DATA SHEET

GFS810

Compact Product Suite hardware selector

Select I/O is an Ethernet networked, single channel granular I/O system for the ABB Ability™ 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
Type	Ground Fault Detection Module
Number of channels	1
Signal specification	0…1 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	19.2...30 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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