



tde<sup>®</sup>

AFCEA exhibition highlights 2024

**tMA**

tde Mobile Applications

**Mobile Applications  
for Harsh Environments**



# Cabling systems for maximum packing densities – Made in Germany



*tde company portrait*



As a leading German **network expert** and globally successful company, tde – trans data elektronik has been developing and producing scalable **cabling systems** for the highest packing densities for **over 30 years**.

We develop solutions for the networked, digitalised world of tomorrow: high-quality, **made in Germany** and **100 % fail-safe**. Our product portfolio includes **complete system solutions** with a focus on **plug & play** for high-speed applications in the areas of: Datacom, Telecom, Industry, Medical and Defense.

One **tde highlight** is the innovative **tMA system**, our high-density cabling system for **mobile applications**, weight-optimised and ideally suited for mobile use in harsh environments.



*MT 38999*



*Back Pack*



*HEB® lens connector*

## The highlight for any harsh environment: tMA system for mobile applications

tMA is our system for the mobile construction of passive network infrastructure in harsh environments.

With our tMA system, reliable connections can be established despite difficult conditions, especially for applications in the **defense sector**, **emergency response**, **disaster control** and **industry**.

The basis for this are the lens connectors with HEB® technology. This is based on the MIL-DTL-83526-20/21 specification. As a result, these connectors are insensitive to axial misalignment, contamination and vibration and have protection class IP67.

HEB® is available in both single and multimode versions with up to 12 channels in S, M, L and XL designs. Together with good insertion loss and return loss, high bandwidths can be achieved despite adverse environments.

As HEB® lens connectors are hermaphroditic, they can be inserted on both sides. This simplifies the application and prevents application errors. The tMA system is supplemented by a support frame with NATO 380 cable reel for easy installation of a line. Thus up to one kilometer of cable can be transported by just one person or operator.

**Carrying frame, drum and 1000 metres of cable weigh just 23 kg in total.** The good ergonomics and easy handling of the light and robust aluminium carrying frame together with a small cable diameter enable smooth operation with low weight.

# The connectors for the tMA system



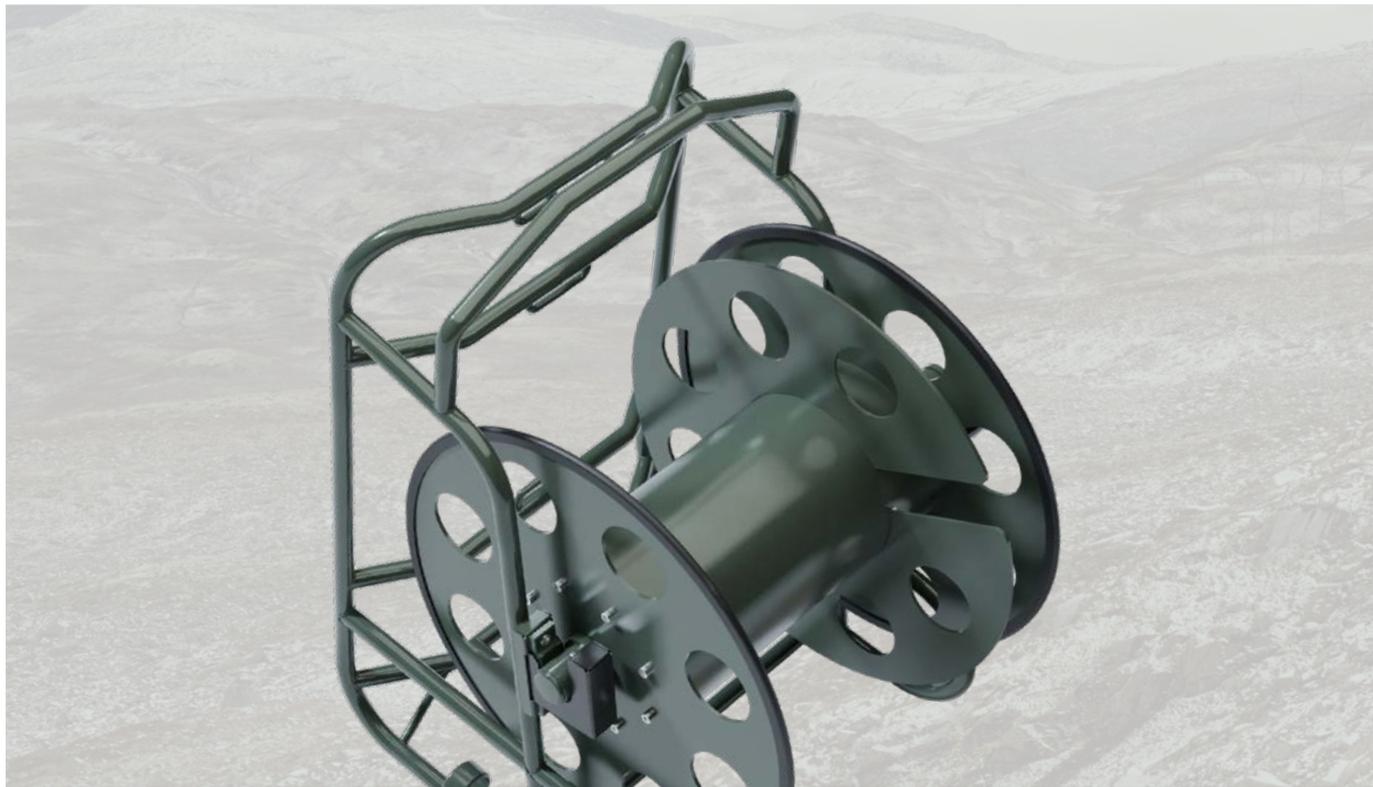
## MT 38999

- » Single- & Multimode
- » size 11 housing:  
12 optical channels
- » standard straight,  
flat profile (BH)
- » Aluminum, nickel-aluminum-  
bronze and stainless steel  
housing options
- » low insertion loss  
& high return loss

## HEB<sup>®</sup>-M (hermaphroditic expanded beam)

- » hermaphroditic design
- » single- & multimode
- » 2/4/8/12 channel connectors & bulkheads
- » collimation and focusing of the light by means of ball lenses
- » insensitivity to axial misalignment, contamination and vibration
- » 1500 N strain relief
- » long service life: up to 3000 mating cycles
- » temperature range -55°C to +85°C
- » low insertion loss & high return loss
- » MIL-DTL-83526/20 /21 QPL
- » VG 95319-100/ -102
- » made of aluminium and hard anodised
- » special stainless steel versions available for extreme applications
- » in accordance with protection class IP67
- » cable extensions possible without adapters



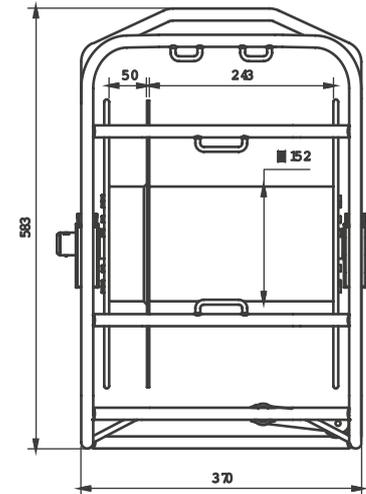
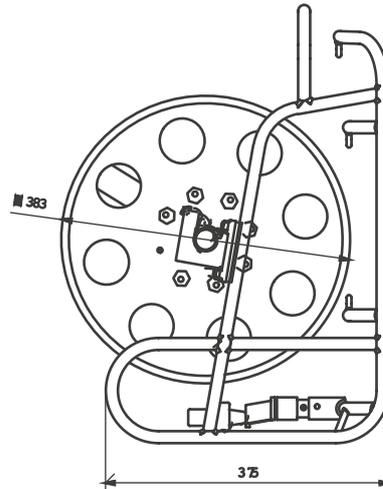


# Back support frame and special cable drums

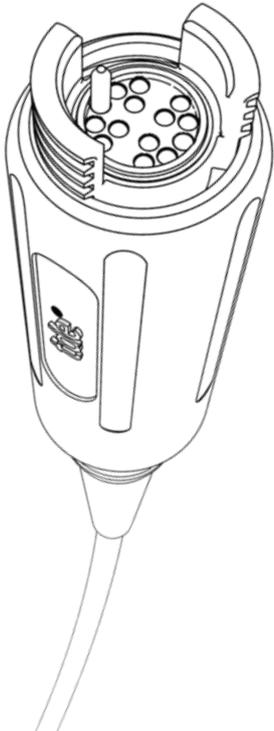
## The lightweight among the back packs

HEB® technology, combined with the lightweight and robust carrying frame with cable drum, make the **tMA** system the ideal solution for flexible use in harsh environments. The core feature of our mobile components is simple: they are light!

- » robust and lightweight aluminum frame
- » good ergonomics
- » capacity of up to 1000 meters cable with NATO 380C drum
- » removable cable drum with crank handle
- » carrying frame, drum and cable together weigh only 23 kg



# Mobile cables for the tde-HEB<sup>®</sup> lens connectors



With over 30 years of expertise, we provide suitable mobile cabling for harsh environments to match the tde HEB<sup>®</sup> lens connector series. Our fibre optic cables as a system component for the tMA system are customized, have a thin cable diameter, are lighter than conventional cables and are insensitive to kinks.

In the field, the tde complete system for mobile cabling allows one person to carry 1000 m in cable drums on one appropriate back pack.

- » slim and lightweight cable construction
- » single- & multimode
- » optimised for the HEB<sup>®</sup> lens connector series
- » up to 12 channels



24/7 online cable configurator

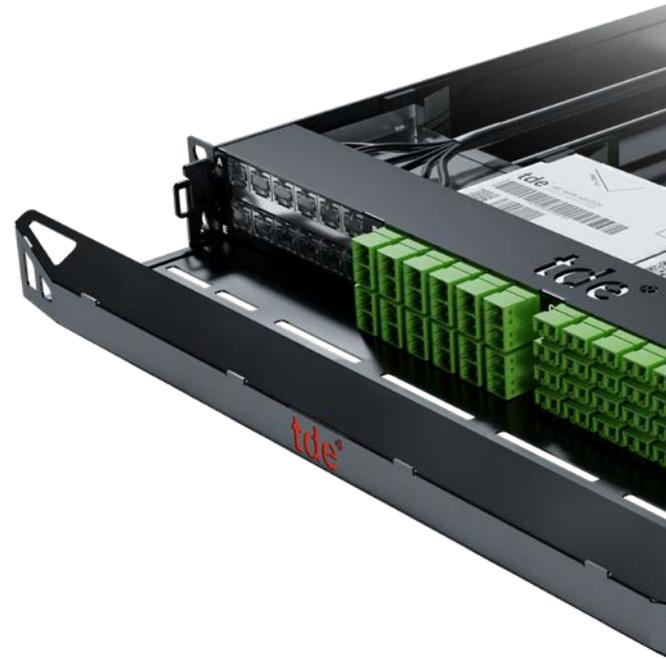
*In the tde cable configurator, all cable variations for indoor and outdoor laying can be put together individually.*

# tML<sup>®</sup> system

## tde Modular Link System in interaction with tMA system

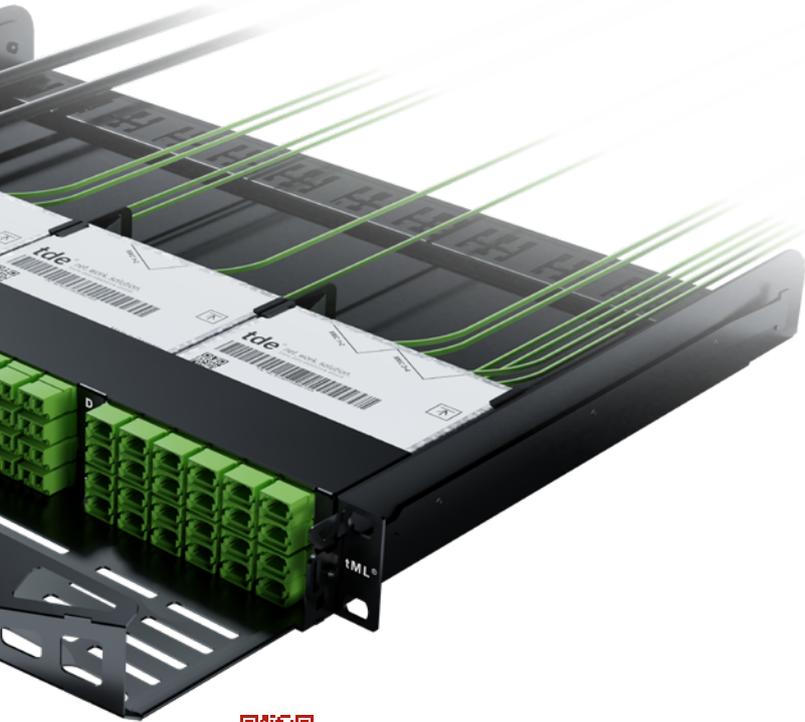
The tde Plug & Play system platform tML<sup>®</sup>, the tde Modular Link System, now also available as the tML<sup>®</sup> 24+ modular system with added performance and packing efficiency, is thanks to its simple, fast and space-saving „Plug & Play“ installation also suitable for mobile use, especially for use in container data centers/shelters. The tML<sup>®</sup> tde Modular Link System takes over where conventional systems fail.

If you would like to find out more about our tMA complete system and our tML<sup>®</sup> system, please contact us! Our experts will be happy to assist you via all communication channels.



tde experts

# Notes



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MADE IN GERMANY

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ISO 9001  
TL 9000  
ISO 14001

