

# WATERTIGHT ENCLOSURES



## EOS4 and EOS2 WTF and WTHF versions IP 69K WATERTIGHT ENCLOSURE, WITH OR WITHOUT HEATING SYSTEM

### MAIN CHARACTERISTICS

Watertight enclosures allow light curtains and light grids to be used in a harsh working environments with exposure to water and steam.

Thanks to its inert (non-toxic) components, no residuals are left when the light curtains are washed down or when they come directly in contact with food. This makes WTF and WTHF enclosures suitable for the Food & Beverage industry.

The watertight enclosure is made of:

- PMMA (polymethyl methacrylate) transparent enclosure
- POM-C (acetal resin – DELRIN®) sealing caps
- Anti-condensation system through integrated GORE™ valve
- POM-C and Stainless steel fastening brackets (AISI 316L)

The small EOS WTF and WTHF cylindrical enclosure (only 56mm diameter) is IP 69K protection rate tested and can withstand up to 80 bar of water jets pressure at the temperature of 80°C.

Enclosure incorporates a valve to drain humidity and avoid condensation.

WTHF version (Heated) has a thermostatically-controlled heating system and can work down to – 25° C.

#### Available models:

##### EOS4 X WTF/WTHF

protected height 160 ... 1810 mm and 2, 3, 4 beams  
resolution 14 mm, Max. range 5 m  
resolution 30 mm and 2, 3, 4 beams, Max. range 17 m

► [EOS4 technical features can be found at page 61](#)

##### EOS2 X WTF/WTHF

protected height 160 ... 1810 mm and 2, 3, 4 beams  
resolution 30 mm and 2, 3, 4 beams, Max. range 10 m

► [EOS2 technical features can be found at page 126](#)

The safety light curtain/grid is delivered already enclosed into its watertight tube with a 10m long prewired cable and the related fastening brackets.



### TECHNICAL FEATURES

Model		WTF	WTHF
<b>Protection rating</b>		IP 69K	
<b>Operating temperature (°C)</b>		0 ... 55	- 25 ... 50
<b>Max. water pressure jets</b>		80 ... 100 bar at 80° C (± 5° C)	
<b>Max. range (m)</b>	<b>EOS4 X (14 mm resolution)</b>	2 or 5 selectable	
<b>Max. range (m)</b>	<b>EOS4 XH</b>	8 or 17 selectable	
<b>Max. range (m)</b>	<b>EOS2</b>	3 or 10 selectable	
<b>Resolution (mm)</b>	<b>EOS4</b>	14, 30	
<b>Resolution (mm)</b>	<b>EOS2</b>	30	
<b>Nr. Beams</b>	<b>EOS4, EOS2</b>	2, 3, 4	
<b>Protected height (mm)</b>	<b>EOS4, EOS2</b>	160 ... 1810	
<b>Electrical connections</b>		10-metre cable pre-wired with cable gland	
<b>WTHF heated power consumption</b>		-	24 VDC - 20 W x Protected height (m)
<b>Fastening mode</b>		2 x M6 stainless steel screws (not included)	

## EOS4 and EOS2 WTF and WTHF versions IP 69K WATERTIGHT ENCLOSURE, WITH OR WITHOUT HEATING SYSTEM


### Test procedure: Ecolab-test F&E Nr. 40-1

Material resistance test according to cleaning procedures for food and beverage industry.


- **Dipping test** - Complete immersion in solution/liquid, Test Period: 28 days.
- **Rinsing with water 40 – 50°C** - Rinsing with low pressure. Rinsing from top to bottom in the direction of the drains
- **Cleaning of the drains**
- **Foaming from bottom to top** - Alkaline: P3-topax 66 - Acid: P3-topax 56 - Temperature: cold up to 40 °C - Contact time: 15 min. recommended
- **Rinsing with water 40 – 50°C** - Rinsing from top to bottom with low pressure
- **Disinfection** - P3-topactive DES 1-3% 10-30 min.


### EOS4 WTF and WTHF MODELS

#### Models X resolution 14 mm - max range: 5 m

 Resolution 14 mm	EOS4 151 X WTF	EOS4 301 X WTF	EOS4 451 X WTF	EOS4 601 X WTF	EOS4 751 X WTF	EOS4 901 X WTF	EOS4 1051 X WTF	EOS4 1201 X WTF	EOS4 1351 X WTF	EOS4 1501 X WTF	EOS4 1651 X WTF	EOS4 1801 X WTF
Ordering codes	1110030	1110031	1110032	1110033	1110034	1110035	1110036	1110037	1110038	1110039	1110051	1110052
Resolution 14 mm	EOS4 151 X WTHF	EOS4 301 X WTHF	EOS4 451 X WTHF	EOS4 601 X WTHF	EOS4 751 X WTHF	EOS4 901 X WTHF	EOS4 1051 X WTHF	EOS4 1201 X WTHF	EOS4 1351 X WTHF	EOS4 1501 X WTHF	EOS4 1651 X WTHF	EOS4 1801 X WTHF
Ordering codes	1110040	1110041	1110042	1110043	1110044	1110045	1110046	1110047	1110048	1110049	1110055	1110056
Protected height (mm)	160	310	460	610	760	910	1060	1210	1360	1510	1660	1810

#### Models XH - Max. range: 17 m

 Resolution 30 mm	EOS4 153XH WTF	EOS4 303XH WTF	EOS4 453XH WTF	EOS4 603XH WTF	EOS4 753XH WTF	EOS4 903XH WTF	EOS4 1053XH WTF	EOS4 1203XH WTF	EOS4 1353XH WTF	EOS4 1503XH WTF	EOS4 1653XH WTF	EOS4 1803XH WTF
Ordering codes	1110280	1110281	1110282	1110283	1110284	1110285	1110286	1110287	1110288	1110289	1110053	1110054
Resolution 30 mm	EOS4 153XH WTHF	EOS4 303XH WTHF	EOS4 453XH WTHF	EOS4 603XH WTHF	EOS4 753XH WTHF	EOS4 903XH WTHF	EOS4 1053XH WTHF	EOS4 1203XH WTHF	EOS4 1353XH WTHF	EOS4 1503XH WTHF	EOS4 1653XH WTHF	EOS4 1803XH WTHF
Ordering codes	1110290	1110291	1110292	1110293	1110294	1110295	1110296	1110297	1110298	1110299	1110057	1110058
Protected height (mm)	160	310	460	610	760	910	1060	1210	1360	1510	1660	1810

 2, 3, 4 beams	EOS4 2B XH WTF	EOS4 3B XH WTF	EOS4 4B XH WTF	EOS4 2B XH WTHF	EOS4 3B XH WTHF	EOS4 4B XH WTHF
Ordering codes	1110670	1110671	1110672	1110675	1110676	1110677
Num. beams	2	3	4	2	3	4

Safety Level:

**Compliance according to the corresponding light curtains models**

# EOS4 and EOS2 WTF and WTHF versions

## IP 69K WATERTIGHT ENCLOSURE, WITH OR WITHOUT HEATING SYSTEM

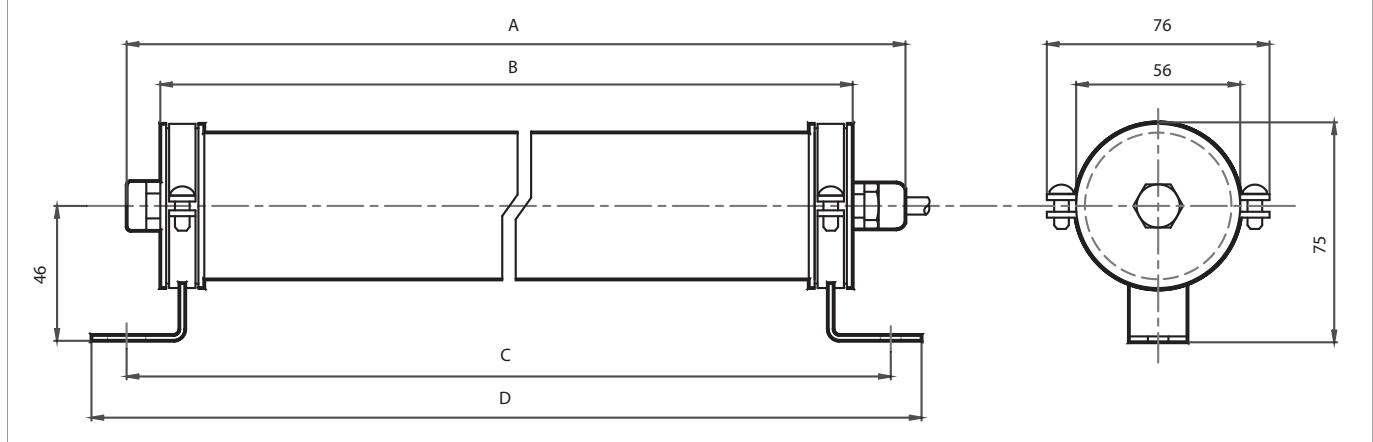
### EOS2 WTF and WTHF MODELS

Models X - Max. range: 10 m

Resolution 30 mm	EOS2	EOS2	EOS2	EOS2	EOS2	EOS2	EOS2	EOS2	EOS2	EOS2	EOS2	EOS2
	153X WTF	303X WTF	453X WTF	603X WTF	753X WTF	903X WTF	1053X WTF	1203X WTF	1353X WTF	1503X WTF	1653X WTF	1803X WTF
Ordering codes	1120230	1120231	1120232	1120233	1120234	1120235	1120236	1120237	1120238	1120239	1120050	1120051
Resolution 30 mm	EOS2	EOS2	EOS2	EOS2	EOS2	EOS2	EOS2	EOS2	EOS2	EOS2	EOS2	EOS2
	153X WTHF	303X WTHF	453X WTHF	603X WTHF	753X WTHF	903X WTHF	1053X WTHF	1203X WTHF	1353X WTHF	1503X WTHF	1653X WTHF	1803X WTHF
Ordering codes	1120240	1120241	1120242	1120244	1120244	1120245	1120246	1120247	1120248	1120249	1120052	1120053
Protected height (mm)	160	310	460	610	760	910	1060	1210	1360	1510	1660	1810

2, 3, 4 beams	EOS2	EOS2	EOS2	EOS2	EOS2	EOS2
	2B X WTF	3B X WTF	4B X WTF	2B X WTHF	3B X WTHF	4B X WTHF
Ordering codes	1120620	1120621	1120622	1120625	1120626	1120627
Num. beams	2	3	4	2	3	4

### DIMENSIONS (mm)



Model	150	300	450	600	750	900	1050	1200	1350	1500	1650	1800	2B	3B	4B
Dimension A mm	320	470	620	770	920	1070	1220	1370	1520	1670	1820	1970	760	1060	1160
Dimension B mm	290	440	620	740	890	1040	1190	1340	1490	1640	1790	1940	730	1030	1130
Dimension C (± 3) mm	315	465	590	765	915	1065	1215	1365	1515	1665	1815	2965	755	1055	1155
Dimension D mm	337	487	637	787	937	1087	1237	1387	1537	1687	1837	2987	777	1077	1177

### ORDERING INFORMATION

Each EOS light curtain comprises:
Emitter and Receiver pair
Mounting brackets
CD-ROM containing the multi-language instruction manual complete with CE declaration of conformity
Quick installation guide

## ADMIRAL AX and VISION VX WT and WTH versions IP 67 WATERTIGHT ENCLOSURE, WITH OR WITHOUT HEATING SYSTEM

### MAIN CHARACTERISTICS

Models for light curtains with 2, 3, 4 beams, 1660 mm and 1810 mm protected height, 30 mm resolution.  
 IP 67 protection rate.  
 Valve to drain humidity and avoid condensation.  
 Tightness to 40 bar water jet pressure.  
 Electrical connections by 10 m pre-wired cable.  
 Polycarbonate transparent housing.  
 PVC sealing caps.

#### Available models:

#### ADMIRAL AX, AX LR; VISION VX, VX LR WT/WTH

- protected height 2, 3, 4 beams
- Max. range 50 m

► **Admiral AX LR technical features can be found at page 76**

► **Vision VX LR technical features can be found at page 138**

#### ADMIRAL AX LR DB WTH

This special version of the Admiral Long Range features an innovative Dual Beam System useful in outdoor applications or in harsh environments for decreasing the sensitivity of the light curtain to small objects that could interrupt the light link, i.e. birds or leaves but also heavy rain or snow.

Available models with 2, 3 beams for detection of the body in access monitoring and heated IP 67 WTH case for outdoor use.

Max. range 60 m.

The safety light curtain/grid is delivered already enclosed into its watertight tube with a 10 m long pre-wired cable and the related fastening brackets.



Safety Level:

**Compliance according to the corresponding light curtains models**

### TECHNICAL FEATURES

Model		WT	WTH
<b>Protection rating</b>		IP 67	
<b>Operating temperature (°C)</b>		0 ... 55	- 25 ... 50
<b>Max. water pressure jets</b>		40 bar - (between 10° and 40° C)	
<b>Max. range (m)</b>	<b>AX, VX</b>	5 or 15 selectable	
<b>Max. range (m)</b>	<b>AX LR, VX LR</b>	20 or 50 selectable	
<b>Max. range (m)</b>	<b>AX LR DB</b>	20 or 60 selectable	
<b>Resolution (mm)</b>	<b>AX, VX</b>	30	
<b>Nr. Beams</b>	<b>AX LR, VX LR, AX LR DB</b>	2, 3, 4	
<b>Protected height (mm)</b>	<b>AX, VX</b>	1660 ... 1810	
<b>Electrical connections</b>		10 metres cable pre-wired with cable gland	
<b>WTH heated power consumption</b>		-	24 VDC - 20 W x Protected Height (m)
<b>Fastening mode</b>		by means set of 4 WFB ring brackets (included)	

# ADMIRAL AX and VISION VX WT and WTH versions IP 67 WATERTIGHT ENCLOSURE, WITH OR WITHOUT HEATING SYSTEM

## ADMIRAL AX WT / WTH MODELS

Max. range.50 m



2, 3, 4 beams	AX 2B LR WT	AX 3B LR WT	AX 4B LR WT	AX 2B LR WTH	AX 3B LR WTH	AX 4B LR WTH
Ordering codes	1134603	1134604	1134605	1139603	1139604	1139605
Num. beams	2	3	4	2	3	4
Overall height (mm)	711	1011	1111	711	1011	1111

Max. range 60 m.



2, 3, 4 beams	AX 2B LR DB WTH	AX 3B LR DB WTH
Ordering codes	1139606	1139607
Num. beams	2	3
Overall height (mm)	772	1072

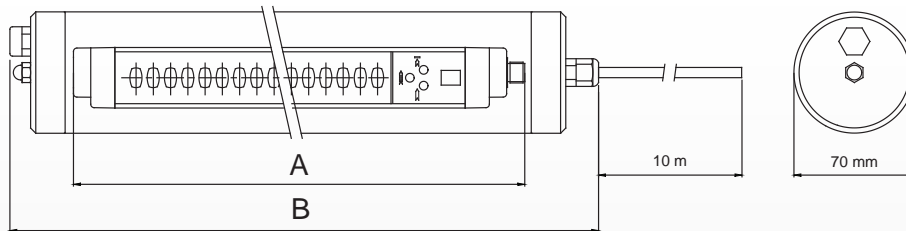
## VISION VX WT / WTH MODELS

Max. range50 m

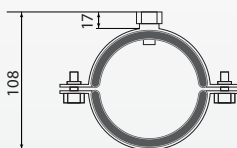


2, 3, 4 beams	VX 2B LR WT	VX 3B LR WT	VX 4B LR WT	VX 2B LR WTH	VX 3B LR WTH	VX 4B LR WTh
Ordering codes	1244603	1244604	1244605	1249603	1249604	1249605
Num. beams	2	3	4	2	3	4
Overall height (mm)	711	1011	1111	711	1011	1111

## DIMENSION (mm)



$$B = A (\text{Overall height}) + 130 \text{ mm}$$



WFB ring brackets (included)

## ORDERING INFORMATION

Each Admiral/Vision light curtain comprises:

Emitter and Receiver pair

Mounting brackets

CD-ROM containing the multi-language instruction manual complete with CE declaration of conformity

Quick installation guide