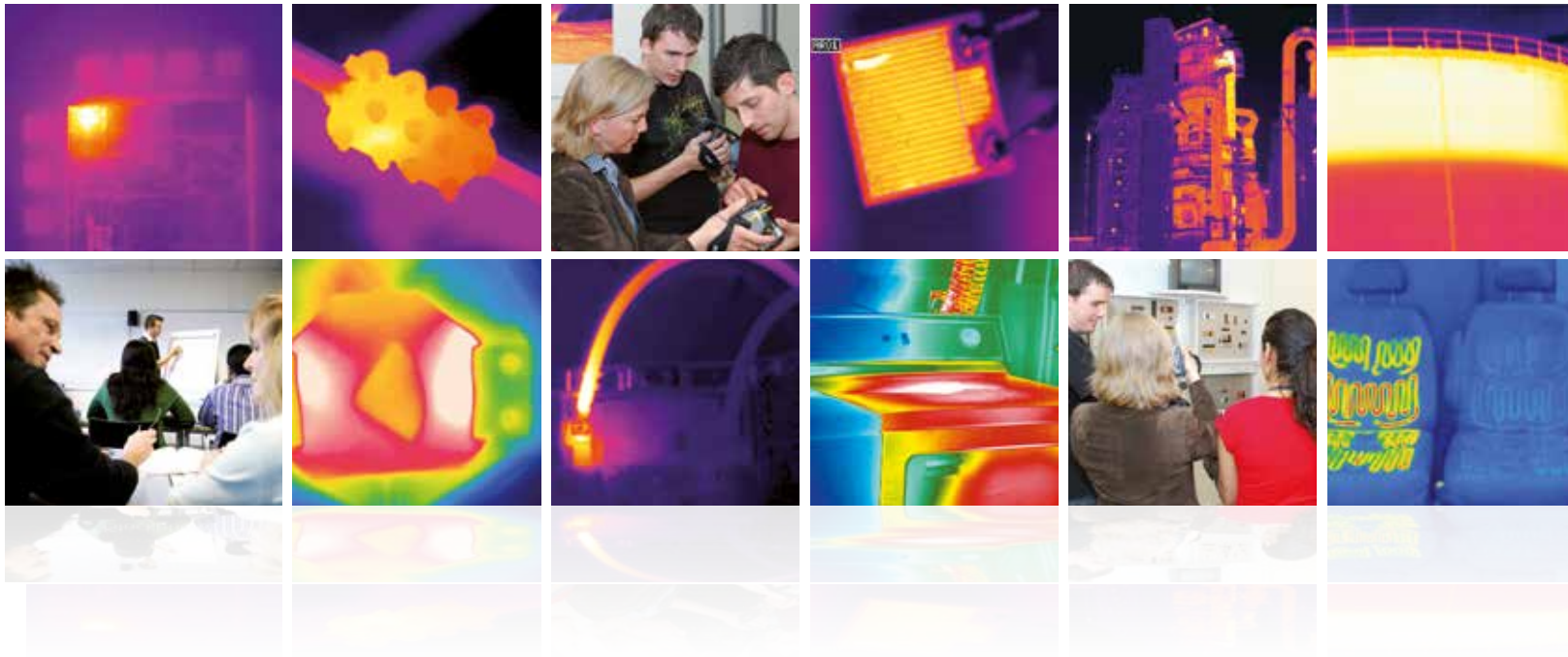


EMEA


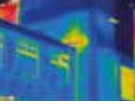

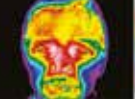









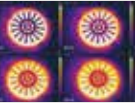
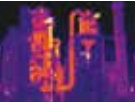

ITC, the leading source of knowledge within infrared science and its applications.

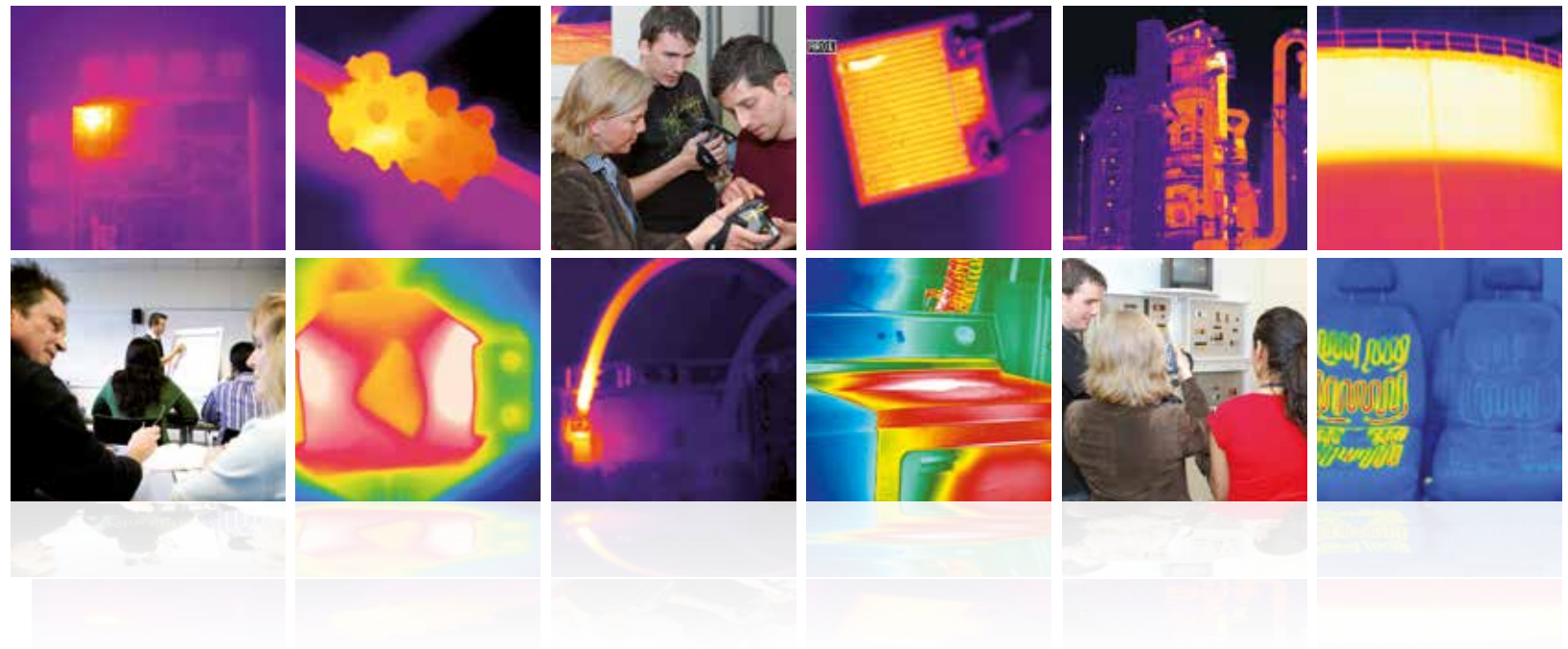


ITC product	Practical	Description and content	Part No course	Part No student
<p>ITC Level 1 Thermography Course</p> 	<p>Duration: 40 hours Exam: Yes Target group: practical user Pre-requisites: Be familiar with the basic operation of an infrared camera and have the recommended experience within thermography according to relevant standards.</p>	<p>This course prepares you for qualification as a category 1 certified thermographer. You will learn about the basics of infrared, how to operate the camera under different conditions and for various purposes, how to do an appropriate judgement of the measurement situation in the field and identify potential error sources. You will be able to do IR inspections following written guidelines and to report the result of this inspection.</p>	ITC-CER-5109	ITC-CER-5101 (ITC-CER-5105 additional student on site class)
<p>ITC Level 2 Thermography Course</p> 	<p>Duration: 40 hours Exam: Yes Target group: professional user Recommendations: Ability to manipulate basic algebraic equations Pre-requisites: Valid Level 1 thermography certificate, recommended experience within thermography according to relevant standards, and prepared case study to be presented at the Level 2 course and submitted towards qualification at course closing.</p>	<p>This course prepares you for qualification as a category 2 certified thermographer. You will learn about topics in infrared thermography to both deepen and broaden your knowledge about infrared physics, heat science, infrared measurement equipment and its application. As a Level 2 thermographer you shall provide guidance to category 1 personnel in the areas of equipment selection, techniques, limitations, data analysis, corrective actions and reporting.</p>	ITC-CER-5209	ITC-CER-5201 (ITC-CER-5205 additional student on site class)
<p>EN473 IT Certification course Category 1</p> 	<p>Duration: 40 hours + exam Exam: Yes Target group: professional user Recommendations: Having attended 2 days introduction course Reading, basic calculations, basic camera operation, 3 months professional activity in thermography, having attended an introduction course or equivalent.</p>	<p>This course prepares you for the Category 1 exam to become a certified thermographer according to EN 473. Content: Introduction to IR thermography and measurement techniques, basics physics of heat and infrared, thermal science, heat transfer, camera operation and applications. This course includes daily hands-on training and lab exercises.</p>		ITC-CER-6101 (Course), ITC-FEE-0120 (Exam + Certification)
<p>ITC Advanced Building Course</p> 	<p>Duration: 24 hours Exam: Final test Target group: Professional user in building applications who want to become experts in Building Thermography Recommendations: Knowledge of building techniques Pre-requisites: Valid Level 1 thermography certificate, IR related education and experience.</p>	<p>This is a module designed for operators who want to become advanced users within building thermography. Experience in thermography is mandatory. Knowledge of building techniques is a plus. Content: Common insulating materials, 1-D heat transfer in a composite structure, conduction resistance, air - wall interface, U Value for a simplified structure, temperature profiles, thermal bridges, thermal indexes, transient heat transfer, thermal inertia, comparison of various wall structures, humidity, measurement technology, relative humidity, dew point, vapour permeability, vapour barriers, air permeability, air leakages, blower door, pressure differences. This course includes a full lab with a blower door and has big emphasis on inspection guidelines.</p>	ITC-ADV-3019	ITC-ADV-3011
<p>ITC Advanced Gas Detection Course</p> 	<p>Duration: 20 hours Exam: Final test Target group: Specialized users in gas detection Recommendations: Basic understanding and knowledge of natural sciences, technical background Pre-requisites: None</p>	<p>This is a module for users specialized in gas detection. Content: setup and operation of FLIR GasFindIR cameras, adjusting for environmental conditions to find gas leaks, detectable gases, leak size limitations, basic IR theory and heat transfer. Lab and/or field practice in finding leaks is a key part of this class. Students will learn by doing and by observing numerous videos of leaks what to look for including thermal contrast, gas plume motion, distance limitations, etc. Basic inspection procedures will be covered including equipment checklist, route planning, permit to work requirements, safety practices, equipment and reporting concepts.</p>	ITC-ADV-3039	ITC-ADV-3031 (ITC-ADV-3035 additional student for on-site class)

ITC product	Practical	Description and content	Part No course	Part No student
<b>ITC Short course Introduction to thermography</b> 	<b>Duration:</b> 8 hours <b>Exam:</b> None <b>Target group:</b> Beginners and everybody interested in IR thermography and its applications <b>Recommendations:</b> Basic understanding and knowledge of natural sciences, technical background <b>Pre-requisites:</b> None	Full one day course for customers operating entry-level cameras. Content: Basics of thermography, basics of emissivity and reflected apparent temperature, introduction to electrical and industrial inspections, camera handling, software installation and test. The course includes about 2 hours of practice, on a minimum of 3 key labs: emissivity and TRefl, influence of the angle on the measurement, influence of the object size on the measurement.	ITC-EXP-1019	ITC-EXP-1011
<b>ITC Short Course Building Thermography</b> 	<b>Duration:</b> 16 hours <b>Exam:</b> None <b>Target group:</b> Beginners and everybody interested in IR thermography and building applications <b>Recommendations:</b> Interest for the technology and its applications <b>Pre-requisites:</b> None	This course gives a general introduction to IR thermography and an overview on its specific use for the inspection of buildings. It aims at giving you clues on what you can do with your camera.	ITC-EXP-2019	ITC-EXP-2011
<b>ITC Short Course Electrical Thermography</b> 	<b>Duration:</b> 16 hours <b>Exam:</b> None <b>Target group:</b> Beginners and everybody interested in IR thermography and electrical applications <b>Recommendations:</b> Interest for the technology and its applications <b>Pre-requisites:</b> None	This course gives a general introduction to IR thermography and an overview on its specific use for inspections of electrical systems. It aims at giving you clues on what you can do with your camera.	ITC-EXP-2049	ITC-EXP-2041
<b>ITC Fever Screening Course</b> 	<b>Duration:</b> 16 hours <b>Exam:</b> None <b>Target group:</b> Professional user who have to set up a procedure for temperature control of population <b>Recommendations:</b> Should be organised with a real-size test in the field <b>Pre-requisites:</b> None	This full 2-day course aims at explaining how to set-up a procedure for the temperature control of population. It is designed for persons who might have to implement a control (medical authorities, customs, civil security, etc). It starts with a brief, but necessary, reminder of thermal transfers and of the fundamentals of thermography. Key factors such as NETD, drift and drift compensation, baseline measurement and update, and the factors influencing the diagnosis are explained in details. Camera setup is included. ITC recommends to organize it simultaneously to a real-size test (airport, ferry-port, seaport, river port, stadium, etc.).	ITC-EXP-2029	ITC-EXP-2021 (ITC-EXP-2025 additional student on site class)
<b>ITC Thermal Imaging Fundamentals</b> 	<b>Duration:</b> 8 hours <b>Exam:</b> None <b>Target group:</b> Anyone involved with thermal imaging and anyone involved with the design, development, manufacture, sales, installation and support of thermal imaging systems and components. <b>Recommendations:</b> Foundation in basic math and algebra <b>Pre-requisites:</b> None	This course provides an introduction to infrared (IR) technology and covers the fundamentals of thermal imaging. Topics include the electromagnetic spectrum, infrared cameras and optics, thermal imaging versus other night vision technologies, factors that influence image quality, and the interpretation of thermal images. The course develops fluency with the relevant terminology, concepts and industry jargon, and cultivates the ability to think "in terms of IR." The course includes demonstrations that are designed to develop familiarity with thermal infrared cameras and images.		ITC-CVS-0101

ITC product	Practical	Description and content	Part No course Part No student
<p><b>ITC Thermal Imaging for Security Applications</b></p> 	<p><b>Duration:</b> 8 hours  <b>Exam:</b> None  <b>Target group:</b> This course is intended for anyone involved with the sales, installation and support of FLIR CVS thermal imaging solutions for security and surveillance applications. End users of the thermal imaging equipment will also benefit from the course.  <b>Recommendations:</b> Familiarity with security and surveillance applications and a foundation in basic math and algebra are helpful. Bring your own PC with internet access and Raven software installed.  <b>Pre-requisites:</b> ITC Thermal Imaging Fundamentals class taken</p>	<p>This course provides familiarity with the FLIR CVS Security and Surveillance (S&amp;S) thermal cameras, with an emphasis on how to select a thermal camera for a given application. After a brief review of the more pertinent concepts from the prerequisite CVS 101 course, topics include S&amp;S camera platforms, range calculations, factors influencing detection range, AGC optimization, video analytics, and the concept of layered situational awareness. Students receive instruction on how to use the FLIR CVS software tools to effectively lay out a security system and estimate its range performance.</p>	ITC-CVS-0201
<p><b>ITC Nexus Fundamentals</b></p> 	<p><b>Duration:</b> 8 hours  <b>Exam:</b> None  <b>Target group:</b> This course is intended for anyone involved with the sales, installation and support of FLIR thermal imaging solutions in IP networks for security and surveillance applications. It is also suitable for end users of the thermal imaging equipment.  <b>Recommendations:</b> Familiarity with security and surveillance applications and with TCP/IP networks is very helpful but not required. Bring your own PC with internet access and FSM software installed.  <b>Pre-requisites:</b> None</p>	<p>FLIR's Nexus solution allows FLIR thermal imagers and other security components to be integrated in a TCP/IP network. High-end imaging systems can be integrated with other security devices in Security and Surveillance applications. This course provides an introduction to Nexus and how it is used to integrate sensors and devices in TCP/IP networks.</p>	ITC-CVS-0301
<p><b>ITC Nexus Advanced</b></p> 	<p><b>Duration:</b> 8 hours  <b>Exam:</b> None  <b>Target group:</b> This course is for anyone involved with the sales, installation and support of FLIR commercial thermal imaging solutions in IP networks for security and surveillance applications. It is also suitable for end users of the thermal imaging equipment.  Familiarity with security and surveillance applications and with TCP/IP networks is very helpful but not required. Bring your own PC with internet access and software installed.  <b>Pre-requisites:</b> ITC Nexus Fundamentals class taken</p>	<p>This course provides comprehensive knowledge of Nexus and how it is used to integrate security devices and sensors in TCP/IP networks. The course builds upon the experience gained from the CVS 301: Nexus Fundamentals course.</p>	ITC-CVS-0302
<p><b>ITC System Integration Topics</b></p> 	<p><b>Duration:</b> 8 hours  <b>Exam:</b> None  <b>Target group:</b> Anyone involved with the integration, installation and support of FLIR CVS thermal imaging solutions in legacy CCTV networks and IP networks for security and surveillance applications. It is also suitable for end users of the thermal imaging equipment.  <b>Recommendations:</b> Familiarity with security and surveillance applications, legacy security networks and TCP/IP networks is very helpful but not required. Bring your own PC with internet access and software installed.  <b>Pre-requisites:</b> ITC Thermal Imaging Fundamentals class taken.</p>	<p>FLIR thermal imaging systems are integrated most often with other third-party security devices in Security and Surveillance applications. FLIR thermal imagers typically provide an important complement to ordinary daylight cameras in overall video security solutions. This course provides an overview of integration topics and the common issues involved with integrating thermal cameras with other types of security equipment. The course provides a comprehensive survey of the requirements for integrating thermal imagers in legacy CCTV networks as well as emerging TCP/IP security backbones.</p>	ITC-CVS-0401

ITC product	Practical	Description and content	Part No course	Part No student
<p><b>Getting started with thermography</b></p> 	<p><b>Duration:</b> 4 hours  <b>Exam:</b> None  <b>Target group:</b> Beginners and everybody interested in thermography and its applications  <b>Recommendations:</b> Bring your own camera  <b>Pre-requisites:</b> None</p>	<p>This course gives an introduction for customers operating entry level cameras. The focus is put on camera operation and localization of thermal anomalies. You will also learn how to deal with the surrounding conditions when performing simple temperature measurements, how to store your images and how to use them in reports.</p>		<p>ITC-EXP-0511 (ITC-EXP-0521 evening or weekend)</p>
<p><b>ITC in-house R&amp;D training ATS (up to 4 persons)</b></p> 	<p><b>Duration:</b> 16 hours  <b>Exam:</b> None  <b>Target group:</b> Users of high end scientific thermography equipment, more particularly those equipped with FLIR ATS cooled products and software suites. Users of uncooled SC6XX products.  <b>Recommendations:</b> Basic knowledge about thermography and related parameters.  <b>Pre-requisites:</b> The customer is in charge to prepare for practice and hands-on, in his/her facility. IR equipment and related software have to be installed and functional.</p>	<p>The core part (2 days) consists of lectures on theoretical subjects, plus hands-on. Additional days can be booked. After a general review of heat and heat transfer, you will learn about radiative heat transfer. Starting with the standard measurement situation you will learn about the importance of emissivity and reflected apparent temperature. You will compute and estimate emissivity and do compensation for the reflected apparent temperature. You will also learn about calibration and Hypercal. Depending on the needs of the audience and the time available, additional topics to be covered can be measurement through windows, measurable figures of merit, how radiation generates a signal and the influence of integration time, ROIC, etc., triggering and synchronisation, and NUC and Bad Pixel Replacement.</p>	<p>ITC-PRO-2004</p>	
<p><b>ITC In-house training</b></p> 	<p><b>Duration:</b> Customized  <b>Exam:</b> Depends on specific class provided  <b>Target group:</b> Employees of a company or certain departments who would like to minimize travel costs and receive the training directly on their daily working site.  <b>Recommendations:</b> Please refer to the pre-requisites and recommendations applicable to the kind of course the in-house training is equivalent to.  <b>Pre-requisites:</b> Please refer to the pre-requisites and recommendations applicable to the kind of course the in-house training is equivalent to.</p>	<p>An on-site training can be customized upon your needs. The participants will learn about IR thermography, inspections, measurements, applications, and reporting corresponding to the level needed for performing measurements and inspection in their working environment. The trainer will give useful advice on how to best implement IR thermography in the business. Labs will be adapted to the training and the customers needs. Practical exercises include both labs and field inspection on the site.</p>	<p>ITC-EXP-1029</p>	<p>ITC-EXP-1021</p>
<p><b>ITC Software course</b></p> 	<p><b>Duration:</b> 8 to 16 hours  <b>Exam:</b> None  <b>Target group:</b> Persons interested in, or users, of the specific software.  <b>Recommendations:</b> Basic knowledge about thermography and related parameters.  <b>Pre-requisites:</b> Laptop with installed software full version or 30 day demo (download on <a href="http://www.flir.com">www.flir.com</a>).</p>	<p>These courses are for users of FLIR software like FLIR Reporter, FLIR Build-IR and FLIR ResearchIR. Please observe that content and labs depend on the software used.</p>	<p>ITC-SOW-0009</p>	<p>ITC-SOW-0001</p>



**Europe, Middle East  
and Africa Operations**  
[www.irtraining.eu](http://www.irtraining.eu)

**ITC France**

20 Boulevard Beaubourg  
F-77183 Croissy-Beaubourg  
France  
Phone: +33 1 60 37 01 00  
Fax : +33 1 64 11 37 55  
E-mail: [itc@flir.fr](mailto:itc@flir.fr)

**ITC Germany**

Berner Strasse 81  
D-60437 Frankfurt am Main  
Germany  
Phone.: +49 69 95 00 9011  
Fax: +49 69 95 00 9040  
E-mail: [training@flir.de](mailto:training@flir.de)

**ITC Italy**

Via L. Manara, 2  
I-20051 Limbiate (MI)  
Italy  
Phone.: +39 02 99 45 10 01  
Fax: +39 02 99 69 24 08  
E-mail: [itc@flir.it](mailto:itc@flir.it)

**ITC Sweden**

Antennvägen 6  
S-187 66 Täby  
Sweden  
Phone: +46 8 753 27 55  
E-mail: [training@flir.se](mailto:training@flir.se)

**ITC United Kingdom**

2 Kings Hill Avenue  
Kings Hill  
West Malling, Kent, ME19 4AQ  
United Kingdom  
Phone.: +44 1732 220 011  
Fax: +44 1732 843 707  
E-mail: [sales@flir.uk.com](mailto:sales@flir.uk.com)

**American Operations**  
[www.infraredtraining.com](http://www.infraredtraining.com)

**ITC Americas**

9 Townsend West  
Nashua, NH 03063  
USA  
Phone: +1 603 324 7783  
Fax: +1 603 324 7791  
E-mail: [info\\_us@infraredtraining.com](mailto:info_us@infraredtraining.com)

**ITC Canada**

5230 South Service Road, Ste. 125  
Burlington, Ontario L7L 5K2  
Canada  
Phone: +1 800-613-0507  
Cell: +1 905-841-4818  
Fax: +1 905-639-5488  
Email: [paul.frisk@flir.com](mailto:paul.frisk@flir.com)

**ITC Latin America**

Av. Antonio Bardella 320  
Alto de Boa Vista,  
18085-852 , Sorocaba, SP  
Brazil  
Phone: +55 15 3238 7890  
Fax: +55 15 3238 8071  
E-mail: [lia.mariano@flir.com.br](mailto:lia.mariano@flir.com.br)

**Asia Pacific Operations**

**ITC Australia**

10 Business Park Drive  
Notting Hill, 3168  
Australia  
Phone.: +61 3 9550 2800  
Fax: +61 3 9558 9853  
E-mail: [info@flir.com.au](mailto:info@flir.com.au)

**ITC China**

Unit 22C, Hua Du Mansion,  
828-838 Zhang Yang Road  
Pudong  
SHANGHAI 200122  
China  
Phone: +86 21 5469 7628

**ITC Hong Kong**

Grand Central Plaza,  
Tower 2, Room 1613-16  
138 Shatin Rural Committee Rd.  
Shatin, N.T.  
Hong Kong  
Phone: +852 2792 8955  
Fax: +852 2792 8952

**ITC Japan**

Meguro Tokyu Bldg. 5F  
2-13-17 Kamiosaki,  
Shinagawa-ku,  
Tokyo, 141-0021  
Japan  
Phone.: +81 3 6277 5681  
Fax: +81 3 6277 5682  
E-mail: [info@flir.jp](mailto:info@flir.jp)

**ITC South Korea**

6th Floor, GuGu building  
145 – 18, Samsung-dong, Kangnam-  
gu  
SEOUL 135 – 090  
South Korea  
Phone.: +82 2 565 2715  
E-mail: [kenneth.jeon@flir.com.hk](mailto:kenneth.jeon@flir.com.hk)

**Global Operations**

**ITC Licensed Partners**

We have an established network  
of qualified training centers  
- to locate the one nearest  
to you, email [itc@flir.se](mailto:itc@flir.se) .

