MASDAT *Weld Gun Identification System*

The patented **MASDAT** weld gun identification system provides the weld gun with a long-term memory which makes a major contribution towards flexibility on the shop floor.

In conjunction with quick-change devices guns can be exchanged as required between the most diverse welding operations in the production of niche vehicles, pilot batches or prototypes in the automobile industry without any need to interconnect the welding controllers.

In the **MASDAT** data chip welding process data, gun specific manufacturers' data and specific maintenance data are stored directly in the weld gun. Each time the weld gun is connected to the welding timer, the timer is programmed automatically.

Use of the maintenance interval counter enables preventive maintenance according to the level of use, thereby increasing availability. The error diagnosis memory enables the swift elimination of faults when malfunctions occur.

The reduced number of control wires for gun identification and transformer coding and the reduced scope of interconnection between the weld timers reduces the scope of installation work and consequently the required level of investment. The direct storage of data in the weld gun reduces the scope of organisational work relating to maintenance documentation, the updating of welding parameters and back-up welding data. Each individual weld gun is assigned a designation which is unique throughout the world, thereby reducing the scope of installation and maintenance work.

In combination with MASTER welding control there are additional advantages. Welding parameters are adjusted automatically to the sheet metal combination that shall be joined without the need of a manual intervention of the programming. So differences concerning sheet thickness, kind of coating or material as well as shunt and electrode wear

are compensated almost completely.

Parameter programming can be carried out off-line by storing the welding reference curves in **MASTER** control mode. The gun manufacturer or the maintenance department supply the weld gun ready for use, e.g. with reference data for **MASTER** welding control mode. This eliminates the need for parameterisation in the production line.

European Patent	EP 0 947 279 B1
US-Patent	6,072,146

Technical Data

Memory capacity	16 kByte
Dimensions (L x W x H)	88 x 25 x 13 mm 3.5 x 1.2 x 0.5 in
Weight	50 g / 0.1 lb
Temperature range	-40 °C to +70 °C -40 °F to +158 °F
Data retention	> 10 years
Connection	2-wire-bus

Weld process data

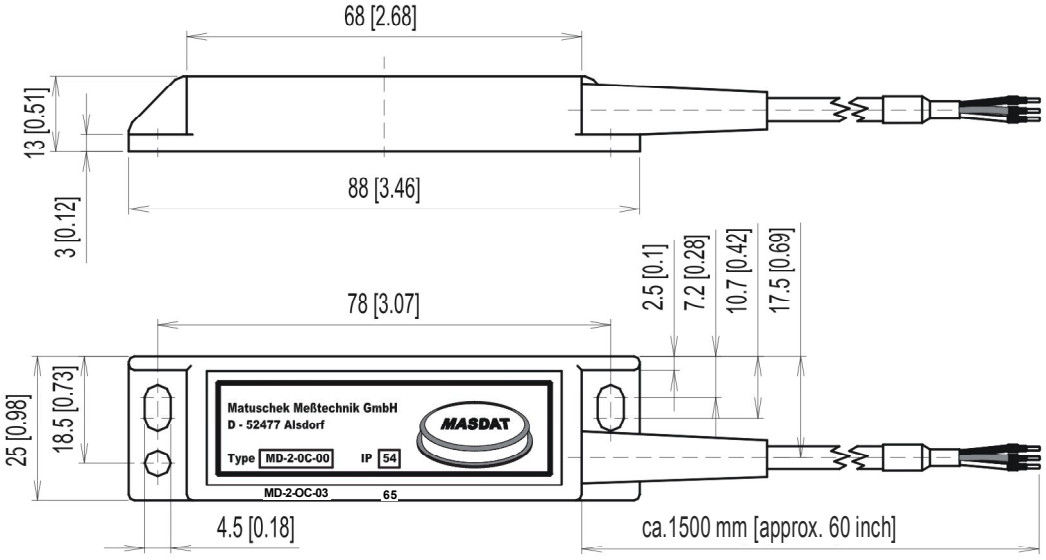
no. of programs with **MASTER** reference curves	4
no. of configurable counters	1

Manufacturers' and Maintenance Data

text of	approx. 3,000 characters

Matuschek Meßtechnik GmbH • Werner-Heisenberg-Str. 14 • 52477 Alsdorf • Germany
Phone: + 49 / 2404 / 676 - 0 • Fax: +49 / 2404 / 676 - 111 • E-Mail: info@matuschek.com • Internet: www.matuschek.com

Dimensioned drawing:



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