

**CURTISS -
WRIGHT**



inSure[®] Valve Monitoring Device

Real-Time Monitoring of Farris 2600
Pressure Relief Valves

Focused On Customer Solutions

Our Commitment; Provide customers with total pressure and flow control management solutions transforming and ensuring plant function and safety.

Experienced Sales and Engineers

To support and engineer solutions

Service Support

Providing entire life cycle solutions

Innovative Tools

To calculate the accurate solution

Superior Product

Valves for the appropriate solution



Factory Authorized Service Team and Sales Representative Network

- Factory trained technicians in OEM specifications
- Local service and in-line testing reducing maintenance cost.
- Capability to track and manage relief valve maintenance and repair history
- Access to sales network and keeping global inventory local

Contact Us

valves.curtisswright.com



Company Profile

Curtiss-Wright Corporation (NYSE: CW) has a long history with its roots dating back to Orville and Wilbur Wright's first flight in 1903, and Glenn Curtiss, the father of naval aviation. In 1929, the companies founded by these three great aviation pioneers, the Curtiss Aeroplane and Motor Company and Wright Aeronautical Corporation, merged to form the largest aircraft company at the time, Curtiss-Wright Corporation.

We have continued on the path of innovation and advanced engineering, and have applied that expertise to a number of critical applications in high-performance markets. Our success has resulted in a world-renowned reputation for performance, long-standing customer relationships and significant growth.

Today, we are a global, integrated provider of highly engineered, technologically advanced products and services. Our revenues are generated by providing our critical solutions through three segments: Aerospace & Industrial, Defense Electronics and Naval & Power, which support several of the largest, most vital industries in the world.



Real-Time Monitoring of Your Pressure Relief Valves

The inSure® Monitoring Device detects pressure events by measuring valve stem movement and recording critical data to report fugitive emissions more accurately. It can also provide data driven insights to detect unstable flow in challenging applications to troubleshoot your system and reduce maintenance costs.

Features

- Detect and record pressure relief events to improve data acquisition and flow calculations
- Connect to DCS via wired or wireless communication
- Install easily with no penetration of valve pressure boundary
- Use in hazardous locations with intrinsic safety certification
- Powered by replaceable battery
- Retrofit to 2600 Series valve or purchase complete valvewith factory installed monitor



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Materials of Construction

The inSure Device comes fully assembled with key components defined below, for installation, setup and calibration.

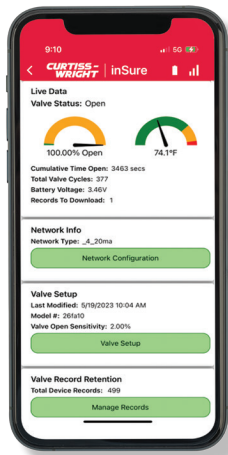
inSure Monitoring Device

	Description	Qty.
1	Enclosure Body	1
2	Sensor Alignment Module	1
3	Clamp Screws	4
4	Enclosure Clamp	1
5	Cable Gland or Antenna Bulkhead	1
6	Battery Module	1
7	Nameplate	1
8	Enclosure Cover	1
9	Cover Screws	4
10	Sensor Alignment Module Screws	2
11	Battery Connection	1
12	Battery Screws	2
13	Wireless Antenna	1
14	Magnet Holder - Small, Medium, Large	2
15	Magnet Wave Washer	1
16	Magnet	1
17	Replacement Cap	1

Magnet Assembly

Small Medium Large

Communication Protocol



inSure® App

The inSure device utilizes Bluetooth connectivity with the CW inSure App to calibrate the unit and provide live valve status of pressure events including time, temperature, battery voltage, valve open or closed, % open, and lift. This data can then be used to calculate volume of relief event emissions. Each unit can store 180MB of data that can be exported from the app.

Wired or Wireless Distributed Control System (DCS)

Communication with your DCS is achieved through multiple protocols. The product offers a wired 4-20mA version, and WirelessHART® or ISA100Wireless™ for wireless connectivity. If using wireless communication, Bluetooth functionality will be disconnected since only one wireless protocol is active at one time.

Refer to the Installation Operation and Maintenance Manual for more information.

- ISA100 Wireless
- WirelessHART



- Wired 4-20mA



Product Specification

Product Description	
Pressure Range:	Atmospheric
Size Range:	7" x 4" x 3" 178 x 102 x 76mm
Weight:	3 lb.
Communication Protocol	4-20mA, WirelessHART, ISA100 Wireless
Data Interface	Wired or Wireless
Power Source	Battery
Device Data Storage	180MB
Sampling Rate	1 per Second
Certifications	See back page of catalog

Type Numbering System

Retrofit kits can be installed on many Farris 2600 Series pressure relief valve with plain cap. This kit includes a monitor, battery, magnet, magnet holder, wave washer, replacement low ferrite stainless steel cap, and cap gasket.

4KMON26	S	S	M-	W84
Kit Number	Stem Thread Size	Cap Size	Communication Protocol	Cap Material
4KMON26	S Small	S Small	M Wired 4-20 mA	W84 Stainless Steel inSure Cap
	M Medium	L Large	H WirelessHART®	
	L Large		S ISA100 Wireless™	

Kit Number Examples:

4KMON26SSM-W84: Monitor retrofit kit for a 2600 Series D orifice valve with 150# flange class, 4-20mA communication protocol, and the standard stainless steel inSure cap.

4KMON26MSH-W84: Monitor retrofit kit for a 2600 Series F orifice with 300# flange class, WiHart communication protocol, and the standard stainless steel inSure cap.

4KMON26LLS-W84: Monitor retrofit kit for a 2600 Series L orifice with 600# flange class, ISA100 communication protocol, and the standard stainless steel inSure cap.

Factory Installed Monitor

The inSure Monitor can be purchased with a 2600 Series Valve as a complete unit, installed and calibrated at the factory. Choose the 2600 Series Valve to for your application and replace the “Cap Construction” character with the following designator based on your communication protocol:

- M Wired 4-20mA protocol
- H WirelessHART protocol
- S Wireless ISA100 protocol

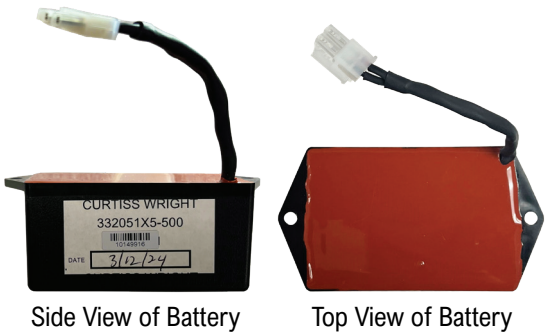
Model Number Examples:

26DA10-1M0: 26DA10-120 valve with inSure 4-20mA monitor factory installed and calibrated.

26GA13-1H0: 26GA13-120 valve with inSure WirelessHart monitor factory installed and calibrated.

Authorized Replacement Parts

inSure Battery Kits		
Part Number	Description	Qty.
332051X6-500	Battery Module, Spare Screws and Spacers	1
332051X5-500	Battery Module Only	1



Farris 2600 Series Retrofit Kit Selection

Table 1: Monitor Selection for Air/Gas/Steam Service (Serial Suffix: A10, A11, A10R, A11R)

Valve Type Number	Flange Class	Orifice Size						
		D	E	F	G	H	J	K
26()10	150#	4KMON26SS()-()	4KMON26SS()-()	4KMON26SS()-()	4KMON26SS()-()	4KMON26SS()-()	4KMON26MS()-()	4KMON26MS()-()
26()11	300# LW	4KMON26SS()-()	4KMON26SS()-()	4KMON26SS()-()	4KMON26SS()-()	4KMON26SS()-()	4KMON26MS()-()	4KMON26MS()-()
26()12	300#	4KMON26SS()-()	4KMON26SS()-()	4KMON26MS()-()	4KMON26MS()-()	4KMON26MS()-()	4KMON26MS()-()	4KMON26MS()-()
26()13	600#	4KMON26SS()-()	4KMON26SS()-()	4KMON26MS()-()	4KMON26MS()-()	4KMON26MS()-()	4KMON26MS()-()	4KMON26LL()-()
26()14	900#	4KMON26MS()-()	4KMON26MS()-()	4KMON26MS()-()	4KMON26MS()-()	4KMON26MS()-()	4KMON26LL()-()	4KMON26LL()-()
26()15	1500#	4KMON26MS()-()	4KMON26MS()-()	4KMON26MS()-()	4KMON26MS()-()	4KMON26MS()-()	4KMON26LL()-()	4KMON26LL()-()
26()16	2500#	4KMON26MS()-()	4KMON26MS()-()	4KMON26MS()-()	4KMON26MS()-()			

Valve Type Number	Flange Class	Orifice Size						
		L	M	N	P	Q	R	T
26()10	150#	4KMON26MS()-()	4KMON26MS()-()	4KMON26MS()-()	4KMON26MS()-()	4KMON26LL()-()	4KMON26LL()-()	4KMON26LL()-()
26()11	300# LW	4KMON26MS()-()	4KMON26MS()-()	4KMON26MS()-()	4KMON26MS()-()	4KMON26LL()-()	4KMON26LL()-()	4KMON26LL()-()
26()12	300#	4KMON26LL()-()	4KMON26LL()-()	4KMON26LL()-()	4KMON26LL()-()	4KMON26LL()-()	4KMON26LL()-()	4KMON26LL()-()
26()13	600#	4KMON26LL()-()	4KMON26LL()-()	4KMON26LL()-()	4KMON26LL()-()	4KMON26LL()-()	4KMON26LL()-()	4KMON26LL()-()
26()14	900#	4KMON26LL()-()	4KMON26LL()-()	4KMON26LL()-()	4KMON26LL()-()			
26()15	1500#	4KMON26LL()-()						
26()16	2500#							

Table 2: Monitor Selection for Liquid Service (Serial Suffix: A14, A15, A14R, A15R)

Valve Type Number	Flange Class	Orifice Size						
		D	E	F	G	H	J	K
26()10	150#	4KMON26SS()-()	4KMON26SS()-()	4KMON26SS()-()	4KMON26SS()-()	4KMON26SS()-()	4KMON26MS()-()	4KMON26MS()-()
26()11	300# LW	4KMON26SS()-()	4KMON26SS()-()	4KMON26SS()-()	4KMON26SS()-()	4KMON26SS()-()	4KMON26MS()-()	4KMON26MS()-()
26()12	300#	4KMON26SS()-()	4KMON26SS()-()	4KMON26MS()-()	4KMON26MS()-()	4KMON26MS()-()	4KMON26MS()-()	4KMON26MS()-()
26()13	600#	4KMON26SS()-()	4KMON26SS()-()	4KMON26MS()-()	4KMON26MS()-()	4KMON26MS()-()	4KMON26LL()-()	4KMON26LL()-()
26()14	900#	4KMON26MS()-()	4KMON26MS()-()	4KMON26MS()-()	4KMON26MS()-()	4KMON26MS()-()	4KMON26LL()-()	4KMON26LL()-()
26()15	1500#	4KMON26MS()-()	4KMON26MS()-()	4KMON26MS()-()	4KMON26MS()-()	4KMON26MS()-()	4KMON26LL()-()	4KMON26LL()-()
26()16	2500#	4KMON26MS()-()	4KMON26MS()-()	4KMON26MS()-()	4KMON26MS()-()			

Valve Type Number	Flange Class	Orifice Size						
		L	M	N	P	Q	R	T
26()10	150#	4KMON26MS()-()	4KMON26LL()-()	4KMON26LL()-()	4KMON26LL()-()	4KMON26LL()-()	4KMON26LL()-()	4KMON26LL()-()
26()11	300# LW	4KMON26MS()-()	4KMON26LL()-()	4KMON26LL()-()	4KMON26LL()-()	4KMON26LL()-()	4KMON26LL()-()	4KMON26LL()-()
26()12	300#	4KMON26LL()-()	4KMON26LL()-()	4KMON26LL()-()	4KMON26LL()-()	4KMON26LL()-()	4KMON26LL()-()	4KMON26LL()-()
26()13	600#	4KMON26LL()-()	4KMON26LL()-()	4KMON26LL()-()	4KMON26LL()-()	4KMON26LL()-()	4KMON26LL()-()	4KMON26LL()-()
26()14	900#	4KMON26LL()-()	4KMON26LL()-()	4KMON26LL()-()	4KMON26LL()-()			
26()15	1500#	4KMON26LL()-()						
26()16	2500#							



CURTISS-WRIGHT VALVES

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Offices Worldwide: For a listing of our global sales network, visit our website at valves.curtisswright.com/en-us/global-supplier-network.

Warranty

All Products have a Warranty Period of twelve months from first installation or eighteen months from delivery, whichever is sooner. All other warranty terms are as per Curtiss-Wright Flow Control Corporation's Standard Terms and Conditions of Sale, a copy which is available at valves.curtisswright.com/en-us/terms or contact your local representative.

Certifications, Compliances and Approvals

- **USA/Canada:** IS, Class I, Div 1, Groups A, B, C, D T3
- **Europe (ATEX):** Group II, Cat 1 G, Ex ia IIC T3 Ga
- **International (IECEX):** Ex ia IIC T3 Ga
- **Ingress Protection:** IP66

Environmental Conditions:

This equipment approved for outdoor use and wet locations.

- Altitude limit of 2000 M
- Temperature range of -40°C to 60°C
- Relative Humidity: 10-90% non-condensing
- Pollution degree: 4



NA: CSA 24CA80199237X
IECEX: IECEX CSA 24.0025X
ATEX: CSANe 24 ATEX 1120X

FCC

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

While this information is presented in good faith and believed to be accurate, Curtiss-Wright Corporation, Valve Division does not guarantee satisfactory results from reliance on such information. Nothing contained herein is to be construed as a warranty or guarantee, expressed or implied, regarding the performance, merchantability, fitness or any other matter with respect to the products, nor as a recommendation to use any product or process in conflict with any patent. Curtiss-Wright Corporation, Farris Engineering reserves the right, without notice, to alter or improve the designs or specifications of the products described herein.