New ex-proof solenoid generation
Reliable protection in potentially explosive areas

Approvals according to IEC / EN 60079-0

IP 66

Explosion group IIC

Engineering GREAT Solutions
Engineering GREAT solutions through people, products, innovation and service

IMI Precision Engineering is a world-leader in fluid and motion control. Building close, collaborative relationships with our customers, we gain a deep understanding of their engineering needs and then mobilise our resources and expertise to deliver distinctive products and solutions.

Wherever precision, speed and engineering reliability are essential, our global footprint, problem-solving capability and portfolio of high performance products enables us to deliver GREAT solutions which help customers tackle the world’s most demanding engineering challenges.

- **Reliability**
  We deliver and support our high quality products through our global service network.

- **High performance products**
  Calling on a world-class portfolio of fluid and motion control products including IMI Norgren, IMI Buschjost, IMI FAS, IMI Herlon and IMI Maxseal. We can supply these singly, or combined in powerful customised solutions to improve performance and productivity.

- **Partnership & Problem Solving**
  We get closer to our customers to understand their exact challenges.
All benefits at a glance

- Worldwide use is possible due to ATEX and IECEx approvals
- No restrictions in gas areas – Explosion group IIC
- Improved splash-water protection due to IP66
- Halving assembly time by using one central cover screw and exposable spring clamp terminals
- Consistent connection due to new terminal box design
- Variable cable connection side: thanks to terminal box cable outlet with 180° rotation
- Extended temperature ranges from -40 to +60 °C and power stages

Available from April 2018

Cover rotatable by 180 degrees

Easy to assemble
Reliable products for explosive environments

New ex-proof solenoid generation from IMI Buschjost with numerous advantages

Wherever even a small spark or a hot surface is enough to trigger a devastating explosion, an extensive protection against explosions for machinery and equipment is absolutely necessary. IMI Precision Engineering has developed special IMI Buschjost ex-proof solenoids for such environments. These have recently been revised completely – giving rise to a new generation of solenoids which will be available from April 2018 as new series 61xx and 62xx, and which will completely replace their old counterparts.

The easy-to-install explosion-proof solenoids from IMI Buschjost also stand out due to their easy handling: The cover is fastened with the help of a single central screw. This has accordingly replaced the old way of fastening which required four screws. Moreover, the cover can be rotated through 180 degrees, thus making the cable connection side adaptable. This is of great advantage in all areas where there is very little space available. In addition, a new terminal box design ensures that there is a standard connection which is uniform for all new generation solenoids. Easily accessible spring clamp terminals replace the encased mantle terminals of the previous versions and make it easy to attach the connecting cables.

Selected types of the new generation are equipped with the proven Twist-on® or Click-on® fastening technologies. Both systems allow a tool-free assembly of the solenoid. Twist-on® solenoids can be fastened with a simple push-and-rotate movement and they can be inserted in three different positions by turning the solenoid through 120 degrees. The Click-on® system holds the solenoid with a clip made from stainless steel securely in place, irrespective of the mounting position.

Clients who are currently using the old generation models can continue using them without any hesitation. Machinery and equipment can quickly and easily be converted to the new explosion-proof solenoids, if and when necessary.

The new generation of solenoids is designed according to the current versions of ATEX and IECEx guidelines. Unlike the earlier models of the older generation, which were only suitable for gases, mists and vapours belonging to explosion group IIB, the new solenoids were classified according to IEC standards. Their use is therefore unrestricted. The protection class was successfully raised from IP65 to IP66 and the solenoids are now characterised by an improved splash-water protection.

Following the redesign, there have been changes in the operational temperature range: Whereas the older solenoid generation covered temperatures between -20 and +40 degrees Celsius, the new models are suitable for -40 to +60 degrees Celsius. Furthermore, the new power stages in every series offer higher flexibility and allow operation even at smaller nominal ratings – very much in line with the motto: “As much as necessary but as little as possible”. This saves power and lowers operating costs.
New ex-proof solenoid generation from IMI Buschjost

Solenoid type 6106
- Electrical power: 8 W
- Temperature class: T4
- Connection: M16 x 1,5
- Body: Polymer
- Ambient temperature: -20 ... +45 °C
- Voltage range: 12 ... 250 V
- Rated frequency: 40 ... 60 Hz

Solenoid types 6120 ... 6126
- Electrical power: 14 ... 18 W
- Temperature class: T3 ... T4
- Connection: M16 x 1,5
- Body: Polymer
- Ambient temperature: -20 ... +40 °C
- Voltage range: 12 ... 250 V
- Rated frequency: 40 ... 60 Hz

Solenoid types 6140 ... 6146
- Electrical power: 14 ... 18 W
- Temperature class: T3 ... T4
- Connection: M16 x 1,5
- Body: Polymer
- Ambient temperature: -20 ... +40 °C / +50 °C
- Voltage range: 12 ... 250 V
- Rated frequency: 40 ... 60 Hz

Solenoid types 6170 ... 6176
- Electrical power: 9 ... 12 W
- Temperature class: T3 ... T4
- Connection: M16 x 1,5
- Body: Polymer
- Ambient temperature: -20 ... +40 °C / +50 °C
- Voltage range: 12 ... 250 V
- Rated frequency: 40 ... 60 Hz
Solenoid types 6190 ... 6196
- Electrical power: 9 ... 12 W
- Temperature class: T3 ... T4
- Connection: M16 x 1,5
- Body: Polymer
- Ambient temperature: -20 ... +40 °C / +45 °C
- Voltage range: 12 ... 250 V
- Rated frequency: 40 ... 60 Hz

Solenoid types 6200 ... 6206
- Electrical power: 9 ... 12 W
- Temperature class: T3 ... T4
- Connection: M16 x 1,5
- Body: Polymer
- Ambient temperature: -20 ... +40 °C / +45 °C
- Voltage range: 12 ... 250 V
- Rated frequency: 40 ... 60 Hz

Solenoid types 6220 ... 6226
- Electrical power: 16 ... 22 W
- Temperature class: T3 ... T4
- Connection: M16 x 1,5
- Body: Polymer
- Ambient temperature: -20 ... +40 °C / +65 °C
- Voltage range: 12 ... 250 V
- Rated frequency: 40 ... 60 Hz

Solenoid types 6240 ... 6246
- Electrical power: 32 ... 40 W
- Temperature class: T3 ... T4
- Connection: M16 x 1,5
- Body: Polymer
- Ambient temperature: -20 ... +40 °C / +60 °C
- Voltage range: 12 ... 250 V DC / 24 ... 250 V AC
- Rated frequency: 40 ... 60 Hz
1:1 replacement

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Variations and special solutions

Do you need a special type of solenoid that is not covered by the IMI Buschjost standard portfolio? Further versions are available on request.

- Further power stages
- Variations for ambient temperatures between −40 ... +60 °C

Is there a need for customised valves?

Send an email to buschjost@imi-precision.com
or call +49 (0) 5791 / 739 - 0.
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