

# WMS-2 HF 3,2 (EX5)RL - Shrink sleeve



0803903

Electrical number: 1803999

<https://www.phoenixcontact.com/no/products/0803903>

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Shrink sleeve, Roll, white, unlabeled, can be labeled with: THERMOMARK E.SLEEVE, THERMOMARK E.300 (D)/600 (D), THERMOMARK ROLLMASTER 300/600, THERMOMARK ROLL X1, THERMOMARK ROLL, THERMOMARK ROLL 2.0, THERMOMARK W, THERMOMARK X1.2, unperforated, mounting type: slide-on, cable diameter range (automated processing): 1.5 ... 3 mm, cable diameter range: 1.5 ... 3.2 mm, lettering field size: 5 x 120000 mm, Number of individual labels: 1, roll length: 120 m

## Product description

The continuous shrink sleeves in the WMS-2 HF... product family, in size 3.2 ... 9.5, are suitable for automated processing with the THERMOMARK E.SLEEVE applicator. The continuous format of the material means that individual marker lengths can be realized. After the printing and applying process, you have the option of shrinking the marked shrink sleeves by applying heat manually and thus fixing them on the cable/wire.

## Your advantages

- Permanent and captive identification of single-core wires, wires, cables, pneumatic hoses, and other cylindrical objects
- High flexibility, as individual marker lengths ranging from 3.45 mm ... 2000 mm (0.14" ... 78.7") can be realized in combination with the cutter and perforation cutter
- As an option, the sleeves can be shrunk by applying heat manually to fix the sleeve in position
- High diameter coverage with a shrink ratio of 2:1
- Widely used and proven worldwide in the railway industry

## Commercial data

Item number	0803903
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	31BG22
Product key	BG2216
Catalog page	Page 222 (C-3-2019)
GTIN	4055626225357
Weight per piece (including packing)	0.893 g
Weight per piece (excluding packing)	892 g
Customs tariff number	39173200
Country of origin	PL

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## Technical data

### Notes

Note on application	For the THERMOMARK ROLL and THERMOMARK ROLL 2.0 roll printers, this material can only be processed with an external media hub.
Material information	<p>The specified minimum wire diameter of the shrink sleeve refers to its use as a marking material and does not guarantee any insulation characteristics once shrunk.</p> <p>Depending on the processed material batch, as well as the storage and processing conditions, the maximum insertable wire diameter may be reduced.</p>

### Product properties

Product type	Shrink sleeve
Area of application	Railway industry
Type	Shrink sleeve
Product property	halogen-free

### Data management status

Article revision	00
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### Marking

Number of individual labels	1
Identification technology	Thermal transfer for rolls

### Dimensions

Width	5 mm
Text field width	120000.00 mm
Text field height	5.00 mm
Length of roll	120.00 m

### External dimensions

Outside diameter	1.5 mm ... 3.2 mm
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### Material specifications

Color	white
Material	Polyolefine
Base element material	polyolefine
Shrink rate	2:1
Fire protection for rail vehicles (DIN EN 45545-2) R22	HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R23	HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R24	HL 1 - HL 3
Components	halogen-free
Shrink temperature	> 90 °C

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## Cable/line

External cable diameter	1.5 mm ... 3.2 mm
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## Environmental and real-life conditions

Test for substances that would hinder coating with paint or varnish

Result	Test passed
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Result	Test passed
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Scratch test for the determining scratch resistance

Specification	DIN EN ISO 1518-1:2019-10 (following)
Requirements	≥ 5 N
Result	Test passed

Tesafilm test

Specification	DIN EN ISO 2409:2013 (following)
Result	Test passed

UV resistance

Specification	ISO 4892-2:2013-03 (following)
Result	Test passed
Test duration	96 h

Temperature resistance

Specification	ANSI/UL 969-2018:03 (following)
Test duration	240 h
Rating 125 °C (150 °C)	Test passed

Wipe resistance of inscriptions

Specification	DIN EN 61010-1 (VDE 0411-1):2011-07
	DIN EN 62208 (VDE 0660-511):2012-06 (in parts)
Isopropyl [CAS No. 67-63-0]	Test passed
n-Hexane [CAS No. 110-54-3]	Test passed
Water + Petroleum ether [CAS No. 64742-82-1]	Test passed
Sodium hydroxide 0.1 mol/l [CAS No. 1310-73-2]	Test passed
Ethanol (99 %) [CAS No. 64-17-5]	Test passed
Specification	ISO 175:2010 (following)
Test duration	168 h
Sodium hydroxide 0.1 mol/l [CAS No. 1310-73-2]	Test passed

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Ethanol (99 %) [CAS No. 64-17-5]	Test passed
Acetone (99 %) [CAS No. 67-64-1]	Test passed
Diesel [CAS No. 68476-34-6]	Test passed
IRM 901	Test passed
IRM 902	Test passed

## Testing in a condensation changing climate in the presence of sulfur dioxide

Specification	DIN 50018:2013-05
Result	Test passed
Climate level	AHT 1.0 S
Cycles	2

## Salt spray test

Specification	DIN EN 60068-2-11:2000-02
Result	Test passed
Test duration	96 h

## Ambient conditions

Ambient temperature (operation)	-30 °C ... 105 °C
Recommended ambient temperature (storage/transport)	10 °C ... 25 °C
Recommended humidity (storage/transport)	45 % ... 55 % (Storage in a dry and dark place in the original packaging is recommended)
Shelf life	2 years

## Standards and regulations

Wipe resistance	DIN EN 61010-1 (VDE 0411-1)
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## Mounting

Mounting type	slide-on
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## Classifications

### ECLASS

ECLASS-11.0	27281102
ECLASS-12.0	27281102
ECLASS-13.0	27281102

### ETIM

ETIM 9.0	EC001530
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### UNSPSC

UNSPSC 21.0	39131500
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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### EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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## Accessories

### THERMOMARK E.300 - Thermal transfer printer

1285306

<https://www.phoenixcontact.com/no/products/1285306>



Thermal transfer printer for printing all materials in roll format with a print resolution of 300 dpi. Suitable for long-term use in production and for large print volumes, as large rolls can also be processed.

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### THERMOMARK E.300 D - Thermal transfer printer

1004303

<https://www.phoenixcontact.com/no/products/1004303>



Thermal transfer printer with internal revider for printing all materials in roll format with a print resolution of 300 dpi. Suitable for long-term use in production and for large print volumes, as large rolls can also be processed.

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## THERMOMARK E.600 - Thermal transfer printer

1285310

<https://www.phoenixcontact.com/no/products/1285310>



Thermal transfer printer for printing all materials in roll format with a print resolution of 600 dpi. Suitable for long-term use in production and for large print volumes, as large rolls can also be processed.

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## THERMOMARK E.600 D - Thermal transfer printer

1004304

<https://www.phoenixcontact.com/no/products/1004304>



Thermal transfer printer with internal rewinder for printing all materials in roll format with a print resolution of 600 dpi. Suitable for long-term use in production and for large print volumes, as large rolls can also be processed.



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## THERMOMARK ROLL 2.0 - Thermal transfer printer

1085260

<https://www.phoenixcontact.com/no/products/1085260>



Thermal transfer printer for material off the roll, incl. Euro/US power cable and USB cable. Operating instructions printed in German and English. 1 roll of labels EML (20x8)R white = 1000 labels, ink ribbon = 50 m

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## THERMOMARK-RIBBON 110-WMSU - Ink ribbon

0801358

<https://www.phoenixcontact.com/no/products/0801358>



Ink ribbon, For roll printer for printing product groups WMS..., WMS-2 HF..., and WMTB HF-HP, length: 300 m, roll length: 300 m, width: 110 mm, color: black

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## THERMOMARK-RIBBON 110-WMTB HF - Ink ribbon

5148007

<https://www.phoenixcontact.com/no/products/5148007>



Ink ribbon, for roll printer for printing product groups WMTB HF..., WMS-2 HF..., TMT..., EMT..., EMLF..., PML-..., length: 300 m, roll length: 300 m, width: 110 mm, color: black

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## THERMOMARK-RIBBON 25-WMSU - Ink ribbon

0803390

<https://www.phoenixcontact.com/no/products/0803390>



Ink ribbon, for roll printer for printing product groups WMS... and WMS-2 HF..., length: 300 m, roll length: 300 m, width: 25 mm, color: black

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<https://www.phoenixcontact.com/no/products/0803903>

## THERMOMARK-RIBBON 64-WMSU - Ink ribbon

0801360

<https://www.phoenixcontact.com/no/products/0801360>



Ink ribbon, for roll printer for printing product groups WMS... and WMS-2 HF..., length: 300 m, roll length: 300 m, width: 64 mm, color: black

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## TM-RIBBON 40 BK 105 - Ink ribbon

1259008

<https://www.phoenixcontact.com/no/products/1259008>



Ink ribbon, for the E-WMS... product group in combination with the THERMOMARK E.SLEEVE applicator and the WMS... and WMS-2 HF... product groups in combination with conventional roll printers, length: 300 m, roll length: 300 m, width: 40 mm, color: black

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## TR-PRESSURE ROLLER STANDARD - Pressure roller

0801802

<https://www.phoenixcontact.com/no/products/0801802>

Standard pressure roller



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## TR-PRESSURE ROLLER DR4-50 - Pressure roller

0801800

<https://www.phoenixcontact.com/no/products/0801800>

Pressure roller for continuous shrink sleeve



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## TRM-PRESSURE ROLLER STANDARD - Pressure roller

0804655

<https://www.phoenixcontact.com/no/products/0804655>

Standard pressure roller



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## TRM-PRESSURE ROLLER 4-50 - Pressure roller

0804656

<https://www.phoenixcontact.com/no/products/0804656>

Pressure roller for continuous shrink sleeve



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## TM E.WIRE/E.SLEEVE-PR - Pressure roller

1259203

<https://www.phoenixcontact.com/no/products/1259203>



Pressure roller for all E-WM... and E-WMS... materials (for material width of up to 30 mm/1.18")

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## THERMOMARK ROLL-ERH - Media hub

5146448

<https://www.phoenixcontact.com/no/products/5146448>



External media hub, for the THERMOMARK ROLL, for roll diameter of 150 to 400 mm

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## THERMOMARK-ERH 500 - Media hub

5146309

<https://www.phoenixcontact.com/no/products/5146309>



External media hub, for the THERMOMARK ROLL, for roll diameter of up to 500 mm

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## THERMOMARK ROLLMASTER 300 - Thermal transfer printer

0804501

<https://www.phoenixcontact.com/no/products/0804501>



Thermal transfer printer for material off the roll, incl. Euro/US power cable and USB cable. Support CD includes user manuals in several languages, links to firmware, drivers, and planning and marking software. Operating instructions printed in German and English. 1 roll of labels EML (20x8)R white = 1000 labels, ink ribbon = 50 m

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## THERMOMARK ROLLMASTER 600 - Thermal transfer printer

0804663

<https://www.phoenixcontact.com/no/products/0804663>



Thermal transfer printer for material off the roll, incl. Euro/US power cable and USB cable. Support CD includes user manuals in several languages, links to firmware, drivers, and planning and marking software. Operating instructions printed in German and English. 1 roll of labels EML (20x8)R white = 1000 labels, ink ribbon = 50 m

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## THERMOMARK ROLL - Thermal transfer printer

5146477

<https://www.phoenixcontact.com/no/products/5146477>



Thermal transfer printer, 300 dpi, incl. European power cable, US power cable, and USB cable. DVD with CLIP PROJECT advanced planning and marking software, user manuals in various languages, Windows® printer driver, and firmware. German/English user manual in DIN A5 format, EML (20x8)R roll of labels, white, with 1000 labels, and ink ribbon: 50 m



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## THERMOMARK X1.2 - Thermal transfer printer

5146231

<https://www.phoenixcontact.com/no/products/5146231>



Thermal transfer printer, weight: 10 kg, length: 0.446 m, width: 242 mm, height: 274 mm, color: gray

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## THERMOMARK W2 - Thermal transfer printer

5146147

<https://www.phoenixcontact.com/no/products/5146147>



Thermal transfer printer for material off the roll, incl. Euro/US power cable, USB cable, and perforation knife. Support CD includes user manuals in several languages, links to firmware, drivers, and planning and marking software. Operating instructions printed in German and English.

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