

Reference Topology HON02

Honeywell Experion[®]PKS and PROFIBUS for
Chemical Industry

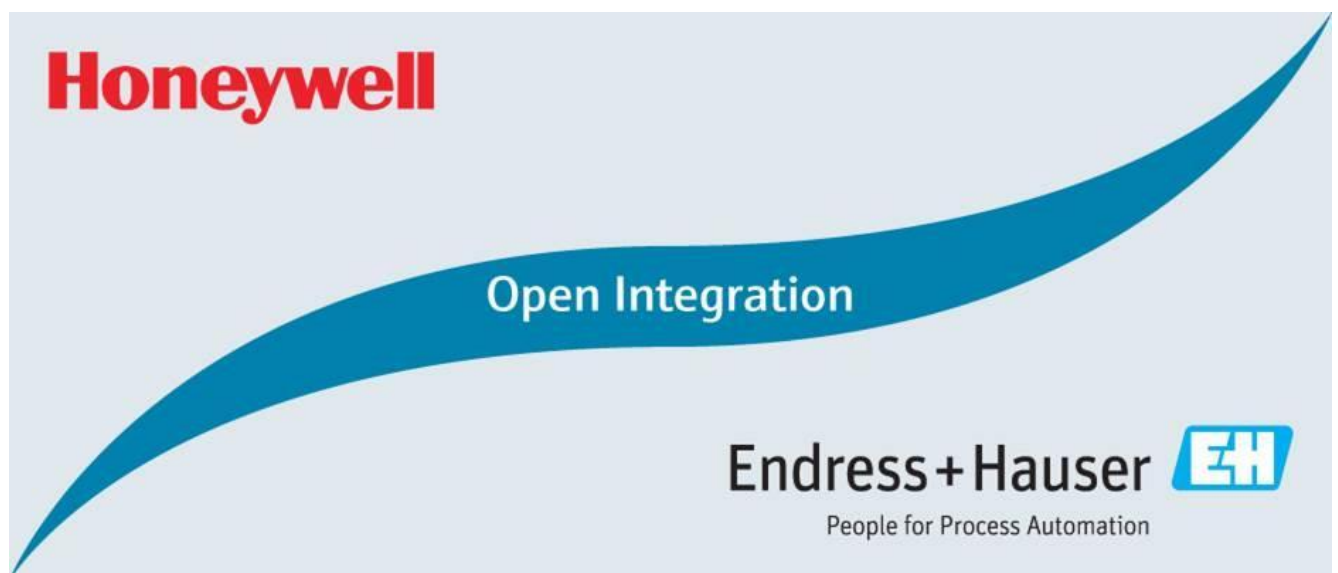


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1 Document Information

1.1 Purpose and Scope

This document specifies the Open Integration Reference Topology HON02. All content of this document is jointly developed, reviewed and released by Honeywell Process Solutions and Endress+Hauser as a common deliverable of Open Integration.

1.2 Document History

This is version 1.00.00 of this document. Version history:

Version	Released	Description
1.00.00	2017-12	Initial version

1.3 Related Documents

Please refer to related documents as listed below:

Document	Description
SD02063S/04/EN/01.17	Integration Tutorial HON02
SD02064S/04/EN/01.17	Integration Test Summary HON02
SD02065S/04/EN/01.17	List of Tested Devices and Versions HON02

2 Target Market

2.1 Industry Application

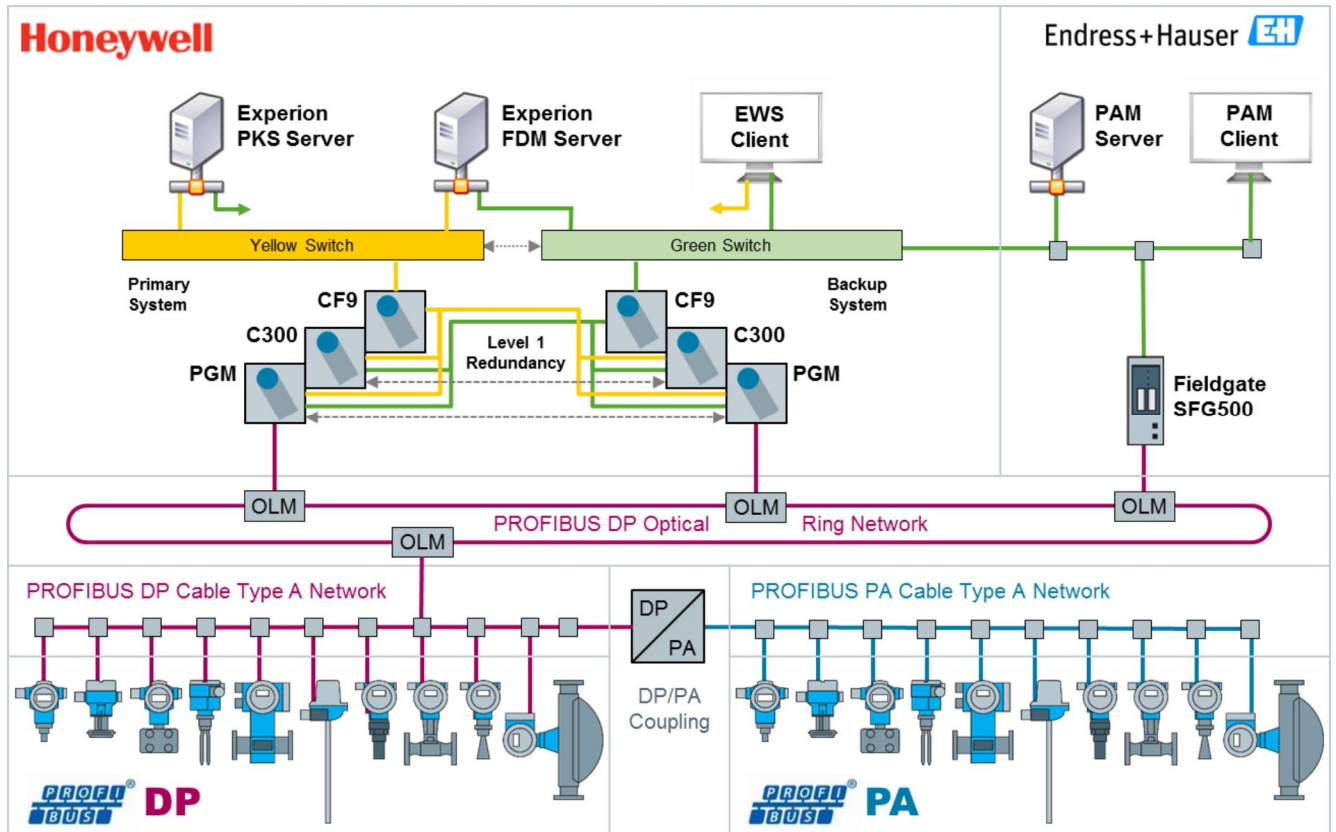
This reference topology is designed to serve applications in Chemical industry.

2.2 Fieldbus Technology

This reference topology is designed for instrumentation with PROFIBUS DP and PROFIBUS PA.

3 Reference Topology

3.1 Overview






3.2 Process Control System

The process control system part top left in the overview is provided by Honeywell Process Solutions:

The yellow and green switches establish a redundant Ethernet backbone for all Honeywell Experion®PKS servers, workstations and control units. Each control unit consists of at least two CF9 control firewall modules and two C300 controller modules to provide level 1 redundancy. PGM modules serve to connect to the underlying PROFIBUS DP/PA network. Core element on top of the system backbone is the Experion®PKS software for control engineering, complemented with Experion®FDM software for asset management.

Reference hardware:



Honeywell	Article	Description
Experion®PKS 	Processor: CC-PCF901 IOTA: CC-TCF901	Control Firewall with 9 ports (CF9)
Experion®PKS 	Processor: CC-PCNT02 IOTA: CC-TCNT01	C300 Controller
Experion®PKS 	Processor: CC-IP0101 IOTA: CC-TP0X01	PROFIBUS Gateway Module with 2 DP segments (PGM2)

3.3 Asset Management System

The asset management system part top right in the overview is provided by Endress+Hauser:

FieldCare or PAM Suite Servers and Clients may access the underlying PROFIBUS/DP/PA fieldbus network either via system backbone and hardware of the control system, or independently via Fieldgate SFG500.

Reference hardware:

Endress+Hauser  <small>People for Process Automation</small>	Article	Description
Fieldgate SFG500 	SFG500 SFM500-A1	Ethernet / PROFIBUS DP gateway Asset Management Module for Fieldgate SFG500



Complementary to this, Endress+Hauser also supports integral means of Honeywell with device drivers for Experion®FDM.

3.4 Field Network Infrastructure

3.4.1 PROFIBUS DP Optical Ring Network

The PROFIBUS DP Optical Ring Network is optional for this reference topology, with limited impact to integration tests. If applied, Honeywell Process Solutions and Endress+Hauser recommend using optical link modules from R.STAHL for this reference topology.

Recommended hardware:

	Article	Description
Mediaconverter 	9186/15-12-11	Safe area/Zone 2 installation; RS485 / FO "op is"; ring

For optical network a multimode cable with ST-connectors (BFOC/2,5 plug) is required. Optical ring is suitable for installation of the optical network in a Zone 1 or Zone 2 environment.



3.4.2 PROFIBUS DP Cable Type A Network

The PROFIBUS DP Cable Type A Network is mandatory for this reference topology, with limited impact to integration tests. Specific reference hardware for this part is not yet defined; recommendable hardware may be listed here in future.

3.4.3 PROFIBUS DP/PA Coupling

The PROFIBUS DP/PA Coupling is mandatory for this reference topology, with decisive impact to integration tests. Honeywell Process Solutions and Endress+Hauser recommend using the SK3 Power Hub from Pepperl+Fuchs for this reference topology.

Reference hardware:

 PEPPERL+FUCHS	Article	Description
SK3 Power Hub 	MB-FB-GT	Gateway motherboard
	MBHC-FB-4.HSC	Fieldbus Power Hub Motherboard
	HD2-GTR-4PA	Gateway module
	HCD2-FBPS-1.500	Fieldbus Power Supply Module
	HD2-DM-A	Diagnostic module
	ACC-MB-HSK	Shielding/grounding kit