GOLIAH

GOLEM

Remote control
of pressure regulators
in ATEX zones

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TYPICAL USE

Management, automation, remote control of GR regulation

BASIC FUNCTIONS	
Pressure measurement	YES
Temperature measurement	YES
Digital alarm detection	YES
Counter management	YES
Threshold exceed detection on analogue signals (prex./temp.)	YES
Separate threshold management per channel	YES
Number out of limit (NOL)	NO
Time out of limit (TOL)	NO
Digital output management	Via VCTRL
Presence of integrated EX barriers	YES
Remote control management	Via VCTRL
Display	YES
Keyboard	YES
Measurement frequency	Configurable Minimum = 1 min
Logging frequency	Configurable Minimum = 1 min
RTU Mode	YES
RTU Polling	Configurable Minimum = 1 min
DTL Mode	YES
Contact frequency with the DTL server	Configurabile Default = 24 H
Sending of intensive measurement	YES
Daily data processing (daily report)	YES
Sending of minimum, average and maximum, standard deviation	YES
Real-time local monitoring	YES
Real-time remote monitoring	When configured as RTU and according to polling frequency
Monitoring of functional parameters (batteries, GSM signal)	YES
External power supply failure alarm	YES

Local configuration software	YES
Local configuration mobile app	NO
Control centre	YES
AUTOMA MODBUS protocol	YES
IEC104 Protocol	NO
AUTOMA smart sensors management	YES

OPTIONAL FUNCTIONS	
Integration of specific protocols (MODBUS GNC, SIEMENS, RTU, ASCII, ENRON)	YES
Integration of PTZ SGERG88 volume correction algorithm	YES
4-20mA analogue input management	YES
Regulation lines management	2
Direct control management	YES
Driven control management	YES
Different controllers management	YES

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TECHNICAL FEATURES

Internal power supply	Rechargeable battery pack
External power supply	External power supply DC 24V, solar panel, universal power supply 85-265V @50/60Hz through suitable PELV transformer
Backup battery autonomy	YES
Presence of protection device against accidental polarity reversal in the power supply connection	YES
Separate compartments for wiring and electronic parts, and for battery pack and SIM card	NO
Number of channels	-
Selectable sensors	70mBar, 450mBar, 1Bar, 7Bar, 20Bar, 70Bar
Accuracy	Device: 0.02% FS Sensor: 0.4% FS
Clock/calendar	YES
Non-volatile internal memory for storing configuration data and processed data of measured signals	YES
Storage capacity	Movement: Rotary Pair: 5 Nm/ 10 Nm Multi-turn: YES On/Off: YES
ATEX Certification	G2P: II 2G Ex ib IIB T3 Gb Motor: II 2 G/D EEx d ia IIC T6 o T5
ATEX Zone	1, 2, 21, 22
International patent	n. EP2818961-B1 del 09/11/2016

MECHANICAL FEATURES

Operating temperature	- 20°C ÷ + 60 °C	
Relative humidity	from 10 to 95%	
Container IP protection	IP66	
Installation dimensions	Power supply/control: Motor: Monoblock adaptation:	650x430x210 mm 210x95x80 mm 90x90x90 / 130x130x130 mm (ndicative dimensions)
Weight with internal battery pack	Motor 3.5 Kg + adapter module and junction box	

FUNCTIONAL SAFETY

Magnetic end stops	YES, upper/lower limit
Magnetic rev counter	YES
Algorithm for checking consistency of operating parameters	YES
Minimum flow presence control for the adjustment	YES
Operating alarms and interruption of operation	YES
Configuration of operational functional limits	YES

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COMMUNICATION

LOCAL COMMUNICATION

Tecnologies	MiWi
Integrated antenna	YES
Compatibility	Windows 10

REMOTE COMMUNICATION

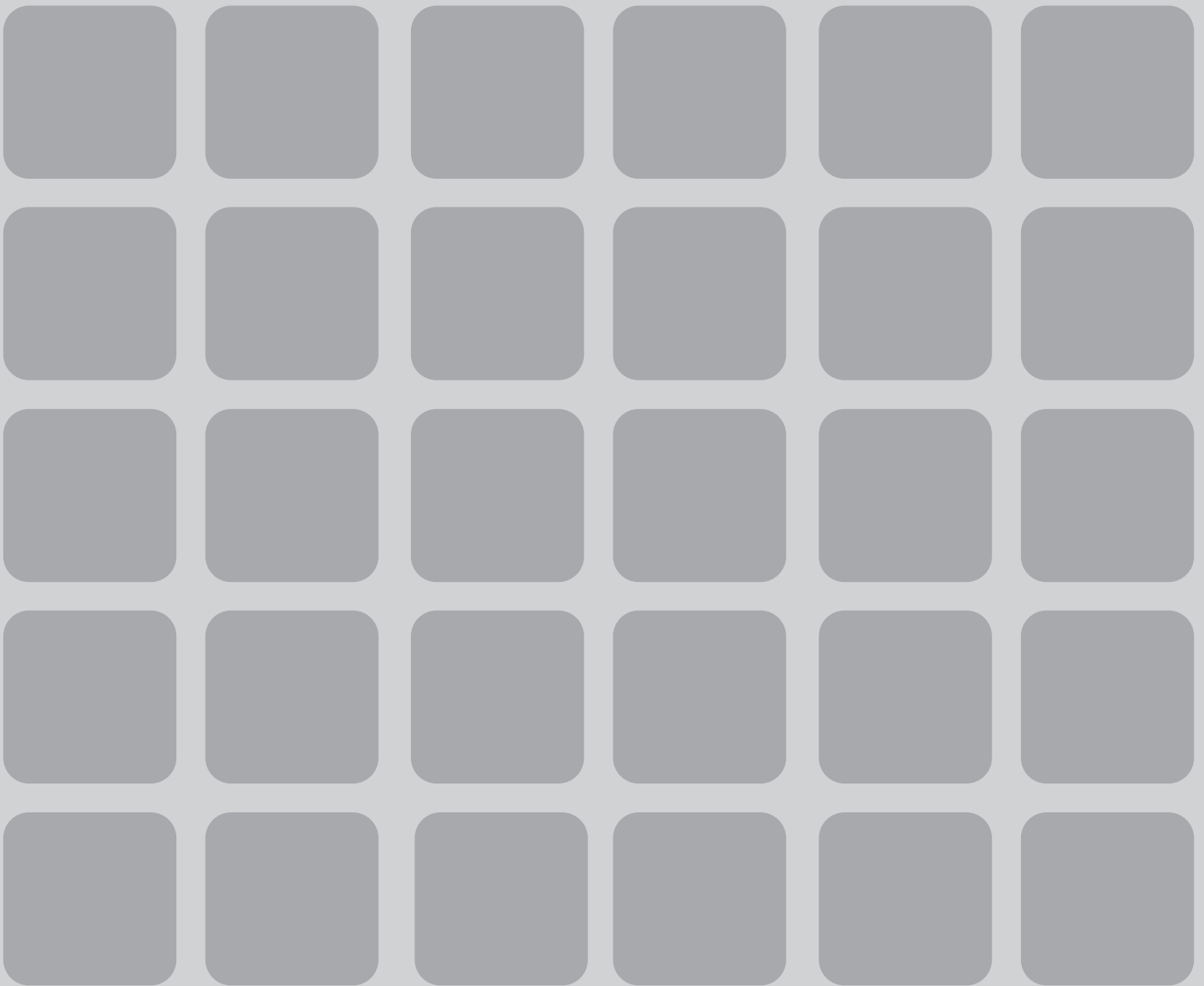|	
Tecnologies	2G/3G/4G (GPRS/UMTS/LTE)
Ethernet	YES, via SNODE
Connection mode	RTU
Roaming management	YES
Integrated antenna	NO
External antenna setup	YES

CONTROL CENTRE MANAGEMENT

Configuration of measuring channels	YES
Activation or deactivation of measuring channels	YES
Configuration of analogue signal thresholds values	YES
Digital alarms configuration	YES
Golem configuration	YES
Spectra configuration	-
Date and time synchronisation	YES

FIRMWARE UPDATE

Local upgrade	YES
Remote upgrade	YES

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FUNCTIONS

	FIDO	WEBPRESSURE	SCADA
AUTOMA PRESSURE SENSOR MANAGEMENT			
Activation/Deactivation	√	query only	query only
Name assignment	√	√	√
Registers assignment	√	conditioned to configuration	conditioned to configuration
Zero point offset application	√	-	-
Zero point offset 25%-50%-75%-100%	√	-	-
TEMPERATURE SENSOR MANAGEMENT			
Activation/Deactivation	√	query only	query only
Name assignment	√	√	√
Registers assignment	√	conditioned to configuration	conditioned to configuration
4-20MA TRANSMITTERS MANAGEMENT			
Activation/Deactivation	√	query only	query only
Name assignment	√	√	√
Registers assignment	√	conditioned to configuration	conditioned to configuration
DIGITAL SIGNALS MANAGEMENT			
Activation/Deactivation	√	query only	query only
Name assignment	√	√	√
Registers assignment	√	conditioned to configuration	conditioned to configuration
Polarity assignment	√	√	√
EXTRA SIGNALS MANAGEMENT VBAT/XBAT/CSQ/DBM			
Activation/Deactivation	√	query only	query only
Name assignment	√	√	√
Registers assignment	√	conditioned to configuration	conditioned to configuration
CONFIGURATION OF ANALOGUE SIGNAL THRESHOLDS			
HH, H, L, LL, DB	√	√	√
Logging of overrun/return events	√	√	√
Instant sending of overrun/return events	√	√	√
ACQUISITION MANAGEMENT			
Sampling frequency	√	√	-
Logging frequency (minute/hour/daily historical queue)	√	√	√
Logging mode	√	√	√

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	FIDO	WEBPRESSURE	SCADA
REMOTE COMMUNICATION MANAGEMENT			
N.3 IP/PORT configuration	√	-	-
APN/Username/Password configuration	√	-	-
Configuration of availabilities (DTL/RTU), activation, attempts	√	-	-
ID Scada configuration	√	conditioned to configuration	conditioned to configuration
Date/time synchronisation	√	√	√
Firmware visualisation	√	√	-
Firmware update	√	√	-
REGULATION MANAGEMENT			
Operating mode configuration (pressure modulation, flow limitation, weekly profiles, pressure compensation)	-	√	√
Target pressure configuration	-	√	√
Maximum flow configuration	-	√	√
Configuration of setting times	-	√	√
Minimum flow configuration for regulation	-	√	√
Operating pressure range configuration	-	√	√
Deadband configuration for automatic reactivation	-	√	√
Detection sensitivity configuration	-	√	√
Stability detection mode configuration	-	√	√
Pressure range configuration	-	√	√
Weekly profiles configuration	-	√	√
Dual sensor mode configuration	-	√	√
Dual sensor offset configuration	-	√	√

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