



Combi switchbox with integrated 5/2 way pilot valve

ATEX

Construction

The GEMÜ combi switchbox with integrated 5/2 way pilot valve is suitable for linear valves. It has a corrosion resistant plastic cover, a stainless steel base and two integrated proximity switches according to NAMUR EN 50227. The internal 5/2 way pilot valve is suitable for use in combination with single and double acting actuators. Switching rod and actuating spindle have a positive connection without axial play. The electrical connection is via cable gland.

Features

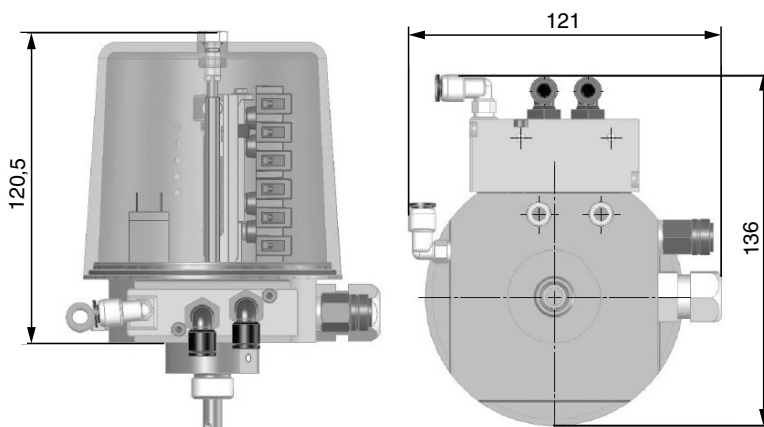
- ATEX-marking:
 -  II 2G IIB X
 -  II 2G EEx ia IIB T6-T4X
- Integrated 5/2 way low power pilot valve
- Both proximity switches can be continuously and precisely adjusted, independent of each other
- Device can be rotated through 360°

Advantages

- Simple mounting and retrofitting to GEMÜ linear actuators
- Mounting to other valve makes possible
- Compact design in a stable housing
- The switches are not subjected to wear, contactless detection
- Protection class IP 65 to EN 60529



Dimensions GEMÜ 4216 [mm]



Technical data

Operating conditions

Ambient temperature	-10°C to +50°C
Protection class	IP 65
Medium	Quality classes to DIN ISO 8573-1
Dust content	Class 3 (max. particle size 5 µm) (max. particle density 5 mg/m ³)
	Pressure dew point Class 4 (max. pressure dew point 3 °C)
Oil concentration	Class 3 (max. oil concentration 1 mg/m ³)

Intended for use with process valves whose opening / closing speed does not exceed 1 metre / second.
Metallically isolated components have to be connected to the potential earth via charge eliminators by the user (see directive 1999/92/EC (ATEX 137) and national provisions)

Proximity switch

Rated voltage	8 V NAMUR
Rated current, undamped	= 3 mA
Rated current, damped	< 1 mA
Max. switching frequency	1.0 kHz
Inductive proximity switch	P+F NJ 1,5-6,5-15N

Materials

Housing cover	Polysulfone PSU
Housing base	Stainless steel 1.4301
Guide piece	1.4305
Operating spindle	1.4104
Damping piece	1.4104

Solenoid valve

Rated voltage	24V DC -5% / +15%
Power consumption	0.1 W
Working pressure	4-7 bar

Electrical connection

Electrical connection	M16 cable gland
Cable diameter	5.5 to 10 mm
Recommended cross section of wire	0.75 mm ²
Potential equalisation	standed wire, yellow/green H07 V-K 4.0

Booster valve

Valve function	5/2 way
Flowrate (at 6 bar)	588 l/min
Working pressure	1,5 - 7 bar

Explosion protection

Marking according to ATEX:

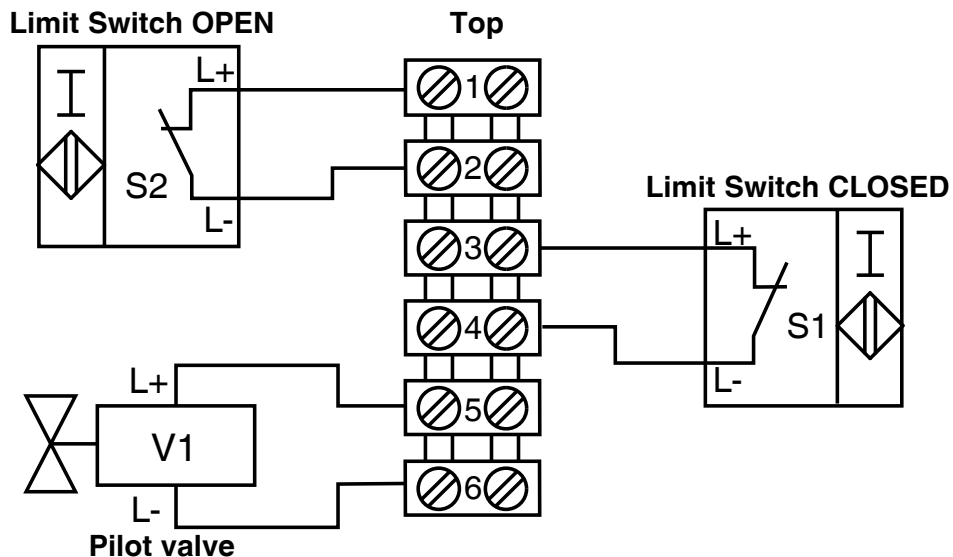
Mechanical device	II 2G IIB X
Electrical components	II 2G EEx ia IIB T6-T4X

Note on index X: The original manufacturer's EC type examination data for the electrical components of the intrinsically safe electrical circuit must be observed. Elektrische OEM-Komponenten:

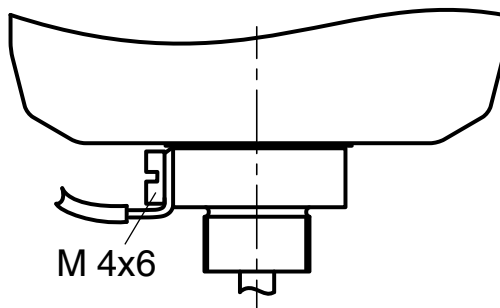
Electrical OEM-components:

Solenoid valve	ATEX marking	EEX ia IIC T6
	EC type examination certificate number	INERIS 00ATEX0031X
Proximity switch	ATEX marking	II 2G EEx ia IIC T6
	EC type examination certificate number	PTB 00 ATEX 2048 X
Cable gland	ATEX marking	II 2G EEx e II
	EC type examination certificate number	PTB 99 ATEX 3101 X
Terminal	ATEX marking	II 2G EEx e II or I M2 EEx e I
	EC type examination certificate number	PTB 99 ATEX 3117 U

Connection diagramm



Ground connection (Earth)

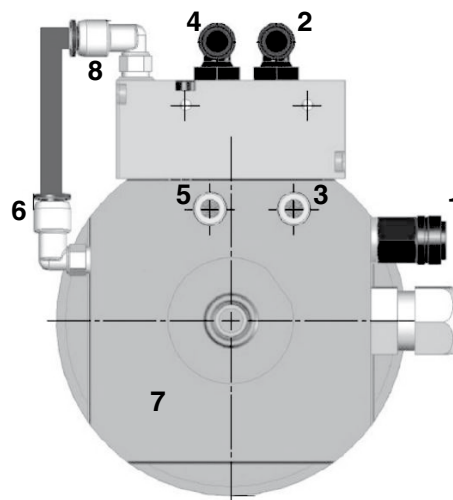


Pneumatic connections

Key	
1 (P)	air supply
2 (A)	outlet ctf. 1, 2, 3
3	exhaust air ctf. 1, 2, 3
4 (B)	outlet ctf. 3
5	exhaust air ctf. 3
6	outlet internal pilot valve
7	exhaust air internal pilot valve
8	control input booste rvalve

IMPORTANT

Air supply: 4...7 bar
 Attention: Note maximum control pressure of pneumatic valve actuator



Order data

Field bus		Code	Transmission (Feedback)		Code
Without		000	2 wire namur signal		20
Housing material		Code	Voltage (Pilot valve)		Code
Housing cover	Polysulfone PSU	05	Intrinsically safe 24V DC		01C1
Housing base	Stainless steel 1.4301				
Functional profile		Code	Pneumatic connection		Code
Position feedback OPEN/CLOSED, pilot valve		210	Pneumatic connection inlet and outlet 6mm angled		32
Electrical connection		Code	K-No.		Code
M16 cable gland		10	Special version		AT51

Order example	4216	000	Z	05	210	10	20	01C1	32	AT51
Type	4216									
Field bus system (Code)		000								
Accessories (Code)			Z							
Housing material (Code)				05						
Functional profile (Code)					210					
Electrical connection (Code)						10				
Transmission (Code)							20			
Voltage (Code)								01C1		
Weggeberlänge (Code)									32	
Anschlussart pneumatisch (Code)										AT51

Technical data sheet

Should there be any doubts or misunderstandings, the German version of this data sheet is the authoritative document!

Subject to alteration · 04/2016 · 88431595