



Featuring Dynacheck® – Automatic and Continuous Self-Checking Circuitry

DESCRIPTION



Scully's Intellitrol® System is the most advanced terminal overfill prevention and ground verification system available today! At Scully, safety is not just a product feature; it's a passion. That is why every Scully overfill prevention system incorporates Dynacheck® dynamic self-checking®.

Dynacheck is a unique technique that automatically and continuously checks every critical component in the entire system. If any single component fails, the Intellitrol® will remove the permit and shut the system down.

Scully's Intellitrol with Dynacheck goes far beyond the pulsed signalling or self-checking employed by other systems in the market. These other

systems may fail to detect an overfill because they cannot detect every critical component failure or even a simple short in the vehicle wiring. Dynacheck detects a fault anywhere in the Scully system including the Intellitrol control unit, wiring and the sensor circuitry¹.

Scully Intellitrol® offers the ultimate in safety with a patented design that incorporates redundant output relays and continues monitoring of relay contacts. The Intellitrol® model has been evaluated by TÜV Rheinland and certified as part of a SIL 2 Overfill Prevention System when used in conjunction with Scully sensors.

Intellitrol®
 Overfill Prevention
 Control Unit

SIL 2
 IEC 61508 Certified



IEC / EN 13922

1. Maximum safety not ensured when Scully loading rack controllers are connected to non Scully vehicle mounted overfill prevention equipment. Remember to specify Scully tank trailer equipment.

FEATURES AND BENEFITS

- Overfill prevention, ground verification and vehicle identification in one compact state of the art explosion-proof enclosure.
- Scully Dynacheck® automatic and continuous self-checking circuitry.
- Automatic detection of two-wire optic/thermistor or five-wire optic vehicle sensors.
- Monitoring of up to 8 two-wire or 15 five-wire vehicle sensors.
- Complete visual diagnostic display of overfill sensors' status. Will not permit loading under any fault or wet sensor condition.
- When used with Scully Sensors, the Scully Intellitrol Control Unit has been certified as part of a SIL 2 Overfill Prevention System.
- Easy connection to vehicles with rugged high impact industry standard plug and cable units.

TECHNICAL SPECIFICATIONS

Temperature Range:	
Operating	ICC Models: -40° to +50°C (-40° to +122°F)
Storage	-45° to +85°C (-50° to +185°F)
Power Requirements:	100 - 130 VAC (120 VAC Setting) or 200 - 250 VAC (240 VAC Setting) 50/60 Hz, 30 watts maximum
Enclosure:	Explosion-proof weathertight housing with powder coated corrosion resistant finish. Weathertight rating: Type 4X and IP 65.
Sensor Inputs:	Up to 8 Scully two-wire optic/thermistor sensors (6 or 8 channels) or 15 five-wire optic sensors (maximum). Automatic detection of two-wire vs. five-wire sensors. 3-wire high-temperature thermistor sensors is not supported.
Ground Verification Inputs:	When configured for Ground Bolt detection, a Scully Ground Bolt connected to pin number 9 of the overfill prevention system socket(s) and installed onto the vehicle frame per Scully installation instructions (No.61081) is needed to satisfy this input. When configured for Resistive Ground detection, all vehicles must be wired with socket pin number 9 and 10 connected to separate points on the vehicle chassis.
Dead Man Input:	An intrinsically safe input is provided for an optional dead man switch.
Outputs:	Two independent outputs are provided as follows:
Main Permissive Output:	A Form-A (“normally open”) AC relay output with “monitored redundant contacts”. This output closes when all overfill prevention sensors are dry and functional, a proper ground connection, and/or vehicle I.D. (optional), and/or deadman (optional) is established. This output is an AC control output and must only be used with AC voltage. This output should be used for product flow shutdown capability and is rated at 250 VAC, 5 amps resistive.
Main Form-C, Volt-Free Output Relay:	A Form-C (“normally open” and “normally closed”) volt-free redundant relay output contact. These output contacts reverse state (“normally open” closes and “normally closed” opens) when all overfill prevention sensors are dry and functional, and a proper ground connection, and/or deadman (optional), and/or vehicle I.D. is established. If a volt-free relay output contact is needed, the “normally open” relay output contact may be used for product flow shut down. The “normally closed” relay output contact is intended for any additional non-critical output status reporting functions. This Form-C contact is rated at 250 VAC, 5 amps resistive.
Response Time:	450 milliseconds maximum after wet sensor or fault condition.
Communications Port:	The communications port is a half-duplex, RS-485 multi-drop communications port, utilizing Modbus™ RTU (straight binary) communications protocol at 1200, 2400, 4800, 9600 or 19200 baud rate; 8 bits; even, odd or no parity.
Approvals:	ICC Models: ATEX approvals, Ex d ia IIB T4; IP 65.
Dimensions:	Refer to diagram
Shipping Weight:	14.1 kg. (31 lbs.)

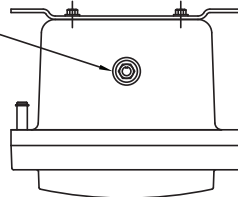


MODEL DESIGNATIONS

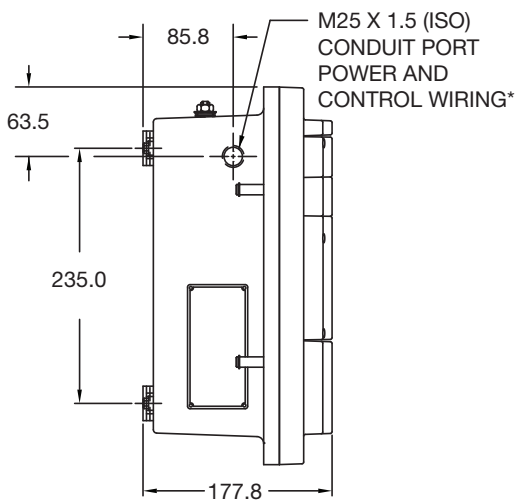
Model Designations		Prefixes		Suffixes		
ATEX Approved	=	ICC	}-	O Overfill Prevention	G Ground Verification	V Vehicle Identification

Dimensions shown in millimeters

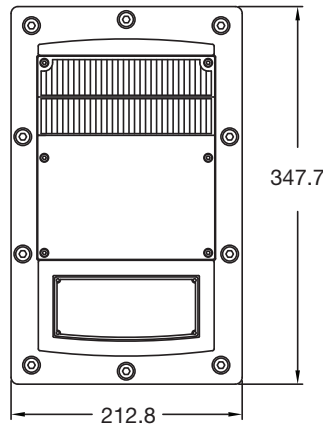
ENCLOSURE EARTH
BONDING STUD



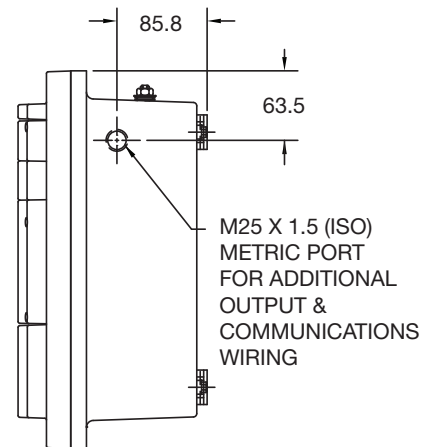
Top View



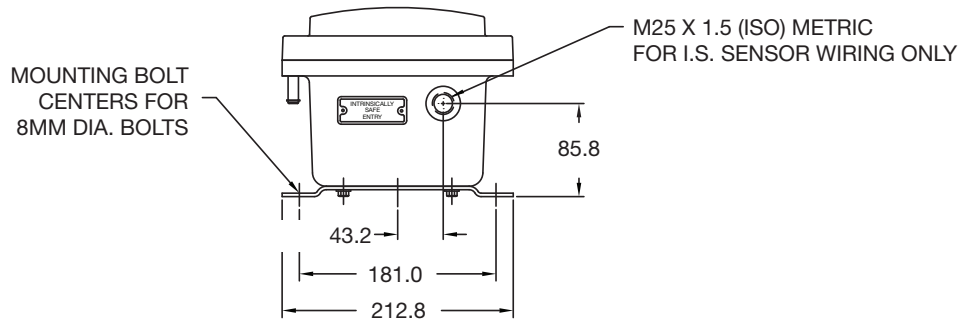
Side View Left



Front View



Side View Right



Bottom View



Intellitrol®

Overfill Prevention, Ground Verification and Vehicle Identification
for Petroleum & Chemical Gantries

INTERNATIONAL
ATEX
PRODUCT
LINE

CONTROL UNITS

Description	Part Number
ICC-SIL-OG Intellitrol, Overfill & Ground (Earth)	08913SIL
ICC-SIL-OGV Intellitrol, Overfill, Ground (Earth) & Vehicle I.D.	08914SIL



SYSTEM ACCESSORIES

Description	Part Number
Bypass Authorizer, Intellitrol	08939
Intelliview® 2 Software	09296
RS-232 to RS-485 Converter Kit	09001
SC-8OB Sculcon Junction Box Kit, Black Plug, Blue Coiled Cable (2 or 5-Wire Sensors)	09146NV
SC-8OB Sculcon Junction Box Kit, Black Plug, Blue Straight Cable, 20' (2 or 5-Wire Sensors)	08958NV
SC-8B Sculcon Junction Box Kit, Green Plug, Blue Straight Cable, 20' (for 2-Wire Sensors)	08959NV
SC-OB Sculcon Junction Box Kit, Blue Plug, Blue Straight Cable, 20' (for 5-Wire Sensors)	08957NV
SC-6W Sculcon Junction Box Kit, Blue Plug, Blue Coiled Cable, 30' (for 5-Wire Sensors)	08159NV
Cable, 10-Conductor, Blue Straight, Type A cable for Intellitrol Unit to Sculcon Box connection (priced in meters)	27326



REPLACEMENT PARTS

Description	Part Number
Module Assembly, ICC-SIL_OGV Overfill, Ground & V.I.P. Intellitrol	08983OGVSIL
Module Assembly, ICC-SIL-OG Overfill & Ground Intellitrol	08983OGSIL
Display Circuit Board Replacement, Intellitrol	08981
Lens Assembly Replacement, Intellitrol	08980
Kit, Lens Upgrade, Intellitrol	09015
Mask, Lens, English, Overfill & Ground*	32085
Mask, Lens, English, Overfill, Ground & V.I.P.	32086
Display Cable Assembly, Intellitrol	08982
Fuse, 1A, Main Fuse (for older models)	26373
Fuse, 5A, Contact Fuse	26372
Cover Bolt, A2-70, M8 x 1.25 x 25mm	50005
Cover O-ring -277, BUNA-N	31340
Corrosion Inhibitor	40268

* For a diagnostic display panel in a language other than English add - "S" for Spanish, "F" for French, "I" for Italian, "D" for Danish or "G" for German

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MaxSafety®
SYSTEMS

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Dynamic Self-Testing® Overfill Prevention Systems

