

Instruction manual en			General technical data <table><tr><td>Supply voltage</td><td>via KNX bus voltage</td></tr><tr><td>Bus current</td><td>< 12,5 mA</td></tr><tr><td>Bus system</td><td>KNX</td></tr><tr><td>Inputs</td><td>4x binary inputs 1x analog input for ext. temperature sensor</td></tr><tr><td>Outputs</td><td>3x analog output 0 -10 V (freely adjustable) Max. output current: 2 mA Min. load resistance: 5 kΩ</td></tr><tr><td>Per. ambient temperature</td><td>0 ... 50 °C</td></tr><tr><td>Housing</td><td>self-extinguishing thermoplastic</td></tr><tr><td>Housing color</td><td>studio white (similar to RAL 9016) jet black (similar to RAL 9005)</td></tr><tr><td>Mounting</td><td>wall mounting</td></tr><tr><td>Class of protection</td><td>III when installed according to regulations</td></tr><tr><td>Type of protection</td><td>IP 20 (DIN EN 60529)</td></tr><tr><td>Type of connection KNX</td><td>KNX-connector</td></tr><tr><td>Type of connection inputs / outputs</td><td>screw terminals solid 0,5 - 2,5mm² / flex 0,5 - 1,5mm² strip length 6 mm</td></tr></table>			Supply voltage	via KNX bus voltage	Bus current	< 12,5 mA	Bus system	KNX	Inputs	4x binary inputs 1x analog input for ext. temperature sensor	Outputs	3x analog output 0 -10 V (freely adjustable) Max. output current: 2 mA Min. load resistance: 5 kΩ	Per. ambient temperature	0 ... 50 °C	Housing	self-extinguishing thermoplastic	Housing color	studio white (similar to RAL 9016) jet black (similar to RAL 9005)	Mounting	wall mounting	Class of protection	III when installed according to regulations	Type of protection	IP 20 (DIN EN 60529)	Type of connection KNX	KNX-connector	Type of connection inputs / outputs	screw terminals solid 0,5 - 2,5mm² / flex 0,5 - 1,5mm² strip length 6 mm	Safety instructions / Intended use and inappropriate use / Disposal CAUTION! DANGER OF FIRE AND ELECTRIC SHOCK! !! Installation and assembly of electrical equipment must be carried out only by a skilled person !! • Connect only to suitable supply voltage [KNX bus voltage (nominal voltage 29V)]. • Warranty void if housing opened by unauthorized person! • The electronic circuit is protected against a wide range of external influences. Incorrect operating may occur if external in fluences exceed certain limits! • Installation and assembly of electrical equipment must be in accordance with national building, electrical and safety codes! • Defective devices / sensors have to be put out of service immediately! • Observe the regulations and instructions in the ZVEI/ZVEH handbook (building system technology). Especially the professional installation of the bus lines and the professional installation and start-up of KNX devices must be observed! • The device can be used in following applications: monitoring of the air quality in building systems technology (schools, offices, hotels, conference venue etc.), data transfer and regulation via bus system. • The device is intended for use in accordance with the defined technical data. • The device is not qualified for security relevant tasks such as emergency doors, fire protection equipment, fermenting cellars etc. • The inappropriate use of the device can cause damage to property and persons. • The device is not intended for use of unauthorized constructional alterations, repairs and security relevant tasks • The device is not intended for use in outdoor areas and wet rooms • The device has to be disposed in an environmentally friendly manner according to the current electrical codes!		
Supply voltage	via KNX bus voltage																																	
Bus current	< 12,5 mA																																	
Bus system	KNX																																	
Inputs	4x binary inputs 1x analog input for ext. temperature sensor																																	
Outputs	3x analog output 0 -10 V (freely adjustable) Max. output current: 2 mA Min. load resistance: 5 kΩ																																	
Per. ambient temperature	0 ... 50 °C																																	
Housing	self-extinguishing thermoplastic																																	
Housing color	studio white (similar to RAL 9016) jet black (similar to RAL 9005)																																	
Mounting	wall mounting																																	
Class of protection	III when installed according to regulations																																	
Type of protection	IP 20 (DIN EN 60529)																																	
Type of connection KNX	KNX-connector																																	
Type of connection inputs / outputs	screw terminals solid 0,5 - 2,5mm² / flex 0,5 - 1,5mm² strip length 6 mm																																	
Temp TS 30.12 knx TS 31.12 knx Temp, rH GS 30.12 knx GS 31.12 knx Temp, rH, CO2 GS 40.12 knx GS 41.12 knx Manual adjustment Set-point temperature manually adjustable via touch-area (depend on model) Display with LEDs. Default: 0.5 °C increment			Programming & reset Programming mode: Fig. GS 41.12 knx jet black Press and hold the marked area for approximately 5 seconds. Once the device enters programming mode, the LEDs on the front – and for improved visibility also the LED on the rear of the front cover (PCB-mounted) will start blinking. Reset: Hold the marked area for ~15 seconds. When both the front LEDs and the additional LED on the rear of the front cover (PCB-mounted) stop blinking and stay on, the device has been reset to factory defaults.			Source of interference The sensor values of the device can be negatively influenced by external impacts as e.g.: • Draught and air movement: e.g. through windows, doors, convection, heating and people • Warming and cooling: e.g. sunlight or mounting on an outside wall • Heat sources: close to installed electrical consumers e.g. dimmers • Vibrations or shocks, which the unites are or were subjected to • Pollution due to colors, wallpaper paste, dust e.g. at renovation work • Organic solvents or their vapours: e.g. detergents • Plasticizers from stickers and packaging e.g. bubble wrap or polystyrene			Tolerances Temperature: ± 0,5 °C (at 25 °C) Relative humidity: ± 3% (at 25 °C within 20%..80% rH) CO₂: ± 30 ppm ± 3 % (425...2000 ppm) CO₂ accuracy is valid under following conditions: 1) after 3 weeks of operation 2) initial base line calibration; manually or via ETS-object 3) once a week fresh air exposure (425 ppm) 4) ventilation strategy: first threshold CO₂ should be ≤ 800 ppm The tolerances are valid at a typical and stable ambient room temperature. When using a flush-mounting box, the use of air-tight boxes is recommended.																									
Mounting Disconnect device from power supply for wiring and installation purposes! Check power supply is disconnected! Attention! You have to check and consider the safety instructions above! • This device is suitable for wall mounting or for mounting on a flush-mounting box. • Ensure that no dust gets inside the device. • After initial startup, the device requires up to 2 minutes until the sensor sends the first values. Step 1: Open the device with a small screw driver by pushing in the lever at the bottom of the housing and gently remove the front part. Step 2: Fix the rear part, either directly to the wall or on a flush-mounting box. Step 3: Connect the required inputs/outputs and attach the KNX terminal. Step 4: Reattach the front part. STEP 1 Geräte-Abdeckung Front cover STEP 2 Boden / Bottom STEP 3 Deckel / Cover Ausgänge 1-3, Ground Outputs 1-3, Ground KNX-KNX + Eingänge 1-4, Ground Inputs 1-4, Ground STEP 4 Geräte-Abdeckung Front cover Figure shows GS 40.12 knx																																		
Hugo Müller GmbH & Co KG, Karlstraße 90, DE-78054 VS-Schwenningen www.hugo-mueller.de BA_GS_TS_3_4x.12knx_Hardware_HM;de,en 2025.07V01																																		