

TECHNICAL REPORT

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A Technical Report prepared by ISA and registered with ANSI

**Partial Stroke Testing of
Automated Block Valves**

Approved 4 May 2008

ANSI/ISA-TR96.05.01
Partial Stroke Testing of Automated Block Valves

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Foreword

The information contained in ANSI/ISA-TR96.05.01 is intended for information purposes only and is not part of the ISA96 Standard requirements. ANSI/ISA-TR96.05.01 provides guidance on various criteria to consider when determining whether partial stroke testing would be beneficial and on the different methods used to partial stroke test automated block valves. The users of ANSI/ISA-TR96.05.01 include

- owner/operators who use automated block valves in operating environments requiring partial stroke testing to support the block valve mechanical integrity;
- designers who identify automated block valve applications whose potential failure rate in the operating environment indicates the need for more frequent proof testing than supported by the operability and maintainability requirements; and
- operations and maintenance personnel who need to understand how partial stroke testing is performed and what it indicates about the mechanical integrity of an automated block valve.

The user of this document should be familiar with the operation of automated block valves and with the quantitative analysis of its average probability of failure on demand (PFD_{AVG}). The quantitative analysis is discussed in ISA-TR84.00.02 (ref. 2.3) and in CCPS/AIChE *Guidelines for Safe and Reliable Instrumented Protective Systems* (ref. 2.1).

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