# UR-DS Series

FASTUS IO-Link hub

**UR-DS16D**

**UR-DS8D8T**

**UR-DS16T**



| Item | | | Specifications | | |
|---|---|---|---|---|---|
| Unit | | | IO-Link Digital I/O hub | | |
| Model code | | | UR-DS16D | UR-DS8D8T | UR-DS16T |
| Interface | Number of points | | 1 (Use either spring clamp terminal blocks or e-CON socket) | | |
| | IO-Link | Version | 1.1 | | |
| | | Master/Device | Operates as device | | |
| | | Communication speed | COM3 (230.4 kbps) | | |
| | | Process input data | 2 bytes | 2 bytes | 2 bytes |
| | | Process output data | 1 byte | 3 bytes | 4 bytes |
| | | Minimum cycle time | 0.4 ms | 0.6 ms | 0.5 ms |
| | | Cable length | Maximum 20 m | | |
| I/O terminal | Number of points | | 16 (spring clamp terminal block)*UR-DE: e-CON socket | | |
| | Digital input | Points | 16 | 8 | - |
| | | Type of input | Source, PNP or Sink, NPN (selectable for all channel) | | - |
| | | Dielectric withstanding voltage | 500 VAC for one minute between I/O terminal batch and IO-Link batch | | - |
| | | Insulation resistance | 10 M ohm or higher between I/O terminal batch and IO-Link batch | | - |
| | | Common | Shared with 16 channels | Shared with 8 channels | - |
| | | Rated input voltage | 24 VDC including ripple (P-P) 5 % | | - |
| | | Rated input current (typical values) | 4.9 mA | | - |
| | | Insulation method | Photocoupler insulation | | - |
| | | Maximum number of Simultaneous input points | 100 % simultaneous ON | | - |
| | | Voltage and current at ON | 15 V or higher, 3 mA or higher | | - |
| | | Voltage and current at OFF | 8 V or less, 1.5 mA or less | | - |
| | | Input resistance | 4.7 k ohm | | - |
| | | Input response time | 0 to 200 ms (1 ms unit, default value of 10 ms) | | - |

| Item | | | Specifications | | |
|---|---|---|---|---|---|
| Model code | | | UR-DS16D | UR-DS8D8T | UR-DS16T |
| I/O terminal | Digital output | Points | - | 8 | 16 |
| | | Type of output | - | Source, PNP or Sink, NPN (selectable per channel) | |
| | | High current output function | - | Channel C to F for Source, PNP, output | |
| | | Rated load voltage | - | 12/24 VDC (allowable voltage from 10.2 to 28.8 VDC) | |
| | | Maximum load current | - | Standard output: 0.5 A per point<br>High current output: 4 A per point | |
| | | Maximum total load current | - | 12 A | |
| | | Maximum inrush current | - | 6 A | |
| | | Output residual voltage at ON | - | Standard output: 1.2 V or less<br>High current output: 0.4 V or less | |
| | | Leak current at OFF | - | 0.1 mA or less | |
| | | Output response time | - | 0.2 ms or less (OFF to ON)<br>1.5 ms or less (ON to OFF) | |
| | | Surge suppressor | - | Zener diode | |
| | | I/O power supply voltage | - | 12/24 VDC (allowable voltage from 10.2 to 28.8 VDC) | |
| | | I/O power current consumption | - | 55 mA max. (at 24 VDC) | |
| | | Output reverse voltage protection | - | Standard output: Yes<br>High current output: No | |
| | | Common | - | Switchable per channel | |
| Power supply | Power supply voltage | | 24 VDC ± 15 %<br>(SELV and LIM power supplies or Class 2 power supplies)*1 | | |
| | Current consumption | | 50 mA max. (at 24 VDC) | | |
| Size | | | 85 × 63 × 39.9 mm (W × H × D) | | |
| Weight | | | Approx. 115 g (including terminal blocks, when not wired) | | |
| Environmental resistance | Operation temperature/humidity | | 0 to +55 ℃/5 to 95 % RH (no freezing and no condensation) | | |
| | Storage temperature/humidity | | -25 to +75 ℃/5 to 95 % RH (no freezing and no condensation) | | |
| | Vibration resistance | | IEC 61131-2 compliant | | |
| | Shock resistance | | IEC 61131-2 compliant | | |
| | Atmosphere | | No corrosive gas | | |
| | Operating altitude | | 0 to 2000 m | | |
| | Installation location | | In door use | | |
| | Degree of protection | | IP20 | | |
| Measurement category | | | II or lower | | |
| Pollution degree | | | 2 or lower | | |
| Applicable regulations | CE marking | EMC | EMC Directive (2014/30/EU) | | |
| | | Environment | RoHS Directive (2011/65/EU) | | |
| | China RoHS | Environment | Regulation 32 | | |
| Applicable standard | | | EN 61131-2 | | |

*1. Use a Class 2 power supply or a power supply compliant with SELV (Safety Extra-Low Voltage) circuit and LIM (Limited Energy Circuit) circuit standards.