

Data Sheet

Intrinsically Safe Pressure Pilots Control

Series 90



For more than 40 years, Danfoss has been developing state-of-the-art components and systems for mobile machinery used in off-highway operations around the world. We have become a preferred supplier by offering the best of what really matters: The hardware inside your vehicle application.

This line of Intrinsically Safe Pressure Control Pilots receives a low current input signal from a variety of machine controllers and converts the current signal into a proportional differential pressure signal suitable to control larger hydraulic equipment in hazardous locations. The intrinsically safe controls can be added to a Series 90 pump as a standard option or purchased separately.

Danfoss offers five different models of intrinsically safe pressure control pilots to accommodate a variety of standard industrial process controllers. Various combinations of hydraulic nozzle sizes and coil resistances yields a relationship between electrical current (input) and hydraulic differential pressure (output).



Features

- Standard manual override
- Withstands mobile equipment vibration and shock conditions
- Controls both pilot-operated pumps/ motors and main spool valves
- Standard MS-style connector
- Self-contained pressure feedback
- Constant scale factor with varying pilot pressure
- Can be used in either closed loop or open loop systems

Comprehensive technical literature online
at powersolutions.danfoss.com

Specifications

NEC 500 Rating: Exi, Class I, Division 1, Groups C & D, T4

- Exi – Intrinsically Safe Explosion Protected
- Class I – Gas applications as defined by Gas Group Designation
- Division 1 – Area Classification, Gases defined by Gas Group Designation may be present more than 1000 hours per year
- Gas Group Designation C & D – Approved for use in Ethylene and Propane Applications
- T4 – This equipment will not exceed 135°C under normal operating conditions

NEC 505 Rating: Class I, Zone 0, Ex ia / AEx ia, Gas Group IIB, T4

- Class I – Gas applications as defined by Gas Group Designation
- Zone 0 – Area Classification, Gases defined by Gas Group Designation may be present more than 1000 hours per year
- Ex ia / AEx ia – Intrinsically Safe Explosion Protected
- Gas Group Designation IIB - Approved for use in Ethylene and Propane Applications
- T4 – This equipment will not exceed 135°C under normal operating conditions

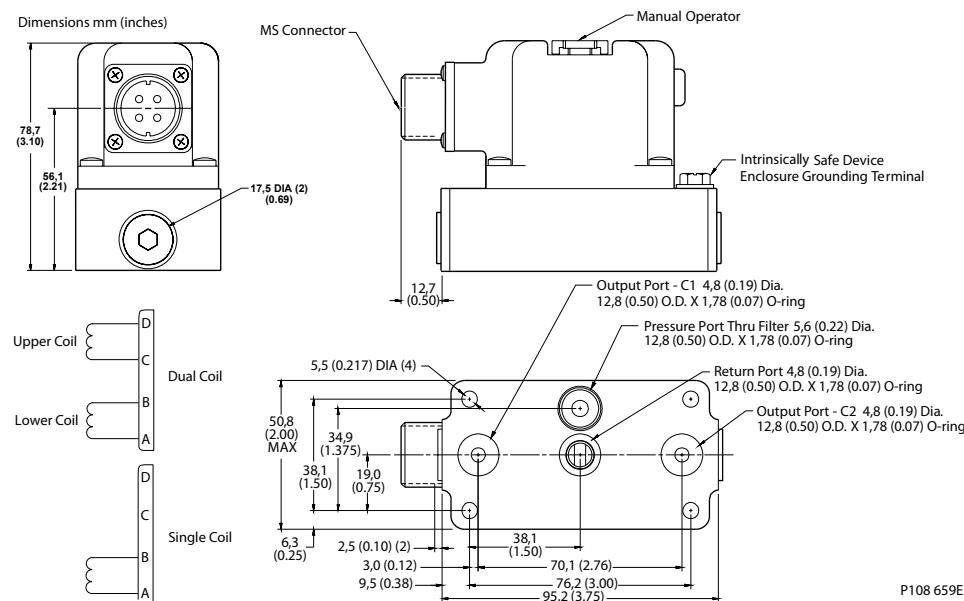
ATEX Rating per IEC 60079-11: Equipment Group II, Equipment Category 1, Environment G, Ex, ia, IIB, T4

- Equipment Group II – Non-Mining Applications
- Equipment Category 1 – Hazardous material defined by Environment Designation may be present more than 1000 hours per year
- Environment G – Gases defined by Gas Group Designation
- Ex – Explosion Protected Equipment
- ia – Intrinsically Safe Protection Method
- Gas Group Designation IIB - Approved for use in Ethylene and Propane Applications
- T4 - This equipment will not exceed 135°C under normal operating conditions

IECEx Rating per IEC 60079-11: Ex ia, Gas Group IIB, T4 - Temperature Rating, Ga - Zone 0

- Ex – Explosion Protected Equipment
- ia – Intrinsically Safe Protection Method
- Gas Group Designation IIB - Approved for use in Ethylene and Propane Applications
- T4 – This equipment will not exceed 135 deg C under normal operation conditions
- Ga – Area Classification, Gases defined by Gas Group Designation may be present more then 1000 hours per year

Schematic



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