

DATA SHEET

GFS810

Compact Product Suite hardware selector



Select I/O is an Ethernet networked, single channel granular I/O system for the ABB AbilityTM System 800xA automation platform. Select I/O helps decouple project tasks, minimizes the impact of late changes, and supports standardization of I/O cabinetry ensuring automation projects are delivered on time and under budget. A Signal Conditioning Module (SCM) performs the necessary signal conditioning and powering of the connected field device for one I/O channel.

The GFS810 provides ground fault detection for signals with field supply sources from external power injection.

Features and benefits

- Ground fault detection for signals with field supply sourced from external power injection.
- Measuring of resistance to ground to provide it as an analog value to the application.
- Can be used with all GIO module types (GIS810 and GIS880).
- Galvanic isolation.

Diagnostics:

- Line break supervision of ground connection.
- Internal self-test.
- Test option for ground fault detection function (through external button).
- LED indicators on the SCM indicate the operational state of the module.

General info		
Article number	3BSE093005R1	
Туре	Ground Fault Detection Module	
Number of channels	1	
Signal specification	01 Mohm	
HART	N/A	
SOE	N/A	
Redundancy	No	
Hot swap	Yes	
High integrity	No	
Intrinsic safety	No	
Mechanics	Select I/O	

Detailed data		
Supported field devices	-	
Isolation	Galvanic isolation to system. Routine tested at factory with 3060 VDC.	
Field power	-	
Accuracy	±15 %	
Diagnostics	Internal hardware supervision Communication supervision Internal power supervision	
Calibration	Factory calibration	
Power dissipation	0.4 W	
Installation in Hazardous Area/Locations	Yes/Yes (on IPA)	
IS barrier	No	
Field Input Robustness	±35 V between all terminals	
Input voltage range	19.230 V	

Environment and certification	
Temperature, Operating	-40 °C (-40 °F) to +70 °C (158 °F)
Temperature, Storage	-40 °C (-40 °F) to +85 °C (185 °F)
Pollution degree	Pollution Degree 2 acc. to IEC 60664-1
Relative humidity	5 to 95 %, non-condensation
Altitude	-1000 to 5000 m (restrictions apply)
Mechanical operating conditions	IEC 61131-2
EMC	IEC/EN 61000-6-4, IEC/EN 61000-6-2
Overvoltage categories	Category II acc. to IEC 60664-1
Protection class	IP20 acc. to IEC 60529
CE-marking	Yes
UKCA	Yes
Electrical Safety	IEC/EN 61010-1 UL 61010-1 CSA-C22.2 No. 61010-1-12 IEC/EN 61010-2-201 UL 61010-2-201 CSA C22.2 No. 61010-2-201
Marine certification	N/A
Corrosive atmosphere	G3
RoHS compliance	EU ROHS, UAE ROHS, CN ROHS
WEEE compliance	EU
Hazardous Area ATEX	II 3G Ex ec IIC T4 Gc II 3G Ex ic ec IIC T4 Gc
Hazardous Area IECEx	Available on IPA: II 3G Ex ec IIC T4 Gc II 3G Ex ic ec IIC T4 Gc
Hazardous Location US/CAN	Available on IPA: cULus CL I, ZN 2, AEx ec IIC T4 Gc, Ex ec IIC T4 Gc X CL I, DIV 2, Groups A-D T4
Hazardous Area CCC	No

Dimensions		
Width	77.9 mm	
Depth	108 mm	
Height	9.8 mm	
Weight (including base)	76 g	



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