



# M1650 TUBE

marking systems

**komax**



# FULLY INTEGRATED TUBE MARKING MODULE FLEXIBLE, PRACTICAL, RESISTANT

## M1650 TUBE

The M1650 Tube Marking Module marks wires fully automatically with a wire tube that is pushed on. In this process, a tube is printed on from a roller using the thermal transfer process, cut to the correct length with V-blades, and pushed onto the wire using a gripper system. The module can be converted for different tube types. It is designed for integration with Zeta series machines.

### Attractive alternative to inkjet markers

- Tube Marking Module offers high abrasion resistance thanks to thermal transfer printing.
- High contrast is ensured for good legibility regardless of the conductor color.

### Simple and fast wire installation in the control cabinet

- Labeling with Tube Marking Module allows the marking to be rotated and moved on the wire.
- This is particularly advantageous in control cabinet construction when wires have to be shortened and markings aligned to the front.

### High flexibility and fast handling

- The most varied types of tubes (flat, oval, round) can be processed.
- The material change (exchange of thermal transfer ribbon and tube material) takes less than five minutes.
- Sequence production with different tube lengths and labeling is possible.

02

### Unique, fully integrated Tube Marking Module

In contrast to many stand-alone solutions on the market, the M1650 Tube is completely integrated into the fully automated wire harness production of the Zeta 630/640/650 and can be controlled from its control center. This integration means a considerable time saving and ensures the highest quality. Possible mislabeling is minimized and staff can focus on the important work of laying wires.

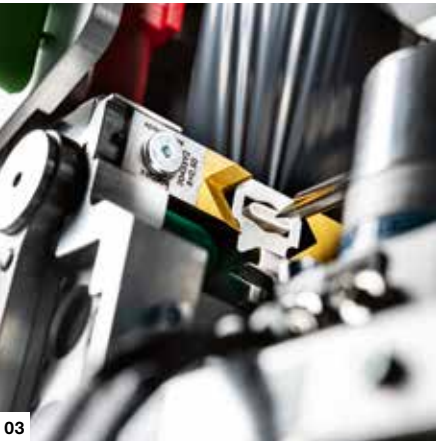
### A further milestone in control cabinet construction

The M1650 Tube Marking Module was developed by our engineers as an application for special customer needs and is now going into serial production. You too can benefit from Komax expertise and the high level of development work done by our engineers.

### Technical data

Integration	Zeta 6x0
Cycle time	approx. 1.9 sec./tube
Tube types	flat/round/oval
Tube lengths	10 – 35 mm (depending on tube type)
Min. wire length	240 mm (9.44 in.)
Printer type	Thermal transfer
Printer resolution	300 dpi

- 01  
The labeling unit with ribbon first labels the wire tube.
- 02  
Wire sample labeled with tubes, produced on a Zeta 650 machine.
- 03  
The wire tube is cut and then placed on a mandrel.
- 04  
The flat wire tube is erected by the jaws and pressed round so that the wire can be easily inserted.
- 05  
A gripper unit guides the wire into the funnel, where the tube is then pushed over the wire.



## Komax – leading the field now and in the future

As a pioneer and market leader in automated wire processing, Komax provides its customers with innovative solutions. Komax manufactures series and customer-specific machinery, catering to every degree of automation and customization. Its range of quality tools, test systems, and intelligent software and networking solutions complete the portfolio, and ensure safe, flexible, and efficient production.

Komax is a globally active Swiss company with highly qualified employees and development and production facilities on several continents. It provides local support to customers worldwide through its unique sales and service network and offers services that help them get the most out of their investments.

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