POSICONTROL
Safety motion monitor

lika

Series	IFS-10

SIL3 PLe Functional Safety CE RoHS

- Monitors overspeed, underspeed, standstill and counting direction
- Safety function acc. to EN61800-5-2 (SS1, SS2, SOS, SLS, SDI, SSM)
- SIL3 / PLe certified
- Inputs for 2 standard encoders (HTL/PNP, RS422 or sin/cos)
- Safety outputs (1 x relays, 1x analogue, 4x HTL)
- Encoder signal splitter function, for sin/cos and RS422
- Removable programming display IFS10-PM
- USB setup interface
- DIN rail mounting

SIL3 PLe Functional Safety

IFS-10

FUNCTIONS	
Monitors overspeed, underspeed, standstill and counting direction. Encoder signal splitter function (for sin/cos & RS422)	
Safety features:	SIL3 /PLe (depending on used encoders) Dual-channel, cat. 3 / HFT = 1 DC (avg): 97,07%, SFF: 99,2% MTTF$_d$: 38,1 years PFH: 3,76*10^{-8}/h λ_{SD}/λ_{SU}/λ_{DD}/λ_{DU}: 1,93*10^{-6}/h / 4,64*10^{-8}/h / 2,94*10^{-6}/h / 6,14*10^{-8}/h EN61800-5-2 for SS1, SS2, SOS, SLS, SDI, SSM (dep. on used encoders)

ENVIRONMENTAL SPECIFICATIONS	
Operating temperature range:	-25°C +55°C (-13°F +131°F)
Storage temperature range:	-25°C +70°C (-13°F +158°F)
Protection:	IP20

MECHANICAL SPECIFICATIONS	
Dimensions:	see drawing
Electrical connections:	DSub 9 pin connector (sin/cos encoder in/out) Screw terminals (power supply, RS422 encoder in/out, control in/outs)
Housing material:	Plastic
Weight:	~ 390 g

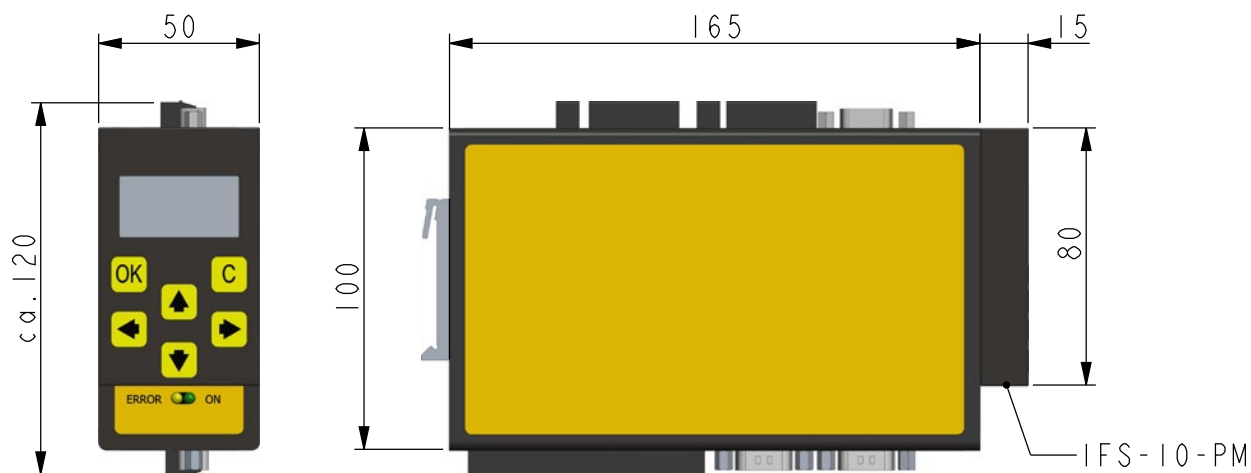| ELECTRICAL SPECIFICATIONS	
Power supply:	+18Vdc +30Vdc (max. 10% ripple @ 24Vdc)
Protection:	against inversion of polarity
Consumption:	150 mA max. (without sensors)
Power supply for sensors:	Vout = Vin - 2Vdc
Sensor inputs:	2 x RS422 (AB /AB), max. 500 kHz 2 x sin/cos 1Vpp (AB /AB), max. 500 kHz
Control inputs:	2 x HTL/PNP + 10Vdc +30Vdc (AB /AB) max. 150mA, 250 kHz (if used as encoder input) 1 kHz (if used as control input)
Encoder output (safety):	AB /AB RS422 splitter output (sin/cos, RS422 or HTL)
Analogue output (safety):	4-20 mA (14 bit resolution, acc. 0,1% fs)
Control outputs (safety):	4 (with inverted signals) Push-Pull, max. 30 mA (ea output)
Relays output:	2 NO in series (forced guided contacts), 5Vdc 36Vdc - 5mA 5A

IFS-10

Order code

Order code	Description
IFS-10	Version with all inputs, outputs and encoder signal splitter function
IFS-10A	Version with all inputs, outputs without encoder signal splitter function
IFS-10S	Version with 1 sin/cos input (SIL3/PLe), 2 control inputs, all outputs and splitter function
IFS-10SA	Version with 1 sin/cos input (SIL3/PLe), 2 control inputs, all outputs, without splitter function
IFS-10-PM	Removable programming display with touchscreen

Recommended encoder types

Type	Description
1 x SGSD-L-2-...-N-... + MRI/72	Redundant magnetic ring encoder with contactless sensing, IP67. Line Driver 24/5V
2 x I58x-L-xxx2..	Standard incremental shaft encoder with Line Driver 24/5V
2 x CK58x-L-xxx2..	Standard incremental hollow shaft encoder with Line Driver 24/5V

Please ask our customer service for further advice and recommended encoder types