



## Signal converters and optical fiber modules

### **Error-free and reliable signal transmission.**

Signal converters in various models and fiber optic modules enable reliable communication – with a wide variety of interfaces – between controllers and sensors. In addition to encoders, linear sensors, and inclinometers from Kübler, these products are a suitable addition to the overall range of sensors. Take advantage of the new possibilities for a comprehensive overall concept from a single source.

[kuebler.com/signal\\_converters](http://kuebler.com/signal_converters)

[kuebler.com/fiber-optic](http://kuebler.com/fiber-optic)

## Signal converters

		Input signals	Output signals	Control inputs	Power supply in V DC	Encoder supply in V DC	Types of connection	Protection max.	Working temperature max. in °C [°F]
	Level converter <b>PW 1D-1D</b>	incremental HTL/TTL/RS422	incremental HTL/TTL/RS422	–	5 ... 30	5 ... 30	screw terminals, Sub-D	IP20	0 ... +45 [+32 ... +113]
	Signal splitter <b>SP 1SC-2SC2D</b>	SinCos	SinCos, incremental HTL/TTL/RS422	–	17 ... 30	5.2 5 ... 30	screw terminals, Sub-D	IP20	0 ... +45 [+32 ... +113]
	Signal splitter <b>SP 2D-2D</b>	incremental HTL/TTL/RS422	incremental HTL/TTL/RS422	2	12 ... 30	5,2 10 ... 28	screw terminals	IP20	-20 ... +60 [-4 ... +140]
	Signal converter <b>SK 1A-1S1D2RS</b>	analog	incremental HTL/TTL/RS422, RS232/RS485, SSI	4	12 ... 30	–	screw terminals, Sub-D, USB	IP20	0 ... +45 [+32 ... +113]
	Signal converter <b>SK 1SC-1D</b>	SinCos	incremental HTL/TTL/RS422	–	18 ... 30	5.5	screw terminals, Sub-D	IP20	0 ... +45 [+32 ... +113]
	Signal converter <b>SK 1S-1P</b>	SSI	parallel	–	18 ... 36 5 12	–	screw terminals, Sub-D	IP20	0 ... +50 [+32 ... +122]
	Signal converter <b>SK 1S1D-1A2RS</b>	incremental HTL/TTL/RS422, SSI	analog, RS232/RS485	1	18 ... 30	5.5	screw terminals, Sub-D	IP20	0 ... +60 [+32 ... +140]
	Frequency divider <b>FT 1D-1D</b>	incremental HTL differential/ HTL/TTL/RS422	incremental HTL differential/ HTL/TTL/RS422	–	9 ... 30	5.5	screw terminals	IP20	0 ... +60 [+32 ... +140]

 Optical fiber modules  
(LWL)

		Interface	Transmission distance in m	Input frequency in kHz	Temperature range in °C [°F]	Power supply in V DC	Power consumption in W
	Optical fiber module, incremental <b>LWL</b>	RS422 HTL	2.000	400	-10 ... +60 [+14 ... +140]	5 10 ... 30	2
	Optical fiber module, absolute <b>LWL.A</b>	SSI	2.000	1000	-10 ... +70 [+14 ... +158]	5 10 ... 30	1