

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

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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 Herion 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



*Cover rotatable by
180 degrees*

*Available from
April 2018*



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 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 IIC 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.

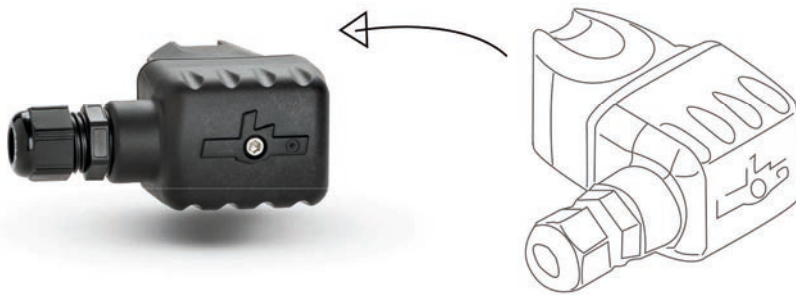
Following the redesign, there have also been changes in the operational temperature range: Whereas the older solenoid generation covered temperatures between -20 and +40 degrees Celsius, the new models are suitable for -40 to +60 degrees Celsius. Furthermore, the new power stages in every series offer 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.

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 to 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.

New ex-proof solenoid generation from IMI Buschjost

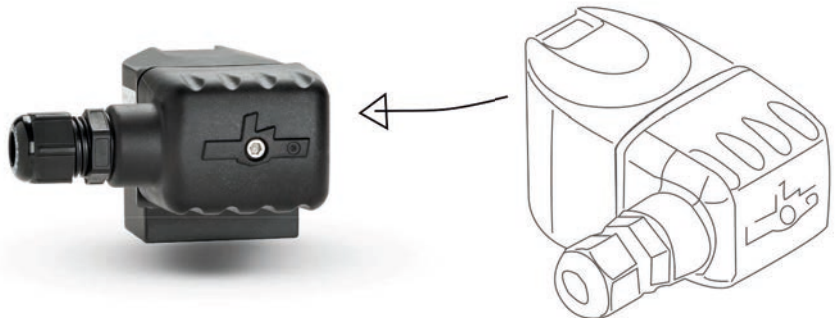


Solenoid type 6106

- > 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

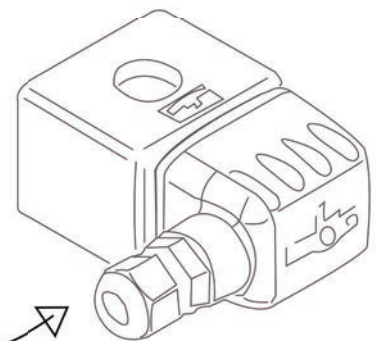
Solenoid types 6120 ... 6126

- > 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



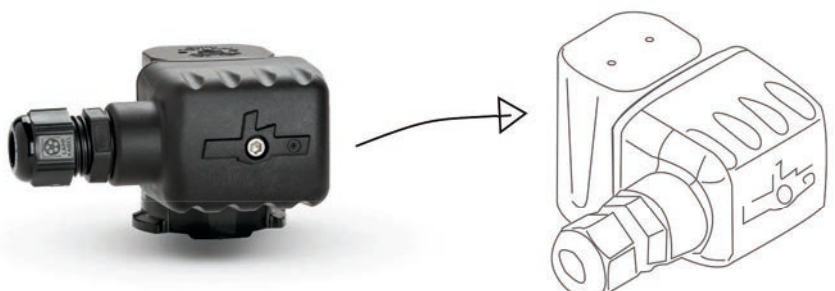
Solenoid types 6140 ... 6146

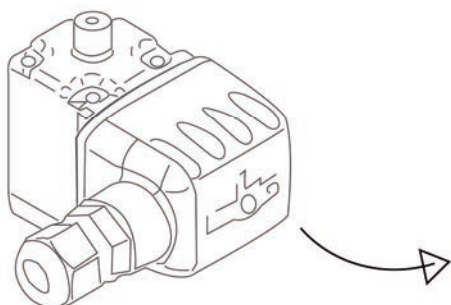
- > Electrical power: 14 ... 18 W
- > Temperature class: T3 ... T4
- > Connection: M16 x 1,5
- > Body: Polymer
- > Ambient temperature: -20 ... +40 °C / +50 °C
- > Voltage range: 12 ... 250 V
- > Rated frequency: 40 ... 60 Hz



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





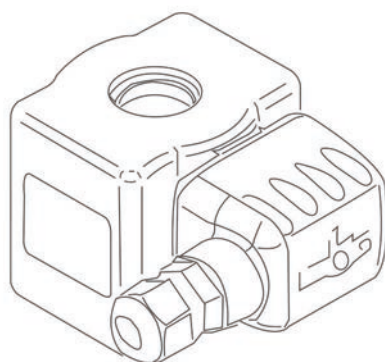
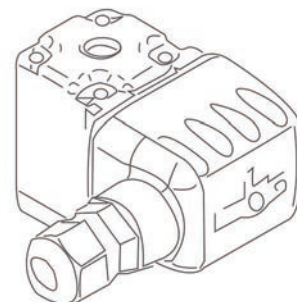
Solenoid types 6190 ... 6196

- > 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

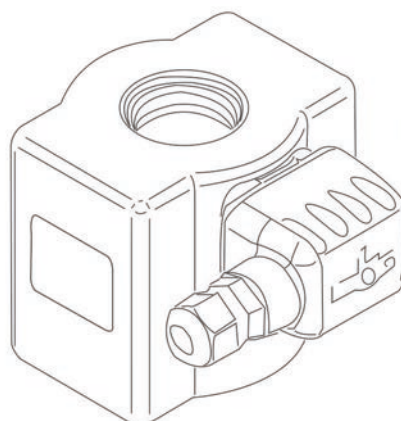


Solenoid types 6220 ... 6226

- > Electrical power: 16 ... 22 W
- > Temperature class: T3 ... T4
- > Connection: M16 x 1,5
- > Body: Polymer
- > Ambient temperature: -20 ... +40 °C / +55 °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 / +50 °C
- > Voltage range: 12 ... 250 V DC / 24 ... 250 V AC
- > Rated frequency: 40 ... 60 Hz



1:1 replacement

Old solenoid type	New solenoid type	ATEX protection class	IP protection class
9136	6106	II 2G Ex eb mb IIC T4 Gb II 2D Ex mb tb IIIB T125°C Db	IP66
9186	6126	II 2G Ex eb mb IIC T4 Gb II 2D Ex mb tb IIIB T125°C Db	IP66
9191	6120	II 2G Ex eb mb IIC T3 Gb II 2D Ex mb tb IIIB T140°C Db	IP66
9350	6146	II 2G Ex eb mb IIC T4 Gb II 2D Ex mb tb IIIB T125°C Db	IP66
9356	6140	II 2G Ex eb mb IIC T3 Gb II 2D Ex mb tb IIIB T135°C Db	IP66
8186	6176	II 2G Ex eb mb IIC T4 Gb II 2D Ex mb tb IIIB T135°C Db	IP66
8191	6170	II 2G Ex eb mb IIC T3 Gb II 2D Ex mb tb IIIB T140°C Db	IP66
8136	6196	II 2G Ex eb mb IIC T4 Gb II 2D Ex mb tb IIIB T135°C Db	IP66
8141	6190	II 2G Ex eb mb IIC T3 Gb II 2D Ex mb tb IIIB T150°C Db	IP66
8036	6206	II 2G Ex eb mb IIC T4 Gb II 2D Ex mb tb IIIB T135°C Db	IP66
8042	6202	II 2G Ex eb mb IIC T3 Gb II 2D Ex mb tb IIIB T150°C Db	IP66
8041	6200	II 2G Ex eb mb IIC T3 Gb II 2D Ex mb tb IIIB T150°C Db	IP66
8336	6226	II 2G Ex eb mb IIC T4 Gb II 2D Ex mb tb IIIB T125°C Db	IP66
8341	6220	II 2G Ex eb mb IIC T3 Gb II 2D Ex mb tb IIIB T135°C Db	IP66
8436	6246	II 2G Ex eb mb IIC T4 Gb II 2D Ex mb tb IIIB T125°C Db	IP66
8441	6240	II 2G Ex eb mb IIC T3 Gb II 2D Ex mb tb IIIB T140°C Db	IP66

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) 5731 / 791 - 0.
We are pleased to be at your service!

IMI Precision Engineering operates four global centres of technical excellence and a sales and service network in 75 countries, as well as manufacturing capability in the USA, Germany, China, UK, Switzerland, Czech Republic, Mexico and Brazil.

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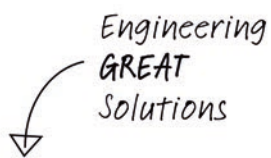


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