

Datasheet



SDU 404/420 Safety Shutdown Unit

Part#: 1006418 (SDU 404)
1500158 (SDU 420)

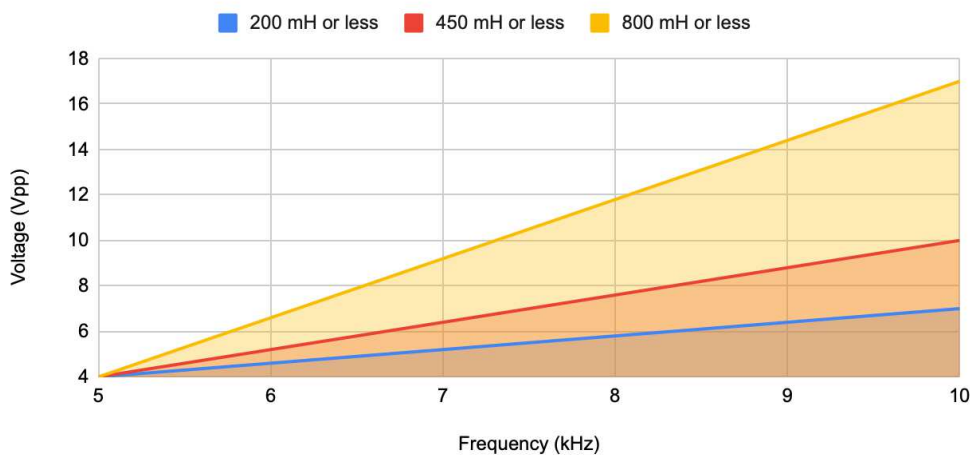
Rev. Feb 12, 2026

Interfaces

Section	Ch.	Cond.	Min	Typ.	Max	Unit	Comment
Power Supply	1	@ 24 VDC	18	24	32	VDC	Max ripple 10% without exceeding Min and Max values.
Switch Input	4	SDU 404	-	24	-	VDC	See switch input table for details.
	12	SDU 420	-	-	-	-	-
Tacho Input	1	-	0.1	-	10	kHz	Passive magnetic pickup
			4 ²	-	-	Vpp	Unconnected
			4 ³	-	32	Vpp	Connected to SDU
			100	-	3000	Ohm	-
			-	-	800	mH	-
Tacho Input	1	-	0.1	-	10	kHz	Active pickup sensor ⁴
			4	-	32	VDC	
			40	-	60	%	
Shutdown Relay	1	-	-	-	0.7	A	-
Other Relay	2	SDU 404	-	-	0.7	A	-
	4	SDU 420	-	-	-	-	-
Configurable Output ⁵	1	-	-	-	1.8	A	Output current
					10k	Ohm	Resistive load ⁶
SDU Link Connection	1	-	-	19200 8E1	-	Baud	DCU connection

Voltage vs. Frequency (for Tacho Input)

Minimum voltage required for a passive magnetic pickup with a DC resistance of 3000 ohm and an inductance of:



¹ Excluding configurable output

² For frequencies up to 5 kHz. For frequencies greater than 5 kHz see graph above

³ For all frequencies

⁴ Fault monitoring disabled when active sensor is selected

⁵ Fault monitored: Short to low when active, short to high and broken wire when inactive

⁶ Exceeding maximum resistive load will give broken wire fault

Datasheet



SDU 404/420 Safety Shutdown Unit

Part#: 1006418 (SDU 404)
1500158 (SDU 420)

Rev. Feb 12, 2026

Interfaces (SDU 420 only)

Section	Ch.	Cond.	Min	Typ.	Max	Unit	Comment
4-20 mA Input	2	-	0	4-20	25	mA	Accuracy: $\pm 2\%$ in typical range
PT100 / PT1000	1	-	0	-	800	$^{\circ}\text{C}$	Accuracy: $\pm(5^{\circ}\text{C} + 0.02 \times t)$ With optional wire resistance comp.

Switch Input

Type	Description	Resistor	Min	Typ.	Max	Unit
Type I	Broken wire and short circuit detectable	R1	8 k	10 k	12 k	Ω
	R1 in series and R2 in parallel between pin A and pin B.	R2	8 k	10 k	12 k	
Type II	Broken wire detectable R in parallel between pin A and pin B.	R	8 k	10 k	12 k	Ω
Type III	Not able to detect any faults	-	-	-	-	-

Measurements and Weight

Section	Part	Weight	Width	Height	Depth	Unit	Comment
Size	SDU 404	-	101	105	52	mm	Including connectors
	SDU 420	-	183	105	48	mm	Including push-in connectors
Weight	SDU 404	0.4	-	-	-	kg	
	SDU 420	0.8	-	-	-	kg	

Operator Interface

- Acknowledge Button
- Overspeed Test Button
- LED Indication

Connectors

- 2 x 15 pin screw fastened terminal header, 5.08 mm
- 2 x 14 pin screw fastened terminal header, 5.08 mm (SDU 420 only)

Environmental

Section	Condition	Min.	Typ.	Max.	Unit	Comment
Operating Temperature	Operational	+5	-	+70	$^{\circ}\text{C}$	
Storage Temperature	Not powered	-30	-	+80	$^{\circ}\text{C}$	
Enclosure Ingress Protection Rating	Operational	IP30	-	-	-	Intended to be installed in a cabinet.
Vibration	Operational	-	0.7	-	g	IEC 60068-2-6 Fc

Datasheet



SDU 404/420 Safety Shutdown Unit

Part#: 1006418 (SDU 404)
1500158 (SDU 420)

Rev. Feb 12, 2026

Testing & Approvals

Tested according to DNV Standard for Certification No. 2.4 (Main area: Machinery spaces, control room, accommodation), harmonized with IACS UR E10 and IEC 60092-504.

Parameter	DNV No 2.4 Class
Temperature	A, B, D
Humidity	B
Vibration	A
EMC	A
Enclosure	A

Type approved. See Auto-Maskin web page for type approval certificates.

Validity of Information

Data valid at revision date. Auto-Maskin reserves the right to make improvements and changes of specification at any time.