



with

GENERALE
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Partner
for Italy



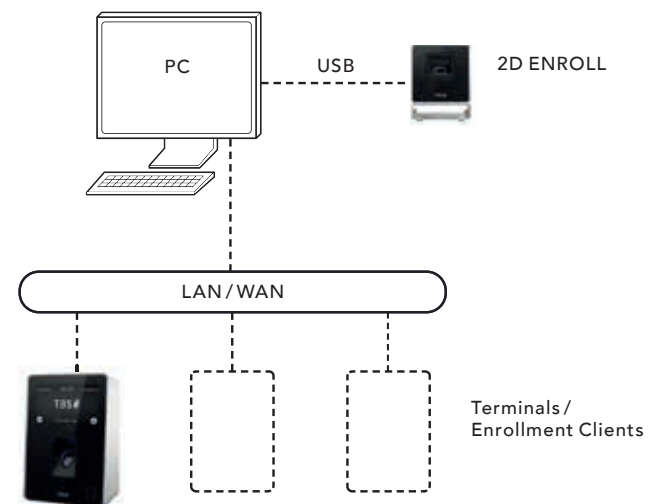
tagitalia.it
www.generalesistemi.it
tbs-biometrics.com

MULTISPECTRAL FINGERSCANNING

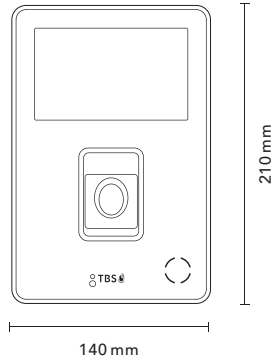
2D IRON HEAVY DUTY

Biometric terminal suitable for harsh environments, combined with best-in-class touch fingerprint sensor for highest security and multifunctionality at the point of access. IP65 certification ready to withstand water and dust in challenging outdoor environments.

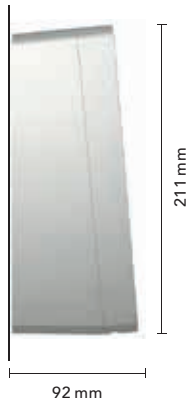
- Waterproof and dustproof housing (IP65)
- Proven to withstand harsh environments
- Multispectral sensor V-series
- Access and time & attendance
- Optional liveness detection to prevent spoofing
- Excellent identification also for dirty fingers
- Optional RFID modules
- Identification or verification with PIN or card
- Small to large user groups
- Wall mount option with hard aluminum casing
- Indoor and outdoor installation
- Can be powered by Power-over-Ethernet



2D IRON HD (HEAVY DUTY)



Wall mount (HD-Box)



1 = Extendable by license. Figure indicates single fingerprints, iris pairs or hands
 2 = Indoor use only
 3 = Mifare Classic/Desfire only
 (•)⁴ = Required if not sheltered
 (•) = Optional, accessory or license needed

5 = Supported bands:
 LTE FDD: B1/B3/B7/B8/B20/B28A
 WCDMA: B1/B8, GSM: B3/B8

6 = Either/or, specify RS type upon order

		3D ENROLL (Series 2Z)	2D ENROLL	3D FLY	3D AIR (Series 2Z)	3D LIGHT	2D IRON HD	2D IRON	2D SENSE	2D TIME	2D MOVE	TBS EDGE
Applications	Access Control			•	•	•	•	•	•			•
	Time & Attendance, Workforce Management			•	•	•	•	•	•	•	•	
Sensor	Touchless Hand Scanner			•								
	Touchless 3D Finger Scanner	•			•							
	Touchless Iris Scanner					•						
	Finger optical multispectral		compatible				•	•				
	Finger capacitive		•						•	•	•	
	Thermal camera					(•)						
User Interface	Touchscreen size in inch			7.0	5.0	5.0	5.0	5.0	3.5	9.0	7.0	
	RFID				(•)	• ³	(•)	(•)	(•)		• ³	
	PIN			•	•	•	•	•	•	•	•	
	Loudspeaker			•	•	•	•	•				
	Beeper								•			
Biometrics	Identification (1:N), database size limit ¹		10'000	10'000	10'000	10'000	10'000	10'000	5'000	5'000	5'000	special
	Verification (1:1), database size limit		100'000	100'000	100'000	100'000	100'000	100'000	100'000	100'000	100'000	100'000
	FRR at FAR 1:100'000		<0.5%	<0.5%	<0.5%	<0.5%	<1.0%	<1.0%	<2.0%	<2.0%	<2.0%	
Communication	LAN			•	•	•	•	•	•	•		•
	Wifi				(•)	(•)	(•)	(•)	(•)	•	•	
	Mobile ⁵									•	•	
Interfaces	RS-232 and RS-485			•	•	•	•	•	• ⁶			•
	Wiegand out			•	•	•	•	•	•			•
	Relay (NO/NC selectable)			2	1	1	1	1	1			2
	GPIN/GPOUT			2/2	2/2	2/0	2/2	2/2	3/1			2/2
Security	Liveness detection				(•)		(•)	(•)				
	Multi-level data encryption			•	•	•	•	•	•	•	•	•
	Template on card				(•)		(•)	(•)	(•)			
	Anti-tampering				•		•	•	(•)			
Installation	Input supply voltage DC	5	USB	24	12-24	12-15	12-24	12-24	12-24	12	USB	12-24
	Max. power rating in W	10		100	11	16	7	7	5	10		15
	Power over Ethernet				•	(PoE+)	•	•	(•)	(•)		(PoE+)
Conditions	Operating temperature in °C	0 to 60	0 to 60	0 to 45	-20 to 60	0 to 45	-20 to 60	-20 to 60	-20 to 60	0 to 35	0 to 35	0 to 45
	Humidity 10-90%	•	•	•	•	•	•	•	•	•	•	•
Mounting	Wall mount WM-Box ²				•	•		•	•	•		•
	Wall mount HD-Box				IP54		IP65					
	Flush mount FM-Box (IP54)				•			•	•			
Certifications	Outdoor protection kit				(•) ⁴				(•) ⁴			
	CE	•	•	•	•	•	•	•	•	•	•	•
	FCC/IC			•	•	•	•	•	•	•	•	•



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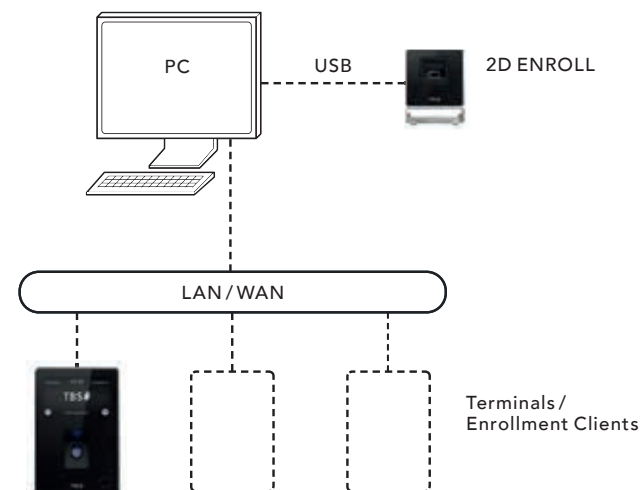
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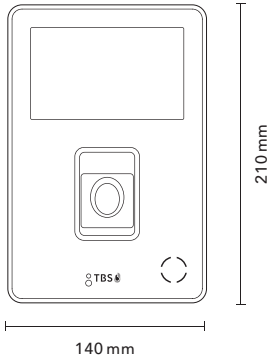
2D IRON

A multi-functional and user-friendly touch terminal offering superior identification performance with best-in-class touch fingerprint sensor.

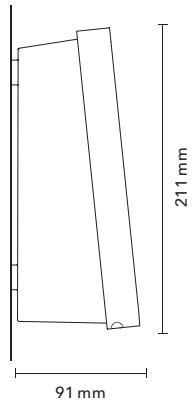
- Multispectral sensor V-series
- Access and time & attendance
- Optional liveness detection to prevent spoofing
- Excellent identification also for dirty fingers
- Optional RFID modules
- Identification or verification with PIN or card
- Small to large user groups
- Wall mount option for indoor installations
- Flush mount for indoor and outdoor installations
- Can be powered by Power-over-Ethernet



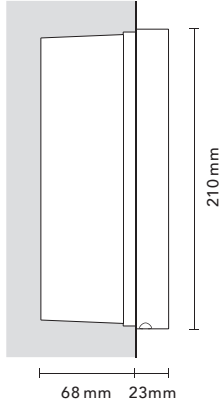
2D IRON



Wall mount (WM-Box)



Flush mount (FM-Box)



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Applications	Access Control			•	•	•	•	•	•			•
	Time & Attendance, Workforce Management			•	•	•	•	•	•	•	•	
Sensor	Touchless Hand Scanner			•								
	Touchless 3D Finger Scanner	•			•							
	Touchless Iris Scanner					•						
	Finger optical multispectral		compatible				•	•				
	Finger capacitive		•						•	•	•	
	Thermal camera					(•)						
User Interface	Touchscreen size in inch			7.0	5.0	5.0	5.0	5.0	3.5	9.0	7.0	
	RFID				(•)	• ³	(•)	(•)	(•)		• ³	
	PIN			•	•	•	•	•	•	•	•	
	Loudspeaker			•	•	•	•	•				
	Beeper								•			
Biometrics	Identification (1:N), database size limit ¹		10'000	10'000	10'000	10'000	10'000	10'000	5'000	5'000	5'000	special
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	FRR at FAR 1:100'000		<0.5%	<0.5%	<0.5%	<0.5%	<1.0%	<1.0%	<2.0%	<2.0%	<2.0%	
Communication	LAN			•	•	•	•	•	•	•		•
	Wifi				(•)	(•)	(•)	(•)	(•)	•	•	
	Mobile ⁵									•	•	
Interfaces	RS-232 and RS-485			•	•	•	•	•	• ⁶			•
	Wiegand out			•	•	•	•	•	•			•
	Relay (NO/NC selectable)			2	1	1	1	1	1			2
	GPIN/GPOUT			2/2	2/2	2/0	2/2	2/2	3/1			2/2
Security	Liveness detection				(•)		(•)	(•)				
	Multi-level data encryption			•	•	•	•	•	•	•	•	•
	Template on card				(•)		(•)	(•)	(•)			
	Anti-tampering				•		•	•	(•)			
Installation	Input supply voltage DC	5	USB	24	12-24	12-15	12-24	12-24	12-24	12	USB	12-24
	Max. power rating in W	10		100	11	16	7	7	5	10		15
	Power over Ethernet				•	(PoE+)	•	•	•	(•)		(PoE+)
Conditions	Operating temperature in °C	0 to 60	0 to 60	0 to 45	-20 to 60	0 to 45	-20 to 60	-20 to 60	-20 to 60	0 to 35	0 to 35	0 to 45
	Humidity 10-90%	•	•	•	•	•	•	•	•	•	•	•
Mounting	Wall mount WM-Box ²				•	•		•	•	•		•
	Wall mount HD-Box						IP54					
	Flush mount FM-Box (IP54)				•			•	•			
Certifications	Outdoor protection kit				(•) ⁴				(•) ⁴			
	CE	•	•	•	•	•	•	•	•	•	•	•
	FCC/IC			•	•	•	•	•	•			•