUCT SPECIFICATION	in progress
PROCESS SPECIFICATION	EVS-100139
APPLICATIONS	inline connection

# 

# 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 varia	nt (see single part drawings)		
*	shielded high voltage cable (see possible cal	ole suppliers in the process specification)		

# **TECHNICAL PRODUCT INFORMATION**

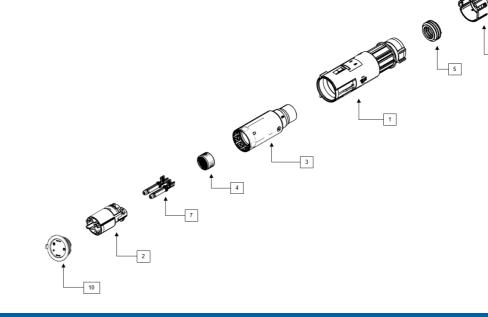
CURRENT CLASS	current class 1 and 2 connector
NUMBER OF PINS	2 (high voltage)
OPERATING CONDITION	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011
	$60 \text{ VDC} < \text{U} \le 1,000 \text{ VDC}$
	25 VAC < Ueff ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	56 A at 80° C (6.0 mm <sup>2</sup> ), see deratings product specification
IP-DEGREE OF PROTECTION	IPXXB+ (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 MM <sup>2</sup> )	until 30 MHz < 5 m $\Omega$ /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 m $\Omega$ (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 mm², 6.0 mm²
CONTACT CARRIER CODINGS	A, B, C, D



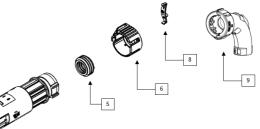
# DOWNLOADS

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

# MATING CONNECTOR

HPS40-2 PLUS FEMALE CONNECTOR

113



# **Get in Touch**

If you are interested in our High Voltage products, contact our Global Product Manager High Voltage Tobias Natter.

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

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