



UR20 Digital Output Modules

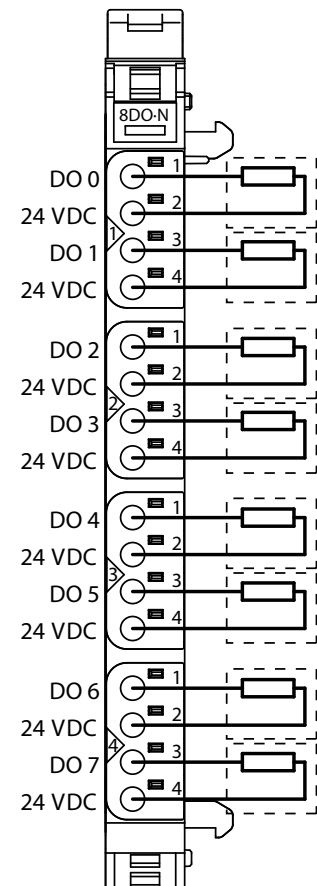
UR20-8DO-N

The UR20-8DO-N digital output module can control up to 8 actuators each with a maximum of 0.5A. One actuator can be connected to each connector using a 2-wire connection. The outputs are N-switching (sinking). A status LED is assigned to each channel. The outputs are supplied with power from the output current path (I_{OUT}).



Technical Specifications - UR20-8DO-N	
Price	\$100.00
Drawing	PDF
Outputs	
Number	8
Output type	N-switching (sinking outputs)
Type of load	Ohmic, inductive, lamp load
Response time	Low → high max. 100µs; high → low max. 250 µs
Max. output current	Per channel / per module: 0.5A / 4A
Breaking energy (inductive)	150 mJ per channel
Switching frequency	Ohmic load (min. 47Ω): 1 kHz Inductive load (DC 13): 0.2 Hz without free-wheeling diode 1 kHz with suitable free-wheeling diode Lamp load (12W): 10 Hz
Actuator connection	2-wire
Short-circuit-proof	Yes
Protective circuit	Constant current with thermal switch-off and automatic restart
Response time of the current limiting circuit	<100 µs
Module diagnosis	Yes
Individual channel diagnosis	No
Supply	
Supply voltage for system, inputs and outputs	24 VDC +20% / -15%
Current consumption from system current path I_{SYS}	8 mA
Current consumption from output current path I_{OUT}	15 mA + load
Weight	
Weight (operational status)	87g

Terminal Connections





UR20 Digital Output Modules

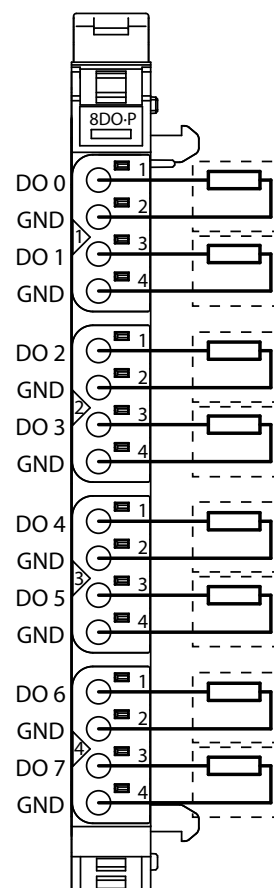
UR20-8DO-P

The UR20-8DO-P digital output module can control up to 8 actuators each with a maximum of 0.5A. Actuators can be connected to each connector in a 2-wire connection. A status LED is assigned to each channel. The outputs are supplied with power from the output current path (I_{OUT}).



Technical Specifications - UR20-8DO-P	
Price	\$92.00
Drawing	PDF
Outputs	
Number	8
Output type	P-switching (sourcing outputs)
Type of load	Ohmic, inductive, lamp load
Response time	Low → high max. 100 µs; high → low max. 250 µs
Max. output current	Per channel / per module: 0.5A / 4A
Breaking energy (inductive)	150 mJ per channel
Switching frequency	Ohmic load (min. 47Ω): 1 kHz Inductive load (DC 13): 0.2 Hz without free-wheeling diode 1 kHz with suitable free-wheeling diode Lamp load (12W): 10 Hz
Actuator connection	2-wire
Short-circuit-proof	Yes
Protective circuit	Constant current with thermal switch-off and automatic restart
Response time of the current limiting circuit	<100 µs
Module diagnosis	Yes
Individual channel diagnosis	No
Supply	
Supply voltage for system, inputs and outputs	24 VDC +20% / -15%
Current consumption from system current path I_{SYS}	8 mA
Current consumption from output current path I_{OUT}	30 mA + load
Weight	
Weight (operational status)	87g

Terminal Connections





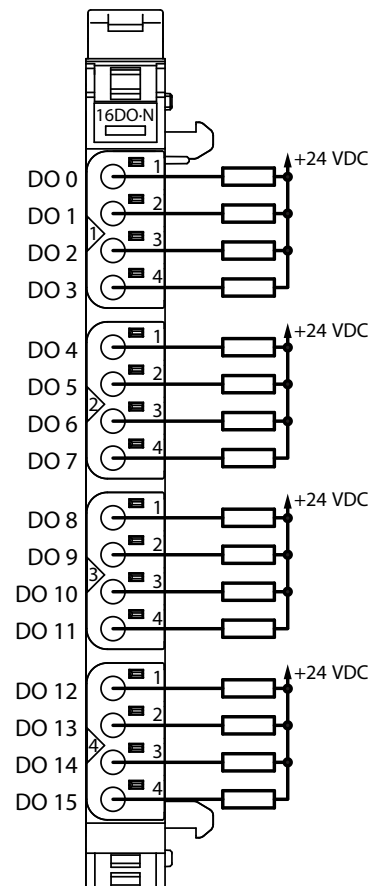
UR20 Digital Output Modules

UR20-16DO-N

The UR20-16DO-N digital output module can control up to 16 actuators each with a maximum of 0.5A. Four actuators can be connected to each connector. The outputs are N-switching (sinking). A status LED is assigned to each channel. The outputs are supplied with power from the output current path (I_{OUT}).



Terminal Connections



Technical Specifications - UR20-16DO-N	
Price	\$150.00
Drawing	PDF
Outputs	
Number	16
Output type	N-switching (sinking outputs)
Type of load	Ohmic, inductive, lamp load
Response time	Low → high max. 100 μs; high → low max. 250 μs
Max. output current	Per channel / per module: 0.5A / 8A
Breaking energy (inductive)	150 mJ per channel
Switching frequency	Ohmic load (min. 47Ω): 1 kHz Inductive load (DC 13): 0.2 Hz without free-wheeling diode 1 kHz with suitable free-wheeling diode Lamp load (12W): 10 Hz
Actuator connection	1-wire
Short-circuit-proof	Yes
Protective circuit	Constant current with thermal switch-off and automatic restart
Response time of the current limiting circuit	<100 μs
Module diagnosis	Yes
Individual channel diagnosis	No
Supply	
Supply voltage for system, inputs and outputs	24 VDC +20% / -15%
Current consumption from system current path I_{SYS}	8 mA
Current consumption from output current path I_{OUT}	30 mA + load
Weight	
Weight (operational status)	89g



UR20 Digital Output Modules

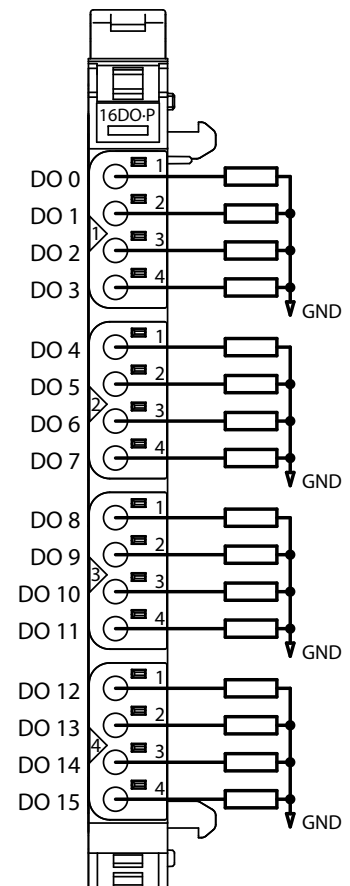
UR20-16DO-P

The UR20-16DO-P digital output module can control up to 16 actuators each with a maximum of 0.5A. Four actuators can be connected to each connector. The outputs are P-switching (sourcing). A status LED is assigned to each channel. The outputs are supplied with power from the output current path (I_{OUT}).



Technical Specifications - UR20-16DO-P	
Price	\$141.00
Drawing	PDF
Outputs	
Number	16
Output type	P-switching (sourcing outputs)
Type of load	Ohmic, inductive, lamp load
Response time	Low → high max. 100 μs; high → low max. 250 μs
Max. output current	Per channel / per module: 0.5A / 8A
Breaking energy (inductive)	150 mJ per channel
Switching frequency	Ohmic load (min. 47Ω): 1 kHz Inductive load (DC 13): 0.2 Hz without free-wheeling diode 1 kHz with suitable free-wheeling diode Lamp load (12W): 10 Hz
Actuator connection	1-wire
Short-circuit-proof	Yes
Protective circuit	Constant current with thermal switch-off and automatic restart
Response time of the current limiting circuit	<100 μs
Module diagnosis	Yes
Individual channel diagnosis	No
Supply	
Supply voltage for system, inputs and outputs	24 VDC +20% / -15%
Current consumption from system current path I_{SYS}	8 mA
Current consumption from output current path I_{OUT}	25 mA + load
Weight	
Weight (operational status)	83g

Terminal Connections





UR20 Module Specifications

Environmental Specifications - UR20 I/O Modules		
Degree of protection (IEC 60529)		IP20
Flammability rating UL 94		V-0
Material of power contacts and data contacts		Ni-Au, 3µm
Temperature	Operation	-20 + 60 °C [-4 to +140 °F]
	Storage, transport	-40 to +85 °C [-40 to +185 °F]
Humidity	Operation	95%, non-condensing as per IEC 61131-2
	Storage, transport	95%, non-condensing as per IEC 61131-2
Air pressure	Operation	≥ 795 hPa [11.5 psi] (altitude ≤ 2000 m) as per IEC 61131-2
	Storage, transport	≥ 700 hPa [10.2 psi] (altitude ≤ 3000 m) as per IEC 61131-2
Vibration resistance		5 Hz ≤ f ≤ 8.4 Hz: 3.5mm amplitude as per IEC 60068-2-6 8.4 Hz ≤ f ≤ 150 Hz: 1g acceleration as per IEC 60068-2-6
Shock resistance		15g over 11 ms, half sinewave, as per IEC 60068-2-27
Potential isolation	Test voltage	Max. 28.8V within one channel 500 VDC field/system (as per EN 60079-15:2017)
	Pollution severity level	2 (as per DIN EN 60664-1:2008)
	Overvoltage category	II (as per DIN EN 50178)
Approvals		CE, RoHS, UKCA, cULus E141197