

MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Amikon cover with selected official Schneider Electric Foxboro pages

FOXBORO DCS

RH924YA FCP280

FOXBORO DCS FIELD CONTROL PROCESSOR 280

Selected official pages from PSS 41H-1FCP280 follow this cover.

OFFICIAL SOURCE

PSS 41H-1FCP280

Original source pagination, color and aspect ratio are retained.



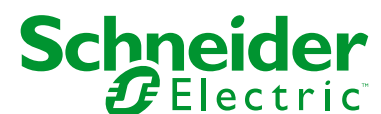
Foxboro™ DCS

Field Control Processor 280 (FCP280)

PSS 41H-1FCP280

Product Specification

April 2025



Liquid Crystal Display (LCD)

The FCP280 has a liquid crystal display (LCD) on its faceplate, which displays various status and identification information:

- The first line typically displays the FCP280's letterbug and role (Primary/Shadow/Single)
- The second line displays the FCP280's part number, hardware revision information, manufacturing date, OS version, and its status on the Control Network

LED Indicators

Light-emitting diodes (LEDs) on the front of the FCP280 module provide visual indication of the:

- FCP280 operational status
- Transmit/receive communications activity of four expanded fieldbus channels, fieldbus A and B for each

LED indicators on the copper or fiber network adapters provide visual indication for:

- Internal and external power supply health status
- Communications activity to the Control Network A and B links, and to the FCP280(s)

FCP280 Environmental Specifications

	Operating	Storage
Temperature	-20 to 60°C (-4 to 140°F) NOTE: Schneider Electric recommends the use of the FCP280 vertically-mounted baseplate (RH924YF) on vertical DIN rails for more efficient cooling of the FCP280.	-40 to +70°C (-40 to +158°F)
Relative Humidity	5 to 95% (Noncondensing)	5 to 95% (Noncondensing)
Altitude	-300 to +3,000 m (-1,000 to +10,000 ft)	-300 to +12,000 m (-1,000 to +40,000 ft)
Contamination	Class G3 (Harsh) as defined in ISA Standard, S71.04. No effect on functionality after simulated 10-year exposure to mixed gas testing per EIA Standard 364-65A, Class III. The FCP280 has Conformal Coating.	
Vibration	0.5 g (5 to 500 Hz)	

The environmental limits of this module may be enhanced by the type of enclosure containing the module. See the applicable Product Specification Sheet (PSS) that describes the specific type of enclosure to be used.

Ethernet Switch to FCP280 Cabling (continued)	Fiber Optic Cable (continued): - Maximum Length: 2 km (6,560 ft) from the Ethernet switch to the FCP280 Copper Cable: - Cable Material: 1,000 Base-T Cat 5 copper Ethernet cable - Cable Lengths: Up to 100 m (328 ft) – Schneider Electric supplied. See “Network Cabling for FCP280 Network Adapters” in <i>Field Control Processor 280 (FCP280) User’s Guide</i> (B0700FW) for the appropriate specifications of allowed copper cabling Greater than 100 m – user supplied - Maximum Length: 100 m (328 ft) from the Ethernet switch to the FCP280
Cabling — 2 Mbps Fieldbus	- FCP280 Fieldbus without FCM2Fs: The cable length of each individual Expanded fieldbus cannot exceed 60 m (198 ft) - FCP280 Fieldbus with FCM2Fs: Each FCP/FCM drives a segment of interconnected baseplates of up to 60 m (198 ft). Up to four pairs of FCM2Fs can be used in each individual fieldbus in the Expanded fieldbus - FCP280 Fieldbus with FBI200: The cable length from the FCP280 to FBI200 is up to 305 m (1,000 ft), and the length from the FBI200 to the last baseplate in the chain is 60 m (198 ft) (this represents the distance for one HDLC fieldbus in the Expanded Fieldbus) For additional FBI200 configurations and restrictions, see <i>FBI200 Fieldbus Isolator/Filter</i> (PSS 41H-2FBI200).
Cabling — 268 Kbps Fieldbus ^(a)	Maximum Length: - To 200 Series FBMs via FBI200: Total length of cabling between FCP280 and FBI200 plus the total length of the 2 Mbps Module Fieldbus (for 200 Series FBMs) - 60 m (198 ft) maximum - To 100 Series FBMs via FBI200: Between FCP280 and FBI200 - 60 m (198 ft) maximum From FBI200s to 100 Series FBMs in last mounting structure - 1,830 m (6000 ft) maximum - To 100 Series FBMs, Direct Connection: 2 Mbps and 268 Kbps Mixed Configurations: From FCP280 to 100 Series FBMs in last mounting structure - 60 m (198 ft) maximum 268 Kbps Only Configurations: From FCP280 to 100 Series FBMs in last mounting structure - 1 Km (3,200 ft) maximum - Cable: Twinaxial, shielded
(a) The FCP280 baseplate Fieldbus ports support direct connection to the 268 Kbps fieldbus via the splitter (RH928CV).	