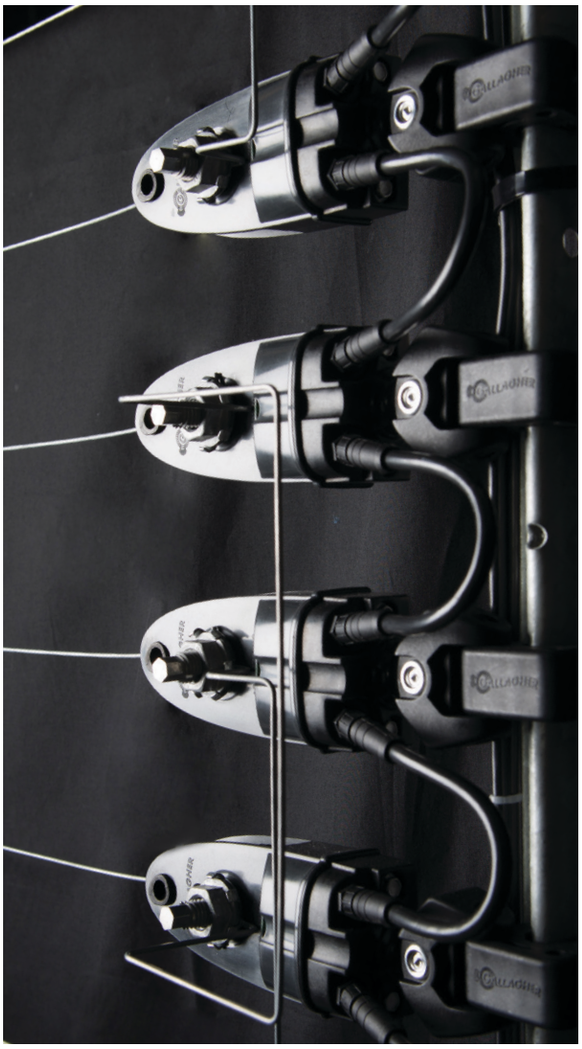
Z10 Tension Sensor

The Z10 Tension Sensor measures the mechanical disturbance of a tensioned fence wire to raise an alarm when a wire is deflected during an attack. It continuously measures and reports wire tension in real time, to identify when maintenance is required or the fence has been damaged.



Features and benefits:

- Continuous, real-time, wire tension measurement displayed in kg or lb
- Able to detect both fast and slow attacks
- Attack alarm based on single or multi sensors
- Differentiation between environmental changes and attacks
- Self aligning to optimize performance and to allow for variation in mounting angle
- 7kg to 60kg continuous operating tension range (15 to 130 lb)
- Overload protection to 200kg (440lb)
- High, and low, wire-tension maintenance alarms
- Fast installation using new Pivoting Mount Technology as well as plugged and IDC connectors
- Options to retro-fit to existing Gallagher perimeter security systems
- Fence and wiring design utility for accurate fence design
- HBUS communication protocol, compatibility with high security AES* 128bit encryption and latest Gallagher technologies
- Fully integrated with Gallagher Command Centre v7.10 and later

GALLAGHER Security

Technical Specifications

Gallagher Z10 Tension Sensor		
Sensor	Voltage	18-36V DC (Supplied via Z40 voltage booster)
	Power Consumption	82mA (standby) / 115mA (peak)
Z40 Voltage Booster	Voltage - Input	13.6V DC
	Voltage - Output	36V DC
Communication	Between Z10 and Gallagher Controller 6000	HBUS RS485 at up to 1Mbits per second
	Wiring Format - Data	2 wires using Cat5e (2 wire + ground)
	Wiring Format - Power	4 wires (2x2) using Cat5e (or as per design utility)
	Encryption Level	HBUS 128 Bit AES*
Cable Specification	Z11 cable adapter to Gallagher Controller 6000	Cat5e outdoor rated cable (G10600)
Device Limits	Maximum number of Z10 Tension Sensors per Gallagher Controller 6000	80*
	Maximum distance between Gallagher Controller 6000 and Z10 Tension Sensor	500m* (546 yards)
	** Use Gallagher design utilities to determine sensor layout design*	
	Minimum Operating Tension	7kg (15.4lb)
	Maximum Operating Tension	60kg (132.2 lb)
	Safe Maximum Instantaneous Tension	200kg (440.9 lb) (STP)
	Humidity	100% non-condensing
Temperature Range	-40°c to 60°c (-40°F to 158°F)	
Environmental Protection Rating	IP68	
Impact Rating	IK07 (STP)	
Mounting Range	Vertical range 91mm pitch	±45° from horizontal
	Vertical range 60mm pitch	±14° from horizontal
	Horizontal range	+68° from straight fence (internal corners)
		-12° from straight fence (external corners)
Dimensions (Including attached bracket but excluding Z11 cable)	Height x Width x Depth	56 x 176 x 50mm (2.2 x 6.9 x 1.9 inches)

*This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit (http://www.openssl.org/)

Part numbers				
Z10 Tension Sensor - TVS	G13115			
Z12 Cable adapter	G13125			
Z11 End of line	G13126			
Z40 Voltage booster	G13310			
Compatible with:				
2.0mm HT steel wire	G29802			
2.5MM HT steel wire	G29803			
Z11 Cable	G13122	G13132	G13142	G13251
Cable length:	190mm	260mm	330mm	2000mm

Note: The friction imparted on a wire traveling around a corner will have an impact on the deflection to alarm value.

Gallagher World Headquarters
181 Kahikatea Drive, Melville, Hamilton 3204
New Zealand

Phone +64 7 838 9800
Email security@gallagher.com

Regional Offices

Americas	+1 877 560 6308
Asia	+852 2946 9641
Australia	+61 3 9308 7722
India	+91 98 458 92920
Middle East	+971 4 566 5834
South Africa	+27 11 974 4740
United Kingdom / Europe	+44 2476 64 1234

Disclaimer

Please note that information contained in this document is intended for general information only. While every effort has been taken to ensure accuracy as at the date of the document, there may be errors or inaccuracies and specific details may be subject to change without notice. Copyright © Gallagher Group Limited.

3E3142 - 09/23

security.gallagher.com

GALLAGHER Security