

## TPB-EX 1080

### EXTERNAL HYDRAULIC ROAD BOLLARD



#### GENERAL INFORMATION

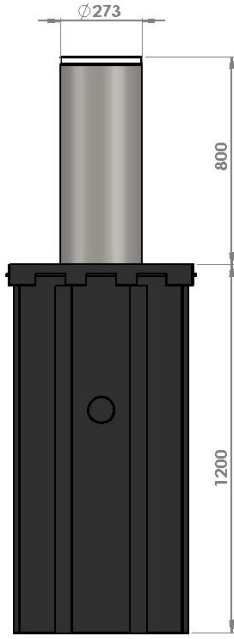
TPB-EX series hydraulic road bollards are vehicle access control solutions in areas where frequent and heavy duty usage is necessary to provide high level of security. Hydraulic bollard system is specially designed to provide high resistance to impact forces. Thanks to powerful external hydraulic unit, it is an ideal choice for high frequency operations and heavy duty works. It is achieving high level of security while maintaining an aesthetic look. Hydraulic bollards are widely used at high-security access applications and regulation of city traffic at entrance-exit points, military areas, industrial, governmental buildings, and streets that are closed to traffic in certain hours of the day.

During a power failure, it is designed to be controlled manually. Thanks to PLC controlled electronics, the raising-lowering operation can be achieved by card readers, remote control, on/off key switches, biometric readers, etc. Safety accessories like photocells, loop detectors, and other optional accessories like traffic lights, flashlights can be integrated into the system.

#### MAIN CHARACTERISTICS

- External hydraulic power unit design,
- Heavy gauge cylinder, cover and underground case,
- Schneider PLC and best quality electronics that provide synchronised operations of grouped bollards with a single control cabinet,
- Thanks to modular case design, easy installation and maintenance,
- Smooth and silent operation with external hydraulic system,
- Suitable for intense usages at high frequency accessing, 10000 + movements per day,
- In case of a power failure, it is possible to control manually by hand pump,
- Optionally adjustable operation times and emergency fast operation mode,
- Aesthetic designs.

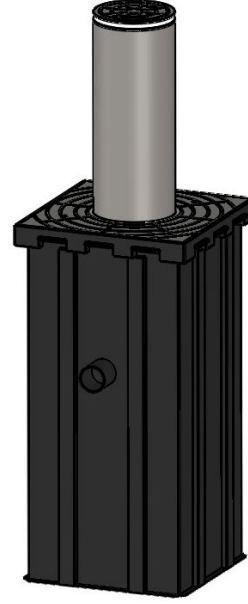
### TECHNICAL SPECIFICATIONS



FRONT VIEW

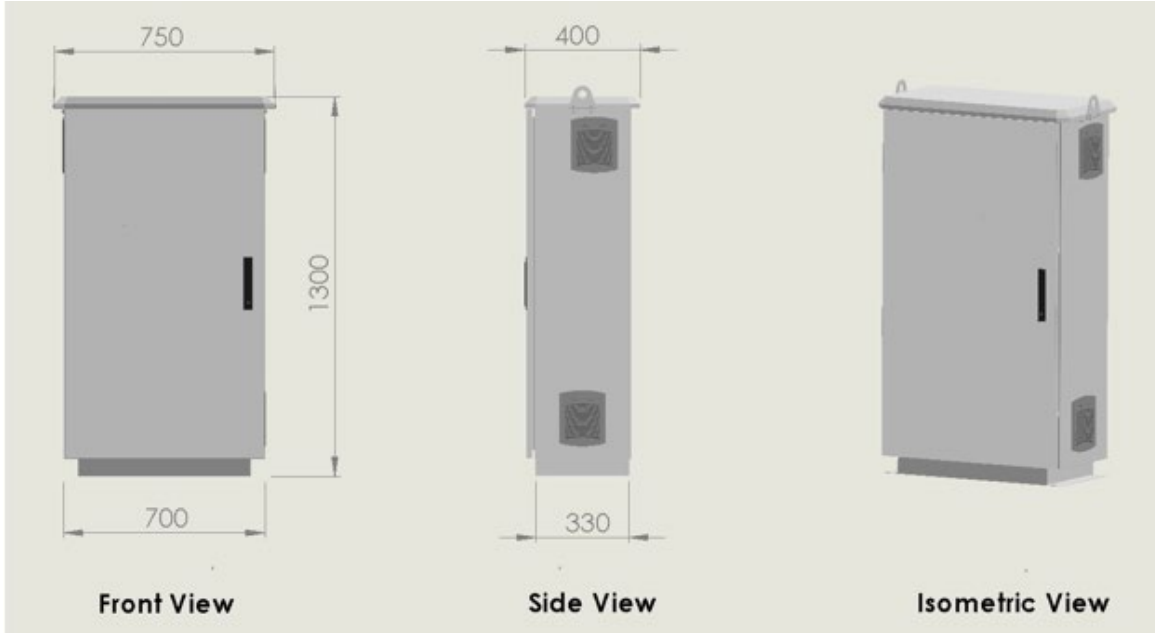


TOP VIEW



ISOMETRIC VIEW

### CONTROL CABINET PHYSICAL CHARACTERISTICS



Front View

Side View

Isometric View

**CABINET:** 2 mm thick DKP sheet, anti-corrosion electrostatic oven painted, continuous ventilation system. The dimensions of the cabinet are adjusted for a maximum of 6 bollards.

### CONTROL CABINET DIMENSIONS:

FEATURE	WIDTH	LENGTH	HEIGHT
STANDARD HPU	750	400	1300
DCO	1250	510	1320
EFO	1250	510	1320
DCO/EFO	1250	510	1320



STANDARD HPU



DCO



EFO

**STANDARD HPU:** Hydraulic unit is specially designed for road blockers and bollards. The capacity of oil tank is 40 lt. There are manometer, manual hand pump, oil level and temperature indicator, direction control valve, tank cover, pressure setting, 5,5 kW electric motor in hydraulic system.

**DC OPERATION (DCO):** In case of power failure, 6 to 10 complete cycles without electricity can be performed by using the optional DCO. Switching between AC and DC power is provided smoothly, thanks to a high-end battery charger circuit. 24 VDC, 2.2 kW DC power pack, 2 x 12 VDC 50A Dry Type Non-maintenance battery. The capacity of the oil tank is 100 lt.

**EMERGENCY FAST OPERATION (EFO):** In case of emergency, the optional Emergency Fast Operation feature raises the road blocker to the full-up position in less than 1 second, thanks to a high-pressure accumulator. This feature is activated by the panic button on the remote control keyboard or any external signal such as TP-HS Series Arm Barrier's crash detection. The capacity of the oil tank is 100 lt.

**PHYSICAL CHARACTERISTICS**

<b>CYLINDER DIAMETER</b>	273 mm
<b>OBSTACLE HEIGHT</b>	800 mm
<b>CYLINDER THICKNESS</b>	10+2 mm
<b>MATERIAL</b>	10 mm ST 52 steel core which is finished by 2 mm stainless steel (304 grade standard)
<b>OUTER CASE DIMENSIONS</b>	620 x 620 x 1200 mm (W x Lx H)
<b>VISIBILITY ENHANCEMENT</b>	Optional LED stripe

**OPERATIONAL CHARACTERISTICS**

<b>DRIVE</b>	Hydraulic
<b>DRIVE POWER</b>	Min 80 Bars / Max 150 Bars
<b>HYDRAULIC OIL</b>	Number 37 – 46 Hydraulic Oil
<b>LIFTING/LOWERING TIME</b>	Adjustable, 3 – 4 seconds (standard)
<b>SPEED CONTROL</b>	Opening and closing limit points
<b>OPERATION FREQUENCY</b>	300 + Cycles / Hour
<b>EMERGENCY FAST OPERATION</b>	Rising in 1 second (with optional EFO)
<b>DC OPERATION</b>	Capable to complete 10 cycles without electricity (with optional DCO)
<b>OPERATION CONTROL</b>	RF Receiver, RF Transmitter, RF Antenna, RFID-Proximity Card Reader (Optional)
<b>MANUAL OPERATION</b>	Raising and lowering with manual hand pump
<b>POSITION DETECTION</b>	Proximity switch (Weather proof)
<b>SAFETY</b>	Photocell / Loop detector

**ELECTRICAL CHARACTERISTICS**

<b>ELECTRICAL MOTOR</b>	380 VAC, 50-60 Hz, 3 Phases, 1.5 to 5.5 kW
<b>CONTROL PANEL</b>	PLC controlled smart unit for simultaneous operation of grouped barriers
<b>TEST PANEL</b>	Integrated test panel on electric cabin cover with phase indicators

**RESISTANCE CHARACTERISTICS**

<b>IMPACT RESISTANCE</b>	K12 Equivalent
<b>AXLE LOAD RESISTANCE</b>	35 Tons
<b>ENVIRONMENTAL CONDITIONS</b>	-15 °C / +70 °C, % 95 non-condensing humidity
<b>PROTECTION CLASS</b>	IP 65

**EQUIPMENT AND ACCESSORIES**

<b>HYDRAULIC HOSES</b>	18/1.5 Connector - 3/8 Radius, 350 Bars max pressure, 10 m hydraulic hose length (standard)
<b>SAFETY EQUIPMENTS</b>	Emergency stop buttons (standard), Optionally front and rear loop sensors
<b>STANDARD ACCESSORIES</b>	Control keyboard (wired), Control keyboard on the cabin, Temperature and oil level indicator, Manometer
<b>OPTIONAL ACCESSORIES</b>	Button control interface, Traffic lights, Flasher Lamp, Drain pump, RF Receiver, RF Transmitter, RF Antenna

**CERTIFICATIONS AND WARRANTY**

<b>CERTIFICATIONS</b>	ISO 9001:2015, ISO 14001:2015, OHSAS 18001, CE, TSE
<b>WARRANTY</b>	2 years