Product Note, PN 437
Pressure Regulator Preset Options

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Pressure regulators are available with a variety of preset adjustment options. The purpose of this document is to explain the various options and how to properly specify each in a model number.

Preset defines a regulator with a fixed pressure adjustment. The adjustment knob is eliminated. The regulators generally still remain adjustable, though tools are required to make any adjustment. Presets are specified to maintain delivery pressure, reducing the opportunity for readjustment. Preset is also recommended for tied diaphragm regulators delivering higher than 150 psig (10 bar). The reason for this is to reduce risk of pressure being trapped (downstream pressure, no flow and pressure adjustment lowered to zero) resulting is seat damage (refer to PN 402 for further explanation).

AP, AZ & AK 1225 and AP 9030 are preset models defined by their data sheets and require no further designations. Though PS suffix is not required for default preset parameters, it may be added.

PS suffix is used to define preset with specific inlet and outlet pressures. Due to supply pressure effect (refer to PN 403 for further SPE explanation), one must specify the inlet pressure at which the outlet pressure is set. For example, the proper designation of PS 100/30 means the regulator is adjusted to 30 psig (2 bar) outlet with 100 psig (7 bar) inlet and without flow.

The most common request is for preset pressure setting without flow. To specify outlet pressure setting with flow, one must request a designation. In this case PS is followed by three digits which are merely sequential log numbers. One must provide inlet pressure, outlet pressure and flow rate when requesting PS under flowing conditions.

The standard preset configuration is a stem locked in place with a jam nut and capped with an acorn nut. A tamper proof version, specified by adding C after PS, is available. The PSC provides a plastic cap which must be broken to readjust the regulator.

Some customers prefer to adjust preset pressures themselves. Adding R to PS, for PSR, without any digits following specifies a regulator that is preset ready, but not adjusted to any given settings.

KT series regulators are also available preset. The convention to specify is different due to the long numbers associated with the pressure ranges of the KT series. Preset is designated with an OS followed by a sequential number from a log. One must provide inlet and outlet pressures for preset adjust when requesting OS number.

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