

UR-DS Series

FASTUS IO-Link hub

UR-DS16D

UR-DS8D8T

UR-DS16T

For technical support of Optex IO-LINK contact Ramco Innovations today!

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)		or e-CON socket)
		Version	1.1		
	IO-Link	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		
		Points	16	8	-
		Type of input	Source, PNP or Sink, NPN (selectable for all channel)		-
	Digital input	Dielectric withstanding	500 VAC for one minute between		_
		voltage	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)		-

Points	Item			Specifications			
Type of output	Model code			UR-DS16D	UR-DS8D8T	UR-DS16T	
Pipe of output			Points	-	8	16	
Function		Digital output	Type of output	-	· · ·		
Rated load voltage			-	-	Channel C to F for Source, PNP, output		
Maximum load current Maximum total load current Maximum inush current Digital output Digital			Rated load voltage	-	(allowable voltage from 10.2 to 28.8 VDC)		
Digital output				-	' '		
O terminal Digital output Di				-	12 A		
at ON High current output: 0.4 V or less Leak current at OFF - 0.1 mA or less O.1 mA or less Output response time - 0.2 ms or less (OFF to ON) 1.5 ms or less (ON to OFF) 1/O power supply 1/O power supply 1/O power supply 1/O power current consumption 1.2 to 28.8 VDC) 1/O power current 1.5 ms max. (at 24 VDC) 1/O power current 1.5 ms max. (at 24 VDC) 1/O power current 1.5 ms max. (at 24 VDC) 1/O power current 1.5 ms max. (at 24 VDC) 1/O power current 1.5 ms max. (at 24 VDC) 1/O power supply 1/O power 1			Maximum inrush current	-	6 A		
Leak current at OFF	I/O terminal		Output residual voltage			it: 1.2 V or less	
Output response time Output response time Output response time Surge suppressor - Zener diode 1/O power supply voltage 1/O power supply Output reverse voltage protection Output reverse voltage Power supply Output reverse voltage Standard output: Yes High current Output reverse voltage (SELV and LIM power supplies or Class 2 power supplies)*1 Approx. 15 of 05 % RH (no freezing and no condensation) Voltage Elso Self-Vand LIM power supplies or Class 2 power supp			at ON		High current output: 0.4 V or less		
Output response time Surge suppressor -			Leak current at OFF	-	0.1 mA or less		
1/0 power supply voltage 12/24 VDC (allowable voltage from 10.2 to 28.8 VDC) 1/0 power current consumption 55 mA max. (at 24 VDC) (allowable voltage from 10.2 to 28.8 VDC) 1/0 power current consumption 55 mA max. (at 24 VDC) (allowable voltage from 10.2 to 28.8 VDC) 1/0 power current consumption 55 mA max. (at 24 VDC) (allowable voltage from 10.2 to 28.8 VDC) 1/0 power current consumption 55 mA max. (at 24 VDC) 1/0 power supplies or class 2 power supplies or Class 2 power supplies or Class 2 power supplies)*1 1/0 power supplies or Class 2 power supplies or Class 2 power supplies)*1 1/0 power supplies or Class 2 power supplie			Output response time	-	` ′		
voltage voltage (allowable voltage from 10.2 to 28.8 VDC)			Surge suppressor	-	Zener diode		
Top power current consumption			I/O power supply		12/24	1 VDC	
consumption Output reverse voltage protection Output reverse voltage protection Common Power supply Ower supply voltage Current consumption Operation temperature/humidity Operation temperature/humidity Oversistance Atmosphere Atmosphere Operating altitude Doperating altitude Doperating altitude Doperating altitude Doperation location Degree of protection Degree of protection EMC Emarking CE marking Common - Switchable per channel CSELV and LIM power supplies or Class 2 power supplies)*1 (SELV and LIM power supplies or Class 2 power supplies)*1 Atmosphere So mA max. (at 24 VDC) So mA max. (at 24 VDC) Approx. 115 g (including terminal blocks, when not wired) Operation temperature/humidity O to +55 °C/5 to 95 °R RH (no freezing and no condensation) Storage temperature/humidity -25 to +75 °C/5 to 95 °R RH (no freezing and no condensation) Vibration resistance IEC 61131-2 compliant Shock resistance Atmosphere No corrosive gas Operating altitude O to 2000 m Installation location Degree of protection In door use Degree of protection Degree of protection EMC Emarking EMC Environment CE marking EMC Environment Regulation 32				-	(allowable voltage fro	om 10.2 to 28.8 VDC)	
Output reverse voltage protection Common - Standard output: Yes High current output: No Switchable per channel 24 VDC ± 15 % (SELV and LIM power supplies or Class 2 power supplies)*1 Current consumption Zet VDC ± 15 % (SELV and LIM power supplies or Class 2 power supplies)*1 Zet VDC ± 15 % (SELV and LIM power supplies or Class 2 power supplies)*1 Zet VDC ± 15 % (SELV and LIM power supplies or Class 2 power supplies)*1 Zet VDC ± 15 % (SELV and LIM power supplies or Class 2 power supplies)*1 Zet VDC ± 15 % (SELV and LIM power supplies or Class 2 power supplies)*1 Zet VDC ± 15 % (SELV and LIM power supplies or Class 2 power supplies)*1 Zet VDC ± 15 % (SELV and LIM power supplies or Class 2 power supplies)*1 Zet VDC ± 15 % (SELV and LIM power supplies or Class 2 power supplies)*1 Zet VDC ± 15 % (SELV and LIM power supplies or Class 2 power supplies)*1 Zet VDC ± 15 % (SELV and LIM power supplies or Class 2 power supplies)*1 Zet VDC ± 15 % (SELV and LIM power supplies or Class 2 power supplies)*1 Zet VDC ± 15 % (SELV and LIM power supplies or Class 2 power supplies)*1 Zet VDC ± 15 % (SELV and LIM power supplies or Class 2 power supplies)*1 Zet VDC ± 15 % (SELV and LIM power supplies or Class 2 power supplies)*1 Zet VDC ± 15 % (SELV and LIM power supplies or Class 2 power supplies)*1 Zet VDC ± 15 % (SELV and LIM power supplies or Class 2 power supplies)*1 Zet VDC ± 15 % (SELV and LIM power supplies or Class 2 power supplies)*1 Zet VDC ± 15 % (SELV and LIM power supplies or Class 2 power supplies)*1 Zet VDC ± 15 % (SELV and LIM power supplies very power supplies)*1 Zet VDC ± 15 % (SELV and LIM power supplies very power power supplies very power supplies very power supplies very power				-	55 mA max. (at 24 VDC)		
Common - Switchable per channel 24 VDC ± 15 % (SELV and LIM power supplies or Class 2 power supplies)*1 Four consumption 50 mA max. (at 24 VDC) See Separate to supply with the supplies or Class 2 power supplies)*1 Approx. 115 g (including terminal blocks, when not wired) Approx. 115 g (including terminal blocks, when not wired) Approx. 115 g (including terminal blocks, when not wired) Storage temperature/humidity 0 to +55 °C/5 to 95 % RH (no freezing and no condensation) Storage temperature/humidity -25 to +75 °C/5 to 95 % RH (no freezing and no condensation) Vibration resistance IEC 61131-2 compliant Atmosphere No corrosive gas Operating altitude 0 to 2000 m Installation location In door use Degree of protection IP20 easurement category Degree of protection IP20 Easurement category EMC EMC Directive (2014/30/EU) Environment Regulation 32			Output reverse voltage		Standard o	output: Yes	
Power supply Power supply voltage Current consumption So mA max. (at 24 VDC) 85 × 63 × 39.9 mm (W × H × D) Approx. 115 g (including terminal blocks, when not wired) Approx. 115 g (including terminal blocks, when not wired) Storage temperature/humidity Vibration resistance Atmosphere Operating altitude Installation location Degree of protection Page of protection EMC Emarking EMC Environment Current consumption Storage temperature/humidity 0 to +55 °C/5 to 95 % RH (no freezing and no condensation) 1EC 61131-2 compliant In door use 1EC 61131-0 compliant In door use 1EC 61131-0 compliant In door use 1EC 61131-0 compliant EMC EMC EMC EMC EMC EMC EMC EM			protection	<u>-</u>	High current output: No		
Power supply Current consumption SO mA max. (at 24 VDC) SEELV and LIM power supplies or Class 2 power supplies)*1 SO mA max. (at 24 VDC) SEELV and LIM power supplies or Class 2 power supplies)*1 SO mA max. (at 24 VDC) SEELV and LIM power supplies or Class 2 power supplies)*1 SO mA max. (at 24 VDC) SEELV and LIM power supplies or Class 2 power supplies)*1 SO mA max. (at 24 VDC) SEELV and LIM power supplies or Class 2 power supplies)*1 SO mA max. (at 24 VDC) SEELV and LIM power supplies or Class 2 power supplies)*1 SO mA max. (at 24 VDC) SEELV and LIM power supplies or Class 2 power supplies)*1 SO mA max. (at 24 VDC) SEELV and LIM power supplies or Class 2 power supplies)*1 SO mA max. (at 24 VDC) SEELV and LIM power supplies or Class 2 power supplies)*1 ABS			Common	-	Switchable per channel		
Current consumption Current consumption So mA max. (at 24 VDC) 85 × 63 × 39.9 mm (W × H × D) Approx. 115 g (including terminal blocks, when not wired) Operation temperature/humidity Operation temperature/humidity Vibration resistance Atmosphere Operating altitude Operating altitude Installation location Degree of protection Easurement category Operation temperature/humidity Oto +55 °C/5 to 95 % RH (no freezing and no condensation) IEC 61131-2 compliant No corrosive gas Operating altitude O to 2000 m In door use IP20 Easurement category II or lower 2 or lower Degree of protection EMC Emvironment EMC Environment Regulation 32	Power supply						
Reight Approx. 115 g (including terminal blocks, when not wired) Approx. 115 g (including terminal blocks, when not wired) Operation temperature/humidity Operation temperature/humidity Storage temperature/humidity Vibration resistance Field 61131-2 compliant Shock resistance Atmosphere Operating altitude Operating altitude Operating altitude Operating altitude Operating altitude Operation In door use Degree of protection Degree of protection Field 131-2 compliant No corrosive gas Operating altitude Operating and no condensation) IEC 61131-2 compliant No corrosive gas Operating altitude Operating and no condensation) IEC 61131-2 compliant No corrosive gas Operating altitude Operating and no condensation) IEC 61131-2 compliant No corrosive gas Operating altitude Operating and no condensation) IEC 61131-2 compliant IEC 61131-2 co							
Approx. 115 g (including terminal blocks, when not wired) Operation temperature/humidity Storage temperature/humidity Vibration resistance Operation temperature/humidity Vibration resistance IEC 61131-2 compliant Shock resistance Atmosphere Operating altitude Installation location Installation location Degree of protection Easurement category III or lower Ollution degree Pollicable regulations CE marking CE marking China RoHS Environment Approx. 115 g (including terminal blocks, when not wired) 0 to 455 °C/5 to 95 % RH (no freezing and no condensation) IEC 61131-2 compliant IEC 61131-2 compliant No corrosive gas No corrosive gas Operating altitude 1 to 2000 m In door use IP20 EMC EMC EMC EMC EMC Directive (2014/30/EU) Environment Regulation 32			50 mA max. (at 24 VDC)				
Operation temperature/humidity Storage temperature/humidity Vibration resistance IEC 61131-2 compliant Shock resistance Atmosphere Operating altitude Installation location Degree of protection Easurement category III or lower Oplicable regulations CE marking EMC Environment China RoHS Environment Operating altitude Operating altitude Environment Operating altitude O	Size			85 × 63 × 39.9 mm (W × H × D)			
Storage temperature/humidity -25 to +75 °C/5 to 95 % RH (no freezing and no condensation) Vibration resistance IEC 61131-2 compliant Shock resistance IEC 61131-2 compliant Shock resistance No corrosive gas Operating altitude 0 to 2000 m Installation location In door use Degree of protection IP20 easurement category II or lower collution degree 2 or lower EMC EMC Directive (2014/30/EU) Environment RoHS Directive (2011/65/EU) China RoHS Environment Regulation 32	Weight			Approx. 115 g (including terminal blocks, when not wired)			
Vibration resistance IEC 61131-2 compliant Shock resistance Atmosphere No corrosive gas Operating altitude Operation In door use Degree of protection IP20 easurement category II or lower CE marking EMC EMC Directive (2014/30/EU) China RoHS Environment Regulation 32		Operation temperature/humidity		0 to +55 $^{\circ}$ C/5 to 95 $^{\circ}$ RH (no freezing and no condensation)			
Shock resistance Atmosphere Operating altitude Installation location Degree of protection Easurement category Ollution degree Operating altitude Installation location Degree of protection EMC Emarking EMC Emarking EMC Emission Environment EMC Environment Regulation 32 Environment Regulation 32		Storage temperature/humidity		-25 to +75 $^{\circ}$ C/5 to 95 $^{\circ}$ RH (no freezing and no condensation)			
Atmosphere No corrosive gas Operating altitude 0 to 2000 m Installation location In door use Degree of protection IP20 easurement category III or lower ollution degree 2 or lower pplicable regulations CE marking EMC EMC Directive (2014/30/EU) Environment RoHS Environment Regulation 32		Vibration resistance		IEC 61131-2 compliant			
Operating altitude Installation location Degree of protection Easurement category CE marking CE marking China RoHS O to 2000 m In door use EMC EMC EMC EMC Directive (2014/30/EU) Environment RoHS Directive (2011/65/EU) Regulation 32	Environmental	Shock resistance		IEC 61131-2 compliant			
Installation location Degree of protection Easurement category Dellution degree CE marking EMC Environment EMC Environment EMC Environment Regulation 32 Environment Regulation 32	resistance	Atmosphere		No corrosive gas			
Degree of protection IP20 easurement category II or lower Dilution degree 2 or lower EMC EMC Directive (2014/30/EU) Environment RoHS Directive (2011/65/EU) Regulation 32		Operating altitude		0 to 2000 m			
reasurement category II or lower 2 or lower EMC EMC Directive (2014/30/EU) Environment RoHS Directive (2011/65/EU) Regulation 32		Installation location		In door use			
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	Applicable regulations	CE marking	Environment	RoHS Directive (2011/65/EU)			
oplicable standard FN 61131-2		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.