

# ANNUNCIATOR

NOVEMBER 1994



SARNIA



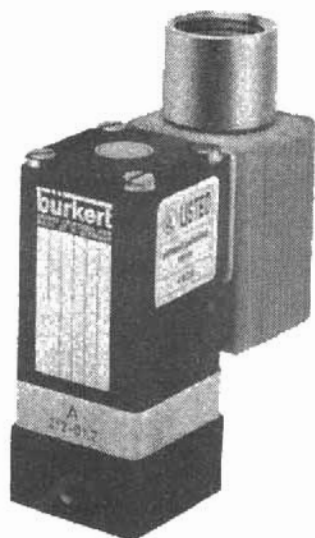
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### CLASSES

Class I

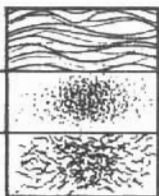
Gas

Class II

Dust

Class III

Fibers



### DIVISIONS

1

Normal



2

Abnormal



### GROUPS

ABCD



EFG

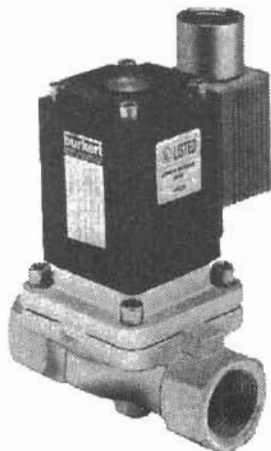


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## Editor's Notes

Watch for the continuing saga...

### "WRITTEN ON A ROLL CHART"

These are the collective writings of HOWARD HOBBS,  
with commentary by Bob Connell.

**ADVERTISERS:** Please note that the deadline for the JANUARY ANNUNCIATOR is December 16, 1994. Please forward information to the editor by that date in order to have items updated.

### **NOTE**

DINNER MEETINGS WILL BE HELD  
AT THE DRAWBRIDGE INN.

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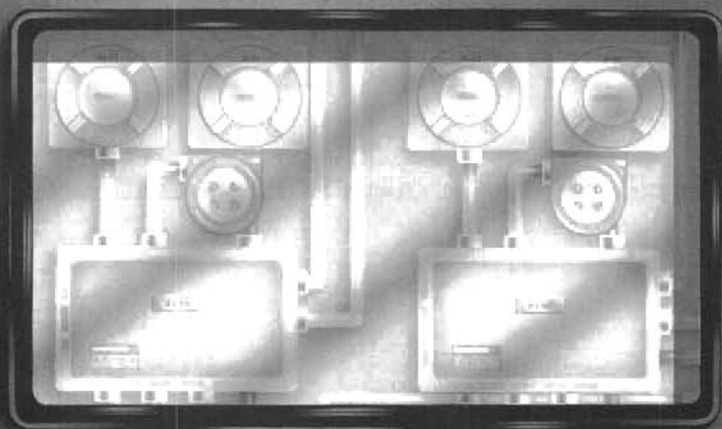
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## Vane/Flapper Mechanical Flow Switches

vs.

## Thermal Dispersion Flow Switches

Flow switches are frequently utilized in a broad range of applications to detect the presence or absence of flow. Very often flow switches are a simple vane or flapper design using mechanical linkage, which often times has limitations for the installation required. Refer to Figure 1.

### Limitations of Vane/Flapper Mechanical Switches

- 1). **Clean liquids only** - Particulate matter in fluid can build up in the mechanical linkage and restrict movement of the switch.
- 2). **Unable to detect low flow** - Mechanical flow switches operate on the basis of force exerted against an internal vane. The lower the velocity, the less the force. Low flow rates may not be able to be accurately detected.
- 3). **Mounting restrictions** - Mechanical switches require special attention to ensure that the mechanical flow switch is mounted in a horizontal line. This limits flexibility in installing the switch.
- 4). **Limits on orientation** - It is critical to ensure that the vane does not hit the wall of the pipe. A mechanical switch must be aligned within a few degrees of the pipe direction.
- 5). **Difficult to adjust in the field** - Many mechanical flow switches are used to simply detect the presence or absence of flow and are not adjustable in the field. Some are factory set to operate only within a given range of flow conditions.
- 6). **Potential for breakage** - Moving parts in the flow line can break off due to high velocity or flow surges. Broken vanes may get wedged in the downstream piping or carried into the downstream equipment resulting in damage of the equipment or disruption of the process.

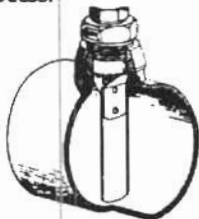


Figure 1

**Thermal Dispersion Flow Switches** offer an option to mechanical flow switches and eliminates many of these problems. The principle of operation is illustrated below in Figure 2. The Thermatec Thermal Dispersion flow switch has two separate sensors, each containing an RTD (resistance temperature detector). The reference RTD measures the temperature of the fluid when the sensor is immersed. The second RTD is self heated at a constant current. Under no flow conditions, this self heating of one RTD creates a temperature difference between the two RTDs. With increased flow, heat is dissipated from the heated RTD, reducing its temperature. The temperature difference is converted to a relay activation to open or close the switch contacts.

(CONTINUED ON PAGE 21)

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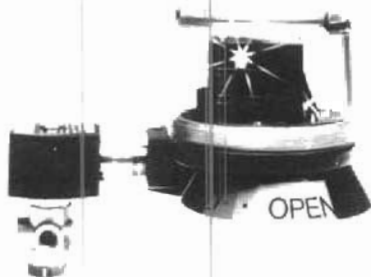
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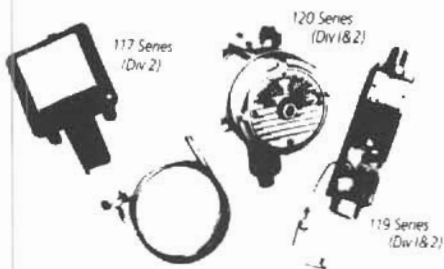
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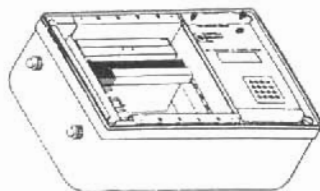
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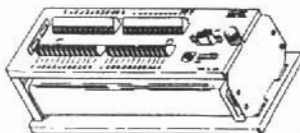


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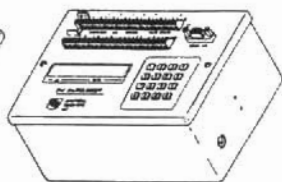
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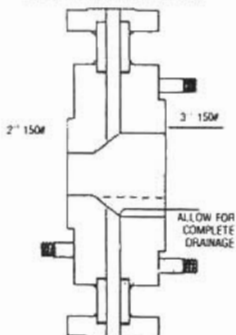
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# ISA Sarnia Section

## September Dinner Meeting Highlights

The first ISA Sarnia Section Dinner Meeting for 1994/95 was held on September 26, 1994 at the Drawbridge Inn, with the attendance of 80 members, student members and guests.

For those who are wondering about the change in format from what had become and established routine for dinner, the decision was based on several factors. The driving force behind the move was a conflict in scheduling for several of our dinner dates, and at the same time we decided to try a buffet style dinner. The increased variety and amount of food available seemed to be well received and we will be repeating this format at the November meeting. We will be modifying the setup to provide a double sided buffet which will also attempt to rearrange the layout to provide better access to the bar, for those who found the delay frustrating.

Our guest speaker was Kerry Mattila, Vice President, Operations with the Canadian Petroleum Products Institute in Ottawa. Kerry spoke to us on Competitiveness in the Petroleum Industry, with a package he is currently presenting to various levels of government to increase awareness and promote co-operative solutions to the increasingly volatile petroleum market.

Brian Smith presented the 1994 / 1995 budget to the membership for approval. The Budget was unanimously approved.

The next meeting is November 28, 1994. Please remember to phone in your reservations by the preceding Thursday, November 24, 1994.

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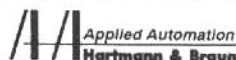
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**ISA SARNIA SECTION  
DINNER MEETING NOTICE**

**NOVEMBER 28, 1994**

**Drawbridge Inn  
Cocktails 6:00 Dinner 7:00**



**GUEST SPEAKER**

**JOHN TIERNAY**

Supervisor of Safety  
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## **NOTE**

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### **ISA Sarnia Section**

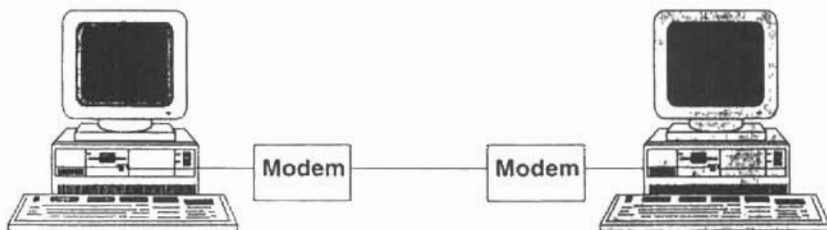
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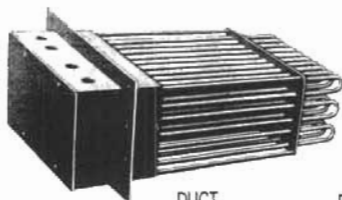
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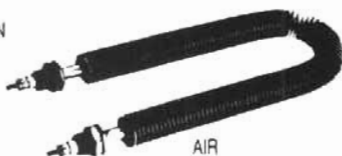
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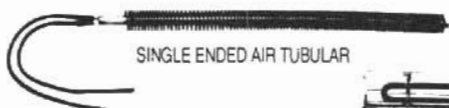
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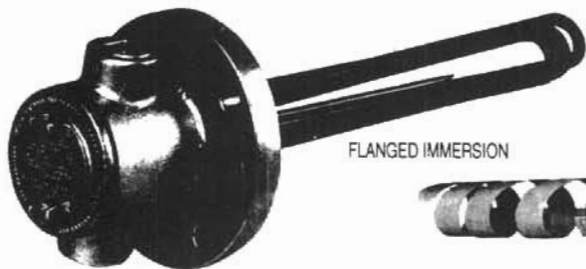
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# Meeting Dates

## MEMBERSHIP DINNER MEETINGS

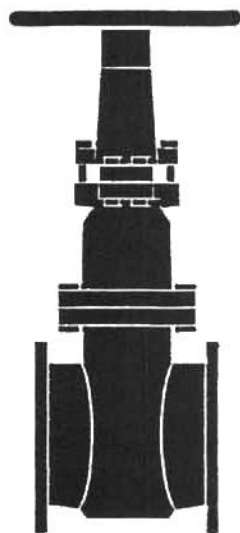
| Date               | Place           |
|--------------------|-----------------|
| September 26, 1994 | Drawbridge Inn  |
| November 28, 1994  | Drawbridge Inn  |
| January 30, 1995   | Drawbridge Inn  |
| March 27, 1995     | Drawbridge Inn  |
| May 29, 1995       | To Be Announced |

**Time:** Cocktails @ 6:00 p.m. **Dinner:** @ 7:00 p.m.

## EXECUTIVE MEETINGS

| Date               | Place          |
|--------------------|----------------|
| September 12, 1994 | Drawbridge Inn |
| November 7, 1994   | Drawbridge Inn |
| January 9, 1995    | Drawbridge Inn |
| March 6, 1995      | Drawbridge Inn |
| May 8, 1995        | Drawbridge Inn |

**Time:** 7:00 p.m.



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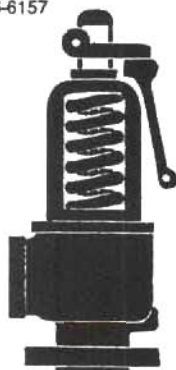
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| <b>VALVE POSITIONERS</b>                 | Pneumatic: Single & Double Acting<br>Electric / Pneumatic  |
| <b>ACTUATORS</b>                         | Pneumatic  |
| <b>VALVE MONITORING</b>                  | Mechanical / Proximity Limit Switches with Visual Indicators<br>Position Transmitters<br>Explosion Proof / Intrinsically Safe Units, Class 1, Div 1, C.S.A. Approved<br>Class 1, Div. 2  |
| <b>PUMPS</b>                             | Vacuum (Stainless Steel Bellows)<br>Chemical Feed, Self Priming, Centrifugal   |
| <b>WASTE TREATMENT SYSTEMS</b>           | "Automatic" Gravity Pressure & Vacuum<br>Filtration Systems<br>Waste Water Portable Samplers<br>Sludge Samplers, Effluent Samplers   |
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| <b>ANALYTICAL</b>                        | Dissolved Oxygen Systems - PPM, PPB<br>Suspended Solids Monitors<br>Sludge Level Detectors - Optical and Ultrasonic<br>Sludge Interface Detection - Ultrasonic<br>Laboratory Instruments<br>pH 0-14 or 2-12 pH<br>ORP & Specific ION Measurement<br>Sludge Samplers, Effluent Samplers |
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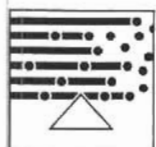
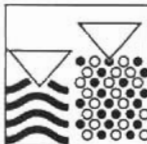
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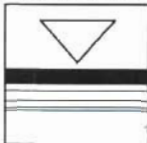
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# ISA Student Section REPORT

The first ISA Dinner Meeting for the 1994/95 term was held at the end of September, with good showing of students from the college. The Student Section also had its first general meeting where the new Student Section executives were elected.

The new ISA Student Section executives are as follows:

|                                    |                  |
|------------------------------------|------------------|
| President .....                    | Scott Crawford   |
| Vice President of Activities ..... | Randy Henderson  |
| Secretary / Treasurer .....        | Roger Allen      |
| Newsletter Editor .....            | Jonathan Pickard |
| 3rd Year Representative .....      | Tyler Ross       |
| 2nd Year Representative .....      | Tom Beaton       |
| 1st Year Representative .....      | Joe Steele       |

On October 6, Esso's Sarnia Process and Automotive Research Centre (SPARC) hosted an interesting tour for a group of third year Instrumentation students from Lambton College. The tour was hosted by Steve Inglis, the senior Research Technologist at SPARC. This visit focused primarily on the role of instrumentation in the Automotive Research Centre as well as various pilot plants. The Instrumentation students very much appreciated the time and effort Steve took to make this tour very interesting and informative. The second year students are also in the process of organizing a tour of the SPARC complex.

Finally, the following is a picture and a list of the potential graduates from Lambton College, best of luck to you all.



**Front Row** (Left to right)  
Shailesh Patel, Greg Moon, Roger Allen

**Middle Row**  
Rae Brandon, Mike Charlebois,  
Randy Henderson

**Back Row**  
Brian Morin, Scott Crawford,  
Chuck Munro, Tyler Ross

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(continued from page 43)



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# ***"Did You Know?"***

---

## **DISTRICT COUNCIL REPORT**

The District Council Meeting was held in Toronto on September 17, 1994. Jean Claude Marchand was elected as the new District Vice President (DVP) Elect.

There is a proposal to help fund the districts which will be voted on at Anaheim. The proposal will have up to 25% of the section rebate being paid directly to the district. The actual percentage will be determined by the section, but if the section does not make a declaration, the maximum percentage will be withheld. We currently donate \$1000.00 to District 13 each year.

---

## **CENTRE FOR ADVANCED PROCESS TECHNOLOGY (CAPT) REPRESENTATIVE**

We need someone to replace Jim Lomax who currently sits on the CAPT Board as the ISA Sarnia Section Representative. Jim is looking to move on to bigger and better things. Anyone who would be interested should contact a member of the Executive.

---

## **DINNER MEETINGS**

As most of you have noticed by now, the location of the Dinner Meetings has been changed. The problem was one of scheduling conflicts. Any comments on the new location and format should be directed to Jennifer Southcombe.

---

## **BUDGET**

The 1994/1995 Budget was approved at the last Dinner Meeting. Any questions or comments should be directed to Brian Smith or the Chairman of the appropriate position.

---

## **TRAINING WORKSHOPS**

Once again, we are trying to develop some low-cost workshops for our members. If you have a topic that you would like to see covered, please give Roland Smith a call.

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Until such time our feeble efforts  
Are of no avail."

**MASTER**

"Too long indeed, I've suffered patiently  
Your gloom, your misery, and your sad complaints.  
Results are what I want, and not excuses.  
Consider well these charts, but lately brought  
From our accounting station.  
Here you see the pens writing far more frequently  
Next to the hub, or far away beyond the outer rim.  
This type of thing is clearest proof  
Of sloppy maintenance."

"You say to wait to Spring: this cannot be.  
These instruments are needed toute de suite.  
So now, begone, and show yourself no more  
Until they are in service.  
I am sick of glazing at your wizend countenance."

**GRAYBEARD**

"So be it. Come my friend."  
*(This, turning to his companion)*  
"Once more we brave the terrors of the night,  
Though I am clad in sundry ragged clothes  
Which will flutter wildly like the Autumn leaves,  
And ill protect me from the Frigid winds.  
You never would suspect to look at them  
That they were once a full dress handsome suit  
Bequeathed me by McKay.  
His cast off rubbers flop about my feet.  
I wear them out of ancient sentiment."

"Again we attack that glacier,  
You with steam hose, I with lusty axe.  
And never may we falter, flag nor fail,  
Until our goal is reached.  
Imagine, if you will  
That yonder glittering iceberg doth contain  
An unpaid member of the I.S.A.  
Oh, such a thought will make you ply the hose  
With greater frenzy. Out we go again  
To make repairs that we did yesterday,  
And must again tomorrow. Courage then,  
And let our sense of duty bravely done  
Conceal all thoughts of sorrow."

*Exit the two mechanics. From outside the roar of the steam, crashing noises, assorted groans and sobs. The operating crew gaze fixedly at an Instrument, then dash out in a body screaming to each other - "It's the Blower!"*

**THE END**

(Note: Places, characters, and events on the foregoing are entirely fictional, and have no reference to persons living, hibernating, or dead. Signed - H. Hobbs)  
*From the ISA Sarnia Section Bulletin - March 1953*



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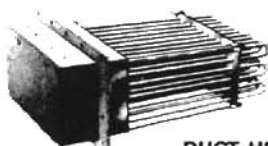
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# 15 MYTHS ABOUT CHANGE

## MYTHS

Change has to hurt  
Change is a one-time thing  
Change is radical  
Change must be imposed  
Everyone wants to buy into change  
Everyone likes change, so it's easy  
Change doesn't cost a lot  
Change is for the better  
Others have to change: not me  
Change is fast: we can't fail  
Change won't be resisted  
People know how to change  
Change goes in a straight line  
People like to be first to change  
You gradually wear down resisters

## REALITIES ABOUT REAL CHANGE

Real change should be fun  
Real change is continuing, unfolding  
Real change happens in small steps  
Real change is self-motivated  
Real change has to be sold  
Real change is hard  
Real change is expensive  
Real change can make things worse  
I must change if I want *them* to really change  
Real change is slow; some failure is inevitable  
Real change is resisted  
People need skills to really change  
Real change zig zags  
No one likes pioneering  
You try harder, resisters get tougher

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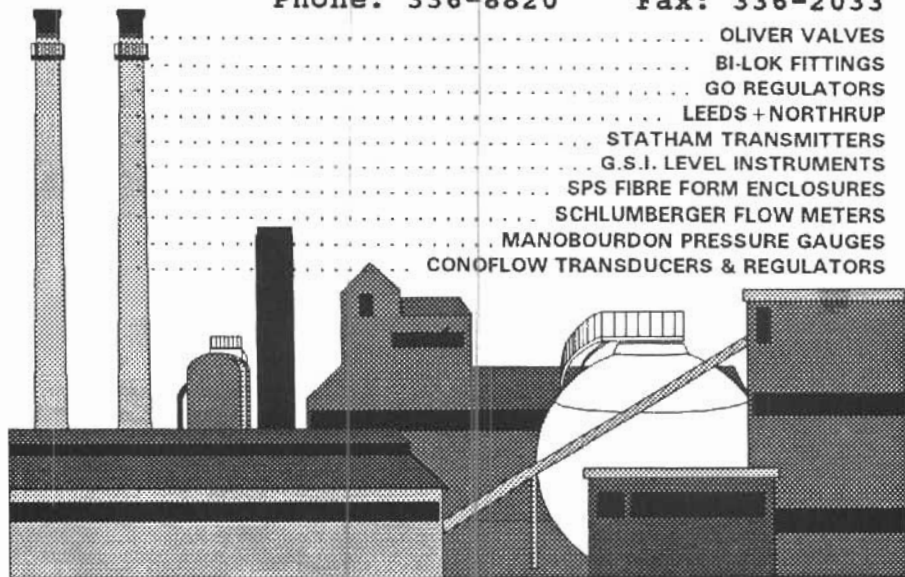
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"Second, your fear of freezing is ridiculous.  
We handle nothing that is freezable."

"Third, our budget for this splendid metering  
Has now been reached: not one penny more  
Will e'er be spent to desecrate perfection."

"One final thing, O dolt.  
This masterpiece, this subject for your evil criticism  
Was drawn by my wife's brother,  
Who (retired from the Chiropractic trade),  
Lurks in the drawing office."

"To alter half a line would risk a blast  
Of shrewish female temper.  
Enough, O senile one. Go on thy way.  
Trouble not with matters too profound  
For thy ill-founded judgment.  
Have you no work to do?"

*Here, Graybeard hastily picks up a large wrench and slinks off. The Master returns to a study of the prints. The construction workers watch the clock and furtively nibble at sandwiches. The curtain falls.*

## Scene 2

*A January night. A Brightly lighted Control Room. Outside, a howling gale. A group of operators nervously scanning the board, leaving on short mysterious errands, uttering muffled cries as they go. Foreground, the Proprietor from Scene 1, pacing rather more nervously than the others. Enter two tattered, grimy characters, accompanied by a blast of snow. One of them speaks.*

### GRAYBEARD

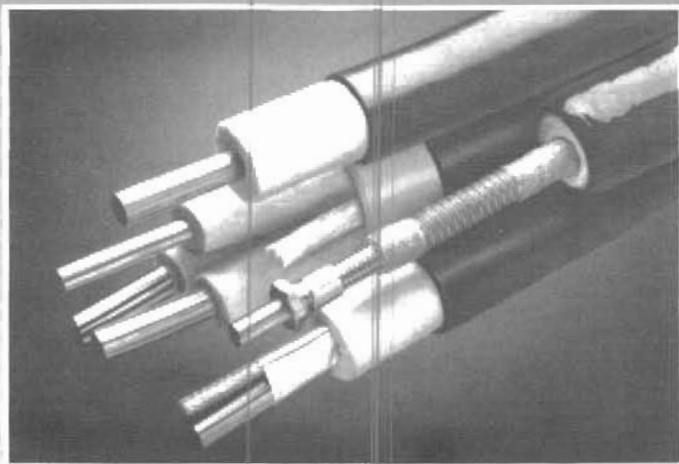
"Right pleasant is the clanging radiator  
And doubly so to one but late returned  
From yon accounting station.  
I believe this windy Corner must by much exceed  
The misery of far Slobbovia."

"Good Sir! A moment spare us if you please,  
Tonight's report is very sad indeed,  
The Instruments surrender one by one  
And cease accounting.  
Their silver blood gushes  
From many a ruptured artery.  
Their gaskets are no more.  
Their poor distorted shapes would wring a cry  
Of pity from a former Chiropractor.  
I fear that many cubic feet  
Are flowing back and forth through the lines  
Unheeded, unrecorded by them all.  
Perhaps when Spring returns to us once more,  
And Arctic whirlwinds cease to torture them,



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ISA Member Number: \_\_\_\_\_ Day-time Phone Number: \_\_\_\_\_

Check all changes that you are requesting:

- ☐ Change my address, phone number and/or company (Complete Part 1)  
☐ Change my section affiliation (Complete Part 2)  
☐ Apply for Life Member/Life Fellow Status (Complete Part 3)  
☐ Apply for Senior Member Status

### PART 1: MOVING?

PLEASE CHANGE MY ADDRESS, COMPANY NAME AND/OR PHONE NUMBER:

Preferred  
Mailing  
Address

☐ Home

☐ Company

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# "Written on a Roll Chart"

By Howard Hobbs

*(This is where Howard's literary talent begins to bloom)*

## Scene 1

*A July afternoon. A beautiful control room in the course of construction. In the background, construction workers performing lethargic, pointless movements. Front and centre, a well dressed individual whose air of keen authority and roll of blueprints identify him as the Proprietor. Enter a nondescript figure who speaks.*

**FIGURE**

"Hail, O Master,  
I would have some speech with thee."

**MASTER**

"Say on, O Graybeard.  
Reveal to me the trifling paltry matter  
That Occupies your feeble intellect  
And Buzzes in your bonnet like a hornet  
Knowing not where to light."

**GRAYBEARD**

"Good Sir,  
This matter is exceeding grave  
And concerns the future of us all.  
Pray cast your eyes toward yonder forest glade  
Where, sweltering on this ghastly, humid day  
Construction workers toil to erect  
Our own accounting station.

"As they work, they constantly refer them  
To a plan which, I see here a copy.  
On this sheet are crowded an infinity of errors  
At sight of which, the comrades of my youth  
Who take a careful interest on accounting,  
Would helpless roll upon the very earth  
Clutching their sides in gleeful merriment.  
Consider first the leg lines; here they run,  
Exactly do they parallel the ground,  
Broken at times by rises vertical,  
A miracle of fine Geometry,  
Which any teacher of draughting class  
Must haste to recommend.  
"Indeed, Good Sir, this is a grave mistake.  
These Instruments can neither vent nor drain,  
Any gunk which enters from the line,  
May lodge at its own pleasure.  
I further note the serious absence  
Of Goodly means of warming these fine meters.  
Winter winds will turn yon glade  
Into an Arctic waste. Perhaps a steam line?"

**MASTER:**

"Hush, O ignorant.  
Advancing years have addled all thy wits.  
No more of this, I shall explain to thee  
The many reasons why these Instruments





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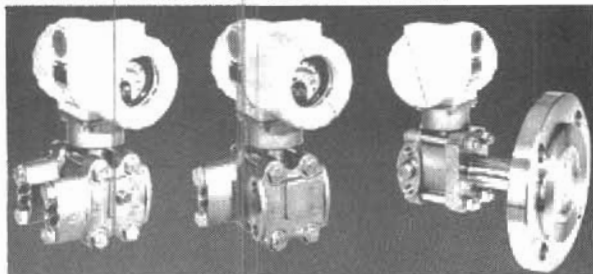
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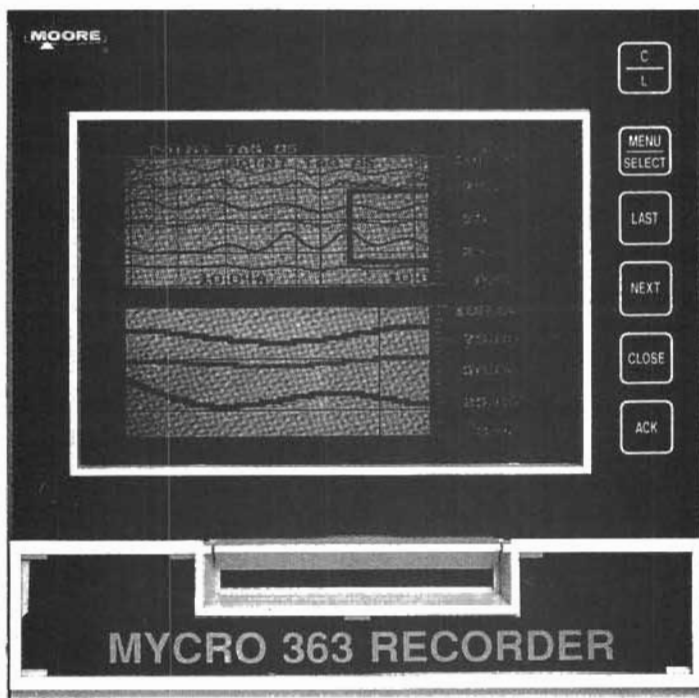


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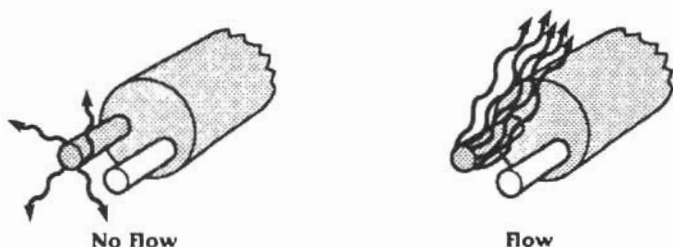


Figure 2

### Benefits of Thermatel Thermal Dispersion Flow Switches

- **No moving parts** - Nothing to break, clog lines or disrupt the process. Particulate matter does not effect the sensor, in fact, the Thermatel switch will still perform with a buildup of material on the sensor. (Response time may be increased).
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- **Field Adjustable** - The trip point on a Thermal Dispersion switch can easily be adjusted in the field under operating conditions. While mechanical switches are often utilized for flow/no flow conditions, Thermal Dispersion flow switches can be set to trip at a minimum flow rate.
- **Rugged construction** - The Thermal Dispersion flow switch is a rugged, all welded construction and can be used in a variety of applications. Standard construction of wetted parts are type 316 stainless steel, Monel, Hastelloy C or other various materials.
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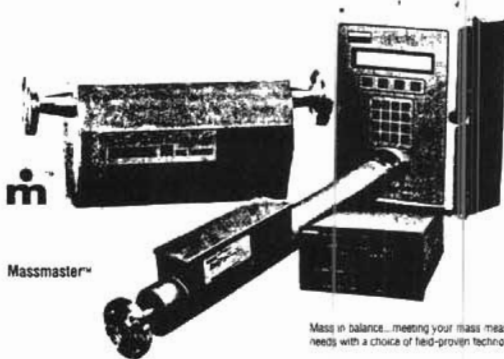
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☐ (F) Mining & Metals ☐ (T) Textile Industry

☐ (G) Chemical & Petroleum Industries\* ☐ (U) Automotive & Vehicular

☐ (K) Construction and Design\* ☐ (X) Water & Wastewater Industries

☐ (L) Pulp & Paper Industry\* ☐ (Y) Glass & Ceramics Industries

☐ (O) Power Industry\* ☐ (Z) Marketing & Sales\*

\* Students are entitled to one free membership each in the Automation & Technology and Industries & Sciences Divisions. Please choose and mark from the asterisked selections.

**5** **Dues Payment Information**

Please select the level of membership for which applying:

☐ Regular Member: \$50 US (Tax Deductible) \$ \_\_\_\_\_

☐ Student Member: \$9 US (Limited Benefits) \$ \_\_\_\_\_

☐ Division Membership: \$5 US each \$ \_\_\_\_\_

☐ Industrial Computing Society Membership (reg. \$55): \$30 \$ \_\_\_\_\_

— must be an ISA member.

Total Amount Due \$ \_\_\_\_\_

Annual ISA dues include a subscription to INTECH, for which a non-deductible allocation of \$8.00 is made for regular members and \$3.50 for student members.

Note: The following are acceptable for remitting dues payment. Please indicate the method used. Make payable to Instrument Society of America in US currency only. If paying with international funds, see special note below.

☐ Check ☐ Money Order

☐ American Express ☐ Eurocard ☐ MasterCard ☐ Visa

Acct # \_\_\_\_\_ Exp. Date \_\_\_\_\_

**Special Note Regarding Transfer of International Funds**

Credit Card Payment is preferred; checks with proper MICR bank encoding must be drawn on your bank's correspondent NY or other US bank. Amount payable to ISA must include any bank or other processing charges.

☐ Wire Transfer — Add \$5.00 US for processing. Send to ISA Account #1126294, Central Carolina Bank, ABA053100465. Transfer must show applicant's name and address.

☐ UNESCO Coupons ☐ Money Order — Add \$5.00 US for processing.

Mail completed form and payment to: Instrument Society of America  
Member & Customer Services  
PO Box 3561  
Durham, North Carolina 27702  
USA

If paying by credit card, fax to: (919) 549-8288



## PMP INSTRUMENTATION

A Div. of Spec. (Sarnia) Ltd.  
1550 Confederation St.  
Sarnia, Ontario N7W 1A3

Tel. (519) 336-2405

Fax (519) 336-1177

Stocking Distributor For:



- Level Controls
- RF/Capacitance
- Vibration Monitoring and Control
- LP - P/I Controls



- The Heat Tracing Specialists

BROOKS INSTRUMENT

- Rotameters
- Positive Displacement Meters
- Turbine Meters
- Mass Flow Meters
- Inventory Management System



- The Instrument Heating Specialists

CANOPPAS LIMITED



- Epic Waste Water Samplers
- Foxcroft Chlorine Analyzers
- Regal Gas Chlorinators
- Royce Instruments
- MSR Magnetometers

ENVIRONMENTAL  
PRODUCTS

- Oil Absorbent Products
- Oil Skimming Devices
- Drums & Accessories
- Permanent Harbour Boom
- Epic Waste Water Samplers
- ADI Pressure/Vacuum Gas Sampling Pumps
- Royce Instruments



- Rupture Disc
- Check Valves
- Line Blinds



## SYBER SYSTEMS INC.

TEL. 905-792-6677 FAX. 905-792-7742

### PRODUCT LIST

- MTL • Intrinsically Safe Barriers
- A.H. Emery • Hydraulic Load Cell Weighing Systems
- Fuller • Electronic and Pneumatic Liquid Filling Systems
- Hilcraft • IS Earth Proving Unit • for tanker trucks etc
- RGS • Intrinsically Safe Valves
- Larad • Unique, Full-bore Valves and Instrument Isolators
- Expo Safety Systems, Purging and Pressurisation

For Div 1 and Div 2, the Mini-X and Mini-Z, Purge Systems are fully pneumatic in operation, and conform to North American Standards, NFPA 694-1993

They are acceptable to Ontario Hydro, for installation in Ontario.

### TYPICAL APPLICATIONS

Computer Monitors & Terminals  
Programmable Controllers  
19" Rack Apparatus  
Panels & Switchgear

Chart & Data Recorders  
Gas Analysers  
Motor Control Centers  
Condition & Monitoring

# USERS DIRECTORY

*This index lists manufacturers and trade-names alphabetically and enables users to determine the local representative for a particular manufacturer or product.*

## Manufacturer / Tradename

3-D  
3M  
A.H. Emery  
A.W. Sperry  
Abrasion Solutions  
Accutech  
Acme Flo  
ACR Systems  
Acromag  
Acrotech  
Action Instruments  
Advanced Pollution Instrumentation (API)  
AEMC  
AFE  
AGI  
AGM Electronics Inc.  
Air Flow  
Airscon  
Alltemp Sensors  
Alnor  
Alnor Instruments  
Altek  
Altek  
Amal  
American  
American Cylinders  
Ametek  
Ametek  
Ametek  
Ametek - Analyzers  
Ametek - Mansfield & Green  
Ametek - PMT  
Ametek - U.S. Gauge  
Ametek Gauges  
Amprobe  
AMS Analytical Systems  
Analogic  
AnaradVermeer  
Anderson Greenwood  
API Meters  
Apollo  
Appalachian Controls  
Applied Automation  
Argus Hi Performance Ball Valves  
ARI  
Arjay  
Armatek  
Armstrong  
Armtec  
ASCO  
ASCO  
ASCO  
ASCO  
Ascoelectric (OEM)  
Ashcroft  
Ashcroft-Dresser  
Ashford Valve  
Astro International

## Local Sales Representative

Alpha Controls & Instrumentation  
Circuit Tracer Kit Transcat  
Syber Systems Inc.  
Transcat  
Cantrols  
Brian Controls  
Neles-Jamesbury  
Alpha Controls & Instrumentation  
Willer Engineering  
Transcat  
Cambridge Controls  
Westech  
Transcat  
elenex Ltd.  
Cantrols  
Vermeer Engineering  
Transcat  
SSCAN Technologies  
TubeTech  
Baker Instruments Ltd.  
Transcat  
Alpha Controls & Instrumentation  
Transcat  
Cambridge Controls  
elenex Ltd.  
Provincial Controls  
Brian Controls  
SSCAN Technologies  
Transcat  
Westech  
Brian Controls  
Brian Controls  
Brian Controls  
Hardie Industrial Services Inc.  
Transcat  
Vermeer Engineering  
Transcat  
Engineering  
Cantech Controls  
Lisle-Metrix Ltd.  
Romatec  
Cantrols  
Westech  
Romatec  
Alpha Controls & Instrumentation  
TubeTech  
Armatek Controls  
Willer Engineering  
Bestobell Canada  
Conval Equipment  
Lakeside Controls  
TubeTech  
Westburne Lytle  
Atlas Alloys  
Transcat  
Conval Equipment  
Bestobell Canada  
Detech Industries



**Manufacturer / Tradename**

Atkins  
Auma Electric Actuators  
Autocal  
Autoclean  
Autotech  
Azonix  
B & K  
Babbitt International Inc.  
Bacharach  
Bacharach  
Bacharach - Hand Held Instruments  
Badger Meter  
Badger Meter - Research Control Valves  
Bailey Controls  
Baldwin Environmental Inc.  
Barber-Colman  
Barnant  
Baumann Control Valves  
Beamex  
Bebco Industries  
Beckman Industrial  
BEHA  
BEI  
Bellofram  
Bellofram  
Berthold  
Beta  
Bi-Lok Fittings  
Biccotest  
Biddle  
Bio-Tek  
Bios  
Bios International  
Blue White  
BOILER-GARD  
Bonney Forge  
Brandt  
Brandt Instruments  
Branson  
Brian  
Bristol Babcock  
Brooklyn Thermometer  
Brooks Instrument  
BS & B  
Burkert Contromatic  
Cajon Pipe Fittings  
Cal  
Canadian Meter  
Cancoppas  
Canross Environmental  
Cantech Systems  
Cash-Acme  
Cashco Canada  
Cashco Canada  
CEA  
Cel Instruments  
Cellex  
Celtek  
Century  
Cerabar  
Chandler  
Chem-Tec  
Chemtrol  
Chessell  
Clif Mock

**Local Sales Representative**

Transcat  
G.L. Stebbins  
Leeds & Northrup, Canada  
Leeds & Northrup, Canada  
Davis Controls  
Transcat  
Transcat  
G.L. Stebbins  
Brian Controls  
SSCAN Technologies  
Transcat  
J & M Engineering & Sales Ltd.  
Lakeside Controls  
TubeTech  
Novatech  
Davis Controls  
Transcat  
Conval Equipment  
Transcat  
Cantrils  
Transcat  
Transcat  
Willer Engineering  
Conval Equipment  
Romatec  
Westech  
Transcat  
Sarnia Piping Specialties  
Transcat  
Transcat  
Transcat  
SSCAN Technologies  
Brian Controls  
Brian Controls  
Lisle-Metrix Ltd.  
Atlas Alloys  
Willer Engineering  
SPR Controls Systems Ltd.  
Transcat  
Brian Controls  
Sharp Valve & Instrumentation  
Transcat  
PMP Instrumentation  
Romatec  
Provincial Controls  
Huron Valve & Fittings  
Davis Controls  
G.L. Stebbins  
PMP Instrumentation  
PMP Instrumentation  
Cantech Controls  
Westburne Lytle  
Cambridge Controls  
Provincial Controls  
SSCAN Technologies  
SSCAN Technologies  
PMP Instrumentation  
Cantrils  
Valve Brian Controls  
Endress + Hauser  
Transcat  
Brian Controls  
U & I Supply  
Willer Engineering  
Westburne Lytle

**Manufacturer / Tradename**

Colder  
Collins Instrument  
Computer Keyboard Systems (CKS)  
Conant Controls  
Conders  
Conductive Technologies  
Conoflow  
Consolidated  
Consolidated Controls  
Consolidated Controls - U.S.A.  
Control Instruments Corp.  
Control Microsystems  
Controlair Inc.  
Controlotron  
Cooper Instruments  
Cox  
CSI - Microloggers  
Custom Control Sensors  
Cybex  
Danfoss  
Danfoss Mfg. Co. Ltd. - Denmark  
Daniel  
Darmatt  
Data Industrial  
Data Instruments Inc. - USA  
Data Precision  
Datavue  
Datel  
Davis Controls Ltd.  
Davis Instruments  
Defelsko  
Dekoron  
Delphian  
Delta C Technologies  
Delta-M  
Deltabar  
Deltapilot  
Detector Electronics  
Devar  
DewPro  
DGH  
Dianachart  
Dickson  
Digitec  
Dillon  
Dopak  
Dover Gas Technologies  
Draeger  
Dresser  
Druck  
Druck  
DSP Technology  
Durafet  
Durakool  
Duro  
Duro-Sense  
Dwyer  
Dwyer  
Dwyer  
Dynapar  
Dynapar  
Dynasonics  
Dynatech  
E-T-A Control Instruments  
E. G. & G. Moisture & Humidity

**Local Sales Representative**

Davis Controls  
Controls  
CB Engineering  
Industrial Projects  
Transcat  
Cantech Controls  
Sarnia Piping Specialties  
Sharp Valve & Instrumentation  
Transcat  
Technel Engineering Inc.  
Willer Engineering  
Brian Controls  
Cambridge Controls  
Westech  
Transcat  
Brian Controls  
Campbell Scientific (Canada) Corp.  
Willer Engineering  
CB Engineering  
Davis Controls  
Lisle-Matrix Ltd.  
Controls  
Bestobell Canada  
Cambridge Controls  
Technel Engineering Inc.  
Transcat  
Leeds & Northrup, Canada  
Transcat  
PMP Instrumentation  
Transcat  
Transcat  
Bestobell Canada  
Romatec  
Veronics  
Brian Controls  
Endress + Hauser  
Endress + Hauser  
CB Engineering  
Cantech Controls  
Endress + Hauser  
Alpha Controls & Instrumentation  
Alpha Controls & Instrumentation  
Transcat  
Brian Controls  
Brian Controls  
Westburne Lytle  
Veronics  
SSCAN Technologies  
Sharp Valve & Instrumentation  
SPR Controls Systems Ltd.  
Transcat  
SPR Controls Systems Ltd.  
Leeds & Northrup, Canada  
Davis Controls  
Brian Controls  
Transcat  
Baker Instruments Ltd.  
Davis Controls  
Transcat  
Davis Controls  
J & M Engineering & Sales Ltd.  
Brian Controls  
SSCAN Technologies  
SSCAN Technologies  
Vermeer Engineering



**Manufacturer / Tradename**

Eagle Signal  
Eaton Consolidated Controls - USA  
Eaton IDT  
ECD  
ECD  
Echotel  
ECS Control Techniques  
EG & G Flow Technology Inc.  
EIT Inc.  
EI-O-Matic  
Elcon Instruments  
Eltremco Timers - England  
EMCO  
Emission S.A.  
Encoder  
Endress+Hauser  
Enertrol Shocks  
Enertrols  
Engineered Valves International (E.V.I.)  
Environics  
Environmental Technologies Group Inc.  
Environnement S.A.  
Epic Samplers  
Erdco  
Erhard Valves - Germany  
ETC  
Euchner  
Expo Safety Systems  
Exttech Instruments  
F.B. Leopold - USA  
F.W. Bell  
F.W. Murphy  
Fabco Air  
FCI  
Fike Canada Inc.  
Firerod Cartridge Heaters  
Fischer & Porter  
Fischer & Porter  
Fisher Controls  
Fisher Research  
Fisons Instruments  
Flow Meter Co. - England  
Flow-Lin Corporation  
Flowline  
Flowtek Valves  
Fluid Data/Amcor  
Fluidic  
Fluke  
Fluke  
Foxboro Analytical Group  
Fulier  
G.C. Industries  
G.S.I.  
Galtek  
Gamma Silometer  
Gefran  
General Controls  
General Eastern  
General Metal Works  
General Monitors  
General Resistance  
General Resource (Isomatic Corp.)  
Geokon  
GGOSCO Engineering  
GGOSCO Needle Valves

**Local Sales Representative**

Davis Controls  
Technel Engineering Inc.  
Cantech Controls  
Novatech  
Transcat  
Provincial Controls  
Vermeer Engineering  
CB Engineering  
Vermeer Engineering  
Westburne Lytle  
SPR Controls Systems Ltd.  
Lisle-Matrix Ltd.  
Davis Controls  
SSCAN Technologies  
elenex Ltd.  
Davis Controls  
Provincial Controls  
elenex Ltd.  
Westburne Lytle  
Brian Controls  
Novatech  
SSCAN Technologies  
PMP Instrumentation  
Bestobell Canada  
Lisle-Matrix Ltd.  
Transcat  
Davis Controls  
Syber Systems Inc.  
Novatech  
Lisle-Matrix Ltd.  
Transcat  
Cantech Controls  
Davis Controls  
Willer Engineering  
Brian Controls  
Zesta Engineering  
Hardie Industrial Services Inc.  
TubeTech  
Lakeside Controls  
Transcat  
Westech  
Lisle-Matrix Ltd.  
G.L. Stebbins  
Brian Controls  
Provincial Controls  
Armatek Controls  
Brian Controls  
SPR Controls Systems Ltd.  
Transcat  
Vermeer Engineering  
Syber Systems Inc.  
Brian Controls  
Sarnia Piping Specialties  
Romatec  
Endress + Hauser  
SPR Controls Systems Ltd.  
Neles-Jamesbury  
Willer Engineering  
SSCAN Technologies  
Armatek Controls  
Transcat  
G.L. Stebbins  
Campbell Scientific (Canada) Corp.  
Provincial Controls  
Westburne Lytle

**Manufacturer / Tradename**

GGOSCO Valves  
GLA Elettronica  
Global  
GMD  
GO Proximity Switches  
GO Regulators  
GP:50 New York Ltd.  
Gralab  
Granucor  
Granuflow  
Granumet  
Great Plains Industries  
H. O. Trerice  
H.D. Baumann Control Valves  
Haenni Instruments  
Hammel Dahl  
Hanna Instruments  
Hansen Quik Connects  
Hartman-Technica  
Hartmann & Braun  
Hedland  
Heise  
Herasus Sensors  
Hewlett Packard  
Hex Valve  
Hiltcraft  
Hitachi  
Hitachi - Oscilloscopes  
Hoffer Flow Controls - USA  
Holaday Industries  
Homestead Valves  
Honeywell  
Honeywell - Controllers  
Honeywell - Controllers & Recorders  
Honeywell - Recorders  
Honeywell - Recorders  
Huntron  
Hy-Cal  
Hydril  
Hygrolog  
IBM Industrial  
IC Controls  
IDEC  
IET  
Illinois Instruments  
Imi-Cash Valve Inc.  
Imperial Eastman  
Imperial Eastman  
Imperial Eastman  
Industrial Scientific Corporation  
Ingold  
Inor  
Intelligent Controls  
Intellitron  
Intellution  
Interface  
Interlink  
International Sensor Technology  
Interscan  
Interscan  
Intertec  
Ionics Instrument Division  
Ircon  
Ishida/Craft  
IST

**Local Sales Representative**

Hardie Industrial Services Inc.  
SPR Controls Systems Ltd.  
Transcat  
SSCAN Technologies  
Lakeside Controls  
Sarnia Piping Specialties  
SPR Controls Systems Ltd.  
Transcat  
Endress + Hauser  
Endress + Hauser  
Endress + Hauser  
Armatek Controls  
U & I Supply  
Conval Equipment  
J & M Engineering & Sales Ltd.  
Neles-Jamesbury  
SSCAN Technologies  
Provincial Controls  
Transcat  
Westech  
Brian Controls  
Transcat  
SPR Controls Systems Ltd.  
Transcat  
Sharp Valve & Instrumentation  
Syber Systems Inc.  
Davis Controls  
Transcat  
Lisle-Matrix Ltd.  
SSCAN Technologies  
Atlas Alloys  
Davis Controls  
Cantech Controls  
Brian Controls  
Provincial Controls  
Transcat  
Transcat  
Davis Controls  
Cantech Controls  
Endress + Hauser  
CB Engineering  
J & M Engineering & Sales Ltd.  
elenex Ltd.  
Transcat  
Veronics  
G.L. Stebbins  
Provincial Controls  
U & I Supply  
elenex Ltd.  
SSCAN Technologies  
Westech  
Alpha Controls & Instrumentation  
SPR Controls Systems Ltd.  
Cantech Controls  
CB Engineering  
Willer Engineering  
Vermeer Engineering  
Industrial Projects  
Brian Controls  
SSCAN Technologies  
TubeTech  
Veronics  
Willer Engineering  
Atlas Alloys  
SSCAN Technologies

**Manufacturer / Tradename**

ITT Barton Instruments  
ITT Diaflow  
ITT Neo Dyn  
IVO Industries - USA  
J-Tec  
J.M. Canty  
Jacoby Tarbox  
Jamesbury  
JB Engineering  
Jensen  
Jerguson Level Gauges  
Jofra  
Jofra  
Johnson Yokogawa  
Jordan Controls  
Joucomatic International  
Julius Bauser - Germany  
K-Tek  
Kammer Control Valves  
Kammer Control Valves  
Kane-May  
Kates  
Kay Ray/Sensall  
Kaye  
Kaye Instruments  
Kedco Mfg Ltd.  
Keller  
Kent Meters Inc.  
Kenwood USA  
Kessler Ellis  
Ketema - McCrometer  
Ketema - Schutte & Koerting  
Kinetics Systems Corp. - USA  
Kinetrol  
Kinetrol Actuators  
King Instrument  
Kip  
Kistler-Morse  
Kitz Valves  
Klinger  
KNF Neuberger  
Kotron  
Kruss Optronic  
KTM  
KTM  
Kurz  
Kurz  
LAGCO Flumes - USA  
Land  
Land - Analyzers  
Larad  
Leader  
Leaderline  
Leaderline  
Lear Siegler  
Lee-Dickens Ltd. - England  
Leeds & Northrup  
Legris  
Legris Fittings  
LEOPOLD  
Lewis  
LFE Instruments - USA  
LI-COR  
LMI  
LMI

**Local Sales Representative**

Armatek Controls  
Romatec  
CB Engineering  
Lisle-Matrix Ltd.  
Romatec  
Cambridge Controls  
Romatec  
Neles-Jamesbury  
Transcat  
Transcat  
Romatec  
Brian Controls  
Transcat  
CB Engineering  
Cambridge Controls  
Conval Equipment  
Lisle-Matrix Ltd.  
CB Engineering  
Controls  
Westburne Lytle  
Transcat  
Westech  
Rosemount Instruments  
Transcat  
CB Engineering  
U & I Supply  
Campbell Scientific (Canada) Corp.  
G.L. Stebbins  
Transcat  
Brian Controls  
Brian Controls  
Brian Controls  
Technel Engineering Inc.  
Provincial Controls  
Hardie Industrial Services Inc.  
Industrial Projects  
Brian Controls  
Novatech  
Atlas Alloys  
Davis Controls  
Transcat  
Provincial Controls  
SSCAN Technologies  
Associated Valve  
Controls  
Brian Controls  
Transcat  
Lisle-Matrix Ltd.  
Transcat  
Westech  
Syber Systems Inc.  
Transcat  
Brian Controls  
Honeywell  
Romatec  
Lisle-Matrix Ltd.  
Sarnia Piping Specialties  
elenex Ltd.  
Provincial Controls  
Lisle-Matrix Ltd.  
Transcat  
Lisle-Matrix Ltd.  
Campbell Scientific (Canada) Corp.  
Novatech  
U & I Supply

**Manufacturer / Tradename**

Love  
M point  
M-System  
M-Tek  
Madison  
Magnetrol  
MagTech  
Major  
Manobourdon  
Marsh  
Martel  
Masoneilan  
Max  
Max 1000  
MCF Ball Valves  
Mead  
Meeco Inc.  
Mercoid  
Meriam Instruments  
Met One  
Metrix  
Metrix Timers  
Metrosonics  
Micon  
Micro Motion  
Micromax 2  
Micronics Ltd.  
Micropilot  
Microtrac  
Mid-West Instrument  
Mid-West Instrument  
Mikron  
Milton Roy - Liquid Metronics Division  
Mini-X Purge  
Mini-Z Purge  
Mitsubishi  
MKS  
Mobrey  
Modulevel  
Monarch  
Monitek  
Monitor  
Monitor Labs  
Moore Industries  
Moore Products Pressure Regulators  
MST  
MTL  
MTL IS Barriers  
Multi-Amp  
Multi-Volt  
Multitrode  
Myron L  
Nassau Instrument  
NBS  
Neles  
Neles-Jamesbury  
Neotronics  
Newman Hattersly  
Newman Hattersly  
NGI  
Nicholson  
Nilcor  
Nivosonic  
Nohken  
Norstat

**Local Sales Representative**

Davis Controls  
Endress + Hauser  
SPR Controls Systems Ltd.  
Transcat  
Bestobell Canada  
Provincial Controls  
Cambridge Controls  
Alpha Controls & Instrumentation  
Sarnia Piping Specialties  
TubeTech  
Transcat  
Sharp Valve & Instrumentation  
Willer Engineering  
Leeds & Northrup, Canada  
Lakeside Controls  
Transcat  
Novatech  
Davis Controls  
Transcat  
Campbell Scientific (Canada) Corp.  
Transcat  
Lisle-Metrix Ltd.  
Brian Controls  
Cantech Controls  
Rosemount Instruments  
Leeds & Northrup, Canada  
Veronics  
Endress + Hauser  
Leeds & Northrup, Canada  
Brian Controls  
Hardie Industrial Services Inc.  
Transcat  
U & I Supply  
SystemsSyber Systems Inc.  
SystemsSyber Systems Inc.  
Davis Controls  
Transcat  
Bestobell Canada  
Provincial Controls  
Transcat  
Willer Engineering  
Romatec  
Brian Controls  
Armatek Controls  
Transcat  
Brian Controls  
Syber Systems Inc.  
Provincial Controls  
Transcat  
Transcat  
Bestobell Canada  
Transcat  
Transcat  
Neles-Jamesbury  
Atlas Alloys  
Transcat  
Atlas Alloys  
Bestobell Canada  
Transcat  
Romatec  
Sharp Valve & Instrumentation  
Endress + Hauser  
Bestobell Canada  
Davis Controls

**Manufacturer / Tradename**

Smartline  
Smartline  
Smith Valve  
Sno-Trik  
Solartron  
Solomat  
SOR  
South-West Meters  
Sparling  
Speedomax  
SPM  
SPS Fibre Form Enclosures  
Stabiflo  
Stahl  
Statham  
STI  
Strahman  
Sugino  
Swagelok Tube Fittings  
Swingwirl  
Systematix  
T.B. Woods  
TA Instruments  
Tavis Corporation - U.S.A.  
Taylor Hand Actuated Pressure Calibrator  
TDC-3000  
Techmation  
Techne  
Technipower  
Tegam  
Tegam  
Tektronix  
Tel-Tru  
Tel-Tru  
Tel-Tru Thermometers  
Teledyne Analytical  
Teledyne Combustion Efficiency Analyzer  
Telematic  
Testoterm  
Texas Analytical Controls Inc.  
Texas Electronics - Raingauges  
Texas Sampling Inc.  
The Electron Machine Corporation  
Theben  
Thermax  
Thermo Electric  
Thermo Electric - Calibrators  
Thermo Kinetics  
Thermo-Environmental  
Thermon  
Thermox  
Thunder Scientific Corp.  
TIF  
Time Electronics  
TLV  
Tokheim  
Torbar Flowmeters Inc.  
Tower-Gard  
Trademark Manufacturing Inc.  
Transmation  
Transmation  
Transtector Systems  
Trerice  
Tripp-Lite  
Trueline Valves

**Local Sales Representative**

Brian Controls  
Honeywell  
Atlas Alloys  
Huron Valve & Fittings  
Westech  
Transcat  
Industrial Projects  
Sarnia Piping Specialties  
Brian Controls  
Leeds & Northrup, Canada  
Transcat  
Sarnia Piping Specialties  
Neles-Jamesbury  
Alpha Controls & Instrumentation  
Sarnia Piping Specialties  
elenex Ltd.  
Cantech Controls  
elenex Ltd.  
Huron Valve & Fittings  
Endress + Hauser  
Willer Engineering  
elenex Ltd.  
Westech  
Technel Engineering Inc  
Transcat  
Honeywell  
Lakeside Controls  
Transcat  
Transcat  
Brian Controls  
Transcat  
Transcat  
Brian Controls  
Transcat  
Hardie Industrial Services Inc.  
Armatek Controls  
Transcat  
Willer Engineering  
Transcat  
Vermeer Engineering  
Campbell Scientific (Canada) Corp.  
Bestobell Canada  
Industrial Projects  
Davis Controls  
Brian Controls  
Armatek Controls  
Transcat  
Provincial Controls  
SSCAN Technologies  
PMP Instrumentation  
Willer Engineering  
SSCAN Technologies  
Transcat  
Transcat  
TubeTech  
Willer Engineering  
Industrial Projects  
Lisle-Metrix Ltd.  
G.L. Stebbins  
Cantrols  
Transcat  
Cantech Controls  
U & I Supply  
Transcat  
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SPR Controls Systems Ltd.  
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- Notes -

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