

Catalogue No: 42GRP-9040-QD

DIFF 10-30VDC 50mm-3m INFRA LO/DO PNP/NPN DC-MICRO-4

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



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

PHOTOSWITCH Photoelectric Sensor, Standard (On / Off), Long Range Diffuse, 3.04m (10ft), 10-40V DC, NPN/PNP Transistor, 4-pin DC Micro (M12) QD

- 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

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
Teach Mode / Sensitivity Adjustment	Single-Turn Knob / Potentiometer sensitivity
Sensing Distance, Min	50 mm min
Sensing Distance, Max	3040 mm max
Operating Range(s)	10 ... 30V DC
Ue, Rated Operational Voltage, DC, min	10 V DC
Ue, Rated Operational Voltage, DC, max	30 V DC
Switching Mode	Light or Dark Operate Selectable
Output Type	NPN & PNP

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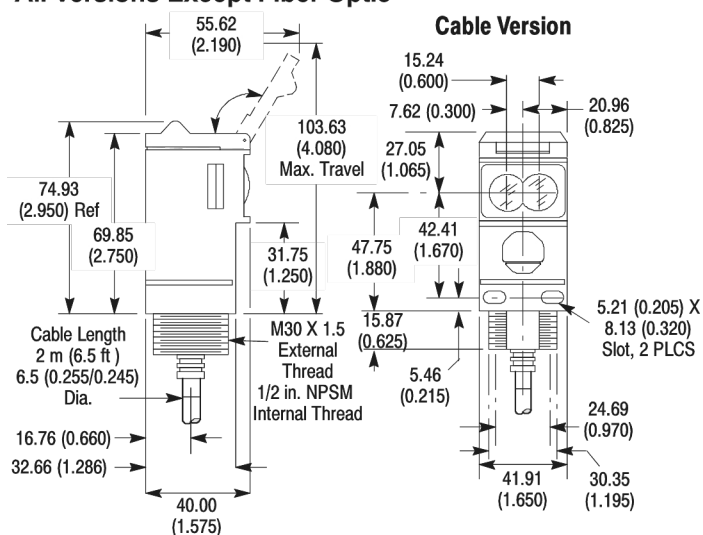
NHP

Load Current	0.03 A
Response Time (Off → On)	0.5 ms
Response Time (On → Off)	0.5 ms
Indicators	Red LED Green LED Yellow LED
Connection / Termination	M12 x 1, DC Micro, 4-pin
Number of Conductors	4 qty
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

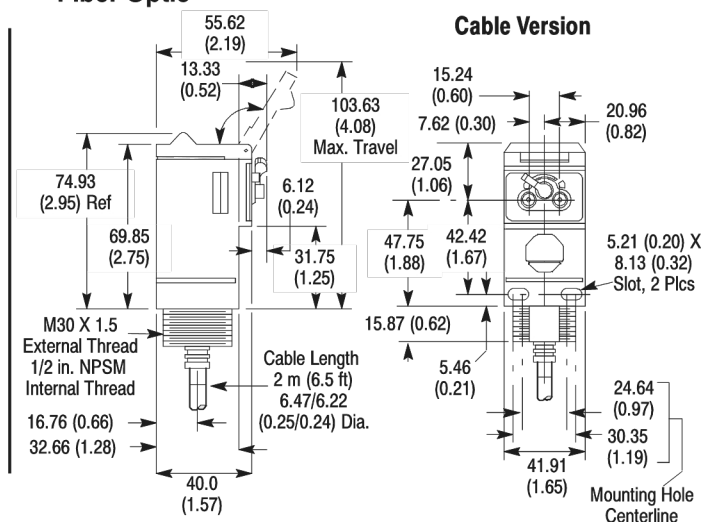
REFERENCES

IECEx Certificate	-
Supplier Declaration of Conformity:	-
Installation Guide:	-
User Manual:	-
Manufacturer Datasheet:	42GRP9040QD_ManufacturerDatasheet
Manufacturer Catalogue & Product Selection:	-

All Versions Except Fiber Optic

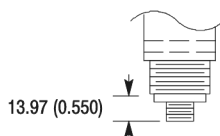


Fiber Optic

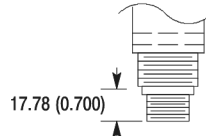


Connector Version

Micro Style



Mini Style

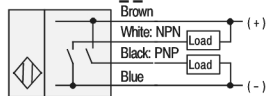


Dimension Diagram

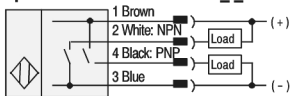
Thread Size

	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



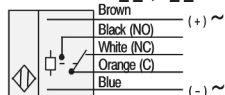
4-pin DC Micro QD Model: 9__0-QD



4-pin DC Mini QD Model: 9__0-QD1



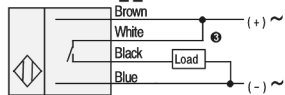
Cable Model: 9__1, 9__2



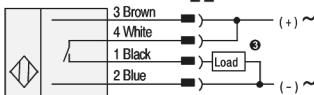
5-pin AC/DC Mini QD Model: 9__1-QD, 9__2-QD



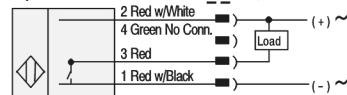
Cable Model: 9__3



AC/DC Mini QD Model: 9__3-QD

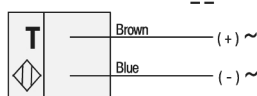


AC/DC Micro QD Model: 9__3-QD1

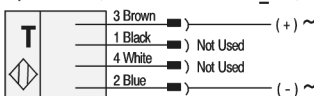


Transmitted Beam Source

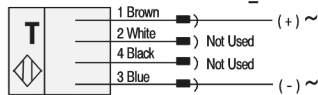
Cable Model: 42GRL-90__



AC/DC Mini QD Model: 42GRL-90__2-QD



DC Micro QD Model: 42GRL-90__0-QD

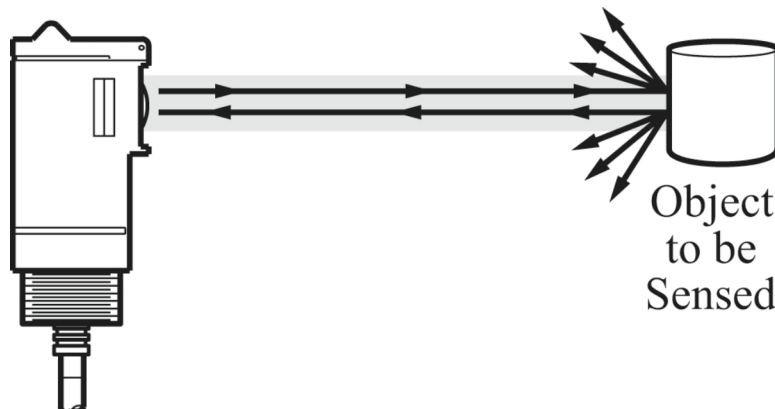


4-pin DC Micro QD Model: 42GRL-90__3-QD1



- 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



Technical Diagram