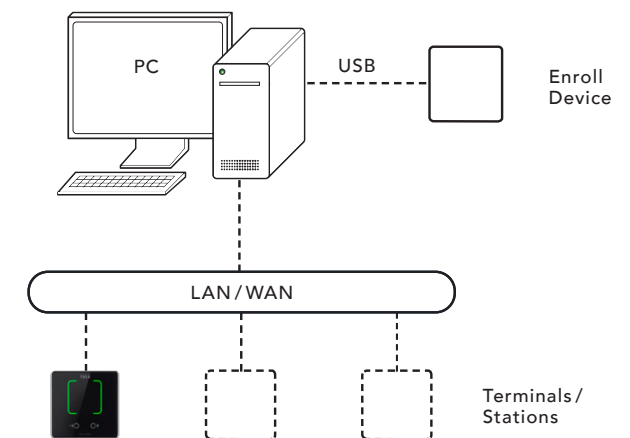




# 1D CARD STATION

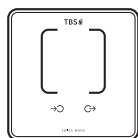
RFID-Access and Time and Attendance as an alternative or an add-on to a biometric solution.

- Access Control
- Basic Time & Attendance (In/Out)
- Flush mount in standard box
- Intuitive guidance by means of light ring
- Vandalism resistant



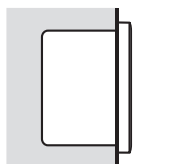


1D  
CARD STATION



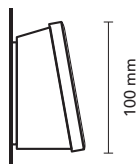
100 mm

Flush mount



58 mm 11 mm

Wall mount



54 mm

Touchless Biometric Systems AG  
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Switzerland  
tbs@tbs-biometrics.com  
www.tbs-biometrics.com

		3D TERMINAL	3D FACE	2D+ TERMINAL	2D TERMINAL HEAVYDUTY	2D TERMINAL	2D STATION	2D MINI	2D MINI HOME	1D TERMINAL	1D CARD STATION
Applications	Access Control	•	•	•	•	•	•	•	•	•	•
	Time & Attendance	•	•	•	•	•	in/out	in/out		•	in/out
	Civil / Criminal										
Sensor	Touchless, 3D-Multiview	•									
	3D-Camera		•								
	Optical Touch, FBI-certified					•	•				
	Capacitive Touch							•	•		
	Multispectral			•	•						
User Interface	7.0" Touchscreen		•								
	5.0" Touchscreen	•		•	•						
	3.5" Touchscreen					•				•	
	RFID	(•) <sup>1</sup>	•	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>	•			•	•
	PIN	•	•	•	•	•				•	
	Loudspeaker	•	•								
	Beeper						•	•	•	•	•
Biometrics	Identifications (1:N)	•	•	•	•	•	•	•	•		
	Verification (1:1)	•	•	•	•	•	•				
	1:N Database Size Limit	10'000 <sup>1</sup>	1'000	10'000 <sup>1</sup>	10'000 <sup>1</sup>	5'000	5'000	5'000	5'000	100'000	100'000
	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%	<5.0%	<1.0%	<1.0%	<2.0%	<2.0%	<2.0%	<2.0%	0%	0%
	Standalone Capability	•	•	•	•	• <sup>5</sup>	• <sup>5</sup>	• <sup>5</sup>	• <sup>5</sup>	• <sup>5</sup>	• <sup>5</sup>
Communication	LAN	•	•	•	•	•	•	•	•	•	•
	WLAN	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>2</sup>	(•) <sup>2</sup>	(•) <sup>2</sup>	(•) <sup>2</sup>	(•) <sup>2</sup>	(•) <sup>2</sup>
Interfaces	RS 232 / RS 485	•	•	•	•	•	•	•	•	•	•
	Wiegand	•	•	•	•	•	•	•	•	•	•
	Relay Output	(2) <sup>6</sup>	2	(2) <sup>6</sup>	2	1	1	1	1	1	1
	I/O	(1/1)	2/2	(1/1)	2/2						
Security	Liveness Detection	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>						
	Multi-level Data Encryption	•	•	•	•	•	•	•	•	•	•
	Template on Card	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>				
	Anti-tampering / Silent Alarm	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>
Conditions	Input Supply Voltage DC	9-30V	9-30V	9-30V	9-30V	9-30V	9-30V	9-30V	9-30V	9-30V	9-30V
	Max. Power Rating	25W	15W	15W	15W	15W	10W	10W	10W	10W	10W
	Operation Temperature in C	-20-60	0-60	-20-60	-20-60	-20-60	-20-60	-20-60	-20-60	-20-60	-20-60
	Humidity 10-90%	•	•	•	•	•	•	•	•	•	•
Mounting	Wall mount <sup>(3)</sup>	•	•	•	•	•	•			•	•
	Flush mount / Outdoor <sup>(3)</sup>	•		•		•	•	•	•	•	•
	Outdoor kit <sup>(3)</sup>	(•) <sup>4</sup>		•		(•) <sup>4</sup>	(•) <sup>4</sup>	(•) <sup>4</sup>	(•) <sup>4</sup>	(•) <sup>4</sup>	(•) <sup>4</sup>
Certifications	CE	•	•	•	•	•	•	•	•	•	•

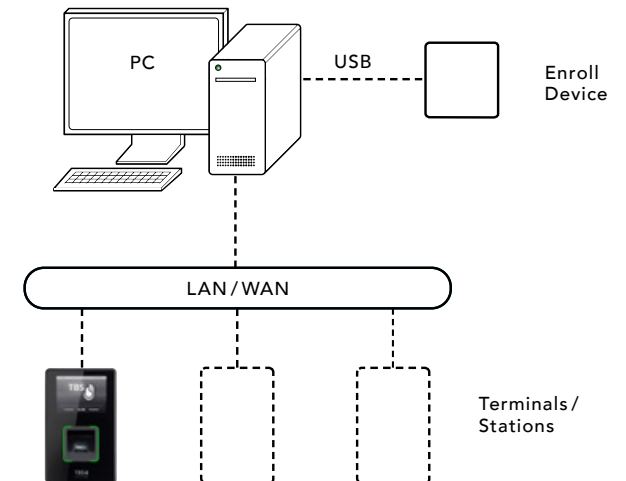


TOUCH  
FINGERPRINTING

## 2D TERMINAL

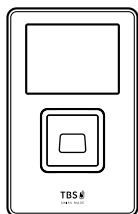
Touch-based biometric terminal for high security and multi-functionality at point of access.

- Optical touch sensor, FBI certified
- Excellent identification performance
- Access Control, Time & Attendance (T&A)
- In- and outdoor use
- Flush or surface mount
- Identification or PIN-verification
- Small- and medium-sized user groups
- Personalizable touchscreen
- User-friendly operation and configuration
- Customer-specific modifications
- Stand-alone and network capability
- Vandalism resistant



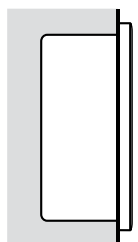


2D  
TERMINAL



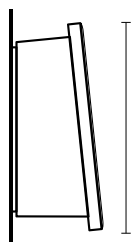
100 mm

Flush mount



60 mm 11 mm

Wall mount



75 mm

160 mm

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www.tbs-biometrics.com

		3D ENROLL	3D TERMINAL	2D ENROLL	2D TERMINAL	2D STATION	2D MINI	2D MINI HOME	1D TERMINAL	1D CARD STATION	SMART CONTROLLER
Applications	Access Control	•	•	•	•	•	•	•	•	•	•
	Time & Attendance	•	•	•	•	in/out	in/out		•	in/out	
	Civil/Criminal	•		•							
Sensor	Touchless, 3D-Multiview	•	•								
	Optical Touch, FBI-certified			•	•	•	•	•			
User Interface	5.0" Touchscreen		•								
	3.5" Touchscreen				•				•		
	RFID		(•)		(•)	•			•	•	
	PIN		•		•				•		
	Camera		(•)								
	Loudspeaker		•								
	Beeper					•	•	•	•	•	
Biometrics	Identification (1:N)		•		•	•	•	•			
	Verification (1:1)		•		•	•					
	1:N Database Size Limit		10'000 <sup>1</sup>		5'000	5'000	1'000	1'000	100'000	100'000	
	1:1 Database Size Limit		100'000		100'000	100'000	100'000	100'000	100'000	100'000	
	FRR at FAR 1:100'000		<0.5%		<2%	<2%	<2%	<2%	0%	0%	
	Standalone Capability		•		•	•	•	•	•	•	
Communication	LAN		•		•	•	•	•	•	•	
	WLAN		(•)		(•) <sup>2</sup>	(•) <sup>2</sup>	(•) <sup>2</sup>	(•) <sup>2</sup>	(•) <sup>2</sup>	(•) <sup>2</sup>	
	USB	•		•							
Interfaces	RS 232 / RS 485		•		•	•	•	•	•	•	•
	Wiegand		•		•	•	•	•	•	•	•
	Relay Output		(2)		1	1	1	1	1	1	2
	I/O		(1/1)								2/2
Security	Liveness Detection	(•)	(•)								
	Multi-level Data Encryption		•		•	•	•	•	•	•	
	Template on Card		(•)		(•)	(•)					
	Anti-tampering / Silent Alarm		(•)		(•)	(•)	(•)	(•)	(•)	(•)	
Conditions	Input Supply Voltage DC	5V	9-30V	USB	9-30V	9-30V	9-30V	9-30V	9-30V	9-30V	9-30V
	Max. Power Rating	20W	25W		15W	10W	10W	10W	10W	10W	5W
	Operating Temperature in °C	0-60	-20-60	0-60	-20-60	-20-60	-20-60	-20-60	-20-60	-20-60	0-60
	Humidity 10-90%	•	•	•	•	•	•	•	•	•	•
Mounting	Wall mount <sup>3</sup>		•		•	•			•	•	•
	Flush mount / Outdoor <sup>3</sup>		•		•	•	•	•	•	•	
	Outdoor kit <sup>3</sup>		(•) <sup>4</sup>		(•) <sup>4</sup>	(•) <sup>4</sup>	(•) <sup>4</sup>	(•) <sup>4</sup>	(•) <sup>4</sup>	(•) <sup>4</sup>	
Certifications	CE	•	•	•	•	•	•	•	•	•	•

( ) = optional

1 = extendable

2 = outside of device

3 = all devices must be protected against direct sunlight

4 = required if not sheltered

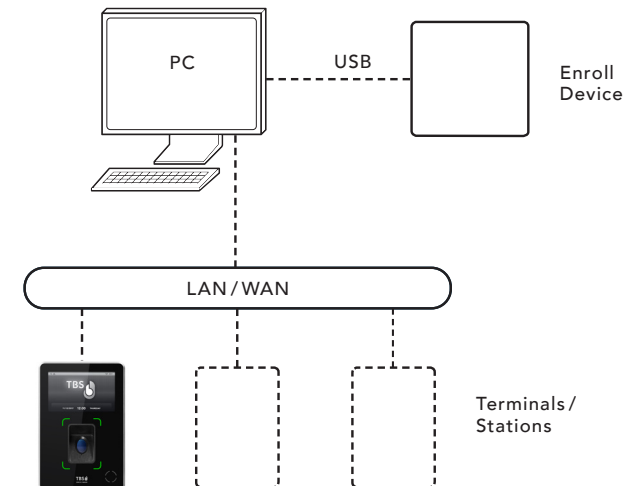


MULTISPECTRAL  
FINGERSCANNING

## 2D+ TERMINAL HEAVY DUTY

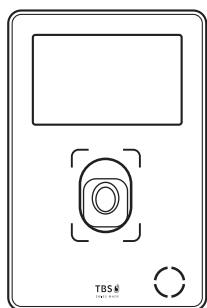
Waterproof and dustproof TBS-housing for harsh environmental conditions with world's best touch sensor for highest security and multifunctionality at point of access.

- Waterproof and dustproof housing (IP65)
- Multispectral sensor V-Series
- Access Control, Time and Attendance (T&A)
- Excellent liveness detection / spoof prevention
- Designed for harsh environments
- In- and outdoor use
- Surface mount
- Superior identification performance
- Identification or verification
- Small- and large-sized user groups
- Personalizable touchscreen
- Variable configuration and customizing
- Various RFID Options
- Stand-alone and network capability
- POE available (optional)



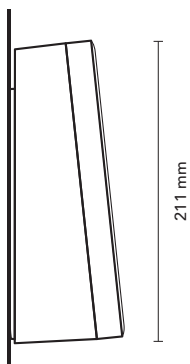


2D+ TERMINAL  
HEAVY DUTY



140 mm

Wall mount



211 mm

85.6 mm

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		3D TERMINAL	2D EYE	2D+ TERMINAL	2D+ TERMINAL HEAVY DUTY	2D TERMINAL	2D STATION	2D MINI	2D MINI HOME	1D TERMINAL	1D CARD STATION
Applications	Access Control	•	•	•	•	•	•	•	•	•	•
	Time & Attendance	•	•	•	•	•	in/out	in/out		•	in/out
	Civil / Criminal										
Sensor	Touchless, 3D-Multiview	•									
	2D-Camera		•								
	Optical Touch, FBI-certified					•	•				
	Capacitive Touch							•	•		
	Multispectral			•	•						
User Interface	7.0" Touchscreen										
	5.0" Touchscreen	•	•	•	•						
	3.5" Touchscreen					•				•	
	RFID	(•) <sup>1</sup>	•	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>	•			•	•
	PIN	•	•	•	•	•				•	
	Loudspeaker	•	•								
	Beeper						•	•	•	•	•
Biometrics	Identifications (1:N)	•	•	•	•	•	•	•	•		
	Verification (1:1)	•	•	•	•	•	•	•	•		
	1:N Database Size Limit	10'000 <sup>1</sup>	10'000	10'000 <sup>1</sup>	10'000 <sup>1</sup>	5'000	5'000	5'000	5'000	100'000	100'000
	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%	<1.0%	<1.0%	<2.0%	<2.0%	<2.0%	<2.0%	0%	0%
	Standalone Capability	•	•	•	•	• <sup>5</sup>	• <sup>5</sup>	• <sup>5</sup>	• <sup>5</sup>	• <sup>5</sup>	• <sup>5</sup>
Communication	LAN	•	•	•	•	•	•	•	•	•	•
	WLAN	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>2</sup>	(•) <sup>2</sup>	(•) <sup>2</sup>	(•) <sup>2</sup>	(•) <sup>2</sup>	(•) <sup>2</sup>
Interfaces	RS 232 / RS 485	•	•	•	•	•	•	•	•	•	•
	Wiegand	•	•	•	•	•	•	•	•	•	•
	Relay Output	(2) <sup>6</sup>	1	(2) <sup>6</sup>	2	1	1	1	1	1	1
	I/O	(1/1)	2/-	(1/1)	2/2						
Security	Liveness Detection	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>						
	Multi-level Data Encryption	•	•	•	•	•	•	•	•	•	•
	Template on Card	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>				
	Anti-tampering / Silent Alarm	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>
Conditions	Input Supply Voltage DC	9-30V	12V	9-30V	9-30V	9-30V	9-30V	9-30V	9-30V	9-30V	9-30V
	Max. Power Rating	25W	36W	15W	15W	15W	10W	10W	10W	10W	10W
	Operation Temperature in C	-20-60	0-45	-20-60	-20-60	-20-60	-20-60	-20-60	-20-60	-20-60	-20-60
	Humidity 10-90%	•	•	•	•	•	•	•	•	•	•
Mounting	Wall mount <sup>(3)</sup>	•	•	•	•	•	•			•	•
	Flush mount / Outdoor <sup>(3)</sup>	•		•		•	•	•	•	•	•
	Outdoor kit <sup>(3)</sup>	(•) <sup>4</sup>		•		(•) <sup>4</sup>	(•) <sup>4</sup>	(•) <sup>4</sup>	(•) <sup>4</sup>	(•) <sup>4</sup>	(•) <sup>4</sup>
Certifications	CE	•	•	•	•	•	•	•	•	•	•

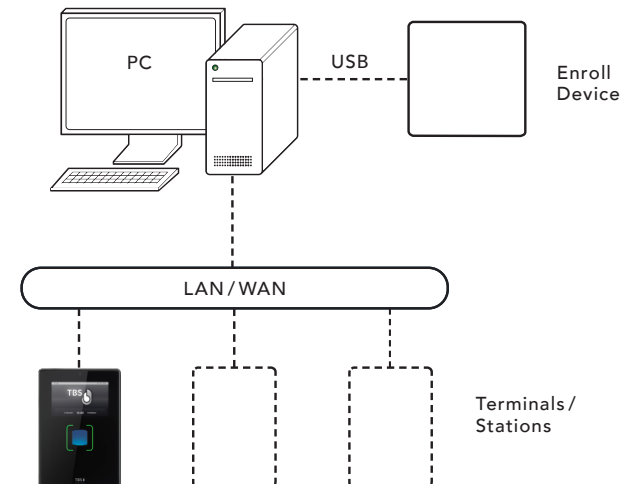


TOUCHLESS  
FINGERPRINTING

## 2D TERMINAL MULTISPECTRAL

TBS technology combined with world's best touch sensor for highest security and multifunctionality at point of access.

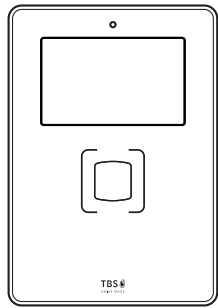
- Multispectral Sensor HID Lumidigm™
- Access Control, Time and Attendance (T&A)
- Strong liveness detection
- In- and outdoor use
- Flush or surface mount
- Highest security level
- Superior identification performance
- Identification or verification
- Small- and large-sized user groups
- Personalizable touchscreen
- Variable configuration and customizing
- Optional RFID
- Stand-alone and network capability



reddot design award  
honourable mention 2012

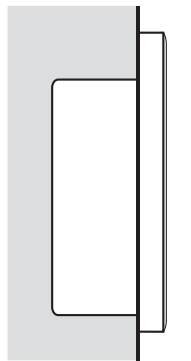


2D TERMINAL  
MULTISPECTRAL



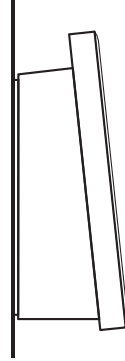
160 mm

Flush mount



66 mm 22 mm

Wall mount



95 mm

230 mm

Touchless Biometric Systems AG  
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Switzerland  
tbs@tbs-biometrics.com  
www.tbs-biometrics.com

		3D ENROLL	3D TERMINAL	2D ENROLL	2D TERMINAL MULTISPECTRAL	2D TERMINAL	2D STATION	2D MINI	2D MINI HOME	1D TERMINAL	1D CARD STATION	SMART CONTROLLER
Applications	Access Control	•	•	•	•	•	•	•	•	•	•	•
	Time & Attendance	•	•	•	•	•	in/out	in/out		•	in/out	
	Civil/Criminal	•		•								
Sensor	Touchless, 3D-Multiview	•	•									
	Optical Touch, FBI-certified			•		•	•	•	•			
	Multispectral				•							
User Interface	5.0" Touchscreen		•		•							
	3.5" Touchscreen					•				•		
	RFID		(•)		(•)	(•)	•			•	•	
	PIN		•		•	•				•		
	Camera		(•)		(•)							
	Loudspeaker		•		•							
	Beeper					•	•	•	•	•	•	
Biometrics	Identification (1:N)		•		•	•	•	•	•			
	Verification (1:1)		•		•	•	•					
	1:N Database Size Limit		10'000 <sup>1</sup>		10'000	5'000	5'000	1'000	1'000	100'000	100'000	
	1:1 Database Size Limit		100'000		100'000	100'000	100'000	100'000	100'000	100'000	100'000	
	FRR at FAR 1:100'000		<0.5%		<1%	<2%	<2%	<2%	<2%	0%	0%	
	Standalone Capability		•		•	•	•	•	•	•	•	
Communication	LAN		•		•	•	•	•	•	•	•	
	WLAN		(•)		(•)	(•) <sup>2</sup>	(•) <sup>2</sup>	(•) <sup>2</sup>	(•) <sup>2</sup>	(•) <sup>2</sup>	(•) <sup>2</sup>	
	USB	•		•								
Interfaces	RS 232 / RS 485		•		•	•	•	•	•	•	•	•
	Wiegand		•		•	•	•	•	•	•	•	•
	Relay Output		(2)		(2)	1	1	1	1	1	1	2
	I/O		(1/1)		(1/1)							2/2
Security	Liveness Detection	(•)	(•)		•							
	Multi-level Data Encryption		•		•	•	•	•	•	•	•	
	Template on Card		(•)		(•)	(•)	(•)					
	Anti-tampering / Silent Alarm		(•)		(•)	(•)	(•)	(•)	(•)	(•)	(•)	
Conditions	Input Supply Voltage DC	5V	9-30V	USB	9-30V	9-30V	9-30V	9-30V	9-30V	9-30V	9-30V	9-30V
	Max. Power Rating	20W	25W		15W	15W	10W	10W	10W	10W	10W	5W
	Operating Temperature in °C	0-60	-20-60	0-60	-20-60	-20-60	-20-60	-20-60	-20-60	-20-60	-20-60	0-60
	Humidity 10-90%	•	•	•	•	•	•	•	•	•	•	•
Mounting	Wall mount <sup>3</sup>		•		•	•				•	•	•
	Flush mount / Outdoor <sup>3</sup>		•		•	•	•	•	•	•	•	
	Outdoor kit <sup>3</sup>		(•) <sup>4</sup>		(•) <sup>4</sup>	(•) <sup>4</sup>	(•) <sup>4</sup>	(•) <sup>4</sup>	(•) <sup>4</sup>	(•) <sup>4</sup>	(•) <sup>4</sup>	
Certifications	CE	•	•	•	•	•	•	•	•	•	•	•

( ) = optional

1 = extendable

2 = outside of device

3 = all devices must be protected against direct sunlight

4 = required if not sheltered



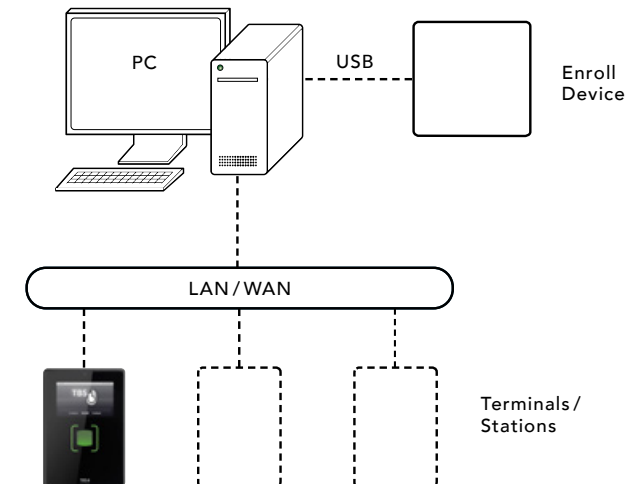


TOUCHLESS  
FINGERPRINTING

## 3D TERMINAL

Three-dimensional and contact-free terminal for highest security and multifunctionality at point of access.

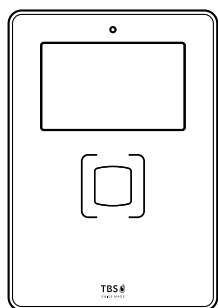
- 3D touchless technology
- Access Control, Time and Attendance (T&A)
- In- and outdoor use
- Flush or surface mount
- Highest security level
- Superior identification performance
- No "Failure to Enroll"
- Identification or verification
- Small- and large-sized user groups
- Personalizable touchscreen
- Variable configuration and customizing
- Optional RFID, camera, liveness detection
- Stand-alone and network capability
- Hygienic for sensitive applications



reddot design award  
honourable mention 2012



### 3D TERMINAL

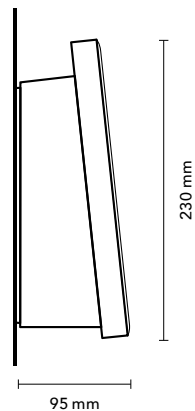


160 mm

Flush mount



Wall mount



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		3D ENROLL	3D TERMINAL	2D ENROLL	2D TERMINAL	2D STATION	2D MINI	2D MINI HOME	1D TERMINAL	1D CARD STATION	SMART CONTROLLER
Applications	Access Control	•	•	•	•	•	•	•	•	•	•
	Time & Attendance	•	•	•	•	in/out	in/out		•	in/out	
	Civil/Criminal	•	•	•							
Sensor	Touchless, 3D-Multiview	•	•								
	Optical Touch, FBI-certified			•	•	•	•	•			
User Interface	5.0" Touchscreen		•								
	3.5" Touchscreen				•				•		
	RFID		(•)		(•)	•			•	•	
	PIN		•		•				•		
	Camera		(•)								
	Loudspeaker		•								
	Beeper					•	•	•	•	•	
Biometrics	Identification (1:N)		•		•	•	•	•			
	Verification (1:1)		•		•	•					
	1:N Database Size Limit		10'000 <sup>1</sup>		5'000	5'000	1'000	1'000	100'000	100'000	
	1:1 Database Size Limit		100'000		100'000	100'000	100'000	100'000	100'000	100'000	
	FRR at FAR 1:100'000		<0.5%		<2%	<2%	<2%	<2%	0%	0%	
	Standalone Capability		•		•	•	•	•	•	•	
Communication	LAN		•		•	•	•	•	•	•	
	WLAN		(•)		(•) <sup>2</sup>	(•) <sup>2</sup>	(•) <sup>2</sup>	(•) <sup>2</sup>	(•) <sup>2</sup>	(•) <sup>2</sup>	
	USB	•		•							
Interfaces	RS 232 / RS 485		•		•	•	•	•	•	•	•
	Wiegand		•		•	•	•	•	•	•	•
	Relay Output		(2)		1	1	1	1	1	1	2
	I/O		(1/1)								2/2
Security	Liveness Detection	(•)	(•)								
	Multi-level Data Encryption		•		•	•	•	•	•	•	
	Template on Card		(•)		(•)	(•)					
	Anti-tampering / Silent Alarm		(•)		(•)	(•)	(•)	(•)	(•)	(•)	
Conditions	Input Supply Voltage DC	5V	9-30V	USB	9-30V	9-30V	9-30V	9-30V	9-30V	9-30V	9-30V
	Max. Power Rating	20W	25W		15W	10W	10W	10W	10W	10W	5W
	Operating Temperature in °C	0-60	-20-60	0-60	-20-60	-20-60	-20-60	-20-60	-20-60	-20-60	0-60
	Humidity 10-90%	•	•	•	•	•	•	•	•	•	•
Mounting	Wall mount <sup>3</sup>		•		•	•			•	•	•
	Flush mount / Outdoor <sup>3</sup>		•		•	•	•	•	•	•	
	Outdoor kit <sup>3</sup>		(•) <sup>4</sup>		(•) <sup>4</sup>	(•) <sup>4</sup>	(•) <sup>4</sup>	(•) <sup>4</sup>	(•) <sup>4</sup>	(•) <sup>4</sup>	
Certifications	CE	•	•	•	•	•	•	•	•	•	•

( ) = optional

1 = extendable

2 = outside of device

3 = all devices must be protected against direct sunlight

4 = required if not sheltered

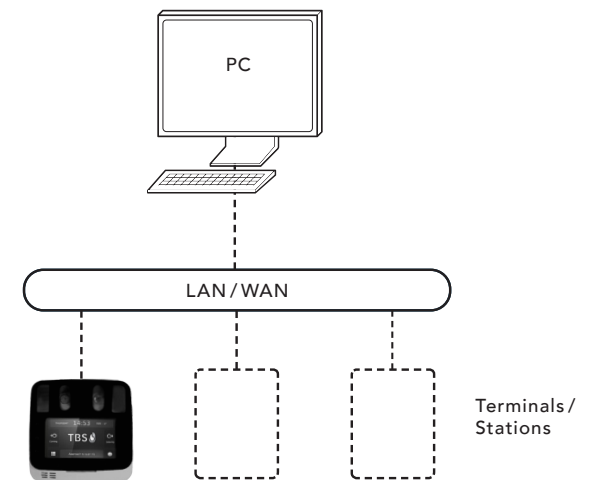


IRIS  
RECOGNITION

## 2D EYE

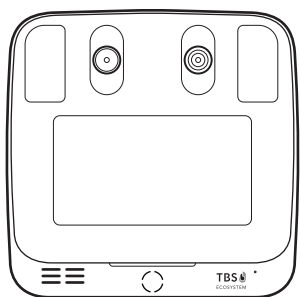
Iris recognition for high security  
and multifunctionality at point of access.

- Iris technology
- Access Control, Time and Attendance (T&A)
- Indoor use
- Surface mount
- High security level
- Excellent identification performance
- Enrollment on terminal
- Identification or verification
- Medium to large-sized user groups
- Personalizable touchscreen
- Variable configuration and customizing
- Inclusive MiFare / DesFire RFID reader
- Optional HID multi-class RFID reader
- Stand-alone and network capability
- Hygienic for sensitive applications



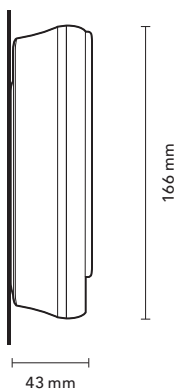


2D EYE



166 mm

Wall mount



43 mm

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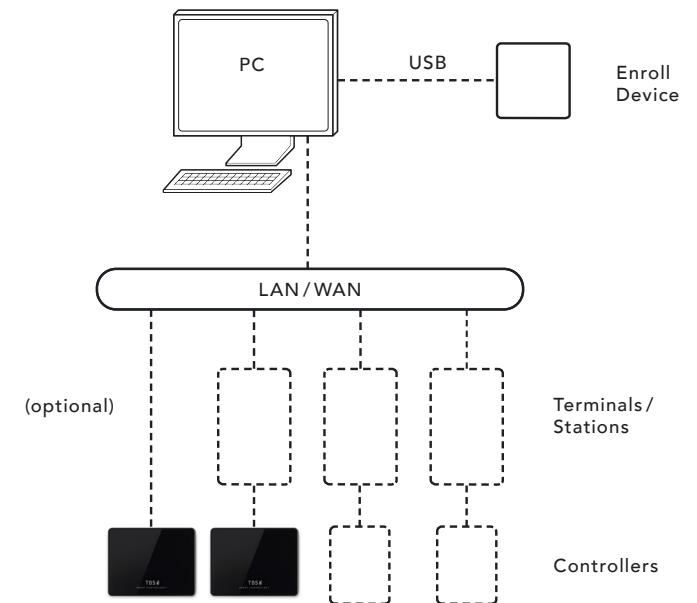
		3D TERMINAL	2D EYE	2D+ TERMINAL	2D TERMINAL HEAVYDUTY	2D TERMINAL	2D STATION	2D MINI	2D MINI HOME	1D TERMINAL	1D CARD STATION
Applications	Access Control	•	•	•	•	•	•	•	•	•	•
	Time & Attendance	•	•	•	•	•	in/out	in/out		•	in/out
	Civil / Criminal										
Sensor	Touchless, 3D-Multiview	•									
	2D-Camera		•								
	Optical Touch, FBI-certified					•	•				
	Capacitive Touch							•	•		
	Multispectral			•	•						
User Interface	7.0" Touchscreen										
	5.0" Touchscreen	•	•	•	•						
	3.5" Touchscreen					•				•	
	RFID	(•) <sup>1</sup>	•	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>	•			•	•
	PIN	•	•	•	•	•				•	
	Loudspeaker	•	•								
	Beeper					•	•	•	•	•	•
Biometrics	Identifications (1:N)	•	•	•	•	•	•	•	•		
	Verification (1:1)	•	•	•	•	•	•				
	1:N Database Size Limit	10'000 <sup>1</sup>	10'000	10'000 <sup>1</sup>	10'000 <sup>1</sup>	5'000	5'000	5'000	5'000	100'000	100'000
	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%	<1.0%	<1.0%	<2.0%	<2.0%	<2.0%	<2.0%	0%	0%
	Standalone Capability	•	•	•	•	• <sup>5</sup>	• <sup>5</sup>	• <sup>5</sup>	• <sup>5</sup>	• <sup>5</sup>	• <sup>5</sup>
Communication	LAN	•	•	•	•	•	•	•	•	•	•
	WLAN	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>2</sup>	(•) <sup>2</sup>	(•) <sup>2</sup>	(•) <sup>2</sup>	(•) <sup>2</sup>	(•) <sup>2</sup>
Interfaces	RS 232 / RS 485	•	•	•	•	•	•	•	•	•	•
	Wiegand	•	•	•	•	•	•	•	•	•	•
	Relay Output	(2) <sup>6</sup>	1	(2) <sup>6</sup>	2	1	1	1	1	1	1
	I/O	(1/1)	2/-	(1/1)	2/2						
Security	Liveness Detection	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>						
	Multi-level Data Encryption	•	•	•	•	•	•	•	•	•	•
	Template on Card	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>				
	Anti-tampering / Silent Alarm	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>	(•) <sup>1</sup>
Conditions	Input Supply Voltage DC	9-30V	12V	9-30V	9-30V	9-30V	9-30V	9-30V	9-30V	9-30V	9-30V
	Max. Power Rating	25W	36W	15W	15W	15W	10W	10W	10W	10W	10W
	Operation Temperature in C	-20-60	0-45	-20-60	-20-60	-20-60	-20-60	-20-60	-20-60	-20-60	-20-60
	Humidity 10-90%	•	•	•	•	•	•	•	•	•	•
Mounting	Wall mount <sup>(3)</sup>	•	•	•	•	•	•			•	•
	Flush mount / Outdoor <sup>(3)</sup>	•		•		•	•	•	•	•	•
	Outdoor kit <sup>(3)</sup>	(•) <sup>4</sup>		•		(•) <sup>4</sup>	(•) <sup>4</sup>	(•) <sup>4</sup>	(•) <sup>4</sup>	(•) <sup>4</sup>	(•) <sup>4</sup>
Certifications	CE	•	•	•	•	•	•	•	•	•	•



## SMART CONTROLLER+

Versatile indoor controller with I/O capabilities to control door lock, alarm system and other third-party devices.

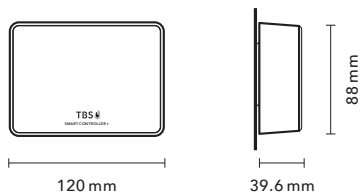
- Features up to 4 relays and 8 I/O lines
- Connects directly to TBS devices via RS485
- Network ready
- Easy installation
- DIN rail clamp included





## SMART CONTROLLER+

Wall mount



CPU	ARM Cortex-A53 1.2 GHz Quad Core
RAM	1 GB
Flash	4 GB (MicroSD)
Connectivity	1 × LAN 10/100 Mbps (RJ45)
	4 × USB 2.0
	WLAN
	Bluetooth
Ports	4 × Relay output
	4 × General Purpose Input (GPIN)
	4 × General Purpose Output (GPOUT)
Operating System	Embedded Linux
Software	SC+ Configurator (web based)
Certifications	CE
Operating Temperature	-20–60°C
Power	9–36 VDC
Dimension	120 × 80 × 39.6

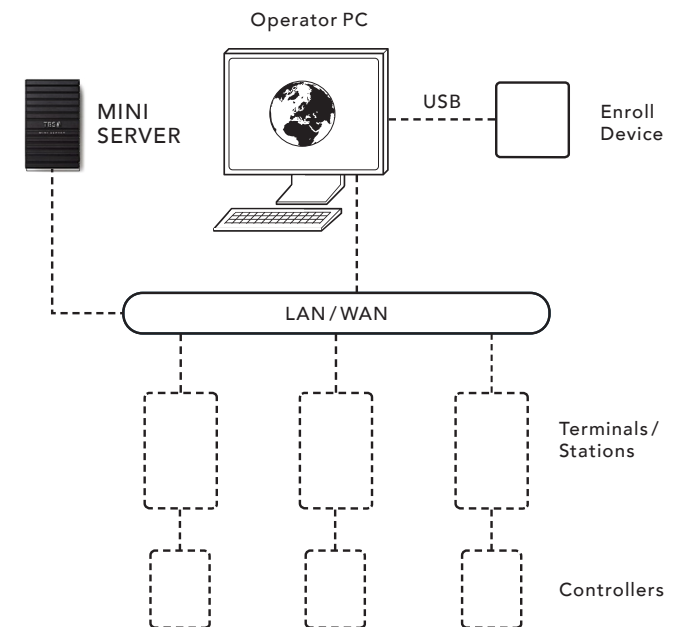
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# MINI SERVER

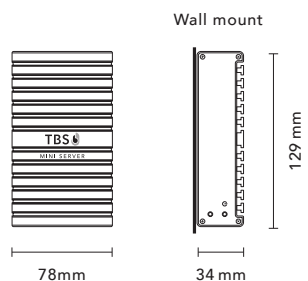
Compact biometric server, the core of the Medium Enterprise Solution, pre-installed and pre-configured.

- Automatically connects up to 25 TBS devices
- Synchronizes all data in the system
- Easy mounting and wiring





## MINI SERVER



CPU	Intel Celeron CPU N2930, 1.8 GHz
RAM	2 GB
Flash	16 GB (mSATA)
Connectivity	1 × LAN 10 / 100 / 1000 Mbps (RJ45)
	1 × USB 3.0
	1 × USB 2.0
Ports	1 × HDMI
Operating System	Windows 7 Embedded
Software	TBS BioManager
	Rights Management (5 Zones with schedules)
	User Actions
	Optional: Enrollment extensions, Video support
Certifications	CE, FCC, RoHS, REACH
Operating Temperature	0–60°C
Power	12 VDC 3.0 A
Dimension	129 × 78 × 34



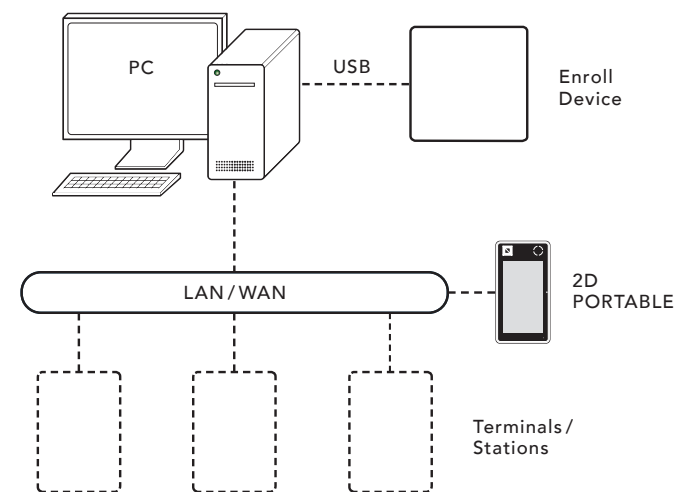


TOUCH  
FINGERPRINTING

## 2D PORTABLE

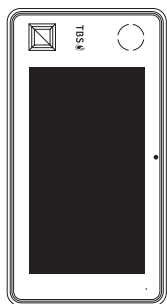
Touch-based biometric tablet with high security and multi-functionality for mobile use.

- Portable terminal with capacitive touch sensor
- Excellent identification performance
- Logical Access Control, Time and Attendance (T&A)
- Real-time data synchronization with server
- Identification or verification
- Small- and large-sized user groups
- Personalizable touchscreen
- User-friendly operation and configuration
- Customer-specific modifications
- Network operation as part of the TBS biometric subsystem

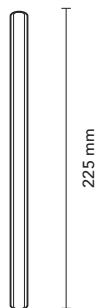




2D  
PORTABLE



121 mm



225 mm

15 mm

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CPU	Cortex A7 Octa-Core, 2.0 GHz
Memory	RAM + Storage (Standard): 1GB + 8GB upto 32GB microSD Extension
Display	7 inch, HD (1024 × 600) Capacitive Multi touch Screen, 5 Points
Battery	Embedded rechargeable Li-polymer battery, Capacity: 7000 mAh
Network	2G / 2.5G – GSM / GPRS / EDGE: 850 / 900 / 1800 / 1900 MHz 3G – UMTS / HSPA: 850 / 1900 / 2100 MHz with HSDPA up to 7.2 Mbps WIFI – IEEE 802.11 (b/g/n)
Connectivity	Bluetooth 4.0 1x USB OTG 2.0 high speed micro USB 3.5mm stereo audio jack
Camera	Front-Facing 2 mega pixels Rear-Facing 5 mega pixels autofocus with flashlight
Biometrics	Large Area Sensor Capacitive Biometric Scanner with 500dpi resolution
GPS	GPS for Navigation & Locating Internal GPS antenna
RFID / NFC (Near field communication)	Mode Reader/Writer, Emulation and P2P ISO14443A/B NFC tag reader: NFC Forum Type 1, 2, 3, 4 V Mifare Classic, Mifare Desfire Mifare UL compliant
Dimension	225 × 121 × 15mm