



Description

T-Valve is a LoRaWAN water valve used in residential or commercial buildings. 3/4" and 1"1/4 versions available, respectively DN20 and DN32.

SKU: MC-LW-T-VALVE-01

Product features

- Remote water supply control
- Water temperature
- Environment temperature
- Wired Flood Sensor (optional)
- Housing tampering detection
- Magnetic tampering detection
- Buttons for manual control
- LEDs for valve and device status indication
- Buzzer

Applications

LoRal//4N

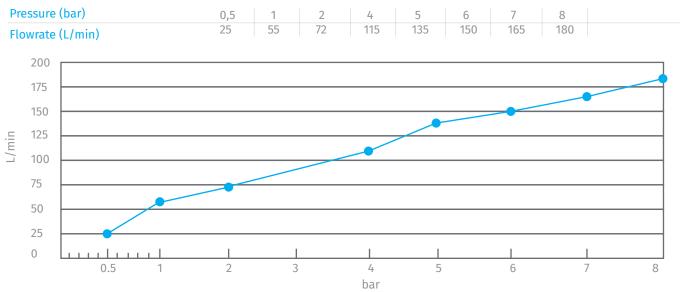
- Smart Buildings
- Smart home
- Residential buildings
- Commercial buildings
- Environment monitoring
- **Mechanical specifications** WEIGHT 550gr DIMENSIONS 105x117x90,8mm **ENCLOSURE** PC/ABS; Valve PPE/PS **Valve Specifications VALVE TYPE** Solenoid valve **FITTINGS SIZES** DN20 or DN25 **OPERATING PRESSURE** 0.5 - 12 bar MEDIA TEMPERATURE 1-75° C VALVE RESPOND TIME open \leq 0.15s; close \leq 2s

Device specifications





PRESSURE/FLOWRATE RATIO



Performance test				
HIGH WATER PRESSURE CLOSING		At water pressure 8 bar solenoid	d valve can be clos	ed normally
LOW WATER PRESSURE CLOSING	PRESSURE CLOSING At water pressure 0.5 bar solenoid val		oid valve can be clo	osed manually
LEAKAGE UPON HIGH WATER		12 bar zero leakage		
LEAKAGE UPON LOW WATER		0.5 bar ≤ 0,1mL/min		
SEALING TEST (STATIC PRESSURE))			
	COLD WA	TER	High pressure	12 bar
			Low pressure	0.2 bar
	HOT WAT	ER	High pressure	8 bar
			Low pressure	0.2 bar
Service life		≥ 1,000,000 cycles		
Operating conditions				
TEMPERATURE		0-60°C		
HUMIDITY		35%-90% RH (non-condensing)		
PERMISSIBLE LIMITING WATER		≤ 12 bar		
Storage conditions				
STORAGE TEMPERATURE		-5-+80°C (no freezing state)		
STORAGE HUMIDITY		25%-95% RH (non-condensing)		
Operating conditions				
TEMPERATURE 0-6	50°C			

35%-90% RH

HUMIDITY





Power supply

BATTERY TYPE	LiSOCl2 ER26500 3.6V 9000mAh (included in the device)
OPERATING VOLTAGE	3.6VDC
EXPECTED BATTERY LIFE	Up to 10 years (depending on configuration and environment)
EXTERNAL POWER SUPPLY	Optional

Radio/Wireless

WIRELESS TECHNOLOGY	LoRaWAN [®] 1.0.1
WIRELESS SECURITY	LoRaWAN® End-to-End encryption (AES-CTR)
LORAWAN DEVICE TYPE	Class A End-device
SUPPORTED LORAWAN FEATURES	OTAA, ADR, Adaptive Channels setup
SUPPORTED LORAWAN REGIONS	EU863 – 870; Other LoRaWAN regional settings available upon request
LINK BUDGET	130dB
RF TRANSMIT POWER	14dB

Conformity

CE

2014/35/EU Low Voltage Directive	EN 60950-1:2006/ A11:2009 / A1:2010 / A12:2011 / A2:2013
2014/30/EU EMC Directive	EN 301489-1 V2.1.1; EN 301489-3 V2.1.1
Radio Equipment Directive (RED)	EN 300220-1 V3.1.1; EN 300220-2 V3.1.1

ROHS

DRINKING WATER	ACS	CARSO - L. S. E. H. L. File reference 17 ACC LY 591
CERTIFICATION	KTW	
	NSF/ANSI/CAN	61-2018, Drinking water system components - Health Effects
	NSF/ANSI	372-2016, Drinking water system component - Lead content
	USA California Health and Safety Code 11687	Reduction of Lead in Drinking Water Act
	USA S.3874 — 111th Congress (2009-2010)	Reduction of Lead in Drinking Water Act

Communication protocol

Open/Close Valve Reduced acccess mode configuration Temperature water Temperature environment Configure keepalive period Enable/Disable flood sensor Request full device information in next tra Flood detection status Flood detection wire status (functional or Box tampering status Magnetic tampering status Hardware/Firmware version Battery voltage	cut/broken)
LEDs control Buzzer control	Confiugurable modes and duration Confiugurable modes and duration
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Sensors

Temperature		
RESOLUTION	0,1°C	
ACCURACY	±1°C	
Wired flood sensor		
FEATURES	Two-wire connection Short-circuit detection Missing sensor detection	
Magnetic tamperin	g sensor	
Plastic enclosure open/close sensor		



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