

MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

SIEMENS SIMATIC S7

6ES7157-0AC85-0XA0

DP/PA OR FIELDBUS COUPLER

Applicable product family: SIMATIC distributed I/O networks

OFFICIAL SOURCE

6ES7157-0AC85-0XA0.pdf

The following pages are selected from the supplied manufacturer document and retain their original page content.

FIELD DEVICE COUPLER FDC 157 PHYSICAL LAYER
INTERFACE TO PROFIBUS PA OR FOUNDATION FIELDBUS H1
INTEGRATED POWER CONDITIONER UP TO 1000MA
REDUNDANCY SUPPORT INTEGRATED DIAGNOSTICS
PROTECTION CLASS IP 20 FOR EXPANDED TEMPERATURE
RANGE

General information	
Product description	Field Device Coupler for PROFIBUS PA and Foundation Fieldbus
Supply voltage	
Rated value (DC)	24 V
permissible range, lower limit (DC)	20.4 V
permissible range, upper limit (DC)	28.8 V
Reverse polarity protection	Yes
Overvoltage protection	Yes
Mains buffering	
• Mains/voltage failure stored energy time	5 ms
Input current	
Current consumption, max.	2.3 A; at 24 V DC
Power loss	
Power loss, typ.	13.4 W
Interfaces	
PROFIBUS DP	
• Transmission rate, max.	45.45 kbit/s
• Connector type	9-pin sub D
PROFIBUS PA	
• Transmission rate, max.	31.25 kbit/s
• Number of connectable PA field devices	31
• Current output to PA field devices, max.	1 A
Protocols	
PROFIBUS DP	Yes
PROFIBUS PA	Yes
Interrupts/diagnostics/status information	
Status indicator	Yes; Group error (red)
Alarms	Yes
Diagnostic functions	Yes
Diagnostics indication LED	

- Bus activity DP (yellow)
- Bus activity PA (yellow)
- Bus fault BF (red)
- Group error SF (red)
- Monitoring 24 V voltage supply ON (green)

Yes
Yes
Yes
Yes
Yes

Potential separation

between backplane bus and all other circuit components	Yes
between PROFIBUS DP and all other circuit components	Yes
between PROFIBUS PA and all other circuit components	Yes
between supply and all other circuits	Yes

Isolation

Isolation tested with	600 V DC
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Degree and class of protection

Degree of protection acc. to EN 60529	
• IP20	Yes

Ambient conditions

Ambient temperature during operation

• min.	-25 °C
• max.	60 °C

Ambient temperature during storage/transportation

• min.	-40 °C
• max.	70 °C

Relative humidity

• Operation, max.	95 %
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Dimensions

Width	80 mm
Height	125 mm
Depth	130 mm

Weights

Weight, approx.	550 g
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