

Catalogue No: 42GRP-9042

DIFF 70-240VAC/DC 50mm-3m INFRA LO/DO SPDT-EM 2m

Field Switching and Sensing > Non Contact Sensors > Photoelectric Sensors > Allen-Bradley Photoelectric Sensors > Digital Diffuse Sensors > Rectangular



PHOTOSWITCH Photoelectric Sensor, Standard (On / Off), Long Range Diffuse, 3.04m (10ft), 70-264V AC/DC, SPDT EM Relay, 2m (6.5ft) 300V cable

- Comprehensive range of photoelectric sensing technologies available which include retroreflective, through-beam, diffuse, background suppression, clear object detection, colour detection and fibre-optics
- Extensive range of photoelectric sensors with laser light source available suitable for high precision applications
- Extensive range of housing styles and mounting options
- Specialised versions with IP69k rating available for high-pressure washdown applications in the food and beverage industry
- Specialised long-range laser sensors available for distance measurement applications
- Specialised versions available with IO-Link technology. This technology enables the data delivery from the sensor directly into a control system in a very efficient manner

Representative Photo Only
(actual product may vary based on configuration selections)

SPECIFICATIONS

Product Series	42G / Series 9000
Component Type Field Switching & Sensing	Photoelectric Sensor
Sensing Mode	Diffuse
Light source type	LED
Illumination Mode	Continuous
Colour, light source	Infrared (880nm)
Beam Angle / Field of View	6.5 ° (degrees)
Spot Size	2 x 3.5 mm at 800 nm
Material, Lens	PMMA / Acrylic / Perspex / Plexiglas (Polymethyl methacrylate)
Material, Body / Housing	PBT / PBTP / Valox material
Shape	Rectangular
Height	74.8 mm
Width	41.9 mm
Depth	40 mm
Orientation	Right Angle
Mounting (Multiple)	Threaded Base Mounting Bracket (Ordered Separately)
Thread Size	M30 x 1.5 size
Sensing Distance, Min	50 mm min
Sensing Distance, Max	3040 mm max
Operating Range(s)	70 ... 264V AC/DC
Switching Mode	Light or Dark Operate Selectable
Output Type	SPDT EM Relay
Load Current	0.03 A
Response Time (Off → On)	0.5 ms
Response Time (On → Off)	0.5 ms

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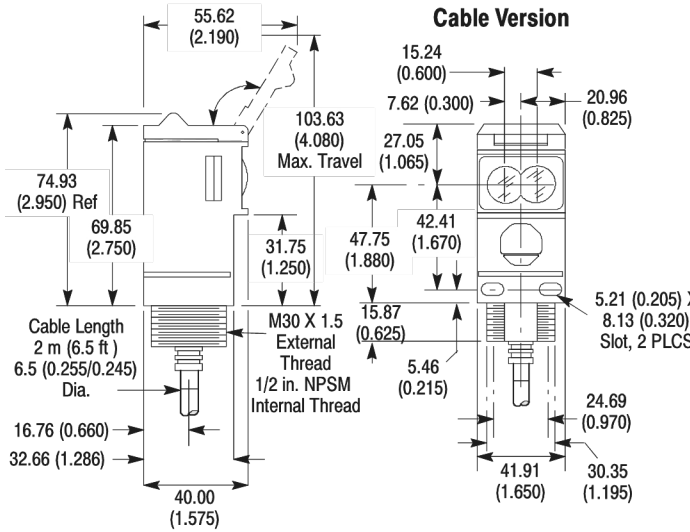
Indicators	Red LED Green LED Yellow LED
Number of Conductors	4 qty
Length, Cable	2 m
Material, cable jacket	PVC material
Colour, Cable Jacket	Black colour
Operating Temperature, Min	-34 °C min
Operating Temperature, Max	70 °C max
Relative Humidity, Min	5 %RH
Relative Humidity, Max	95 %RH
Humidity Type	Non-condensing
IP Rating	IP67 IP69K
Shock Acceleration (Max.)	30 g
Shock Duration (Max.)	1 ms
Shock Rating	IEC 60947-5-2
Vibration Displacement (Peak to Peak Max.)	1 mm
Vibration Frequency, Operational (Max.)	55 Hz
Vibration Rating	IEC 60947-5-2

REFERENCES

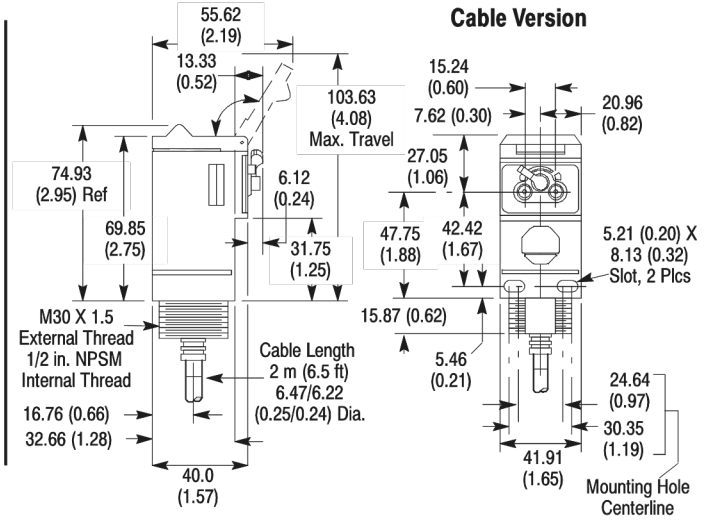
IECEX Certificate	-
Supplier Declaration of Conformity:	-
Installation Guide:	-
User Manual:	-
Manufacturer Datasheet:	42GRP9042_ManufacturerDatasheet
Manufacturer Catalogue & Product Selection:	-



All Versions Except Fiber Optic

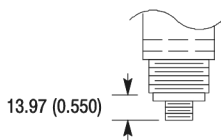


Fiber Optic

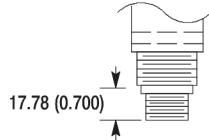


Connector Version

Micro Style



Mini Style

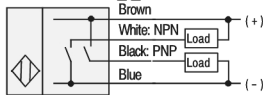


Dimension Diagram

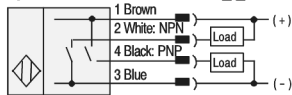
Thread Size

	AC	DC
Micro Style	1/2-20 UNF 2 Keyways	M12 x 1 1 Keyway
Mini Style	7/8-16 UN 1 Keyway	

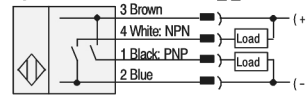
Cable Model: 9_0



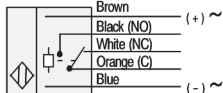
4-pin DC Micro QD Model: 9_0-QD



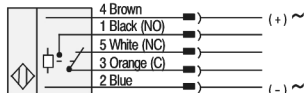
4-pin DC Mini QD Model: 9_0-QD1



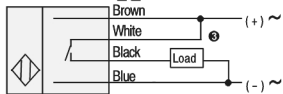
Cable Model: 9_1_9_2



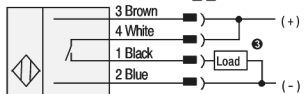
5-pin AC/DC Mini QD Model: 9_1-QD, 9_2-QD



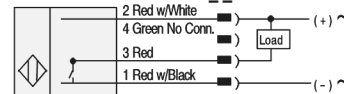
Cable Model: 9_3



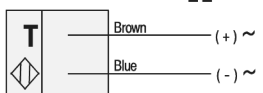
AC/DC Mini QD Model: 9_3-QD



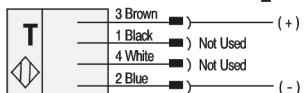
AC/DC Micro QD Model: 9_3-QD1



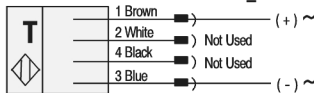
**Transmitted Beam Source
Cable Model: 42GRL-90_**



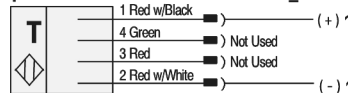
AC/DC Mini QD Model: 42GRL-90_2-QD



DC Micro QD Model: 42GRL-90_0-QD



4-pin DC Micro QD Model: 42GRL-90_3-QD1



- ① For Allen-Bradley programmable controller compatible interface, refer to publication 42-2.0.
- ② Quick-disconnect wiring codes shown are valid for Allen-Bradley cables only.
- ③ Load can be placed on either black or white wire to create sourcing or sinking respectively.

Connection / Wiring Diagram