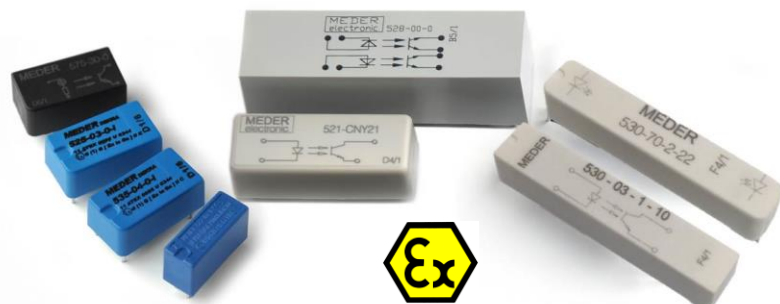


ATEX Optocoupler for Intrinsically Safe Circuits



ATEX: 11ATEX 0086, gem. EN 60079

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- Our optocoupler series are tested and certified for extreme/harsh environments such as potentially explosive atmospheres so they will not become an ignition point when subjected to short circuits or adjacent component failures.
- Markets including but not limited to: Oil & Gas Production, Refinery, Fracking, Bio Energy, Mining, Geothermal, Medical, Test and Measurement, and others.
- Standex-Meder specializes in customizing designs to specific customer needs . Contact us to provide the optimal solution for your application(s).

Features:

- Galvanic separation between input and output circuits
- Analog & digital signal transfer is possible
- Marginal coupling capacities between input and output
- Minor output delay times compared to relays
- Long life due to non abrasive mechanical wear
- Isolation resistance between input & output up to $10e+13 \Omega$
- Magnetic fields do not impact operation
- A photodiode makes for very short cycle times (nanoseconds) with more than 10MHz possible
- Input and output differences of up to 20 KV
- Able to invert the output signal during transfer
- Lifetime factor increased by a factor of 10, if the LED is used with less than 50% of the nominal current
- Resistant against voltage drop

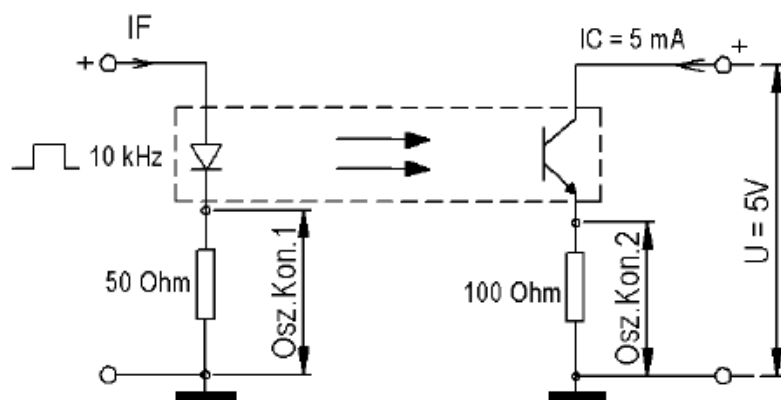
Applications:

- Control Technology / Network Engineering
- Test & Measurement
- Automation Technology
- Electronics for Mining
- Communication Systems
- Measurement and data acquisition systems
- Control and Connection Equipment
- Heating Technology
- Counting Systems
- Rotation Measurement
- Speed Indication
- Position Detection
- Seismic Instrumentation
- Temperature Monitoring and Measurement
- Medical ESD Protection

Mechanical Dimensions – Optocoupler

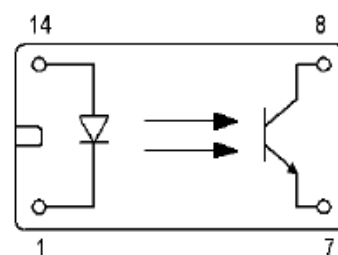
Example Optocoupler 525-03-0-i

Test circuit



Layout

Top view
Draufsicht



Technical Specifications – Optocoupler

Specification	From	Up to	Units
Isolation Voltage	4000	22000	VDC
Current Transfer Ratio I_c/I_f ($I_f = 10 \text{ mA}$)	0,3	7	mA
Switching Time	0,5	9,7	μsec
Creeping Distance Air Path Input/Output	14	42	mm
Working Temperature	-40	+85	$^{\circ}\text{C}$
Cut-Off	50	500	kHz

Technical Ratings – Optocoupler



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