



THORNE &
DERRICK
INTERNATIONAL

Thorne & Derrick
+44 (0) 191 410 4292
www.heatingandprocess.com

ecom
MOBILE SAFETY



Smart-Ex 01 / 201 & Ex-Handy 09 / 209

DELIVERING MOBILITY
IN HAZARDOUS AREAS

Enterprise Mobility

LEARN ABOUT
THE KEY BENEFITS



EXPLORING MOBILITY

Companies are aware of the capability of mobility solutions and the impact they can have on operations, reducing cost and improving efficiency. Game changing new devices are enabling break-throughs in workforce productivity, data quality and the speed and accuracy of decision making.

The world's first Intrinsically Safe 4G / LTE Smartphone, the Smart-Ex® 01 / Ex-Handy 09 is based on an Android operating system. These devices are unlocked and SIM free, offering a reliable connection to any network worldwide. The 9th generation of the Intrinsically Safe cell phones from ecom certified and approved for use in Zone 1 & DIV 1 incl. Dust Ex-areas.

ZONE 1 / 21, ZONE 2 / 22
DIV 1 / DIV 2

Intrinsically Safe Smartphone / Featurephone
QUALITY CONTROL CONDUCTED IN GERMANY, BASED ON 30 YEARS EXPERIENCE

Smart-Ex® 01 / 201

Ex-Handy 09 / 209



RANGE OF FUNCTIONS

- SIM lock free
- 4G / LTE cellular network connectivity
- Bluetooth® 4.0 incl. BLE (Bluetooth Low Energy) BLE (30 times faster, 1/100th of power)
- WiFi 802.11 a/b/g/n
- Android™ 4.4.4 - operating system
- 4.0" capacitive multi-touch screen made of extreme shock and scratch resistant Gorilla Glass® 2
- Glove Touch Screen
- High Visibility Display in Direct Sunlight
- Camera (see page 10)
- 3600 mAh Li-Ion battery pack
- 4800 mAh Li-Ion battery pack (up to 40 hours talk time)
- Magnetic and waterproof USB 2.0 High Speed connector
- IP68 - Dust proof, water proof
- Push-to-talk (App solution)
- Lone Worker Protection (App solution)
- Dedicated / programmable hardware buttons
- NFC functionality (only Smart-Ex® 01 / 201)
- Optional Service Level Agreement 3 years (SLA)
- MDM + Google Play Store certified
- FOTA (Firmware over the air)

ANDROID™ - THE MOST POPULAR OPERATING SYSTEM

ANDROID™ 4.4.4 enables this intrinsically safe device to be used in hazardous areas without any compromises, especially when compared to conventional smartphones, for these applications and many more. With the online integration and the use of a variety of applications, the Smart - Ex® 01 & 201 / Ex-Handy 09 & 209 allows an efficiency potential and access to productivity and safety applications

- Collaborative Working
- Audits & Inspection
- Operator Rounds
- Asset Tracking
- Condition Monitoring
- Process Automation
- Indoor / Outdoor Tracking & Navigation
- Safety / Security Management
- Man Down - Lone Worker Protection
- Push to talk function



www.ecom-ex.com/apps

Enterprise Mobility



ECOM'S MOBILE WORKER CONCEPT



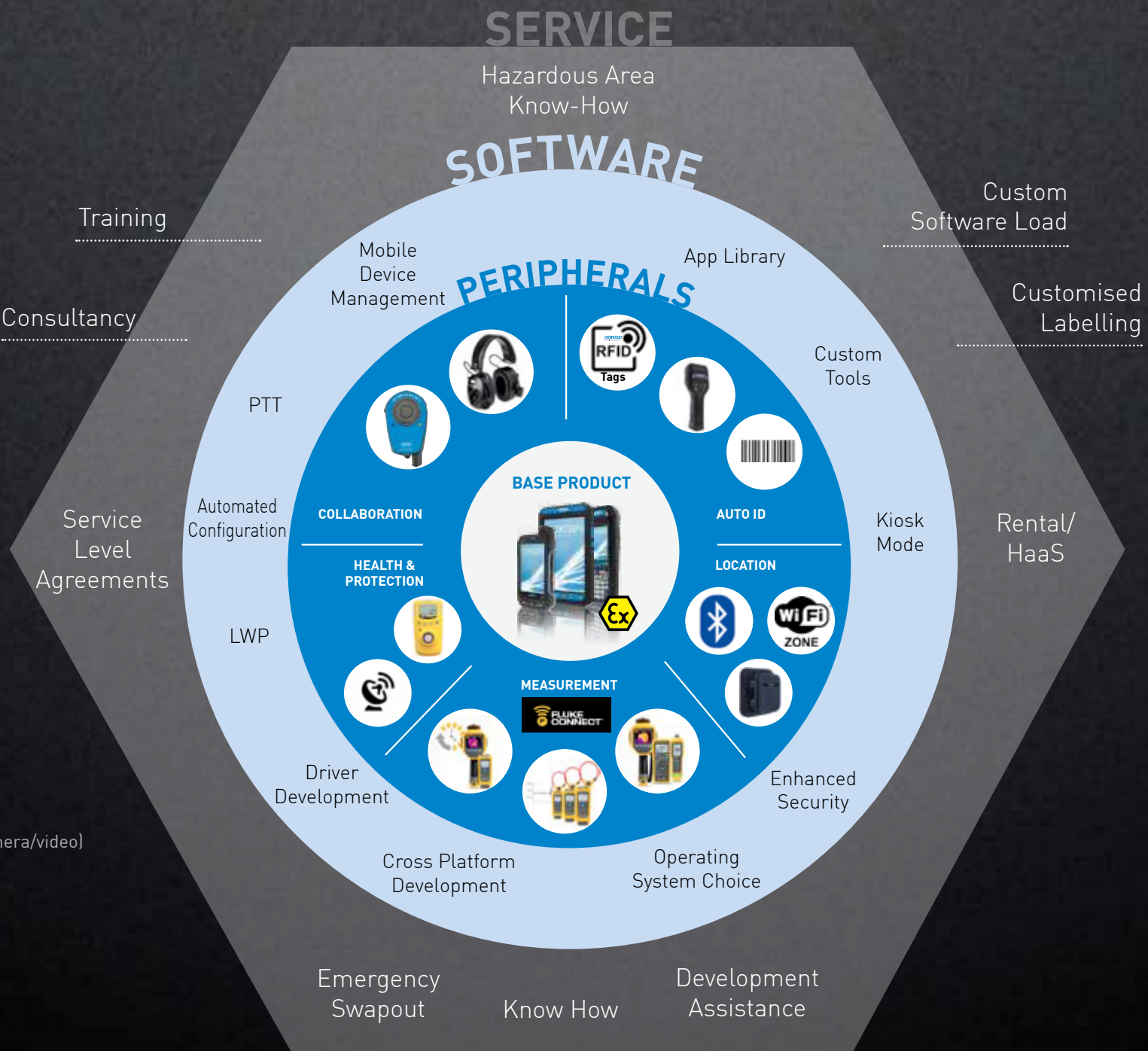
CONNECTIVITY – FAST AND FLEXIBLE

As private 4G / LTE wireless connectivity is increasingly adopted within hazardous areas, Tab-Ex® 01 ensures access is fast and seamless – enabling users to quickly access the information needed to perform the task at hand. And, for sites with WiFi access or no wireless access, Smart-Ex® 01 provides the flexibility to meet your needs – preventing costly infrastructure updates.

Central to ecom's Mobile Worker concept, the latest Bluetooth standards are also supported by Smart-Ex® 01 / Ex-Handy 09, allowing real-time connectivity to both Bluetooth SmartReady Low Energy 4.0 (BLE) devices as well as older legacy Bluetooth devices. This allows the mobile worker to benefit from expanded Smart-Ex® 01 / Ex-Handy 09 capabilities such as data collection and measuring/monitoring devices, headsets, AutoID, and Bluetooth Beacons for localization.



MOBILE WORKER

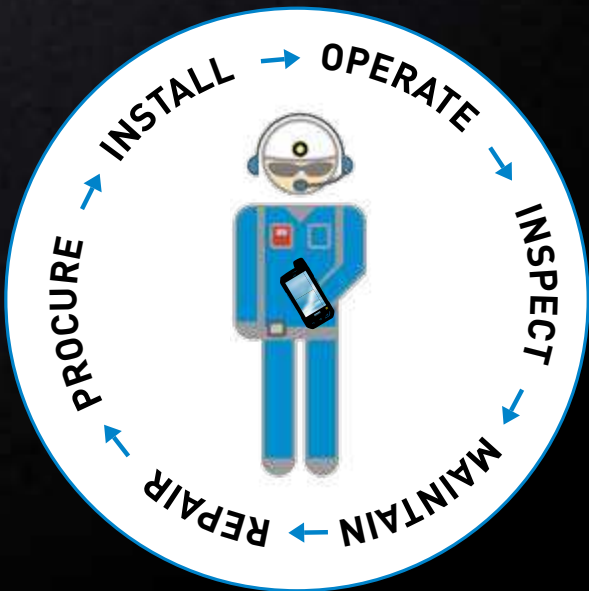


▶ Ensuring and maximizing mobile worker's efficiency & productivity

▶ Ensuring accurate data capture and real-time information and decision making

▶ Minimizing costs

▶ Improve ease of use & customer experience



MAKE ALL THE DIFFERENCE



WHY USE ZONE 1 / 21 & DIV 1 DEVICES? DO NOT COMPROMISE ON SAFETY

Safety (employees, assets and environments) is priority number one when carrying any electronic device into environments with potentially explosive atmospheres.

Since even Zone 2 equipment is "only required to be safe under normal operating conditions", any fault could potentially cause an explosion in the presence of an explosive atmosphere. Even turning a device "Off" does not make it safe.

Essentially, only equipment certified for use in Zone 1 / Division 1 areas employ additional safety circuits or factors of safety in the event of potential failure and pass extreme impact and drop tests, climate tests, ageing tests.

Even if considered safe to use in hazardous areas, it does not mean it is intrinsically safe / explosion proof unless:

1. The device has the correct rating:
"Ex ia", "Ex ib" or UL913, FM3610, CSA157 and
2. The required certification marking is on the device

Evaluate the risk and check if your mobile devices are intrinsically – you may be surprised and even more your company's safety or insurance maybe compromised.

Also take into consideration that Division 2 and even Zone 2 certified devices should be replaced earlier than Division 1 / Zone 1 devices.

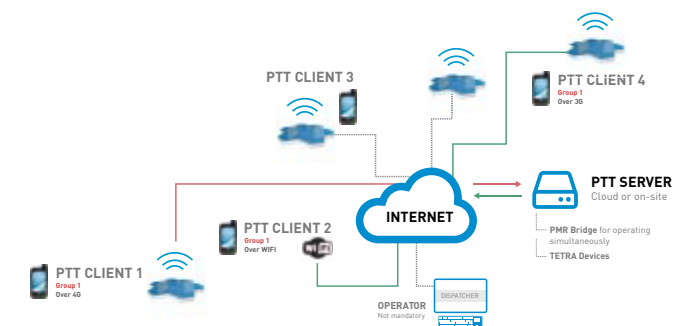
PUSH-TO-TALK (PTT)

PTT over IP is a service providing group communication like Two-Way Radio communication systems (TETRA, DMR and the classic analogue PMR).

Existing systems can be easily substituted, including DECT systems

Benefits

Individual Call / Group Call / Messages / GPS Tracking / Calls History Including Voice Recording / Order Management System with NFC, QR Code / Status Messages / Data Transfer.



LONE WORKER PROTECTION (LWP)

LWP ready for Mobile Worker 4.0

- Easy to integrate in many partner server systems
- Location based services are available
- Interactions with different Applications at the same time run smoothly
- OTA upgrades running well - not only for LWP
- Data interaction between control center and end-user is possible

Smart-Ex® 01 / 201 & Ex-Handy 09 / 209

- The LWP Application is running beside the operating system
- The use of Android Apps reduces costs
- Quad core processor divides all services
- In case of a processor malfunction, 3 backup processors ensure that all services are available instantly

MOBILE DEVICE MANAGEMENT

Mobile device management (MDM) is an industry term relating to the administration of multiple devices which helps in dealing with deploying, securing, monitoring and integrating mobile devices

Features

The main aim for deploying MDM on devices is to optimize the functionality and security of mobile devices within an organisation, while simultaneously protecting the corporate network. Key features for a robust and secure MDM include:

- Enroll, provision, configure and manage devices, individually or by a group over-the air (OTA)
- Restrict users to approved applications only.
- Containering; a secured area for business apps



- 9th generation of I.S. reliable mobile phones (more than 100,000 ecom devices in worldwide usage)
- Quality control conducted in Germany, based on 30 years experience in the Ex-market
- Significant software development team ensures Carrier network compatibility
- Tested with common MDM systems
- Google Play Store certified
- Lower TCO (Total Cost of Ownership)
- Higher ROI (Return On Investment)

Smart-Ex®

PREMIUM DATA CAPTURING



SOFTWARE BARCODE SCANNER

The ecom CamScan is a "keyboard wedge" software utility based on Honeywell's **SWIFTDECODER Mobile** a professional offline barcode decodes software, which uses the integrated front / rear camera to scan barcodes, automatically converting them to human readable text. Triggering the scan is easy - simply press the Scan button added to the on-screen keyboard. Audible and vibration feedback is given when the barcode has been decoded and the decoded barcode data will automatically appear in the data field where you need it.

Choose software scanning for a low to medium frequency scanning, where low light and high motion are not an issue.



SCAN ENGINE

If data capture is proving a challenge and you need a powerful and professional solution, you should turn to the **Ident-Ex**.

CamScan Keyboard for Tab-Ex® 01 & Smart-Ex Series / Ex-Handy 209



ADVANTAGES CAMSCAN SOFTWARE

- Uses integrated front / rear cameras - no additional hardware needed
- Fast & accurate decoding of a wide variety of 1D and 2D barcodes (even offline)
- Decodes most dirty/damaged barcodes
- Good performance in both sunlight and poor light conditions

BENEFITS

- Improves accuracy & reduces manual typing
- Eliminates the need to copy & paste data
- Hardware & software cost savings
- Easy integration with existing software

IDENT-EX SCAN HANDLE

Using a unique modular design, Ident-Ex 01 can be specifically configured to the customer's requirements by selecting different head modules. Even if requirements change, the head module on the unit can be replaced by one of the ecom Service Centers.






ADVANTAGES OF IDENT-EX

- Scan frequency is high (100 + scans per hour)
- Best for motion tolerance
- Long distance scanning
- RFID
- Best for low light



Connectivity via
Bluetooth

| | SMART-EX® 01 | SMART-EX® 201 | EX-HANDY 09 | EX-HANDY 209 |
|--|--|---|---|---|
| Operating System | Android 4.4.4 | | | |
| Chipset | MSM8926 1.2 GHz Quad core | | | |
| Band | 4G / LTE-Standard Quad Band UMTS 850 / 900 / 1900 / 2100 MHz Quad Band GSM 850 / 900 / 1800 / 1900 MHz EU: B1, B3, B7, B8, B20, B38 (TDD) US: B1, B2, B3, B4, B5, B7, B8, B12, B17 | | | |
| Antenna | MIMO antenna for LTE | | | |
| WiFi | 802.11 a / b / g / n dual-band, WiFi Direct, WiFiHotspot | | | |
| Memory | 16 GB Internal Storage / 1GB RAM | | 8 GB Internal Storage / 1GB RAM | |
| User memory | 12 GB | | 4 GB | |
| Applications | Google Play Store certified | | | |
| CONNECTIVITY | | | | |
| Bluetooth SMS, MMS (text, image, audio, video) | BT4.0 / BLE (Low Energy) Support SMS and MMS | | | |
| GPS, NFC | GPS, GLONASS, NFC | | GPS, GLONASS | |
| Email Client | EAS, Gmail, POP3, IMAP | | | |
| Capacity (mAh) | 3600 mAh | 4800 mAh | 3600 mAh | 4800 mAh |
| Battery Life | Up to 1000 hours Stand by, up to 40 hours talk time | | | |
| PHYSICAL CHARACTERISTICS | | | | |
| Ambient temperature | -20°C.....+55°C | | | |
| Protection class | IP68 | | | |
| Size | 137 x 72.1 x 26.9 mm (5.39"x 2.54"x 1,05") | 137 x 72.1 x 20.8 mm (5.39 x 2.54 x 0,82") | 137 x 72.1 x 26.9 mm (5.39"x 2.54"x 1,05") | 137 x 72.1 x 20.5 mm (5.39 x 2.54 x 0,80") |
| Weight | approx. 370 g | approx. 290 g | approx. 330 g | approx. 270 g |
| Dedicated Keys | PTT key / Alarm key / Power key | | | |
| Ports | 3.5 mm audio connector | | | |

| CERTIFICATION | | | | |
|--|---|--|--|--|
| | SMART-EX® 01 | SMART-EX® 201 | EX-HANDY 09 | EX-HANDY 209 |
| ATEX  | Ⓜ II 2G Ex ib IIC T4 Gb IP64 Ⓜ II 2D Ex ib IIIC T135 °C Db IP64 | Ⓜ II 3G Ex ic IIC T4 Gc IP64 Ⓜ II 3D Ex ic IIIB T135 °C Dc IP64 | Ⓜ II 2G Ex ib IIC T4 Gb IP64 Ⓜ II 2D Ex ib IIIC T135 °C Db IP64 | Ⓜ II 3G Ex ic IIC T4 Gc IP64 Ⓜ II 3D Ex ic IIIB T135 °C Dc IP64 |
| IECEX  | Ex ib IIC T4 Gb IP64 Ex ib IIIC T135 °C Db IP64 | Ex ic IIC T4 Gc IP64 Ex ic IIIB T135 °C Dc IP64 | Ex ib IIC T4 Gb IP64 Ex ib IIIC T135 °C Db IP64 | Ex ic IIC T4 Gc IP64 Ex ic IIIB T135 °C Dc IP64 |
| NEC & CEC  | Class I, Division 1, Groups A-D T4 Class II & III, Division 1, Groups E-G T4 | Class I, Division 2, Groups A, B, C, D, T4 | Class I, II, III Division 1 Groups AG T4 | Class I, Division 2, Groups A,B,C,D, T4 |

| | SMART-EX® 01 | SMART-EX® 201 | EX-HANDY 09 | EX-HANDY 209 |
|-----------------|---|---------------|-------------|----------------------|
| DISPLAY | | | | |
| Size | 4.0 inch | | 2.6 inch | |
| Type | Corning Gorilla® Glass 2 with Glove Touch, Blanview Display | | | |
| Audio | | | | |
| Microphone | Dual Mic Solution with Noise cancellation | | | |
| Speaker | 19 mm Loud Speaker with Gore® Protective Vents, Output up to 103 dB | | | |
| MULTIMEDIA | | | | |
| Camera | 8 MP auto focus rear, 1MP fixed focus front | | - | 5 MP auto focus rear |
| LED torch light | Yes | | | |

SCOPE OF DELIVERY SMART-EX® / EX-HANDY

- Smart-Ex® 01 & Smart-Ex® 201 Ex-Handy 09 / 209
 - Li-Ion battery 3600mAh (built-in)
 - Li-Ion battery 4800mAh (built-in)
 - Charger TC S01
- Safety Box SB S01 / USB data cable PC S201
 - Belt Clip BC S01 / S201 / H09 / H209
 - Needle (for opening SIM Slot)
 - Documentation








Find more on
www.ecom-ex.com

ACCESSORIES SMART-EX® & EX-HANDY

| BELT CLIP | LEATHER CASE | LEATHER HOLSTER |
|---|---|---|
|  |  |  |

COMPATIBLE WITH

| 3M™ PELTOR™ WST™ ProTac XP Ex | EX-RSM AURELIS BT SPEAKERMIC | SMART MUFF | COM COM EX | SERENITY SPC |
|---|---|---|---|---|
|  |  |  |  |  |



**THORNE &
DERRICK
INTERNATIONAL**

Thorne & Derrick
+44 (0) 191 410 4292
www.heatingandprocess.com

EMEA

Germany (Headquarters) ¹

ecom instruments GmbH
Industriestraße 2
97959 Assamstadt
Phone +49 62 94 42 24-0
Fax +49 62 94 42 24-100
sales@ecom-ex.com
¹ also covering Austria

ecom Benelux ²

ecom instruments BV
Watertoren 45c
3247 CL Dirksland, Netherlands
Phone +31 1 87 60 59 16
Fax +31 1 87 60 33 47
info.nl@ecom-ex.com
² also covering Belgium and Luxembourg

France ³

ecom Nied sarl
4 Rue Ettore Bugatti
67201 Eckbolsheim
Phone +33 3 88 76 46 84
Fax +33 3 88 76 02 85
info.fr@ecom-ex.com
³ also covering Algeria, Egypt, Morocco,
Tunisia and Libya

Italy

ecom instruments srl
Via Gandhi, 15 Galleria
20017 Rho (MI)
Phone +39 02 93 90 92 16
Fax +39 02 93 90 62 97
info.it@ecom-ex.com

Switzerland

ecom instruments GmbH
Merkurstraße 2
6210 Sursee
Phone +41 4 19 21 60 00
Fax +41 4 19 22 00 08
info.ch@ecom-ex.com

Nordics

ecom instruments GmbH
Postbox 304
2970 Hørsholm
Denmark
Phone +45 28 252 575
info.nordics@ecom-ex.com

United Kingdom

ecom instruments ltd
A310, The Wilton Centre,
Redcar, TS10 4RF,
United Kingdom
Phone +44 1642 46 54 00
Fax +44 1642 46 54 02
info.uk@ecom-ex.com

Middle East

ecom instruments fze
P.O. Box 8918
Saif-Zone, Sharjah, UAE
Phone +971 6 5 57 34 30
Fax +971 6 5 57 34 31
info.uae@ecom-ex.com

Americas

USA

ecom instruments Inc.
1779 Westborough Drive, Suite 102
Katy, Texas 77449
Phone +1 281 496 59 30
Fax +1 281 496 23 21
info.us@ecom-ex.com

Asia

South East Asia

ecom instruments (SEA) Pte Ltd.
12 Arumugam Road
#05-11 Lion Building B
Singapore 409958
Phone +65 61 00 33 29
Fax +65 63 99 33 29
info.sg@ecom-ex.com



Locate your nearest ecom partner on www.ecom-ex.com