

# AS-interface News

Innovative AS-i technology from ifm efector

Edition 7 March 2008

## EDITORIAL



Dear Readers,

This is both a sad and a happy month for me. I unfortunately will be leaving Australia, where I have met many great people, enjoyed great weather and have had many unbelievable experiences... I will be heading back to the nice cold country of Canada, closer to the family! However, I will be remaining in the ifm family and move into a position at our Montreal office.

It has been great working with all of you - many readers have now become close friends. I wish you all the best in the future and as a German proverb says, "Our paths often cross twice in life, so this is hopefully not a goodbye, but just a "see you later"!

Enough about me. I would like to inform you that Mike Moore will be replacing me. Trust me, you are in good hands. Mike has had many years experience with our AS-interface products, as well as our Mobile R360 products. He has been to Germany and had advanced AS-interface training. Mike has also helped create a course at Manukau University, New Zealand, where they teach students how to use AS-interface.

See you later!

*David D'Souza*

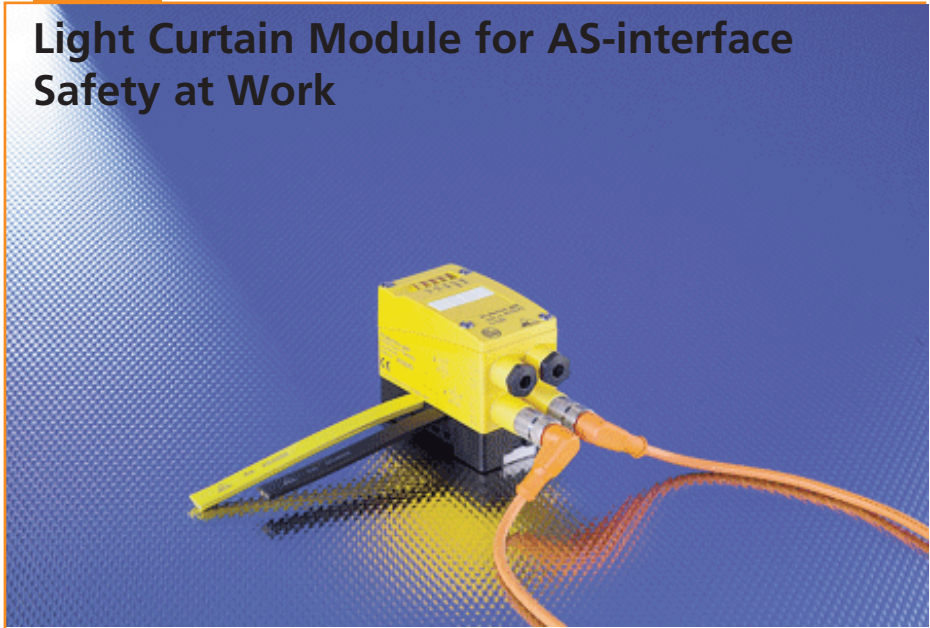
David D'Souza  
Product Manager -  
Networking and Controls



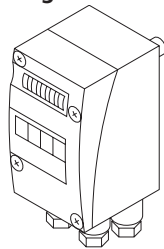
The Real David!

## NEWS

### Light Curtain Module for AS-interface Safety at Work



The new AC007S module now allows standard light curtains to be easily integrated onto a new or existing AS-interface network. The new module takes up a whole address and is easily addressable using the addressing unit.



It can be used with any device which has 2 x OSSD outputs. Therefore, laser scanners, light curtains and ifm's inductive safety sensor (GM701S) can now easily be integrated to AS-interface.

The unit is certified up to Control Category 4 according to EN 954-1.

For more information, please visit:  
<http://www.ifm.com/ifmgb/web/dsfs/AC007S.html>

## PRODUCT NEWS

### Airbox follow up

Last month we introduced our new ClassicLine airbox with toolless mounting. I would like to take the opportunity to expand on this product as many savings can be made from using this module in your AS-interface systems. Our new modules come in different configurations 3/2 way, 5/3 way (monostable or bistable).



Continued on page 2



**The times when machine diagnosis was only possible on site are finally over. Worldwide access to machine data is requested. The new controller e from ifm electronic builds the bridge between AS-interface and the internet. The company NOBA Verbandmittel monitors its production machines worldwide via the internet.**

The company in Wetter on the Ruhr produces, among others, bandages and gauze swabs for the medical sector. Every day up to 500,000 units are produced and wrapped in sterile packaging. The entire production process is subject to very strict and internationally standardized regulations. The production takes place in special clean rooms.

The deep-drawing packaging machines from NOBA mainly process plastic film. First of all, a deep-drawing tool forms packaging trays for the product. When the swabs have been fed into the trays, film from a reel is used for sterile sealing. Afterwards the separate trays are cut out of the film. All sensors and actuators are connected to the controller via the AS-i bus. "Wiring the system by means of AS-i saved us around 50 h compared to conventional wiring. Thanks to AS-i, future extensions can be carried out easily and flexibly", says Michael Rohe, technical director at NOBA.

The system contains a number of drives for lifting and lowering the tools and for transporting the film or the packaging trays. The controlling is carried out via "SmartLogic". This AS-i logic module receives a machine command from the central controller and then independently controls the motors. This also includes the processing of the encoder signals for

position feedback. Safety dampers and e-stops also are connected via AS-interface. The AS-i standard "Safety at Work" guarantees monitoring according to safety category 4.

#### Most important element: Controller e

The entire packaging system is controlled by a single AS-i controller. The controller e from ifm electronic is designed as a dual master and offers connection options for up to 248 sensors and 186 actuators on both AS-i lines. Analogue data from the temperature, pressure or flow sensors are also passed on to the controller via the AS-i two-wire cable.

A special feature is the integrated Ethernet gateway: it connects the controller to the existing corporate network. The controller is now easily accessible via its IP address and has virtually its own "homepage". A web server is integrated into the controller to process and visualise the data. Programming is done in html. Advantage for the user: it is possible to access the machine data - even worldwide - via the TCP/IP protocol of a standard internet Explorer. The firewall of the corporate network as well as additional password queries protect the system against unauthorized access.

#### Support Worldwide

NOBA develops and fabricates the deep-drawing packaging machines not only for own needs. In the context of joint ventures the company in the Ruhr area also exports the machines to partner companies all over the world. Here the system's internet connection can prove its advantages.

ifm efector



Michael Rohe explains the special problems: "Communication abroad with the operator of the system on site often proves to be difficult. It might take a couple of days to localise and eliminate a fault via e-mail. And it easily adds up to 8,000 euros to assign technical personnel around the globe, not to speak of the enormous amount of time. Therefore we only took into consideration a solution that allows machine maintenance from Germany. Here the cross-platform Ethernet connection offers a fair number of options." In the event of a failure the technical staff can log into the machine via the internet. A special remote software as in conventional solutions is not necessary. A common web browser is sufficient. Thus, if requested, the technical staff also can connect them to the system's controller for example in an internet café or even via a mobile phone and an internet capable PDA. Machine parameters as well as current measured values from the different sensors will be displayed. Log files save important measured values and allow a targeted fault analysis. If requested, it is now possible to modify machine parameters or trigger specific system functions. For a better overview, a corresponding visualisation in HTML code can be stored on the web server of the controller e. For this, a 1.4 megabyte memory is available.

#### Special Case Cleanroom

Not only is the Ethernet connection important for worldwide support, the remote option is also useful on site. The remote access offers a decisive advantage for diagnosis especially in this application. "The system is placed in a clean room. For hygienic reasons protective clothing, helmets and masks are compulsory. A hygiene suit must be worn to enter the room. Thus, entering is only possible with a certain level of input and each time takes around 10 minutes", explains Michael Rohe. Therefore it proves to be an advantage that the technical staff can access the system completely from outside. They can localize the fault on the computer via the diagnostic data and, if necessary, directly take the corresponding replacement part or tool with them when they enter the clean room. Whether in Wetter on the Ruhr or around the globe: remote access is an

*Continued on page three*



## Introducing to you Mike Moore



Mike joined ifm in 2001, and since then has fulfilled a variety of roles, including technical support for AS-interface and R360 products.

He has previous experience in electrical and automation within the food and beverage industries, and has led project, engineering and maintenance teams.

Mike has trade and post trade qualifications in Electrical/Automation, and has completed R360 / AS-i / VA / Machinery Safety training.

Further, he provides support for local and international AS-i and AS-i "safety at work" projects in the airport, sea port, material handling, brewing, robotics, and food and beverage industries. In the transport and sea port sectors, Mike provides support for can-bus mobile controllers.

### Mike's contact details:

Email: [mike.moore@ifm.com](mailto:mike.moore@ifm.com)

Ph: +61 412 498 317 (Taking over David D'Souza's number)

## PRODUCT NEWS

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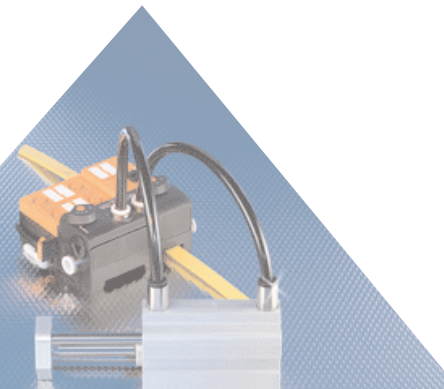
### Airbox FAQ's

**Common questions customers ask relating to the Airbox, complete with answers.**

#### 1) Why use an Airbox instead of a valve island?

The main idea is to have a decentralized system. This enables you to keep the air hoses to the valve as short as possible and therefore limit the compressed air loss through to exhaust. The Airboxes are very fast acting and at a very low power.

The fact that each Airbox has 4 inputs incorporated to the module, means you can easily connect your valve feedback to the network, once again reducing overall wiring costs. The Airboxes also run directly on the yellow AS-interface cable, no black cable required. The vampire connection makes installation a lot simpler than conventional valve islands which require external voltage as well as long air tubes back to your actuator.



#### 2) How rugged are the Airboxes?

The Airboxes are IP67 rated, this means they can now be installed in food industry without any problems.

#### 3) How many Airboxes can we connect to our network?

Our new modules are now available in A/B addressing mode. This means you can now have up to 62 Airboxes on one network!

## TRADE SHOWS

### Upcoming tradeshows:

#### National Manufacturing Week, Stand 5310

When: 27th – 30th May

Where: Sydney Convention and Exhibition Centre

To register to attend, please visit:

[nationalmanufacturingweek.com.au](http://nationalmanufacturingweek.com.au)

#### IICA shows

Tamworth April 30

Darwin May 13

Alice Springs May 16

Canberra May 21

Griffith May 22



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## CONTACT & SUBSCRIPTION

### ifm efector pty ltd

#### Australia

Ph: 1300 365 088

Fax: 1300 365 070

Email: [sales.au@ifm.com](mailto:sales.au@ifm.com)

Web: [www.ifmefector.com.au](http://www.ifmefector.com.au)

#### New Zealand

Ph: 0800 803 444

Fax: (09) 579 9282

Email: [sales.nz@ifm.com](mailto:sales.nz@ifm.com)

Web: [www.ifmefector.co.nz](http://www.ifmefector.co.nz)

*We would like to hear from you.*

Please send your feedback to:

[newsletter.au.nz@ifm.com](mailto:newsletter.au.nz@ifm.com)

### Subscription information

#### i-STEP Newsletter

Publication dedicated to bringing you the latest ifm product information as well as technological breakthroughs from around the world.



#### Actuator Sensor Interface e-news

Publication dedicated to providing up to date information on AS-i.

To receive future issues of our ifm e-newsletter, please go to:

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## APPLICATION NEWS

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essential automation requirement. Thanks to web technology, AS-interface and consequently every single sensor of the system are accessible from all over the globe. This enables fast diagnosis - online from every place in the world.

#### Product: AC1307/AC1317

For more information, please visit:

<http://www.ifm.com/ifmgb/web/dsfs/AC1307.html>