

### Construction

The GEMÜ 1205 electrical position indicator with EC type examination certificate according to ATEX has an aluminium housing with built in electro-mechanical microswitches in a flameproof enclosure. Either one or two valve positions, open and/or closed can be remotely indicated. Remote indication is obtained by electrical contacts. Both switching components have a long mechanical life (2 x 10<sup>6</sup> switching operations).

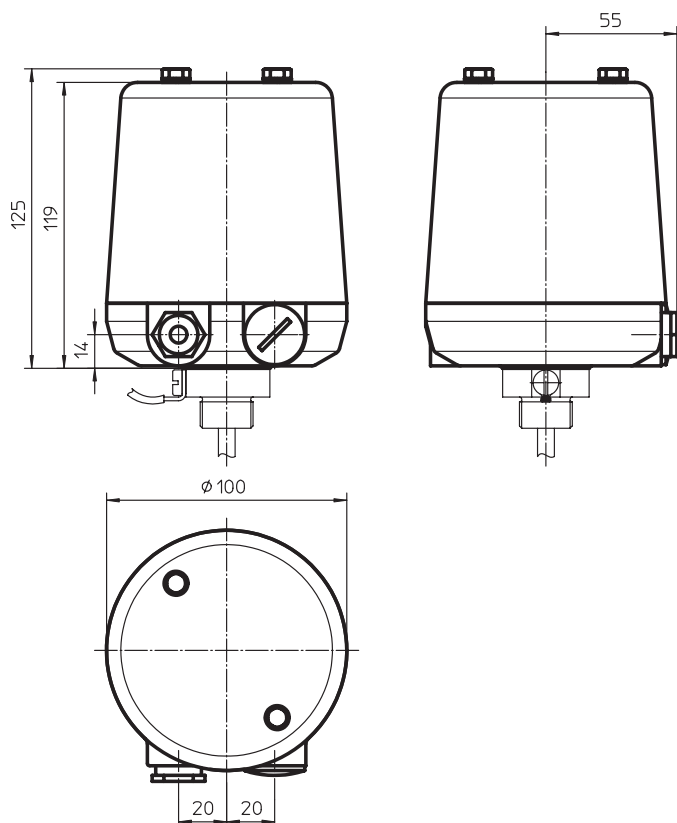
### Features

- ATEX-marking:
  - II 2G EEx ed IIC T6
  - II 2D IP 65 T 80°C
  - -30°C ≤ Ta ≤ +60°C
- EC type examination certificate according to ATEX directive 94/9 EC
- Electrical connection via cable gland
- Maximum stroke 70 mm
- Robust metal housing

### Advantages

- Simple mounting and retrofitting to GEMÜ linear actuators
- Mounting to other valve makes possible
- Protection class IP 65 acc. to EN 60529

Dimensions GEMÜ 1205 [mm]



## Technical data

Operating conditions	
Setting range of limit switch	2 - 70 mm continuous
Ambient temperature	-20° ... +60°C
rotection class	IP 65 to EN 60529
Mechanical stability impact resistance to EN 50014	7 Nm

Electrical data		
Switch type	electro-mechanical microswitches	
Switch rating at ambient temperature	T <sub>a</sub> = 40°C	
Switch rating AC		
Voltage	Ohmic load	Inductive load cosφ = 0,6
250V	4 A	3 A
30V	4 A	3 A
Switch rating DC		
Voltage	Ohmic load	Inductive load L/R = 3μs
250V	0,15 A	0,03 A
30V	4 A	4 A
Thermic rated current	6A	
Max. switching frequency	≤ 1000 switching cycles/h	

Electrical data	
Approval	
Acc. to directive	⊕ II 2 G EEx ed IIC T6
94/9/EC, ATEX	⊕ II 2 D IP 65 T 80°C
EC type examination certificate	IBExU03ATEX1220

Materials	
Housing cover	Aluminium diecasting
Housing base	Aluminium diecasting
Guide piece	1.4305
Operating spindle	1.4104
Damping piece	1.4104

Electrical connection	
M20 x 1,5	1 x available 1 x prepared (blanking cover)
Cable diameter	7 ... 13 mm
Terminals ø	2.5 mm <sup>2</sup>
Earth terminal	4.0 mm <sup>2</sup>
Potential equalisation	stranded wire, yellow/green H 07 V-K 4,0

## Order data

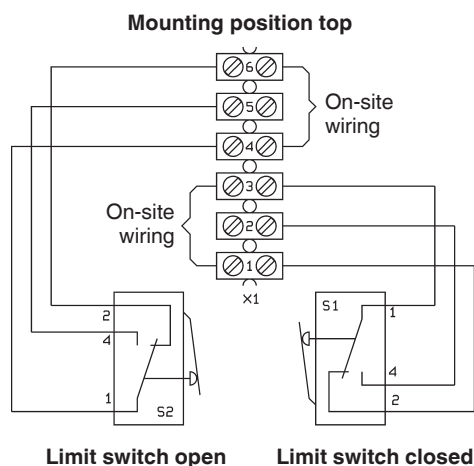
Field bus	Code
Without field bus	000

Function	Code
OPEN/CLOSED	A00
OPEN	A01
CLOSED	A02

Switch	Code
SPDT switch (single pole double throw)	102
Other switches on request	

Electrical connection	Code
M20 x 1.5 cable gland	3101
Other connections on request	

Connection diagram	Code
Terminals	104



**Please order mounting kit 1205 S01 Z...AT separately with reference to the particular valve type!**

**When ordering please indicate the complete valve type key, e.g.**

Type 1205 000 Z A00 102 3101 104 for mounting to GEMÜ valve 690/20 D 0114-1

Order example	1205	000	Z	A00	102	3101	104
Type	1205						
Field bus (code)		000					
Accessory			Z				
Function (code)				A00			
Switch (code)					102		
Electrical connection (code)						3101	
Connection diagram (code)							104

**IBExU Institut für Sicherheitstechnik GmbH**  
An-Institut der TU Bergakademie Freiberg

[1] **EC-TYPE EXAMINATION CERTIFICATE**  
according to Directive 94/9/EC, Annex III (Translation)

[2] Equipment and Protective System intended for use in Potentially Explosive Atmospheres, Directive 94/9/EC

[3] EC-Type Examination Certificate Number: **IBEXU03ATEX1220**

[4] Equipment: Electrical position indicator type 1205

[5] Manufacturer: GEMÜ Gebr. Müller Apparatebau GmbH & Co. KG

[6] Address: Fritz-Müller-Straße 6-8  
D-74653 Ingelfingen



[7] This equipment and any acceptable variation thereto are specified in the schedule to this EC-Type Examination Certificate.

[8] IBExU Institut für Sicherheitstechnik GmbH, NOTIFIED BODY number 0637 in accordance with article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.  
The test results are recorded in the test report IB-03-3-009 of 19 December 2003.

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN 50014:1997/A1/A2, EN 50019:2000, EN 50018:2000 and EN 50281-1-1:1998/A1.

[10] If the sign „X“ is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified under [17] in the schedule to this EC-Type Examination Certificate.

[11] This EC-Type Examination Certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this directive apply to the manufacture and supply of this equipment.

[12] The marking of the equipment mentioned in [4] shall include the following:  
 **II 2 G EEx ed IIC T6**  **II 2 D IP 65 T 80 °C**  
 T<sub>a</sub> -30 °C up to +60 °C

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Authorised for certifications  
-Explosion protection-

By order

*Lothar*  
(Dr. Lösch)

**Schedule#**



Freiberg, 19 December 2003

Certificates without signature and seal are not valid. Certificates may only be duplicated completely and unchanged. In case of disputes the German text shall prevail.

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**Schedule**

[13] **to the EC-TYPE EXAMINATION CERTIFICATE IBEXU03ATEX1220**

[14] **Description of equipment**

With the Electrical position indicator type 1205 the positions „open“ and „closed“ are acquired in combination with pneumatic actuators. The position indicator consists of an aluminium enclosure in type of protection Increased safety with built in flameproof limit switches.

Technical data:

Rated voltage	up to	400 V
Rated operating voltage		250 V
Rated operating current		4 A
Utilisation category		AC-15 DC-13
Thermal rated current		6 A
Ambient temperature range		-30 °C up to +60 °C
Degree of protection according to EN 60529		IP 65

[15] **Test report**

The test results are recorded in the test report IB-03-3-009 of 19 December 2003. The test documents are listed in the annex to the test report.

Summary of the test results:

The Electrical position indicator type 1205 fulfils the Requirements of explosion protection for equipment group II and equipment category 2G and 2D.

Safety instructions

- The required degree of protection at least IP 54 resp. IP 6X during construction and operation is reached only at proper use of cable entries which are approved and confirmed for explosion protection. Not needed openings for cable entries have to be sealed with suitable screw plugs, which are confirmed for explosion protection.

[16] **Special conditions for safe use**

none

[17] **Essential Health and Safety Requirements**

Confirmed by compliance of standards (see [9]).

By order

*Lothar*  
(Dr. Lösch)

Freiberg, 19 December 2003

## Further electrical position indicators for valves with linear actuator e.g. diaphragm and globe valves

### GEMÜ 1215 - Position indicator with microswitch



The GEMÜ 1215 single position indicator is suitable for linear actuated valves where it shows 'open' position only, or on GEMÜ type 667 where it shows 'closed' position only. The unit also has optical indication.

### GEMÜ 1234 and 1235/1236 - Self-learning position indicators



The GEMÜ 1234 and 1235/1236 electrical position indicators have an automated programme for setting open/closed. In addition the operating voltage and the end positions are indicated by light emitting diodes.

### GEMÜ 1211 and 1231 Position indicators with proximity switch acc. to ATEX



The GEMÜ 1211 and 1231 electrical position indicators have one or two proximity switches for end position feedback which are mechanically adjustable. The devices are suitable for installation in Ex-proof applications acc. to ATEX. GEMÜ 1211 is suitable for mounting to linear actuators with a max. stroke of 70 mm. GEMÜ 1231 is suitable for mounting to linear actuators with a max. stroke of 20 mm.

### GEMÜ 1201 and 1230 Position indicator with microswitch



The GEMÜ 1201 and 1230 electrical position indicators have one or two microswitches for end position feedback which are mechanically adjustable. GEMÜ 1201 is suitable for mounting to linear actuators with a max. stroke of 70 mm. GEMÜ 1230 is suitable for mounting to linear actuators with a max. stroke of 20 mm.

### GEMÜ 1214 and 1232 - Position indicators with proximity switch



The GEMÜ 1214 and 1232 electrical position indicators have one or two proximity switches for end position feedback which are mechanically adjustable. GEMÜ 1214 is suitable for mounting to linear actuators with a max. stroke of 70 mm. GEMÜ 1232 is suitable for mounting to linear actuators with a max. stroke of 20 mm.

## Further electrical position indicators for valves with quarter turn actuator, e.g. butterfly and ball valves

### GEMÜ 1225 - Position indicator with microswitch



The GEMÜ 1225 electrical position indicator is suitable for mounting to quarter turn actuators of GEMÜ butterfly valves DN 15-50 mm in PVC-U, brass and stainless steel. In addition to electrical indication of end positions via switches the device has an optical LED position indication as standard.

For further electrical position indicators, accessories and other products, please see our Product Range catalogue and Price List.  
Contact GEMÜ.



**GEMÜ**® VALVES, MEASUREMENT  
AND CONTROL SYSTEMS