Data Sheet

Gladiator G1 Series
Microwave Waveguide Information
Beam Blockage Detection

For more information, please visit www.hawkmeasure.com
Waveguide Concept
Gladiator G1 Microwave Series

Waveguides

System with Waveguide extensions for remote mounting / signal transmission.

Waveguides can be used for difficult to access areas or to isolate the electronics from high temperature or non-compatible processes.
Waveguides with Process Seals
Gladiator G1 Microwave Series

Waveguides with windowed weldment / coupling process seals

System with Waveguide extensions for remote mounting / signal transmission. Waveguides can be used for difficult to access areas or to isolate the electronics from high temperature or non-compatible processes.

![Diagram of Waveguide System](Image)

Pictured system:
(1) G1R
(2) G1S
(3) Qty2 of MA-WG01
(4) Qty2 of MA-WG-L=xx
(5) Qty2 of MA-WG03

Ceramic windows for high temperature applications

![Diagram of Ceramic Window System](Image)

Pictured system:
(1) G1R
(2) G1S
(3) Qty2 of MA-WG01
(4) Qty2 of MA-WG02
(5) Qty2 of MA-WG-04
Example Setup
Gladiator G1 Microwave Series

Example Waveguide setup with exploded parts

MA-WG04 (3” horn) with MA-WG14 (4” teflon window) can be swapped with MA-03 (1-1/2” horn) with MA-WG12 (2” teflon plug).

A

G1 unit
Locking nut (included with G1 unit)
MA-WG01 Threaded connector connects unit to pipe.
MA-WG11 Locking nut
MA-WG10 Straight pipe

B

MA-WG10 Straight pipe
MA-WG11 Locking nut
MA-WG13 pipe to pipe threaded connector
MA-WG11 Locking nut
MA-WG02 Bend pipe

C

MA-WG02 Bend pipe
MA-WG13 pipe to pipe threaded connector
MA-WG11 Locking nut
MA-WG04 3” waveguide horn
MA-WG11 Locking nut
MA-WG14 4” teflon window
Waveguides and Waveguide Accessories

Additional mounting accessory variants and materials including high temperature ceramics are available. See Gladiator Gen 3 Microwave datasheet available at www.hawkmeasure.com
Overview

Part Numbers

Gladiator G1 Microwave Series

G1 Series

Model

G1S  Gladiator 1” Microwave Integral Sender
G1R  Gladiator 1” Microwave Integral Receiver, 1 Relay with Failsafe

Electronics Housing (Sensor element is 316L with Teflon face)

S  Powder Coated Aluminium
C  316L Stainless Steel

Power Supply

B  24VDC
U  24VDC and 90-260VAC

Mounting Thread

TB  1” BSP
TN  1” NPT

Approvals

X  Not Required
A22  ATEX  Grp II Cat 3 GD T85°C IP67 Tamb -40°C to 70°C

Mounting Accessories

MA

1  1” UHMW Window & mild steel weldment/coupling each
1-SS  1” UHMW Window & 316L stainless steel weldment/coupling each
1-UW  1” UHMW Window each
1-WC  1” mild steel weldment/coupling each
1-WC-SS  1” 316L stainless steel weldment/coupling each
2  2” UHMW Window & mild steel weldment/coupling each
2-SS  2” UHMW Window & 316L stainless steel weldment/coupling each
2-UW  2” UHMW Window each
2-WC  2” mild steel weldment/coupling each
2-WC-SS  2” 316L stainless steel weldment/coupling each

MA  2  Additional mounting accessory variants and materials including high temperature ceramics are available. See Gladiator Gen 3 Microwave datasheet available at www.hawkmeasure.com

Waveguides & Waveguide accessories

MA-WG

01  316L Threaded connector for Sender / Receiver
02  316L 90deg bend pipe (150mm + 150mm). Includes qty 2 of MA-WG11
03  316L 1-1/2” Wave guide horn. Includes qty 1 of MA-WG13
04  316L 3” Wave guide horn assembly. Includes qty 1 of MA-WG13
10-L= 1” 316L Straight pipe extension ‘L’ length in mm. Includes qty 2 of MA-WG11
11  316L Locking nut
12  2” BSP teflon plug with socket to match MA-WG03 horn
13  316L Pipe to pipe connector coupling
14  4” Teflon window to match MA-WG04 Horn. Fits into MA18 weldment.

MA-WG  01
Specifications

See G1 Microwave datasheet for full specifications available at www.hawkmeasure.com

Temperature

- 316L/304 parts: 800°C
- Ceramic parts (alumina ceramic 95%) -50 to 800°C
- Teflon parts: 250°C
- UHMW parts: 80°C
- MA-WG03 O-ring seals: NBR (Nitrile) 90°C. O-ring can be replaced with appropriate material for application.

Weights

- MA-WG01: 0.2kg
- MA-WG02: 0.6kg
- MA-WG03: 0.4kg
- MA-WG04: 1.1kg
- MA-WG10L: 0.2kg per 10cm
- MA-WG11: 0.025kg
- MA-WG12: 0.2kg
- MA-WG13: 0.1kg
- MA-WG14: 0.4kg
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