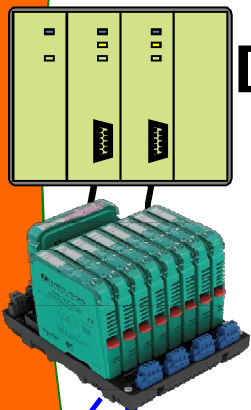
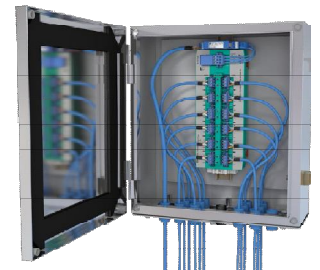


# Handling Multiple DI / DO at Power Plants using DART



**DCS**

Upto 40 DI and 20 DO  
in a segment



**DART –  
Intrinsically Safe**

**DART Segment Protectors**

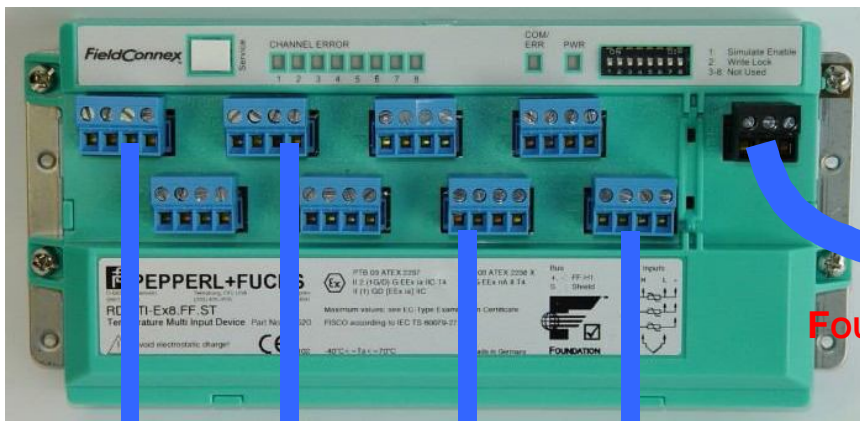
Zone 1/ Zone2



22.5V  
360mA

8 DI and 4 DO per device

# Temperature Multi-Input (TM-I) Device



FOUNDATION Fieldbus

*This is a FF field instrument -  
FF Tick mark achieved - listed on FF web page*



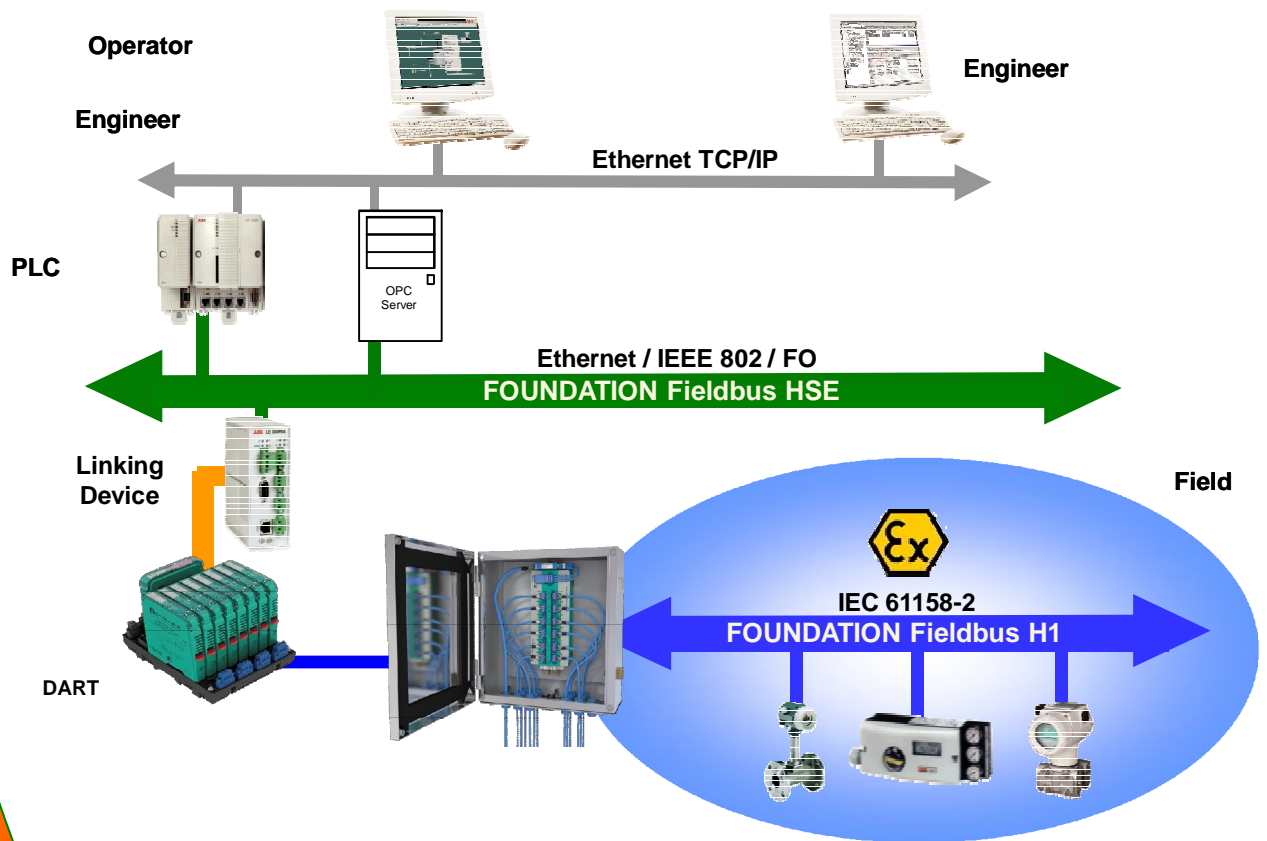
## DI / DO FF Device



- Discrete solutions for Fieldbus
- 4 Butterfly valves
- 8 Sensor /contact inputs
- Bus powered
- Intrinsically safe

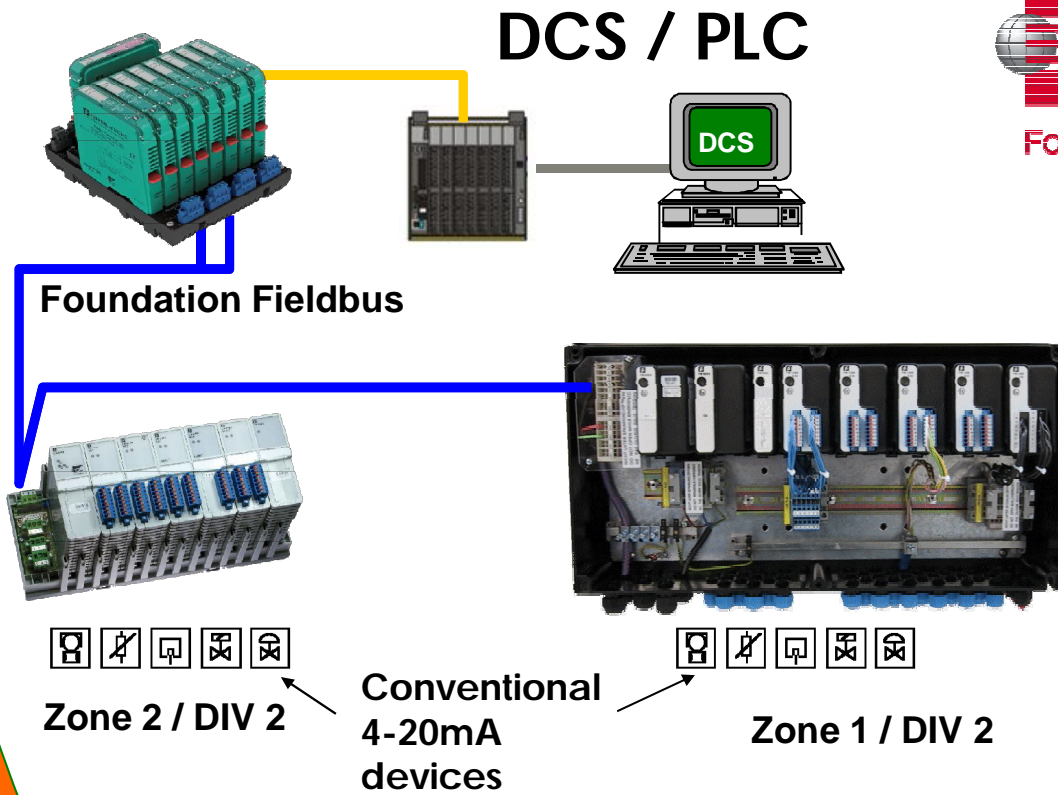
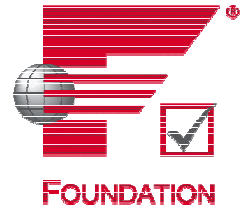


# Application DART – HSE and old PLC system





# Expanding DART to Existing systems





**DART Fieldbus is fully integrated into DCS Asset Management system for online physical layer diagnostics**

## DART Fieldbus Asset Management Integration



### One Plant Asset Management

- Includes fieldbus now as asset
- Customary look and feel
- Reduces required training
- Reduces potential for errors

### Open Architecture Integration:

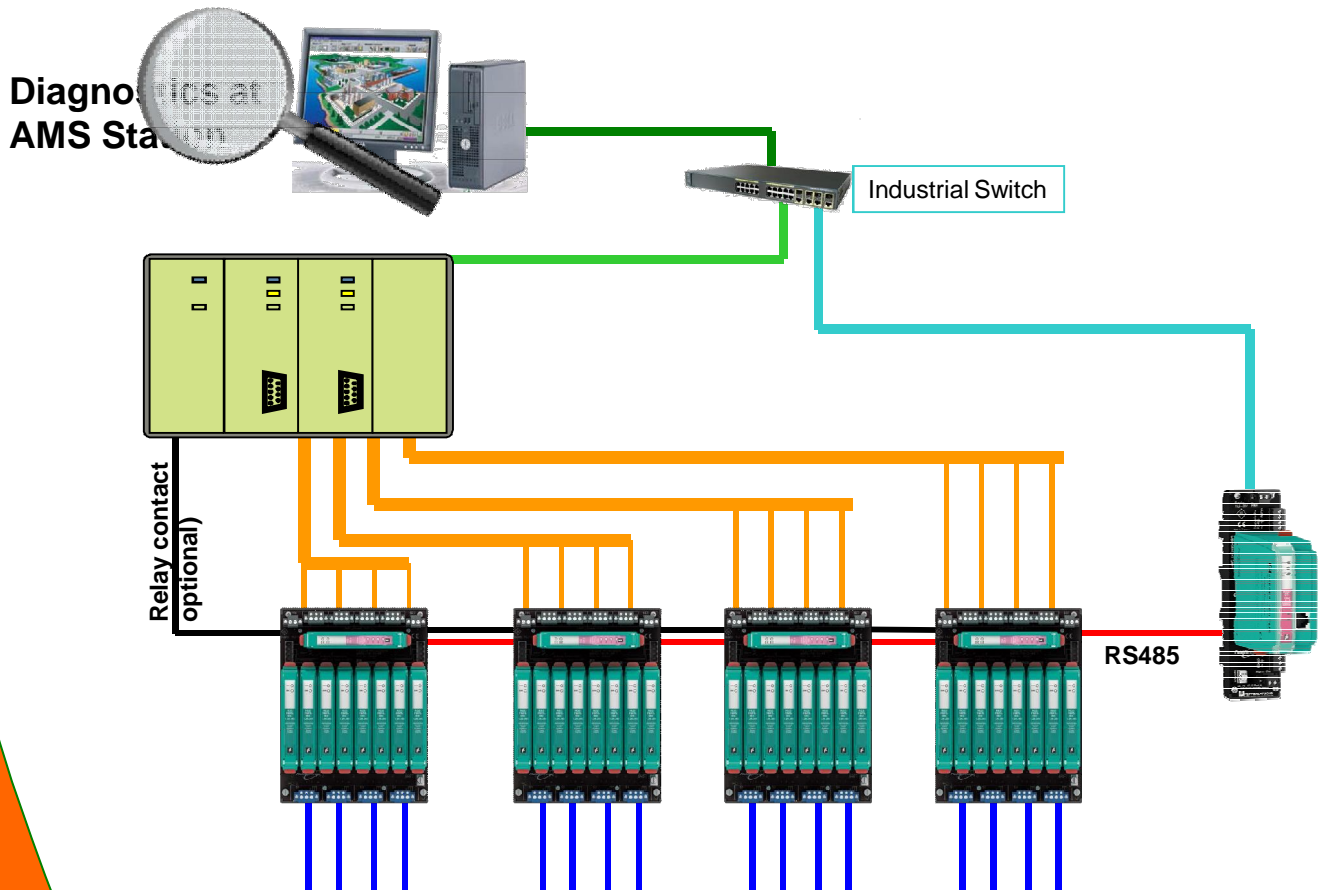
- AMS Suite
- PRM
- FieldCare
- FieldMate
- PACTware
- OPC Interface

Automatic  
Setup  
Included



**FieldCare**  
**FieldMate**

# Structure – DART- ADM and DCS integration



# ADM in Asset Management System



PRM Network view

FF-Host

FF-Segment

Segment-specific status of the physical layer  
ADM status view with PRM TAG

Alarm window view

Maintenance	All	Device Configuration	Device Event	User Event	Operation Log	PAS Event
Occurrence Time	Object Criticality	Message Priority	Title			
1/28/2008 02:42:55	Low	Info	Good (0)			
1/28/2008 02:42:39	Low	Info	Status returned to normal			
1/28/2008 02:42:39	Low	Info	Status returned to normal			
1/28/2008 02:42:39	Low	Info	Status returned to normal			
1/28/2008 02:42:39	Low	Info	Status returned to normal			
1/28/2008 02:41:56	Low	Info	HW Error (3)			
1/28/2008 02:41:48	Low	Info	ADM internal HW error			