



Beste klant,

In deze catalogus vindt u een overzicht van alle door Bosch Security Systems aangeboden trainingen op onze hoofdlocaties in **Eindhoven** en **Grasbrunn** (Duitsland).

De meeste van de aangeboden trainingen zijn klassikaal van aard. We bieden hier echter ook z.g.n. online trainingen aan. Deze dienen vaak als verplichte voorbereiding op het klassikale gedeelte.

De trainingen in Eindhoven en Grasbrunn overkoepelen een groot aantal Bosch domeinen die u dus ook allemaal tegen komt in de catalogus. Achtereenvolgens zijn dat: Video Systems, Management Systems, Intrusion (Inbraak), Public Access Control, Conference en Fire (Brand).

Dit zijn de symbolen zoals u die zult zien in de catalogus voor de verschillende trainingsvormen:



Klassikale training



Online training (voorbereiding op klassikale training)



Virtuele klassikale training

Virtuele klassikale trainingen worden verzorgd door een senior trainer via een online klaslokaal m.b.v. **Adobe Connect** programmatuur.

Elke pagina bevat een omschrijving van de training tezamen met de leerdoelen, vereiste voorkennis alsmede doelgroepen voor wie de training bestemd is.

Tenzij expliciet vermeld worden alle trainingen in het Engels verzorgd.

Alle online trainingen zijn gratis. Voor de klassikale trainingen geldt de prijs zoals vermeld per student voor de volledige duur van de training. Alle prijzen zijn Netto prijzen.

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## Security

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TRAINING	Months					
	January	February	March	April	May	June
Video Recording Hands-On Workshop - Master Level	28 Eindhoven (EN)	25 Eindhoven (NL)		1 Eindhoven (EN)	13 Eindhoven (NL)	17 Eindhoven (EN)
Video Camera Hands-On Workshop - Master Level	29 Eindhoven (EN)	26 Eindhoven (NL)		2 Eindhoven (EN)	14 Eindhoven (NL)	18 Eindhoven (EN)
Video Analytics Hands-On Workshop - Master Level	30 Eindhoven (EN)	27 Eindhoven (NL)		3 Eindhoven (English)	15 Eindhoven (NL)	19 Eindhoven (EN)
Bosch Video Management Systems Expert	14-16 Eindhoven (EN)	11-13 Eindhoven (NL) 18-20 Grasbrunn (EN)	18-20 Eindhoven (EN) 11-13 Grasbrunn (EN)	15-17 Eindhoven (NL) 8-10 Grasbrunn (EN)	13-15 Grasbrunn (EN)	3-5 Eindhoven (EN)
Bosch Video Management Systems Master	17-18 Eindhoven (EN)	21-22 Grasbrunn (EN)	21-22 Eindhoven (EN) 14-15 Grasbrunn (EN)	11-12 Grasbrunn (EN)	16-17 Grasbrunn (EN)	6-7 Eindhoven (EN)
Bosch Video Management Systems Master SDK - For Integration Engineers				29-30 Grasbrunn (EN)		
Modular Alarm Platform 5000 - Expert Level	29-30 Grasbrunn (EN)				27-28 Grasbrunn (EN)	
Modular Alarm Platform 5000 – Master Level					29 Grasbrunn (EN)	
G-Series Control Panels - Expert Level			26-27 Grasbrunn (EN)			
Access Management System				4-5 Grasbrunn (EN)		6-7 Grasbrunn (EN)
Access Professional Edition						25-26 Grasbrunn (EN)
Bosch Building Integration System - Expert Level		11-15 Grasbrunn (EN)	18-22 Grasbrunn (EN)		20-24 Grasbrunn (EN)	
Bosch Building Integration System - Master Level (PLATFORM)						
Bosch Building Integration System - Master Level (ACE)						
Bosch Public Address PA basics – Professional			25 Eindhoven (EN)	8 Eindhoven (EN) 29 Eindhoven (EN)	20 Eindhoven (EN)	17 Eindhoven (EN) 24 Eindhoven (EN)
Bosch Public Address PAVIRO (nw) - Technical Master			26-28 Eindhoven (EN)			25-27 Eindhoven (EN)
IRIS-Net Technical Expert (GUI Basic)			28-29 Eindhoven (EN)			27-28 Eindhoven (EN)
Praesideo - Technical Master				9-11 Eindhoven (E)		
Praesideo - System Maintenance and Basic Service for Masters				12 Eindhoven (EN)		
Bosch Conference DICENTIS - Technical Master			11-14 Eindhoven (EN)		6-9 Eindhoven (EN)	
PRAESENSA Technical Master				30-2.5 Eindhoven (EN)	21-23 Eindhoven (EN)	18-20 Eindhoven (EN)
Cyber Security for Video Systems		5-6 Eindhoven			7-8 Eindhoven	
Fire Alarm Panel FPA-5000 Technical Training – Expert	31 Eindhoven (NL) 31 Grasbrunn (EN)	1 Eindhoven (NL) 1 Grasbrunn (EN) 28 Eindhoven (NL)	1 Eindhoven (NL) 28-29 Grasbrunn (EN)	4-5 Eindhoven (NL) 1-2 Grasbrunn (DE)	16-17 Eindhoven (NL) 7-8 Grasbrunn (EN)	20-21 Eindhoven (NL)
Fire Alarm Panel FPA-5000 Technical Training - Master		4-5 Grasbrunn (EN)			9-10 Grasbrunn (EN)	3-4 Grasbrunn (DE)

TRAINING	Months					
	July	August	September	October	November	December
Video Recording Hands-On Workshop - Master Level			9 Eindhoven (NL)	7 Eindhoven (EN)	11 Eindhoven (NL)	9 Eindhoven (EN)
Video Camera Hands-On Workshop - Master Level			10 Eindhoven (NL)	8 Eindhoven (EN)	12 Eindhoven (NL)	10 Eindhoven (EN)
Video Analytics Hands-On Workshop - Master Level			11 Eindhoven (NL)	9 Eindhoven (EN)	13 Eindhoven (NL)	11 Eindhoven (EN)
Bosch Video Management Systems Expert	15-17 Grasbrunn (EN)	26-28 Eindhoven (NL)	23-25 Eindhoven(EN) 9-11 Grasbrunn (EN)	28-30 Eindhoven (NL) 7-9 Grassbrun (EN)	25-27 Eindhoven (EN)	2-4 Grasbrunn (EN)
Bosch Video Management Systems Master	18-19 Grasbrunn (EN)		26-27 Eindhoven (EN) 12-13 Grasbrunn (EN)	10-11 Grasbrunn (EN)	28-29 Eindhoven (EN)	5-6 Grasbrunn (EN)
Bosch Video Management Systems Master SDK - For Integration Engineers				29-30 Grasbrunn (EN)		
Modular Alarm Platform 5000 - Expert Level	1-2 Grasbrunn (EN)				25-26 Grasbrunn (EN)	
Modular Alarm Platform 5000 – Master Level	3 Grasbrunn (EN)				27 Grasbrunn (EN)	
G-Series Control Panels - Expert Level					18-19 Grasbrunn	
Access Management System			16-17 Grasbrunn (EN)			
Access Professional Edition						
Bosch Building Integration System - Expert Level	8-12 Grasbrunn (EN)			14-18 Grasbrunn (EN)		9-13 Grasbrunn (EN)
Bosch Building Integration System - Master Level (PLATFORM)					21-22 Grasbrunn En	
Bosch Building Integration System - Master Level (ACE)	22-24 Grasbrunn (EN)				11-13 Grasbrunn (EN)	
Bosch Public Address PA basics – Professional	15 Eindhoven (EN)	26 Eindhoven (EN)	9 Eindhoven (EN)	21 & 28 Eindhoven EN		9 Eindhoven (EN)
Bosch Public Address PAVIRO (nw) - Technical Master				22-24 Eindhoven (EN)		
IRIS-Net Technical Expert (GUI Basic)				24-25 Eindhoven (EN)		
Praesideo - Technical Master		27-29 Eindhoven (EN)				
Praesideo - System Maintenance and Basic Service for Masters		30 Eindhoven (EN)				
Bosch Conference DICENTIS - Technical Master	1-4 Eindhoven (EN)		2-5 Eindhoven (EN)		25-28 Eindhoven (EN)	
PRAESENSA Technical Master	16-18 Eindhoven (EN)		10-12 Eindhoven (EN)	29-31 Eindhoven (EN)		10-12 Eindhoven (EN)
Cyber Security for Video Systems			3-4 Eindhoven			3-4 Eindhoven
Fire Alarm Panel FPA-5000 Technical Training – Expert	4-5 Grasbrunn (EN)		12-13 Eindhoven (NL) 3-4 Grasbrunn (EN)	10-11 Eindhoven (NL) 24-25 Grasbrunn (DE)	14-15 Eindhoven (NL) 28-29 Grasbrunn (EN)	12-13 Eindhoven (NL)
Fire Alarm Panel FPA-5000 Technical Training - Master			5-6 Grasbrunn (EN)			

## Boeking informatie:

### Hoe boek ik een training:

Om een training te kunnen boeken dient u naar de “**Bosch Security and Safety academy**” website te gaan, een training te selecteren en te klikken op de knop **Registration**. Om daar te geraken moet u echter wel een geldig account hebben. Als u dat al heeft, kunt u inloggen en krijgt u automatisch toegang tot alle aangeboden trainingen. Indien u nog geen account heeft, kunt u zich via dezelfde website aanmelden.

### Hoe aan te melden voor de Bosch Security & Safety Academy:

Het adres van de Bosch Security & Safety Academy is  
<https://academy.globalteach.com/ST/Login.aspx>

Op de pagina vindt u de link “**Create an account**”

Deze link stuurt u naar de pagina “**Self Registration**” voor nieuwe gebruikers

Voltooi de registratie door alle verplichte velden in te vullen.

Hou er rekening mee dat toegang pas verleent wordt binnen 48 uur na registratie

Username

Password

Login

**Forgotten Your Password?**  
If you have forgotten your password you can request a new one.  
-> Request password

**Don't have an account?**  
If you don't have a personal user account, please create your own user account here.  
-> Create an account

### Verdere vragen:

Mocht u nog vragen hebben m.b.t ons trainingsaanbod of problemen met de account in de Bosch Security & Safety aarzel dan niet om contact met ons op te nemen via:

[training.emea@de.bosch.com](mailto:training.emea@de.bosch.com)



## Certificatie:

Zowel de online als de klassikale trainingen leveren na het succesvol afronden ervan een certificaat op. Deze certificaten zijn vaak een vereiste om door te kunnen naar het volgende niveau in het trainingsplan.

Alle door de cursisten behaalde certificaten, kunnen worden terug gevonden op een centrale plek op de Academy website. Deze certificaten zijn beschikbaar in PDF formaat en kunnen dus worden gedownload en afgedrukt.

You are here: [My profile](#) > [Show certificates](#)

- ▶ [Change password](#)
- ▶ [Modify user profile](#)
- ▶ [Show skills](#)
- ▶ [Show certificates](#)
- ▶ [Training plan registrations](#)
- ▶ [Course registrations](#)
- ▶ [Virtual course registrations](#)

De plek waar ze terug te vinden zijn is onder de tab ‘**my profile**’ boven in het scherm. Vervolgens ziet de gebruiker dan zijn of haar profiel met naam- en bedrijfsgegevens en tevens taalinstellingen.

Aan de linkerkant staan een aantal links waaronder “**Show certificates**”. Dit is de plek waar alle persoonlijk behaalde certificaten zijn terug te vinden en kunnen worden gedownload.

U investeert een hoop tijd en inspanning in het kwalificeren van uzelf en wij vinden dan ook dat uw partners en klanten dat mogen weten.

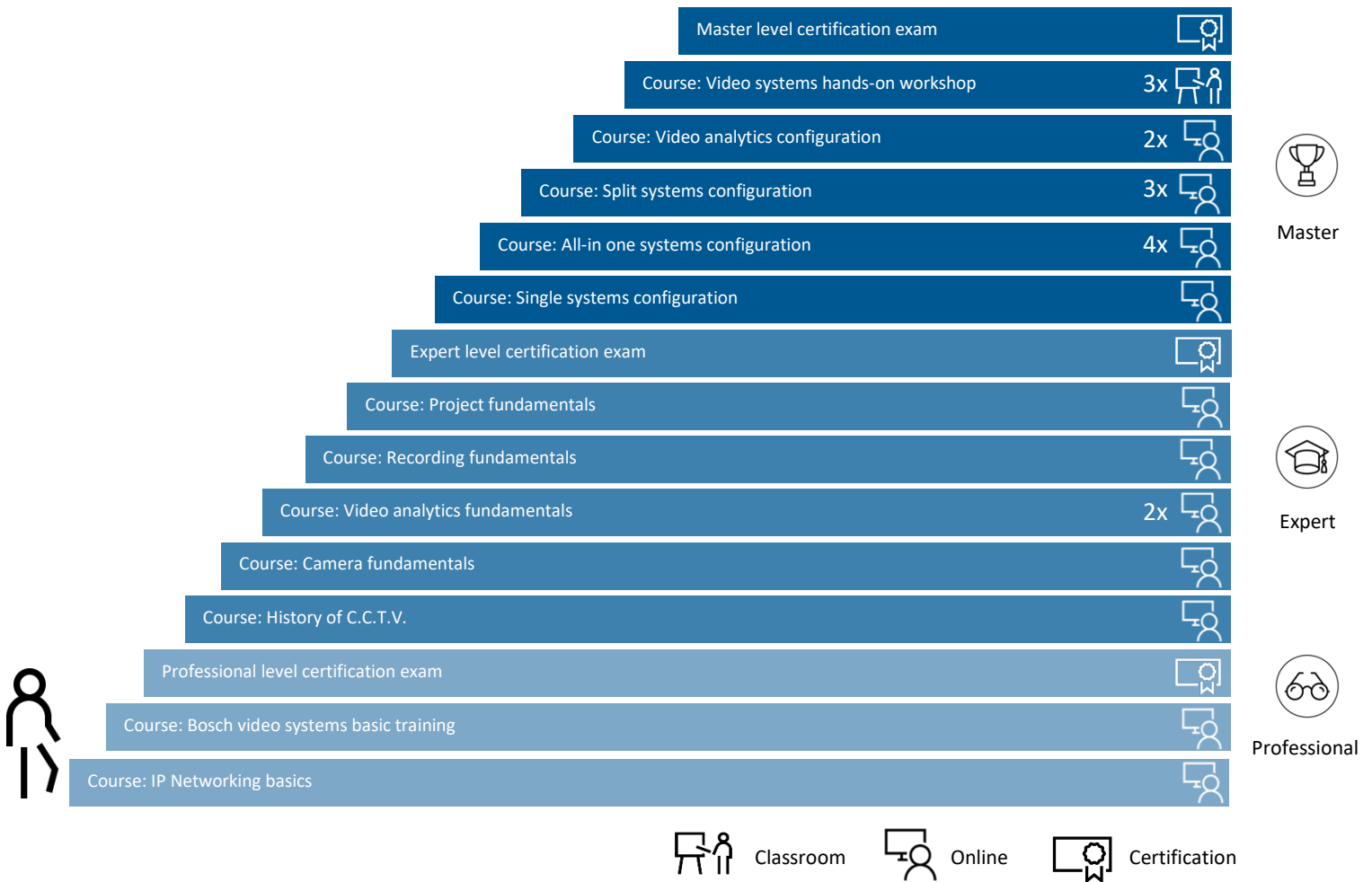
Hoe meer je leert, hoe hoger de kwalificatie is die je bereikt: Alle certificaten volgen de stappen van **professional** naar **expert** en tenslotte naar het hoogste niveau **master**.



*“The more you learn, the higher the qualification you earn”*



# Video Systems Overview



The learning path is also available in the Bosch Security & Safety Academy. You only need to click on the certification symbol and you will be routed directly to the correct learning path

The following languages\* are supported by Video Systems:

EN, DE, F, ES, IT, POR, RU

\*Subject to availability (Phased approach)



## Security

### Bosch Video Systems Professional – Training Plan (Online)

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<b>Short description</b>	<p>The Bosch Video Systems Professional Online Training Plan consists of <b>2 Online Trainings</b>.</p> <p>In the "Bosch Video Systems Professional Training" the customer will receive an overview of the Bosch world in general and will be provided with the basic information concerning the Bosch Video Systems technologies.</p>
<b>Content</b>	<p>The modules and topics that will be featured within these trainings are:</p> <ul style="list-style-type: none"><li>• IP-Networking basics (Online Training see page <a href="#">12</a>)</li><li>• Bosch Video Systems Basic Training<ul style="list-style-type: none"><li>• Introduction to the Bosch group</li><li>• Bosch Key Technologies</li><li>• Bosch IP Product Portfolio</li><li>• Intelligent Video Analytics</li><li>• Bosch Integration Partner Program (IPP)</li></ul></li></ul>
<b>Learning targets</b>	<p>By successfully completing this training the customer should:</p> <ul style="list-style-type: none"><li>• Learn about basic information concerning the Bosch Video Systems</li></ul>
<b>Prerequisites</b>	<ul style="list-style-type: none"><li>• None</li></ul>
<b>Target groups</b>	<p>Recommended for:</p> <ul style="list-style-type: none"><li>• System Integrators, Administrators and Installers</li><li>• Project Engineers &amp; Sales Support Engineer</li><li>• Sales and Pre-Sales</li><li>• System Design</li></ul>

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## Security

### IP Networking basics (Online Training)



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<b>Short description</b>	<p>Understanding basic networking functions and concepts. IPv4 addressing, data protocols, transmission methods and an overview of the Open System Interconnection (OSI) model.</p> <p>It will take you approximately 90 minutes to complete this course.</p> <p>This course is available in the following languages: English / Russian / Chinese / German / French / Spanish</p>
<b>Content</b>	<ol style="list-style-type: none"><li>1. Network Overview<ul style="list-style-type: none"><li>• What is IP?</li><li>• What is a Network?</li><li>• Local Area Network and Wide Area Network</li><li>• Hardware</li><li>• Network Cables</li></ul></li><li>2. IP Addressing Basics<ul style="list-style-type: none"><li>• Anatomy of an IPv4 Address</li><li>• IPv4 Address Classes</li><li>• IPv4 Address Structure</li><li>• IPv4 Address Types</li><li>• Subnet</li></ul></li><li>3. Data Protocols and Data Transmission<ul style="list-style-type: none"><li>• OSI Model</li><li>• Data Transmission Methods</li><li>• Data Protocols</li></ul></li></ol>
<b>Learning targets</b>	<p>By the end of this training the customer should be able to:</p> <ul style="list-style-type: none"><li>• Have a better understanding of the way basic networking Functions.</li><li>• Understand about the various types of cabling used in networks.</li><li>• Understand what network equipment is used and what type of connectivity each can provide.</li><li>• Give first recommendations on basic networking functionality and support in smaller network environments.</li></ul>
<b>Prerequisites</b>	No Prerequisites
<b>Target groups</b>	This WBT is intended for all associates who are integrating products in an IT network or who are offering support for customers.

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## Security



### Bosch Video Systems Expert - Training Plan (Online)

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<b>Short description</b>	<p>The Bosch Video Systems Expert Online Training Plan consists of <b>4 Online Trainings</b>.</p> <p>The training plan will describe the different elements of a cameras, IP recording and video analytics that need to be taken into consideration when you start <b>designing a video system solution</b></p>
<b>Content</b>	<p>The modules and topics that will be featured within these trainings are: Bosch Video Systems Introduction to the Expert Training</p> <ul style="list-style-type: none"><li>• History of C.C.T.V</li><li>• Camera fundamentals (module 1)<ul style="list-style-type: none"><li>• Lens and Back focus</li><li>• Light and Illumination</li><li>• Field of view</li><li>• Encoding</li><li>• Technologies</li><li>• CPP</li></ul></li><li>• Recording fundamentals (module 2)<ul style="list-style-type: none"><li>• Recording designs</li><li>• Compression</li><li>• Bandwidth</li><li>• Recording modes</li><li>• Retention times</li><li>• iSCSI</li><li>• RAID</li><li>• NVR-VRM recordings</li></ul></li><li>• Project Design fundamentals (module 3)</li><li>• Video Analytics fundamentals (module 4)<ul style="list-style-type: none"><li>• Understand how video analytics works</li><li>• Designing a solution</li></ul></li></ul>
<b>Learning targets</b>	<p>By successfully completing this training the customer should be able to:</p> <ul style="list-style-type: none"><li>• Understand the elements of a video solution</li><li>• Design a video solution based on the Bosch portfolio</li><li>• Understand the basic rules to be able to implement video analytics</li></ul>
<b>Prerequisites</b>	<ul style="list-style-type: none"><li>• <b>Successful completion of Bosch Video Systems Professional</b></li></ul>
<b>Target groups</b>	<p>Recommended for:</p> <ul style="list-style-type: none"><li>• System Engineers and Installers</li><li>• Project Engineers &amp; Sales Support Engineers</li><li>• Pre-Sales</li><li>• System Design</li></ul>

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## Security

### Bosch Video Systems Master - Training Plan



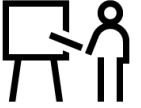
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<b>Short description</b>	<p>An online training plan featuring <b>2 Online Trainings</b> and <b>3 Classroom Trainings</b></p> <p>The training plan will cover the <b>installation and configuration</b> of the camera, recording and Video analytics solutions of Bosch.</p>
<b>Content</b>	<p>The modules and topics that will be featured within these trainings are:</p> <ul style="list-style-type: none"><li>• Single System Configuration</li><li>• All in one systems configuration<ul style="list-style-type: none"><li>▪ All in one systems configuration introduction</li><li>▪ DIVAR IP 5000 installation / configuration</li><li>▪ DIVAR IP 3000 installation / configuration</li><li>▪ DIVAR Hybrid and DIVAR Network installation / configuration</li></ul></li><li>• Split Systems Configuration<ul style="list-style-type: none"><li>▪ Split Systems Configuration Introduction</li><li>▪ Split Systems Configuration with BVC</li><li>▪ Split Systems Configuration with BVMS Viewer</li></ul></li><li>• Video Analytics Configuration<ul style="list-style-type: none"><li>▪ Video Analytics installation / configuration</li><li>▪ Video Analytics fine tuning</li></ul></li><li>• Recorder Configuration Workshop (Classroom Training 1)<ul style="list-style-type: none"><li>▪ See Page 15</li></ul></li><li>• Camera Configuration Workshop (Classroom Training 2)<ul style="list-style-type: none"><li>▪ See Page 16</li></ul></li><li>• Video Analytics Configuration Workshop (Classroom Training 3)<ul style="list-style-type: none"><li>▪ See Page 17</li></ul></li></ul>
<b>Learning targets</b>	<p>By successfully completing this training the customer should be able to:</p> <ul style="list-style-type: none"><li>• Install &amp; configure a Bosch Video solution</li></ul>
<b>Prerequisites</b>	<ul style="list-style-type: none"><li>• <b>Successful completion of Bosch Video Systems Expert</b></li></ul>
<b>Target groups</b>	<p>Recommended for:</p> <ul style="list-style-type: none"><li>• System Engineers and Installers</li><li>• Sales Support Engineer</li></ul>

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## Security

### Recorder Configuration Workshop

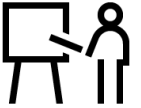


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<b>Short description</b>	<p>This classroom training is part of the <b>Bosch Video Systems Training plan Master</b>. It will cover the installation and configuration of different recording types:</p> <ul style="list-style-type: none"><li>• Local (SD) recording</li><li>• DIP 2000/5000/6000 VRM based recording</li><li>• DIP 3000/7000 BVMS based recording</li></ul> <p>Divar Network 3000/5000 recording (optional)</p>
<b>Content</b>	<ul style="list-style-type: none"><li>• Local recording by Online settings</li><li>• DIP 2000/5000 by wizard and web based configuration</li><li>• DIP 3000 by wizard and Config Client basic configuration</li></ul> <p>Divar Network by local and web based configuration (optional)</p>
<b>Learning targets</b>	<p>By successfully completing this workshop the customer should be able to:</p> <ul style="list-style-type: none"><li>• Select the proper recording type for each specific application</li><li>• Apply the different recording types according to the needs of the customer</li></ul> <p>Understand the difference between Continuous or Alarm based recordings</p>
<b>Prerequisites</b>	<p><b>Certificate: Bosch Video Systems Expert</b></p> <p>Online Trainings from <b>Bosch Video Systems Master Training plan</b> (see page <a href="#">14</a>)</p>
<b>Target groups</b>	<p>Recommended for:</p> <ul style="list-style-type: none"><li>• System Engineers and Installers</li><li>• Sales Support Engineer</li></ul>
<b>Commercial Information:</b>	<p>CTN number:</p> <ul style="list-style-type: none"><li>• Eindhoven: TRA-IPREC-CM</li></ul> <p>Price: €300 per training per person (Net price before VAT)</p>

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## Security



### Camera Configuration Workshop

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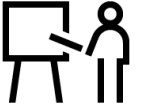
<b>Short description</b>	<p>This classroom training is part of the <b>Bosch Video Systems Training plan Master</b>.</p> <p>The workshop will cover the installation and configuration of the main cameras:</p> <ul style="list-style-type: none"><li>• Autodome IP</li><li>• Dinion Starlight</li><li>• Flexidome Starlight</li><li>• Flexidome Panoramic</li></ul>
<b>Content</b>	<ul style="list-style-type: none"><li>• General Settings</li><li>• Advanced Settings</li><li>• Interfaces Configuration</li><li>• Network Settings</li><li>• Service / Maintenance Settings</li></ul>
<b>Learning targets</b>	<p>By successfully completing this workshop the customer should be able to:</p> <ul style="list-style-type: none"><li>• Install by mounting and assembling each different camera type</li><li>• Understand how to configure the different camera settings</li><li>• Troubleshoot camera problems</li><li>• Get access to the camera from different client type</li></ul>
<b>Prerequisites</b>	<b>Certificate: Bosch Video Systems Experts</b>
<b>Target groups</b>	<p>Recommended for:</p> <ul style="list-style-type: none"><li>• System Engineers and Installers</li><li>• Sales Support Engineer</li></ul>
<b>Commercial Information:</b>	<p>CTN number:</p> <ul style="list-style-type: none"><li>• Eindhoven: TRA-IPCAM-CM</li></ul> <p>Price: €300 per training per person (Net price before VAT)</p>

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## Security

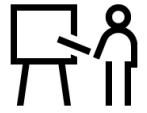
### Video Analytics Configuration Workshop



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<b>Short description</b>	<p>This class room training is part of the <b>Bosch Video Systems Training plan Master</b>. It will cover the two 2 different Video Analytics types with hands-on exercises:</p> <ul style="list-style-type: none"><li>• Essential Video Analytics</li><li>• Intelligent Video Analytics</li></ul>
<b>Content</b>	<p>Set up, configure and test both Video Analytics types with different camera types (Box, Dome, PTZ and Panoramic) with the following configuration options:</p> <ul style="list-style-type: none"><li>• Task generation</li><li>• Camera calibration</li><li>• Tracking modes</li><li>• Face detection</li><li>• Counter flow</li><li>• Tamper detection</li><li>• Recording meta data</li><li>• Forensic search</li></ul>
<b>Learning targets</b>	<p>Upon successful completion of this training the student will be able to:</p> <ul style="list-style-type: none"><li>• Understand the differences between EVA and IVA</li><li>• Configure the proper task for each alarm type</li><li>• Calibrate the camera for the best alarm results</li><li>• Select the tracking mode that fits the application</li><li>• Configure special analytic types as flow control and face detection</li><li>• Set up recording of meta data and perform forensic search</li></ul>
<b>Prerequisites</b>	<p><b>Certificate: Bosch Video Systems Expert</b> Two Online Trainings from <b>Bosch Video Systems Master Training Plan</b> (see page <a href="#">14</a>)</p>
<b>Target groups</b>	<p>Recommended for:</p> <ul style="list-style-type: none"><li>• System Engineers and Installers</li><li>• Sales Support Engineer</li></ul>
<b>Commercial Information:</b>	<p>CTN number:<ul style="list-style-type: none"><li>• Eindhoven: TRA-VIDANA-CM</li></ul>Price: €300 per training per person (Net price before VAT)</p>

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## Security

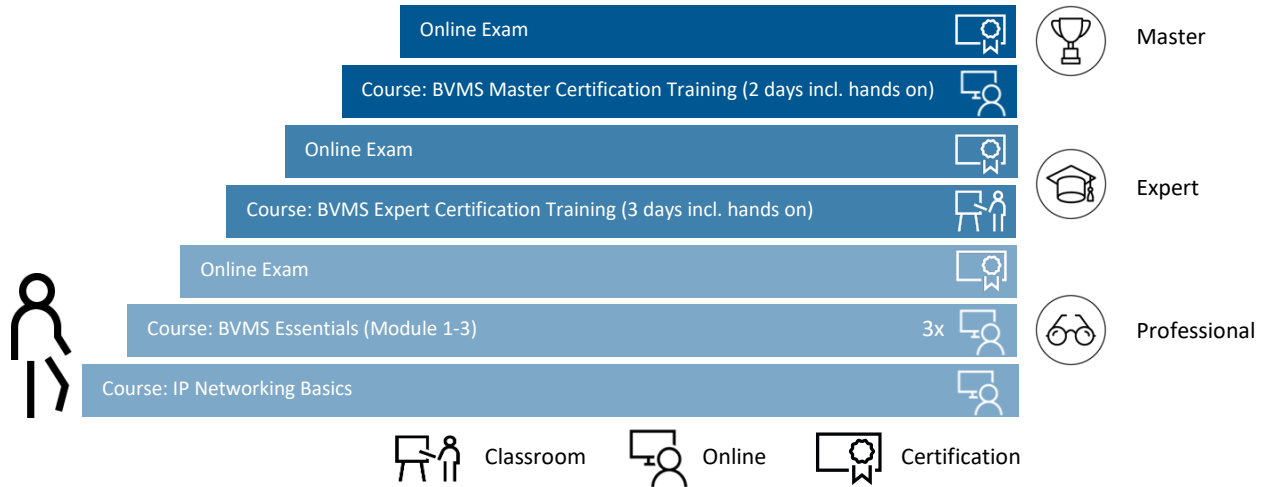
### Cyber Security for Video Systems

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<b>Short description</b>	<p>This course introduces students to several aspects cyber security and how they pertain to IP video systems today. Students will learn to analyze possible threats as well as how to lock down and reduce the attack of their IP video system. Emphasis given to the legal aspects of vulnerability analysis as well as handling of evidentiary material.</p>
	<p>This course requires a minimum of 2 students for the course to take place.</p>
<b>Content</b>	<ul style="list-style-type: none"><li>• State of Cyber Security and Cyber Warfare today</li><li>• Incident Response Procedures and Law Enforcement Digital Evidence and IP Video</li><li>• Vulnerability analysis vs Pen Testing Tools used and practical application Nexpose and NMAP Labs LINUX Based cameras vs Closed OS (BOSCH)</li><li>• Wireshark and validation testing</li><li>• Hashing and Encryption Lab</li><li>• IP Camera Hardening Procedures</li><li>• Storage Harding and Lock Down Procedures</li><li>• Working with Certificates</li><li>• Bosch Built In Firewalls</li><li>• Working with Servers Standalone and Domain</li></ul>
<b>Learning targets</b>	<p>To be able to predict, analyze and troubleshoot possible threats with Bosch product.</p>
<b>Prerequisites</b>	<ul style="list-style-type: none"><li>• Networking Basics online completion and a working knowledge of Bosch Video Systems basics</li><li>• Complete the professional and expert level of the Cyber Security training plan.</li></ul>
<b>Target groups</b>	<p>Technicians, Project Managers and IT Professionals</p>
<b>Duration</b>	<p>2 days</p>
<b>Commercial Information:</b>	<p>Location wise CTN numbers:</p> <ul style="list-style-type: none"><li>• Eindhoven: TRA-CYDASE-VM</li></ul> <p>Price: €300 per training per person (Net price before VAT)</p>

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# BVMS OVERVIEW - Training for Technical Engineers



The learning path is also available in the Bosch Security & Safety Academy. You only need to click on the certification symbol and you will be routed directly to the correct learning path

The following languages\* are supported by BVMS:

Expert level: EN, RU, ZH, FR, ES, PT, PL

Master level: EN.

\*Subject to availability (Phased approach)

## Security

### Bosch Video Management System (BVMS) – Professional Level Online Training Plan: Technical Focus



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<b>Short description</b>	<p>When completing this Training Plan you will be able to register for an Expert Level classroom Training offered in different countries across the globe.</p> <p>It includes Online Training Modules in order to gain essential knowledge about BVMS and the related environment.</p> <p>Completing this Professional Level Training Plan is the prerequisite to continue with the Expert Level Training plan including classroom based trainings.</p> <p>Please register to the Training Plan and open it afterwards in order to see the assigned individual Online Training offering.</p>
<b>Content</b>	<p>The modules and topics that will be featured within these trainings are:</p> <ul style="list-style-type: none"><li>• IP-Networking basics (Online Training)</li><li>• Module 1: Main System components and building blocks</li><li>• Module 2: Basic interaction between system components</li><li>• Module 3: Additional system components</li><li>• Online Exam in order to reach the BVMS Professional Level Certificate</li></ul>
<b>Learning targets</b>	<p>By successfully completing this training the customer should be able to:</p> <ul style="list-style-type: none"><li>• Understand the basic functionality of the main BVMS system components</li><li>• Understand the basic interaction between the main BVMS components</li><li>• Understand the basic functionality of the additional BVMS system components</li></ul>
<b>Prerequisites</b>	<ul style="list-style-type: none"><li>• None</li></ul>
<b>Target groups</b>	<p>Recommended for:</p> <ul style="list-style-type: none"><li>• System Engineers, Administrators and Installers</li></ul>

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## Security

### Bosch Video Management System (BVMS)



#### – Expert Level Classroom Training Plan: Technical Focus

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##### Short description

This Training Plan offers a collection of classroom based training courses. Please register to the Training Plan and open it afterwards in order to see the individual classroom lesson offered. Registration to this Training Plan is always possible, there is no prerequisite. However, registering to the classroom training which is offered inside this Training Plan requires the successful completion of the BVMS Professional level Training plan including the Professional Level Exam. A pass rate of 75% of the BVMS Professional Level Exam is required in order to register for the Expert Level classroom training.

When completing this Training Plan you will be able to reach the Expert Level Certificate for the Bosch VMS.

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##### Content

The modules and topics that will be covered in this training are:

- BVMS technical overview and main components (MS, VRM, Operator and Configuration Client)
- Installation, time synchronization of system components and license activation
- Configuration client: Overview, initial device configuration (cameras, monitor walls and other devices)
- Configuration client: Logical tree, schedules, streams and configuration of recording
- Configuration Client: Events and alarm handling, user groups and permissions
- Video Recording Manager (VRM) fundamentals and detailed configuration
- Overview of Bosch iSCSI storage arrays in Bosch VMS environment
- Usage of Operator Client features in detail
- System design overview: Requirements, licensing options, scalability, resilience and storage estimation
- Operation and maintenance: Recording, monitoring, system backup and configuration collector

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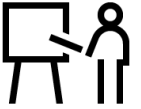
##### Learning targets

By successfully completing this training the customer should be able to:

- Explain the functionality of the main BOSCH VMS components (Management Server, Video Recording Manager, Operator Client, Configuration Client)
  - Install, configure and operate the Bosch VMS with the Configuration Client and Operator Client
  - Understand the Video Recording Manager fundamentals and configure main VRM features
  - Name the Bosch iSCSI storage arrays and explain the main characteristics and selection criteria in Bosch VMS environment
-

	<ul style="list-style-type: none"> <li>• Understand the principles of how to do system design and storage estimate</li> <li>• Execute some basic operation and maintenance tasks</li> </ul>
<b>Prerequisites</b>	<ul style="list-style-type: none"> <li>• Successful completion of the BVMS Professional Level training plan and exam (A passing rate of 75% of the BVMS Professional Level Exam is required in order to register for an Expert Level Classroom Training.)</li> </ul>
<b>Target groups</b>	<p>Recommended for:</p> <ul style="list-style-type: none"> <li>• System Engineers, Administrators and Installers who frequently work with BVMS (hands on)</li> <li>• Project Engineers, Sales Support Engineer &amp; System Architects who want to gain practical (hands on) experience with BVMS</li> </ul>
<b>Training Duration</b>	3 Days
<b>Commercial Information:</b>	<p>Location wise CTN numbers:</p> <ul style="list-style-type: none"> <li>• Grasbrunn: TRA-BVMS-EE</li> <li>• Eindhoven: TRA-BVMS-CE</li> </ul> <p>Price: €1200 per training per person (Net price before VAT)</p>

## Security



### Bosch Video Management System (BVMS)

#### – Master Level Classroom Training Plan: Technical Focus

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<b>Short description</b>	Please register to the Training Plan and open it afterwards in order to see the assigned individual classroom lesson offerings.
<b>Content</b>	<p>The modules and topics that will be covered in this training are:</p> <ul style="list-style-type: none"><li>• Additional components of BVMS (Video Streaming Gateway, Mobile Video Service, Enterprise Management Server)</li><li>• Introduction to advanced functions and how to configure them:<ul style="list-style-type: none"><li>• Integration of third party cameras: ONVIF, RTSP, MJPEG</li><li>• VRM deployment options: Duplicate (duplicate) and failover</li><li>• Large or distributed employment options: Enterprise System, live and play sites</li><li>• Remote access settings</li><li>• LDAP, SNMP</li><li>• Introduction to scripting (BVMS SDK)</li><li>• Automatic network replenishment (ANR)</li><li>• Advanced operation and maintenance: recording supervision, basic troubleshooting</li><li>• Other topics: Introduction to server virtualisation options (HyperV and VMWare) and Bosch VMS scripting options</li></ul></li></ul>
<b>Learning targets</b>	<p>By successfully completing this training the customer should be able to:</p> <ul style="list-style-type: none"><li>• Explain the functionality of the Bosch VMS additional components: Video Streaming Gateway, Mobile Video Service, Enterprise Management Software,</li><li>• Understand and configure advanced Bosch VMS features and deployment options;<ul style="list-style-type: none"><li>• 3<sup>rd</sup> Party Camera Integration: ONVIF, RTSP, MJPEG</li><li>• VRM deployment options: Dual (mirrored) and failover recording</li><li>• Large or distributed deployment options: Enterprise System, live and playback sites</li></ul></li><li>• Understand Remote access configuration;<ul style="list-style-type: none"><li>• Simple Network Management Protocol (SNMP)</li><li>• Automatic Network Replenishment (ANR)</li><li>• Operation and Maintenance: Recording monitoring, basic trouble shooting</li></ul></li><li>• Understand the purpose of the following topics in relation to Bosch VMS:<ul style="list-style-type: none"><li>• Server virtualization options (HyperV and VMware)</li><li>• Scripting (BVMS SDKs)</li></ul></li></ul>
<b>Prerequisites</b>	<ul style="list-style-type: none"><li>• Pass the BVMS Professional Level Exam</li><li>• Pass the BVMS Expert Level Exam</li></ul>

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- Attendance of both Master classroom training days
- 

**Target groups**

Recommended for:

- System Engineers, Administrators and Installers who frequently work with BVMS (hands on)
  - Project Engineers, Sales Support Engineer & System Architects who want to gain practical (hands on) experience with BVMS
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**Training Duration**

2 Days

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**Commercial Information:**

Location wise CTN numbers:

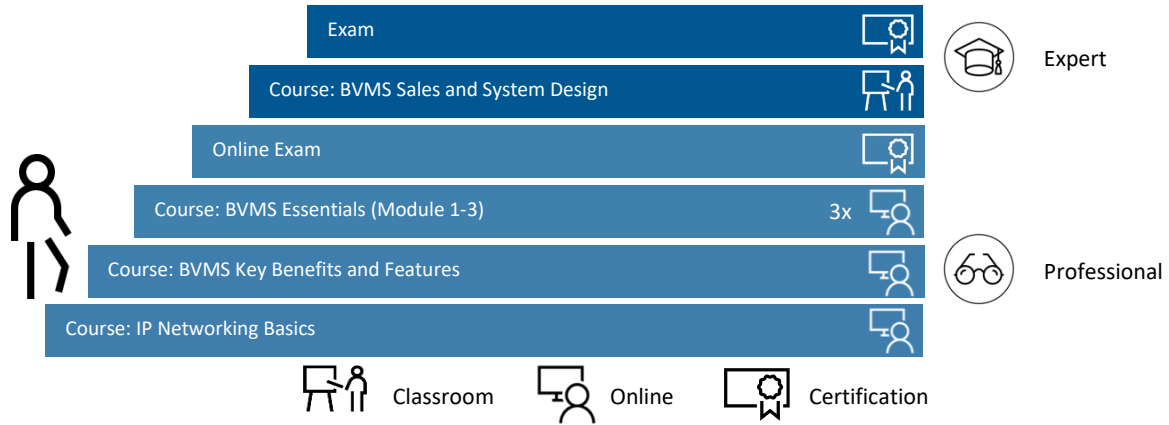
- Grasbrunn: TRA-BVMS-EM
- Eindhoven: TRA-BVMS-CM

Price: €800 per training per person (Net price before VAT)

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# Security

## BVMS - Sales/Pre-Sales/Design



The learning path is also available in the Bosch Security & Safety Academy. You only need to click on the certification symbol and you will be routed directly to the correct learning path

## Security

### Bosch Video Management System Professional Level “Online” Training Plan: Sales/Pre-Sales/Design focus



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<b>Short description</b>	<p>When completing this Training Plan you will be able to register for a Sales/Pre-Sales/Design oriented Expert Level virtual classroom training offered from Bosch Security Systems in English.</p> <p>This Training Plan includes Online Training Modules in order to gain essential knowledge about BVMS and the related environment. In addition the 6 BVMS Key Benefits and the related features are presented.</p> <p>Please register to the Training Plan and open it afterwards in order to see the assigned individual Online Training offering.</p> <p>Registration to the Training Plan is for free (no cost).</p>
<b>Content</b>	<p>The modules and topics that will be covered in this training are:</p> <ul style="list-style-type: none"><li>• 01 IP-Networking basics (Online Training)</li><li>• 02 BVMS Key Benefits and Features (Online Training including audio)</li><li>• 03 BVMS Essentials Module 1: Main system components and building blocks (Online Training including audio)</li><li>• 04 BVMS Essentials Module 2: Basic interaction between system components (Online Training including audio)</li><li>• 05 BVMS Essentials Module 3: Additional system components (Online Training including audio)</li><li>• 06 Professional Level Exam</li></ul>
<b>Learning targets</b>	<p>By successfully completing this training the customer should be able to:</p> <ul style="list-style-type: none"><li>• Understand the basic functionality of the main BVMS System components</li><li>• Understand the basic interaction between the main BVMS components</li><li>• Understand the basic functionality of the additional system components</li></ul>
<b>Prerequisites</b>	<ul style="list-style-type: none"><li>• None</li></ul>
<b>Target groups</b>	<p>Recommended for:</p> <ul style="list-style-type: none"><li>• Sales/Commercial/Pre-sales/Design oriented experts</li><li>• Project Managers, Architects &amp; Engineers</li></ul>

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## Security

### Bosch Video Management Systems Expert Level “Virtual Classroom”



#### Training Plan: Sales/Pre-Sales/Design focus

<b>Short description</b>	<p>This Training Plan includes a "Virtual classroom" Training for Sales/Pre-Sales/Design specialists.</p> <p>Please register to the Training Plan and open it afterwards in order to see the individual lesson offered. When completing this Training Plan you will be able to reach the Expert Level Certificate for the Bosch VMS with focus on Sales/Pre-Sales/Design.</p>
<b>Content</b>	<p>During this training the customer will learn:</p> <p>To explain and understand the following topics from sales/design point of view:</p> <ul style="list-style-type: none"><li>• Unique selling points</li><li>• Resilience concept</li><li>• Video Recording Management</li><li>• Important features (Enterprise, MVS, Dual/Failover Recording, GPU decoding, panoramic cameras, logbook, forensic search, etc.)</li></ul> <p>BVMS Design options:</p> <ul style="list-style-type: none"><li>• Remote/Multiple site concepts</li><li>• BVMS Licensing options</li><li>• System limits</li><li>• Execute a storage calculation and select the best option for the customers out of the Bosch storage portfolio</li><li>• Create a bill of material for ordering</li><li>• Complex design: Enterprise system, Dual Recording, Failover VRM</li><li>• Integration options (SDK, SNMP, ONVIF, etc.)</li></ul>
<b>Learning targets</b>	<p>By successfully completing this training the customer should be able to:</p> <ul style="list-style-type: none"><li>• Understand and explain the key features and unique selling points of BVMS</li><li>• Design a BVMS solution including:<ul style="list-style-type: none"><li>• Storage Calculation</li><li>• Bill of Material</li><li>• Licensing</li></ul></li></ul>
<b>Prerequisites</b>	<ul style="list-style-type: none"><li>• A successful completion of the BVMS Professional level training plan including the Professional Level Exam is required.</li><li>• Registration to this Training Plan is always possible, there is no prerequisite and no cost.</li></ul>
<b>Target groups</b>	<p>Recommended for:</p> <ul style="list-style-type: none"><li>• Sales specialists</li><li>• Sales Support Engineers</li><li>• System Architects</li><li>• Project Managers</li></ul>

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**Commercial  
Information:**

Location wise CTN numbers:

- Grasbrunn: TRA-BVMSS-EE
- Eindhoven: TRA-BVMSS-CE

Price: €400 per training per person (Net price before VAT)

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## Security



### For Integration Engineers: Bosch Video Management System SDK

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<b>Short description</b>	A <b>Classroom Training</b> which will familiarize the customer with the Integration possibilities of the Bosch Video Management System.
<b>Content</b>	<p>The modules and topics that will be covered in this training are:</p> <ul style="list-style-type: none"><li>• Introduction to BVMS standard integration possibilities</li><li>• Introduction to the BVMS-SDK suite (ClientAPI, RemoteServerAPI and Cameo SDK)</li><li>• Convert end-user requirements into internal BVMS scripts</li><li>• Creating, editing and debugging scripts</li><li>• Creating internal C# scripts for automated alarm scenarios like populating Operator screens/walls, calling up dome prepositions</li><li>• How to prepare your Development PC or end-user PC for your SDK application</li><li>• Setting up Microsoft Visual Studio 2013 for the BVMS-SDK APIs</li><li>• Designing a sample 3<sup>rd</sup> party application to connect to a Client Workstation and the BVMS Server</li><li>• How to pass BVMS events and alarms to external applications</li><li>• Setting up a Net Remoting data connection to the BVMS Server to pas external data like an Access Control System</li></ul>
<b>Learning targets</b>	<p>By successfully completing this training the customer should be able to:</p> <ul style="list-style-type: none"><li>• Integrate/control the Bosch Video Management System to/from 3<sup>rd</sup> party applications</li><li>• Create a remote Bosch Video Management System controller application</li></ul>
<b>Prerequisites</b>	<ul style="list-style-type: none"><li>• BVMS Expert and Master Training and Basic C# programming experience</li></ul>
<b>Target groups</b>	<p>Recommended for:</p> <ul style="list-style-type: none"><li>• System Integrators</li><li>• Software Houses</li></ul>
<b>Training Duration</b>	2 Days
<b>Commercial Information:</b>	<p>CTN number:</p> <ul style="list-style-type: none"><li>• Grasbrunn: TRA-BVMSDK-EE</li></ul> <p>Price: €800 per training per person (Net price before VAT)</p>

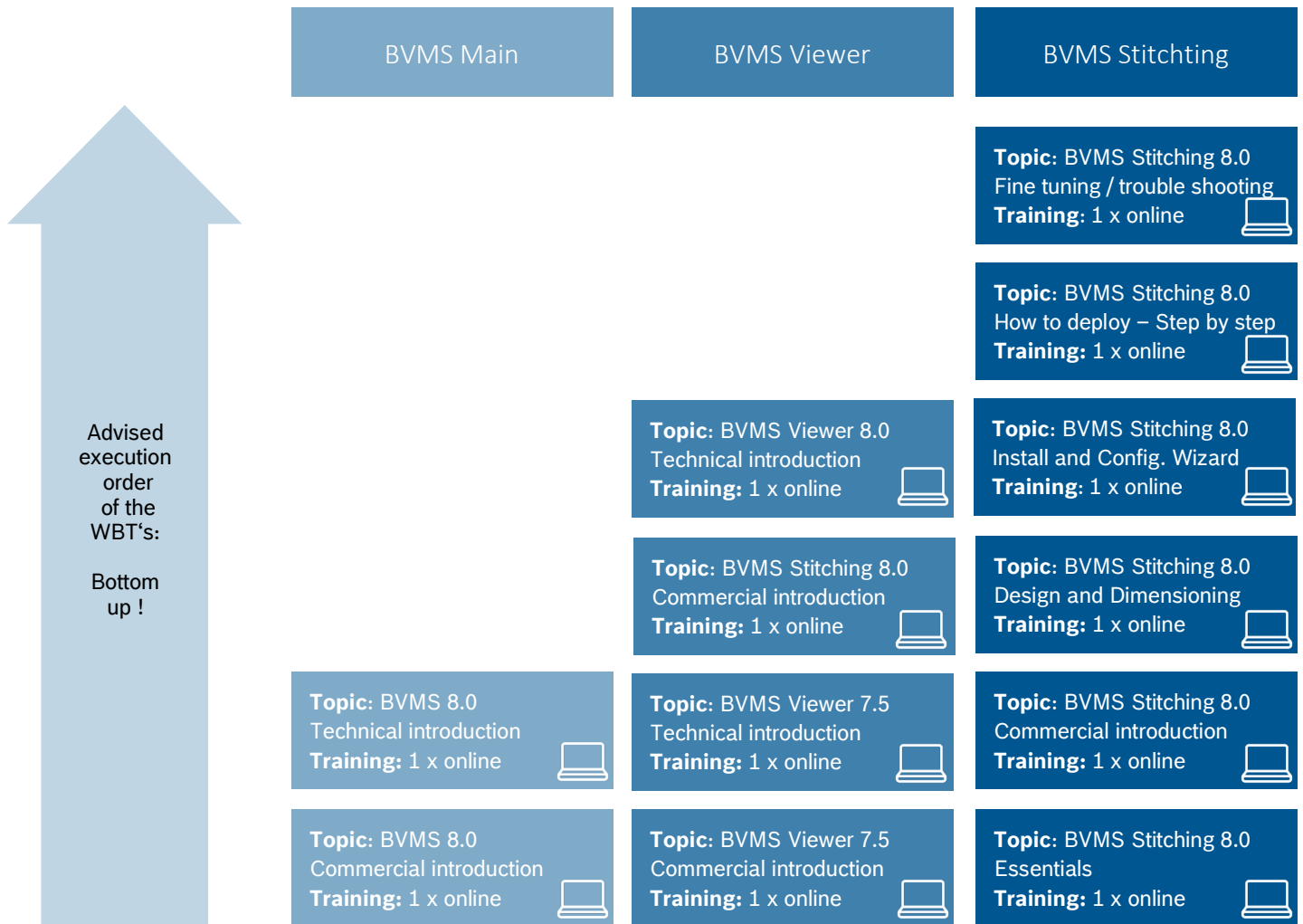
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## Security



### BVMS – All Bosch Video Management System Online Trainings.

Within the BVMS product family we are now offering a range of new online trainings free of charge. These Online Trainings feature introductions to the BVMS Main, BVMS Viewer and BVMS Stitching software. The trainings are suitable for both technical and sales / design target groups (Everyone has the option for what they wish to study).

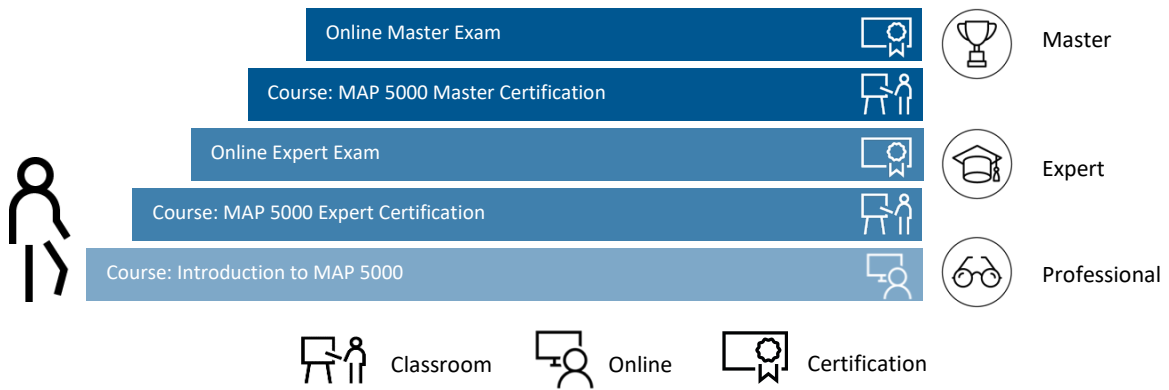




## Intrusion

### MAP 5000

#### Bosch Intrusion MAP 5000



The learning path is also available in the Bosch Security & Safety Academy. You only need to click on the certification symbol and you will be routed directly to the correct learning path

The following languages\* are supported by MAP 5000:

Expert level: EN, DE, F, ES, PL, RU

Master level: EN

\*Subject to availability (Phased approach)

## Security

### MAP 5000 System Professional – Introduction to MAP 5000 (Online)



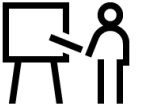
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<b>Short description</b>	A Online Training which provides an overview of the Modular Alarm Platform 5000 system.
<b>Content</b>	The modules and topics that will be covered within this training plan are: <ul style="list-style-type: none"><li>• System Overview</li><li>• Map 5000 components</li><li>• Options</li></ul>
<b>Learning targets</b>	By successfully completing this training the customer should be able to: <ul style="list-style-type: none"><li>• Identify the benefits of using the MAP 5000 system</li><li>• Explain the purpose of the Bosch Open Intrusion Interface (OOI)</li><li>• List the main components of the MAP 5000 system and describe their functions</li><li>• Identify the main uses of Bosch’s Remote Programming Software (RPS)</li></ul>
<b>Prerequisites</b>	<ul style="list-style-type: none"><li>• None</li></ul>
<b>Target groups</b>	Recommended for: <ul style="list-style-type: none"><li>• Installers</li><li>• System Designers</li><li>• Technicians</li><li>• Sales Support Engineers</li></ul>

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## Security

### Bosch Modular Alarm Platform 5000 System Expert (Classroom Training)



<b>Short description</b>	During this training the customer will receive: <ul style="list-style-type: none"><li>• An in-depth instruction on the installation, programming, and operation of the Modular Alarm Platform (MAP) 5000 system.</li></ul>
<b>Content</b>	The modules and topics that will be covered within this training plan are: <ul style="list-style-type: none"><li>• System Structure / Power Management</li><li>• Enclosure and Mounting Concept</li><li>• Remote Programming Software (RPS) for MAP</li><li>• Control Centre</li><li>• Handling of Alarms</li><li>• View States</li><li>• Creation of Accounts</li><li>• Integration of LSN Elements</li><li>• Integration of Conventional Elements</li><li>• Configuration of Inputs and Outputs</li><li>• Area Management</li><li>• User Management</li><li>• Firmware Update</li><li>• System Diagnostics</li></ul>
<b>Learning targets</b>	By successfully completing this training the customer should be able to: <ul style="list-style-type: none"><li>• Know the basic features of the MAP 5000 System</li><li>• Set up, configure and operate a MAP 5000 System</li><li>• Have an overview about peripheral devices</li><li>• Understand the Bosch Local Security Network and its use in MAP 5000</li><li>• Master the diagnostic options</li><li>• Update the firmware of MAP 5000 modules</li></ul>
<b>Prerequisites</b>	<ul style="list-style-type: none"><li>• Basic Intrusion knowledge is recommended</li><li>• MAP 5000 Professional (WBT)</li></ul>
<b>Target groups</b>	Recommended for: <ul style="list-style-type: none"><li>• Installers</li><li>• System Designers</li><li>• Technicians</li></ul>
<b>Training Duration</b>	2 Days
<b>Commercial Information:</b>	CTN number: <ul style="list-style-type: none"><li>• Grasbrunn: TRA-MAP500-IE</li></ul> Price: €600 per training per person (Net price before VAT)

## Security

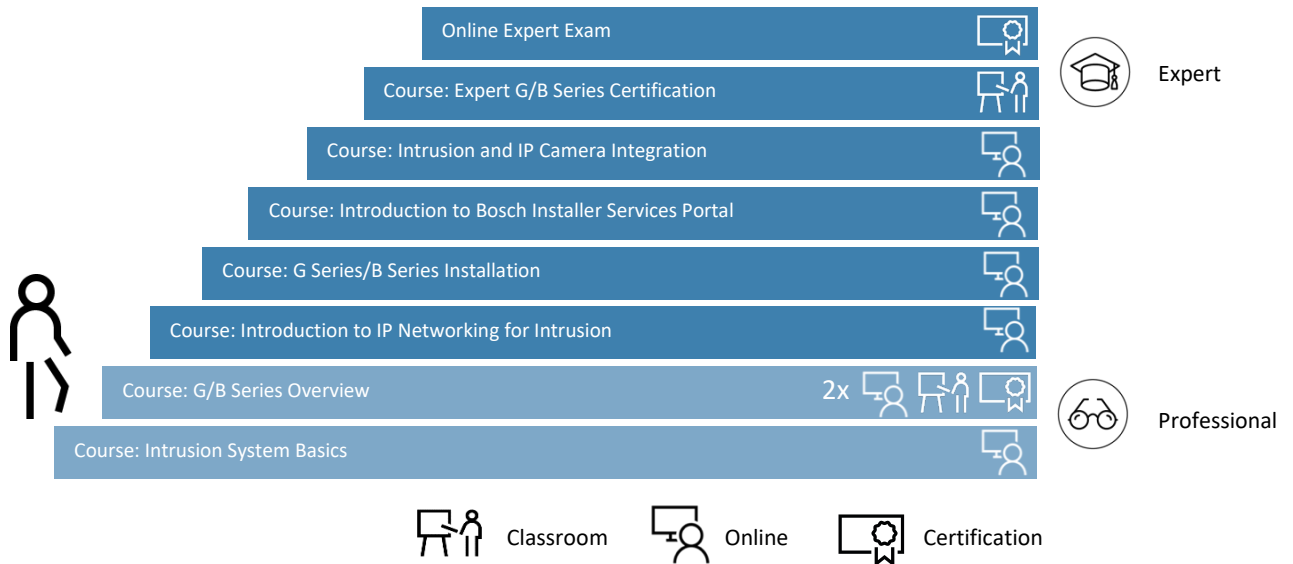
### Bosch Modular Alarm Platform 5000 System Master (Classroom Training)



<b>Short description</b>	During this training the customer will receive: <ul style="list-style-type: none"><li>• An in-depth instruction of advanced configuration of the Modular Alarm Platform (MAP) 5000 system.</li></ul>
<b>Content</b>	The modules and topics that will be covered within this training plan are: <ul style="list-style-type: none"><li>• IP Communicator Configuration and Alarm transmission</li><li>• User Management Access Profiles, Area and Time Models, Time Models and Permission Sets</li><li>• Area Management Area Relationships and advanced options</li><li>• Custom Point Types, change point responses</li><li>• Virtual Devices Customize system, Creation of own features</li></ul>
<b>Learning targets</b>	By successfully completing this workshop the student should know about the advanced features of the MAP 5000 system <ul style="list-style-type: none"><li>• Set up, configure and operate MAP 5000 IP communicator</li><li>• Use of area relationships and advanced options to customize the working with areas</li><li>• Assign users to Access Profiles and configure Area and Time Models, Permission Sets and Time Models to specify the scope of user rights</li><li>• Knowledge and Use of Virtual Devices to create own solutions and to customize the MAP 5000 system</li></ul>
<b>Prerequisites</b>	<ul style="list-style-type: none"><li>• MAP 5000 Expert Level</li></ul>
<b>Target groups</b>	Recommended for: <ul style="list-style-type: none"><li>• Installers</li><li>• System Designers</li><li>• Technicians</li></ul>
<b>Training Duration</b>	1 Day
<b>Commercial Information:</b>	CTN number: <ul style="list-style-type: none"><li>• Grasbrunn: TRA-MAP500-IM</li></ul> Price: €300 per training per person (Net price before VAT)

## Intrusion

### G-Series and B-Series



The learning path is also available in the Bosch Security & Safety Academy. You only need to click on the certification symbol and you will be routed directly to the correct learning path

The following languages are supported by G-series and B-series.

Online training course: available in English, Hungarian, Italian, Greek, Polish, Portuguese, Spanish, and French

IP Networking for Intrusion online course: English, Spanish, Greek, Hungarian, Italian, Polish, Portuguese

B/G IP Camera Integration online course: English, Spanish, French, Greek, Hungarian, Italian, Polish, Portuguese

Installer Services Portal online course: English, Greek, Hungarian, Polish, Italian, Spanish, French

\*Subject to availability (Phased approach)

## Security

### G-Series and B-Series – Professional Training Plan (Online)



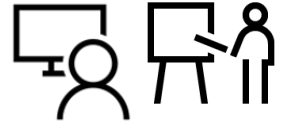
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<b>Short description</b>	<p>During this training the customer will learn about:</p> <ul style="list-style-type: none"><li>• The basic components of an intrusion alarm system and understand the features and benefits of the G Series and B Series Integrated System.</li></ul> <p>This training is available in the following languages:</p> <p>English / Polish / Italian / Hungarian / Greek / Spanish / French / Portuguese</p>
<b>Content</b>	<p>The modules and topics that will be covered within this training plan are:</p> <ul style="list-style-type: none"><li>• Intrusion System Fundamentals</li><li>• Integrated Intrusion Systems Overview<ul style="list-style-type: none"><li>• Control Panel and Hardware Devices</li><li>• System Integration and Features</li></ul></li></ul>
<b>Learning targets</b>	<p>By successfully completing this training the customer should be able to:</p> <ul style="list-style-type: none"><li>• Identify the components of an intrusion alarm system</li><li>• Determine which G-Series or B-Series control panel model is right for each application, based on the features and benefits</li></ul>
<b>Prerequisites</b>	<ul style="list-style-type: none"><li>• No Prerequisites for this course.</li></ul>
<b>Target groups</b>	<p>Recommended for:</p> <ul style="list-style-type: none"><li>• Installers</li><li>• System Programmers</li><li>• Service Technicians</li><li>• Project Managers</li><li>• Sales</li></ul>

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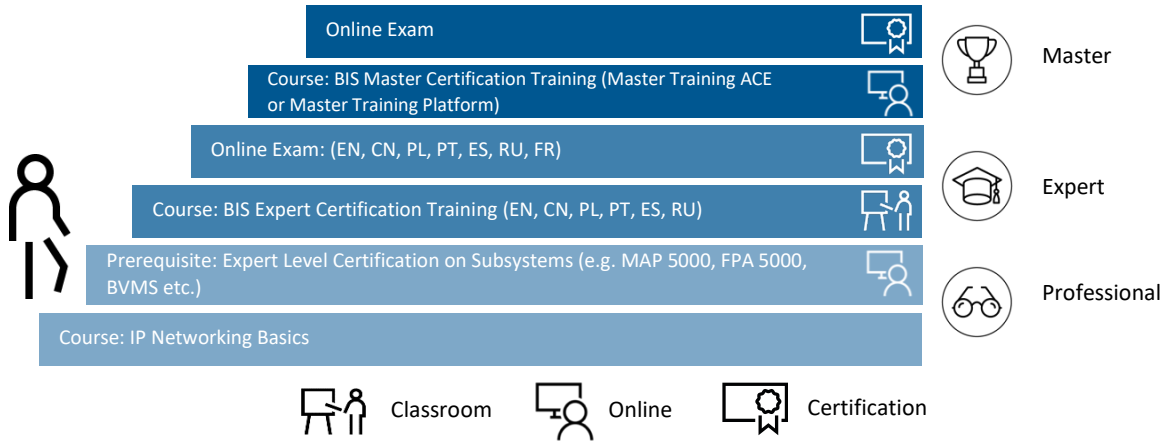
## Security

### G-Series and B-Series – Expert Training Plan



<b>Short description</b>	This Training Plan is made up of <b>1 Online Training</b> and a <b>2 day Classroom Training Course</b>
<b>Content</b>	The Online Training featured in this Training Plan is made up of 5 modules: <ul style="list-style-type: none"><li>• Introduction to IP Networking for Intrusion</li><li>• G-Series Installation with Wired Devices</li><li>• B-Series Installation with Wireless Devices</li><li>• Introduction to Installer App Programming</li><li>• Intrusion and IP Camera Integration</li></ul>
<b>Learning targets</b>	By successfully completing this training the customer should be able to: <ul style="list-style-type: none"><li>• Explain the benefits and operation of G-Series Control Panels for commercial use</li><li>• Mount and install peripheral devices to work with the Control Panel</li><li>• Perform basic programming options in Bosch's Remote Programming Software (RPS), as well as via the Keypad.</li></ul>
<b>Prerequisites</b>	<ul style="list-style-type: none"><li>• Successful completion of the G-Series and B-Series Professional Training Plan</li></ul>
<b>Target groups</b>	Recommended for: <ul style="list-style-type: none"><li>• Installers</li><li>• Engineers</li><li>• System Designers</li><li>• Sales Support Engineers</li></ul>
<b>Training Duration</b>	2 days
<b>Commercial Information:</b>	CTN number: <ul style="list-style-type: none"><li>• Grasbrunn: TRA-GBSE-IE</li></ul> Price: €300 per training per person (Net price before VAT)

## Bosch Building Integration Systems (BIS) Overview



The learning path is also available in the Bosch Security & Safety Academy. You only need to click on the certification symbol and you will be routed directly to the correct learning path.

The following languages\* are supported by BIS:

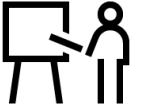
EN, RU, ZH, FR, ES, PT, PL

\*Subject to availability (Phased approach)



## Security

### Bosch Building Integration System (BIS) – Expert Level Training



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<b>Short description</b>	<p>A Training Plan which consists of a <b>4.5 day Classroom Training</b>. During this training the customer will learn how to properly install and configure BIS for basic functions.</p> <p>Furthermore, through practical examples, modifications on the Graphical User Interface (GUI) a solid knowledge should be gathered to operate and customize the system.</p> <p>Each chapter of the training contains hands-on practice either on the BIS SW or on related software, like hardware and OPC configuration Software.</p>
<b>Content</b>	<p>The modules and topics that will be covered within this training plan are:</p> <ul style="list-style-type: none"><li>• Bosch BIS Server installer and configuration</li><li>• BIS Client installation and GUI customization</li><li>• Access Engine configuration and operation</li><li>• Creating door models, change parameters of doors and readers</li><li>• Creating cardholders, authorizations, profiles, Time Models</li><li>• Integration with Bosch Fire and Intrusion panels</li><li>• Create associations to show alarm messages</li><li>• Send commands from BIS to subsystems based on event(s)</li><li>• BVMS integration and Video Engine basics</li><li>• Displaying alarm related cameras and remove them when the alarm is cleared</li><li>• Basic BIS Troubleshooting</li><li>• Logging and reading/understanding the log files and the use of configuration collector</li><li>• Use of AutoCAD in order to prepare ACAD drawings for BIS</li><li>• Fundamental practical Hands-On exercises</li><li>• Licensing of the individual connections</li><li>• Operation and maintenance: automated event log backup, configuration backup and migration</li></ul>
<b>Learning targets</b>	<p>By successfully completing this training the customer should be able to:</p> <ul style="list-style-type: none"><li>• Explain the functionality of BIS and properly allocate BIS to projects</li><li>• Install, configure and operate BIS</li><li>• Provide pre-sales demonstrations for end-users and for investors</li><li>• Provide customized end-user operator training</li><li>• Customize the AutoCAD drawing and BIS GUI</li><li>• Create price quotations and license BIS properly</li><li>• Execute basic operation and maintenance tasks</li><li>• Import cardholders' data from an existing access control system</li><li>• Backup/Restore event log DB</li><li>• Backup/Restore and migrate configuration</li></ul>
<b>Prerequisites</b>	<ul style="list-style-type: none"><li>• IP networking fundamentals including IP addressing schemes, subnet mask settings and basic troubleshooting</li><li>• Knowledge of Microsoft Windows like changing values in the Registry, usage of the command prompt</li></ul>

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- The knowledge of Access Control product portfolio according to the “Professional Level” training
  - Expert Level Certificate for the following Bosch products (configuration and operation):
    - Fire FPA5000 and/or FPA1200
    - Intrusion Panel MAP5000
    - Intrusion Panel B/G-Series
 Bosch VMS and Bosch Video over IP devices
  - Participants will only be accepted onto the course if they have completed the IP Networking Basics Online Training.
- 

**Target groups**

Recommended for:

- System Integrators, Project Engineers, Administrators and Installers who are responsible for installing, commissioning and for maintenance of the BIS system
  - Project Engineers, Sales Support Engineers, System Architects who want to gain practical experience with BIS and have responsibility in system design and quotations
  - NOTE: This training cannot be considered as a suitable training for Operators who should work on a daily basis with the BIS operator client.
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**Training Duration**

4.5 Days

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**Commercial Information:**

CTN number:

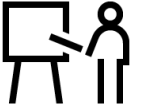
- Grasbrunn: TRA-BIS-EE

Price: €1800 per training per person (Net price before VAT)

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## Security

### Bosch Building Integration System (BIS PLATFORM TRAINING)



#### - Master Level Training

<b>Short description</b>	<p>A Training Plan which comprises of <b>1 Classroom Training</b></p> <p>This training will teach you advanced configuration possibilities of BIS Platform. Furthermore, it will cover features and functionalities which are required in multi-site BIS projects, and also in projects, where the customization of the Graphical User Interface is necessary.</p> <p>Additionally, this training teaches you to connect PRAESIDEO and Connetix subsystems to BIS, and also the use of Template Jobs.</p>
<b>Content</b>	<p>The modules and topics that will be covered within this training plan are:</p> <ul style="list-style-type: none"><li>• AUE-PRAESIDEO connection (How to set up PRAESIDEO; installation and configuration of PRAESIDEO OPC; configuring PA Manager; customizing PA-related detector type commands; interconnection with other subsystems; licensing)</li><li>• AUE-Connetix connection (How to set up D6600 for BIS Connection; installation and configuration of D6600 OPC; Customizing Connetix-related points; limitations; licensing)</li><li>• Multi-site BIS configuration (set up consumer server; set up provider server; connect servers to each other)</li><li>• OPC Connector (when it should be used; configuring it)</li><li>• BIS Proxy OPC-DA (when it should be used; configuring it)</li><li>• Analog Values in BIS</li><li>• Customizing detector symbols</li><li>• Use of template jobs</li><li>• Graphical User Interface customization (use of object models; auto delete; multiple message inbox; use of multiple monitors; message inbox customization; subscription control)</li></ul>
<b>Learning targets</b>	<p>By successfully completing this training the customer should be able to:</p> <ul style="list-style-type: none"><li>• Connect a PRAESIDEO system to BIS, and set up its special HTML page for easier control of the integrated system</li><li>• Connect a Bosch Connetix receiver to BIS</li><li>• Configure consumer and provider servers for Multi-Site BIS systems and establish the communication between these serves</li><li>• Create new – project specific – detector symbols</li><li>• Configure the OPC connector and the BIS Proxy OPC-DA OPC Server</li><li>• Carry out advanced customization tasks on the BIS Graphical User Interface</li></ul>
<b>Prerequisites</b>	<ul style="list-style-type: none"><li>• Participation in the Bosch BIS Expert Level Training (4,5 Days)</li><li>• Practical (project-site) experience with BIS</li><li>• Configuration knowledge of both the PRAESIDEO and Connetix systems</li></ul>
<b>Target groups</b>	<p>Recommended for:</p> <ul style="list-style-type: none"><li>• System Integrators</li><li>• Project Engineers</li></ul>

- 
- Administrators
  - Installers who are responsible for installing, commissioning and maintenance of the BIS system
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**Training Duration** 2 Days

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**Commercial Information:** CTN number:

- Grasbrunn: TRA-BIS-EM

Price: €800 per training per person (Net price before VAT)

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## Security

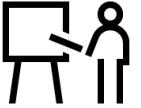
### Building Integration System (BIS) Master Level – BIS ACE



<b>Short description</b>	A Training Plan which consists of <b>1 Classroom Training</b> This training will teach the customer advanced configuration possibilities of BIS Access Engine. Furthermore, it will cover features and functionalities which are required in multi-MAC and remote SQL database BIS projects.
<b>Content</b>	The modules and topics that will be covered within this training plan are: <ul style="list-style-type: none"><li>• Multi-MAC configuration</li><li>• Remote SQL ACE database configuration</li><li>• Practice on Elevator and DM10 Door Models</li><li>• Configuring the Report Builder</li><li>• Setting up Divisions</li><li>• Configuring and use of fingerprint readers</li><li>• Configuring and use of Deister key cabinet</li></ul>
<b>Learning targets</b>	By successfully completing this training the customer should be able to: <ul style="list-style-type: none"><li>• Set up a BIS access control system with multiple MACs</li><li>• Configure a system, in which the Access database is located on a remote SQL machine</li><li>• Design and configure Door Model 10</li><li>• Configure and use fingerprint readers</li><li>• Configure and use Deister key cabinet</li></ul>
<b>Prerequisites</b>	<ul style="list-style-type: none"><li>• Participation in the Bosch BIS Expert Level Training</li><li>• Practical (project-site) experience with BIS</li></ul>
<b>Target groups</b>	Recommended for: <ul style="list-style-type: none"><li>• System Integrators and Project Engineers</li><li>• Administrators</li><li>• Installers who are responsible for installing, commissioning and for maintenance of the BIS system, especially when access control is included</li></ul>
<b>Training Duration</b>	3 days
<b>Commercial Information:</b>	CTN number: <ul style="list-style-type: none"><li>• Grasbrunn: TRA-BIS-EM</li></ul> Price: €1200 per training per person (Net price before VAT)

## Security

### Access Professional Edition (APE)



<b>Short description</b>	A Training Plan which comprises of <b>1 Classroom Training</b> During this training the customer is introduced to the Bosch APE Software and to the AMC controller Product Family
<b>Content</b>	The modules and topics that will be covered within this training plan are: <ul style="list-style-type: none"><li>• Basic Introduction to the Access Professional Edition Software</li><li>• Introduction to AMC Controller Programming</li><li>• Practical Programming of AMC2 hardware &amp; APE software</li><li>• APE integration to Milestone XProtect</li></ul>
<b>Learning targets</b>	By successfully completing this training the customer should be able to: <ul style="list-style-type: none"><li>• Work with and set up an Access Control System based on Bosch AMC hardware and Access Professional Edition Software</li></ul>
<b>Prerequisites</b>	<ul style="list-style-type: none"><li>• Basic network knowledge</li><li>• To participate in this training the customer should have some previous experience in Access Control Systems, Installation and Configuration</li><li>• Milestone XProtect knowledge is beneficial but not required</li></ul>
<b>Target groups</b>	Recommended for: <ul style="list-style-type: none"><li>• Installers</li><li>• Project Engineers</li><li>• Service Engineers</li></ul>
<b>Training Duration</b>	2 Days
<b>Commercial Information:</b>	CTN number: <ul style="list-style-type: none"><li>• Grasbrunn: TRA-APE-EP</li></ul> Price: €600 per training per person (Net price before VAT)

## Communications



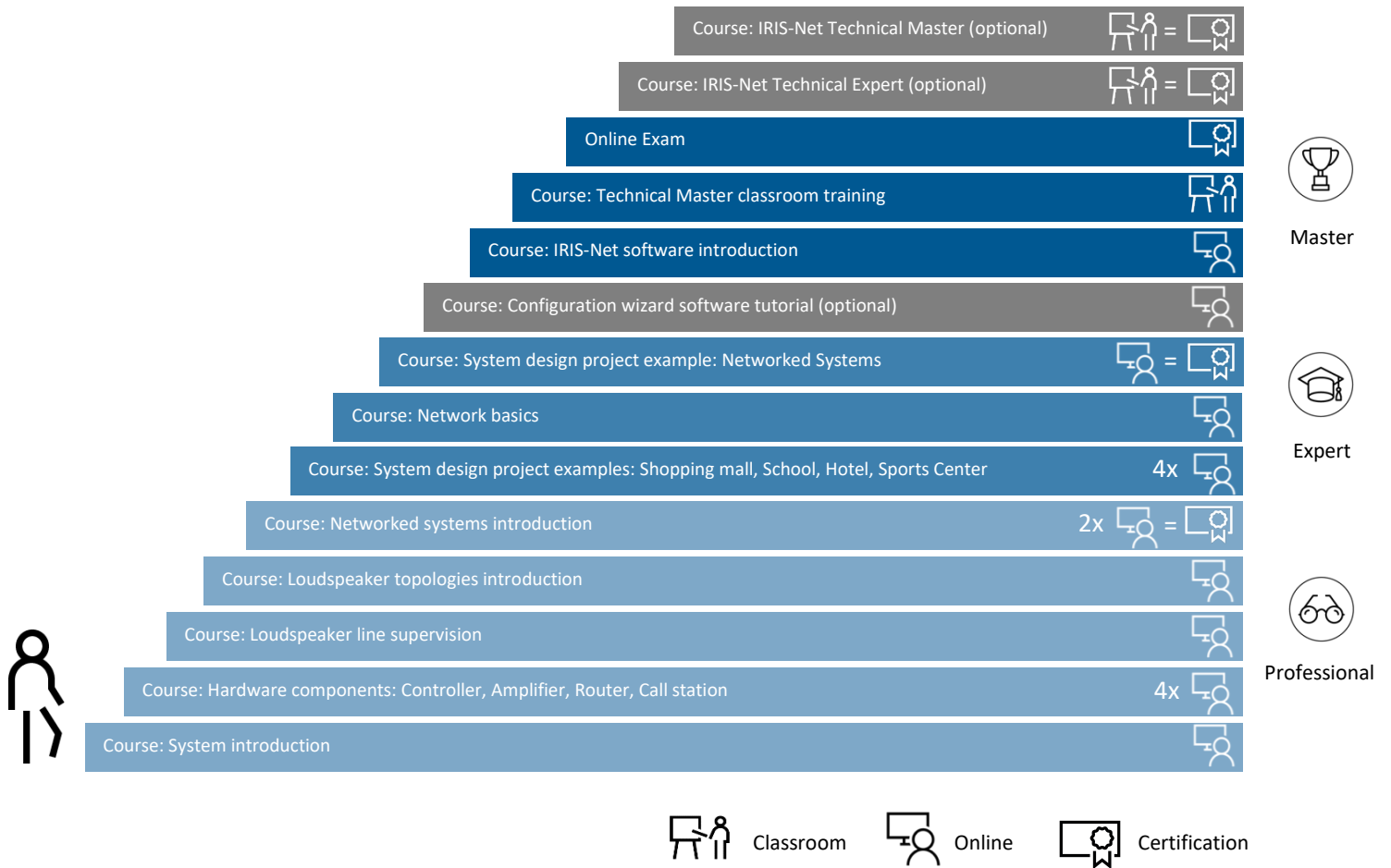
### Bosch Public Address PA basics – Professional Training (Online)

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<b>Short description</b>	<b>Online Training</b> In this training we will provide you with the basic information concerning audio and public address technologies.
<b>Content</b>	The modules that will be part of this online training is: <ul style="list-style-type: none"><li>• Public Address basics</li><li>• 100Volt Basics</li><li>• Microphones</li><li>• Loudspeakers</li><li>• Amplifiers</li><li>• Mixing Amplifiers</li><li>• Application of characteristics of Public Address Systems</li></ul>
<b>Learning targets</b>	By successfully completing this training the students will be able to: <ul style="list-style-type: none"><li>• Show basic understanding of the principles of operation of public address</li><li>• Recognize the different components and techniques used in a public address</li><li>• Understand basic applications and markets of public address</li><li>• Follow more advance and specific Public Address trainings in this catalog</li></ul>
<b>Prerequisites</b>	<ul style="list-style-type: none"><li>• Basic knowledge of electricity / electronics</li></ul>
<b>Target groups</b>	<ul style="list-style-type: none"><li>• Employees, commercial and technical, with no or limited experience in PA</li><li>• Beginners who hardly have experience in the Public Address business and want to attend other Public Address trainings</li></ul>

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# PAVIRO Overview



The learning path is also available in the Bosch Security & Safety Academy. You only need to click on the certification symbol and you will be routed directly to the correct learning path.

The following languages\* are supported by Communication Systems:

EN, DE, F, IT, ES, POR, RU

\*Subject to availability (Phased approach)



## Public Address

### Bosch Public Address PAVIRO (networked) – Technical Professional (Online)



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<b>Short description</b>	This <b>Online Training</b> contains an introduction to the PAVIRO networked system and its hardware components as well as the Loudspeaker and topologies and networking functions.
<b>Content</b>	<p>The modules that will be part of this Online training are:</p> <ul style="list-style-type: none"><li>• Bosch Public Address PAVIRO System Introduction (V2)</li><li>• Bosch Public Address PAVIRO Controller</li><li>• Bosch Public Address PAVIRO Amplifier</li><li>• Bosch Public Address PAVIRO Router</li><li>• Bosch Public Address PAVIRO Call Station</li><li>• Bosch Public Address PAVIRO Loudspeaker Line Supervision</li><li>• Bosch Public Address PAVIRO Loudspeaker Topologies Introduction</li><li>• Bosch Public Address PAVIRO Networked Introduction</li><li>• Bosch Public Address PAVIRO Networked Introduction - Assessment</li></ul>
<b>Learning targets</b>	<p>By successfully completing this training the customer should be able to:</p> <ul style="list-style-type: none"><li>• Give an overview of the PAVIRO system</li><li>• Describe the hardware setup and the application of the PAVIRO devices</li><li>• Understand terms like CAN BUs and CST BUs</li><li>• Choose between the different types of loudspeaker line supervision</li><li>• Draft a simple PAVIRO system setup</li><li>• Understand different topologies and relation to router clusters</li><li>• Select the right number of routers and amplifiers</li><li>• Understand speaker line power allocation</li><li>• Understand the signal flow between the system components</li><li>• Understand the PAVIRO networking functions and features</li></ul>
<b>Prerequisites</b>	<ul style="list-style-type: none"><li>• Basic knowledge of public address</li><li>• Bosch Public Address PA Basics- Professional Training (Online)</li></ul>
<b>Target groups</b>	<ul style="list-style-type: none"><li>• Sales and Marketing</li></ul>

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## Public Address

### Bosch Public Address PAVIRO (networked) – Technical Expert (Online)



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<b>Short description</b>	<b>Online Training</b> The PAVIRO – from spec to BOM trainings will give the customer several project examples to show how to build up a PAVIRO networked system BOM according to the project requirements.  A certificate will be available upon completion of the training plan.
<b>Content</b>	This training plan will include 5 project design examples from Spec to BOM: <ul style="list-style-type: none"><li>• Shopping Centre</li><li>• School</li><li>• Hotel</li><li>• Sports Centre</li><li>• Networked Systems</li></ul> It also includes an optional Network Basics WBT
<b>Learning targets</b>	By successfully completing this training the customer should be able to: <ul style="list-style-type: none"><li>• Specify a system and turn it into a Bill of Material</li></ul>
<b>Prerequisites</b>	<ul style="list-style-type: none"><li>• Bosch Public Address PA basics- Professional Training (Online)</li><li>• Bosch Public Address PAVIRO- Technical Professional (Online)</li></ul>
<b>Target groups</b>	<ul style="list-style-type: none"><li>• Sales and Marketing , System Design Engineers</li></ul>

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## Public Address

### Bosch Public Address PAVIRO (networked)



#### – Technical Master Training Plan

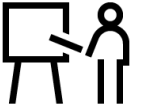
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<b>Short description</b>	<p>The PAVIRO Master Training course on advanced system programming and operation is the highest qualification level available on this product line.</p> <p>This training plan consists of <b>Online Trainings</b> and <b>1 Classroom Training</b></p> <p>This training also qualifies you as an IRIS-Net Technical Professional</p>
<b>Content</b>	<p>This training plan will include:</p> <ul style="list-style-type: none"><li>• PAVIRO component and system overview</li><li>• Configuration Wizard</li><li>• System examples</li><li>• Introduction into IRIS-Net for PAVIRO</li><li>• Topologies and application examples</li><li>• Firmware Update</li><li>• IRIS-Net configuration software and its features</li><li>• System configuration examples in IRIS-Net</li><li>• Monitoring and spare function examples</li><li>• Working with 100V relays, speaker zones, groups and audio signal priorities</li><li>• IRIS-Net utility tools and export functions</li><li>• Working with Task Engine, Calendar and Integrated Message Manager</li><li>• Networked PAVIRO systems</li></ul>
<b>Learning targets</b>	<p>By successfully completing this training the student will be able to</p> <ul style="list-style-type: none"><li>• Fully understand design, install and operate a Bosch PAVIRO Public Address System</li><li>• Upgrade the system software</li><li>• Commission a Bosch PAVIRO Public Address System</li></ul>
<b>Prerequisites</b>	<ul style="list-style-type: none"><li>• The Online Training modules that are stated in the Master Certification Training Plan need to be completed before the Classroom Training (See Bosch Security Academy)</li><li>• Own laptop with admin rights and installed IRIS-Net and Configuration Wizard Software have to be brought along to the training.</li><li>• For students with low Public Address knowledge we recommend the PA Basics Classroom Training in Eindhoven</li></ul>
<b>Target groups</b>	<ul style="list-style-type: none"><li>• Distributors, Integrators, Installers, Systems Engineers</li></ul>
<b>Training Duration</b>	2,5 days
<b>Commercial Information:</b>	<p>CTN number:</p> <ul style="list-style-type: none"><li>• Straubing: TRA-PVA-COM</li></ul> <p>Price: €750 per training per person (Net price before VAT)</p>

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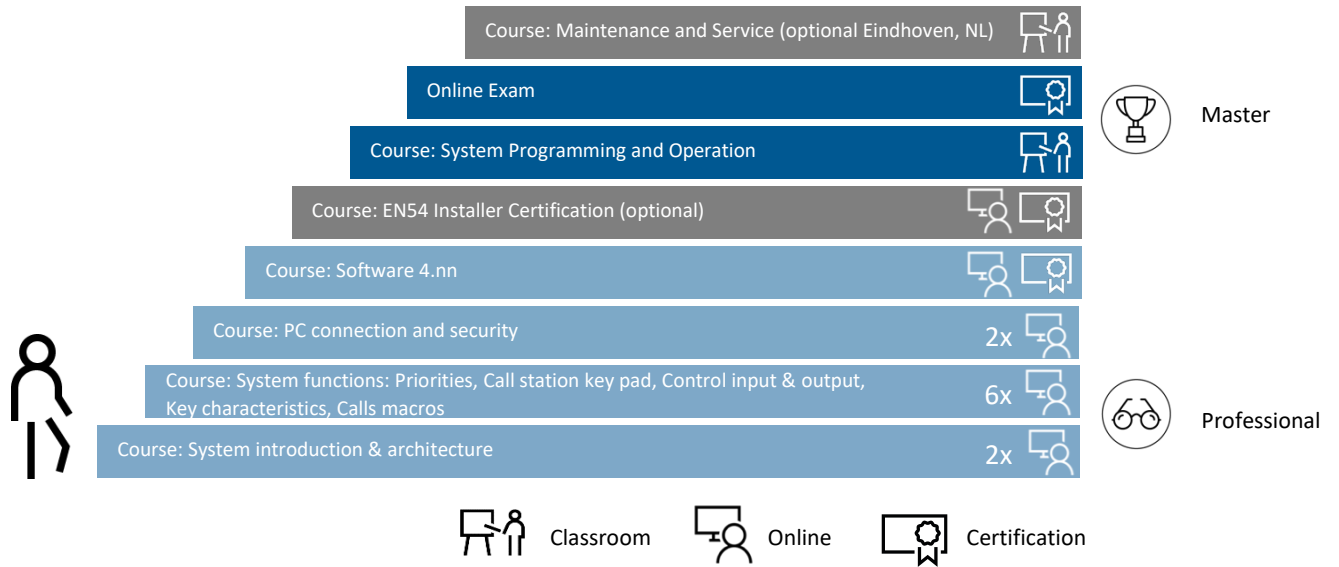
## Public Address

### IRIS-Net – Technical Expert (GUI Basic)



<b>Short description</b>	<b>A Classroom Training</b> Builds on IRIS-Net hardware classroom trainings (PAVIRO) and is applicable for customers who have attended such a training within the last 2 years. In order to achieve the Technical Expert qualification the customer must pass an Online Exam after the Trainings.
<b>Content</b>	This training plan will include: <ul style="list-style-type: none"><li>• Repetition of important IRIS-Net basics</li><li>• Object List</li><li>• Devices and Interfaces</li><li>• Programming of IRIS-Net graphical user interfaces with standard controls like Button, Fader, LED etc. or alternatively User Controls</li><li>• Usage of Groups</li><li>• Project file layers and navigation</li><li>• Project file structure recommendations</li><li>• User and Password handling</li><li>• Custom graphics</li></ul>
<b>Learning targets</b>	By successfully completing this training the customer should be able to: <ul style="list-style-type: none"><li>• Understand the programming of IRIS-Net user interfaces using standard IRIS-Net elements (Controls/User Controls) and observing basic project design rules. (Layer/Navigation/User)</li></ul>
<b>Prerequisites</b>	<ul style="list-style-type: none"><li>• IRIS-Net Professional Level by participating in a IRIS-Net hardware training within the last 2 years</li><li>• Own Laptop according to the IRIS-Net requirements with latest IRIS-Net system requirements with latest IRIS-Net version pre-installed and admin rights to be brought along to the training course</li></ul>
<b>Target groups</b>	<ul style="list-style-type: none"><li>• Distributors, Integrators, Installers, System Engineers</li></ul>
<b>Training Duration</b>	1 Day
<b>Commercial Information:</b>	CTN number: <ul style="list-style-type: none"><li>• Eindhoven: TRA-IRIS-COE</li></ul> Price: €300 per training per person (Net price before VAT)

## PRAESIDEO Overview



The learning path is also available in the Bosch Security & Safety Academy. You only need to click on the certification symbol and you will be routed directly to the correct learning path

The following languages\* are supported by Communication Systems:

EN, DE, F, IT, ES, POR, RU.

\*Subject to availability (Phased approach)

## Public Address

### PRAESIDEO – Technical Professional (Online)



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<b>Short description</b>	<p>An <b>Online Training</b> which should provide an overview on the PRAESIDEO system and its main functions.</p> <ul style="list-style-type: none"><li>• This course is made up of 11 modules</li><li>• This course will prepare the customer for participation in the PRAESIDEO Classroom Training</li></ul>
<b>Content</b>	<p>The modules and topics that will be covered within this Online Training are:</p> <ul style="list-style-type: none"><li>• PRAESIDEO Introduction</li><li>• PRAESIDEO Architecture</li><li>• PRAESIDEO Priorities</li><li>• PRAESIDEO Call Station Keypad Functions</li><li>• PRAESIDEO Control input functions</li><li>• PRAESIDEO Control output functions</li><li>• PRAESIDEO Key characteristics</li><li>• PRAESIDEO Call macro's</li><li>• PRAESIDEO PC connection</li><li>• PRAESIDEO Security</li><li>• PRAESIDEO Software 4.nn</li></ul>
<b>Learning targets</b>	<p>By successfully completing this training the customer should be able to:</p> <ul style="list-style-type: none"><li>• Understand the basics of the PRAESIDEO system and should be ready to participate in the PRAESIDEO Classroom Training</li></ul>
<b>Prerequisites</b>	<ul style="list-style-type: none"><li>• Basic knowledge of electronics, acoustics and public address systems</li><li>• Bosch Public Address PA Basics- Professional Training (Online)</li></ul>
<b>Target groups</b>	<ul style="list-style-type: none"><li>• Engineers, Installers, Sales and Marketing, Specifiers</li></ul>

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## Public Address

### PRAESIDEO – Technical Master



<b>Short description</b>	Technical Master <b>Classroom Training</b> on PRAESIDEO System Programming and Operation. The course is applicable for customers who have already reached Professional Level.
<b>Content</b>	<p>The modules and topics that will be covered within this training plan are:</p> <ul style="list-style-type: none"><li>• Operating Principles</li><li>• PRAESIDEO Components</li><li>• Install and upgrade to the latest SW release</li><li>• Configuring the PRAESIDEO System</li><li>• Messages and assembling message sets</li><li>• Be able to work with the off-line configuration tool</li><li>• Storing vital system data</li><li>• Powering, back-up powering and power consumption</li><li>• Ethernet connection and local/remote access</li><li>• Fault, Call and Event logging</li><li>• PC Call station and Telephone interface</li><li>• IP-Audio Interface</li><li>• Cobra Net / OMNEO principles and the PRAESIDEO solution using Cobra Net / OMNEO</li><li>• Battery Charger</li><li>• Designing a PRAESIDEO System</li><li>• Hands-on configuring a PRAESIDEO System</li></ul>
<b>Learning targets</b>	<p>By successfully completing this training the customer should be able to:</p> <ul style="list-style-type: none"><li>• Show the PRAESIDEO product range</li><li>• Select PRAESIDEO products and make a system design</li><li>• Upgrade the software</li><li>• Configure a PRAESIDEO System</li><li>• Use the additional SW packages for PRAESIDEO</li><li>• Commission a system</li></ul>
<b>Prerequisite</b>	<ul style="list-style-type: none"><li>• Bosch Public Address PA basics- Professional Training (Online)</li><li>• PRAESIDEO- Technical Professional (Online)</li><li>• Broad experience in PA is required</li></ul>
<b>Target groups</b>	<ul style="list-style-type: none"><li>• Distributors, Integrators, Installers, System Engineers</li></ul>
<b>Training Duration</b>	3 days
<b>Commercial Information:</b>	<p>CTN number:</p> <ul style="list-style-type: none"><li>• Eindhoven: TRA-PRS-COM</li></ul> <p>Price: €900 per training per person (Net price before VAT)</p>

## Public Address

### PRAESIDEO – Bosch Public Address

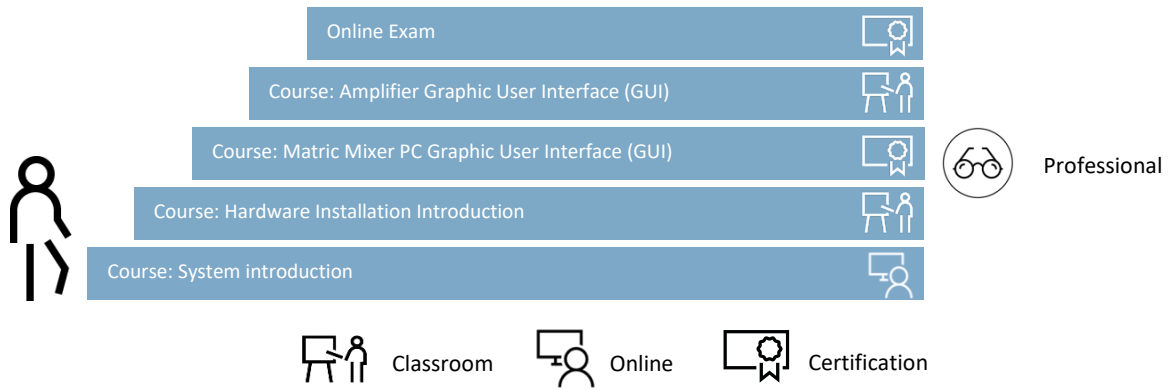


### PRAESIDEO System Maintenance and Basic Service (for Masters)

<b>Short description</b>	<p>Master <b>Classroom Training</b> on PRAESIDEO Maintenance and Service.</p> <p>Advanced qualification on the PRAESIDEO system applicable for customers who have already reached Master Level.</p>
<b>Content</b>	<p>The modules and topics that will be covered within this training are:</p> <ul style="list-style-type: none"><li>• Preventive Maintenance</li><li>• Problems at an installation (system diagnostics)</li><li>• Fault events and indications</li><li>• Firmware download recovery</li><li>• PC to NCO connection</li><li>• Software version related problems</li><li>• PRAESIDEO warranty, repair and spare parts</li></ul>
<b>Learning targets</b>	<p>By successfully completing this training the customer should be able to:</p> <ul style="list-style-type: none"><li>• Apply service on a PRAESIDEO system</li><li>• Diagnose if a unit is faulty</li><li>• Solve application / installation related problems</li><li>• Recover a download failed unit</li></ul>
<b>Prerequisites</b>	<ul style="list-style-type: none"><li>• Bosch Public Address PA Basics- Professional Training (Online)</li><li>• PRAESIDEO – Technical Professional (Online)</li><li>• PRAESIDEO – Technical Master</li></ul>
<b>Target groups</b>	<p>Recommended for:</p> <ul style="list-style-type: none"><li>• Service Engineers</li></ul>
<b>Training Duration</b>	1 day
<b>Commercial Information:</b>	<p>CTN number:</p> <ul style="list-style-type: none"><li>• Eindhoven: TRA-PRSBAS-COM</li></ul> <p>Price: €300 per training per person (Net price before VAT)</p>



## PLENA Overview



The learning path is also available in the Bosch Security & Safety Academy. You only need to click on the certification symbol and you will be routed directly to the correct learning path

The following languages\* are supported by Communication Systems:  
EN, DE, F, IT, ES, POR, RU

\*Subject to availability (Phased approach)



# Public Address

## Bosch Public Address PLENA Matrix – Technical Professional

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<b>Short description</b>	<p>This Online training plan consists of four studying modules before an assessment module.</p> <p>You are invited to have a look at the PLENA video tutorial compilation which we added as an optional module supporting this training plan.</p>
<b>Content</b>	<p>The content that will be part of this Online training is:</p> <ul style="list-style-type: none"><li>• System Introduction</li><li>• Hardware Installation Introduction</li><li>• Matrix Mixer PC Graphic User Interface (GUI)</li><li>• Amplifier, Graphic User Interface (GUI)</li><li>• System Knowledge Assessment</li></ul>
<b>Learning targets</b>	<p>By successfully completing this training the customer should be able to:</p> <ul style="list-style-type: none"><li>• Describe advantages and capabilities of the PLENA Matrix System</li><li>• Identify individual components</li><li>• List features of PLENA matrix hardware products</li><li>• Identify components on front and back panels</li><li>• Describe the feature and benefits of the Call Station and Wall Control Panel</li><li>• Install all five hardware components</li><li>• Bridge amplifier channels</li><li>• Set the amplifier input sensitivity</li><li>• Utilize amplifier standby settings</li><li>• Describe the override and emergency tones functionality</li><li>• Review PC GUI user interface levels</li><li>• GUI installation, interface, controls and configuration</li><li>• Connecting to a device</li><li>• Administrator settings</li><li>• Firmware updates</li><li>• Amplifier PC GUI user screen</li><li>• Work with standby settings and DSP Setup</li><li>• iOs App user screen, menu screen and global device settings</li></ul>
<b>Prerequisites</b>	<ul style="list-style-type: none"><li>• None</li></ul>
<b>Target groups</b>	<ul style="list-style-type: none"><li>• Engineers, Installers, Sales and Marketing and Specifiers</li></ul>

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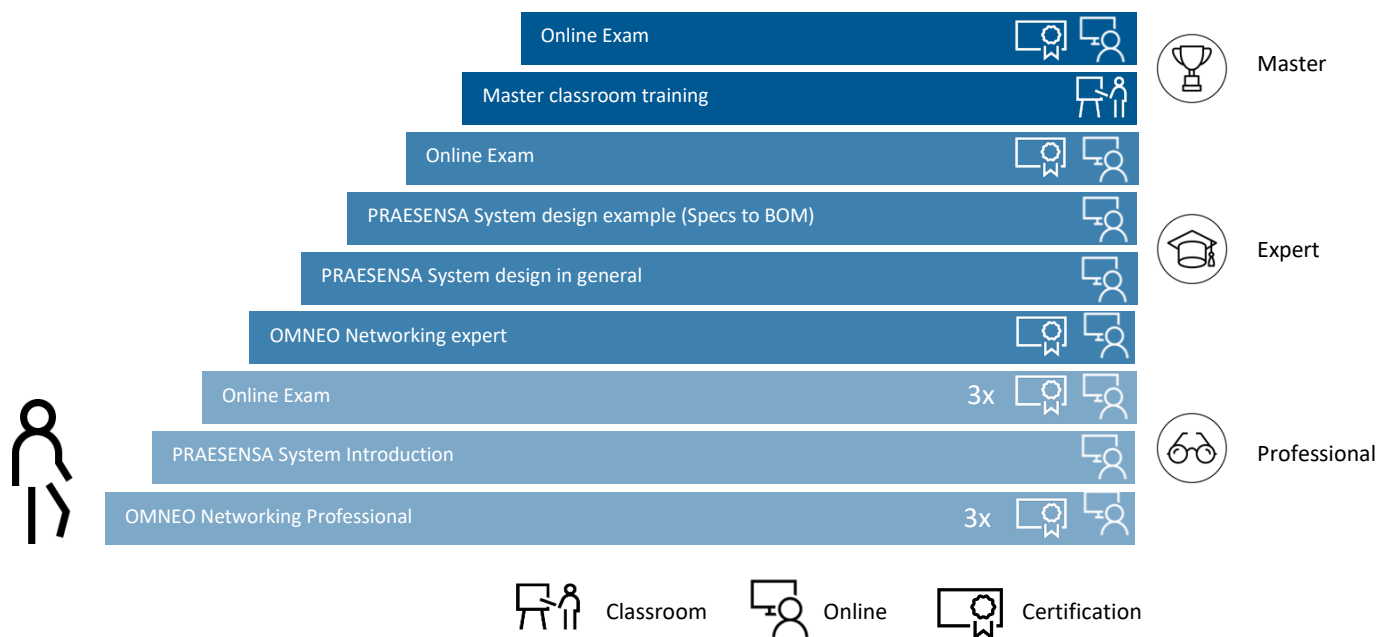
## Public Address

### Bosch Public Address PLENA and PLENA Voice Alarm – Technical Expert



<b>Short description</b>	<p>Product training on the PLENA and PLENA VAS product range. The qualification as Technical Expert is achieved by:</p> <ul style="list-style-type: none"><li>• Attending all training days of the classroom training and</li><li>• Passing an Online Exam after the training.</li></ul>
<b>Content</b>	<p>The content that will be part of this Training is:</p> <ul style="list-style-type: none"><li>• Market and product positioning</li><li>• Features, benefits, do's and don'ts of individual PLENA hardware and software products</li><li>• Installation, setup and operation of latest hardware and software (including hands-on)</li><li>• Extending installed PA systems</li><li>• System architecture and system integration (e.g. with Fire FPA5000)</li><li>• Overall field knowledge -&gt; transferred to practical solutions (including Hands-on)</li><li>• Out of the "product" box thinking &amp; building</li></ul>
<b>Learning targets</b>	<p>By successfully completing this training the customer should be able to:</p> <ul style="list-style-type: none"><li>• Understand the application areas and targeted markets</li><li>• Show the relation between the benefits and features of each product.</li><li>• Make a system design</li><li>• Combine and to install and configure the correct system components</li><li>• Upgrade the PLENA solutions and PLENA Voice Alarm Systems</li><li>• Be able to make a competent report &amp; presentation to customers</li><li>• Be able to support and train wholesalers and installers</li><li>• Be able to think &amp; build "out of the product box"</li></ul>
<b>Prerequisites</b>	<ul style="list-style-type: none"><li>• Bosch Public Address PA Basics- Professional Training (Online)</li></ul>
<b>Target groups</b>	<ul style="list-style-type: none"><li>• Sales, Sales Engineer, Project Engineer and System Integrator</li></ul>
<b>Training Duration</b>	2 days
<b>Commercial Information:</b>	<p>CTN numbers</p> <ul style="list-style-type: none"><li>• Eindhoven: TRA-PLN-COE</li></ul> <p>Price: €900 per training per person (Net price before VAT)</p>

## PRAESENSA Overview



The learning path is also available in the Bosch Security & Safety Academy. You only need to click on the certification symbol and you will be routed directly to the correct learning path.

The following languages\* are supported by Communication Systems:  
 EN, DE, F, IT, ES, POR, RU.

\*Subject to availability (Phased approach)

## Public Address

### Bosch Public Address PRAESENSA – Professional (Online)

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<b>Short description</b>	This online training consists of multiple modules and aims to provide you an overview about Bosch PRAESENSA Public Address & Voice Alarm System hardware and software components. A Professional Level Certificate will be available upon successful completion of this online training and exam.
<b>Content</b>	<p>The modules and topics that will be covered within this training certification level are:</p> <ul style="list-style-type: none"><li>• OMNEO Networking – Professional Level (IP-Basics &amp; OMNEO overview)</li><li>• The PRAESENSA System – What’s New?</li><li>• System controller</li><li>• Amplifiers</li><li>• Multifunction power supply</li><li>• Call stations</li><li>• Software</li><li>• Accessories</li></ul>
<b>Learning targets</b>	<p>By successfully completing this online training the student will be able to:</p> <ul style="list-style-type: none"><li>• Identify system hardware and software components</li><li>• Understand system connectivity and features</li><li>• Perceive the unique particularities which makes PRAESENSA a state of the art and future proof Public Address &amp; Voice Alarm System</li><li>• Explain Network &amp; Power design consideration</li><li>• Show knowledge on IP Networks and Audio Networks</li></ul>
<b>Prerequisites</b>	<ul style="list-style-type: none"><li>• Bosch Public Address PA basics – Professional Training (online training)</li></ul>
<b>Target groups</b>	<ul style="list-style-type: none"><li>• Systems Integrators, Distributors, Installers, Specifiers, Consultants, Sales and Marketing &amp; End Users</li></ul>

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## Public Address



### Bosch Public Address PRAESENSA– Expert (Online)

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<b>Short description</b>	This online training brings concepts about system design and configuration for Bosch PRAESENSA Public Address & Voice Alarm System, aiming to give a more complete overview about these components, with their key features and systems applications, using project examples to show how to build up a Bill of Materials according to the project requirements. An Expert Level Certificate will be available upon successful completion of this online training and exam.
<b>Content</b>	The modules and topics that will be covered within this Expert Level Certification are: <ul style="list-style-type: none"><li>• OMNEO Networking – Expert Level (IP-Advanced &amp; OMNEO tools)</li><li>• System design approach</li><li>• System planning tool</li><li>• Amplifier selection</li><li>• Power design</li><li>• Network design</li><li>• 3<sup>rd</sup> party network devices</li><li>• System design examples</li></ul>
<b>Learning targets</b>	By successfully completing this online training the student will: <ul style="list-style-type: none"><li>• Recognize and be able to use broader and more in depth knowledge on IP Networks and Audio Networks</li><li>• Learn how to use and setup OMNEO tools</li><li>• Understand the particularities of designing a Public Address System and Voice Evacuation System</li><li>• Be able to specify a PRAESENSA system according to the project requirements and turn this specification into a Bill of Material</li></ul>
<b>Prerequisites</b>	<ul style="list-style-type: none"><li>• Bosch PRAESENSA Public Address &amp; Voice Alarm System – Professional Level (online training)</li></ul>
<b>Target groups</b>	<ul style="list-style-type: none"><li>• Systems Integrators, Distributors, Installers, Specifiers, Consultants, Sales and Marketing</li></ul>

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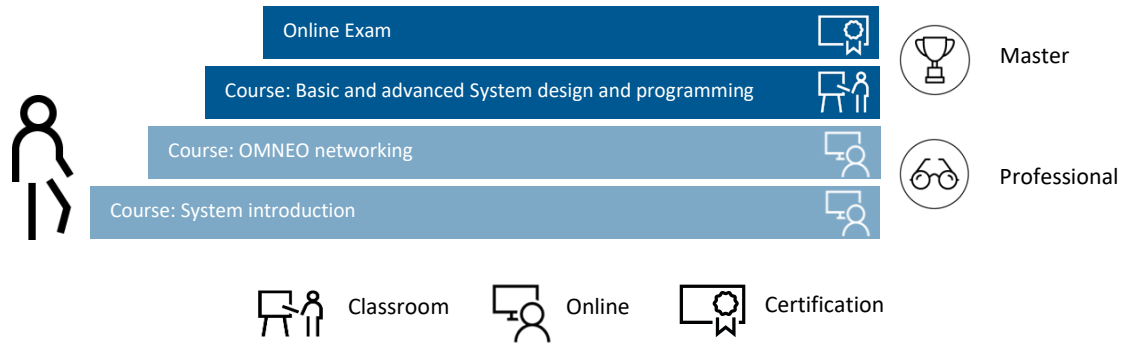
## Public Address

### Bosch Public Address PRAESENSA– Master



<b>Short description</b>	This classroom training brings an immersive and unique opportunity to master Bosch PRAESENSA Public Address & Voice Alarm System, including hands on experience on all hardware & software offerings for complete programming and operation of the system. A Master Level Certificate will be available upon successful completion of this classroom training and online exam.
<b>Content</b>	<p>The modules and topics that will be covered within this training certification level are:</p> <ul style="list-style-type: none"><li>• System components</li><li>• Installation and uploading of the Firmware</li><li>• Configuration and hands-on</li><li>• PRAESENSA network basics</li></ul>
<b>Learning targets</b>	<p>By successfully completing this online training the student will be able to:</p> <ul style="list-style-type: none"><li>• Configure and commission a Bosch PRAESENSA Public Address &amp; Voice Alarm System</li><li>• Recognize how to update system firmware for the respective hardware components</li><li>• Setup all Hardware and Software components simulating real live system for different projects</li></ul>
<b>Prerequisites</b>	<ul style="list-style-type: none"><li>• PRAESENSA Public Address &amp; Voice Alarm System – Professional Level (online training)</li><li>• PRAESENSA Public Address &amp; Voice Alarm System – Expert Level (online training)</li></ul>
<b>Target groups</b>	<ul style="list-style-type: none"><li>• Systems Integrators, Distributors, Installers and Consultants</li></ul>
<b>Training Duration</b>	3 days
<b>Commercial Information:</b>	<p>CTN number:</p> <ul style="list-style-type: none"><li>• Eindhoven: TRA-PRA-COM</li></ul> <p>Price: €900 per training per person (Net price before VAT)</p>

## DICENTIS Overview



The learning path is also available in the Bosch Security & Safety Academy. You only need to click on the certification symbol and you will be routed directly to the correct learning path.

The following languages\*are supported by Communication Systems:

EN, DE, F, IT, ES, POR, RU

\*Subject to availability (Phased approach)



## Conference and Discussion



### Bosch Conference DICENTIS – Technical Professional

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<b>Short description</b>	This training plan is designed for sales and marketing staff. It consists of 4 modules, covering in detail the OMNEO commercial and technical basics, and provides general Sales knowledge on DICENTIS.
<b>Content</b>	<p>The modules and topics that will be covered within this training certification level are:</p> <ul style="list-style-type: none"><li>• Bosch OMNEO IP Basics</li><li>• Bosch OMNEO General Sales Knowledge</li><li>• Bosch OMNEO Technical Basics</li><li>• Bosch Conference DICENTIS General Sales Knowledge</li></ul>
<b>Learning targets</b>	<p>By successfully completing this training the customer should be able to:</p> <ul style="list-style-type: none"><li>• Explain the positioning of DICENTIS in the market, the benefits of the DICENTIS conference system, and in which typical applications the system can be used</li><li>• Show the main system components and their main functionalities</li><li>• Create equipment lists and offers (including Software Maintenance Agreement)</li><li>• Understand what marcom and sales tools are available and where to use the tools</li></ul>
<b>Prerequisites</b>	<ul style="list-style-type: none"><li>• General Conference Knowledge</li></ul>
<b>Target groups</b>	<ul style="list-style-type: none"><li>• System Integrators, Distributors, Installers, Specifiers, Consultants, Sales and Marketing and End Users</li></ul>

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## Conference and Discussion

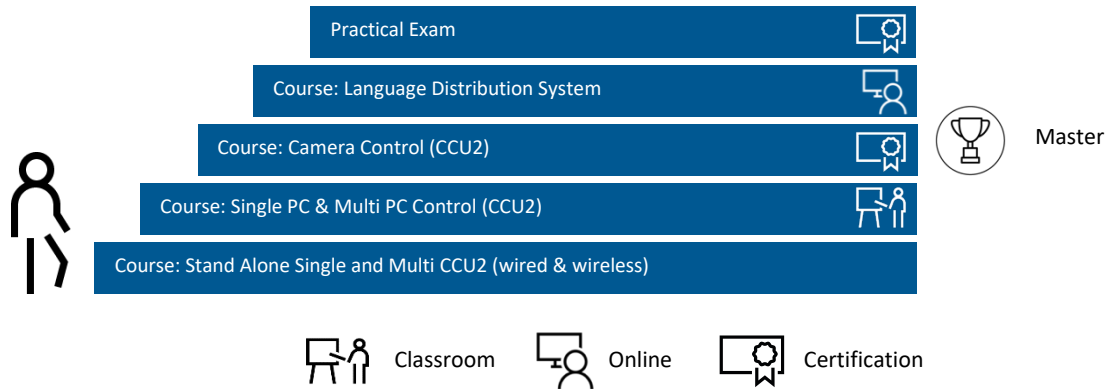
### DICENTIS – Technical Master



<b>Short description</b>	<p>The qualification as Master is achieved by:</p> <ul style="list-style-type: none"><li>• Completing the Online Training modules according to the Master Certification Training Plan</li><li>• Attending all training days of the classroom training</li><li>• Passing an Online Exam after the training</li></ul> <p>As there are Online training courses as pre-requisites for this class please complete these before the end of the registration phase, otherwise your registration cannot be confirmed.</p>
<b>Content</b>	<p>The modules and topics that will be covered within this training certification level are:</p> <ul style="list-style-type: none"><li>• DICENTIS Product Overview</li><li>• OMNEO Designing</li><li>• OMNEO Fault Analysis</li><li>• DICENTIS Design Basics</li><li>• DICENTIS Software</li><li>• DICENTIS Advanced Design Training</li></ul>
<b>Learning targets</b>	<p>By successfully completing this training the customer should be able to:</p> <ul style="list-style-type: none"><li>• Show the features and limits of the individual DICENTIS type number</li><li>• Understand the different system types and their requirements</li><li>• Choose the right architecture: topology, re-using infrastructures, sharing traffic</li><li>• Show the steps required to design and deploy an OMNEO-based system</li><li>• Understand security and reliability</li><li>• Show the OMNEO troubleshooting procedure</li><li>• Use network analysis tools</li><li>• Design a system taking the system limits into account</li><li>• Configure and Operate with the DICENTIS software</li><li>• Design medium and large systems</li></ul>
<b>Prerequisites</b>	<ul style="list-style-type: none"><li>• Bosch Conference DICENTIS- Technical Professional (Online)</li></ul>
<b>Target groups</b>	<ul style="list-style-type: none"><li>• System Integrators</li></ul>
<b>Training Duration</b>	4 days
<b>Commercial Information:</b>	<p>CTN numbers:</p> <ul style="list-style-type: none"><li>• Eindhoven: TRA-DCN-COM</li></ul> <p>Price: €1200 per training per person (Net price before VAT)</p>

## Conference and Discussion

### Bosch Conference DCN Next Generation



The learning path is also available in the Bosch Security & Safety Academy. You only need to click on the certification symbol and you will be routed directly to the correct learning path.

The following languages\* are supported by Communication Systems:  
EN, DE, F, IT, ES, POR, RU.

\*Subject to availability (Phased approach)

## Conference and Discussion

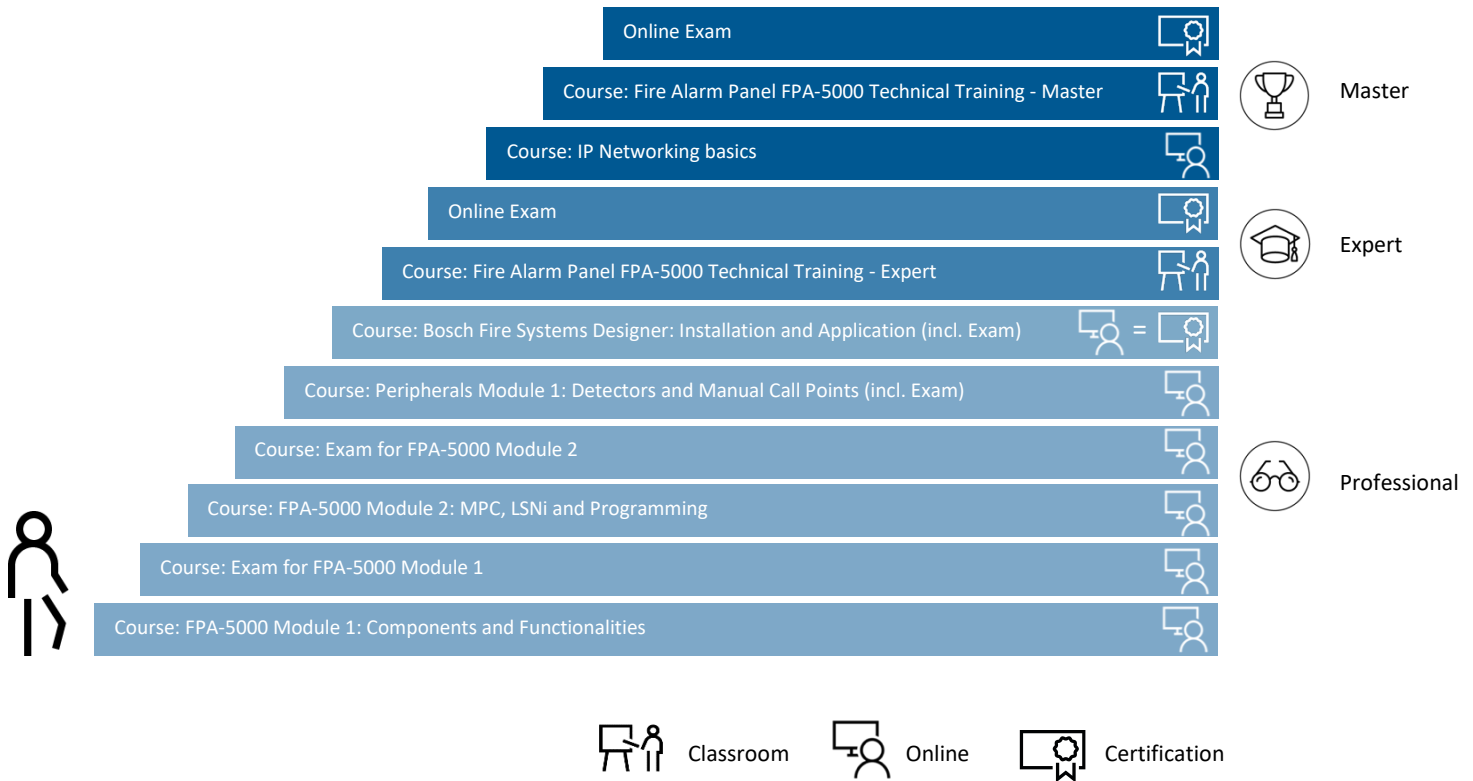


### Bosch Conference DCN Next Generation – Technical Master

<b>Short description</b>	<p>Comprehensive DCN Next Generation Master 5 day classroom training in Eindhoven, Netherlands, covering:</p> <ul style="list-style-type: none"><li>• Stand Alone Single and Multi CCU2 (wired &amp; wireless)</li><li>• Single PC &amp; Multi PC Control (CCU2)</li><li>• Camera Control (CCU2)</li><li>• Integrus Language Distribution System</li></ul> <p>There will be an individual knowledge questionnaire after each training module</p>
<b>Content</b>	<p>The modules and topics that will be covered within this training certification level are:</p> <ul style="list-style-type: none"><li>• DCN Conference Solutions without PC Control</li><li>• Single-CCU2</li><li>• Multi-CCU2</li><li>• DCN Conference Solutions with PC Control</li><li>• DCN-SWSMV</li><li>• DCN-SW</li><li>• HD Camera Control Solutions</li><li>• DCN Conference Solutions third party interface possibilities</li><li>• INTEGRUS Language Distribution System</li></ul>
<b>Learning targets</b>	<p>By successfully completing this training the customer should have:</p> <ul style="list-style-type: none"><li>• A full understanding of designing, installing and operating DCN Conference Solutions and First Line Services</li><li>• A basic understanding of designing, installing and operating DCN Conference Solutions with PC Control</li><li>• A full understanding of designing, installing and operating DCN Conference Solutions with Camera Control</li><li>• A basic understanding of Open interface (LBB4187), DCB-SWSMD and DCN-SWAPI</li><li>• A full understanding of designing, installing and operation of INTEGRUS Language Distribution System and First Line Services</li></ul>
<b>Prerequisites</b>	<ul style="list-style-type: none"><li>• Basic knowledge of Conference Systems</li></ul>
<b>Target groups</b>	<ul style="list-style-type: none"><li>• System Integrators</li></ul>
<b>Training Duration</b>	5 Days
<b>Commercial Information:</b>	<p>CTN number:</p> <ul style="list-style-type: none"><li>• Eindhoven: TRA-DCNNG-COM</li></ul> <p>Price: €1500 per training per person (Net price before VAT)</p>

# Fire Overview

## FPA-5000



The learning path is also available in the Bosch Security & Safety Academy. You only need to click on the certification symbol and you will be routed directly to the correct learning path.

The following languages\* are supported by Fire:

EN, DE, IT, ES, FR, RU, POR and POL

\*Subject to availability (Phased approach)

## Fire



### FPA-5000 Technical Professional Training Plan

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<b>Short description</b>	<p>This training plan includes several topics and modules that will give you an overview of</p> <ul style="list-style-type: none"><li>• the basic components of the Bosch Fire Alarm Panel FPA-5000</li><li>• different technologies and applications for Bosch Fire Detectors</li><li>• different types of manual call points</li></ul> <p>You will also learn how to use the Bosch Planning Tool in your daily work.</p> <p>Please register to the Training Plan and open it afterwards in order to see the assigned individual Online Training offering.</p>
<b>Content</b>	<p>This training plan will include:</p> <ul style="list-style-type: none"><li>• Bosch Fire Alarm System FPA-5000</li><li>• Bosch Fire Peripherals</li><li>• Bosch Fire Planning Tool: Safety Systems Designer</li></ul>
<b>Learning targets</b>	<p>By successfully completing this training plan the customer should be able to:</p> <ul style="list-style-type: none"><li>• Understand the modular concept of the FPA-5000</li><li>• Get familiar with functional concept of LSN and basic structure of RPS</li><li>• Understand features and differences of Bosch products and learn about their technical data</li><li>• Create:<ul style="list-style-type: none"><li>○ projects of different sizes</li><li>○ bill of material</li><li>○ tender texts</li><li>○ battery and loop calculations and</li><li>○ schematic drawings</li></ul>with the Safety Systems Designer</li></ul>
<b>Prerequisites</b>	<ul style="list-style-type: none"><li>• Basic Fire Knowledge</li></ul>
<b>Target groups</b>	<ul style="list-style-type: none"><li>• System Integrators</li></ul>

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## Fire

### Fire Alarm Panel FPA-5000 Technical Training - Expert



<b>Short description</b>	A 2 day Classroom training and online exam which concerns the modular fire panel FPA-5000 and basic diagnostics procedures. In order to achieve the Technical Expert qualification the customer must attend all training days of the classroom trainings and pass an Online Exam after the Trainings.
<b>Content</b>	This training plan will include: <ul style="list-style-type: none"><li>• A Recap of Modular Concept</li><li>• Redundancy</li><li>• Recap LSNi Basics</li><li>• LSN Advanced</li><li>• LSNi Test Tool</li><li>• “Do’s and Don’ts” Installation</li><li>• Maintenance</li><li>• Programming with RPS</li><li>• Troubleshooting</li><li>• Simple Networking</li><li>• Hands-on sessions</li></ul>
<b>Learning targets</b>	By successfully completing this training the customer should be able to: <ul style="list-style-type: none"><li>• Have a general understanding of the FPA product family</li><li>• Design, install and program an FPA-5000 system in stand-alone set-up</li></ul>
<b>Prerequisites</b>	<ul style="list-style-type: none"><li>• Basic Fire Knowledge</li><li>• Completed FPA-5000 Technical Professional Training Plan</li></ul>
<b>Target groups</b>	<ul style="list-style-type: none"><li>• Installers</li><li>• System Integrators</li></ul>
<b>Training Duration</b>	2 days
<b>Commercial Information:</b>	Location wise CTN numbers: <ul style="list-style-type: none"><li>• Grasbrunn: TRA-FPA-FE</li><li>• Eindhoven: TRA-FPA-CE</li></ul> Price: €600 per training per person (Net price before VAT)

## Fire



### Fire Alarm Panel FPA-5000 Technical Training - Master

<b>Short description</b>	<p>A 2 day Classroom training and online exam which concerns the networking capabilities of the Bosch FPA-5000 Fire Alarm Panel.</p> <p>In order to achieve the Technical Master qualification the customer must attend all training days of the classroom trainings and pass an Online Exam after the Trainings.</p> <p>The completion of the Online Training <b>IP Networking Basics</b> should also be completed at this time. (See page <a href="#">12</a>)</p>
<b>Content</b>	<p>This training plan will include:</p> <ul style="list-style-type: none"><li>• Complex networks (CAN, IP, OPC)</li><li>• Connection to FSM</li><li>• Smart Safety Link (Integration to Praesideo, Paviro)</li><li>• RPS Programming advanced: application of rules over FPA network</li><li>• Hands-on sessions</li></ul>
<b>Learning targets</b>	<p>By successfully completing this training the customer should be able to:</p> <ul style="list-style-type: none"><li>• Have a general knowledge about FPA-5000 networking and connection to FPA-OPC, Fire Evac and FSM-2500/5000</li><li>• Install, configure and commission an FPA-5000 network</li></ul>
<b>Prerequisites</b>	<ul style="list-style-type: none"><li>• Certificate Expert Level</li></ul>
<b>Target groups</b>	<ul style="list-style-type: none"><li>• Experienced Electrical Design Engineers</li></ul>
<b>Training Duration</b>	2 days
<b>Commercial Information:</b>	<p>Location wise CTN numbers:</p> <ul style="list-style-type: none"><li>• Grasbrunn: TRA-FPA-FM</li><li>• Eindhoven: TRA-FPA-CM</li></ul> <p>Price: €600 per training per person (Net price before VAT)</p>



## Tenslotte

Het is ons een groot genoegen om u een breed aanbod aan trainingen van al onze verschillende domeinen te doen toekomen

Zoals ook aan het begin vermeld, kunt u zichzelf registreren en vervolgens verschillende online en klassikale trainingen boeken op de niveaus Professional, Expert en Master via de volgende link:

<https://academy.globalteach.com/ST/Login.aspx>

Dit document is geldig voor trainingen in 2019. Alle aangeboden informatie kan aan veranderingen onderhevig zijn zonder dat wij daar verdere richtbaarheid aan geven.

Hou er a.u.b. rekening mee dat trainingen kunnen worden geannuleerd in het geval er onvoldoende deelnemers zijn.

Prijzen voor de klassikale trainingen zijn Netto prijzen. Online trainingen zijn gratis en kunnen door de cursisten gevolgd worden op de momenten en met de snelheid die hen past.

In geval van nadere vragen, neem a.u.b. contact op met:

[training.emea@de.bosch.com](mailto:training.emea@de.bosch.com)



*"The more you learn, the higher the qualification you earn"*

## NOTES

## NOTES