

3.5 Technical specifications of active field distributors AFD8 (6ES7157-0AG82-0XA0)

Relative humidity	
Operation, max.	95%
Degree of protection	
IP66	Yes
Installation	
Class I Zone 2 / Division 2	Yes
Class II, III Division 2	Yes

3.5 Technical specifications of active field distributors AFD8 (6ES7157-0AG82-0XA0)

Technical specifications	
Order number	6ES7157-0AG82-0XA0
Product version	01
Dimensions and weight	
Dimension W x H x D (mm)	360 x 120 x 83; without cable gland
Mounting dimensions (mm)	344 x 82
Weight	3000 g
Supply voltages	
Description	By bus; no auxiliary power necessary
Rated value	
• Low limit of permitted range (DC)	16 V
• High limit of permitted range (DC)	32 V
• Polarity reversal protection	Yes; in conjunction with FDC 157
• Overvoltage protection	No
Power consumption	
• Power consumption at no-load	34 mA
• Power consumption	34 mA + total current of all field devices
• Additional power consumption of the AFD8 at end of line	30 mA
• Power consumption at max. current output per spur line	514 mA
Power loss	
• Power loss, min.	544 mW
• Power loss, max.	4.1 W
Interfaces	
PROFIBUS PA	Yes
FOUNDATION Fieldbus H1	Yes

3.5 Technical specifications of active field distributors AFD8 (6ES7157-0AG82-0XA0)

Connections	
Main cables	
Quantity	2
Connection terminals (internal)	Screw-type terminals (2-pin)
Cable gland (enclosure)	M16
Cable type	Type A
• Min. cable diameter	4 mm
• Max. cable diameter	9 mm
• Min. conductor cross-section	0.2 mm ²
• Max. conductor cross-section	2.5 mm ²
Automatic bus termination	Yes
Maximum permitted continuous current on main line	1 A
Spur lines	
Number n	8
Number of connectable field devices	8
Connection terminals	Screw-type terminals (2-pin)
Cable gland	M16
Cable type	Type A
• Min. cable diameter	4 mm
• Max. cable diameter	9 mm
• Min. conductor cross-section	0.2 mm ²
• Max. conductor cross-section	2.5 mm ²
Short-circuit proof	Yes
Intrinsically safe according to FISCO	No
Max. DC current of the field devices on spur line 1 to 8	60 mA
Short-circuit current (test current)	6 mA
Debounce logic	Yes
Maximum no-load voltage on spur line	< 30 V
Max. current output to field devices	480 mA
Grounding	
• Direct grounding	Via ground rails
Interrupts, diagnostics, status information	
Status display	Yes
Interrupts	None
Diagnostics function	Yes
Diagnostic indicator LED	Yes
Data transmission	
Between main line and spur lines	Passive, no repeater function

3.6 Technical specification of active field distributors AFS (6ES7157-0AG80-0XA0)

Galvanic isolation	
Between main line and spur lines	No
Environmental requirements	
Operating temperature	
• Min.	-40 °C
• Max.	70 °C
Storage/transport temperatures	
• Min.	-40 °C
• Max.	85 °C
Relative humidity	
Operation, max.	95%
Degree of protection	
IP66	Yes
Installation	
Zone 2 / Zone 22	Yes
Class I Zone 2 / Division 2	Yes

3.6 Technical specification of active field distributors AFS (6ES7157-0AG80-0XA0)

Technical specifications	
Order number	6ES7157-0AG80-0XA0
Product version	01
Dimensions and weight	
Dimension W x H x D (mm)	220 x 120 x 83; without cable gland
Mounting dimensions (mm)	204 x 82
Weight	2000 g
Supply voltages	
Description	By bus; no auxiliary power necessary
Rated value	
• Low limit of permitted range (DC)	16 V
• High limit of permitted range (DC)	32 V
• Polarity reversal protection	Yes; in conjunction with FDC 157
• Overvoltage protection	No
Power consumption	
• Power consumption at no-load	54 mA
Power loss	
• Power loss, min.	864 mW