

Plug on controller/display needs no auxiliary energy



LED-DISPLAY

WITH 1 OPEN COLLECTOR OUTPUT

FREELY SCALABLE

VIA 3 KEYS

- optional with 2 electrically isolated high current open collector switching outputs (28 V / 1 A)
- 4 switching functions
- fast controlling and supervision (reacting time <20 ms)
- alternatively available version: 0-10 V (auxiliary energy required)
- Min./Max. value memory
- 3 limit functions, 3 filter stages
- alarm delay adjustable
- extensive self check and diagnosis system

GRA 0420 VO

Plug on controller/display without auxiliary energy, output 4-20 mA, 1 electrically isolated switching output.

GRA 010 VO

Plug on controller/display, output 0-10 V, 1 +Ub-switching output.

Specification:	GRA 0420 ...	GRA 010 ...
Input signal:	4 ... 20 mA (2-wire)	0 ... 10 Volt (3-wire)
Voltage load:	< 5.5 V	--
Input resistance:	--	approx. 30 kOhm
Supply voltage:	--	12 - 28 V
Supply current:	from current loop	< 10 mA
Display:	4 digit LED, approx. 7 mm high	
Display range:	-1999 ... 9999 digit, first and last value freely adjustable	
Recommended range:	≤ 2000 digit	
Decimal point:	any position	
Accuracy:	≤ 0.2 % FS ±1 digit (at nominal temperature = 25 °C)	
Measuring rate:	> 50 measurements / s	
Filter:	selectable in 3 stages	
Limit:	3 limit functions selectable:	
LI 0:	Values above/below range permissible	
LI 1:	Values above/below range not permissible	
LI 2:	When range is exceeded, the referring rail will be displayed	
Switching outputs:		
GRA0420VO:	1 electrically isolated open collector output, connection via cubic plug	
GRA010VO:	1 +Ub-switching open collector output, connection via cubic plug	
Option ... - S2:	2 electrically isolated open collector outputs, connection via separate M8 jack	
Switching point, switching hysteresis:	freely adjustable	
max. switching voltage:	28 V	
max. switching current:	20 mA (at option ... - S2: 1 A)	
Reaction time:	≤ 20 ms	
Switching functions:	2 or 3 point controller, 2 point controller with alarm, min-/max-alarm	
Min./Max. value memory:	memorizing of max. and min. values.	
Operation:	via 3 keys	
Working temperature:	-25 ... +50 °C	
Relative humidity:	0 ... 80 % RH (non-condensing)	
Electric connection:	special-adaptor design for cubic plug EN 175301-803/A for simple plug-in wherever required. 2 screws (68 and 75 mm) included in scope of supply.	
Housing:	ABS, keypad (resp. transparent panel made of polycarbonate) approx. 48.5 x 48.5 x 35.5 mm (H x W x D) without special adapter, approx. 50.5 x 90 x 39.5 mm (H x W x D) with special adapter	
Protection rating:	IP65 (when mounted appropriately)	

Option:

- S2 design type with 2 electrically isolated switching outputs. Outputs with increased switching current (28 V / 1 A), connection via separate M8 jack (Delivery incl. 1 m connecting cable for connection of both switching outputs)
- OT design type without pushbuttons in the cover (e.g. if the adjustment of the device shouldn't be directly accessible for the user)

GRA 0420 WK

Without auxiliary energy, output 4-20 mA, 1 electrically isolated switching output.

GRA 010 WK

Output 0-10 V, 1 electrically isolated switching output.

Specification:

same as GRA ... VO, but	
Electric connection:	connection to any standard signal source and switching output via 2 m connection cable.
Housing:	with mounting holes can be mounted to any surface whatsoever.

