Speed monitor 480041H

The speed monitor can be used universally. For example, it ensures safe operation in setup mode or safe access after the machine has come to a standstill thanks to safety interlocks being actuated.

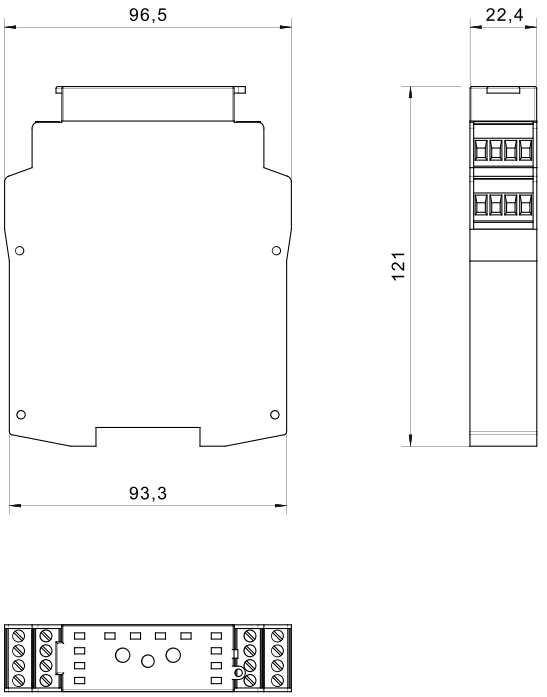
Safe monitoring of movement is made particularly easy due to interface-independence. Compact design, powerful functionality, flexible use.

Technical specifications

- Stand-alone devices for high cost-effectiveness and simple integration in the safety system
- Easy parameterization via rotary switch on the front of the housing
- Variable use thanks to different and broad frequency ranges
- Automatic/manual reset selectable depending on use
- Input for start-up bypass function to restart the machine
- Safe and installation-friendly connection to pluggable screw terminals

Technical drawing

IMAGE 1/1



Product options

IMAGE 1/1

ORDERING KEY

480	041		Speed-monitors
		H0	Checked frequency 0.5 - 99 Hz
		H1	Checked frequency 0.1 - 9.9 Hz

Electrical data

Attribute	480041H0	480041H1
Max. switching voltage at safety output	30 V DC	
Max. switching voltage at control output	30 V DC	
Max. switching current at safety output	1.6 A	
Max. switching current at control output	0.15 A	
Max. switching current for all channels	3.2 A	
Number of electronic safety outputs	4	
Number of electronic control outputs	2	
Number of safety inputs	4	
EDM/start input	yes	
Start function	manual/automatic	
Start-up test present	yes	
Operating voltage min.	20.4 V DC	
Operating voltage max.	26.4 V DC	
Fuse operating voltage	4A fast	
Power consumption	1.8 W	
Short-circuit detection	yes	
LED display	two-coloured	
Input capacitance (CIN)	10 nF	
Input resistance (RIN)	7200 Ohm	
Power-on time tE	70 ms	
Power-off time tA	70 ms	
Frequency range	0,5 - 99 Hz	0,1 - 9,9 Hz
Cut-off frequency fg	2 kHz	

Electrical data

Attribute	480041H0	480041H1
Frequency change	21 kHz/s	
Overvoltage category	III	
Stabilised PELV/SELV power supply	required	
Min. switching voltage at safety output	18.4 V DC	
Min. switching voltage at control output	18.4 V DC	
Readiness delay (tv)	5000 ms	
Load resistance max.	100 Ohm	
Load capacitance (CL)	500 nF	
Response time tan1, min.	8 ms	
Response time tan1, max.	12 ms	

Safety-related characteristics

Attribute	480041H0	480041H1
PL acc. to EN ISO 13849-1	e	
SIL acc. to IEC 61508	3	
SIL CL acc. to IEC 62061	3	
PFHD according to IEC 61508	5 x 10-9 1/h	
Operating life	20 Tm	
DC	90% <= DC < 99% (medium) %	-
Structure acc. to EN ISO 13849-1	Two-channel	

Properties

Attribute	480041H0	480041H1
Resp. time tAN for standstill frequency with duty cycle 1:1 min	1 / fst	
Resp.tima tAN for standstill frequency with duty cycle 1:1 max	1,8 / fst	
Resp. time tAN for standstill frequency with duty cycle 3:2 min	1 / fst	
Resp. time tAN for standstill frequency with duty cycle 3:2 max	1,6 / fst	

Mechanical data

Attribute	480041H0	480041H1
Dimensions	96,5 x 22,5 x 114 mm (H/B/T)	

Material information

Attribute	480041H0	480041H1
Housing material	Kunststoff	
Housing colour	Gehäuse schwarz Deckel gelb	

Environmental conditions

Attribute	480041H0	480041H1
Pollution degree	2 inside - 3 outside	
Protection class	IP20 DIN EN 60529	
Operating temperature min.	-25 °C	
Max. operating temperature	55 °C	
Relative humidity	10 bis 95 %	
Air pressure	860 bis 1060 hPa	
Climatic conditions	nach EN 61131-2	
Min. storage temperature	-25 °C	
Max. storage temperature	70 °C	

Installation

Attribute	480041H0	480041H1
Mounting type	Mounting rail	
Weight	160 g	
Torque for connection terminals	0.6 N m	

Connection

Attribute	480041H0	480041H1
Screw terminals	yes	
Pluggable connection terminals	yes	
Min. connection cross section	0.2 mm²	
Max. connection cross section	2.5 mm²	

Approvals

Attribute	480041H0	480041H1
Certified in accordance with	EN ISO 13849-1 IEC 61508 IEC 62061	
CE label	yes	