

## UR20-PF-O-1DI-SIL

Weidmüller Interface GmbH &amp; Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com



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 (UOUT).

## General ordering data

Version	Remote I/O module, IP20, Safety, SIL power supply
Order No.	<a href="#">1335030000</a>
Type	UR20-PF-O-1DI-SIL
GTIN (EAN)	4050118138177
Qty.	1 items

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**Technical data**

**Approvals**

Approvals



ROHS	Conform
UL File Number Search	<a href="#">UL Website</a>
Certificate no. (cULus)	E141197
Certificate no. (cULusEX)	E223527

**Dimensions and weights**

Depth	76 mm	Depth (inches)	2.9921 inch
Height	120 mm	Height (inches)	4.7244 inch
Width	11.5 mm	Width (inches)	0.4528 inch
Mounting dimension - height	128 mm	Net weight	108 g

**Temperatures**

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

RoHS Compliance Status	Compliant with exemption		
RoHS Exemption (if applicable/known)	7a, 7cl		
REACH SVHC	Lead 7439-92-1		
SCIP	82327f13-cd27-455a-ab5b-a62e1996dcf8		
Product Carbon Footprint	Cradle to gate	8,500 kg CO2 eq.	

**digital inputs**

Wire break detection	Yes	Module diagnosis	Yes
Individual channel diagnosis	Yes	Short-circuit detection	Yes

**digital outputs**

Module diagnosis	Yes	Individual channel diagnosis	Yes
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**Connection data**

Wire cross-section, finely stranded, max. (AWG)	AWG 16	Wire cross-section, finely stranded, min. (AWG)	AWG 26
Wire cross-section, solid, max. (AWG)	AWG 16	Wire cross-section, solid, min. (AWG)	AWG 26
Type of connection	PUSH IN	Wire cross-section, solid, max.	1.5 mm <sup>2</sup>
Wire cross-section, solid, min.	0.14 mm <sup>2</sup>	Wire connection cross section, finely stranded, max.	1.5 mm <sup>2</sup>
Wire connection cross section, finely stranded, min.	0.14 mm <sup>2</sup>		

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**General data**

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	UL 94 flammability rating	V-0
Test voltage	500 V	Surge voltage category	II
Pollution severity	2	Mounting rail	TS 35
Air pressure (operation)	≥ 795 hPa (height ≤ 2000 m) as per DIN EN 61131-2	Air humidity (transport)	10% to 95%, non-condensing 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	Air pressure (storage)	1013 hPa (height 0 m) to 700 hPa (height 3000 m) as per DIN EN 61131-2
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
Shock	15 g over 11 ms, half sinus wave, acc. to IEC 60068-2-27		

**Power supply**

Supply voltage	24 V DC +20 %/ -15 %, via the system bus	Current consumption from IIN (the respective power segment)	35 mA
Current consumption from I <sub>sys</sub> , typ.	8 mA	Supply voltage for outputs	24 V DC +20 %/ -15 %
Supply voltage system and inputs	24 V DC +20 %/ -15 %	Feed current for IO <sub>UT</sub> (output current path) , max.	8050 mA

**Safety characteristics in acc. with EN 61508**

HFT (hardware fault tolerance), inputs	1	Proportion of safety-related outages (SFF)	98 %
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**Safety characteristics in acc. with EN ISO 13849**

MTTF	100 a		
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**System data**

Module type	Safe power-feed module	Interface	u-remote system bus
Galvanic isolation	500 V DC between the current paths	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
Transmission speed of system bus, max. 48 MBit/s			

**Classifications**

ETIM 8.0	EC001600	ETIM 9.0	EC001600
ETIM 10.0	EC001600	ECLASS 14.0	27-24-26-10
ECLASS 15.0	27-24-26-10		

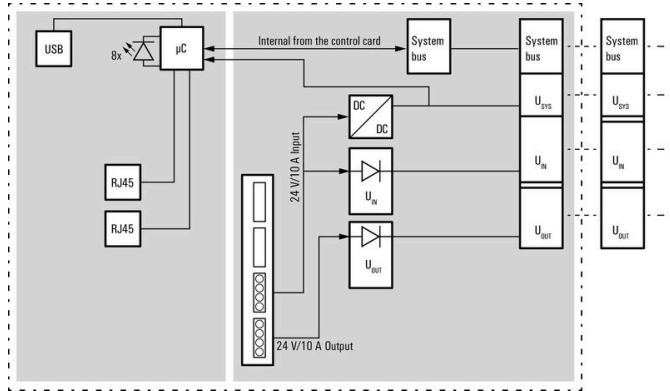
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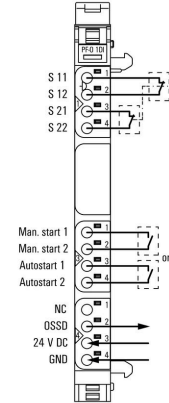
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Drawings

Block diagram



Connection diagram



Explanation of abbreviations

Safe power-feed modules

