

Ultrasonic proximity switch



6GR6231-3AB00-PF	Compact range M18S, normally open Kompaktreihe M18S, Schließer	Connector M12 Stecker M12
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Size/Bauform : cylindrical M18 Shorty/zyklindrisch M18 Shorty
straight form / gerade-Bauform

Function/Funktion : **Diffuse/Taster**

Operating distance/Schaltabstand

Sensing range/Erfassungsbereich : 25 ... 400 mm
 Focusing range/Einstellbereich : 40 ... 400 mm
 Adjustment/Einstellung : Teach-in via Pin/Teach-in über Pin
 Standard target/Normmessplatte : 20 x 20 mm
 Repeat accuracy/Wiederholgenauigkeit R : +/- 1 mm
 Switching hysteresis/Hysterese H : 10 mm
 Rated ultrasonic frequency/
 Ultraschallnennfrequenz : 300 kHz

Output/Ausgang

Output/Ausgangsart : pnp
 Switching function/Schaltfunktion : Normally open/Schließer
 Rated operational current/
 Bemessungsbetriebsstrom I_e : 150 mA
 Output voltage drop/Spannungsfall max. U_d : 2 V
 Off-state current/Reststrom I_r : max. 0,01 mA
 Short circuit strength/Kurzschlußfestigkeit : built-in/eingebaut
 Overload withstand capability/
 Überlastfestigkeit : built-in/eingebaut

Power supply voltage/ Versorgungsspannung

Rated operational voltage/
 Bemessungsbetriebsspannung U_e : 24 V DC
 Operating voltage range/
 Betriebsspannungsbereich U_B : 20 ... 30 V DC
 No-load supply current/Leerlaufstrom I_o : max. 20 mA
 max. ripple content/zul. Restwelligkeit : 10%

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Teach-in/Lerneingang

Function/Funktion	:	End of switching zone/Schaltbereichsende
max. input voltage/max. Eingangsspannung	:	Operational voltage/Betriebsspannung
max. L-Level (Teach-in active)/ max. L-Pegel (Teach-in aktiv)	:	<0,7 V
min. H-Level (Teach-in inactive)/ min. H-Level (Teach-in inaktiv)	:	15 V
Input resistance (No-load supply current)/ Eingangswiderstand (Stromsenke)	:	16 kOhm
min. Teach-in time/min. Teach-in Zeit	:	3 sec
Synchronization/Synchronisieranschluß	:	not built-in/nicht eingebaut

Times/Zeiten

Frequency of operating cycles/ Schaltfrequenz	f	:	10 Hz
Time delay before availability/ Bereitschaftsverzug	tv	:	20 ms
Response time/Ansprechzeit		:	50 ms

Temperatures/Temperaturen

Rated temperature/ Bemessungstemperatur	Tu	:	25 Cel
Ambient temperature/ zul. Umgebungstemperatur	Ta	:	-25 ... +70 Cel
Storage temperature range range/ zul. Lagertemperatur	Ts	:	-40 ... +85 Cel
Thermal drift (teach value)/ Temperaturdrift (Toleranzwert)		:	
by heating treatment/bei Erwärmung		:	+ 0,17 % / K
by cooling off/bei Abkühlung		:	- 0,17 % / K

Electrical protections/

Elektrische Schutzmaßnahmen, EMV

Reverse voltage protection/ Verpolungsschutz	:	built-in/eingebaut
Wire breakage protection/ Drahtbruchsicherheit	:	built-in/eingebaut
Inductive overvoltage/Induktionsschutz	:	built-in/eingebaut
False pulses/Einschaltfehlimpuls	:	suppressed/unterdrückt
IEC 61000-4-2		4 kV
IEC 61000-4-3		10 V/m
IEC 61000-4-4		2 kV
IEC 61000-4-6		10 V/m
EN 55011		Class B

Mechanical protections/

Mechanische Schutzmaßnahmen

Degree of protection/Schutzart	:	IP 67
Shock/Schockbeanspruchung	:	30 g; 11 ms duration/Einwirkdauer
Vibration/Schwingbeanspruchung	:	10 bis 55 Hz, 1 mm amplitude/Amplitude
Max. tightening torque/ max. Anzugsdrehmoment	:	60 Nm

Indicators/Anzeigen

:	LED (yellow)/LED (gelb):
Switching status: On:	LED shines/
Schaltzustand: Ein:	LED leuchtet
Teach-in mode:	LED flashes/
Teach-in Modus:	LED blinkt

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Mounting conditions/

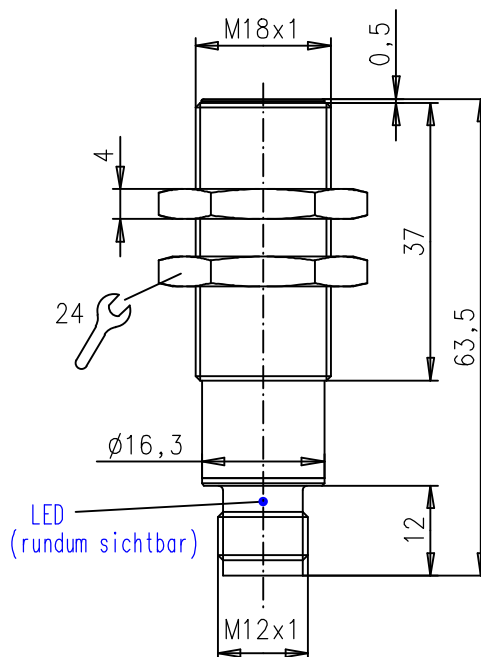
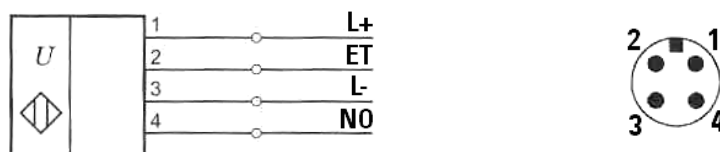
Einbaubedingungen

Mounting position/Einbaulage	:	any/beliebig
Max. cable length/ max. zulässige Leitungslänge	:	300 m

Constructive characteristics/

Konstruktive Merkmale

Housing material/Gehäuse	:	brass nickel-plated/Messing vernickelt
Connection/Anschluß	:	Connector M12, 4-pole/Stecker M12, 4-polig
Direction of radiation/Abstrahlrichtung	:	Front side/stirnseitig
Weight/Gewicht	:	0,03 kg





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