



Type **AMI**

IP.67

Valve Communication System

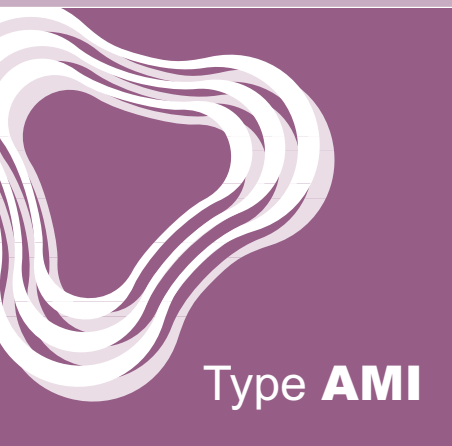


The type AMI is a discrete valve communication & control device for quarter-turn automated valves. The system incorporates the latest in material design and technological thinking to provide the process engineer with a product that works day in and day out in the toughest environmental conditions.

The design uses features that can considerably reduce installation time and maintenance downtime around the valve assembly allowing the process plant to work with greater efficiency and reliability.

Features and Benefits

- Corrosion-proof, temporarily submersible (IP67) and suitable for use in hazardous areas (EEx ia Intrinsic Safety and EEx nA Non-Incendive).
- High strength durable enclosure and pneumatic manifold are constructed of anodised aluminium and epoxy coated. Impact resistant cover of high strength polycarbonate and fasteners in stainless steel.
- High visibility mechanical and electronic indication confirms the OPEN / CLOSED position and solenoid status for greater safety and convenience.
- Universal burnout-proof solenoid operates on less than 0.6 watts of power and standard version will accept either 24 VDC or 120 VAC supply.
- Electronic sensing, switching and communication components are sealed and potted inside function module to protect against residual moisture, vibration and corrosives.
- High accuracy position sensor system is solid state with no moving wear points for highly reliable and precise position feedback.
- Push button set points for open & closed accurately lock in position settings. Settings remain locked in when power is removed and reapplied.
- Integral pneumatic valve operates on standard plant air and will cycle most actuators in less than 2 seconds.
- Wiring and maintenance access is quick and convenient for easy set-up and installation.
- Internal manual pneumatic valve override is standard enabling local automated valve operation.
- Standard 5-way 2 position valve operates both double & single acting actuators and features a re-breather to feed clean air to spring to keep out corrosives.
- Simplified mounting arrangements allow quick and secure mounting to pneumatic actuators with VDI/VE.3845 topworks as well as other actuators with non-standard topworks.



IP.67

Valve Position Monitor



Materials of Construction

| | | | |
|------------------------------------------|-----------------------------------------------------------|---------------------------|----------------------------------------------------------|
| Housing | Anodised Epoxy Coated Aluminium <i>(Optional – SS)</i> | Type | Weatherproof |
| Cover | Polycarbonate | Ingress Protection | IP67 |
| Mounting Adaptors & Fasteners | 300 Stainless Steel | Conduit Entries | 2 x M20 <i>(Optional – 1/2"NPT or Pin Connectors)</i> |
| Seals | Nitrile <i>(Optional – Viton)</i> | Pneumatic Valve | See Below |

Visual Indication

| | |
|----------|-------------------------|
| R | Red Closed / Green Open |
|----------|-------------------------|

Electrical Functions

| | | |
|-----------|-----------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| 33 | (2) SST Inductive Proximity (NO) | 0.3 A @ 125 V DC / AC |
| 44 | (2) Namur Type Inductive Proximity EEx ia | On I <1mA, Off I >3mA, 7 to 24 VDC Range |
| 92 | DeviceNet Communication | Open & Closed Inputs / 4 to 20 mA Auxiliary Input / 2 Power Outputs, Output 24 VDC |
| 93 | FOUNDATION Fieldbus Communication <i>(Bus Powered)</i> | 2 Discrete Inputs Open & Closed / 1 or 2 Discrete Outputs, Bus 9 to 32 VDC Range |
| 94 | FOUNDATION Fieldbus Communication <i>(Externally Powered)</i> | 2 Discrete Inputs Open & Closed / 1 or 2 Discrete Outputs, Bus 9 to 32 VDC Range |
| 92 | Modbus Communication | Open & Closed Inputs / 4 to 20 mA Auxiliary Input / 2 Power Outputs, External 24 VDC |
| 96 | AS-Interface Communication (2.1) | Open & Closed / 2 Auxiliary Inputs / 2 Power Outputs, Input 26.5 to 31 VDC |
| 97 | AS-Interface Communication (2.1) <i>(with Extended Addressing)</i> | Open & Closed / 2 Auxiliary Inputs / 1 Power Output, Input 26.5 to 31 VDC |

Pneumatic Valve (Solenoid or Piezo Pilot)

| Type | Operation | Cv | Pilot Power Supply |
|-----------|--------------------------------------------------|------|----------------------------------------------------------------------|
| 1H | 5/2-Way Single Coil (Pilot / Spring) | 0.75 | 24 VDC or 120 VAC Universal <i>(use with Function 33)</i> |
| 1D | 5/2-Way Single Coil (Pilot / Spring) | 0.75 | 24 VDC <i>(use with Function 92,94, 95, 96 & 97)</i> |
| 1E | 5/2-Way Single Coil (Pilot / Spring) | 0.75 | 12 VDC Intrinsically Safe <i>(use with Function 44)</i> |
| 2H | 5/2-Way Dual Coil (Pilot / Shuttle Piston) | 0.75 | 24 VDC or 120 VAC Universal <i>(use with Function 33)</i> |
| 2D | 5/2-Way Dual Coil (Pilot / Shuttle Piston) | 0.75 | 24 VDC <i>(use with Function 92,94, 95, 96 & 97)</i> |
| 2E | 5/2-Way Dual Coil (Pilot / Shuttle Piston) | 0.75 | 12 VDC Intrinsically Safe <i>(use with Function 44)</i> |
| 1A | 5/2-Way Single Coil (Piezo Pilot / Spring) | 0.75 | 6.5 VDC Intrinsically Safe or Standard <i>(use with Function 93)</i> |
| 2H | 5/2-Way Dual Coil (Piezo Pilot / Shuttle Piston) | 0.75 | 6.5 VDC Intrinsically Safe or Standard <i>(use with Function 93)</i> |

Hazardous Area Classification*

| | |
|-------------------------------------|----------------------------------------------|
| Functions 33, 92, 94, 95, 96 and 97 | Non-Hazardous |
| Functions 44 and 93 | EEx ia IIC T5 Intrinsic Safety (Applied for) |

* Note : EEx nA IIC T5 also applied for.