



Programmable digital indicator for process values with 2 embedded setpoints ZED 540

- Application** Display of pressure and other process values. Alarm contact switching when the current signal value goes below or above the programmed setpoint value. Indication of min./max. values.
- Display** 4 digits LED display, red.
- Housing** Panel mounting housing, PC/ABS-Blend, black.
- Input signal** 0... 20 mA, 4... 20 mA, 0... 5 V or 0... 10 V. The instruments will be configured at factory, according to your ordering.
- Measuring range** Input signal and measuring range as well as setpoints could be reconfigured at any time changing the screw terminal block and a new program.
- Programmation** Housing dimension dependent. Through the front panel soft keys or the keys behind the removable front panel. Measuring range, setpoints, analog output (where available) and display time could be changed. The programming function could be denied.
- Setpoints** Standard 2 programmable contacts depending on the housing dimensions either relays or open collector.
- Min./Max. memory** Standard



Selection Chart

Ordering example:		ZED 540	/	1	1	2	1	2	1
System design	ZED 540								
Dimensions	96 x 48 ¹⁾	1							
	96 x 24 ²⁾	2							
	72 x 36 ³⁾	3							
	48 x 24 ⁴⁾	4							
Power supply	230 V AC with pressure transmitter supply	1							
	115 V AC with pressure transmitter supply	2							
	20-30 V DC with pressure transmitter supply ⁵⁾	3							
	230 V AC without pressure transmitter supply	5							
	115 V AC without pressure transmitter supply	6							
	20-30 V DC without pressure transmitter supply ⁶⁾	7							
Input signal	0... 20 mA	1							
	4... 20 mA	2							
	0... 5 V	5							
	0... 10 V	4							
	without manufactory setup	9							
Output signal	none	0							
	0... 20 mA	1							
	4... 20 mA	2							
	0... 10 V DC	4							
Setpoints	2 Relay or open collector, programmable ⁷⁾	2							
Protection type (front panel) and signal connection	IP 40 + built-in screw terminals	1							
	IP 54 + built-in screw terminals	2							
	IP 65 + built-in screw terminals ^{2,4)}	3							
	IP 40 + removable screw terminals	5							
	IP 54 + removable screw terminals	6							
	IP 65 + removable screw terminals ^{2,4)}	7							
Measured units	bar, mbar, psi, hPa, m H ₂ O, etc.								

¹⁾ S1 + S2 Relay output, handling through front panel soft keys

²⁾ S1 + S2 Relay output, handling through the keys behind the removable front panel, IP 65 not available

³⁾ S1 open collector, S2 Relay output, handling through the front panel soft keys, S2 not available with analog output (without pressure transmitter supply)

⁴⁾ S1 + S2 open collector, handling through the keys behind the removable front panel, S1 + S2 not available with analog output, only 20-30 V DC power supply, IP 65 not available

⁵⁾ Only a single relay or open collector contact with dimension 72x36; no signal output. No relay contact with housing dimension 48x24, without output signal, 2 open collector contact available.

⁶⁾ Galvanically separated



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Technical Data

Input	Measuring range	0... 10 V, 0... 5 V, 0... 20 mA, 4... 20 mA, all measuring ranges could be programmed and could be selected via signal connection terminals	
	Input resistance	R _i with 10 V = 83 KΩ (570 KΩ with ZED 540/4xx.xxx) 20 mA = 100 Ω (82 K Ω with ZED 540/4xx.xxx)	
Output	Transmitter excitation	24 V DC/50 mA	
	Relay output	Load 230 V AC/2 A-120 V DC/0,5 A	
	Open Collector	Power from customer system (U _B = 5-40 V/I _{max} = 100 mA) Only ZED 540/3 and ZED 540/4	
	Analog output	Option (mA, V, programmable) 0... 10 V DC (12 Bit) 0... 20 mA (12 Bit) - load 500 Ohm 4... 20 mA (12 Bit) - load 500 Ohm	<i>The analog output signals is with AC and (DC galv. separated) supply from the measured input signal galvanically separated!</i>
Accuracy	Full scale	-999 to +9999	
	Precision	±0,2% from the measured value, ±1 digit	
	Temp. coeff.	50 ppm/K	
	Measurement system	Voltage to frequency driver	
Power consumption		max. 5 VA	
Indicator	Display	7 segments LED, 14 mm (10 mm, with ZED 540/4xx.xxx), red 4 digits = display of 9999	
	Overload	Display of 4...	
	Display time	from 0,1 to 10 sec. programmable	
Environmental conditions	Operating temperature	0 to +60°C	
	Storage temperature	-20 to +80°C	
Protection type		IP 40, IP 54, IP 65	
CE-sign		For an unlimited use of this equipment with regard to the 89/336/EEC regulation, the analog input signal connection must be shielded. The shield must be connected only at one end.	
Signal connection	ZED Type	connection type	
	ZED 540/1xx.xxx	}	back side through 2,5 mm ² screw terminals
	ZED 540/2xx.xxx		
	ZED 540/3xx.xxx		
	ZED 540/4xx.xxx	back side through 1 mm ² screw terminal or 1,5 mm ² removable terminals	

Electrical connections

ZED Type

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
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ZED 540/1 ZED 540/2

Input			Transmitter excitation		Analog-output			S2			S1			Supply	
5/10 VDC	0/4-20 mA	GND	-	+	+	-	NO	NC	COM	NO	NC	COM	-	+	

ZED 540/3

Input				S1 or Analog output		S2			Supply	
5/10 VDC	NC	0/4-20 mA	GND	-	+	COM	NC	NO	-	+

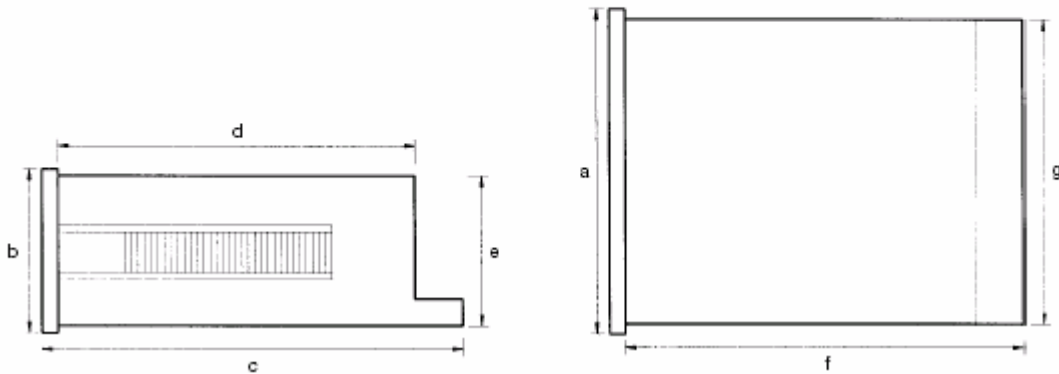
ZED 540/4

Input				S1-S2 or Analog output			Supply	
5/10 VDC	NC	0/4-20 mA	GND	S2	S1	COM	-	+
				+	-	NC		



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Housing



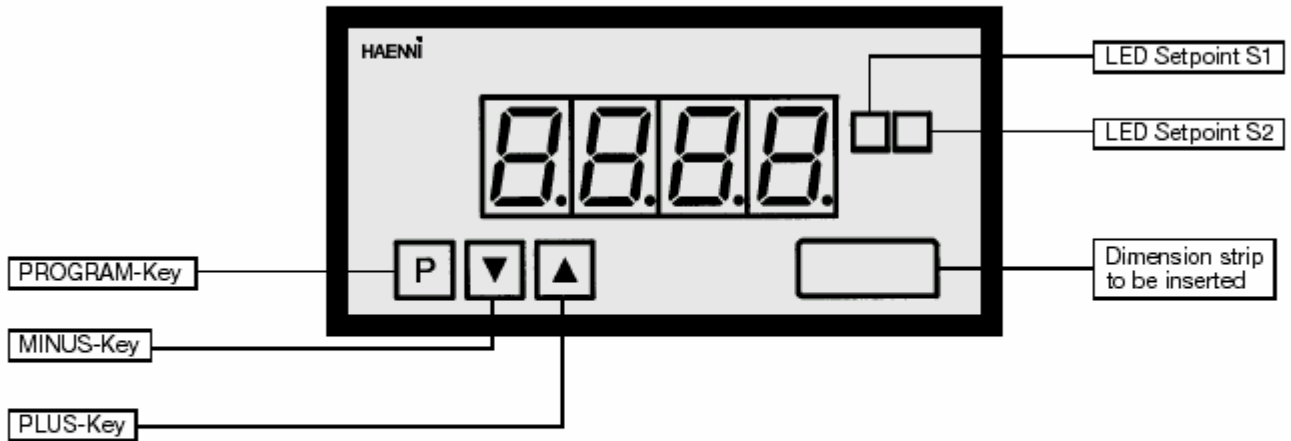
ZED Type	Dimensions (mm)							Assembly cut out	Weight (kg)
	a	b	c	d	e	f	g		
ZED 540/1	96	48	131 134 with screw terminal 148 with plug in terminal	111	43	126	89	$92^{+0.6} \times 45^{+0.6}$	ca. 0,450
ZED 540/2	96	24	131 134 with screw terminal 148 with plug in terminal	111	21	126	89	$92^{+0.6} \times 22^{+0.6}$	ca. 0,290
ZED 540/3	72	36	97 100 with screw terminal 115 with plug in terminal	77	32	92	65	$68^{+0.7} \times 33^{+0.6}$	ca. 0,190
ZED 540/4	48	24	91 94 with screw terminal 101 with plug in terminal	77	21	86	42	$45^{+0.6} \times 22,2^{+0.3}$	0,075

Fastening Special quick plastic clamp proper to fix in wall thickness up to 50 mm



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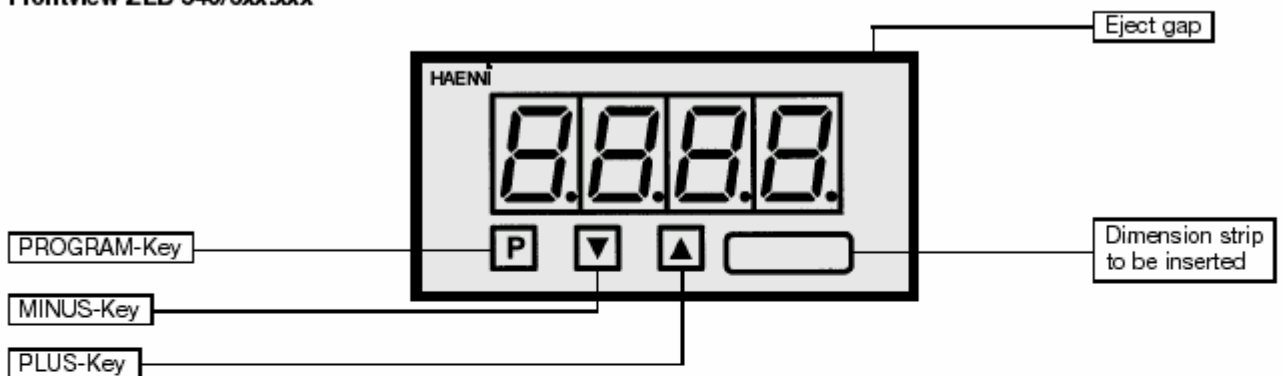
Frontview ZED 540/1xx.xxx



Frontview ZED 540/2xx.xxx



Frontview ZED 540/3xx.xxx



Frontview ZED 540/4xx.xxx

