

2017

POGO® CONTACT SOLUTIONS



ICT/FCT

GENERAL PURPOSE

HIGH CURRENT

HIGH FREQUENCY

SWITCH PROBE

STEP PROBE

BATTERY CONTACT

SEMICONDUCTOR

Probe Advantage

PogoPlus® SERIES PROBES

Conventional bias-type probes are susceptible to false opens — that is, transient electrical discontinuities that cause good products to “fail” during test. Revolutionary PogoPlus probes eliminate probe-induced false opens, saving you the time, money and trouble of needless product retesting.

The unrivaled electrical performance of the PogoPlus is due to the interaction between the spring, captured ball and plunger, which forces the plunger into continuous contact with the barrel wall at all times. The result is uninterrupted electrical continuity and low overall resistance that can't be equaled by any other “high performance” probe.

The PogoPlus® is also designed to be the world's most durable probe with features like optional stainless-steel MicroSharp™ tips, a larger spring volume and enhanced pointing precision.

Available steel tips, manufactured with ECT's MicroSharp™ technology, offer the ultimate in long-lasting tip sharpness and contact integrity.

A variety of innovative tip styles give you the flexibility to match the PogoPlus® to your specific test application.

A double-roll close offers the industry's best pointing accuracy that helps you hit the smallest test targets with high repeatability.

Interaction of the captured ball, bias-cut plunger end and applied spring force guarantees uninterrupted electrical contact with the probe barrel sidewall, virtually eliminating probe related false opens.

A shorter plunger permits more spring volume, higher spring force and longer spring life.

ECT's precious metal plating process, together with enhanced bias contact, provides highly repeatable conductivity.

LOADED PCB TEST PROBES / FUNCTIONAL

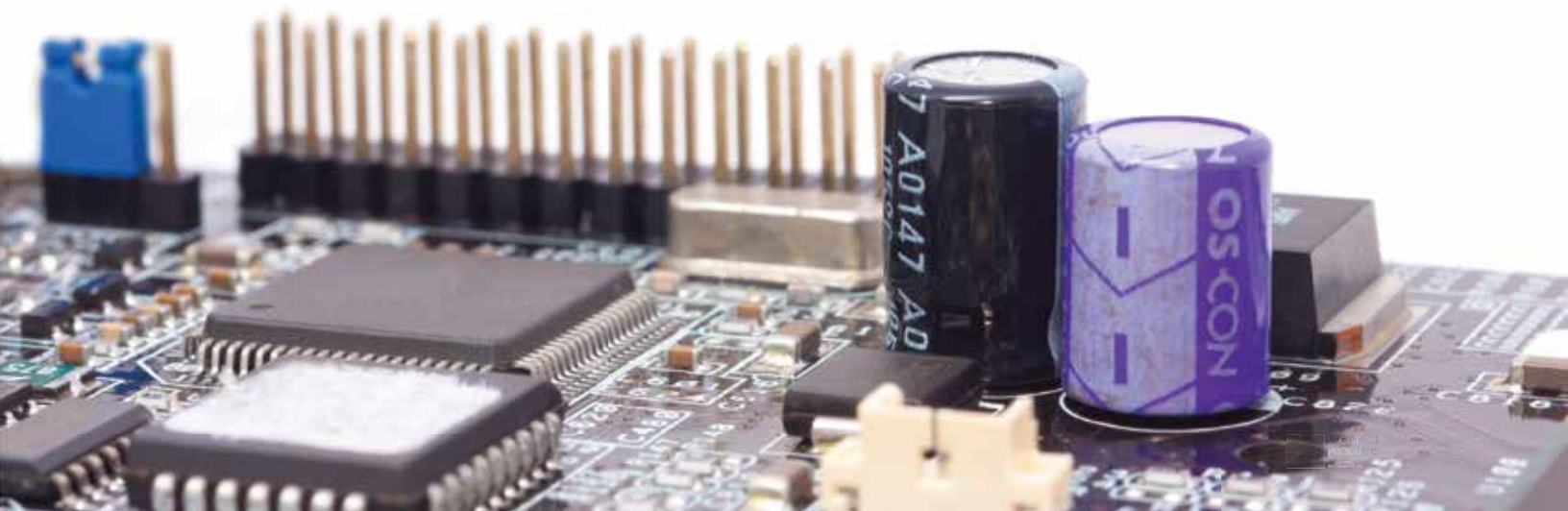
The ICT / FCT product lines, which includes the new EDGE, LFRE and PogoPlus® Series, address the unique demands of loaded board and vacuum fixture applications. Most probes feature an enhanced version of the legendary bias-ball design to virtually eliminate “false opens”; proprietary metal plating processes for higher conductivity; and precision MicroSharp™ steel tips for long-lasting durability. A full range of sizes accommodates products with mixed test center requirements.

Mixed Test Centers

In loaded board applications, probes designed for use on 0.050, 0.075 and 0.100 inch test centers can be mixed in single or dual-stage fixtures, even though there may be minor variations in plunger travel. When mounted correctly, probe plunger tips should align when plungers are at recommended working travel – generally 2/3. This will ensure contact integrity between the tip and test pad. Minor adjustments may be required to compensate for variations in accessing component leads, flat test pads or through-holes.

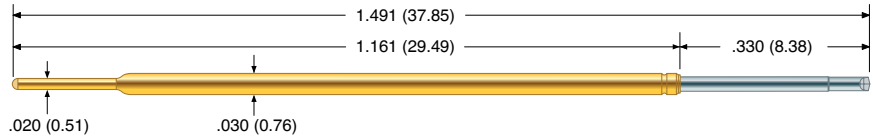


- **EDGE:** Our new ICT / FCT probe taking full advantage of the flat technology. The flat tip is 10 times sharper than any traditional radial manufactured probe tip.
- **LFRE:** The solution for your RoHS compliant boards and lead-free solder test points.
- **POGO:** High performance ICT / FCT probe like the LFRE probe but with gold plated tips. Features the legendary PogoPlus® Bias Ball design.
- **METRIX:** New Probe Series for smallest test centers down to .039 inch or 1.00 mm.



MTX-39

39 mil (1.00 mm)



Mechanical

Recommended Travel:	.167 (4.24)
Full Travel:	.250 (6.35)
Operating Temperature	
• Standard Spring:	-55°C to +105°C
• Alternate Spring:	-55°C to +150°C
• Elevated Spring:	-55°C to +105°C

Spring Force in oz. (grams)

	Order Code	Preload	Rec. Travel
Standard	- 4	1.02 (29)	4.0 (113)
Alternate	- 6	2.15 (61)	6.0 (170)
Elevated	- 7	1.17 (33)	7.0 (198)

Electrical (Static Conditions)

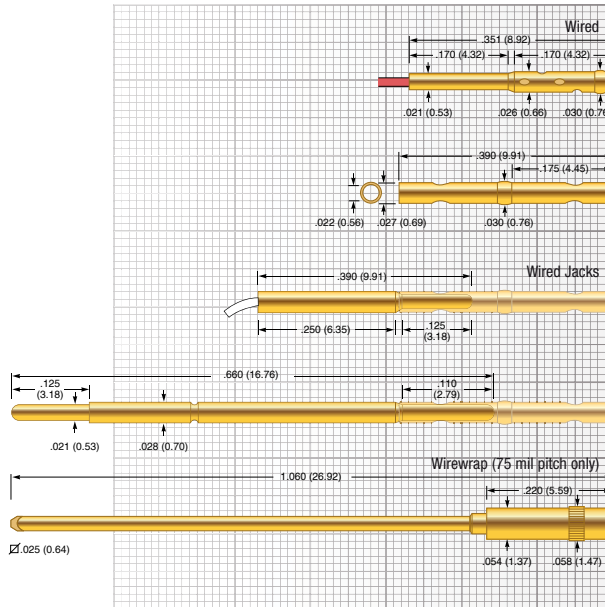
Current Rating:	3 amps
Average Probe Resistance:	< 15 mOhms

Materials and Finishes

Plunger:	High performance alloy LFRE proprietary plating
Barrel:	BeCu, Gold plated over hard Nickel
Spring	
• Standard:	Music Wire
• Alternate:	Stainless Steel
• Elevated:	Music Wire
Ball:	Stainless Steel

Receptacle

Hole diameter:	Ø .028 (0.70)
Suggested drill:	#70 or 0.70 mm
Recommended wire gauge:	28-30 AWG
Material Housing	
• HPR-40T:	Work-hardened Nickel Silver, Gold plated over hard Nickel
• HPR-40W:	Work-hardened Nickel Silver, Gold plated over hard Nickel
• STT:	Work-hardened BeCu, Gold plated over hard Nickel



STT-80W

(Pre-wired versions -28, -30)

HPR-40W

HPR-40T with HPR-40W

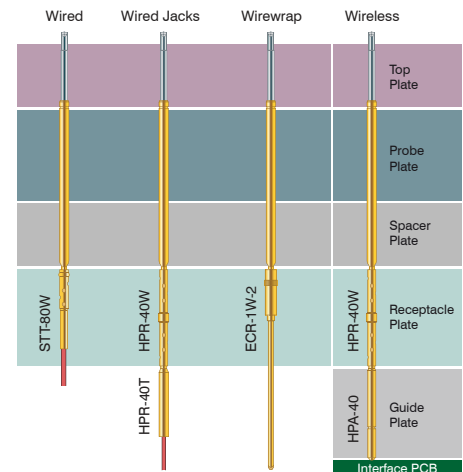
HPA-40 with HPR-40W

ECR-1W-2

Tip Style

H	I	I8	I15	I40	T1	T20
Ø .035 (0.89)	Ø .019 (0.48)	Ø .017 (0.43)	Ø .017 (0.43)	Ø .017 (0.43)	Ø .019 (0.48)	Ø .019 (0.48)
T38	U					
Ø .038 (0.97)	Ø .019 (0.48)					

Termination Example

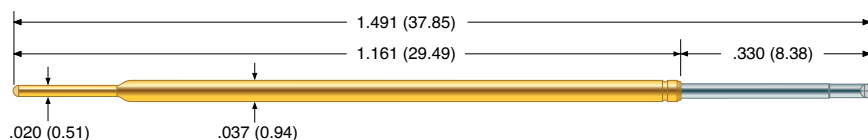


Metrix™

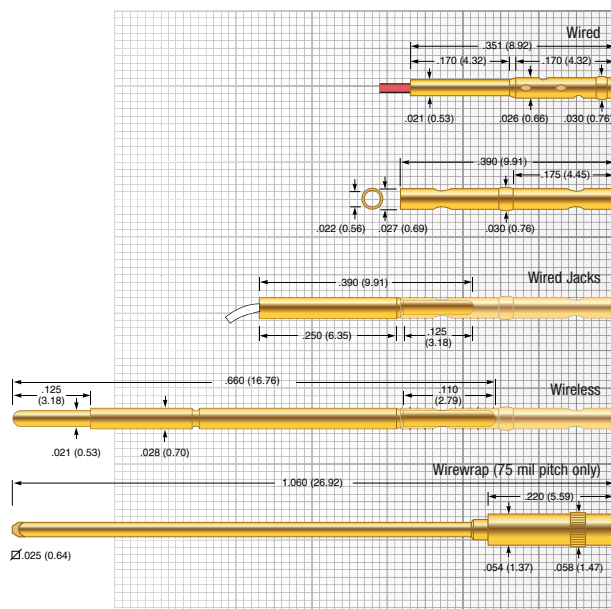
Metrix Summary

- Unified receptacles across all test center spacing
- Large variety of tips and receptacles
- Proprietary LFRE plunger plating
- Bias ball design

Series	Size	Tip Style	Spring Force
MTX	39	H	6

**MTX-50**

50 mil (1.27 mm)

**STT-80W**

(Pre-wired versions -28, -30)

HPR-40W**HPR-40T with HPR-40W****HPA-40 with HPR-40W****ECR-1W-2****Mechanical**

Recommended Travel:	.167 (4.24)
Full Travel:	.250 (6.35)
Operating Temperature:	-55°C to +150°C

Spring Force in oz. (grams)

	Order Code	Preload	Rec. Travel
Standard	- 4	0.72 (20)	4.0 (113)
Alternate	- 6	2.39 (68)	6.0 (170)
Elevated	- 7	1.68 (48)	7.0 (198)
High	- 8	1.73 (49)	8.0 (227)
Ultra High	- 10	2.84 (81)	10.0 (283)

Electrical (Static Conditions)

Current Rating:	6 amps
Average Probe Resistance:	<10 mOhms

Materials and Finishes

Plunger:	High performance alloy LFRE proprietary plating
Barrel:	BeCu, Gold plated over hard Nickel
Spring:	Stainless Steel
Ball:	Stainless Steel

Receptacle

Hole diameter:	Ø .028 (0.70)
Suggested drill:	#70 or 0.70 mm
Recommended wire gauge:	28-30 AWG

Material Housing

- HPR-40T: Work-hardened Nickel Silver, Gold plated over hard Nickel
- HPR-40W: Work-hardened Nickel Silver, Gold plated over hard Nickel
- STT: Work-hardened BeCu, Gold plated over hard Nickel

Tip Style

H	I	I8	I15	I35	I40	J
Ø .047 (1.19)	Ø .022 (0.56)	Ø .020 (0.51)	Ø .021 (0.53)	Ø .022 (0.56)	Ø .022 (0.56)	Ø .022 (0.56)
L	L18	T	T1	T24	T30	T67
Ø .040 (1.02)	Ø .018 (0.46)	Ø .047 (1.19)	Ø .020 (0.51)	Ø .022 (0.56)	Ø .022 (0.56)	Ø .067 (1.70)
Z	Z1					
Ø .047 (1.19)	Ø .038 (0.97)					

Metrix™**Metrix Introduction**

For test center spacing below 50mil, conventional ICT Probes reach their limits. ECT Metrix Probes overcome this issue by providing test center spacing as low as 39mil. In a conventional probe/receptacle design, the pitch is limited by the largest diameter, which typically is the diameter of the receptacle. The Metrix probe has a stepped down diameter tail. This allow you to plug the probe into a receptacle sitting underneath the probe. Now, since the probe is placed above the receptacle, it allows you to use a receptacle with the same or lesser diameter as the spring probe. Valuable space is saved between the two adjacent probes which now can be placed in a tighter spacing.

Dimensions in inches (millimeters). Specifications subject to change without notice.
Consult factory for other temperature requirements, and applications below -40°C.
Stocking Disclaimer: Stocking levels for part numbers listed in this catalog are subject to change.
Availability is based on current levels of usage and demand.

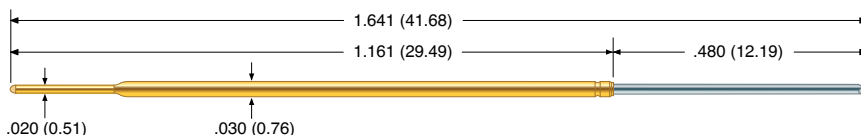
Series	Size	Tip Style	Spring Force
MTX	50	T24	8



ECT CONTACT
PRODUCTS
an ECT company
ECT-CPG.com
shop.ECT-CPG.com

MXLT-39

39 mil (1.00 mm)



Mechanical

Recommended Travel: .315 (8.00)
Full Travel: .400 (10.16)
Operating Temperature: -55°C to +150°C

Spring Force in oz. (grams)

	Order Code	Preload	Rec. Travel
Standard	- 4.5	0.49 (14)	4.00 (113)

Electrical (Static Conditions)

Current Rating: 3 amps
Average Probe Resistance: < 15 mOhms

Materials and Finishes

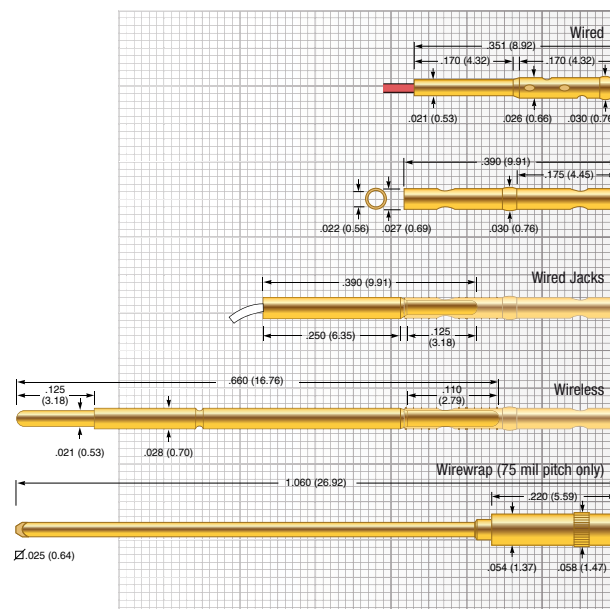
Plunger: High performance alloy
LFRE proprietary plating
Barrel: BeCu, Gold plated over hard Nickel
Spring: Stainless Steel
Ball: Stainless Steel

Receptacle

Hole diameter: Ø .028 (0.70)
Suggested drill: #70 or 0.70 mm
Recommended wire gauge: 28-30 AWG

Material Housing

- HPR-40T: Work-hardened Nickel Silver, Gold plated over hard Nickel
- HPR-40W: Work-hardened Nickel Silver, Gold plated over hard Nickel
- STT: Work-hardened BeCu, Gold plated over hard Nickel



STT-80W

(Pre-wired versions -28, -30)

HPR-40W

HPR-40T with HPR-40W

HPA-40 with HPR-40W

ECR-1W-2

Tip Style

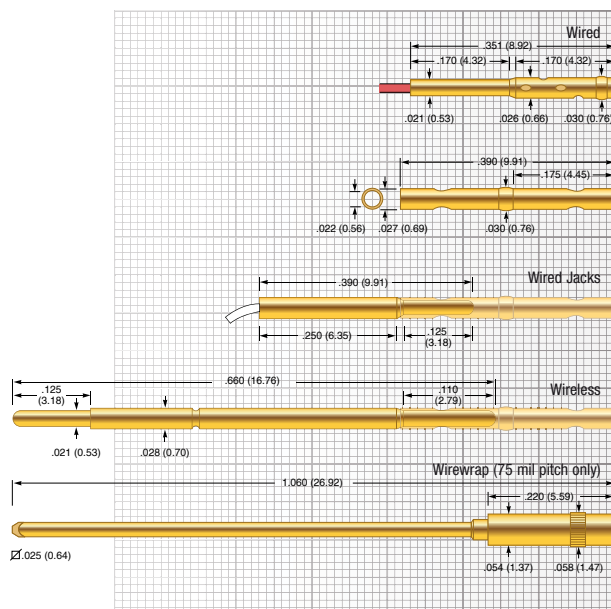
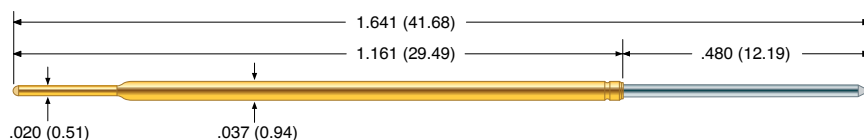
I8	I15	T20	U			
Ø .017 (0.43)	Ø .017 (0.43)	Ø .019 (0.48)	Ø .019 (0.48)			

Metrix™

Series	Size	Tip Style	Spring Force
MXLT	39	U	4.5

MXLT-50

50 mil (1.27 mm)



STT-80W

(Pre-wired versions -28, -30)

HPR-40W

HPR-40T with HPR-40W

HPA-40 with HPR-40W

ECR-1W-2

Tip Style

B	I8	I15	L	L24	T	T24
Ø .022 (0.56)	Ø .020 (0.51)	Ø .020 (0.51)	Ø .040 (1.02)	Ø .022 (0.56)	Ø .047 (1.19)	Ø .022 (0.56)
T30						
Ø .022 (0.56)						

Mechanical

Recommended Travel: .315 (8.00)

Full Travel: .400 (10.16)

Operating Temperature

• Standard Spring: -55°C to +105°C

• Alternate Spring: -55°C to +150°C

• High Spring: -55°C to +105°C

Spring Force in oz. (grams)

	Order Code	Preload	Rec. Travel
Standard	- 4.5	1.09 (31)	4.5 (128)
Alternate	- 7	0.75 (21)	7.0 (198)
High	- 9.6	1.50 (43)	9.6 (272)

Electrical (Static Conditions)

Current Rating: 6 amps

Average Probe Resistance: < 10 mOhms

Materials and Finishes

Plunger:	High performance alloy LFRE proprietary plating
Barrel:	BeCu, Gold plated over hard Nickel
Spring	
Standard:	Music Wire
Alternate:	Stainless Steel
High:	Music Wire
Ball:	Stainless Steel

Receptacle

Hole diameter: Ø .028 (0.70)

Suggested drill: #70 or 0.70 mm

Recommended wire gauge: 28-30 AWG

Material Housing

- HPR-40T: Work-hardened Nickel Silver, Gold plated over hard Nickel
- HPR-40W: Work-hardened Nickel Silver, Gold plated over hard Nickel
- STT: Work-hardened BeCu, Gold plated over hard Nickel

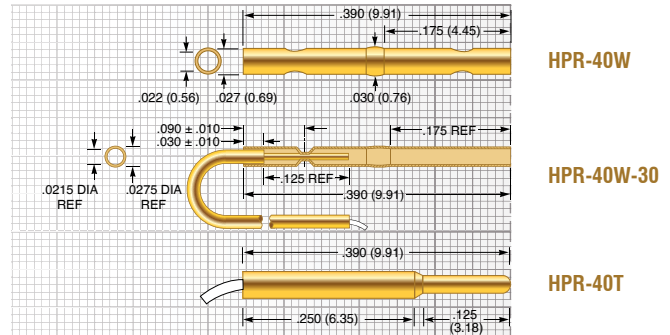
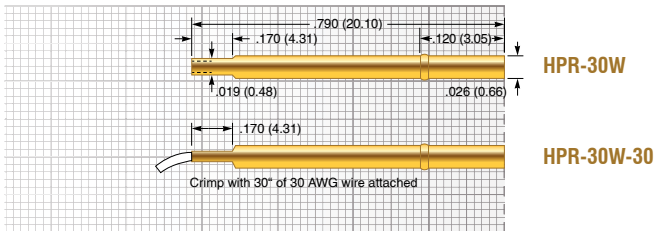
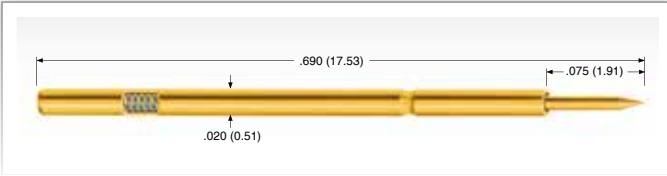
Metrix™

MEP-30

30 mil (0.76 mm)

HPA-40

39 mil (1.00 mm)



Mechanical

Recommended Travel:	.050 (1.27)
Full Travel:	.075 (1.91)
Operating Temperature:	-55°C to +105°C

Spring Force in oz. (grams)

	Preload	Rec. Travel
Standard	0.39 (11)	1.39 (39)

Electrical (Static Conditions)

Current Rating:	2 amps
Average Probe Resistance:	<50 mOhms

Materials and Finishes

Plunger:	Heat-treated BeCu, Gold plated over hard Nickel
Barrel:	Work hardened BeCu, Gold plated over hard Nickel
Spring:	Music Wire, Gold plated

Receptacle

Hole diameter:	Ø .0265 to .0276 (0.67 to 0.70)
Suggested drill:	#71 or 0.70 mm
Material:	Work hardened BeCu, Gold plated over hard Nickel

Tip Style

B	G	J	U	
Ø .014 (0.36)	Ø .014 (0.36)	Ø .014 (0.36)	Ø .012 (0.30)	

Mechanical

Recommended Travel:	.050 (1.27)
Full Travel:	.075 (1.91)
Operating Temperature:	-55°C to +150°C

Spring Force in oz. (grams)

	Preload	Rec. Travel
Standard	0.79 (22)	1.75 (49)

Electrical (Static Conditions)

Current Rating:	2 amps
Average Probe Resistance:	<35 mOhms

Materials and Finishes

Plunger:	Heat-treated BeCu, Gold plated over hard Nickel
Barrel:	Work hardened Nickel Silver, Gold plated over hard Nickel
Spring:	Stainless Steel, Silver plated

Receptacle

Hole diameter:	Ø .028 (0.70)
Suggested drill:	#70 or 0.70 mm
Material Housing:	Work hardened Nickel Silver, Gold plated over hard Nickel

Tip Style

B	C	G	J	
Ø .021 (0.53)	Ø .021 (0.53)	Ø .021 (0.53)	Ø .021 (0.53)	



WORLDWIDE OFFICES

America

(1) Everett Charles Technologies Inc.
14570 Meyer Canyon Drive,
Unit 100
Fontana, CA 92336
United States of America
Phone: +1 909-625-9390
E-mail: Info.ECT-CPG@Xcerra.com

(2) ECT Ostby Barton -Pylon
487 Jefferson Blvd.
Warwick, RI 02886
United States of America
Phone: +1 401-739-7310
E-mail: Info.ECT-CPG@Xcerra.com

Asia

(3) 6 Serangoon North Avenue 5
#03-06/07
Singapore-554910
Singapore
Phone: +65 6408 8408
E-mail: Asia.ECT-CPG@Xcerra.com

Europe

(4) atg Luther & Maelzer GmbH
Zum Schlag 3
97877 Wertheim
Germany
Phone: +49 9342-291-0
E-mail: Europe.ECT-CPG@Xcerra.com

- Fontana
- Warwick
- Wertheim
- Singapore

Americas

Brazil
Canada
Mexico
United States of America

Asia

China
Hong Kong
Japan
Korea
Malaysia
Philippines
Singapore
Taiwan
Thailand

Australia

Middle East

Israel

Africa

South Africa
Tunisia

Europe

Austria
Belarus
Belgium
Bulgaria
Croatia
Czech Republic
Denmark
Estonia
Finland
France
Germany

Hungary
Ireland
Israel
Italy
Lithuania
Luxembourg
Montenegro
Netherlands
Poland
Portugal
Romania

Russia
Serbia
Slovakia
Slovenia
Spain
Sweden
Switzerland
Turkey
Ukraine
United Kingdom

Your ECT Contact is:



Romex BV,
Remmerden 5,
3911 TZ, Rhenen, (NL)

Phone: +31-(0)317398787
Fax: +31-(0)317398780
Mail: info@romex.nl
Web: www.romex.nl

T&M Web: www.testprobes.nl