Data sheet

FASTUS

UR-ES16DT/UR-EE16DT

FASTUS IO-Link Master UR-ES16DT/UR-EE16DT

16-port (IO-Link, Source/Sink Digital I/O, High speed counter)

EtherNet/IP, CC-Link IE Field Basic, Modbus, EtherCAT

Item			Specifications	
Unit			IO-Link Master	
Model code			UR-ES16DT	UR-EE16DT
Ethernet	Number of ports		2 (RJ45)*Switchable in the master parameter	
	EtherNet/IP	Applicable version	EtherNet/IP adapter	
		Transmission speed	10 Mbps (10 BASE-T), 100 Mbps (100 BASE-TX)	
		Packet interval (RPI)	1 to 3200 m	
		Cycle communication (Implicit Message)	Class 1 service	
		Acycle communication (Explicit Message)	Class 3 message, UCMM	
		Cable length	100 m	
		Hybrid connection	Modbus TCP, JSON	
	CC-Link IE Field Basic	Station type	Slave station	
		Number of occupied stations	1 station	
		Transmission speed	100 Mbps (100 BASE-TX)	
		Cable length	100 m	
		Hybrid connection	Modbus TCP	
	Modbus	Station type	Server	
		Protocols of transport layer	TCP or UDP	
		Transmission speed	10 Mbps (10 BASE-T), 100 Mbps (100 BASE-TX)	
		Cable length	100 m	
	EtherCAT	Station type	Slave	
		Transmission speed	100 Mbps (100 BASE-TX)	
		Cable length	100 m	
I/O terminal	Number of ports		16 (spring clamp terminal blocks) *The functions for each port are individually configured within the master parameter.	16 (e-CON sockets, 4 poles) *The functions for each port are individually configured within the master parameter.
	IO-Link communication	Version	1.1 and 1.0	
		Communication speed	COM1: 4.8 kbps, COM2: 38.4 kbps, COM3: 230.4 kbps	
		Cable length	20 m or less	
		Minimum cycle time	0.3 ms	
	Digital input	Polarity	Source/Sink	
		Rated input voltage	24 VDC ±20 % (SELV and LIM power supplies or UL 1310 Class 2 power supplies)*1	
		Rated input current (typical)	Source: 5.5 mA, Sink: 5.0 mA	
		Insulation method	Transformer, photocoupler insulation	
		Maximum number of simultaneous input points	100 % simultaneous ON	
		Voltage and current at ON	Source: 15 VDC or higher, 5.5 mA or higher Sink: 13 VDC or higher, 3.0 mA or higher Note: Source is the voltage seen from the 24 V side.	

Item			Specifications
I/O terminal	Digital input	Voltage and current at OFF	Source: 10 VDC or less, 2.0 mA or less Sink: 8 VDC or less, 2.0 mA or less Note: Source is the voltage seen from the 24 V side.
		Input resistance	Source: 5.5 mA with constant current circuit load Sink: 4.7 k ohm
		Input response time	No filter, 0.1 ms, 1 ms, 5 ms, 10 ms, 20 ms (default: No filter)
	High speed counter	Number of channels	1 (1-3 I/O channels occupied)
		Polarity	Source/Sink
		Phase	Phase A, B, Z CW/CCW
		Signal level (typical)	24 VDC Source: 5.5 mA, Sink: 5.0 mA
		Counting speed	250 kpps
	Digital output	Polarity	Source/Sink
		Rated load voltage	10.8 to 26.4 VDC (SELV and LIM power supplies or UL 1310 Class 2 power supplies)*1
		Maximum output load current	0.2 A per 1 point, 2.5 A per 16 points*2
		Maximum inrush current	Current limitation by over-current protection function (0.5 A)
		OFF output leakage current	0.1 mA or less (0.2 mA or less for Sourcing output)
		Maximum output voltage drop at ON	Source: 1.8 V Sink: 1.6 V
		Surge suppressor	Zener diode
		Output response time	0.1 ms or less
Power	Power supply voltage		24 VDC ±15 % (SELV and LIM power supplies or UL 1310 Class 2 power supplies)*1
	Current consumption		195 mA
	Insulation resistance		5 M ohm or more (between external power supply and unit power supply at 500 VDC)
Size			110 × 63 × 44.7 mm (W × H × D)
Weight			Approx. 195 g (including terminal blocks, when not wired)
Environmental resistance	Operating temperature/humidity		0 to +55 °C/5 to 95 % RH (no freezing or condensation)*2
	Storage temperature/humidity		-25 to +75 °C/5 to 95 % RH (no freezing or 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 (not UL certified)
Overvoltage category			II or less
Pollution degree			2 or less
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
NRTL certification			UL Listed Programmable Controllers Certified for US and Canada

*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.

*2. UL certification conditions: 0 to +55 °C when I/O output load current is 2 A/16 points or less, and 0 to +50 °C when 2.5 A/16 points.