SIEMENS

Data sheet 6ES7157-0AG82-0XA0

ACTIVE FIELD DISTRIBUTOR AFD8 FOR PROFIBUS PA FOR FOUNDATION FIELDBUS H1, 8 SHORT-CIRCUIT PROOF SPURS WITH CHATTER SUPPRESSION LOGIC AUTOMATIC BUS TERMINATION FOR LINE- AND RING-TOPOLOGY FOR ENHANCED TEMPERATURE RANGE PROTECTION CLASS IP 66

General information	
Product type designation	Active Field Distributor AFD8
HW functional status	01
Product function	
• Repeater function	No
Supply voltage	
permissible range, lower limit (DC)	16 V
permissible range, upper limit (DC)	32 V
Reverse polarity protection	Yes; only in conjunction with FDC 157
Overvoltage protection	No
Input current	
Current consumption (in no-load operation), typ.	34 mA; 64 mA at the end of the cable
Current consumption, max.	514 mA
Power loss	
Power loss, typ.	544 mW
Power loss, max.	4.1 W
Interfaces	

PROFIBUS PA	
• Transmission rate, max.	31.25 kbit/s
• Number of connectable PA field devices	8
• Current output to PA field devices, max.	480 mA
• permissible current per spur line	60 mA
Protocols	
PROFIBUS DP	No
PROFIBUS PA	Yes
AS-Interface	No
FOUNDATION Fieldbus H1	Yes
Interrupts/diagnostics/status information	
Status indicator	Yes
Alarms	No
Diagnostic functions	Yes
Diagnostics indication LED	
• Main line status	Yes
• Main line failure	Yes
• Spur line status/fault	Yes
• automatic bus termination	Yes
Potential separation	
between main line and spur lines	No
Degree and class of protection	
Degree of protection acc. to EN 60529	
• IP66	Yes
Standards, approvals, certificates	
Use in hazardous areas	
• ATEX Zone 1	No
• ATEX Zone 21	No
• ATEX Zone 2	Yes
• ATEX Zone 22	Yes
• FM Class I Zone 1	No
• FM Class I Zone 2, Division 2	Yes
Ambient conditions	
Ambient temperature during operation	
• min.	-40 °C
• max.	70 °C
Ambient temperature during storage/transportation	
• min.	-40 °C
• max.	85 °C
Relative humidity	

• Operation, max.	95 %

Connection method	
Main line	
• Number of main lines	2
• Design of terminals	Screw terminal block
• Type of connection (enclosure cable gland)	M16
• Type of cable	Type A
• Cable diameter, min.	4 mm
• Cable diameter, max.	9 mm
• Conductor cross-section, min.	0.2 mm²
• Conductor cross-section, max.	2.5 mm²
• automatic bus termination	Yes
• permissible main line current	1 A
Spur line	
• Number of spur lines	8
• Design of terminals	Screw terminal block
• Type of connection (enclosure cable gland)	M16
• Type of cable	Type A
• Cable diameter, min.	4 mm
• Cable diameter, max.	9 mm
• Conductor cross-section, min.	0.2 mm²
• Conductor cross-section, max.	2.5 mm²
• total current output to field devices, max.	480 mA
• Number of connectable field devices	8
• Current limitation per field device, max.	60 mA
• Short-circuit current (test current); max.	6 mA
• intrinsically safe according to FISCO model	No
• Debounce logic	Yes

Dimensions	
Width	360 mm
Height	120 mm; without screw glands
Depth	83 mm

Weights	
Weight, approx.	3 000 g

last modified: 11/28/2017