# **CO-016 CARBONMONOXIDE CONTROL PANEL**



CO-016 Addressable Carbon Monoxide Detection and Control Panel is the control unit of the carbon monoxide system and works as a Scada system with the CO540 Carbon Monoxide detector.

The CO-016 Carbon Monoxide Control Panel is designed to process the measurement data from the CO 540 detectors and to perform three-level control according to the scenario created. It can provide three different controls according to the gas levels detected in the detectors. The threshold values for these gas levels are set during installation (can be changed later). When the first 2 threshold values are exceeded, the fans are activated and if it is possible to evacuate the gas in the environment, the system returns to normal position without going into the alarm state. If the 3rd level threshold is exceeded, the control panel goes into the alarm state and stays in this position until reset. In this way, it provides the opportunity to prevent the gas in the environment before it reaches critical levels.

The CO-016 Carbon Monoxide Control Panel communicates with the Redban Addressable Advanced Protocol (RAAP). In this way, it instantly collects measurement data from devices. In addition, the calibration of the devices can be set by the panel. It can operate 80 devices, 48 of which are detectors, in one cycle. It can be increased up to 4 loops and a total of 320 devices can be connected to these loops. There are 2 supervised siren outputs, 3 open collector outputs, alarm and fault relay outputs and 2 24V supply outputs as protected and unprotected on the motherboard. Devices to be included in the system from outside can be supplied from these outputs, considering the current and voltage values.

## Features

- IP30 robust and aesthetic PC/ABS case
- Microprocessor based design
- Production with SMT technology
- 16 Programmable Zones
- All threshold levels can be programmed separately for each zone
- Intelligent interactive communication with Redban RAAP protocol
- Define 3 threshold levels for each zone
- Average or Peak value selection
- Continuous supervision of all detectors and modules
- Gas levels can be continuously monitored
- 2 level indicator LEDs for each zone





OPERATING VOLTAGE       180-240 Vac         POWER CONSUMPTION       100 Watt         NUMBER OF DEVICES IN THE LOOP       80         MAXIMUM NUMBER OF DEVICES OF THE PANEL       320         LOOP CURRENT       230 mA         LOOP CURRENT       230 mA         LOOP CURRENT       230 mA         LOOP CURRENT       2 X12V 7Ah         BATTERY TYPE       Sealed Lead Acid Battery         BATTERY SCHACTIRCUT PROTECTION       Yes         STREN SUPERVISED OUTPUTS       1         OUTPUT TYPE       Relay N.Open Contact         CONTACT STREINGTH       2 A @ 30 V DC         FUSE       400 mA, Auto Reset         OUTPUT VOLTAGE       2 f,6 Vac         END OF LINE RESISTANCE       6.8 K Ω 1/4 Watt         GENERAL PURPOSE OUTPUTS       3         OUTPUT TYPE       Open Collector         OUTPUT TYPE       Open Collector         OUTPUT TYPE       N.Open (NO), N.Closed (NC)         OUTPUT TYPE       NOpen (NO), N.Closed (NC)         OUTPU	TECHNICAL SPECIFICATIONS	CO-016
NUMBER OF DEVICES IN THE LOOP       1         NUMBER OF DEVICES IN THE LOOP       80         MAXIMUM MUMBER OF DEVICES OF THE PANEL       320         LOOP CURRENT       230 mA         BATTERY SHOK OPERATING       No         BATTERY SHORT-CIRCUT PROTECTION       Yes         STREN SUPERVISED OUTPUTS       1         OUTPUT TYPE       Relay N.Open Contact         CONTACT STRENGTH       2A @ 30 V DC         FUSE       400 mA, Auto Reset         OUTPUT TVE       Open Collector         OUTPUT TYPE       Open Collector         OUTPUT TYPE       NOPE (NO), N.Closed (NC)         OUTPUT TYPE<	OPERATING VOLTAGE	180-240 Vac
NUMBER OF DEVICES IN THE LOOP       80         MAXIMUM NUMBER OF DEVICES OF THE PANEL       320         LOOP CURRENT       230 mA         LOOP LOAD       120 Ω         NETWORK OPERATING       No         BATTERY CAPACITY       2 X12/ 7Ah         BATTERY SHORT-CIRCUIT PROTECTION       Yes         SIREN SUPERVISED OUTPUTS       1         OUTPUT VOLTAGE       27,6 Vdc         END OF LINE RESISTANCE       6.8 K Ω 1/4 Watt         GENERAL PURPOSE OUTPUTS       3         OUTPUT TOURAGE       27,6 Vdc         OUTPUT TOPE       Open Collector         OUTPUT TOPE       Open Collector         OUTPUT TOPE       N.Open (NO), N.Closed (NC)         CONTACT STRENGTH       2 A @ 30 v DC         ERROR RELAY OUTPUT       Yes         OUTPUT TYPE       N.Open (NO), N.Closed (NC)         CONTACT STRENGTH       2 A @ 30 v DC	POWER CONSUMPTION	100 Watt
MAXIMUM NUMBER OF DEVICES OF THE PANEL320LOOP CURRENT230 mALOOP LOAD120 ΩNETWORK OPERATINGNoBATTERY CAPACITY2 X12V 7AhBATTERY CAPACITY2 A @ 30V DCCONTACT STRENGTH2 A @ 30V DCFUSE400 mA, Auto ResetOUTPUT VOLTAGE27,6 VdcEND OF LINE RESISTANCE6.8 K Ω 1/4 WattGENERAL PURPOSE OUTPUTS3OUTPUT TYPEOpen CollectorOUTPUT TYPE0 Open CollectorOUTPUT TYPEN.Open (NO), N.Closed (NC)OUTPUT TYPEYesOUTPUT TYPEYesOUTPUT TYPE2A (Unfusecl)24V DC ROTECTED VOLTAGE OUTPUTYesOUTPUT CURRENT2A (Unfusecl)28TAL DATA INTERFACE (USB - R5485)1-2DATA BITS8ARATTY MEITNoneANDRE500 BPSDAT	NUMBER OF LOOP	1
LOOP CURRENT230 mALOOP LOAD120 ΩNetWORK OPERATINGNoBATTERY TYPESealed Lead Acid BatteryBATTERY CAPACITY2 X12V 7AhBATTERY CAPACITY2 X12V 7AhBATTERY SHORT-CIRCUIT PROTECTIONYesSTREN SUPERVISED OUTPUTS1OUTPUT TYPERelay N.Open ContactCONTACT STRENGTH2 A @ 30V DCFUSE400 mA, Auto ResetOUTPUT VOLTAGE27,6 VdcENDE DE LINE RESISTANCE6.8 K Ω 1/4 WattGENERAL PURPOSE OUTPUTS3OUTPUT TYPEOpen CollectorOUTPUT TYPEOpen CollectorOUTPUT TYPEN.Open (NO), N.Closed (NC)CONTACT STREINGTH2 A @ 30 v DCERROR RELAY OUTPUTYesOUTPUT TYPEN.Open (NO), N.Closed (NC)CONTACT STREINGTH2 A @ 30 v DCERROR RELAY OUTPUTYesOUTPUT TYPEN.Open (NO), N.Closed (NC)CONTACT STREINGTH2 A @ 30 v DC24V DC PROTECTED VOLTAGE OUTPUTYesOUTPUT CURRENT400 mA, Resettable Fused24V DC NOT PROTECTED VOLTAGE OUTPUTYesOUTPUT CURRENT2 A (Unfused)SERIAL DATA INTERFACE (USB - RS485)1-2BAUDRATE9600 BPSDATA BITS8PARITY BITNoneSTOP BIT1FLOW CONTROLNoneDATA RETENTION10 YearBATTERY DENSE400 mΩBattery Resistance400 mΩ	NUMBER OF DEVICES IN THE LOOP	80
LOOP LOAD120 ΩNETWORK OPERATINGNoBATTERY CAPACITYSealed Lead Acid BatteryBATTERY CAPACITY2 X12V 7AhBATTERY CAPACITY2 X12V 7AhBATTERY CAPACITY2 X12V 7AhBATTERY CAPACITY2 X12V 7AhBATTERY SHORT-CIRCUIT PROTECTIONYesSIREN SUPERVISED OUTPUTS1OUTPUT TYPERelay N.Open ContactCONTACT STRENGTH2A @ 30V DCFUSE400 mA, Auto ResetOUTPUT VOLTAGE27,6 VdcEIN OF LINE RESISTANCE6.8 K20 1/4 WattGENERAL PURPOSE OUTPUTS3OUTPUT CURRENT50 mAALARM RELAY OUTPUT0pen CollectorOUTPUT TYPE0pen CollectorOUTPUT TYPEN.Open (NO), N.Closed (NC)CONTACT STRENGTH2 A @ 30 v DCERROR RELAY OUTPUTYesOUTPUT TYPEN.Open (NO), N.Closed (NC)CONTACT STRENGTH2 A @ 30 v DC24V DC PROTECTED VOLTAGE OUTPUTYesOUTPUT CURRENT400 mA, Resettable Fused24V DC PROTECTED VOLTAGE OUTPUTYesOUTPUT CURRENT2A (Unfused)25RIAL DATA INTERFACE (USB - R5485)1-2BAUDRATE9600 BPSDATA BITS8PARITY BITNoneARITY BITNoneDATA RETERTION10 YearGK12D POWER SUPPLY (Parameters)EBattery Resistance400 mQ	MAXIMUM NUMBER OF DEVICES OF THE PANEL	320
NETWORK OPERATING   No     BATTERY TYPE   Sealed Lead Acid Battery     BATTERY CAPACITY   2 X12V 7Ah     BATTERY SHORT-CIRCUIT PROTECTION   Yes     SIREN SUPERVISED OUTPUTS   1     OUTPUT TYPE   Relay N.Open Contact     CONTACT STRINGTH   2A @ 30V DC     FUSE   400 mA, Auto Reset     OUTPUT VOLTAGE   27,6 Vdc     END OF LINE RESISTANCE   6.8 K Ω 1/4 Watt     GENERAL PURPOSE OUTPUTS   3     OUTPUT TYPE   Open Collector     OUTPUT TURENT   50 mA     ALARM RELAY OUTPUT   50 mA     OUTPUT TYPE   N.Open (NO), N.Closed (NC)     CONTACT STRENGTH   2 A @ 30 v DC     ERROR RELAY OUTPUT   Yes     OUTPUT TYPE   N.Open (NO), N.Closed (NC)     CONTACT STRENGTH   2 A @ 30 v DC     ERROR RELAY OUTPUT   Yes     OUTPUT TYPE   N.Open (NO), N.Closed (NC)     OUTPUT TYPE   N.Open (NO), N.Closed (NC)     OUTPUT TYPE   N.Open (NO), N.Closed (NC)     OUTPUT TYPE   NOP     OUTPUT TYPE   N.Open (NO), N.Closed (NC)     OUTPUT TYPE   N.Open (NO), N.Closed (NC)     OUTPUT TYPE   NOP     OUTPUT TYPE   NOP     OUTPUT CURRENT   2 A @ 30 v DC <td>LOOP CURRENT</td> <td>230 mA</td>	LOOP CURRENT	230 mA
BATTERY TYPESealed Lead Acid BatteryBATTERY CAPACITY2 X12V 7AhBATTERY SHORT-CIRCUIT PROTECTIONYesBATTERY SHORT-CIRCUIT PROTECTIONYesOUTPUT TYPERelay N.Open ContactCONTACT STRENGTH2A @ 30V DCFUSE400 mA, Auto ResetOUTPUT VOLTAGE27,6 VdcEND OF LINE RESISTANCE6.8 K Ω 1/4 WattGENERAL PURPOSE OUTPUTS3OUTPUT TYPEOpen CollectorOUTPUT TYPEOpen CollectorOUTPUT TYPEN.Open (NO), N.Closed (NC)CONTACT STRENGTH2 A @ 30 v DCERROR RELAY OUTPUTYesOUTPUT TYPEN.Open (NO), N.Closed (NC)CONTACT STRENGTH2 A @ 30 v DCERROR RELAY OUTPUTYesOUTPUT CURRENT2 A @ 30 v DC24V DC PROTECTED VOLTAGE OUTPUTYesOUTPUT CURRENT2 A @ 30 v DC24V DC PROTECTED VOLTAGE OUTPUTYesOUTPUT CURRENT2A (Unfused)SERIAL DATA INTERFACE (USB - RS485)1-2BAUDRATE9600 BPSDATA BITS8PARITY BITNoneSTOP BIT1FLOW CONTROLNoneDATA RETERTION10 YearGK12D POWER SUPPLY (Parameters)400 mQBattery Resistance400 mQ	LOOP LOAD	120 Ω
BATTERY CAPACITY2 X12V 7AhBATTERY SHORT-CIRCUIT PROTECTIONYesSIREN SUPERVISED OUTPUTS1OUTPUT TYPERelay N.Open ContactCONTACT STRENGTH2A @ 30V DCFUSE400 mA, Auto ResetOUTPUT VOLTAGE27,6 VdcEND OF LINE RESISTANCE6.8 K Ω 1/4 WattGENERAL PURPOSE OUTPUTS3OUTPUT TYPEOpen CollectorOUTPUT TYPEOpen CollectorOUTPUT TYPEN.Open (NO), N.Closed (NC)CONTACT STRENGTH2 A @ 30 v DCERROR RELAY OUTPUTVOLTAGEOUTPUT TYPEN.Open (NO), N.Closed (NC)CONTACT STRENGTH2 A @ 30 v DCERROR RELAY OUTPUTYesOUTPUT TYPEN.Open (NO), N.Closed (NC)CONTACT STRENGTH2 A @ 30 v DCZ4V DC PROTECTED VOLTAGE OUTPUTYesOUTPUT CURRENT2A (Unfused)24V DC NOT PROTECTED VOLTAGE OUTPUTYesOUTPUT CURRENT2A (Unfused)SERIAL DATA INTERFACE (USB - RS485)1-2BAUDRATE9600 BPSDATA BITS8PARITY BITNoneSTOP BIT1FLOW CONTROLNoneDATA RETENTION10 YearGKL2D POWER SUPPLY (Parameters)H00 mQBattery Resistance400 mQ	NETWORK OPERATING	No
BATTERY SHORT-CIRCUIT PROTECTIONYesSIREN SUPERVISED OUTPUTS1OUTPUT TYPERelay N.Open ContactCONTACT STRENGTH2A @ 30V DCFUSE400 mA, Auto ResetOUTPUT VOLTAGE27,6 VdcEND OF LINE RESISTANCE6.8 K Ω 1/4 WattGENERAL PURPOSE OUTPUTS3OUTPUT TYPEOpen CollectorOUTPUT TYPEOpen CollectorOUTPUT TYPEN.Open (NO), N.Closed (NC)CONTACT STRENGTH2 A @ 30 v DCERROR RELAY OUTPUTVIPUTOUTPUT TYPEN.Open (NO), N.Closed (NC)CONTACT STRENGTH2 A @ 30 v DCERROR RELAY OUTPUTYesOUTPUT TYPEN.Open (NO), N.Closed (NC)CONTACT STRENGTH2 A @ 30 v DC24V DC PROTECTED VOLTAGE OUTPUTYesOUTPUT CURRENT400 mA, Resettable Fused24V DC NOT PROTECTED VOLTAGE OUTPUTYesOUTPUT CURRENT2A (Unfused)SERIAL DATA INTERFACE (USB - RS485)1-2BAUDRATE9600 BPSDATA BITS8PARITY BITNoneSTOP BIT1FLOW CONTROLNoneDATA RETENTION10 YearGK12D POWER SUPPLY (Parameters)H00 mQBattery Resistance400 mQ	BATTERY TYPE	Sealed Lead Acid Battery
SIREN SUPERVISED OUTPUTS1OUTPUT TYPERelay N.Open ContactCONTACT STRENGTH2A @ 30 VDCFUSE400 mA, Auto ResetOUTPUT VOLTAGE27,6 VdcEND OF LINE RESISTANCE6.8 K Ω 1/4 WattGENERAL PURPOSE OUTPUTS3OUTPUT TYPEOpen CollectorOUTPUT TYPEOpen CollectorOUTPUT TYPEN.Open (NO), N.Closed (NC)CONTACT STRENGTH2 A @ 30 v DCERROR RELAY OUTPUTVesOUTPUT TYPEN.Open (NO), N.Closed (NC)CONTACT STRENGTH2 A @ 30 v DC24V DC PROTECTED VOLTAGE OUTPUTYesOUTPUT CURRENT400 mA, Resettable Fused24V DC NOT PROTECTED VOLTAGE OUTPUTYesOUTPUT CURRENT2A (Unfused)SERIAL DATA INTERFACE (USB - RS485)1-2BAUDARTE9600 BPSDATA BITS8PARITY BITNoneSTOP BIT1FLOW CONTROLNoneDATA RETENTION10 YearGKL20 POWER SUPPLY (Parameters)400 mΩ	BATTERY CAPACITY	2 X12V 7Ah
OUTPUT TYPERelay N.Open ContactCONTACT STRENGTH2A @ 30 V DCFUSE400 mA, Auto ResetOUTPUT YOLTAGE27,6 VdcEND OF LINE RESISTANCE6.8 K Ω 1/4 WattGENERAL PURPOSE OUTPUTS3OUTPUT TYPEOpen CollectorOUTPUT CURRENT50 mAALARM RELAY OUTPUTVOLTPUT TYPEOUTPUT TYPEN.Open (NO), N.Closed (NC)CONTACT STRENGTH2 A @ 30 v DCERROR RELAY OUTPUTVOLTAGE OUTPUTOUTPUT TYPEN.Open (NO), N.Closed (NC)CONTACT STRENGTH2 A @ 30 v DC24V DC PROTECTED VOLTAGE OUTPUTYesOUTPUT CURRENT400 mA, Resettable Fused24V DC NOT PROTECTED VOLTAGE OUTPUTYesOUTPUT CURRENT2A (Unfused)SERIAL DATA INTERFACE (USB - RS485)1-2BAUDARTE9600 BPSATA BITS8PARITY BITNoneSTOP BIT1FLOW CONTROLNoneDATA RETENTION10 YearGKL20 POWER SUPPLY (Parameters)400 mΩ	BATTERY SHORT-CIRCUIT PROTECTION	Yes
CONTACT STRENGTH       2A @ 30V DC         FUSE       400 mA, Auto Reset         OUTPUT VOLTAGE       27,6 Vdc         END OF LINE RESISTANCE       6.8 K Ω 1/4 Watt         GENERAL PURPOSE OUTPUTS       3         OUTPUT CURRENT       3         OUTPUT CURRENT       50 mA         ALARM RELAY OUTPUT       50 mA         OUTPUT TYPE       N.Open (NO), N.Closed (NC)         CONTACT STRENGTH       2 A @ 30 v DC         ERROR RELAY OUTPUT       Ves         OUTPUT TYPE       N.Open (NO), N.Closed (NC)         CONTACT STRENGTH       2 A @ 30 v DC         ERROR RELAY OUTPUT       Yes         OUTPUT CURRENT       400 mA, Resettable Fused         24V DC PROTECTED VOLTAGE OUTPUT       Yes         OUTPUT CURRENT       400 mA, Resettable Fused         24V DC NOT PROTECTED VOLTAGE OUTPUT       Yes         OUTPUT CURRENT       2A (Unfused)         SERIAL DATA INTERFACE (USB - RS485)       1-2         BAUDRATE       9600 BPS         DATA BITS       8         PARITY BIT       None         STOP BIT       1         FLOW CONTROL       None         DATA R	SIREN SUPERVISED OUTPUTS	1
FUSE400 mA, Auto ResetOUTPUT VOLTAGE27,6 VdcEND OF LINE RESISTANCE6.8 K Ω 1/4 WattGENERAL PURPOSE OUTPUTS3OUTPUT TYPEOpen CollectorOUTPUT CURRENT50 mAALARM RELAY OUTPUTVOPEN (NO), N.Closed (NC)CONTACT STRENGTH2 A @ 30 v DCERROR RELAY OUTPUTVOPEN (NO), N.Closed (NC)CONTACT STRENGTH2 A @ 30 v DCERROR RELAY OUTPUTYesOUTPUT TYPEN.Open (NO), N.Closed (NC)CONTACT STRENGTH2 A @ 30 v DC24V DC PROTECTED VOLTAGE OUTPUTYesOUTPUT CURRENT400 mA, Resettable Fused24V DC NOT PROTECTED VOLTAGE OUTPUTYesOUTPUT CURRENT2A (Unfused)SERIAL DATA INTERFACE (USB - RS485)1-2BAUDRATE9600 BPSDATA BITS8PARITY BITNoneSTOP BIT1FLOW CONTROLNoneDATA RETENTION10 YearGK120 POWER SUPPLY (Parameters)400 mQ	OUTPUT TYPE	Relay N.Open Contact
OUTPUT VOLTAGE27,6 VdcEND OF LINE RESISTANCE6.8 K Ω 1/4 WattGENEFRAL PURPOSE OUTPUTS3OUTPUT TYPEOpen CollectorOUTPUT CURRENT50 mAALARM RELAY OUTPUT0OUTPUT TYPEN.Open (NO), N.Closed (NC)CONTACT STRENGTH2 A @ 30 v DCERROR RELAY OUTPUT0OUTPUT TYPEN.Open (NO), N.Closed (NC)CONTACT STRENGTH2 A @ 30 v DCERROR RELAY OUTPUTYesOUTPUT CURRENT400 mA, Resettable Fused24V DC NOT PROTECTED VOLTAGE OUTPUTYesOUTPUT CURRENT2A (Unfused)SERIAL DATA INTERFACE (USB - RS485)1-2BAUDRATE9600 BPSDATA BITS8PARITY BITNoneSTOP BIT1FLOW CONTROLNoneDATA RETENTION10 YearGK120 POWER SUPPLY (Parameters)400 mΩ	CONTACT STRENGTH	2A @ 30V DC
END OF LINE RESISTANCE6.8 K Ω 1/4 WattGENERAL PURPOSE OUTPUTS3OUTPUT TYPEOpen CollectorOUTPUT CURRENT50 mAALARM RELAY OUTPUTVOpen (NO), N.Closed (NC)CONTACT STRENGTH2 A @ 30 v DCERROR RELAY OUTPUTVOCOUTPUT TYPEN.Open (NO), N.Closed (NC)CONTACT STRENGTH2 A @ 30 v DCERROR RELAY OUTPUTYesOUTPUT CURRENTYesOUTPUT CURRENT2A (Unfused)24V DC PROTECTED VOLTAGE OUTPUTYesOUTPUT CURRENT2A (Unfused)SERIAL DATA INTERFACE (USB - RS485)1-2BAUDRATE9600 BPSDATA RETS8PARITY BITNoneSTOP BIT1FLOW CONTROLNoneDATA RETENTION10 YearGK120 POWER SUPPLY (Parameters)400 mΩ	FUSE	400 mA, Auto Reset
GENERAL PURPOSE OUTPUTS3OUTPUT TYPEOpen CollectorOUTPUT CURRENT50 mAALARM RELAY OUTPUTOUTPUT TYPEN.Open (NO), N.Closed (NC)CONTACT STRENGTH2 A @ 30 v DCERROR RELAY OUTPUTOUTPUT TYPEN.Open (NO), N.Closed (NC)CONTACT STRENGTH2 A @ 30 v DC24V DC PROTECTED VOLTAGE OUTPUTYesOUTPUT CURRENT400 mA, Resettable Fused24V DC NOT PROTECTED VOLTAGE OUTPUTYesOUTPUT CURRENT2A (Unfused)SERIAL DATA INTERFACE (USB - RS485)1-2BAUDRATE9600 BPSDATA BITS8PARITY BITNoneSTOP BIT1FLOW CONTROLNoneDATA RETENTION10 YearGK120 POWER SUPPLY (Parameters)400 mΩ	OUTPUT VOLTAGE	27,6 Vdc
OUTPUT TYPEOpen CollectorOUTPUT CURRENT50 mAALARM RELAY OUTPUTOUTPUT TYPEN.Open (NO), N.Closed (NC)CONTACT STRENGTH2 A @ 30 v DCERROR RELAY OUTPUTOUTPUT TYPEN.Open (NO), N.Closed (NC)CONTACT STRENGTH2 A @ 30 v DC24V DC PROTECTED VOLTAGE OUTPUTYesOUTPUT CURRENT400 mA, Resettable Fused24V DC NOT PROTECTED VOLTAGE OUTPUTYesOUTPUT CURRENT2A (Unfused)SERIAL DATA INTERFACE (USB - RS485)1-2BAUDRATE9600 BPSDATA BITS8PARITY BITNoneSTOP BIT1FLOW CONTROLNoneDATA RETENTION10 YearGK120 POWER SUPPLY (Parameters)400 mΩ	END OF LINE RESISTANCE	6.8 K Ω 1/4 Watt
OUTPUT CURRENT       50 mA         ALARM RELAY OUTPUT          OUTPUT TYPE       N.Open (NO), N.Closed (NC)         CONTACT STRENGTH       2 A @ 30 v DC         ERROR RELAY OUTPUT          OUTPUT TYPE       N.Open (NO), N.Closed (NC)         CONTACT STRENGTH       2 A @ 30 v DC         ERROR RELAY OUTPUT       Ves         OUTPUT CURRENT       400 mA, Resettable Fused         24V DC NOT PROTECTED VOLTAGE OUTPUT       Yes         OUTPUT CURRENT       400 mA, Resettable Fused         24V DC NOT PROTECTED VOLTAGE OUTPUT       Yes         OUTPUT CURRENT       2A (Unfused)         SERIAL DATA INTERFACE (USB - RS485)       1-2         BAUDRATE       9600 BPS         DATA BITS       8         PARITY BIT       None         STOP BIT       1         FLOW CONTROL       None         DATA RETENTION       10 Year         GK120 POWER SUPPLY (Parameters)       400 mΩ	GENERAL PURPOSE OUTPUTS	3
ALARM RELAY OUTPUTOUTPUT TYPEN.Open (NO), N.Closed (NC)CONTACT STRENGTH2 A @ 30 v DCERROR RELAY OUTPUTOUTPUT TYPEN.Open (NO), N.Closed (NC)CONTACT STRENGTH2 A @ 30 v DC24V DC PROTECTED VOLTAGE OUTPUTYesOUTPUT CURRENT400 mA, Resettable Fused24V DC NOT PROTECTED VOLTAGE OUTPUTYesOUTPUT CURRENT2A (Unfused)SERIAL DATA INTERFACE (USB - RS485)1-2BAUDRATE9600 BPSDATA BITS8PARITY BITNoneSTOP BIT1FLOW CONTROLNoneDATA RETENTION10 YearGK120 POWER SUPPLY (Parameters)400 mΩ	OUTPUT TYPE	Open Collector
OUTPUT TYPE       N.Open (NO), N.Closed (NC)         CONTACT STRENGTH       2 A @ 30 v DC         ERROR RELAY OUTPUT       OUTPUT TYPE         OUTPUT TYPE       N.Open (NO), N.Closed (NC)         CONTACT STRENGTH       2 A @ 30 v DC         24V DC PROTECTED VOLTAGE OUTPUT       Yes         OUTPUT CURRENT       400 mA, Resettable Fused         24V DC NOT PROTECTED VOLTAGE OUTPUT       Yes         OUTPUT CURRENT       2A (Unfused)         SERIAL DATA INTERFACE (USB - RS485)       1-2         BAUDRATE       9600 BPS         DATA BITS       8         PARITY BIT       None         STOP BIT       1         FLOW CONTROL       None         DATA RETENTION       10 Year         GK120 POWER SUPPLY (Parameters)       400 mΩ	OUTPUT CURRENT	50 mA
CONTACT STRENGTH       2 A @ 30 v DC         ERROR RELAY OUTPUT       OUTPUT TYPE         OUTPUT TYPE       N.Open (NO), N.Closed (NC)         CONTACT STRENGTH       2 A @ 30 v DC         24V DC PROTECTED VOLTAGE OUTPUT       Yes         OUTPUT CURRENT       400 mA, Resettable Fused         24V DC NOT PROTECTED VOLTAGE OUTPUT       Yes         OUTPUT CURRENT       2A (Unfused)         SERIAL DATA INTERFACE (USB - RS485)       1-2         BAUDRATE       9600 BPS         DATA BITS       8         PARITY BIT       None         STOP BIT       1         FLOW CONTROL       None         DATA RETENTION       10 Year         GK120 POWER SUPPLY (Parameters)       400 mΩ	ALARM RELAY OUTPUT	
ERROR RELAY OUTPUTOUTPUT TYPEN.Open (NO), N.Closed (NC)CONTACT STRENGTH2 A @ 30 v DC24V DC PROTECTED VOLTAGE OUTPUTYesOUTPUT CURRENT400 mA, Resettable Fused24V DC NOT PROTECTED VOLTAGE OUTPUTYesOUTPUT CURRENT2A (Unfused)SERIAL DATA INTERFACE (USB - RS485)1-2BAUDRATE9600 BPSDATA BITS8PARITY BITNoneSTOP BIT1FLOW CONTROLNoneDATA RETENTION10 YearGKL20 POWER SUPPLY (Parameters)400 mΩ	OUTPUT TYPE	N.Open (NO), N.Closed (NC)
OUTPUT TYPEN.Open (NO), N.Closed (NC)CONTACT STRENGTH2 A @ 30 v DC24V DC PROTECTED VOLTAGE OUTPUTYesOUTPUT CURRENT400 mA, Resettable Fused24V DC NOT PROTECTED VOLTAGE OUTPUTYesOUTPUT CURRENT2A (Unfused)SERIAL DATA INTERFACE (USB - RS485)1-2BAUDRATE9600 BPSDATA BITS8PARITY BITNoneSTOP BIT1FLOW CONTROLNoneDATA RETENTION10 YearGKL20 POWER SUPPLY (Parameters)400 mΩ	CONTACT STRENGTH	2 A @ 30 v DC
CONTACT STRENGTH2 A @ 30 v DC24V DC PROTECTED VOLTAGE OUTPUTYesOUTPUT CURRENT400 mA, Resettable Fused24V DC NOT PROTECTED VOLTAGE OUTPUTYesOUTPUT CURRENT2A (Unfused)SERIAL DATA INTERFACE (USB - RS485)1-2BAUDRATE9600 BPSDATA BITS8PARITY BITNoneSTOP BIT1FLOW CONTROLNoneDATA RETENTION10 YearGK120 POWER SUPPLY (Parameters)400 mΩ	ERROR RELAY OUTPUT	
24V DC PROTECTED VOLTAGE OUTPUTYesOUTPUT CURRENT400 mA, Resettable Fused24V DC NOT PROTECTED VOLTAGE OUTPUTYesOUTPUT CURRENT2A (Unfused)SERIAL DATA INTERFACE (USB - RS485)1-2BAUDRATE9600 BPSDATA BITS8PARITY BITNoneSTOP BIT1FLOW CONTROLNoneDATA RETENTION10 YearGK120 POWER SUPPLY (Parameters)400 mΩ	OUTPUT TYPE	N.Open (NO), N.Closed (NC)
OUTPUT CURRENT400 mA, Resettable Fused24V DC NOT PROTECTED VOLTAGE OUTPUTYesOUTPUT CURRENT2A (Unfused)SERIAL DATA INTERFACE (USB - RS485)1-2BAUDRATE9600 BPSDATA BITS8PARITY BITNoneSTOP BIT1FLOW CONTROLNoneDATA RETENTION10 YearGK120 POWER SUPPLY (Parameters)400 mΩ	CONTACT STRENGTH	2 A @ 30 v DC
24V DC NOT PROTECTED VOLTAGE OUTPUTYesOUTPUT CURRENT2A (Unfused)SERIAL DATA INTERFACE (USB - RS485)1-2BAUDRATE9600 BPSDATA BITS8PARITY BITNoneSTOP BIT1FLOW CONTROLNoneDATA RETENTION10 YearGK120 POWER SUPPLY (Parameters)400 mΩ	24V DC PROTECTED VOLTAGE OUTPUT	Yes
OUTPUT CURRENT2A (Unfused)SERIAL DATA INTERFACE (USB - RS485)1-2BAUDRATE9600 BPSDATA BITS8PARITY BITNoneSTOP BIT1FLOW CONTROLNoneDATA RETENTION10 YearGK120 POWER SUPPLY (Parameters)Battery Resistance400 mΩ	OUTPUT CURRENT	400 mA, Resettable Fused
SERIAL DATA INTERFACE (USB - RS485)1-2BAUDRATE9600 BPSDATA BITS8PARITY BITNoneSTOP BIT1FLOW CONTROLNoneDATA RETENTION10 YearGK120 POWER SUPPLY (Parameters)Battery Resistance400 mΩ	24V DC NOT PROTECTED VOLTAGE OUTPUT	Yes
BAUDRATE9600 BPSDATA BITS8PARITY BITNoneSTOP BIT1FLOW CONTROLNoneDATA RETENTION10 YearGK120 POWER SUPPLY (Parameters)400 mΩ	OUTPUT CURRENT	2A (Unfused)
DATA BITS8PARITY BITNoneSTOP BIT1FLOW CONTROLNoneDATA RETENTION10 YearGK120 POWER SUPPLY (Parameters)400 mΩ	SERIAL DATA INTERFACE (USB - RS485)	1-2
PARITY BIT   None     STOP BIT   1     FLOW CONTROL   None     DATA RETENTION   10 Year     GK120 POWER SUPPLY (Parameters)   400 mΩ	BAUDRATE	9600 BPS
STOP BIT       1         FLOW CONTROL       None         DATA RETENTION       10 Year         GK120 POWER SUPPLY (Parameters)       400 mΩ	DATA BITS	8
FLOW CONTROL   None     DATA RETENTION   10 Year     GK120 POWER SUPPLY (Parameters)   30 mΩ	PARITY BIT	None
DATA RETENTION   10 Year     GK120 POWER SUPPLY (Parameters)   400 mΩ	STOP BIT	1
GK120 POWER SUPPLY (Parameters)     Battery Resistance   400 mΩ	FLOW CONTROL	None
Battery Resistance 400 mΩ		10 Year
	GK120 POWER SUPPLY (Parameters)	
EN54-4 Test Parameters Imin, Imaxa, Imaxb 27mA, 1.5A, 1.8A	Battery Resistance	400 mΩ
	EN54-4 Test Parameters Imin, Imaxa, Imaxb	27mA, 1.5A, 1.8A



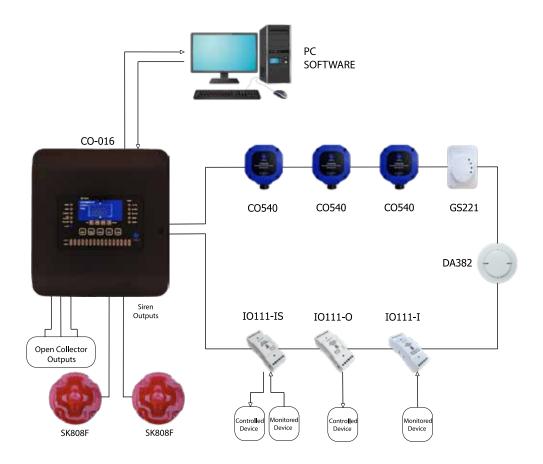


#### **ENVIRONMENTAL SPECIFICATIONS**

OPERATING TEMPERATURE	-10 °C ≈ +55°C
HUMIDITY	$\%0 \approx \%95$ Relative Humidity
ENVIRONMENTAL CATEGORY	IP21
PHYSICAL SPECIFICATIONS	
CASE MATERIAL	PC/ABS Case
DIMENSIONS (H x W x D)	38 x 35,2 x 9,4 cm
WEIGHT	2,6 Kg (without battery)



## SCHEMATIC DIAGRAM



### SYSTEM WORKING

Carbonmonoxide system is an addressable system. In this way desired devices can be assigned to a zone with virtual zoning. In addition to the carbonmonoxide detector, natural gas detector and heat detector can also be used in the addressable carbon monoxide system. In addition to carbon monoxide detectors, such detectors are needed in car parks and tunnels in case of a leak in LPG-powered vehicles or to detect temperature increases in batteries in electric vehicles, which have become very common today. Additionally, it is possible to include any desired device with relay into the system with monitoring modules.

