

Air Management System

Sustainability – Condition Based Maintenance - Digitalization

New



Standby regulator

Switch pressure between operation and standby

Air management hub

Flow rate, pressure, and temperature sensing

Residual pressure relief valve

Secondary air supply or exhaust (shut-off) switching

Wireless adapter (Optional Accessories)

Air consumption:
Max. 62%*1 reduction

p. 1

*1 In SMC conditions:

Maximum reduction ratio within product specifications
(at 0.7 MPa operating pressure and 0.2 MPa low pressure)

Monitors the machine standby conditions (when production stops) and automatically decreases the pressure.
Reduces unnecessary air consumption

Compatible with OPC UA p. 2

Direct connection enables data communications.

Compatible with PROFINET and EtherNet/IP

Compatible with wireless systems p. 3

- Communication cables not required
- High security thanks to unique encryption
- Communication distance: Max. 100 m



Video

AMS20/30/40/60 Series



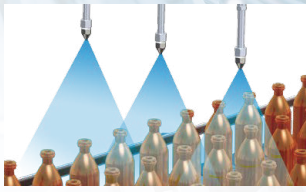
CAT.ES100-155A



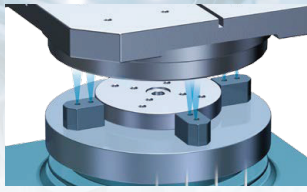
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Why not reduce the wasted air generated by your factory equipment?



Blow and purge consumption required for functionality.



Leakage from piping connection due to aging

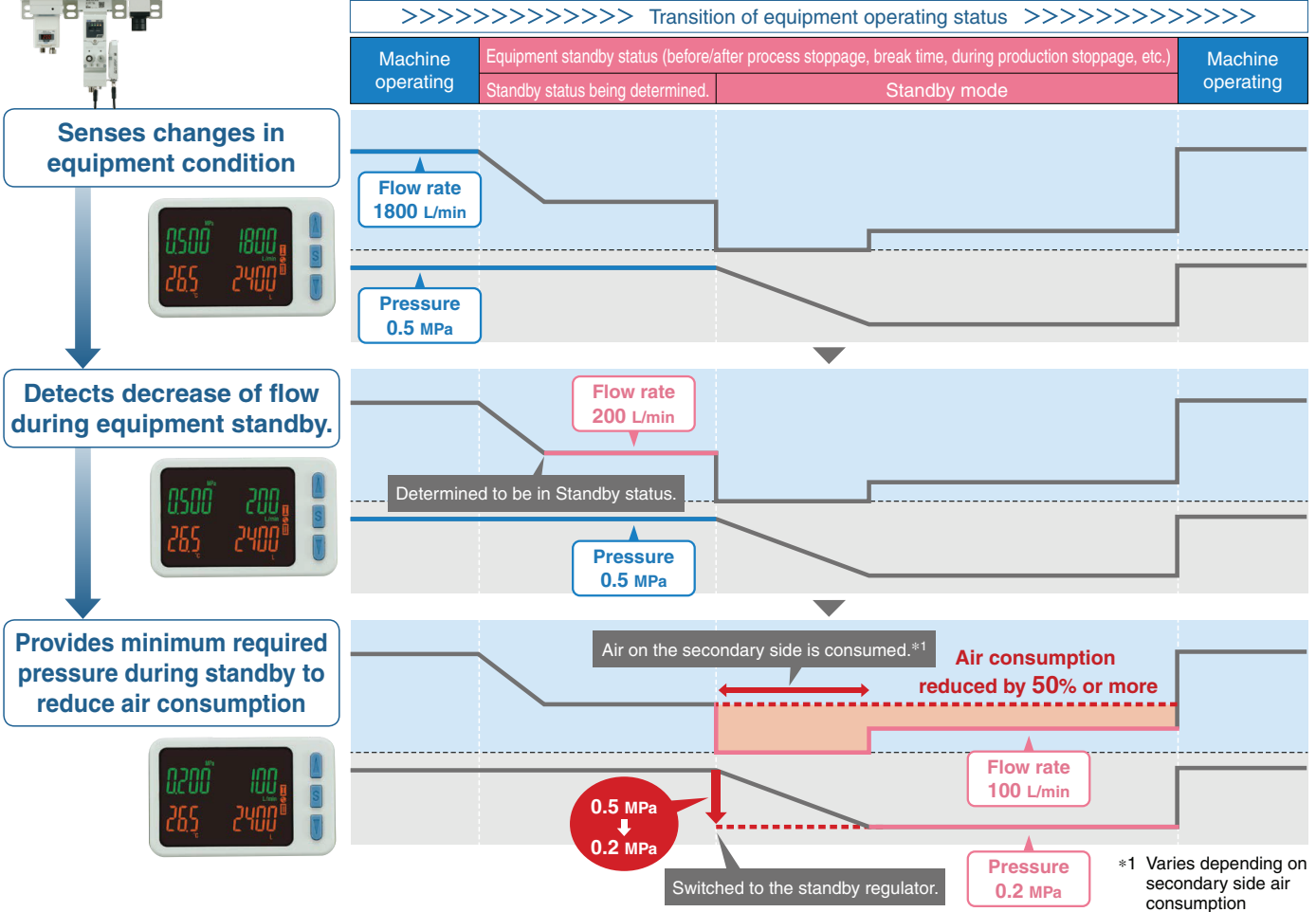


Leakage from cylinder due to worn seals

Reduced air consumption due to lower pressure during production stoppages/equipment standby **Standby mode**



Example Under equipment operating conditions: Pressure 0.5 MPa, air consumption 1800 L/min and idle air consumption 200 L/min, then Standby Mode can apply low pressure setting 0.2 MPa to equipment.

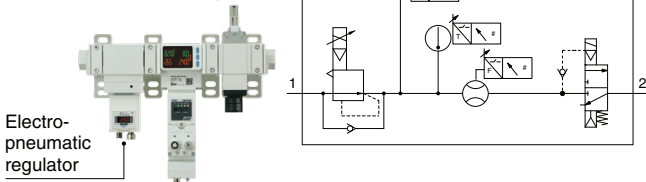


Two types of standby regulators available

Automatically switches to low pressure when flow rate falls below the set value.

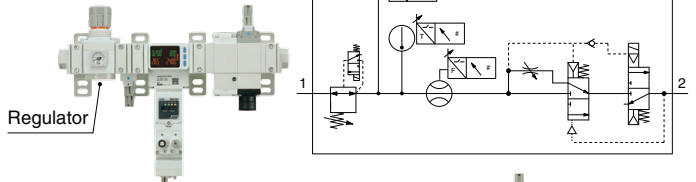
Electro-Pneumatic Regulator Type (ITV Series)/AMS20A/30A/40A/60A Series

Pressure can be set and switched when equipment is running/stopped



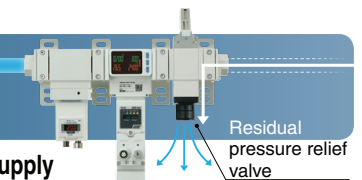
Regulator Type (ARS Series)/AMS20B/30B/40B/60B Series

Pressure can be set and switched when equipment is stopped



Reduce air consumption by shutting off valves depending on equipment shutdown conditions **Isolation mode**

Residual pressure exhaust valve allows further reduction of air consumption by shutting off the air supply. Equipped with automatic-isolation mode that can be shut off after set-up setting times from standby mode (patent pending)

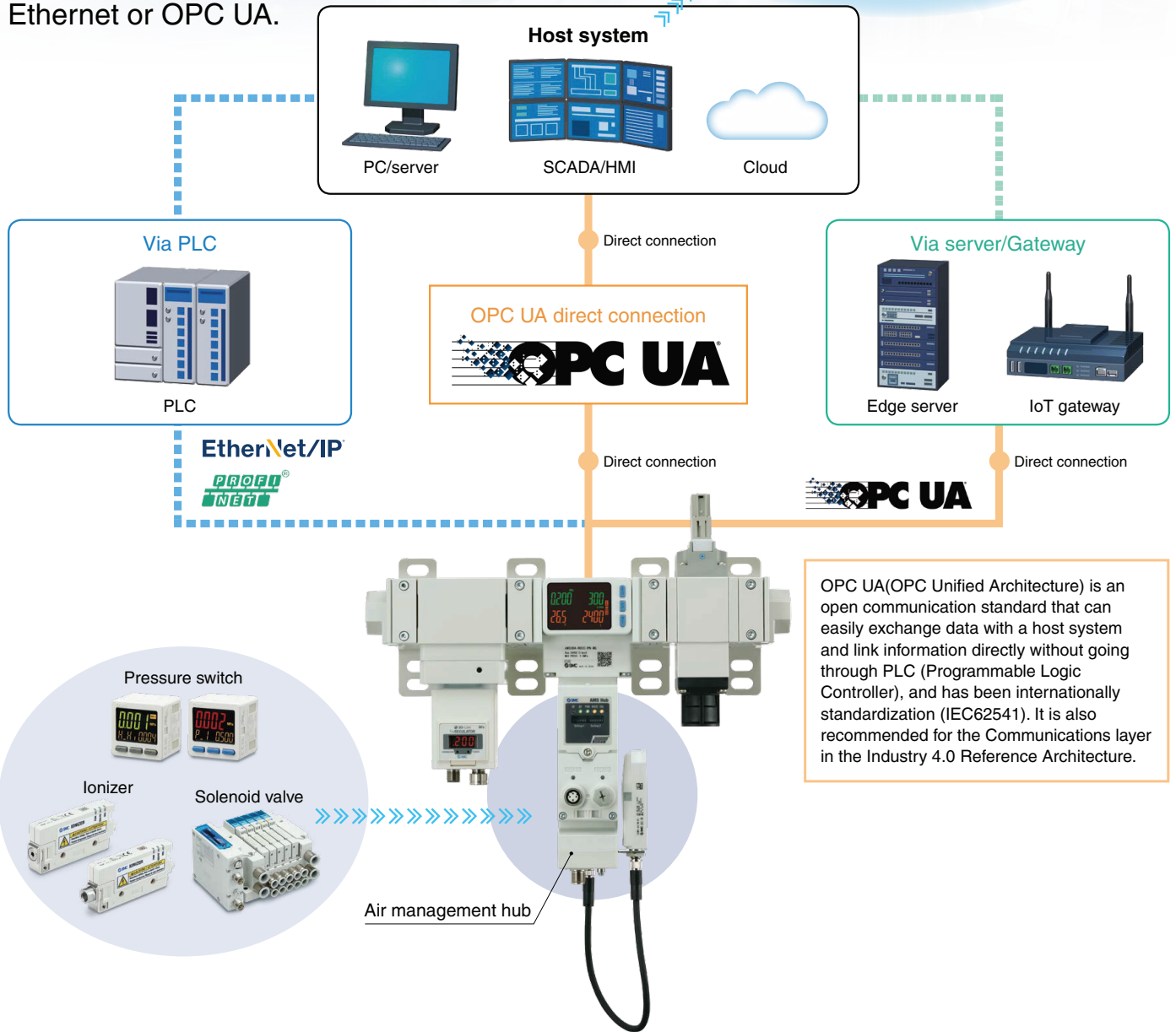


Allows visualization of production equipment status

“Flow rate,” “pressure,” and “temperature” as well as various sensor information can be communicated to host system via Industrial Ethernet or OPC UA.



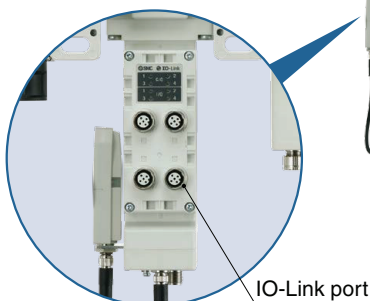
Equipment status can be monitored from another location or from outside the office.



OPC UA (OPC Unified Architecture) is an open communication standard that can easily exchange data with a host system and link information directly without going through PLC (Programmable Logic Controller), and has been internationally standardization (IEC62541). It is also recommended for the Communications layer in the Industry 4.0 Reference Architecture.

IO-Link compatible

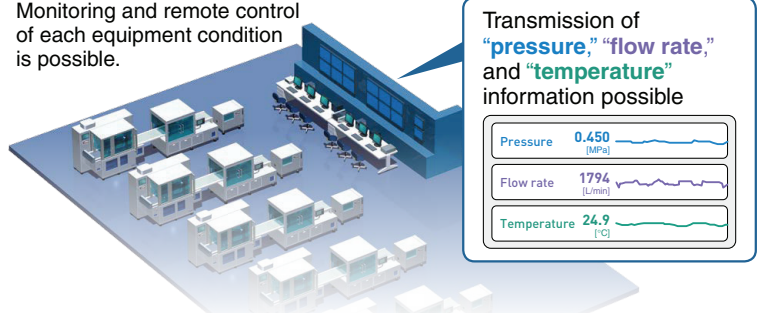
Layout for IO-Link port on the back of the air management hub



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Examples of IoT applications enabled by

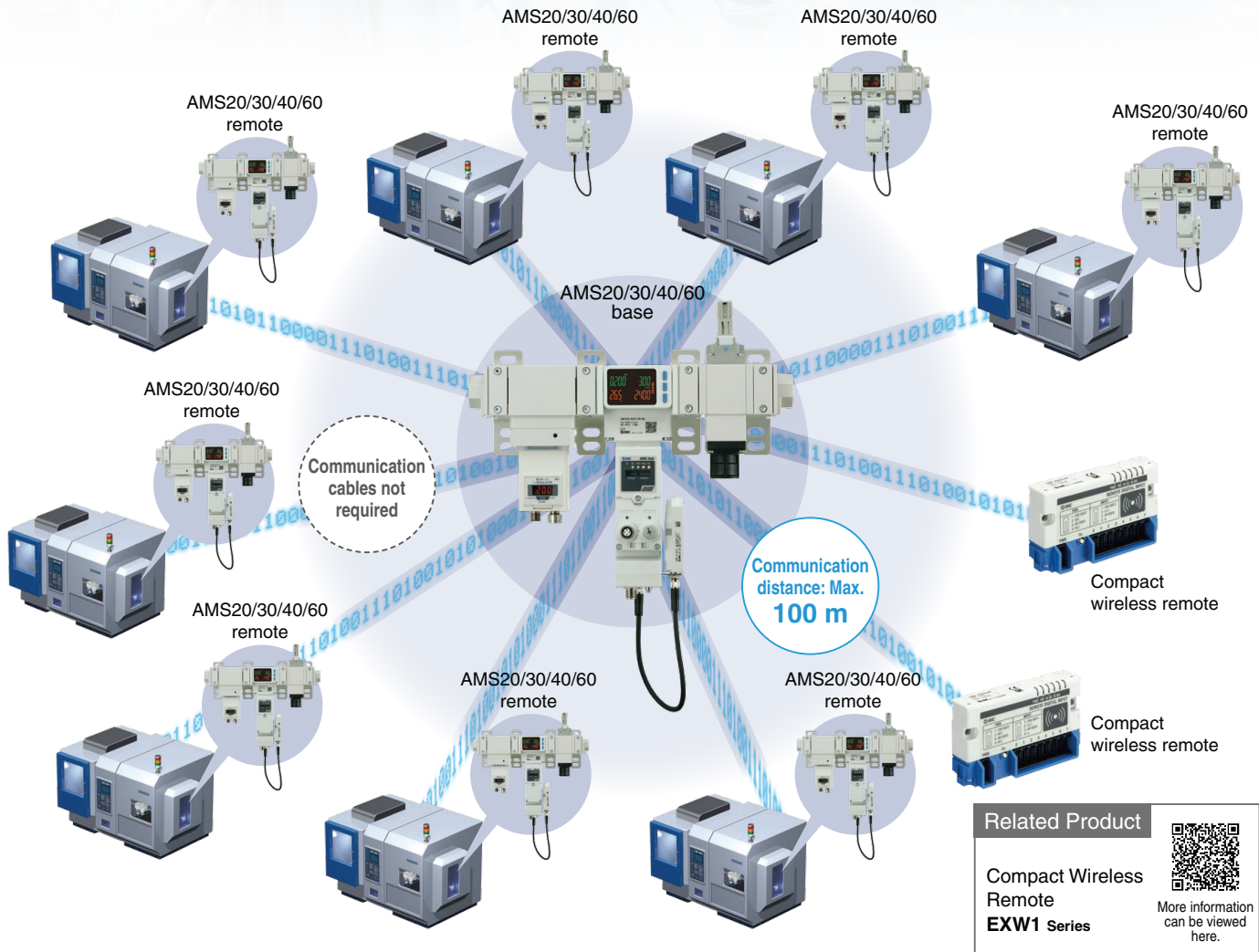
Monitoring and remote control of each equipment condition is possible.



Compatible with wireless systems*

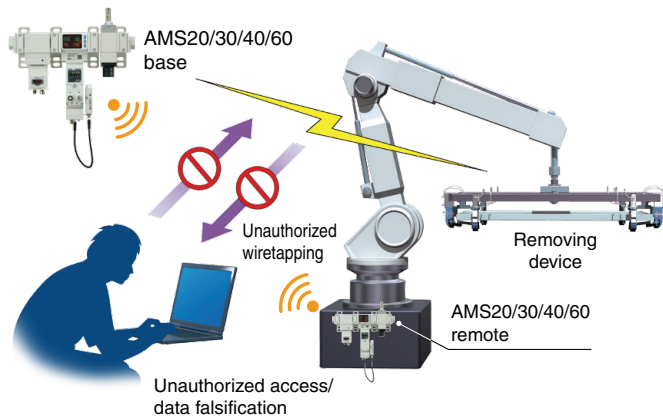
* When connecting a wireless adapter (sold separately)

- **Communication cables not required**
Reduced wiring work, space, and cost
Minimized disconnection risk
- **Connectivity to up to 10 remotes (AMS20/30/40/60 or small wireless devices)**



High security using encryption

Unauthorized access from outside is prevented by using data encryption.



Can be retrofitted to existing equipment

With OPC UA and wireless systems, it can be introduced without connection to PLC and changing the programming. Modular type F.R.L. combination can be connected.

