

UR20-4DI-P-TS

Weidmüller Interface GmbH & Co. KG

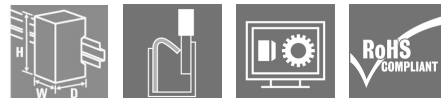
Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Product image



Digital input modules P- or N-switching; Reverse polarity protection, up to 3-wire +FE

Digital input modules from Weidmüller are available in different versions and are used primarily to receive binary control signals from sensors, transmitters, switches or proximity switches. Thanks to their flexible design, they will satisfy your need for well co-ordinated project planning with reserve potential.

All modules are available with 4, 8 or 16 inputs and comply fully with IEC 61131-2. The digital input modules are available as P- or N-switching variant. The digital inputs are for Type 1 and Type 3 sensors in accordance with the standard. With a maximum input frequency of up to 1 kHz, they are used in many different applications. The variant for PLC interface units enables rapid cabling to the proven Weidmüller interface sub-assemblies using system cables. This ensures rapid incorporation into your overall system. Two modules with a timestamp function are able to capture binary signals and to provide a timestamp in 1 μ s resolution. Further solutions are possible with

the module UR20-4DI-2W-230V-AC which works with accurate current up to 230V as an input signal.

The module electronics supply the connected sensors from the input current path (U_{IN}).

General ordering data

Version	Remote I/O module, IP20, 4-channel, Digital signals, Input
Order No.	1460150000
Type	UR20-4DI-P-TS
GTIN (EAN)	4050118266306
Qty.	1 pc(s).

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Technical data

Dimensions and weights

Depth	76 mm	Depth (inches)	2.992 inch
Height	120 mm	Height (inches)	4.724 inch
Mounting dimension - height	128 mm	Net weight	87 g
Width	11.5 mm	Width (inches)	0.453 inch

Temperatures

Storage temperature	-40 °C ... +85 °C	Operating temperature	-20 °C ... +60 °C
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Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
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digital inputs

Hysteresis	> 1 V
Individual channel diagnosis	No
Input filter	configurable
Input voltage, high	> 11 V
Input voltage, low	< 5 V
Module diagnosis	Yes
Number of digital inputs	4
Reverse polarity protection	Yes
Sensor connection	2-wire, 3-wire, 3-wire + FE
Sensor supply	Yes
Sensor supply	min. 0 mA
	nominal 750 mA
	max. 8,000 mA
Time stamp data width	16 Bit
Time stamp resolution	1 µs
Type	Types 1 and 3, EN 61131-2

Connection data

Wire connection cross section, finely stranded, max.	1.5 mm ²	Wire connection cross section, finely stranded, min.	0.14 mm ²
Wire cross-section, finely stranded, max. (AWG)	AWG 16	Wire cross-section, finely stranded, min. (AWG)	AWG 26
Wire cross-section, solid, max.	1.5 mm ²	Wire cross-section, solid, max. (AWG)	AWG 16
Wire cross-section, solid, min.	0.14 mm ²	Wire cross-section, solid, min. (AWG)	AWG 26

General data

Air humidity (operation)	10% to 95%, non-condensing as per DIN EN 61131-2
Air humidity (storage)	10% to 95%, non-condensing as per DIN EN 61131-2
Air humidity (transport)	10% to 95%, non-condensing as per DIN EN 61131-2
Air pressure (operation)	≥ 795 hPa (height ≤ 2000 m) as per DIN EN 61131-2
Air pressure (storage)	1013 hPa (height 0 m) to 700 hPa (height 3000 m) as per DIN EN 61131-2
Air pressure (transport)	1013 hPa (height 0 m) to 700 hPa (height 3000 m) as per DIN EN 61131-2
Pollution severity	2
Rail	TS 35

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Restricted area	Type of restricted area	thermal	
	Positive expansion	X coordinate	43 mm
		Z coordinate	85 mm
		Y coordinate	160 mm
Negative expansion	X coordinate	-28 mm	
	Z coordinate	0 mm	
	Y coordinate	-40 mm	
Shock	15 g over 11 ms, half sinus wave, acc. to IEC 60068-2-27		
Surge voltage category	II		
Test voltage	500 V		
UL 94 flammability rating	V-0		
Vibration resistance	5 Hz ≤ f ≤ 8.4 Hz: 3.5-mm amplitude as per IEC 60068-2-6, 8.4 Hz ≤ f ≤ 150 Hz: 1 g acceleration as per IEC 60068-2-6		

Power supply

Current consumption from I _{IN} (power segment of the field bus coupler), typ.	8 mA		
Current consumption from I _{IN} (power segment of the fieldbus coupler), typ.	max.	8 mA	
	nominal	8 mA	
	min.	8 mA	
Current consumption from I _{IN} (the respective power segment)	< 12 mA + sensor feed		
Current consumption from I _{IN} (the respective power segment)	min.	12 mA	
	max.	12 mA	
	nominal	12 mA	
Reverse polarity protection	Yes		
Voltage supply	24 V DC +20 %/ -15 %, via the system bus		

RS interface

Individual channel diagnosis	No	Module diagnosis	Yes
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Serial inputs

Individual channel diagnosis	No	Module diagnosis	Yes
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System data

Field bus protocol	PROFINET IRT, PROFIBUS DP-V1, EtherCAT, Modbus/TCP, EtherNet/IP, POWERLINK	Galvanic isolation	500 V DC between the current paths
Interface	u-remote system bus	Module type	Digital input module
Possible connection	2-wire, 3-wire, 3 conductor FES, Single-conductor	Transmission speed of system bus, max.	48 Mbit

Classifications

ETIM 6.0	EC001599	ETIM 7.0	EC001599
ECLASS 9.0	27-24-26-04	ECLASS 9.1	27-24-26-04
ECLASS 10.0	27-24-26-04	ECLASS 11.0	27-24-26-04

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Technical data

Approvals

Approvals



ROHS	Conform
UL File Number Search	E141197

Downloads

Approval/Certificate/Document of Conformity	Declaration of Conformity Compass safe distance certificate Lloyds Register certificate DNV/GL certificate ABS certificate RINA certificate Bureau Veritas - Type Approval Certificate PRS (Polish Register of Shipping) NIPPON KAIJI KYOKAI Certificate
Engineering Data	STEP
Engineering Data	EPLAN, WSCAD, Zuken E3.S
User Documentation	MAN_U-REMOTE_DE MAN_U-REMOTE_EN

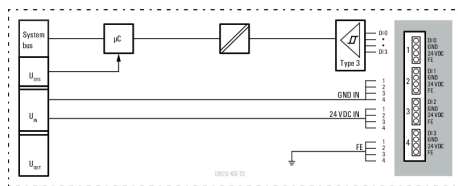
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Drawings

Block diagram



Connection diagram

