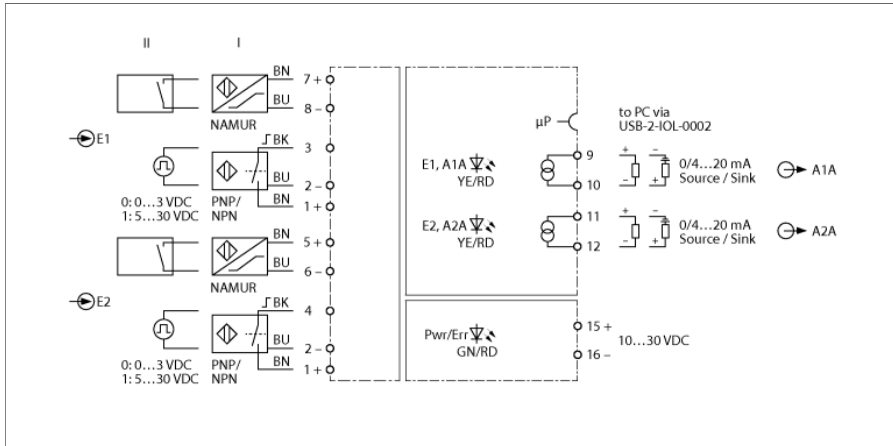


Frequency Transducer/Pulse Counter 2-channel IM12-FI01-2SF-2I-C0/24VDC/K71



The frequency transducer/pulse counter IM12-FI01-2SF-2I-C0/24VDC/K71 transmits frequency signals up to 20,000 Hz galvanically isolated. In addition, the input signals can be monitored for slip.

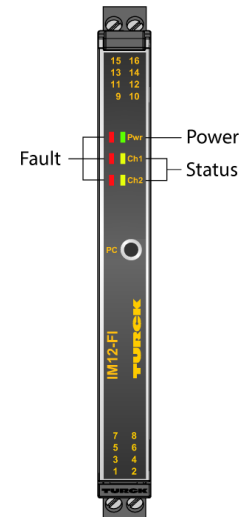
Each channel of the 2-channel device is equipped with an input for connecting sensors in accordance with EN 60947-5-6 (NAMUR) or potential-free contacts. A current output (0/4...20 mA) is available on the output side.

The device is parameterized via FDT and IODD with a PC. The current output can be set (either as source or sink) to 0/4...20 mA. In accordance with the parameterization (E1, E2, E1 - E2 or E2 - E1), the input signals are output as a 0/4...20 mA normalized current signal.

The devices have a green power LED (Pwr) and a red LED to indicate internal faults. For each input circuit there is a yellow and a red status LED. A fault in the input circuit leads to a flashing red LED according to NE44, an internal error to a steady read LED. The fault current can be adjusted to < 3.5 mA or > 21.5 mA.

The device complies with the requirements of NE21. It is equipped with removable screw terminals.

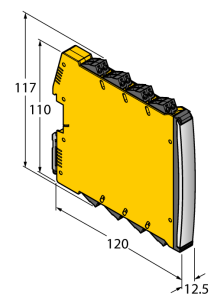
The device is equipped with removable screw terminals.



- Input circuits monitored for wire break and short circuit
- Parameterized via PC
- Complete galvanic isolation
- Removable screw terminals

Dimensions

Type	IM12-FI01-1SF-2I-C0/24VDC/K71
ID	100051432
Nominal voltage	24 VDC
Operating voltage U_s	10...30 VDC
Power consumption	$\leq 3 \text{ W}$
Power dissipation, typical	$\leq 1.8 \text{ W}$
Monitoring range/Setting range	0.0006...1,200,000 rpm
NAMUR input	
NAMUR	EN 60947-5-6
No-load voltage	8.2 VDC
Short-circuit current	8.2 mA
Input resistance	1 k Ω
Cable resistance	$\leq 50 \text{ } \Omega$
Switch-on threshold	1.75 mA
Switch-off threshold	1.55 mA
Wire breakage threshold	$\leq 0.06 \text{ mA}$
Short-circuit threshold	$\geq 6.4 \text{ mA}$
3-wire input	
No-load voltage	12 VDC
0-signal	0...3VDC
1-signal	5...30 VDC
External signal source	
0-signal	0...3 VDC
1-signal	5...30 VDC
Output circuits	
Output current	2 $\times$ source/sink (15...28 V) 0/4...20 mA
Load resistance current output	$\leq 0.8 \text{ k}\Omega$
Response characteristic	
Reference temperature	23 °C
Measuring accuracy current output (including linearity, hysteresis and repeatability)	$\pm 10 \text{ } \mu\text{A}$
Temperature drift	$\leq 0.0025 \text{ \% of full scale/K}$
Galvanic isolation	
Test voltage	2.5 kV RMS
E1,E2-A1A,A2A	375 V peak value acc. to EN 60079-11
A1A supply voltage	300 V RMS acc. to EN 50178 and EN 61010-1
A2A supply voltage	300 V RMS acc. to EN 50178 and EN 61010-1
Displays/Operating elements	
Operational readiness	Green
Error indication	red



Mechanical data		
Protection class	IP20	
Flammability class acc. to UL 94	V-0	
Ambient temperature	-25...+70 °C	
Storage temperature	-40...+80 °C	
Dimensions	120 x 12.5 x 117 mm	
Weight	170 g	
Mounting instructions	DIN rail (NS35)	
Housing material	Plastic, Polycarbonate/ABS	
Electrical connection	Removable screw terminals, 2-pin	
Terminal cross-section	0.2...2.5 mm² (AWG: 24...14)	
Tightening torque	0.5 Nm	
Tightening torque	4.43 LBS-Inch	
Environmental conditions	Operating height	Up to 2000 m above sea level
	Pollution degree	II
	Surge/Overvoltage category	II (EN 61010-1)
	Standards used	
	Voltage resistance and insulation	
		EN 50178
		EN 61010-1
		EN 50155
		GL VI-7-2
	Shock	
		EN 61373 class B
		EN 50155
		GL VI-7-2
		EN 60068-2-6
		EN 60068-2-27
	Temperature	
		EN 60068-2-1 Ad
		EN 50155
		GL VI-7-2
		EN 60068-2-2 Bd
		EN 60068-2-1
	Air humidity	
		EN 60068-2-38
	EMC	
		EN 50155
		GL VI-7-2
		NE21
		EN 61326-1
		EN 61326-3-1
		EN 61000-4-2
		EN 61000-4-3
		EN 61000-4-4
		EN 61000-4-5
		EN 61000-4-6
		EN 61000-4-11
		EN 61000-4-29
		EN 55011
		EN 55016
		EN 50121-3-2
		EN 61000-6-2

Accessories

Type code	Ident no.		Dimension drawing
USB-2-IOL-0002	6825482	IO-Link Master with integrated USB port	
IOL-COM/3M	7525110	IO-Link communication line for connecting IO-Link devices to an IO-link master via a 3.5-mm jack plug	
IMX12-SC-2X-4BK	7580940	Screw terminals for IM(X)12 modules; included in delivery: 4 pcs. of 2-pin black terminals	
IMX12-CC-2X-4BK	7580942	Spring terminals for IM(X)12 modules; included in delivery: 4 pcs. black terminals, 2-pin	