

CIT 400

Process Display with Contacts and Analogue Output



Functional range

- ▶ free scalable display
- ▶ linearization via max. 32 free selectable supporting points
- ▶ switching mode delay of the relay inputs and outputs, parameterizable calibration
- ▶ simulation / testing mode

Product characteristics

- ▶ input signal: 4 ... 20 mA
- ▶ 4-digit LED display
- ▶ housing variant: front panel or hat rail
- ▶ 2 or 4 limit value relays and 1 alarm relay
- ▶ scalable analogue output

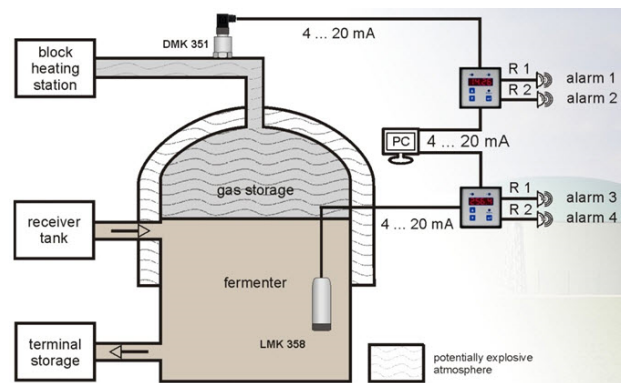
Optional versions

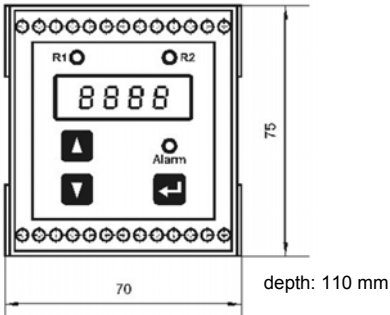
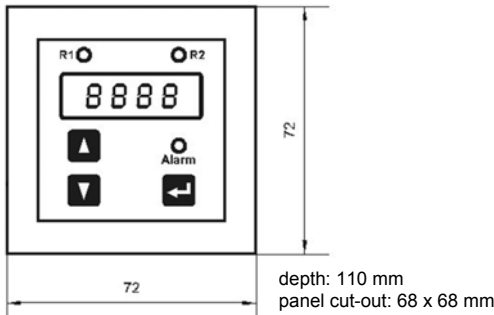
- ▶ supply voltage 230 V_{AC}
- ▶ Ex-approval

Typical application



pressure and level monitoring in biogas plants



Signal output		
Output signal, permissible load	0/4 ... 20 mA, max. 500 Ω, galvanically insulated	
Signal input		
2-/ 3-wire-system	4 ... 20 mA (in front panel housing only 2-wire-system)	
Load	R _i = 50 Ω; input current max. 75 mA without damage; protected by poly-switch	
Supply		
Supply voltage AC-device	standard: 230 V _{AC} , 50/60 Hz IS-protection (optional): 100 ... 240 V _{AC} , 50/60 Hz	others on request
Supply voltage DC-device	standard: 24 V _{DC} ± 10 % IS-protection (optional): 18 ... 36 V _{DC}	others on request
Power consumption	standard: approx. 4 VA	option: approx. 6 VA
Contacts / Alarm relay		
Contacts	standard: 2 independent relay contacts (floating SPDT) option: 4 independent relay contacts (floating SPDT)	
Alarm relay	1 relay contact (floating SPDT with hat rail housing; floating NO with front panel housing); notifies broken line and over-current	
Switching voltage	max. 230 V _{AC}	
Switching current	max. 5 A (cos φ 0.9)	
Sensor supply		
DC device	V _S – 3 V	IS-protection (optional): approx. 14.5 V @ 20 mA
AC device	approx. 14 V @ 20 mA; approx. 20.5 V @ 4 mA	
Sensor current limit		
Standard	approx. 32 mA	
Ex-protection (optional)	linear limit, electronic limit approx. 37 mA	
Electrical protection		
Short-circuit protection	permanent - galvanic insulation of the contacts against measuring circuit and power supply	
Reverse polarity protection	DC device: no damage, but also no function	
EMC	emission and immunity according to EN 61326	
Electrical connection		
Standard	with fixed terminal clamp ; clamp section 2.5 mm ²	
Housing		
	front panel housing	hat rail housing
Material	Noryl	ABS
Ingress protection	housing: IP 40 / IP 65 ¹ clamps: IP 20	housing: IP 40 clamps: IP 20
¹ IP 65 can be reached by an additional, front sided sealing with a flexible transparent protection cover (available as accessory)		
Miscellaneous		
Display	4-digit 7-segment-LE display, red; digit height 10 mm; digit with 7.5 mm; range of indication -1999 ... 9999; accuracy 0.2 % ± 1 Digit	
LEDs	contacts: green alarm: red	
Permissible temperatures	electronics / environment / storage: -20 ... 60 °C	
Weight	AC-device: approx. 450 g	DC-device: approx. 300 g
CE-conformity	EMC Directive: 2014/30/EU	
Explosion protection (optional) – only in combination with 2 contacts and 1 alarm relay		
Approval AX13-CIT 400	IBExU05 ATEX 1097 X II (1)G [Ex ia Ga] IIC II (1)D [Ex ia Da] IIIC	
Safety technical maximum values	U _o = 25.2 V, I _o = 84.8 mA, P _o = 535 mW; IIC: C _o = 107 nF; L _o = 5.7 mH	
Permissible temperatures	environment: -20 ... 40 °C	
Dimensions (in mm)		
hat rail mounting	front panel mounting	
		

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Ordering code CIT 400

CIT 400

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Type of construction								
hat rail or wall mounting		H						
front panel mounting		F						
customer		9						consult
Output								
2 independent relay outputs			2					
4 independent relay outputs ¹			4					
Ex-protection								
without Ex protection				S				
with Ex protection				E				
Supply								
<i>without Ex-protection</i>								
	24 V _{DC}				3			
	230 V _{AC}				5			
	customer				9			consult
<i>with Ex-protection</i>								
	100 ... 240 V _{AC}				6			
	18 ... 36 V _{DC}				8			
Version								
	BD SENSORS				B			
	neutral				N			
	customer				9			consult
Special version								
	standard					0	0	0
	customer					9	9	9
								consult

¹ not possible in combination with IS-version