Gas Safety Valve Train Engineering Specification

Project Title: KromAmericas Gas Safety Valve Train
Date: January 18, 2024
Revision: 1.0

1. Introduction

1.1. Purpose

1.1.1. This engineering specification outlines the requirements for the painting, inspection and testing, junction box, and the components of the gas safety valve train.

1.2. Scope

1.2.1. This specification includes the surface preparation, painting specifications, inspection and testing procedures, junction box specifications, and details of the gas safety valve train components.

2. Painting

2.1. Gas Safety Valve Trains

2.1.1. Surface preparation: Solvent wipe

2.1.2. Base coat: Gray metal primer

2.1.3. Paint color: OSHA Safety Yellow

2.2. Prewire Brackets

2.2.1. Supplied pre-painted white from the manufacturer.

3. Inspection and Testing

3.1. After assembly is completed, both visual inspection and leak testing will be completed per the procedure laid out herein.

4. Junction Box

4.1. Specifications

4.1.1. Dimensions: 20”x16”x8”

4.1.2. NEMA Rating: NEMA4

4.1.3. Color: Grey powder coat

4.1.4. Terminals: Euro style spring terminals with 10 spares included

4.1.5. Bracket: Channel strut

4.1.6. Pillow block holders on channel to connect valve train

4.1.7. Multi-conductor cable from junction box to components

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4.1.7.1. Wire specifications:
4.1.7.1.1. Type MTW stranded copper wire
4.1.7.1.2. Voltage: 600V
4.1.7.1.3. Maximum temperature: 90° C / 194° F
4.1.7.1.4. Minimum temperature: -40° C/F
4.1.7.2. Rubber cord grip for enclosure and component connections
4.1.7.3. Wired per KromAmericas valve train schematic

5. Valve Train Components

5.1. Standard Features
5.1.1. KVTS single outlet pressure gauge
5.1.2. KVTR inlet and outlet pressure gauges
5.1.3. Push to test valves on pressure gauges
5.1.4. Test ports
5.2. Optional Features
5.2.1. Drip leg: Three times the pipe diameter
5.2.2. Y strainer: Bronze construction

6. Documentation

6.1. Drawings and Schematics
6.1.1. Detailed drawings of assembly and electrical schematics included with assemblies.
6.2. Manuals and User Guides
6.2.1. Equipment manufacturers manuals and user guides for installation, operation and maintenance included with assemblies.

7. Testing and Validation

7.1. Acceptance Criteria
7.1.1. Gas safety valve train will be pressure tested per the testing procedure defined herein.
7.1.2. Visual inspection by KromAmericas technical staff prior to release.
7.1.3. All Kromschroder component testing is performed by the manufacturer prior to shipping from the factory.
7.2. Testing Procedures:
7.2.1. Test mandrels will be attached to both inlet and outlet of the gas safety valve train.
7.2.2. Valves will be energized as necessary to perform proper testing of all external seals.
7.2.3. Valve train will be pressurized to 5 PSI and then isolated.
7.2.4. Pressure will be monitored 30 seconds for a pressure degradation of greater than 2.5 PSI.

7.2.5. If the assembly does not degrade greater than 2.5 PSI, the assembly will be accepted as passing.

8. Approval

8.1. Approval Process

8.1.1. Approval will be noted on an inspection sheet by KromAmericas technical staff.

9. Revision History

9.1. Revision 0.0 – Draft version

9.2. Revision 1.0 – Final version

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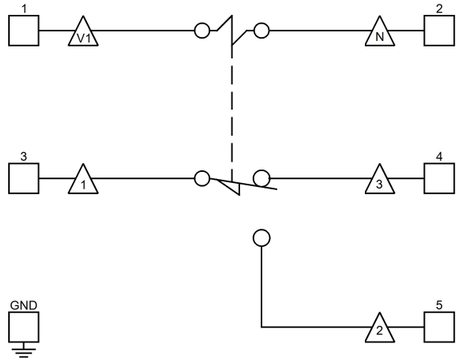
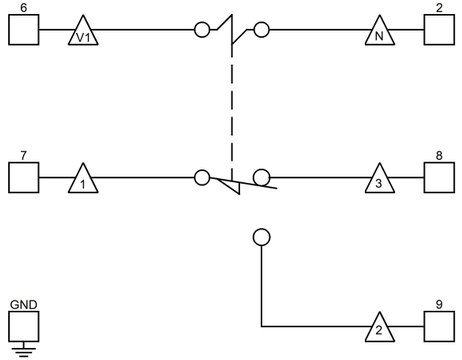
MAIN VALVE
SSOV1

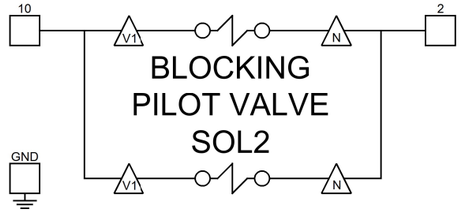


BLOCKING VALVE
SSOV2

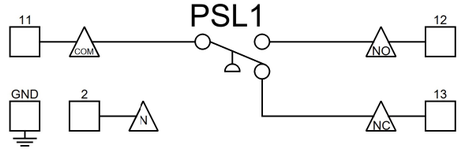


MAIN
PILOT VALVE
SOL1

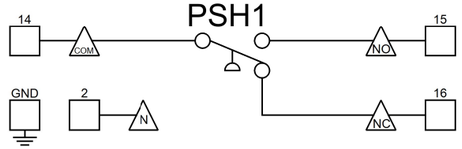
BLOCKING
PILOT VALVE
SOL2

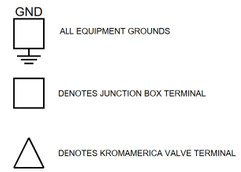


LOW GAS
PRESSURE
PSL1



HIGH GAS
PRESSURE
PSH1





NOTES:

1. IF PRESENT, WIRE AS SHOWN, NOT ALL SYSTEMS WILL INCLUDE A PILOT TRAIN
2. INDICATOR LIGHTS MAY NOT EXIST ON ALL SWITCHES

REVISIONS			
DESCRIPTION	REV. DATE	APPROVAL ENGINEER	APPROVAL DRFTMN

KROMAMERICAS
kromamericas
INDIANAPOLIS INDIANA

CUSTOMER NAME

WIRING SCHEMATIC

ENGINEERED BY: TSS	ENGINEERING DATE: 1/9/24	DRAWING ID:	
DRAWN BY: TSS	DRAWING DATE: 1/9/24	SHEET #: 1 OF 1	
SIZE B	REVISION NUMBER / DATE:	REVIEWED BY:	