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Subject: **Procedure And/Or Report Material**

The following material resulting from the investigation under the above numbers is enclosed.

Issue

<u>Date</u>	<u>Vol</u>	<u>Sec</u>	<u>Pages</u>	<u>Revised Date</u>
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Please file revised pages and illustrations in place of material of like identity. New material should be filed in its proper numerical order.

NOTE: Follow-Up Service Procedure revisions DO NOT include Cover Pages, Test Records and Conclusion Pages. Report revisions DO NOT include Authorization Pages, Indices, Section General Pages and Appendixes.

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MEL File

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CERTIFICATE OF COMPLIANCE

Certificate Number 20170518-E470046
Report Reference E470046-20140910
Issue Date 2017-MAY-18

Issued to: HARTING ELECTRONICS GMBH
MARIENWERDERSTRASSE 3
32339 ESPELKAMP GERMANY

**This is to certify that
representative samples of**

COMPONENT - COMMUNICATIONS-, AUDIO/VIDEO-,
DATA- AND OTHER SIGNALING-CIRCUIT
ACCESSORIES


See Addendum Page

Have been investigated by UL in accordance with the
Standard(s) indicated on this Certificate.

Standard(s) for Safety: UL 1863, Communications-Circuit Accessories
CAN/CSA C22.2 No. 182.4-M-90, Plugs, Receptacles and
Connectors for Communication Systems

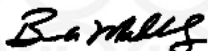
Additional Information: See the UL Online Certifications Directory at
www.ul.com/database for additional information

Only those products bearing the UL Certification Mark should be considered as being covered by UL's
Certification and Follow-Up Service.

The UL Recognized Component Mark generally consists of the manufacturer's identification and catalog
number, model number or other product designation as specified under "Marking" for the particular
Recognition as published in the appropriate UL Directory. As a supplementary means of identifying products
that have been produced under UL's Component Recognition Program, UL's Recognized Component Mark:
, may be used in conjunction with the required Recognized Marks. The Recognized Component Mark is
required when specified in the UL Directory preceding the recognitions or under "Markings" for the individual
recognitions.

Recognized components are incomplete in certain constructional features or restricted in performance
capabilities and are intended for use as components of complete equipment submitted for investigation rather
than for direct separate installation in the field. The final acceptance of the component is dependent upon its
installation and use in complete equipment submitted to UL LLC.

Look for the UL Certification Mark on the product.



Bruce Mahrenholz, Director North American Certification Program

UL LLC

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contact a local UL Customer Service Representative at <http://ul.com/aboutul/locations/>




CERTIFICATE OF COMPLIANCE

Certificate Number 20170518-E470046
Report Reference E470046-20140910
Issue Date 2017-MAY-18

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

Ha-VIS preLink Series:

RJ45 Plug, Part No. 20 82 101 0001;
RJ45 Plug and PushPull Housing, Part No. 20 82 204 0001;
RJ45 Plug and 45° Metal PushPull Housing, Part No. 20 82 104 0045;
RJ45 Plug and 0° Metal PushPull Housing, Part No. 20 82 104 0001;
RJ45 Keystone Jack, Part No. 20 82 501 0001;
RJ45 Keystone Jack w/o preLink block, Part No. 20 82 500 0001;
RJ45 HIFF Jack, Part No. 20 82 001 0001;
RJ45 HIFF Jack, Part No. 20 82 001 0002;
RJ45 HIFF Jack w/o preLink block, Part No. 20 82 000 0002;
Connector D-coding, 4 poles, Part No. 20 82 005 0001;
Connector insert, male, M12 D-coding, 4 poles, Part No. 20 82 005 1214;
M12 connector X-coding, 8 poles, Part No. 20 82 005 0002;
Connector insert, male, M12 X-coding, 8 poles, Part No. 20 82 006 1218;
M12 housing, empty, Part No. 20 82 000 1210;
Termination block, Part No. 20 82 000 0003;
RJI Keystone Cat.6, 8p IDC, Part No. 0945 545 1564;
RJI Keystone Cat.6, 8p IDC, Part No. 0945 545 1563;
RJI RJ45 10G Cat.6, 8p jack IDC, Part No. 0945 545 1562;
RJI RJ45 10G Cat.6, 8p jack IDC, Part No. 0945 545 1561;
Har-port RJ45 Coupler with port housing, Part No. 0945 452 1560 and 0945 452 1561, may be followed by 041 for packaging amount;
Har-Port coupler Cat.6, Model Number 0945452190X, where X denotes color, Evaluated for NEMA Type 4 and IP65/67 ratings, May be followed by 041 for packaging amount;
Han RJ45 Module, Model number 09496011200, may be followed by XL to denote packaging amount. Intended for data use only;
Connector, Model 09495011200, may be followed by XL to denote packaging amount. Intended for data use only;
USB 3.0 Connector Model 09455451902, may be followed by XL to denote packaging amount. Intended for data use only;
Har-Port protection cover, Model 09455020005, May be followed by 041;
Har-Port protection cover, Model 09455020006, Has been evaluated for NEMA type 4 rating. May be followed by 041;
Har-Port protection cover, Model 09455020000, Has been evaluated for NEMA type 4 rating. May be followed by 041;



Bruce Mahrenholz, Director North American Certification Program
UL LLC

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PRODUCT COVERED:

USR, CNR Ha-VIS preLink Series:
RJ45 Plug, Part No. 20 82 101 0001.

RJ45 Plug and PushPull Housing, Part No. 20 82 204 0001.

RJ45 Plug and 45° Metal PushPull Housing, Part No. 20 82 104 0045.

RJ45 Plug and 0° Metal PushPull Housing, Part No. 20 82 104 0001.

RJ45 Keystone Jack, Part No. 20 82 501 0001

RJ45 Keystone Jack w/o preLink block, Part No. 20 82 500 0001

RJ45 HIFF Jack, Part No. 20 82 001 0001

RJ45 HIFF Jack, Part No. 20 82 001 0002

RJ45 HIFF Jack w/o preLink block, Part No. 20 82 000 0002

Connector D-coding, 4 poles, Part No. 20 82 005 0001

Connector insert, male, M12 D-coding, 4 poles, Part No. 20 82 005 1214

M12 connector X-coding, 8 poles, Part No. 20 82 005 0002

Connector insert, male, M12 X-coding, 8 poles, Part No. 20 82 006 1218

M12 housing, empty, Part No. 20 82 000 1210

Termination block, Part No. 20 82 000 0003

RJI Keystone Cat.6, 8p IDC, Part No. 0945 545 1564

RJI Keystone Cat.6, 8p IDC, Part No. 0945 545 1563

RJI RJ45 10G Cat.6, 8p jack IDC, Part No. 0945 545 1562

RJI RJ45 10G Cat.6, 8p jack IDC, Part No. 0945 545 1561

Har-port RJ45 Coupler with port housing, Part No. 0945 452 1560 and
0945 452 1561, **may be followed by 041 for packaging amount.**

Har-Port coupler Cat.6, Model Number **0945452190X**, where **X denotes color**,
Evaluated for **NEMA Type 4** and IP65/67 ratings, **May be followed by 041
for packaging amount.**

Han RJ45 Module, Model number 09496011200, may be followed by XL to
denote packaging amount. Intended for data use only.

Connector, Model 09495011200, may be followed by XL to denote packaging
amount. Intended for data use only.

USB 3.0 Connector Model 09455451902, may be followed by XL to denote packaging amount. Intended for data use only.

Har-Port protection cover, Model 09455020005, May be followed by 041.

Har-Port protection cover, Model 09455020006, Has been evaluated for NEMA type 4 rating. May be followed by 041

Har-Port protection cover, Model 09455020000, Has been evaluated for NEMA type 4 rating. May be followed by 041

These products are intended for use in Industrial Ethernet Data circuits and not intended for use in telecommunication loop circuits. The Ingress Protection Degree has not been evaluated by UL LLC **unless otherwise specified..**

TECHNICAL CONSIDERATIONS:

The products described in this report is comprised of a plug contained in four different housings constructed of plastic or metal intended for Industrial Ethernet Data use.

USR indicates evaluation to UL 1863, the Standard for Communication Circuit Accessories, 4th Edition, dated May 14th, 2004 including revisions through September 15th, 2016.

CNR indicates evaluation to Canadian Standard CAN/CSA-C22.2, No. 182.4-M90, The Standard for Plugs, Receptacles and Connectors for Communication Systems, 1st Edition, Reaffirmed in 2015.

Installation - The connectors are intended for use in terminating communication cables. All installations shall meet the electrical requirements of the National Electrical Code and the local authorities having jurisdiction. The units are also intended to be installed in accordance with the manufacturer's installation practices. Refer to ILL. 1 for Installation Instructions.

NEMA Ratings:

Harting Cat No and Type	Environmental Rating
09455020006 - Aluminum screw-down cap version	NEMA Type 4
09455020000 - TPE Cover Gasket version	NEMA Type 4

RJI RJ45 10G JACK, CAT. 8
PART NO. 0945 545 1561 - FIG. 19

General - Part No. 0945 545 1561 is an RJ45 10G Jack with Cat.6 jack claims, with IDC output connections and is constructed of the following materials. See ILL. 28 for details.

1. Plastic Materials - R/C (QMFZ2), Kingfa, type PBT-RG301, rated V-0.
2. Metal Materials - Die cast zinc.

HAR-PORT RJ45 COUPLER WITH PORT HOUSING
PART NO. 0945 452 1560 / 61 - FIG. 20

General - Part No. 0945 452 1560 is an RJ45 to RJ45 coupler constructed of the following materials. See ILL. 29 for dimensions. See ILL. 30 for a spec sheet. Model 0945 452 1560 is identical to Model 0945 452 1561 except for color.

1. Plastic Materials - R/C (QMFZ2), Kingfa, type PBT-RG301, rated V-0.
2. Metal Materials - Die cast zinc.

Har-Port coupler Cat.6, Model Number **0945452190X** - ILL 31

General - The Har-Port coupler Cat.6 is a connector with a cover for protection of the connector and has been evaluated for **NEMA Type 4 and IP65/67 ratings unless Har-Port Cover 09455020005 is used.** See FIGS 21 and 22 for more information.

1. Connector - R/C (DUXR2/8) Harting, Model number 09454521561
Alternate - R/C (DUXR2/8) Harting, Model number 09455451560
Alterante - R/C (DUXR/8) Harting, Model number 09455451902.
2. Har-Port Cover - **R/C (DUXR2/8)**, Harting, Model number 09455020000.
Alternate - **Same as above except** Harting, Model Number 09455020006
Alternate - Same as above except Harting, Model Number 09455020005
3. Har-Port Insert - Harting, Model number 094550200040200

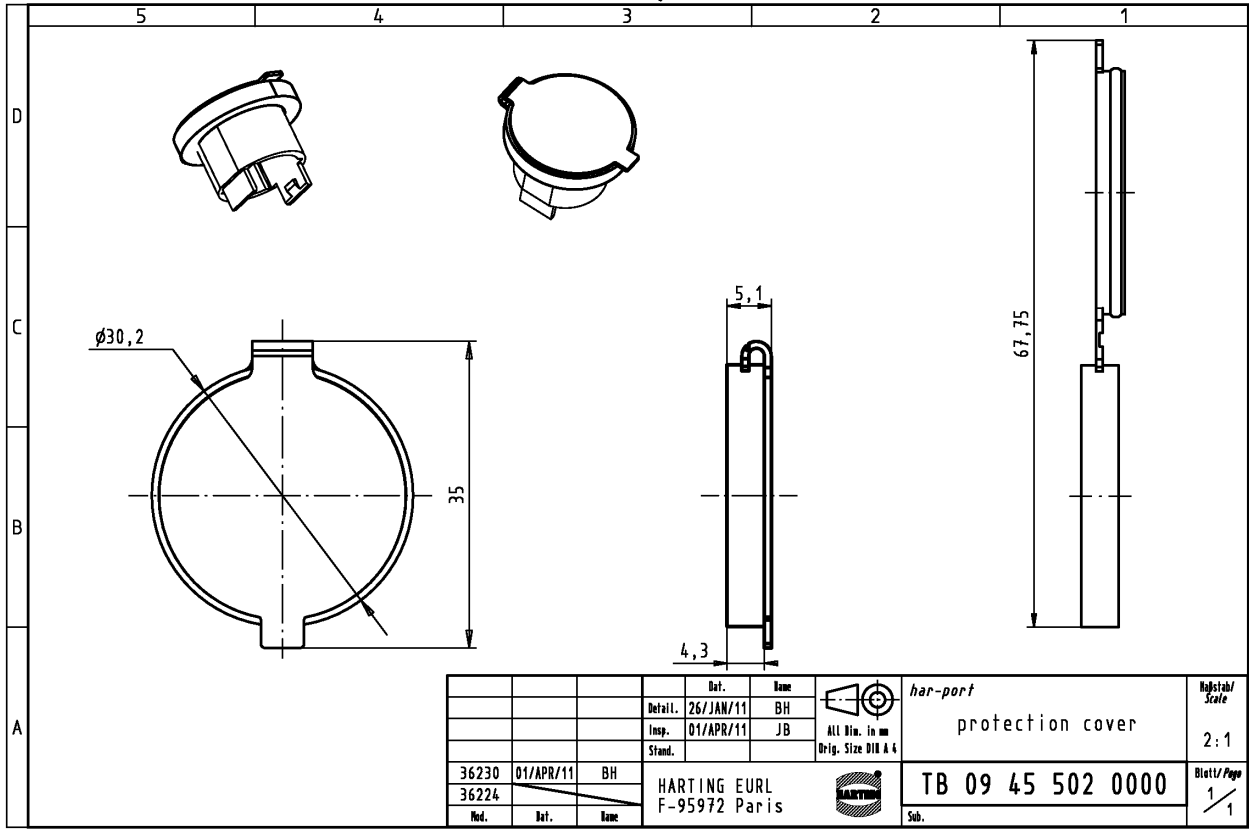
Har-Port Cover - Models 09455020000
and 09455020005 - ILL. 32 & 33

General - Har-Port Cover, Models 09455020000 and 09455020005 are constructed from any R/C (QMFZ2) plastic material, rated V-2 or better, with an RTI 100C or above. Model 09455020000 has been evaluated for IP 65/67 TYPE 4 ratings, for use only with Har-Port coupler Cat.6, Model Number 0945452190X. See ILL. 32 for details on the 09455020000. See ILL. 33 for details on Model 09455020005.

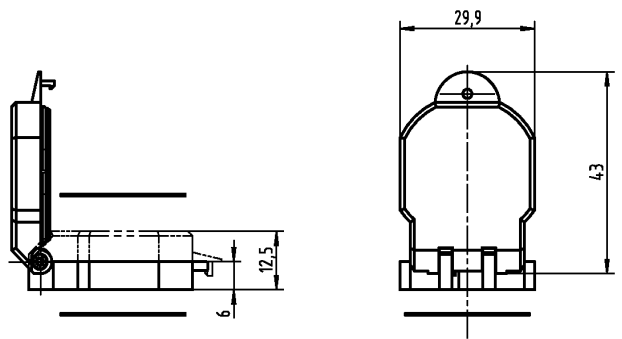
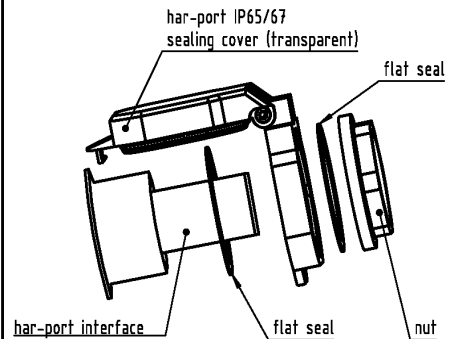
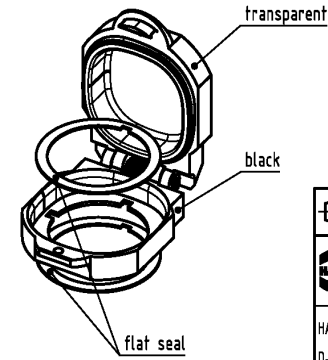
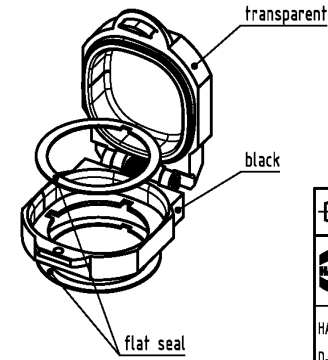
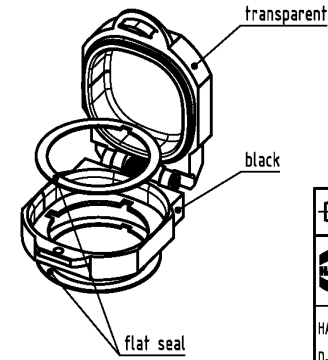


Har-Port Cover - Models number 09455020006 - ILL. 34

General - Har-Port Cover, Model number 09455020006, is constructed from aluminum alloy and has been evaluated for IP 65/67 TYPE 4 ratings, for use only with Har-Port coupler Cat.6, Model Number 0945452190X.

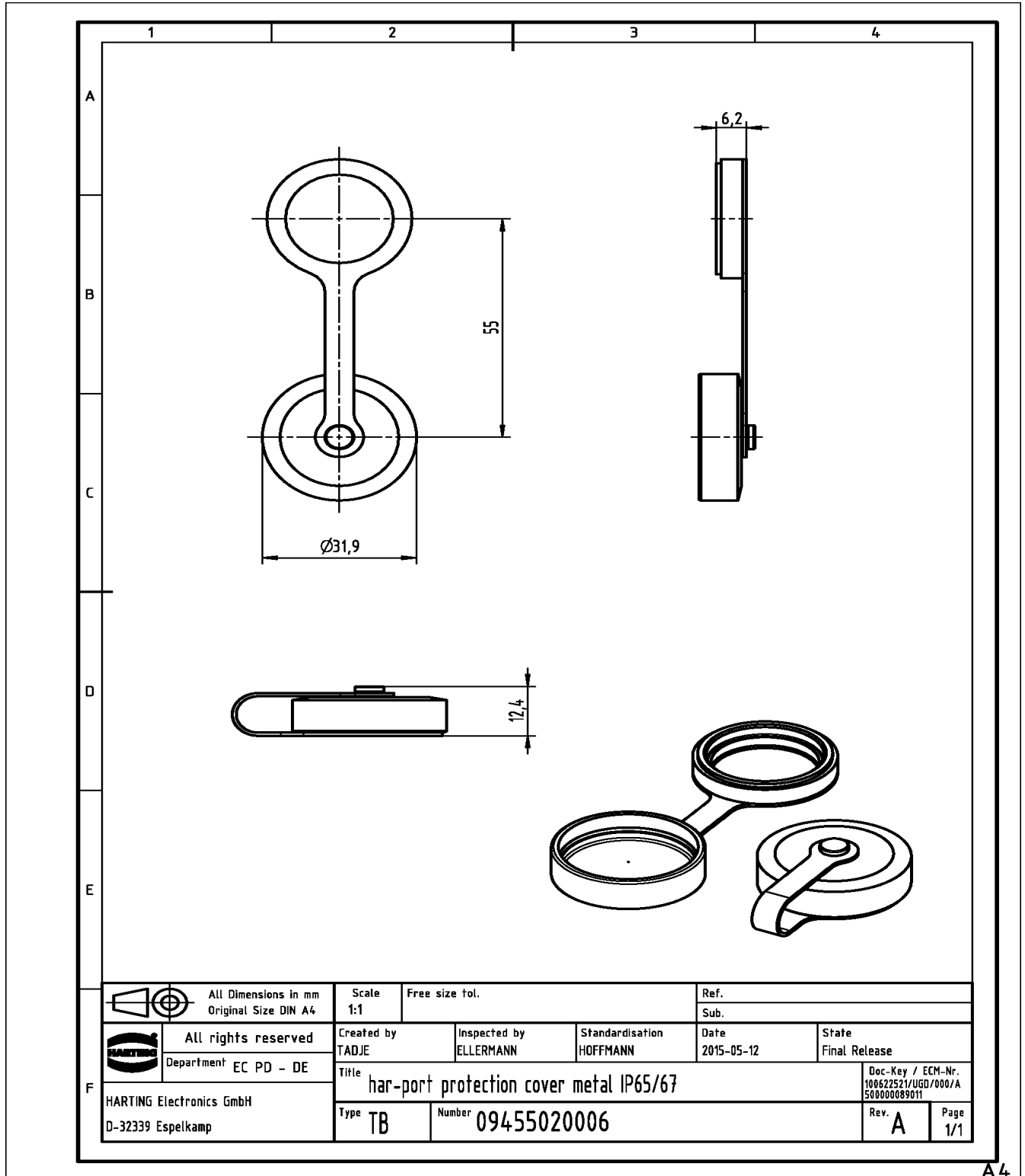
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C172003932

1	2	3	4	5	6
A				<p>assembly with har-port interfaces:</p> 	
B					
C					
D					
 All Dimensions in mm Original Size DIN A4				Scale 1:1	Free size tol.
 All rights reserved Department EC PD - DE				Created by STORCK	Inspected by ELLERMANN
HARTING Electronics GmbH D-32339 Espelkamp				Title har-port sealing cover transparent	
Type TB				Number 09455020005	
Ref. Sub: TB 09455020005 / 500000054359 / 2012-11-07				Date 2016-02-24	
State Final Release				Doc-Key / ECM-Nr. 104510108/AUG/001/B 5000000100730	
Rev. B				Page 1/1	

C172003933



TEST RECORD NO 7

SAMPLES:

Samples of the Har-Port Cover - Models 09455020000, 09455020006 and 09455020005 and Har-Port coupler Cat.6, Model Number 0945452190X, as indicated below and constructed as described herein, were submitted by the manufacturer for examination and test. This investigation was conducted under Service Request 4070694.

General:

Testing was not considered not necessary to change the model number on the Har-Port coupler Cat.6, to 0945452190X from 09454521904 (test record 6), due to the change in nomenclature denoting color only.

Testing was considered not necessary on the Har-Port Cover models 09455020000 and 09455020005 due to them being constructed of R/C (QMFZ2) plastic material with an RTI of 100C or above and not housing current carrying parts. Additionally it was employed on Model 09454521904 (0945452190X) in Test Record 6 during testing.

Safety testing was considered not necessary on the Har-Port Cover Model 09455020006 due to it being constructed of Aluminum alloy and not housing any current carrying parts.

Test Record Summary:

The results of this investigation indicate that the products evaluated comply with the applicable requirements in UL 1863, The Standard for Communications-Circuit Accessories, 4th Edition, dated May 14th, 2004 including revisions through September 15th, 2016 and CAN/CSA C22.2 No. 182.4-M-90, The Standard for Plugs, Receptacles and Connectors for Communication Systems, 1st Edition, Reaffirmed 2015 and, therefore, such products are judged eligible to bear UL's Mark as described on the Conclusion Page of this Report.

Test Record by:

Ken Monsen
Engineer

Reviewed by:

Megan Stalker
WiSE Project Lead

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