# THE WORLD OF LAPP

EPIC® Industrial connectors for railway technology





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Rectangular connectors • EPIC® H-BE Inserts









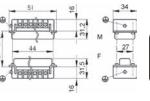


# **EPIC® H-BE 6 Screw termination**

The proven standard inserts for easy assembly



- Proven screw for easy installation
- · Railway applications





# **EPIC® H-BE 6 Push-In termination**

The proven standard inserts for easy assembly





# Info

- · Push-In version fast and easy tool free connection technology
- Railway applications

### Suitable housing

- EPIC® ULTRA H-B 6
- EPIC® H-B 6 Housings
- EPIC® QUICK & EASY Mounting system
- Refer to Selection Table A10 to select the required inserts and housings

### **Benefits**

### **EPIC® H-BE 6 Screw termination**

- · Standard inserts with screw, crimp cage clamp and Push-In termination
- The EPIC® H-BE series is suitable for applications that require a reliable connection when working with high voltages and currents
- Railway applications
- Fire protection on railway vehicles: Test according EN 45545-2. Requirement sets R22 and R23. Hazard level HL1, HL2 and HI 4

## EPIC® H-BE 6 Push-In termination

- Insertion of cores with end sleeves in Push-In inserts gives mounting safety and time saving without any tools
- · Easy dismantling and insertion of wires by pushing the orange button
- Test socket for standard 2mm test tip for easy testing of Push-In inserts
- · Railway applications
- Fire protection on railway vehicles: Test according EN 45545-2. Requirement sets R22 and R23. Hazard level HL1, HL2 and HL4
- The EPIC® H-BE series is suitable for applications that require a reliable connection when working with high voltages and currents

### **Technical data**



ETIM 5.0 Class-ID: EC000438 ETIM 5.0 Class-Description: Contact insert for industrial connectors



Rated voltage (V) IEC: 500 VUL: 600 VCSA: 600 V

Rated impulse voltage 6 kV



Rated current (A) EPIC® H-BE 6 Screw termination

IEC: 16 A UL: 16 A CSA: 16 A

EPIC® H-BE 6 Push-In termination IEC: 16 A

UL: 13 A CSA: 13 A



Degree of soiling

Contact resistance < 2 mOhm



Contacts

Copper alloy, hard silver-plated



Number of contacts 6 + PE



**Termination methods** EPIC® H-BE 6 Screw termination Screw termination: 0.5 - 2.5 mm<sup>2</sup> EPIC® H-BE 6 Push-In termination Push-In termination: 0.14 - 2.5mm<sup>2</sup>

Stripping length (mm) EPIC® H-BE 6 Screw termination

EPIC® H-BE 6 Push-In termination



Cycle of mechanical operation 100



Certifications **EPIC® H-BE 6 Screw termination** 

Certified production control: VDE-REG. no.: B437 UL-tested: UL File Number: E75770 EPIC® H-BE 6 Push-In termination UL-tested:

UL File Number: E75770



Temperature range -40 °C to +100 °C,



# short-term up to +125°C

### **Application range EPIC® H-BE 6 Screw termination**

- · Mechanical engineering
- · Plastics industry
- · Light & sound technology
- Railway applications / vehicle construction

### EPIC® H-BE 6 Push-In termination

- · Mechanical engineering
- Plastics industry
- · Light & sound technology
- · Railway applications / vehicle construction

### Suitable tools

### EPIC® H-BE 6 Screw termination

- PEW 8.186 crimping pliers refer to main
- Kraftform® adjustable torque screwdriver/ Kraftform Kompakt® Set refer to main catalogue
- Recommended crimping tool when conductor end-sleeves are used: PEW 8.186

Article number	Article description	Contact type	Wire protection	Number of operating contacts	Pieces / PU
H-BE 6 screw term	ination				
10190000	EPIC® H-BE 6 SS	male	yes	1 - 6	10
10191000	EPIC® H-BE 6 BS	female	yes	1 - 6	10
10190100	EPIC® H-BE 6 SS	male		1 - 6	10
10191100	EPIC® H-BE 6 BS	female		1 - 6	10
H-BE 6 Push-In ter	mination				
44423200	EPIC® H-BE 6 SP	male	yes	1 - 6	10
44423201	EPIC® H-BE 6 BP	female	yes	1 - 6	10

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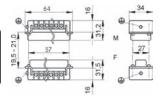
# **EPIC® H-BE 10 Screw termination**

The proven standard inserts for easy assembly









### Info

- · Proven screw for easy installation
- · Railway applications

## EPIC® H-BE 10 Push-In termination

The proven standard inserts for easy assembly







- Push-In version fast and easy tool free connection technology
- · Railway applications

### Suitable housing

- EPIC® ULTRA H-B 10
- EPIC® H-B 10 Housings
- EPIC® QUICK & EASY Mounting system
- Refer to Selection Table A10 to select the required inserts and housings

### **Benefits**

### EPIC® H-BE 10 Screw termination

- · Standard inserts with screw, crimp cage clamp and Push-In termination
- The EPIC® H-BE series is suitable for applications that require a reliable connection when working with high voltages and currents
- Railway applications
- Fire protection on railway vehicles: Test according EN 45545-2. Requirement sets R22 and R23. Hazard level HL1, HL2 and HL4

## EPIC® H-BE 10 Push-In termination

- · Insertion of cores with end sleeves in Push-In inserts gives mounting safety and time saving without any tools
- · Easy dismantling and insertion of wires by pushing the orange button
- · Test socket for standard 2mm test tip for easy testing of Push-In inserts
- · Railway applications
  - Fire protection on railway vehicles: Test according EN 45545-2. Requirement sets R22 and R23. Hazard level HL1, HL2 and HL4
- The EPIC® H-BE series is suitable for applications that require a reliable connection when working with high voltages and currents

### **Technical data**



### Classification

ETIM 5.0 Class-ID: EC000438 ETIM 5.0 Class-Description: Contact insert for industrial connectors



### Rated voltage (V)

IEC: 500 VUL: 600 VCSA: 600 V

Rated impulse voltage

6 kV



# Rated current (A)

EPIC® H-BE 10 Screw termination

IEC: 16 A UL: 16 A CSA: 16 A

EPIC® H-BE 10 Push-In termination

IEC: 16 A UL: 13 A CSA: 13 A



# Degree of soiling

Contact resistance

**EPIC® H-BE 10 Screw termination** 

EPIC® H-BE 10 Push-In termination

< 2 mOhm



### Contacts

· Mechanical engineering

· Light & sound technology

· Mechanical engineering

Application range

· Plastics industry

· Plastics industry · Light & sound technology

Copper alloy, hard silver-plated

· Railway applications / vehicle construction

· Railway applications / vehicle construction

### **Number of contacts** 10 + PE

### **Termination methods** EPIC® H-BE 10 Screw termination

Screw termination: 0.5 - 2.5 mm<sup>2</sup> EPIC® H-BE 10 Push-In termination Push-In termination: 0.14 - 2.5mm<sup>2</sup>

Stripping length (mm) EPIC® H-BE 10 Screw termination

EPIC® H-BE 10 Push-In termination



# Cycle of mechanical operation

## Certifications

EPIC® H-BE 10 Screw termination Certified production control: VDE-REG. no.: B437

UL-tested: UL File Number: E75770

EPIC<sup>®</sup> H-BE 10 Push-In termination

UL-tested:

UL File Number: E75770



Temperature range -40°C to +100°C, short-term up to +125°C

# Suitable tools **EPIC® H-BE 10 Screw termination**

- PEW 8.186 crimping pliers refer to main
- Kraftform® adjustable torque screwdriver/ Kraftform Kompakt® Set refer to main
- Recommended crimping tool when conductor end-sleeves are used: PEW 8.186

Article number	Article description	Contact type	Wire protection	Number of operating contacts	Pieces / PU
H-BE 10 screw ter	mination				
10192000	EPIC® H-BE 10 SS	male	yes	1 - 10	10
10193000	EPIC® H-BE 10 BS	female	yes	1 - 10	10
10192100	EPIC® H-BE 10 SS	male		1 - 10	10
10193100	EPIC® H-BE 10 BS	female		1 - 10	10
H-BE 10 Push-In te	ermination				
44423202	EPIC® H-BE 10 SP	male	yes	1 - 10	10
44423203	EPIC® H-BE 10 BP	female	yes	1 - 10	10

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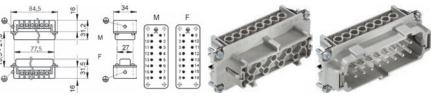


# **EPIC® H-BE 16 Screw termination**

The proven standard inserts for easy assembly



- Proven screw for easy installation
- Also as EPIC® H-BE 32 available
- · Railway applications



# EPIC® H-BE 16 Push-In termination

The proven standard inserts for easy assembly





# Info

- · Push-In version fast and easy tool free connection technology
- Also as EPIC® H-BE 32 available
- · Railway applications

### Suitable housing

- EPIC® ULTRA H-B 16
- EPIC® H-B 16 Housings
- EPIC® QUICK & EASY Mounting system
- · Refer to Selection Table A10 to select the required inserts and housings

### Similar products

### EPIC® H-BE 16 Schraubanschluss

• Further products with higher numbering in the internet. (H-BE 32, H-BE 48)

### **Benefits**

### EPIC® H-BE 16 Screw termination

- · Standard inserts with screw, crimp cage clamp and Push-In termination
- The EPIC® H-BE series is suitable for applications that require a reliable connection when working with high voltages and currents
- · Railway applications
- Fire protection on railway vehicles: Test according EN 45545-2. Requirement sets R22 and R23. Hazard level HL1, HL2 and HL4

# EPIC® H-BE 16 Push-In termination

- · Insertion of cores with end sleeves in Push-In inserts gives mounting safety and time saving without any tools
- · Easy dismantling and insertion of wires by pushing the orange button
- Test socket for standard 2mm test tip for easy testing of Push-In inserts
- Railway applications
- Fire protection on railway vehicles: Test according EN 45545-2. Requirement sets R22 and R23. Hazard level HL1, HL2 and
- The EPIC® H-BE series is suitable for applications that require a reliable connection when working with high voltages and currents

### Technical data



### Classification

ETIM 5.0 Class-ID: EC000438 ETIM 5.0 Class-Description: Contact insert for industrial connectors



# Rated voltage (V)

IEC: 500 VUL: 600 VCSA: 600 V

Rated impulse voltage 6 kV

## Rated current (A)

**EPIC® H-BE 16 Screw termination** 

IEC: 16 A UL: 16 A CSA: 16 A

EPIC® H-BE 16 Push-In termination

IEC: 16 A UL: 13 A CSA: 13 A



# Degree of soiling

Contact resistance

< 2 mOhm



### Contacts

Copper alloy, hard silver-plated

# Termination methods

# Number of contacts



EPIC® H-BE 16 Screw termination Screw termination: 0.5 - 2.5 mm<sup>2</sup> EPIC® H-BE 16 Push-In termination Push-In termination: 0.14 - 2.5mm<sup>2</sup>

Stripping length (mm) EPIC® H-BE 16 Screw termination

EPIC® H-BE 16 Push-In termination



# Cycle of mechanical operation



Certified production control: VDE-REG. no.: B437 UL-tested:

UL File Number: E75770 EPIC® H-BE 16 Push-In termination

UL-tested:

UL File Number: E75770



Temperature range -40°C to +100°C,



short-term up to +125°C

# Application range

### **EPIC® H-BE 16 Screw termination**

- · Mechanical engineering
- Plastics industry
- · Light & sound technology
- · Railway applications / vehicle construction

### EPIC® H-BE 16 Push-In termination

- · Mechanical engineering
- · Plastics industry
- · Light & sound technology
- · Railway applications / vehicle construction

Suitable tools

# **EPIC® H-BE 16 Screw termination**

- PEW 8.186 crimping pliers refer to main catalogue
- Kraftform® adjustable torque screwdriver/ Kraftform Kompakt® Set refer to main catalogue
- Recommended crimping tool when conductor end-sleeves are used: PEW 8.186

### Similar products

### **EPIC® H-BE 16 Screw termination**

• Further products with higher numbering in the internet. (H-BE 32, H-BE 48)

Article number	Article description	Contact type	Wire protection	Number of operating contacts	Pieces / PU
H-BE 16 screw ter	mination				
10194000	EPIC® H-BE 16 SS	male	yes	1 -16	5
10195000	EPIC® H-BE 16 BS	female	yes	1 -16	5
10194100	EPIC® H-BE 16 SS	male		1 -16	5
10195100	EPIC® H-BE 16 BS	female		1 -16	5
H-BE 16 Push-In te	ermination				
44423204	EPIC® H-BE 16 SP	male	yes	1 - 16	5
44423205	EPIC® H-BE 16 BP	female	yes	1 - 16	5

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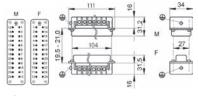
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# **EPIC® H-BE 24 Screw termination**

The proven standard inserts for easy assembly







# Info

- · Proven screw for easy installation
- Also as EPIC® H-BE 48 available
- · Railway applications

# EPIC® H-BE 24 Push-In termination

The proven standard inserts for easy assembly





# Info

- · Push-In version fast and easy tool free connection technology
- Also as EPIC® H-BE 48 available

Termination methods

Stripping length (mm)

EPIC® H-BE 24 Screw termination

Screw termination: 0.5 - 2.5 mm<sup>2</sup>

EPIC® H-BE 24 Push-In termination

EPIC® H-BE 24 Screw termination

EPIC® H-BE 24 Push-In termination

Cycle of mechanical operation

EPIC® H-BE 24 Screw termination

EPIC® H-BE 24 Push-In termination

Certified production control:

Push-In termination: 0.14 - 2.5mm<sup>2</sup>

· Railway applications

### Suitable housing

- EPIC® ULTRA H-B 24
- EPIC® H-B 24 Housings
- EPIC® QUICK & EASY Mounting system
- Refer to Selection Table A10 to select the required inserts and housings

### Similar products

### EPIC® H-BE 24 Schraubanschluss

· Further products with higher numbering in the internet. (H-BE 32, H-BE 48)

# **Benefits**

### EPIC® H-BE 24 Screw termination

- Railway applications
  - Fire protection on railway vehicles: Test according EN 45545-2. Requirement sets R22 and R23. Hazard level HL1, HL2 and
- · Standard inserts with screw, crimp cage clamp and Push-In termination
- The EPIC® H-BE series is suitable for applications that require a reliable connection when working with high voltages and currents

### EPIC® H-BE 24 Push-In termination

- · Insertion of cores with end sleeves in Push-In inserts gives mounting safety and time saving without any tools
- · Easy dismantling and insertion of wires by pushing the orange button
- Test socket for standard 2mm test tip for easy testing of Push-In inserts
- · Railway applications
- Fire protection on railway vehicles: Test according EN 45545-2. Requirement sets R22 and R23. Hazard level HL1, HL2 and HL4
- The EPIC® H-BE series is suitable for applications that require a reliable connection when working with high voltages and currents

### **Technical data**



### Classification

ETIM 5.0 Class-ID: EC000438 ETIM 5.0 Class-Description: Contact insert for industrial connectors



### Rated voltage (V)

IEC: 500 VUL: 600 VCSA: 600 V

### Rated impulse voltage 6 kV



### Rated current (A)

EPIC® H-BE 24 Screw termination

IEC: 16 A UL: 16 A CSA: 16 A

EPIC® H-BE 24 Push-In termination

IEC: 16 A UI: 13 A CSA: 13 A



# Degree of soiling

### Contact resistance

< 2 mOhm

### Contacts

Copper alloy, hard silver-plated



### Number of contacts

24 + PE

### Application range

### **EPIC® H-BE 24 Screw termination**

- · Mechanical engineering
- · Plastics industry
- · Light & sound technology
- Railway applications / vehicle construction

### EPIC® H-BE 24 Push-In termination

- · Mechanical engineering
- · Plastics industry
- · Light & sound technology
- Railway applications / vehicle construction

### Suitable tools

100

Certifications

UL-tested:

UL-tested:

VDE-REG. no.: B437

UL File Number: E75770

UL File Number: E75770

short-term up to +125°C

Temperature range

-40°C to +100°C,

### EPIC® H-BE 24 Screw termination

- · PEW 8.186 crimping pliers refer to main catalogue
- Kraftform® adjustable torque screwdriver/ Kraftform Kompakt® Set refer to main catalogue
- Recommended crimping tool when conductor end-sleeves are used: PFW 8.186

### Similar products

### EPIC® H-BE 24 Screw termination

• Further products with higher numbering in the internet. (H-BE 32, H-BE 48)

Article number	Article description	Contact type	Wire protection	Number of operating contacts	Pieces / PU
H-BE 24 screw teri	mination				
10196000	EPIC® H-BE 24 SS	male	yes	1 - 24	5
10197000	EPIC® H-BE 24 BS	female	yes	1 - 24	5
10196100	EPIC® H-BE 24 SS	male		1 - 24	5
10197100	EPIC® H-BE 24 BS	female		1 - 24	5
H-BE 24 Push-In te	rmination				
44423206	EPIC® H-BE 24 SP	male	yes	1 - 24	5
44423207	EPIC® H-BE 24 BP	female	yes	1 - 24	5

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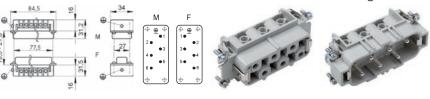
# EPIC® H-BS 6

Inserts for high currents.



### Info

- · Standard insert for currents up to 35A
- · Railway applications



# EPIC® H-BS 12

Inserts for high currents.



### Info

- Standard insert for currents up to 35A
- · Railway applications



### Suitable housing

### EPIC® H-BS 6

- EPIC® ULTRA H-B 16
- EPIC® H-B 16 Housings
- EPIC® QUICK & EASY Mounting system

### EPIC® H-BS 12

- EPIC® ULTRA H-B 16
- Refer to Selection Table A10 to select the required inserts and housings

### **Benefits**

### EPIC® H-BS 6

- High rating for currents up to 35 A
- Screw termination up to a conductor cross section of 6 mm²
- Railway applications
- Fire protection on railway vehicles: Test according EN 45545-2. Requirement sets R22 and R23. Hazard level HL1, HL2 and HL4

### EPIC® H-BS 12

- High rating for currents up to 35  $\mbox{\ensuremath{\mbox{A}}}$
- Screw termination up to a conductor cross section of 6 mm<sup>2</sup>
- Two H-BS 6 inserts with different contactnumbering for one housing.

### **Technical data**



### Classification

ETIM 5.0 Class-ID: EC000438 ETIM 5.0 Class-Description: Contact insert for industrial connectors

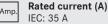


### Rated voltage (V)

IEC: 500 VUL: 600 VCSA: 600 V Conductor - conductor: 690 V

# Rated impulse voltage 6 kV

- ...



UL: 35 A CSA: 35 A



### Degree of soiling

### **Contact resistance**

< 2 mOhm



### Contacts

Copper alloy, hard silver-plated

### Application range

## EPIC® H-BS 6

- Railway applications / vehicle construction
- · Plant engineering
- · Mechanical engineering
- Drive systems

### EPIC® H-BS 12

- Plant engineering
- Mechanical engineering
- Drive systems



### Number of contacts

**EPIC**® **H-BS 6** 6 + PE **EPIC**® **H-BS 12** 12 + PE



# Termination methods

Screw termination: 0.5 - 6 mm<sup>2</sup>

Stripping length (mm) 8



# Cycle of mechanical operation



Certified production control: VDE-REG. no.: B437 UL-tested:

UL File Number: E75770



# Temperature range -40°C to +100°C,

-40°C to +100°C, short-term up to +125°C

### Suitable tools

### EPIC® H-BS 6

- PEW 8.186 crimping pliers refer to main catalogue
- Kraftform® adjustable torque screwdriver/ Kraftform Kompakt® Set refer to main catalogue

## EPIC® H-BS 12

PEW 8.186 crimping pliers refer to main

Article number	Article description	Contact type	Wire protection	Number of operating contacts	Pieces / PU
H-BS 6 screw term	nination				
10170000	H-BS 6 SS	male	yes	1 - 6	5
10171000	H-BS 6 BS	female	yes	1 - 6	5
H-BS 12 screw ter	mination		·		
10170600	H-BS 6 SS	male	yes	7 - 12	5
10171600	H-BS 6 BS	female	ves	7 - 12	5











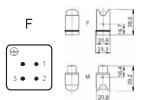


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# EPIC® H-A 3

H-A inserts with screw termination up to 2.5 mm<sup>2</sup> wire cross section





# Info

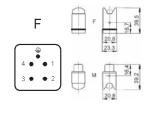
- Small power connector for single- or
- three-phase current
  Easy to assemble due to straight entry
- of conductors Railway applications

## EPIC® H-A 4

H-A inserts with screw termination up to 2.5 mm<sup>2</sup> wire cross section







# Info

- Insert for three-phase current application with neutral conductor Easy to assemble due to straight entry
- of conductors
- Railway applications

### Suitable housing

- EPIC® H-A 3 Housings
- Refer to Selection Table A10 to select the required inserts and housings

### **Benefits**

- · Railway applications
  - Fire protection on railway vehicles: Test according EN 45545-2. Requirement sets R22 and R23. Hazard level HL1, HL2 and HL4
- The small H-A 3 / H-A 4 are used whenever there is minimal space.
- Easy to service screw connection
- · Easy cable connection with strait cable entry in the contacts

## **Application range**

- · Railway applications / vehicle construction
- · Machine and equipment manufacturing
- · Control engineering
- · Apparatus construction

# Suitable tools

- PEW 8.186 crimping pliers refer to main catalogue
- MULTICRIMP 6 crimping pliers refer to main catalogue
- Kraftform® adjustable torque screwdriver/ Kraftform Kompakt® Set refer to main catalogue

### **Technical data**



ETIM 5.0 Class-ID: EC000438 ETIM 5.0 Class-Description: Contact insert for industrial connectors



Rated voltage (V) IEC: 400 V

UL: 600 V CSA: 600 V

Rated impulse voltage

4 kV

Rated current (A)

IEC: 23 A UL: 10 A CSA: 10 A



Degree of soiling

Contact resistance

1.5 - 4 mohm



Contacts Copper alloy, hard silver-plated

**Number of contacts** EPIC<sup>®</sup> H-A 3

3 + PE EPIC<sup>®</sup> H-A 4 4 + PF



**Termination methods** 

Screw termination: 0.5 - 2.5 mm<sup>2</sup> (2.5 mm<sup>2</sup> with conductor end sleeves depending on the crimping profile)

Stripping length (mm)



Cycle of mechanical operation



**VDE-tested** 

Certified production control: VDE-REG. no.: B437 UL-tested:

UL File Number: E75770



Temperature range -40°C to +100°C, short-term up to +125°C

