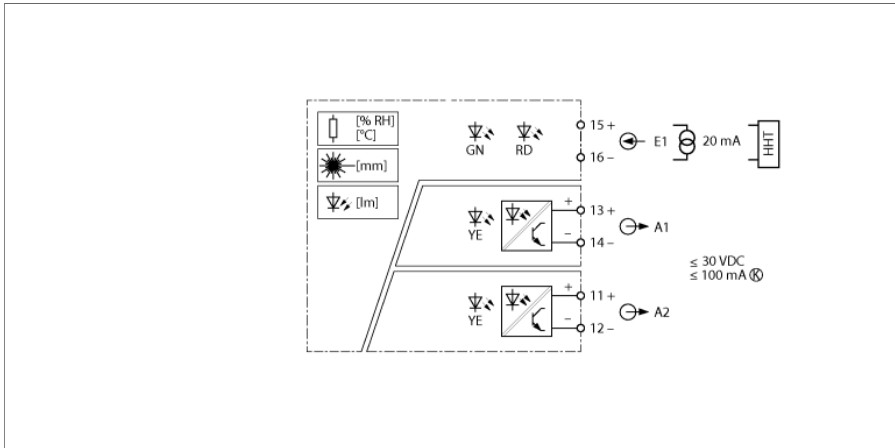


# Cabinet Guard Internal Sensors IMX12-CCM02-MTI-1I2T-HC/L/CC



The cabinet guard IMX12-CCM02-MTI-1I2T-HC/L/CC monitors preset environmental limits inside the control cabinet. The environmental conditions are detected by an integrated humidity or temperature sensor, a brightness sensor and a triangulation sensor that detects an incorrectly closed cabinet door. When exceeding or falling below the set limit values, an error message appears on the LED display or is reported via the switching outputs and the HART interface to the host control system.

The device is supplied loop powered from the 4...20 mA current interface. When used in Ex areas, the device can be supplied via the TURCK isolating transducer IMX12-AI01-...

Teach-in can be performed manually on the device; extended parameterization is possible via the HART interface.

The device is equipped with 8 spring type terminals for connecting the HART® interface or power supply and switching outputs and can be mounted on a DIN rail acc. to EN 60715.

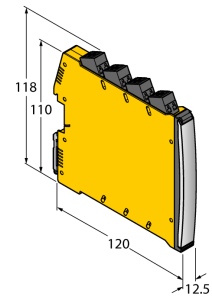
Furthermore, the device has four front-mounted LEDs to display the operating status (green), the fault signal (red flashing acc. to NE43) and the states of the switching outputs (2 x yellow).

The device is equipped with removable spring-type terminals.

- Two potential-free contacts
- Temperature detection
- Moisture detection
- Detection of distance to cabinet door
- Galvanic isolation of outputs (A1/A2)
- Removable cage clamp terminals
- ATEX, IECEx

## Dimensions

Type	IMX12-CCM02-MTI-112T-HC/L/CC
ID	7570093
Nominal voltage	24 VDC loop-powered
Operating voltage	10...28 VDC
Power consumption	≤ 0.32 W
Installed sensors CCM	Triangulation sensor 4...20 cm Humidity sensor 0...80 % rel. hum. Brightness sensor Temperature sensor -25...+60 °C
Reference temperature	23 °C
Output circuits	
Output current	impressed 20 mA
Semiconductor output circuits	
Output circuits (digital)	2 x transistor (potential-free) NO/NC
Switching voltage	≤ 30 VDC
Switching current per output	≤ 0.085 A at < 45 °C (T4) 0.100 A
Voltage drop	≤ 3.5 V
Moisture Sensor	
Accuracy max.	± 4.5 % relative humidity in the range 10...90 %
Repeat accuracy	0.2 % RF
Temperature Sensor	
Max. accuracy	±1.5 °C
Repeat accuracy	0.16 °C
Distance Sensor	Information has been empirically determined, white target with matte finish
Beam angle	6 °
Measuring range	40...200 mm
Relative accuracy	±8 mm In the range of ≤ 200 mm
Max. temperature coefficient	+/-6 mm in the range of ≤ 200 mm
Max. linearity error	≤ 2 % of full scale
Important note	For Ex-applications the values specified in the corresponding Ex certificates (ATEX, IECEx, UL, etc.) apply.
Ex approval acc. to conformity certificate	IBEXU 16 ATEX 1005
Application area	II 2G
Ignition protection category	Ex ib op is IIC T4 Gb
Displays/Operating elements	
Operational readiness	Green
Switching state	Yellow
Error indication	red



Mechanical data			
Protection class	IP20		
Flammability class acc. to UL 94	V-0		
Ambient temperature	-25...+60 °C		
Storage temperature	-25...+80 °C		
Dimensions	120 x 12.5 x 128 mm		
Weight	136 g		
Mounting instructions	DIN rail (NS35)		
Housing material	Polycarbonate/ABS		
Electrical connection	Removable spring-type terminals, 2-pin		
Terminal cross-section	0.2...2.5 mm <sup>2</sup> (AWG: 24...14)		
Environmental conditions	Operating height	Up to 2000 m above sea level	
	Pollution degree	II	
	Standards used		
	Voltage resistance and insulation		
			EN 50178
			EN 61010-1
	Shock		
			EN 60068-2-6
			EN 60068-2-27
	Temperature		
			EN 60068-2-1 Ad
			EN 60068-2-2 Bd
			EN 60068-2-1
	Air humidity		
			EN 60068-2-38
	EMC		
			NE21
			EN 61000-4-2
			EN 61000-4-3
			EN 61000-4-4
			EN 61000-4-5
			EN 61000-4-6
		EN 61000-4-8	
Emission		CISPR16	

**Accessories**

Type code	Ident no.		Dimension drawing
ISHRT USB	7570098	HRT-USB modem for parameterization of IMX12 CCM02 modules.	
IMX12-SC-2X-4BK	7580940	Screw terminals for IM(X)12 modules; included in delivery: 4 pcs. of 2-pin black terminals	
IMX12-SC-2X-4BU	7580941	Screw terminals for IM(X) 12 modules; included in delivery: 4 pcs. of 2-pin blue terminals	
IMX12-CC-2X-4BK	7580942	Spring terminals for IM(X)12 modules; included in delivery: 4 pcs. black terminals, 2-pin	
IMX12-CC-2X-4BU	7580943	Spring terminals for IM(X)12 modules; included in delivery: 4 pcs. blue terminals, 2-pin	