

Product Information

GD10P

GD10P HART version

- **HART interface is now standard for configuration, information and test**
- **“1 sec.” response time is configured via HART.**
- **Default signaling for early clean optics warning optics**
- **Weatherprotection to be ordered separately**
- **GD10P “non HART” is obsolete from January 1st 2010**

GD10P was brought to the industry back in 1996, and has since earned its reputation then as the benchmark for IR combustible gas detectors in areas where high safety and low maintenance are valued features. The GD10P has been virtually unchanged for 13 years, and we are now proud to announce the release of an update of the electronics and software of the detector.

The basic function of the detector is unchanged, we use the same software functions to do the actual gas detection, but the microprocessor is now more powerful and we have added functionality for enhanced configuration and maintenance capability.

HART

The single big change is the HART interface, which give users access to maintenance information. One example is the optical transmission level, which can be used to plan preventive maintenance of the detectors. Also information like actual gas reading, temperature, tag number, serial number and text fields can be utilised by a HART enabled AMS.

The HART interface is also used for extended configuration and testing of the detector:

- Configuration of Warning and Fault signalling (0 -3mA)
- Re-setting of zero point
- Loop current test mode (forced output)
- Selection of “5 sec” or “1 sec” response time (where applicable)

Any industry standard HART terminal can be used for commissioning and maintenance as the GD10P does not need any product specific device descriptor.

A command summary for all HART commands is available as a supplement to the standard operating manual.

Standard detector, individual configuration.

The GD10P has up to now been fully configured at the factory, which resulted in separate variants for each configuration. Over the years, the number of product variants increased as even minor changes to fault signalling on the 4-20mA interface required a separate ordering code, engraved on the stainless steel product label. This has a certain aspect of “keep it simple” to it, but there were absolutely no flexibility once the detector left the factory.

By opening up for individual configuration of the 4-20mA signalling and selection of the detector response time, both distribution network and end-users will see a reduction of stock as well as improved delivery times of detectors that formerly was regarded as “special versions”. A “special version” will now be a matter of configuration at commissioning.

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New Product Codes

Coordinated with the upgrade of the detector, we have taken the major step of introducing a common product coding system for all Simtronics Fire & Gas detectors. The new product codes are related to the function of a detector and thus “readable”. E.g. the characters designating the target gas and character identifying signalling interface are shared across all product families.

Example: **GD10-P00-17DG-0XH-00**

GD10-P00 The base product, GD10P IR point gas detector.
17DG Function: 17 = Methane DG = 100%LEL (5% Vol CH4)
0XH Variant: 0 = (Not used) X = ATEX / IECEx H = 4-20mA, Source, HART
00 Option: (Not used)

All detectors are backwards compatible, as can be seen from the following compatibility map of the GD10P Methane 100%LEL detector.

								New
GD10P Methane 100%LEL	GD10P 1024	GD10P 1042	GD10P 2403	GD10P 2427	GD10P 2537	GD10PB 2692 HART	GD10PB 2714 HART	GD10-P00-17DG-0XH
Function								
HART information and data					Yes	Yes	Yes	Yes
HART configuration					No	Yes	Yes	Yes
Response 5 sec.	Yes		Yes		Yes	Yes	Conf	Std
Response 1 sec		Yes		Yes		Conf	Std	Conf
Front cover (Weather protection)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Add
Dirty optics 1 mA	Yes				Yes	Yes	Yes	Std
Dirty Optics 2 mA			Yes	Yes				Conf
Early clean optics warning: 1 mA pulse	Yes	Yes			Yes	Yes	Yes	Conf
Early clean optics warning 2 mA								Std
Early clean optics warning 3 mA								Conf
No Early clean Optics warning			Yes	Yes				Conf

Yes = As delivered, not changeable
 Empty= Not applicable or not available
 Std = Default configuration from factory, can be changed via HART on site (commissioning)
 Add = Has to be ordered as separate item.
 Conf = Configurable via HART

Note: This table contains configurations related to backwards compatibility only. For the full list of possible configurations, please refer to the operating manual.

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New default signalling scheme

From the table above, you can see that the default signal for “Early clean optics warning” has changed from the “1mA pulse” to “2mA fixed” for the HART variants. This is more conforming to common practice. Please note that the old “1mA pulse” can still be configured at commissioning on the HART version of GD10P.

Default signalling (may be re-configured at commissioning):

Early Clean Optics (55% signal reduction): Fixed 2mA, Gas >7% FS is detected.

Dirty Optics (70% signal reduction): Fixed 1 mA, No detection

Detector fault: Fixed <0.5mA, No detection

Weather protection to be ordered separately

In the pricelist, GD10P is listed without weather protection. The reasoning is that there are 3 different configurations:

- 1) Standard weather protection for standalone use.
- 2) Duct mount kit for “through wall” installation.
- 3) Sample flow housing for use in sampling systems.

Please note that using the GD10P without any of the three options above is not applicable.

When ordering both detectors and the “Standard weather protection”, these will be packed together (detector + weather protection) unless otherwise requested. The box is marked with both part numbers.

The most common detectors and their new ordering codes:

OLD		NEW	
Old product IDs. (Front cover incl.)	Description	Replaced by new detector version: (No front cover) Configure fault levels and response time as applicable (HART).	Front cover to be ordered separately
GD10P 1024 GD10P 1000 GD10P 1017 GD10PB 2692	CH4, 100%LEL, 5 sec, source, Weather Protection	GD10-P00-17DG-0XH	499-810913 Weather protection
GD10P 2537 GD10PB 2692 HART	CH4, 100%LEL, 5 sec, source, HART, Weather Protection	GD10-P00-17DG-0XH	499-810913 Weather protection
GD10P 2403	CH4, 100%LEL, 5 sec, source, Clean optics: 2mA, Weather protection	GD10-P00-17DG-0XH	499-810913 Weather protection
GD10P 2427	CH4, 100%LEL, 1 sec, source, Clean optics: 2mA, Weather protection	GD10-P00-17DG-0XH	499-810913 Weather protection
GD10P 1042 GD10PB 2714	CH4, 100%LEL, 1 sec, source, Weather Protection	GD10-P00-17DG-0XH	499-810913 Weather protection
GD10P 1030	CH4, 100%LEL, 5 sec, source, Sample flow	GD10-P00-17DG-0XH	499-810874 Sample Flow Housing
GD10P 1075 GD10PB 2716	C3H8, 100%LEL, 5 sec, source, Weather protection	GD10-P00-09DG-0XH	499-810913 Weather protection
GD10P 1103 GD10PB 2721	C3H8, 100%LEL, 5 sec, source, Sample flow	GD10-P00-09DG-0XH	499-810874 Sample Flow Housing
GD10P 1538 GD10PB-2780	CO2, 3% Vol, 5 sec, source, Weather protection	GD10-P00-23BH-0XH	499-810913 Weather protection
GD10P 1045 GD10PB 2729	CO2, 10 000 ppm, 5 sec, source, Weather protection	GD10-P00-23AN-0XH	499-810913 Weather protection