



PRODUCT INFORMATION

BROCHURE

E★STAR HEAVY DUTY



E★STAR Heavy Duty with its strong wire insulation is robust electronic detonator best suited for harsh blasting conditions. Detonator wires bring higher cut and abrasion resistance which together with special heavy duty Bus-line brings increased leakage protection. E★STAR HD keeps all the features of standard E★STAR such as highest safety, timing accuracy and variability of initiation. The E★STAR HD could be operated with the standard E★STAR equipment, no special equipment is required.

PRODUCT OVERVIEW

EQUIPMENT

The system should be operated only by trained and authorized personnel using the dedicated equipment designed specifically for operating E★STAR detonators. No special equipment is needed for working with E★STAR HD.



BENEFITS

- Detonator wires insulation is 33% thicker than the standard E★STAR
- Bus-line insulation is 81% thicker than the standard E★STAR Bus-line
- Best performance under the heavy mats or in conditions with abrasive rock
- Copper shell for high water resistance and long sleep time
- Delay range 1 – 20,000 ms
- Minimum delay increment 1 ms
- Maximum accuracy 0.01% of nominal delay
- Up to 1,600 detonators controlled by 1 Blasting Machine and 1 Logger
- Multiple ways of programming
- Possible remote blasting
- Possible dual blasting - up to 3,200 detonators in one shot
- Multi-level detonator verification prior each blast
- 100% verification of reliability of blast
- Color coded connectors, orange for lengths up to 9 m and pink from 12 m

STANDARD TECHNICAL DESCRIPTION

Detonator standard shell material	Copper
Detonator standard leg wires material	Copper coated steel
Base charge	720 mg
Water pressure resistance	1 MPa / 28 days
Temperature range for application	-30 °C < T < +60 °C
Shelf life (storage conditions)	5 years (-30 °C to 40 °C)
Label marking	Product name, Wire length, Data matrix code (traceability), Detonator serial number (for RFID labels)
Delay interval	Programmable 1 – 20,000 ms (increments of 1 ms)
Notified body	CE 1019

STANDARD PACKAGING DETAILS

Wire length (m)	Wire length (ft)	Packaging 1.1B UN 0511 (pcs)	Packaging 1.4B UN 0512 (pcs)	Packaging 1.4S UN 0513 (pcs)
6	20	64	40	40
9	30	40	32	32
12	40	32	24	24
15 / 18	50 / 60	X	X	30*
24 / 30	80 / 100	X	X	20*

E★STAR detonators are packaged in cardboard box of outer dimension 385 x 296 x 210 mm / 15.16 x 11.65 x 8.27 in.

Other wire lengths are possible on demand.

*/ Delivered on spools. Every box contain a stick for easy manipulation.

BUS-LINE

Wire length (m)	Wire length (ft)	Units per box
300	980	4

Bus-line is packaged in cardboard box of outer dimension 320 x 320 x 290 mm / 12.60 x 12.60 x 11.42 in

Contact your local Austin Powder representative for further information.

Disclaimer of Warranties and Limitations of Liabilities

Any information contained herein is based on the manufacturer's standard procedures in use at the time of publication. Any specifications, test values and other data is solely preliminary information and not guaranteed. Actual results may differ during field use. Neither manufacturer nor seller will be responsible whatsoever for any losses or damages resulting from the use or reliance upon any information set forth herein.

It is solely the responsibility of the product user to determine the safe conditions for use of the products referred to herein. Use of any products by a user is at the user's sole risk.

To the maximum extent permitted by law, manufacturer and seller specifically disclaim all warranties including implied warranties of merchantability or fitness for a particular purpose.



AUSTIN POWDER

Our Mission is to improve the world we live in through the safe and responsible use of explosives.

AUSTIN POWDER SWEDEN AB, Kulvägen 5H, 703 84 Örebro, Sweden
www.austinpowers.se | Email: post@austinpowers.se | Phone: 070 518 16 00