

UR20-PF-O-2DI-SIL

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Product image



SIL3; OSSD outputs; wire breakage and short-circuit detection

Safety technology is of central importance in industrial automation and machine building. If you want to reduce risks and avoid dangers for people and environment, you need solutions which satisfy stringent requirements and statutory specifications. The safety modules of the u-remote system have key features such as emergency-stop circuits and wire-breakage or short-circuit detection. They meet all SIL 3 requirements according to IEC 62061 and EN ISO 13849-1, category 4, PL e, and support the safe operation of your system.

By safely shutting down the downstream output modules, the safety modules attain maximum safety with optimum control. All input sensors are independently supplied via separate voltage paths and report the current machine status to the control unit. Restarting is either carried out in manual mode or using the autostart function. In addition, Weidmüller safety modules reduce maintenance and service times and improve response times in case of emergency – thanks to a concept of maximum transparency, e.g. using OSSD outputs.

The module electronics supply the connected actuators from the output current path (U_{OUT}).

General ordering data

Version	Remote I/O module, IP20, Safety, SIL power supply
Order No.	1335050000
Type	UR20-PF-O-2DI-SIL
GTIN (EAN)	4050118138276
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	82 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

Short-circuit detection	Yes	Wire break detection	Yes
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Connection data

Type of connection	PUSH IN	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		
Restricted area	Positive expansion	X coordinate	43 mm
		Z coordinate	85 mm
		Y coordinate	160 mm
	Type of restricted area		thermal
	Negative expansion	Z coordinate	0 mm
		Y coordinate	-40 mm
		X coordinate	-28 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		

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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.	min.	8 mA
	nominal	8 mA
	max.	8 mA
Current consumption from I _{IN} (the respective power segment)	35 mA	
Feed current for I _{OUT} (output current path)	nominal	8,050 mA
	min.	8,050 mA
	max.	8,050 mA
Feed current for I _{OUT} (output current path) , max.	8,050 mA	
Supply voltage for outputs	24 V DC +20 %/ -15 %	
Supply voltage system and inputs	24 V DC +20 %/ -15 %	
Voltage supply	24 V DC +20 %/ -15 %, via the system bus	

Safety-related data

MTTF	100 Years	Proportion of safety-related outages (SFF)	98 %
Safety category	SIL 3		

System data

Field bus protocol	PROFINET IRT, PROFINET RT, PROFIBUS DP-V1, EtherCAT, Modbus/TCP, EtherNet/IP, CANopen, DeviceNet, POWERLINK, CC-Link, CC-Link IE TSN, IEC 61162-450	Galvanic isolation	500 V DC between the current paths
Interface	u-remote system bus	Module type	Safe power-feed module
Transmission speed of system bus, max.	48 Mbit		

Classifications

ETIM 6.0	EC001600	ETIM 7.0	EC001600
ECLASS 9.0	27-24-26-10	ECLASS 9.1	27-24-26-10
ECLASS 10.0	27-24-26-10	ECLASS 11.0	27-24-26-10

Approvals

Approvals



ROHS	Conform
UL File Number Search	E141197

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Technical data

Downloads

Approval/Certificate/Document of Conformity	Declaration of Conformity TÜV_certificate_Safety-power_feed_module.pdf Technical_Report_Product_Safety-power_feed_module.pdf
Engineering Data	STEP
Engineering Data	WSCAD, Zuken E3.S, EPLAN
Product Change Notification	Release-Notes - Firmware
Software	Firmware UR20-PF-SIL UR20_PF_SIL-0002594-01_13_00-1
User Documentation	MAN_U-REMOTE_DE MAN_U-REMOTE_EN MAN_U-REMOTE_FS_DE MAN_U-REMOTE_FS_EN

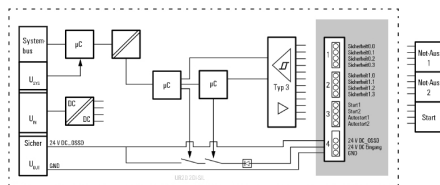
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Drawings

Block diagram



Connection diagram

