

**E\*STAR** is characterized by maximum safety, timing accuracy and variability of initiation for most of the blasting applications. Using the LM-2 tester it is possible to check E\*STAR detonators anytime. Using DLG1600-100 Logger it is possible to program the detonators to any delay within the range from 1 to 20,000 ms. Using the DBM1600-2-K Blasting Machine it is possible to fire up to 1,600 E\*STAR detonators per blast. Using DBM1600-2-RC and WRFD it is



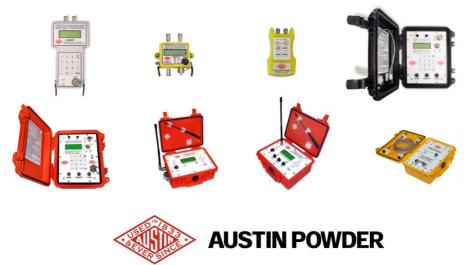
possible to control blast initiation remotely. Using the dual blasting mode, 3,200 E\*STAR detonators can be fired at once.

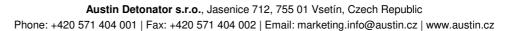
## **BENEFITS**

- 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

## EQUIPMENT

The system should be operated only by trained and authorized personnel using the dedicated equipment designed specifically for operating E\*STAR detonators. The currently approved equipment is LM-2 tester, DLG1600-100 Logger, DBM1600-2-K, DBM1600-2-RC and DBM-1 Blasting Machines, Wireless Remote Firing Device and equipment for dual blasting DIM-1.









# 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	Delay # (if preprogramed), Delay ms (if preprogramed), Product name, Wire length, Data matrix code (traceability)
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 0030	Packaging 1.4B UN 0255	Packaging 1.4S UN 0456
6	20	80	48	48
9	30	56	40	40
12	40	40	32	32
15 / 18 / 24 / 30	50 / 60 / 80 / 100	Х	Х	30

E\*STAR detonators are packaged in cardboard box of outer dimension 390 x 295 x 205 mm /  $15,35 \times 11,61 \times 8,07$  in.

Other wire lengths are possible on demand.

## **BUS-LINE**

Wire length (m)	Wire length (ft)	Packaging
400	1300	4

Bus-line is packaged in cardboard box of outer dimension 400 x 240 x 160 mm / 15.75 x 9.45 x 6.30 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.

