

WMS-2 HF 4,8 (60X9)RL CUS - Shrink sleeve



0833224

<https://www.phoenixcontact.com/us/products/0833224>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Shrink sleeve, Roll, white (RAL 9010), cable diameter range: 2.4 ... 4.8 mm: user-defined, perforated or cut, mounting type: slide-on, Number of individual labels: 1, text field height: 9 mm, text field width: 60 mm

Your advantages

- The hoses are preassembled for optimal use of the material
- The conductor to be marked is simply threaded through the sleeve and fixed by shrinking the sleeve
- WMS ... shrink sleeves provide permanent and captive conductor and cable marking
- The sleeves remain flexible after shrinking

Commercial data

Item number	0833224
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Product key	BG8126
GTIN	4055626044910
Weight per piece (including packing)	99.99 g
Weight per piece (excluding packing)	99.99 g
Country of origin	PL

WMS-2 HF 4,8 (60X9)RL CUS - Shrink sleeve



0833224

<https://www.phoenixcontact.com/us/products/0833224>

Technical data

Notes

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

Marking

Number of individual labels	1
Number of individual labels per row	1
Printing	user-defined
Slot type	Shrink sleeve
Identification technology	Thermotransfer

Dimensions

Width	9 mm
Length	60 mm

Text field

Text field width	60 mm
Text field height	9 mm

Material specifications

Color	white (RAL 9010)
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

Cable/line

External cable diameter	2.4 mm ... 4.8 mm
-------------------------	-------------------

Environmental and real-life conditions

Ambient conditions

WMS-2 HF 4,8 (60X9)RL CUS - Shrink sleeve



0833224

<https://www.phoenixcontact.com/us/products/0833224>

Ambient temperature (operation)	-30 °C ... 105 °C
Recommended ambient temperature (storage/transport)	10 °C
Recommended humidity (storage/transport)	45 %

Test for substances that would hinder coating with paint or varnish

Testing for paint wetting impairment substances (LABS-conformity)	VW PV 3.10.7:2005-02
Result	Test passed

Test for substances that would hinder coating with paint or varnish

Testing for paint wetting impairment substances (LABS-conformity)	VDMA 24364:2018-05
Result	Test passed

Scratch resistance

Specification	EN ISO 1518-1:2023 (following)
Requirements	≥ 5 N
Result	Test passed

Tesafilm test

Specification	DIN EN ISO 2409:2020-12 (following)
Result	Test passed

UV resistance

Specification	DIN EN ISO 4892-2:2021-11 (following)
Result	Test passed
Test duration	96 h
Procedure	Artificial irradiation.

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 0411-01):2020-03 DIN EN 62208 (VDE 0660-511):2012-06 (in parts)
Isopropanol (99%) [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

Immersion in chemicals, oil & fuel

Specification	ISO 175:2010 (following)
---------------	--------------------------

WMS-2 HF 4,8 (60X9)RL CUS - Shrink sleeve



0833224

<https://www.phoenixcontact.com/us/products/0833224>

Test duration	168 h
Sodium hydroxide 0.1 mol/l [CAS No. 1310-73-2]	Test passed
Saltwater (saturated 350 g/l) [CAS No. -]	Test passed
Ethanol (99 %) [CAS No. 64-17-5]	Test passed
Acetone (99 %) [CAS No. 67-64-1]	Test passed
Methylethylketone (MEK) [CAS No. 78-93-3]	Test passed
Diesel [CAS No. 68476-34-6]	Test passed
IRM 901	Test passed
IRM 902	Test passed
IRM 903	Test passed

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

Specification	EN ISO 22479:2022-06
Result	Test passed
Procedure	Method B
Cycles	2

Salt spray test

Specification	DIN EN IEC 60068-2-11 (VDE 0468-2-11):2022-10
Result	Test passed
Test duration	96 h

Standards and regulations

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

Standards

Standards/regulations	EN 45545-2
-----------------------	------------

Mounting

Mounting type	slide-on
---------------	----------

WMS-2 HF 4,8 (60X9)RL CUS - Shrink sleeve



0833224

<https://www.phoenixcontact.com/us/products/0833224>

Classifications

ECLASS

ECLASS-13.0	27281102
ECLASS-15.0	27281102

ETIM

ETIM 10.0	EC001530
-----------	----------

UNSPSC

UNSPSC 21.0	39131500
-------------	----------

WMS-2 HF 4,8 (60X9)RL CUS - Shrink sleeve



0833224

<https://www.phoenixcontact.com/us/products/0833224>

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
---	--------------------

EU REACH SVHC

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

Phoenix Contact 2026 © - all rights reserved

<https://www.phoenixcontact.com>

Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com