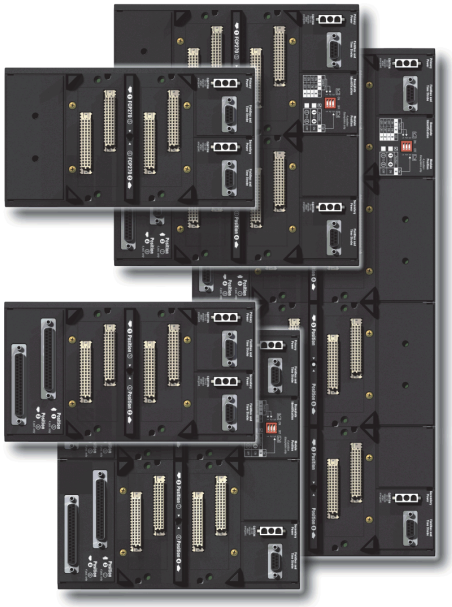
Foxboro Evo™ Process Automation System

Product Specifications

Foxboro by Schneider Electric

PSS 31H-2SBASPLT

Standard 200 Series Baseplates



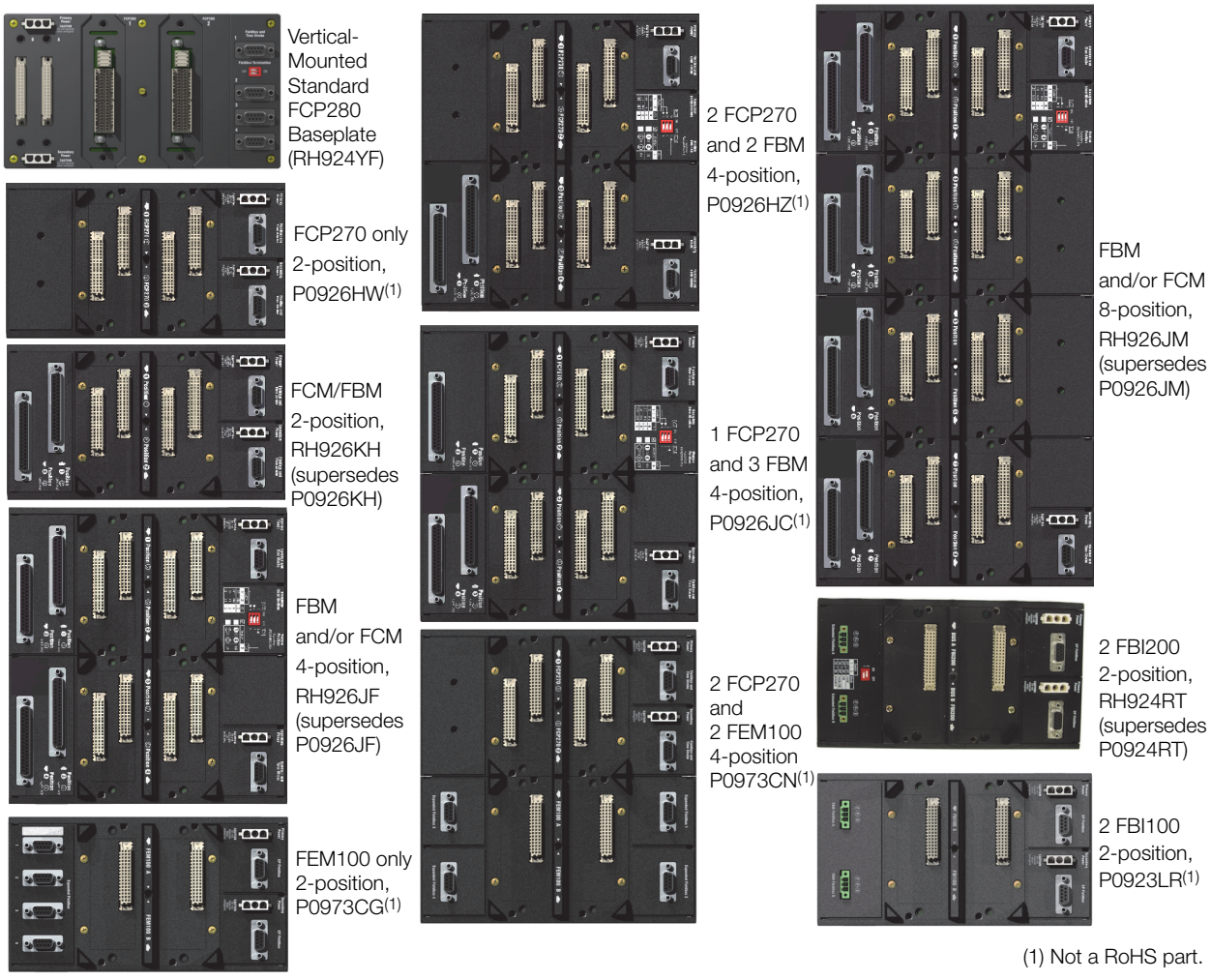
The Standard 200 Series baseplates provide the mounting platform and communication backplane for DIN rail mounted 200 Series modules.

OVERVIEW

These standard 200 Series baseplates support distributed control for both small and large systems and specifically support the following Foxboro Evo™ system modules:

- Field Control Processor 280 (FCP280) fault-tolerant or non-fault-tolerant
- Field Device Controller 280 (FDC280) fault-tolerant or non-fault-tolerant
- Field Control Processor 270 (FCP270) fault-tolerant or non-fault-tolerant
- Field Communications Modules (FCM100Et and FCM100E) and other FCMs
- Fieldbus Expansion Modules (FEM100E)
- Fieldbus Isolator/Filter Modules (FBI200/FBI100)
- Standard Fieldbus Modules (FBMs) and 100 Series FBMs connection.

The standard FBM-supporting 200 Series baseplates enable overall system installation functionality by providing unit increments of 2, 4, and 8 FBM positions in combination with vertical and horizontal mounting.



(1) Not a RoHS part.

Figure 2. Vertical DIN Rail Mounted 200 Series Baseplates

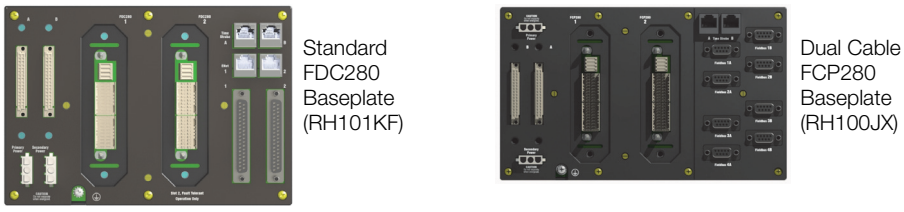


Figure 3. Horizontal or Vertical DIN Rail Mounted 200 Series Baseplates (Must Remain in Horizontal Orientation)

- FBI200 – The FBI200 module(s) are positioned on the Modular Baseplate dedicated to the FBI200.
- FBI100 – The FBI100 module(s) are positioned only on the Modular Baseplate dedicated to the FBI100.

FCPs, FEMs, FCMs, FBI100s, and FBMs can be removed/replaced from their corresponding 200 Series baseplates without removing field device termination cabling, power, or communications cabling.

SPLITTERS AND TERMINATORS

The following Splitters and Terminators can be used with 200 Series baseplates:

- The Fieldbus Baseplate Terminator (RH916RB (supersedes (P0916RB)) is used to terminate either the CP end of the HDLC fieldbus or the last 200 Series baseplate in the daisy chain when Time Strobe or split A/B fieldbus cables are not required. (See Figure 7.)
- Fieldbus Baseplate Terminator/Splitter (RH926KW for non-FCP280 baseplates, RH924ZJ for Fieldbus port 1 on an FCP280 baseplate, or RH928CY for any Fieldbus port on an FCP280 baseplate) allows splitting of the A and B Module Fieldbus signals into different cables. This splitter can be used to interconnect optional redundant cables between Modular Baseplates. It can also be used to terminate both the fieldbus and time strobe signals. (See Figure 8 and Figure 9.)
- Time Strobe Fieldbus Baseplate Terminator (RH926KZ or RH924ZQ) connects the optional “A” and/or “B” time strobe signals to the Modular Baseplates. The Time strobe splitter/terminator RH924ZQ is used on only the first baseplate containing an FCP280. The Time strobe splitter/terminator RH926KZ is used on only the first baseplate containing an FCM100Et or FCP270. This terminator also terminates the fieldbus signals. (See Figure 10.)
- Fieldbus Splitter (RH928CV) (see Figure 11) allows any of the Fieldbus ports on the FCP280 baseplates to connect to the twinaxial 268 Kbps fieldbus cables. RH928CV includes both a connector to any of the Fieldbus ports on the FCP280 baseplate, and a termination cable assembly (TCA) termination block similar to two of the P0903VY termination blocks joined together. Refer to PSS 31H-1FCP280 for the usage of this splitter.
- Fieldbus Splitter/Terminator (RH926LC/P0926LC) (see Figure 12) allows the FCP270 module(s) or FCM100E module(s) to connect to the remote Fieldbus used by the 100 Series Fieldbus Modules (Y-module FBMs) or Migration products.

  RH926LC/P0926LC connects to the following baseplates:

  - The FCP270 two-position, vertically mounted Modular Baseplate (P0926HW), four-position, vertically mounted Expansion Baseplate (P0973CN), or the FCP270 two-position, horizontally mounted Modular Baseplate (P0926HC).
  - The FCM100E two-position, vertically mounted Modular Baseplate RH926KH (supersedes P0926KH) or the two-position, horizontally mounted Modular Baseplate RH926KE (supersedes P0926KE).
- The standard FCP280 baseplate connects to 100 Series FBMs. However, the dual cable FCP280 baseplate is not compatible with 100 Series FBMs.

100 Series (Y-module) FBMs or 100 Series-based Migration products are connected to an FCP280, FCP270, or FCM100E Modular Baseplate through an extended remote Fieldbus. When the FCP280, or an FCP270 is connected directly to the 100 Series

ENVIRONMENTAL SPECIFICATIONS(1)

Operating

TEMPERATURE
-20 to +60°C (-4 to +140°F)

RELATIVE HUMIDITY
5 to 95% (noncondensing)

ALTITUDE
-300 to +3,000 m (-1,000 to +10,000 ft)

Storage

TEMPERATURE
-40 to +70°C (-40 to +158°F)

RELATIVE HUMIDITY
5 to 95% (noncondensing)

ALTITUDE
-300 to +12,000 m (-1,000 to +40,000 ft)

Contamination (Non-Enclosure Mounted)

Class G3 (Harsh) as defined in ISA Standard S71.04

Contamination (Enclosure Mounted)

Class G3 (Harsh) as defined in ISA Standard S71.04.
Pollution degree 2 as defined in IEC 664-1.

PHYSICAL SPECIFICATIONS

Mounting

DIN RAIL
200 Series baseplates mount on a non-isolated, mechanically supported horizontal or vertical DIN rail, which can be internal to, or external to an enclosure. The 200 Series baseplate attaches to the DIN rail by means of fasteners.

RACK MOUNT
A mounting kit (P0930AS) is available for horizontal mounting of the 200 Series baseplate in a standard, 483 mm (19-inch) rack. This kit provides a 25.4 mm (1 inch) mounting depth.

Size(2)

See Figure 13 and Figure 14

Mass (Without Modules)

Maximum 0.91 kg (2.0 lb) for 8-position Modular Baseplate.

Rack Mounting Bracket

Material: Steel, Cold-Rolled, 0.0598 mm (16 Gauge)

Construction

MATERIAL
PC and ABS, flame rating UL94 V0

DIN RAIL FASTENER
Number fasteners depends on 200 Series baseplate size

COLOR
Black

Module Fieldbus Cabling

CABLE LENGTHS
0.125 m (5 in) up to 60 m (198 ft)

OVERALL CABLE LENGTH
60 m (198 ft) total allowable cable length

(1) The environmental limits of the 200 Series baseplates may be enhanced by the type of enclosure containing the 200 Series baseplate.[Refer to the applicable Product Specification Sheet (PSS) which describes the specific type of enclosure that is to be used.
(2) For dimensions of the FCP270, refer to PSS 21H-1B9.