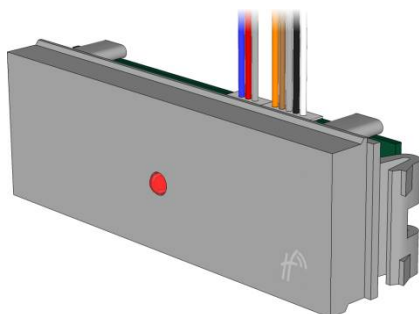# Readers for BPT Thangram entry panels

Miniature reader module 125 kHz (TF / EM) with integrated door controller designed for installation in *Thangram* entry panels of *BPT* audio and video systems, which can also provide its power supply. It occupies a place of a single call button, available in *GH* (light grey) color version.

Basic technical features

	APS mini	**APS 400**
Trade description	**MREM 80 ThanGH**	**NREM 80 ThanGH**
Operating voltage	8 ÷ 28 V DC (e.g. A/200, AS/200, VA/200, VAS/100, XA/300…)	
Current consumption	60 mA, max. 90 mA (8V)	
ID technology	125 kHz (TF / EM)	
Typical reading range	5 / 5 cm (with ISO card)	
Card memory	2,000 IDs + 2 master cards	748[*] (emergency funtion)
Events memory	3,400	-[*]
Time schedules	64 per day of the week and for holidays + never / always	-[*]
Real-time clock	Available, with optional backup module	-[*]
Inputs	2x controlled by potential-free contact	2x input[*]
Outputs, indicators	1x open collector 0V active (max. 2A / 24V), 1x LED, 1x PIEZO buzzer	
Communication interface	RS 485	
Optional data output	N / A	
Weight	0.017 kg	
Operating environment	-25°C ÷ +60°C, humidity max. 95% non-condensing	
Protection class	IP 54 (built in the entry panel)	
Housing & dimensions	Plastic, 13x53x13 mm, GH (light grey)	
Connecting cable	2x 0.4 m, with connector	

[*] Identification events authorization and behavior of the APS 400 network modules are provided by the system controller. Specific parameters can be found at *www.techfass.cz*.

	Reader with standard WIEGAND output
Trade description	**WREM 80 ThanGH**
Operating voltage	8 ÷ 15 VDC
Current consumption	75 mA, max. 80 mA
ID technology	125 kHz (TF / EM)
Typical reading range	4 / 4 cm (with ISO card)
Inputs	1x buzzer control, 1x yellow / green LED control
Outputs, indicators	1x LED 1x PIEZO
Communication interface	WIEGAND (configurable without software)
Weight	0.023 kg
Operating environment	-25°C ÷ +60°C, humidity max. 95% non-condensing
Protection class	IP 54 (built in the entry panel)
Housing & dimmensions	Plastic, 13x53x13 mm, GH (light grey)
Connecting cable	0.4 m, with connector

Versions & Compatibility

Reader module	Code	TF	EM	Events archive	ACS SW	Extensions
MREM 80 ThanGH -TF	53480000	●	–	●	●	licensed
MREM 80 ThanGH -EM	53480001	●	●	●	●	licensed
NREM 80 ThanGH -TF	54480000	●	–	*)	*)	*)
NREM 80 ThanGH -EM	54480001	●	●	*)	*)	*)
WREM 80 ThanGH	51480001	●	●	–	–	–

*) Selected features are determined by the APS 400 system controller.

Application

xREM 80 ThanGH in Thangram entry panel

TECHFASS® product lines

- The *APS mini Plus* access control system is a generally applicable system, which is capable of covering all typical access control and time and attendance solutions. The system is suitable for both smaller standard access control systems, and for large and remote systems using an online server.
- The *APS 400* system controllers can control up to 64 reader modules; manage up to 15,000 users and store up to 57,000 records in their events memory when operating in offline mode. A unique feature of the system is the ability to set the behavior of all connected modules by a *user-defined program*.

APS mini +

Function:	*configurable*
ID memory:	*2,000*
Online authorization:	*>10^7*
Offline events:	*3,400*
Time schedules:	*64*
Addresses / comm. line:	*32*
Lines per system:	*unlimited*
Management:	
	master cards or PC
Software for free:	
	CFG, management

Software extensions:
Licensed: basic T&A evaluation, visualization, overviews, guard tour monitoring, etc.

APS 400

Function:	*programmable*
ID memory:	*up to 15,000*
Online authorization:	*>10^7*
Offline events:	*up to 57,000*
Access groups:	*128*
Time schedules:	*64*
Addresses / controller:	*64*
Controllers per server:	*>32*
Management:	
	PC
Software for free:	
	programming & CFG, management (up to 10 IDs)

Software extensions:
Licensed: management of over 10 IDs in the system, basic T&A evaluation, visualization, overviews, guard tour monitoring, etc.