

POSICONTROL

Safety motion monitor

Series

IFS-10



- 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



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
 $\lambda_{SD}/\lambda_{SU}/\lambda_{UD}/\lambda_{DU}$: 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/out)

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

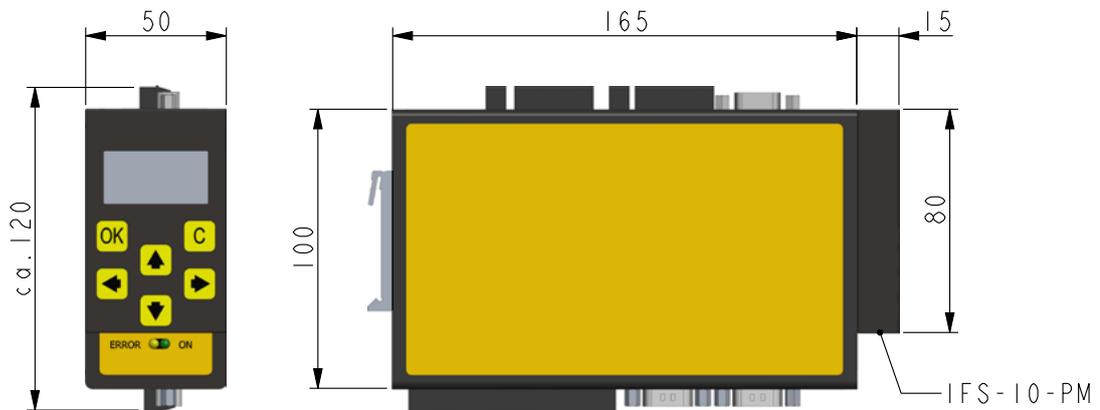
Control inputs: 2 x HTL/PNP + 10Vdc +30Vdc (AB /AB)
 max. 150mA, 250 kHz (if used as encoder input)
 1 kHz (if used as control input)

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