

## i-kon™ III Electronic Blasting System



i-kon™  
Logger I



i-kon™  
Logger II



i-kon™  
Blaster 400



i-kon™  
Blaster 3000



Sling Bag with  
harness wire



i-kon™ III  
Detonator



i-kon™ III  
RX Detonator



i-kon™ III  
Extreme Detonator

### Description

Orica's premium i-kon™ III system is the most sophisticated Electronic Blasting System on the market. i-kon™ III electronic detonators have multiple safety features that are inherent in the design of the product including spark gaps, input and bleed resistors, and the chip itself. i-kon™ III detonators can be used in conjunction with the following i-kon™ Electronic Blasting Equipment and Blast Design Software.

- i-kon™ Logger I and Logger II
- i-kon™ Blasters 400 & 2400S & 3000
- i-kon™ SURBS (Surface Remote Blasting System)
- i-kon™ CEBS (Centralised Electronic Blasting System for underground operations)
- SHOTPlus™ 5

### Application

The i-kon™ system is the most advanced Electronic Blasting System in the market, designed for use in high value and complex blasts at large surface and underground operations in the most challenging environments. i-kon™ III detonators are also available with heavy duty lead wires for the toughest and harshest mining conditions as i-kon™ III Detonator RX and i-kon™ III Detonator Extreme.

### Key Benefits

- World's most accurate electronic detonator, combined with the longest delay time window (30 seconds), allow blasts to be designed for a wide variety of blast outcomes.
- Bimetallic shell for improved corrosion resistance.
- i-kon™ III is ideal for large blasts as delay times can be pre-programmed in ShotPlus, speeding up logging and increasing operation efficiency on the bench.
- Inherently safe dual voltage design.
- The duplex harness wire facilitates easier handling - in particular when it's cold. The harness wire does not need to be separated for connection of the detonator. The second terminal allows for splicing without tools.
- The programmability of i-kon™ III detonators simplify inventory management at the site.

### Recommendations for Use

- Not for use in mines with a risk of coal dust or methane explosion.
- i-kon™ III detonators are explosive devices and should be handled with care.
- i-kon™ Loggers and Blasters are electronic devices designed to withstand mine, quarry and construction environments but submersion in water and excessive impact must be avoided.
- i-kon™ III detonators can only be tested, programmed and fired with i-kon™ Loggers and Blasters. Do not use any other programming or blasting equipment.
- Never open i-kon™ Blasting Equipment. It should be serviced or repaired only by Orica or approved agents.
- Damage to the lead wires is the most common cause of problems with electronic blasting systems. Exercise care and protect the lead wires when loading and stemming.

## Technical Properties

Product	i-kon™ III dets	
Maximum delay time (ms)	30.000	
Programmability (ms)	± 1	
Timing specification from 0 to 2 s.: Standard deviation (ms) from 2 to 30 s.: COV (%)	≤ 0.1 ≤ 0.005	
Hydrostatic pressure resistance (bar/day)	10 / 7	
Shell length x diameter (mm)	89 x 7.6	
Shell material	Bimetallic (Aluminium & Copper Alloy)	
Base charge: PETN or Pentolite (mg)	780	
Initiating charge: Lead Azide (mg)	120	
Output strength	REF. DET. #3	
Conductor: steel (mm)	Standard RX Extreme	0.6 0.6 0.6
Insulation diameter (mm)	Standard RX Extreme	1.35 1.8 3.9
Wire tensile strength (N)	Standard RX Extreme	200 250 500
Insulation material	Standard RX Extreme	PP TPU TPU
Wire color	Standard RX Extreme	yellow red Purple
Connector color	Standard RX Extreme	Blue Blue Green
Connector	Material Terminals	PE brass

## Storage and Handling

### i-kon™ III detonators

- Detonator should be stored between -40 °C and +50 °C
- Operating temperature range from -20 °C to +70 °C
- Transport temperature range from -40 °C to +65 °C
- Detonators have a storage life of up to 5 years in stable, temperate storage conditions in an approved magazine.

### Control equipment (hardware)

- Store at moderate temperatures and humidity.
- Operating temperature range -20 °C to +60 °C.

If your application requires you to operate the i-kon™ system outside these temperature ranges, please contact your DEX-PLOC representative.

## Product Classification

Correct Shipping Name: Detonators, electric  
 UN: 0030 0456  
 Classification: 1.1B 1.4S

All regulations pertaining to the use of such explosives apply.

## Product Approvals

Authorised Name	EC Type Certificate
i-kon™ III	0589.EXP.2780/18
i-kon™ III RX	0589.EXP.2780/18
i-kon™ III Extreme	0589.EXP.2780/18

## Packaging Details

### i-kon™ III

Lead Length (m)	1.1B Units per Case	1.4S Units per Case
6	80	40
10	60	35
15	66	32
20	66	32
30	36	32
40	30	16
60	20	16

Format: 6 & 10 m figure 8; 15 – 60 m on spool

### i-kon™ III RX

Lead Length (m)	1.1B Units per Case	1.4S Units per Case
10	60	32
15	60	32
20	48	32
30	30	16
40	25	16
60	18	12

Format: all on spool

### i-kon™ III Extreme

Lead Length (m)	1.1B Units per Case	1.4S Units per Case
10	54	32
15	36	27
20	30	23
30	24	14

Format: shrink wrapped coil

Please ask your DEXPLOC representative for delivery times of i-kon™ III detonators.

## Sleep-Time within Blastholes

The recommended maximum sleep time is 60 days. Sleep time is dependent on environmental conditions. DEXPLOC representative should be consulted to assess the appropriate maximum sleep times for your conditions.

## Control equipment

Equipment	Logger I*/ Logger II**	Blaster 400	Blaster 3000***
Manufacturer	Orica		
Max. number of detonators test size/ blast size	200/500	400	3000
Number of Loggers per Blaster	-	2	12
Max blast size	-	400	21000
External dimensions [mm]	170x100x50 270x115	170x100x50	300x340x150
Battery type	NiMH/Li-ion	NiMH	Lead
Weight [kg]	0.6/1.0	0.6	4.8

\* Logger I can be used with Blaster 400 and Blaster 3000

\*\* Logger II can only be used with Blaster 3000

\*\*\* Blaster 3000 can be used in different modes (single or remote) and configurations (as Master, Slave or Repeater unit). Up to seven units can be synchronized to get to the maximum blast size.

## Disposal

Disposal of explosive materials can be hazardous. Methods for safe disposal of explosives may vary depending on the user's situation. Please contact a DEXPLOC representative for information on safe practices.

i-kon™ control equipment contains rechargeable batteries. Please dispose of the equipment in an environmentally friendly manner. It should be recycled or disposed in the same way as normal consumer electronics containing batteries according to the legal requirements.

## Safety

i-kon™ III detonators can be initiated by extremes of shock, friction or mechanical impact. As with all explosives, i-kon™ III detonators should be handled and stored with care and must be kept clear of flame and excessive heat.

## Training

This Technical Data Sheet is for information only. The i-kon™ system should only be used by personnel who have been properly trained to use this system.

## Equipment service

i-kon™ control equipment is powered by rechargeable batteries, which must be recharged regularly. It is recommended to return the equipment to your DEXPLOC representative at least every two years for a service inspection. The service inspection includes a battery pack replacement, a function test and a firmware upgrade.

## Harness Wire

High quality Duplex harness wire is used to connect the i-kon™ system in the field. Other duplex wire may look similar but will not offer the same critical performance characteristics and is not recommended for use.

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