

Prosjekt:	E6 Malvik kontrollstasjon	Prosjektnr	681735	Dato	27.08.2018	Rev.	03
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Dokument tittel:	PROSJEKTDOKUMENTASJON / FDV LED VMS RGB			
Dokument nr.:				
Prosjekt:	E6 Malvik kontrollstasjon			
Prosjekt nr.:	681735			
Kunde:	Controltech AS	Versjon:	B	
Bygggherre:	SVV	Ant sider:	18	

03	27.08.2018	Endring s 1, 2, 12	AHL	FW
02	15.03.2018	Andre utgave	AHL	FW
01	08.01.2018	Første utgave	FW/HB	FW
Rev	Dato	Beskrivelse	Skrevet av	Godkjent av

1 Godkjent	☐	Sign.
2 Ikke godkjent	☐	Sign.
Kommentarer: 		

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1 GENERELT

Euroskilt sine LED VMS RGB-skilt er utviklet spesielt for krevende norske forhold. De er meget korrosjonsbestandige og har høy tetthetsgrad. Vår teknologi gjør det mulig å vise enhver tekst og/eller skiltbilde gitt etter norske normer.		
Tilkobling:	Rekkeklemme i koblingsboks	
Materiale og overflatebehandling:	LED matriser innkapslet i ABS plast på VD panel.	
Lagring og frakt:	Under frakt og lagring må skiltet stå oppreist i normalposisjon.	

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2 CE GODKJENNINGER EN12966-1:2005 + A1:2009

2.1 Visuelle godkjenninger

Parameter	Godkjent klasse	Parameter	Godkjent klasse
Farge	C2	Luminans	L3
Strålebredde	B6	Luminans forhold	R2

2.2 Fysiske godkjenninger

Parameter	Godkjent klasse	Parameter	Godkjent klasse
Temperatur	T3	Ingress Protection	IP66
Korrosjon	SP1	Vindlast	WL9
Bøyning	TDB2	Dynamisk snølast	DSL4
Slagtest	Godkjent	Vibrasjonstest	Godkjent

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3 SKILT

3.1 Skilt 1

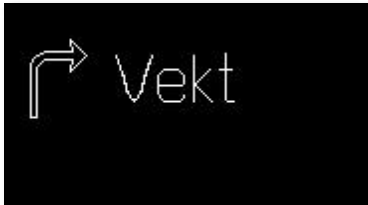
Skiltbilde	Variabelt LED RGB-skilt Malvik
Produktnr.	16016000001
Type	Modulbasert RGB
Mål skiltansikt (HxB)	1663,7 x 3071,7 mm
Mekanisk størrelse (HxBxD)	1672,81 x 3082 x 406 mm
Fargekode	RAL 9017 glans 3 - 10
Antall:	1 stk
Styrekort	UA
Skilt:	Aluminium 5052 Bolter i skiltet: Syrefast (AISI 316L, A4, A4-80) Moduler: Støpt kasse i ABS
Styreskap:	Aluminium 5052, 5754
Feste:	VD Panel m/M12 mutterspor
Kabelgjennomføring:	1 stk. M25, 1 stk. M20
Driftsspenning:	230 VAC
Styring:	24VDC I/O. Minimum 18VDC
Effekt normal bruk:	500 W
Effekt maksimum:	2000 W
Lokalt styreskap:	UA
Diodeavstand:	16 mm
Vekt	Ca. 250 Kg
Skilt ref.:	S07
Skiltbilde:	Variabelt



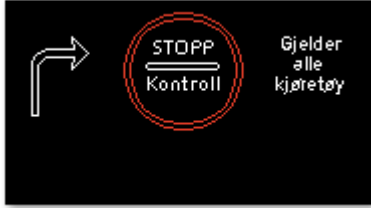
Illustrasjon kontrollstasjon

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3.1.1 Posisjoner skilt 1

Posisjon 1	
Posisjon 2a	
Posisjon 2b	
Posisjon 2c	
Posisjon 2d	

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Posisjon 3b	
Posisjon 3d	

4 MERKING

UA

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5 MONTERING

5.1 Mekanisk – feste og oppheng

5.1.1 NM mast

Festes på eksisterende mast.

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5.2 Elektrisk – påslag og spenning

Styringen er direkte kompatibelt med eksisterende skilt.

På grunn av endret produkttype er strømtrekket vesentlig høyere enn eksisterende skiltløsning.

Strømtrekk eksisterende: Maks 250W

Strømtrekk ny løsning: Maks 2000W

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6 STYRING

6.1 Lokal styring

Signaler	Rekkeklekke:	Info:
±24VDC	20, 21	Benyttes som referanse til påslag/ tilbakemelding signal 1-7, dim, gulblink og «alt OK»
Påslag 1 – 7	3 – 9	24VDC kommer fra eksisterende relekort
Dim	10 (11)	24VDC av/på, dag/natt
Gulblink påslag	22	24VDC kommer fra eksisterende relekort.
Tilbakemelding 1 – 7	13-19	24VDC går til eksisterende relekort
Alt OK	12	24VDC går til eksisterende relekort
Gulblink OK	23	24VDC går til eksisterende relekort

2 slavelamper erstattes av en master- og en slavelampe på gulblinken.

6.1.1 HMI display

UA

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7 SERVICE

7.1 Service/Vedlikehold

For å holde frontplater rene må produktene inspiseres jevnlig og rengjøres for smuss.

Produktene tåler Statens Vegvesens normale vaskeprosedyrer. Det anbefales ikke å vaske skiltene fra undersiden/i underkant.

NB! Ved vedlikehold og bytte av enhet må enheten være strømløs og spenningsprøving må være foretatt.

Ved behov for service:

Euroskilt AS
Reservatveien 8
3118 Tønsberg



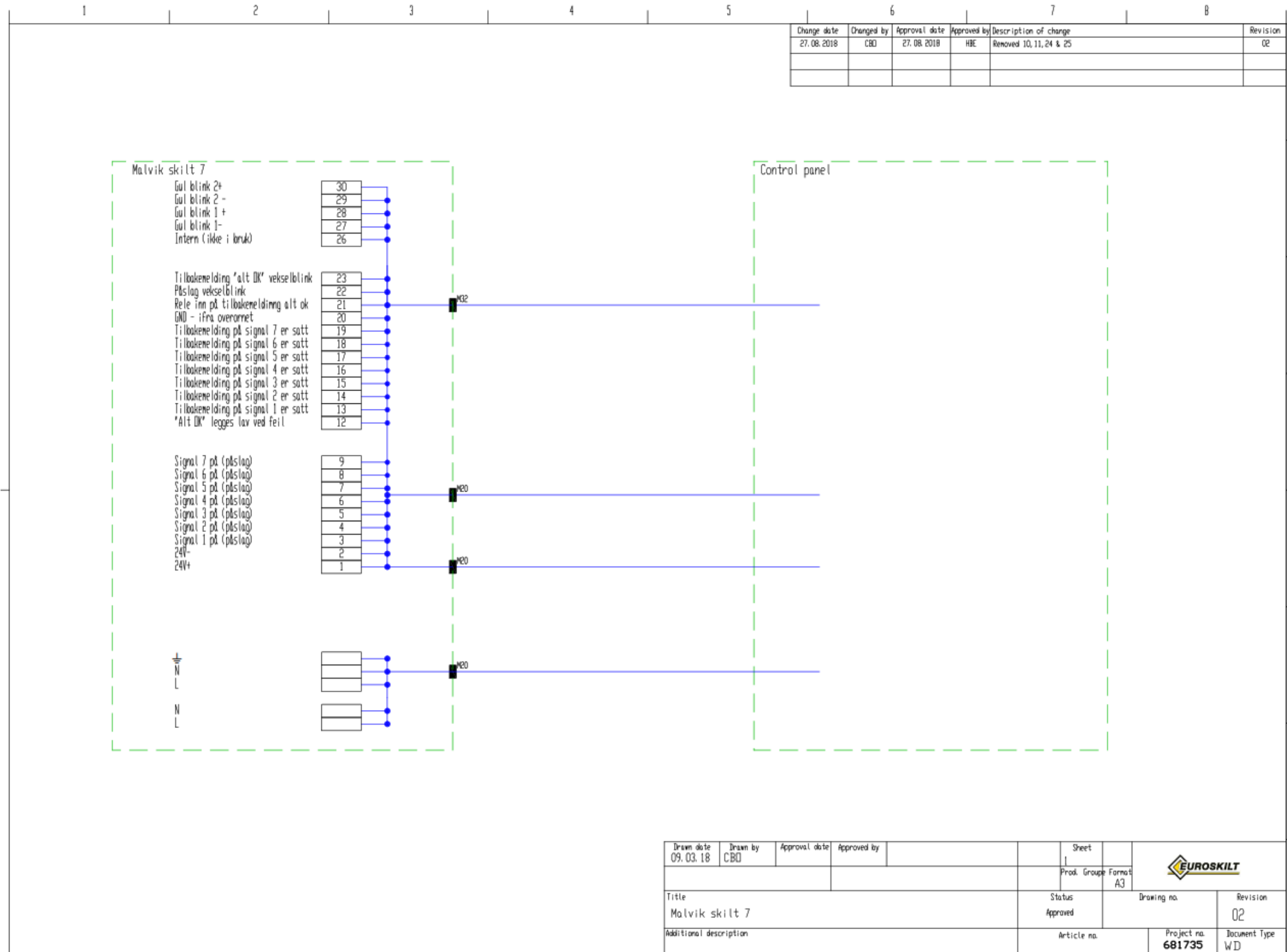
service@euroskilt.no

0 60 80

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8 VEDLEGG

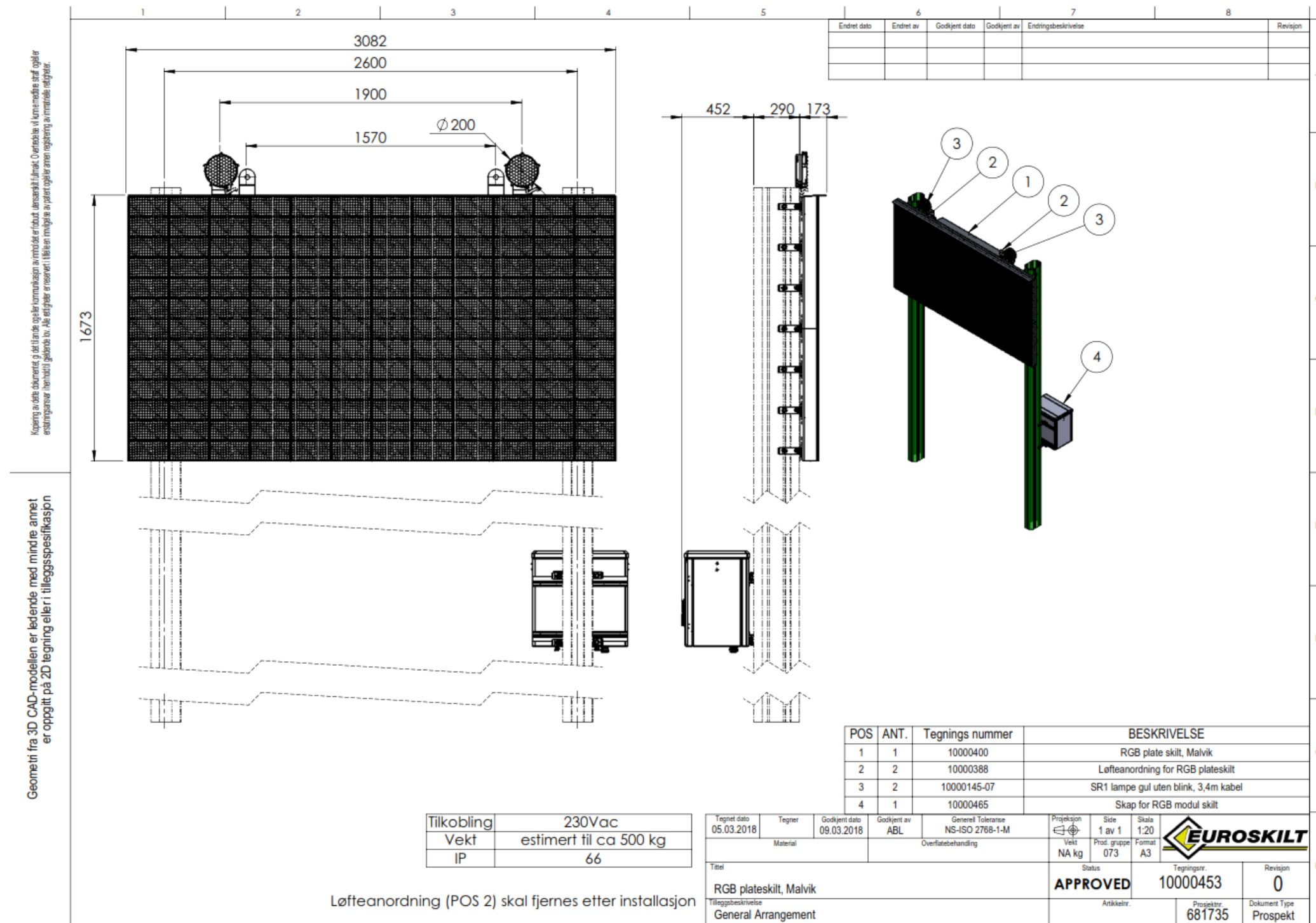
8.1 EL -Tegning [WD]



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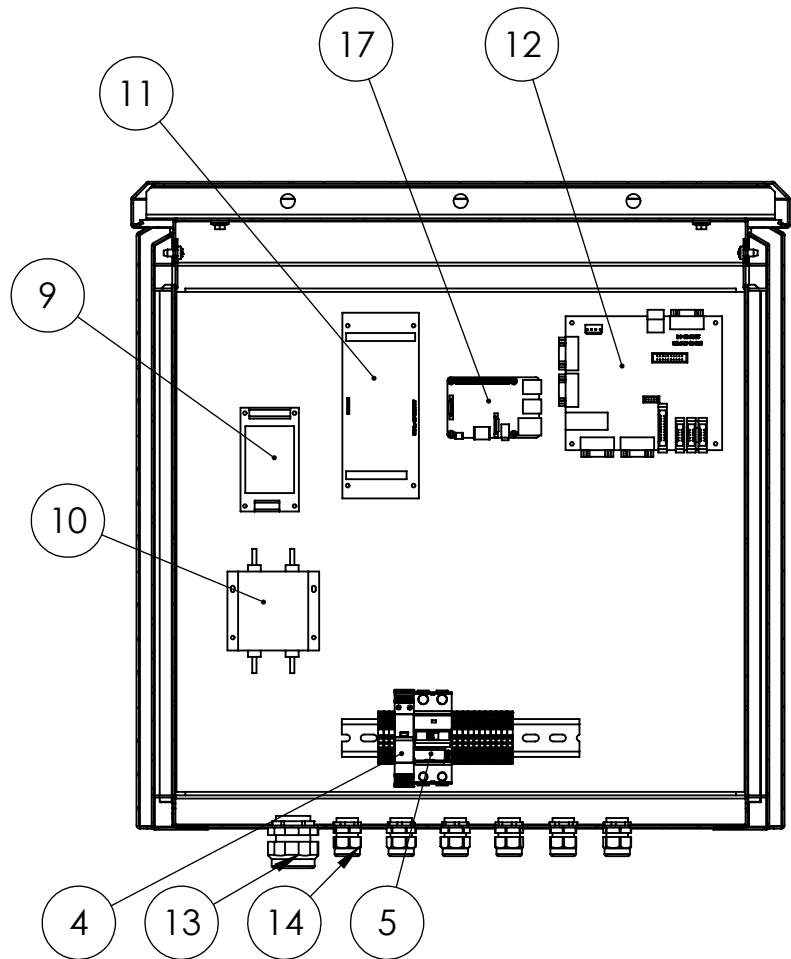
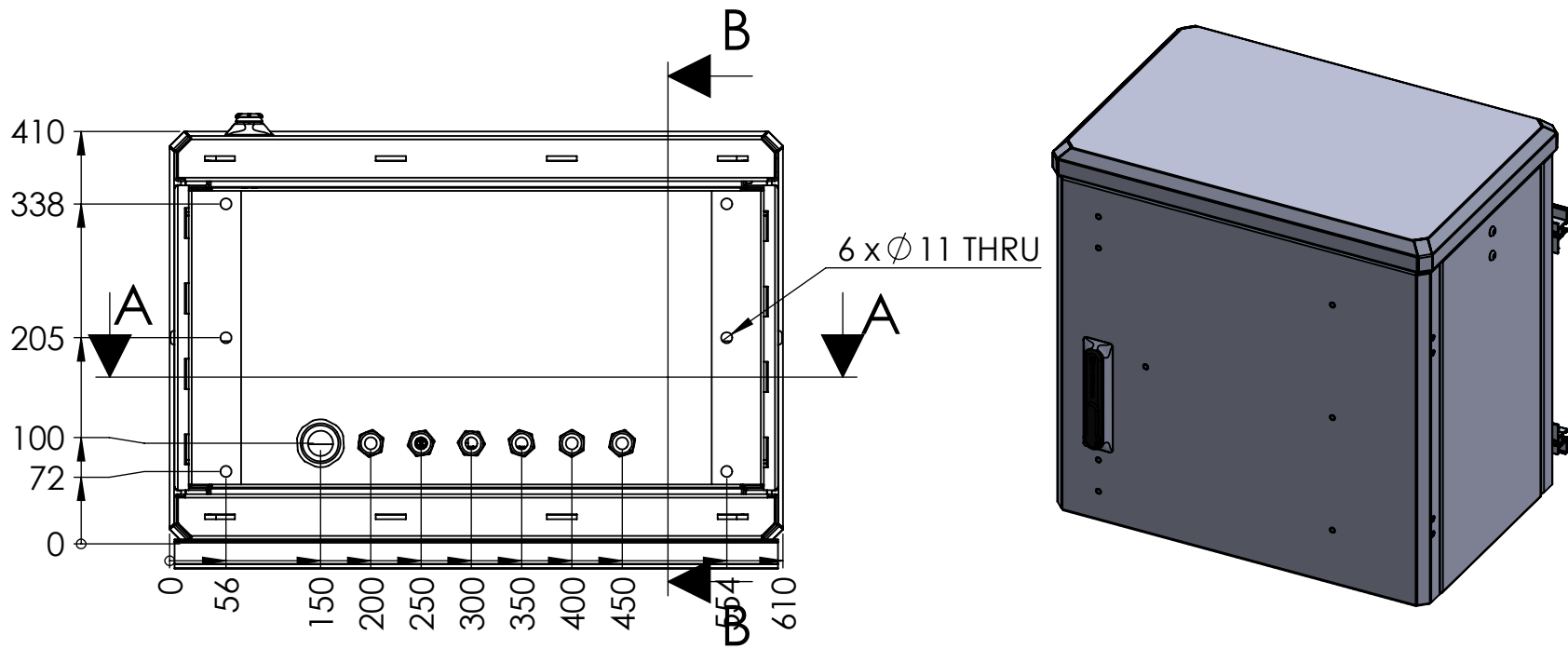
8.2 Mekaniske tegninger

8.2.1 Skilt, 10000453 rev 0

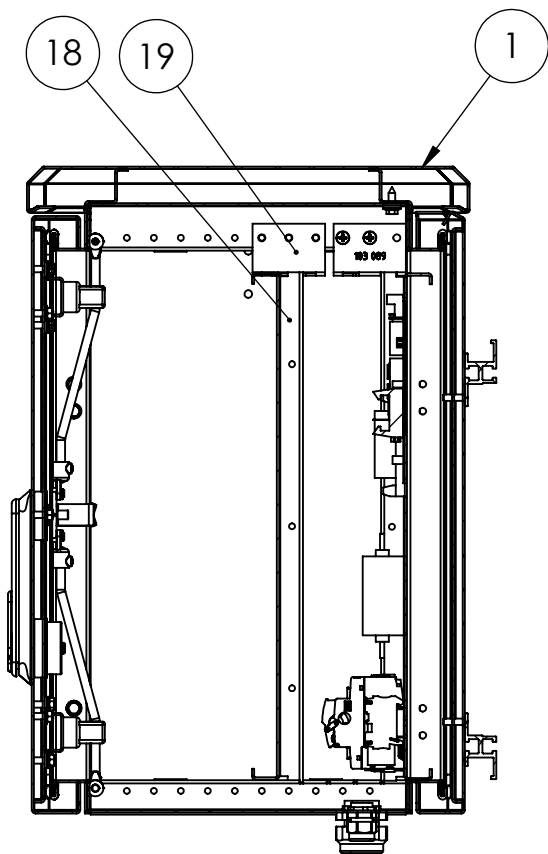


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Geometry from 3D CAD-model is leading unless otherwise stated on the 2D drawing or in the additional specifications document



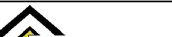
SECTION A-A



SECTION B-B

6		7		8	
Change date	Changed by	Approval date	Approved by	Description of change	Revision

20	2	10000468	Mounting rail for Satema cabinet for mast	0.65
19	2	10000467	Monting plate bracket for Satema 102 500 cabinet	0.0
18	1	10000466	Monting plate for Satema 102 500 cabinet	0.6
17	1	H100116	IST station, Raspberry PI 3B without enclosure	0.0
16	6	H100124	Cable gland lock nut A4 M20	0.0
15	1	H100124	Cable gland lock nut A4 M32	0.0
14	6	H100123	Cable gland M20	0.0
13	1	H100123	Cable gland M32	0.0
12	1	10000429	Sending card, SYS-STM32-05_3.PCB	0.0
11	1	10000441	ES28 rev 4.00 - Galvanic isolation board	0.0
10	1	H100118	Filter EMI, B3LB-6A	0.2
9	1	H100117	Power supply 12v, LH15-10B12	0.1
8	12	H100126	RK PT 2,5 Gr - Phoenix Contact - 3209510	0.0
7	1	H100126	RK PT 2,5 Gn - Phoenix Contact - 3209513	0.0
6	1	H100126	RK PT 2,5 Bu - Phoenix Contact - 3209523	0.0
5	1	H100125	Fuse ABB DS202CM CK16	0.2
4	1	H100128	Surge protection - Phoenix Contact PLT-SEC-T3-230-P-2905235	0.0
3	1	H100127	Surge protection base - Phoenix Contact PLT-SEC-T3-BE-2905557	0.1
2	1	H100014	Rail, DIN TS35c7,5 m/hull L=220mm	0.08
1	1	H100131	Cabinet 600x610x410, Aluminium	22.00
POS	QTY.	Drawing No.	Description	Weight

Drawn date 06.03.2018	Drawn by	Approval date 27.08.2018	Approved by ABL	General Tolerance NS-ISO 2768-1-M	Projection 	Sheet 1 of 1	Scale 1:7		
Material			Surface treatment		Weight 24.91kg	Prod. Groupe 073	Format A3		
Title Cabinet for RGB module sign					Status APPROVED		Drawing no. 10000465		Revision 0
Additional description General cabinet layout					Article no.			Project no.	Document Type Assembly

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8.3 Sertifikater



Statement of Conformity Ingress Protection (IP)

Order No.: 343684

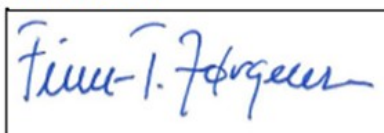
Applicant	Euroskilt AS Reservatveien 8 3118 Tønsberg Norway
Manufacturer	Euroskilt AS avd. Tønsberg Reservatveien 8 3118 Tønsberg Norway
Product	LED VMS cabinet
Models	LED VMS cabinet
Brand Name / Trade mark	
Additional information	Metal enclosure made of aluminum profile system; dimension 900x900x150mm (hxxwxd). Hinged door with three rubber seals in profile and two locking devices prepared for padlock
IP classification	IP56 category 2
The above product is tested according to the following standards	EN 60529 (1991) + A1 (2000) Degree of protection provided by enclosures (IP Code) EN 12966 (2014), IP5X category 2 Road vertical signs Variable message traffic signs

IP56
Cat. 2

Nemko confirms that one sample of the mentioned product has been tested and found to be in conformity with the requirement for the degree of protection as specified above.

This statement gives no right to use Nemko's name or certification mark on the products.

Date 2017-12-12



Tested by: Finn-Tore Jørgensen



Approved by: Espen Eriksen

Nemko Group
Nemko AS, Gaustadalveien 30, P.O. Box 73 Blindern, 0314 Oslo, Norway
TEL +47 22 96 03 30 FAX +47 22 96 05 50 EMAIL info@nemko.com
ENTERPRISE NUMBER NO974404532

Side 1 av 1

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Prosjekt:	E6 Malvik kontrollstasjon	Prosjektnr	681735	Dato	27.08.2018	Rev.	03
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8.3.2 IP Sertifikat VMS Modul



Statement of Conformity Ingress Protection (IP)

Order No.: 343684

Applicant
Euroskilt AS
Reservatveien 8
3118 Tønsberg
Norway

Manufacturer
Euroskilt AS
Reservatveien 8
3118 Tønsberg
Norway

Product
LED VMS module

Models
LED VMS module

**Brand Name /
Trade mark**



Additional Information
Insulating enclosure with LED lenses in front. Backside cover with dual rubber seal and electrical connectors for power in/out and signal in/out.

IP classification
IP66

The above product is tested
according to the following
standards

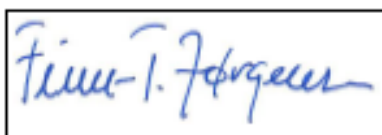
EN 60529 (1991) + A1 (2000)
Degree of protection provided by enclosures (IP Code)

IP66

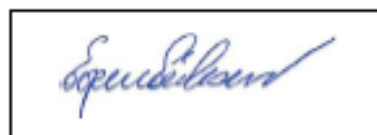
Nemko confirms that one sample of the mentioned product has been tested and found to be in conformity with the requirement for the degree of protection as specified above.

This statement gives no right to use Nemko's name or certification mark on the products.

Date 2017-12-12



Tested by: Finn-Tore Jørgensen



Approved by: Espen Eriksen

Nemko Group
Nemko AS, Gaustadallmen 30, P.O. Box 73 Blindern, 0314 Oslo, Norway
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8.3.3 EMC Sertifikat VMS



Report No. E17198.00

Test Report Electromagnetic Compatibility

Product	Euroskilt Traffic Variable Message Sign, LED RGB		
Name and address of the applicant	Euroskilt AS Reservatveien 8 3118 Tønsberg Norway		
Name and address of the manufacturer	Euroskilt AS Reservatveien 8 3118 Tønsberg Norway		
Model	P20 and P16		
Rating	230V AC 50Hz		
Trademark	-		
Serial number	-		
Additional information	Cl. I		
Tested according to	EN 50293:2012 EN 61000-3-2:2014 EN 61000-3-3:2013		
Order number	335624		
Tested in period	2017-08-24 and 2017-08-25		
Issue date	2017-11-13		
Name and address of the testing laboratory	Nemko Group Nemko AS Gautstadalleen 30, P.O.Box 73 Blindern, 0314 Oslo, Norway TEL: +47 22 96 03 30 FAX: +47 22 96 05 50  		
An accredited technical test executed under the Norwegian accreditation scheme			
 Prepared by [Lam Anh Dung]		 Approved by [Roger Berget]	
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8.3.4 CE Sertifikat VMS



ISTITUTO GIORDANO

CE NOTIFIED BODY No. 0407

CERTIFICATE OF CONSTANCY OF PERFORMANCE

0407-CPR-1350 (IG-228-2017)

In compliance with Regulation 305/2011/EU of the European Parliament and of the Council of 9 March 2011 (the Construction Products Regulation or CPR), this certificate applies to the construction products

VARIABLE MESSAGE TRAFFIC SIGNS

identified as shown overleaf (Annex)
placed on the market by

YAHAM OPTOELECTRONICS CO., LTD.

Bldg A & Bldg D, Yongwei Industrial Park, #118 Yongfu Rd, Fuyong, Bao'an District, Shenzhen, China (PRC)

and produced in the manufacturing plant

Bldg A & Bldg D, Yongwei Industrial Park, #118 Yongfu Rd, Fuyong, Bao'an District, Shenzhen, China (PRC)

This certificate attests that all provisions concerning the assessment and verification of constancy of performance at system 1 and the performances described in Annex ZA of the standard

EN 12966-1:2005 + A1:2009

are applied and that

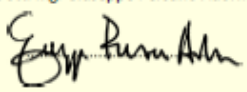
the products fulfil all the prescribed requirements.

This certificate was first issued on 30/10/2017 and will remain valid as long as the harmonised standard remains valid or the manufacturing conditions in the plant or the factory production control itself are not modified significantly.

Bellaria-Igea Marina - Italia, 30/10/2017

Revision No. 0

CPD Department Technical Manager
(Dott. Ing. Giuseppe Persano Adorno)



Chief Executive Officer
(Dott. Arch. Sara Lorenza Giordano)



Firmato digitalmente da SARA LORENZA GIORDANO

The original of this document consists of an electronic document with a digital signature affixed pursuant to DPR (Presidential Decree) 513/97.

Sheet 1 of 2

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