

M12 transf. 1000BASE-T x STR



| Part number | 21 03 381 2815 |
|--------------------|-------------------------------------|
| Specification | M12 transf. 1000BASE-T x STR |
| HARTING eCatalogue | https://b2b.harting.com/21033812815 |

Image is for illustration purposes only. Please refer to product description.

Identification

| Category | Connectors |
|----------------|---|
| Series | Circular connectors M12 |
| Identification | Magnetics |
| Element | PCB adapter |
| Specification | with integrated transformer Straight |

Version

| Termination method | Reflow soldering termination (SMT) |
|--------------------|------------------------------------|
| Gender | Female |
| Shielding | Shielded |
| Number of contacts | 8 |
| Coding | X-coding |
| Details | Order housings separately |
| Pack contents | 60 pieces in a tray |

Technical characteristics

| Rated current | 0.8 A |
|-----------------------|--------------------|
| Rated voltage | 57 V |
| Rated impulse voltage | 1.5 kV |
| Pollution degree | 3 |
| Data rate | 1 Gbit/s |
| Insulation resistance | >10 ⁸ Ω |

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Technical characteristics

| Contact resistance | ≤10 mΩ |
|--|--|
| Limiting temperature | -40 +85 °C (during reflow soldering max. +245) |
| Insertion force | 30 N |
| Withdrawal force | 30 N |
| Mating cycles | ≥100 |
| Degree of protection acc. to IEC 60529 | IP65 / IP67 mated condition |
| Isolation group | Illa (175 ≤ CTI < 400) |
| Process Sensitivity Level (PSL) | R7 acc. to ECA/IPC/JEDEC J-STD-075 |

Material properties

| Material (insert) | Liquid crystal polymer (LCP) | |
|---|--|--|
| Colour (insert) | Black | |
| Material (contacts) | Brass | |
| Surface (contacts) | Au over Ni Mating side | |
| Material flammability class acc. to UL 94 | V-0 | |
| RoHS | compliant with exemption | |
| RoHS exemptions | 6(c): Copper alloy containing up to 4 % lead by weight | |
| ELV status | compliant with exemption | |
| China RoHS | 50 | |
| REACH Annex XVII substances | Not contained | |
| REACH ANNEX XIV substances | Not contained | |
| REACH SVHC substances | Yes | |
| REACH SVHC substances | Lead | |
| ECHA SCIP number | 0d7d3693-d625-47ab-934a-d241bf72c86e | |
| California Proposition 65 substances | Yes | |
| California Proposition 65 substances | Lead Nickel Naphthalene | |
| Fire protection on railway vehicles | EN 45545-2 (2020-08) | |
| Requirement set with Hazard Levels | R26 | |
| | | |

Specifications and approvals

| Specifications | IEC 61076-2-109 |
|----------------|-----------------|
|----------------|-----------------|

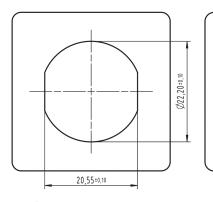
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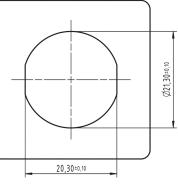


Commercial data

| Packaging size | 60 |
|--------------------------------|--|
| Net weight | 9.8 g |
| Country of origin | China |
| European customs tariff number | 85366990 |
| GTIN | 5713140228887 |
| eCl@ss | 27460201 PCB connector (board connector) |

Panel cut out

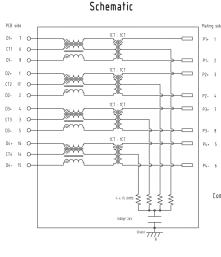


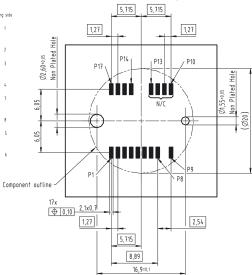


Front mounting use

Rear mounting use

General information





Recommended PCB layout

Electrical Characteristics $\textcircled{0+25^\circC}$ unless otherwise noted Meets IEEE802.3 specification RoHS compliant

| | Parameter | Specification/ Limit Values |
|------|--|---|
| | Operating Temperature | -40°C - +85°C |
| | Turn Ratio (+/- 2%) | 1CT : 1CT |
| ł | OCL | min 350µH @ 100KHz , 100mV with 8mA bias current |
| | Isolation (Input- Output) | 2.25kV VDC , for 60sec. min |
| | | f ≤ 100MHz |
| | Insertion Loss | 1.3 dB |
| 1070 | Return Loss | 9 dB |
| 1 | Crosstalk | 30 dB |
| | CMRR | 30 dB |
| | CDMR | 30 dB |
| | NOTE: 1. f is the freqency in MHz | |
| 1 | The Product has been tested for DC isolation. HARTING assumes no liability or obligation for AC isolation testing. | |

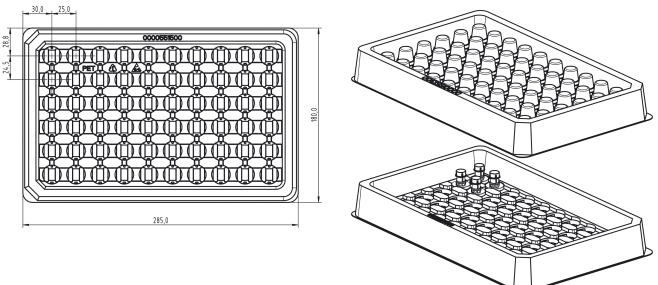
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Tape layout & packaging



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