

# KSwitch D10 MMT Series



## Kontron TSN Ethernet KSwitch D10 MMT Series

- Managed Time Sensitive Networking (TSN) Ethernet switch
- 8-port switch with 6x 1000/100/10 and 2x 2500/1000/100/10Base-T
- Option with 2x SFP ports for 2.5G fiber and copper transceivers
- Dual redundant 12 VDC to 56 VDC input
- Industrial grade, highly reliable and long-term available

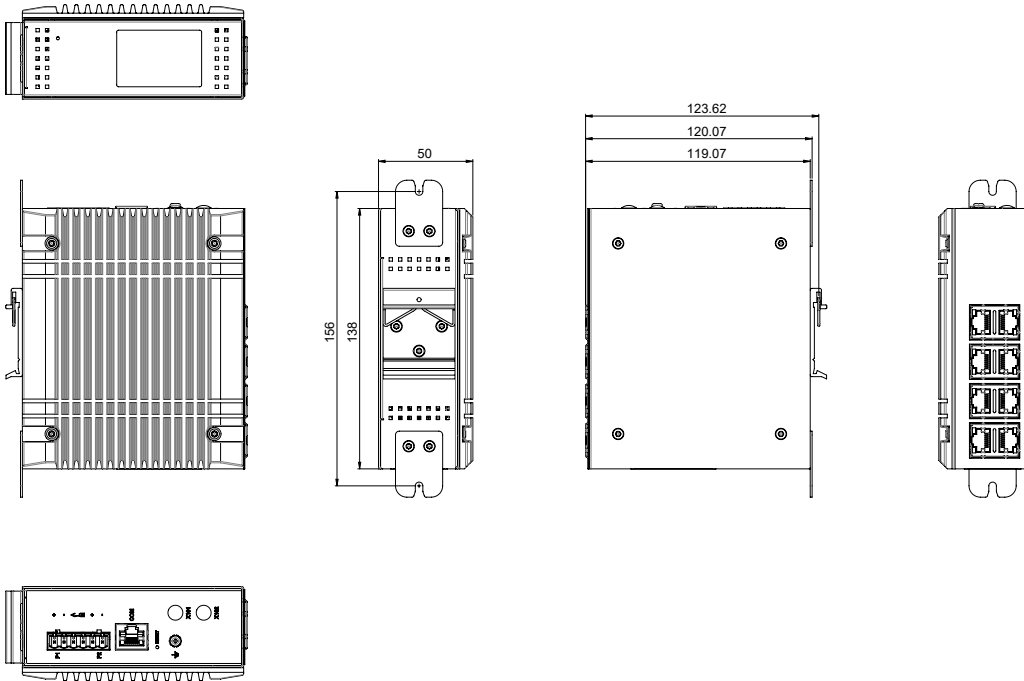
The Kontron KSwitch D10 MMT series offers cost-effective web-managed industrial TSN switches with 8 Gigabit Ethernet ports providing easy to use plug-n-play connectivity. Copper and fiber optics ports are available. Due to the standard compliance,

the KSwitch D10 MMT series can easily be integrated in factory production lines, embedded into a machine control system or applied for any network expansion. It is the perfect solution for state-of-the-art TSN applications and edge site installation.

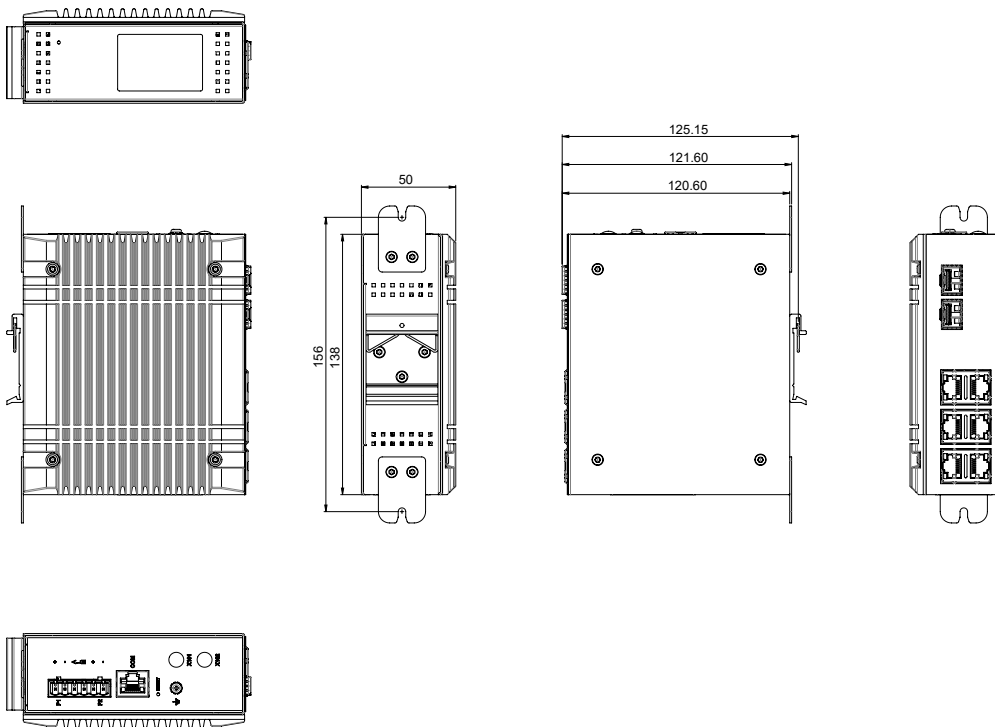
## Technical Information

|                                       |   |   |
|---------------------------------------|---|---|
| <b>NETWORK</b>                        | <b>OPERATING MODE</b>   | Store and forward, full wire-speed/non-blocking Gigabit switchcore  |
| <b>RJ45 COPPER PORTS</b>              | <b>SPEED</b><br><br><b>MDI/MDIX AUTOCROSSOVER</b><br><b>AUTO-NEGOTIATION/DUPLEX</b>   | 6x 10/100/1000Mbps RJ45 ports + 2x 10/100/1000/2500Mbps (for copper version)<br>Support straight or cross wired cables<br>10/100/1000/2500 Mbps copper speed autonegotiation, full and half duplex<br>Ultra low latency between ports 1G 5 und 1G 6   |
| <b>FIBER PORTS</b>                    | <b>PORT TYPES SUPPORTED</b><br><b>OPTIMAL FIBER CABLE</b>   | Up to 2x 1000/2500 Mbps SFP Slots<br>Typical 50 or 62.5/125 µm for multimode (mm)<br>Typical 8 or 9/125 µm for single mode (sm)<br>DAC cable support  |
| <b>PROTOCOL &amp; STANDARDS</b>       |   | IEEE 802.1AS, 802.1Qci, 802.1Qav, 802.1Qbv, 802.1Qbu & 802.3br, 802.1CB (FRER), IEEE 802.1D/w, IEEE 802.1Q/p, IEEE 802.1ab, IEEE 802.1X, 802.3, IEEE 802.3u, IEEE 802.3ab, IEEE 802.3z, IEEE 802.3x, IEEE 802.3ad LLDP, IPv4/IPv6, SNMP v1/v2c/, TFTP, ARP, RARP, Telnet, Syslog, Flow Control, Back Pressure, ICMP, UPD, TCP<br>Time: "IEEE1588-2008"  |
| <b>NETWORK REDUNDANCY</b>             | <b>SPANNING TREE PROTOCOL</b><br><b>PORT TRUNK / LACP</b><br><b>RING TOPOLOGIES</b>   | IEEE 802.1D/1w/1S, STP/RSTP/MSTP<br>Static trunk or LACP (Link Aggregation Control Protocol)<br>G.8032, MRP IEC-62439-2 2016  |
| <b>BRIDGE, VLANS, PROTOCOLS</b>       | <b>FLOW CONTROL</b><br><b>MAX VLANS</b><br><b>VLAN TYPES</b><br><b>MULTICAST PROTOCOLS</b><br><br><b>LLDP</b>   | IEEE 802.3x (full duplex) and back-pressure (half duplex)<br>4095<br>Port-based VLAN, IEEE 802.1Q tag-based VLAN<br>IGMP v1, v2, up to 255 multicast groups<br>IGMP snooping, querying<br>IEEE 802.1ab LLDP   |
| <b>TRAFFIC MANAGEMENT &amp; QOS</b>   | <b>PRIORITY</b><br><b>NUMBER OF QUEUES PER PORT</b><br><b>SCHEDULING SCHEMES</b>  | IEEE 802.1p QoS<br>8<br>Strict Priority Queuing (SPQ), Deficit-Weighted Round Robin Queuing (DWRR)  |
| <b>SECURITY</b>                       | <b>PORT SECURITY</b><br><br><b>STORM CONTROL</b>  | IP and MAC-based Access Control/Filter, Auth User / Privilege Level Control, IEEE802.1X<br>Multicast / Broadcast / Flooding Storm Control / Port Access Control / Limiters  |
| <b>MANAGEMENT</b>                     | <b>USER MANAGEMENT</b><br><b>INTERFACES</b><br><b>MANAGEMENT SECURITY</b><br><b>UPGRADE &amp; RESTORE</b><br><br><b>DIAGNOSTIC</b><br><br><b>DHCP</b><br><b>NTP CLIENT</b><br><b>SYSTEM STATUS</b><br><b>GREEN ETHERNET</b> | Web-based management, Command Line Interface<br>SNMP V1, V2c, Trap, Telnet (5 sessions)<br>HTTPs, SSH, Access Management, Loop Protection<br>TFTP/HTTP for Configuration Import / Export<br>TFTP/HTTP for firmware upgrade<br>Syslog, Level Info / Warning / Error<br>Port Mirror, Per VLAN mirroring, CPU Load Monitor, Traffic Counter<br>ICMP Ping Traceroute<br>Client Mode, Server Mode, Relay Mode, Snooping<br>yes<br>Device info/status; Ethernet port status<br>Port power savings |
| <b>POWER</b>                          | <b>POWER INPUT</b><br><b>INPUT VOLTAGE RANGE</b><br><b>REVERSE POWER PROTECTION</b><br><b>POWER CONSUMPTION</b>   | Redundant power input, removable terminal block<br>12-56 VDC<br>yes<br>10 W max.  |
| <b>INDICATORS</b>                     | <b>POWER STATUS INDICATION</b><br><b>ETHERNET PORT INDICATION</b><br><b>RELAY OUTPUT</b>  | Power input status<br>Link & speed<br>1A, 24 V, Normal close  |
| <b>ENVIRONMENTAL &amp; COMPLIANCE</b> | <b>OPERATING TEMPERATURE</b><br><b>STORAGE TEMPERATURE</b><br><b>HUMIDITY</b><br><b>EMC</b><br><b>SAFETY</b><br><b>ROHS &amp; WEEE</b><br><b>MTBF</b><br><b>PROTECTION</b><br><b>ALTITUDE</b>                               | -40 °C ~ 70 °C (cold startup at -40 °C)<br>-40 °C ~ 85 °C<br>5 ~ 93 % (non-condensing @40 °C)<br>EN 55032, EN 55035, EN 61000-6-2:2005, EN 61000-6-4, FCC<br>EN 62368-1; designed to meet UL<br>RoHS (Pb free), REACH and WEEE compliant<br>>85000 h @ 30 °C ground benign (according to MIL-HDBK-217)<br>IP30<br>3000 m  |
| <b>MECHANICAL</b>                     | <b>DIMENSION (H x D x W)</b><br><b>WEIGHT</b><br><b>INSTALLATION</b>  | 140 x 125 x 50 mm<br>approx. 350 g<br>DIN-Rail mounting, wall mounting  |

## D10 MMT 8-port series with RJ45



## D10 MMT 8-port series with SFP



| ARTICLE                        | DESCRIPTION   | Copper Ports | Fiber Ports |
|--------------------------------|---|--------------|-------------|
| <b>Standard configurations</b> |   |              |             |
| KSWITCH D10 MMT 8G             | Industrial 8-port managed TSN Ethernet switch with 6 10/100/1000 BaseT(X), 2 10/100/1000/2500 BaseT(X), -40 °C to 75 °C of operating temperature, dual DC power input 12 V to 56 V    | 8            |             |
| KSWITCH D10 MMT 6G-2GS         | Industrial 8-port managed TSN Ethernet switch with 6 10/100/1000 BaseT(X) and 2 100/1000/2500 FX SFP Slot, -40 °C to 75 °C of operating temperature, dual DC power input 12 V to 56 V | 6            | 2           |

### On request

|                    |   |   |  |
|--------------------|---|---|--|
| DPLL OPTION        | for ITU G.8275.1 and ITU 8265.1 support   |   |  |
| KSWITCH D10 MMT 6G | Industrial 6-port managed TSN Ethernet switch with 6 10/100/1000 BaseT(X), -40 °C to 75 °C of operating temperature, dual DC power input 12V to 56V | 6 |  |
| PoE SUPPORT        | Please ask  |   |  |
| PACKAGE CONTENTS   | KSwitch D10 MMT switch, DIN-Rail mounting kit   |   |  |

### Accessories

|                              |                      |  |  |
|------------------------------|----------------------|--|--|
| SFP MODULES                  | on request           |  |  |
| 230 V AC TO DC POWER ADAPTER | Order code 1057-7077 |  |  |

## Global Headquarters

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