



HDMI AOC armoured fibre optic cable, UHD 8K



Installation manual

AK-330128-xxx-S

Table of contents

1. Introduction	3
2. Scope of delivery	3
3. Product description and main features	3
4. Technical specifications	4
5. Installation	5
6. Important notes and precautions	5
7. Safety instructions.....	5

1. Introduction

The HDMI 2.1 Active Optical Cable (AOC) is designed for professional applications that require long transmission distances, the highest image and sound quality, and high mechanical resilience. Thanks to its active, hybrid construction consisting of fibre optic and copper conductors, the cable enables loss-free and interference-free transmission of HDMI signals in impressive Ultra HD resolution (8K at 60Hz).

The integrated metal armouring reliably protects the cable from mechanical impact during installation and operation, making it ideal for use in harsh environments such as event technology, trade fair construction or permanently installed AV systems.

2. Scope of delivery

- 1x HDMI 2.1 Active Optical Cable (AOC), armoured
- 1x Installation instructions

3. Product description and main features

- Resolutions up to 8K (7680 x 4320) / 60Hz and 4K / 120Hz over the entire cable length
- Robust metal armouring for increased resistance during installation and operation
- Hybrid construction of fibre optic and copper conductors for loss-free transmission over long distances
- Bandwidth up to 48 Gbps for delay-free signal transmission in accordance with HDMI 2.1
- High immunity to electromagnetic interference (EMI-resistant)
- Small outer diameter of approx. 5.9 mm despite armouring for flexible installation
- Optoelectronic signal conversion via high-quality Silicon Line converter chip
- Plug & play – no drivers required
- Directional cable design with marked source/display connectors
- Support for modern HDR formats: HDR, HDR10, HDR10+, Dolby Vision, HLG
- Support for high-quality audio formats such as Dolby TrueHD and DTS-HD Master Audio

4. Technical specifications

HDMI standard	HDMI 2.1
Max. resolution	8K 60Hz, 4K 144Hz
Max. bandwidth	48 Gbps
HDCP version	HDCP 2.3 (backward compatible with 2.2 / 1.4)
Colour space / colour depth	YUV 4:4:4, 8 / 10 / 12 bits
HDR	HDR, HDR10, HDR10+, Dolby Vision, HLG
Audio formats	LPCM (8 channels), Dolby TrueHD, DTS-HD Master Audio, DSD
Additional HDMI functions	ARC, CEC, EDID (1.3 / 1.4 / 2.0), Lip Sync, HEC
Transmission type	Active, optical (AOC)
Directional	Yes (source → display)
Gaming features	VRR, ALLM, QFT, QMS
Conductor	OM2 fibre optic (50/125 µm) + copper conductor
Armour	Metal armouring + nylon threads
Outer diameter	approx. 5.9 mm
Minimum bending radius	approx. 59 mm
Max. tensile force	200 N
Compressive strength	300 N
Cable sheath	TPU, flame retardant (VW-1)
Plug	HDMI Type A, gold-plated, aluminium housing
Operating temperature	0 °C to +40 °C
Operating humidity:	20–80% RH (non-condensing)
Storage temperature	-20 °C to +60 °C
Humidity during storage	10–90% RH (non-condensing)

Connector dimensions (L/W/H)	44.8 × 20 × 12.2 mm (±0.2 mm)
---	-------------------------------

5. Installation

1. Connect the HDMI plug marked "Source" to the HDMI output of the source device (e.g. PC, Blu-ray player, camera).
2. Connect the HDMI connector marked "Display" to the HDMI input of the output device (e.g. monitor, television, projector).
3. Switch on the connected devices.

The cable is plug and play. No driver installation or external power supply is required.

Important: The cable is directional. If the connection direction is reversed, no image signal will be transmitted.

6. Important notes and precautions

- Recommended maximum tensile load during installation: ≤ 10 kg
 - Do not kink, knot or twist the cable
 - Observe the minimum bending radius
 - Do not hit, crush or drop the plug
 - When plugging in and unplugging, always pull on the plug housing, not the cable
 - Not intended for permanent outdoor use without additional protection
1. Please refer to the operating instructions for the source device.
 2. Please point the remote control directly at the IR receiver probe at a distance of 5 metres.
 3. The IR extension cable is based on the 20 kHz–60 kHz remote control signal protocol, which supports most IR remote controls on the market. Special standards or old remote controls may not be supported.

7. Safety instructions

1. This product is intended for indoor use.
2. If the cable is damaged or kinked, it should be disconnected from the connected devices immediately and no longer used.

3. In the event of transport damage, please contact your authorised dealer immediately.
4. All rights reserved. No part of this manual may be reproduced or transmitted in any form or by any means without our permission.
5. The cable packaging complies with environmental protection requirements and should be recycled.

This is a Class A product. This product may cause radio interference in residential areas. In this case, the user may be required to take appropriate measures.

Assmann Electronic GmbH hereby declares that the declaration of conformity is included in the scope of delivery. If the declaration of conformity is missing, you can request it by post from the manufacturer's address below.

info@assmann.com

Assmann Electronic GmbH
Auf dem Schüffel 3
58513 Lüdenscheid
Germany

