ITC-3 TRAFFIC CONTROLLER

TECHNICAL SPECIFICATIONS

BUILT FOR THE FUTURE

With SWARCO's new ITC-3, you will get a versatile traffic controller that is built for the future. The controller can manage all existing signal heads and is designed for controlling traffic with maximum safety under all possible conditions.

The integral easy-to-use interface provides engineers a fully flexible solution for easy configuration and signal status confirmation.

- **Cost effective rack system**
  With up to 24 signal groups in one single 19" rack
- **VGA Touchscreen 800x480**
  Makes it easy to maintenance and program the controller
- **Innovative Adaptive Traffic Algorithms**
  Calculates flow to capacity for every cycle and optimizes cycle time and green split for a single intersection.
- **ITC-PC Programming tool**
  Powerful 3D graphical programming tool makes it easy to configure the controller even with advanced adaptive programs.
- **C-ITS functionality**
  Newest innovation like TLA (Traffic Light Assistant, Time to Green and Time to Red) are already included in the ITC Firmware

TECHNICAL DATA	
Variants	· **ITC-3 RACK 24/40:** 19” rack model, max 24 signal groups and 40 loop detector inputs · **ITC-3 RACK 6/16:** 11” rack model, max 6 signal groups and 16 loop detector input · **ITC-3 RACK 12/0:** 11” rack model, max 12 signal groups and loop detector input from external modules
System Voltage	80-260 VAC
Supply voltage for signal heads	40 VAC, 42 VAC, 48 VAC, 110 VAC, 220 VAC, 230 VAC, +/-15%
Max. load	3.7kVA (24 Phase)
Fuse protection for signal	· 35A type C 10kA for whole device · 2,1 A per output terminal
Max. switching capacity	Max. 500VA at 230 VAC
Lamp switch types	Triac 24-230 VAC
Types of lamps/signal heads	· 230 V lamps (40 – 150 W) · 230 V LEDs (4 – 50 W)—Approval required · 10.5 V overpressure lamps (20, 30 W) · 10-/12 V halogen lamps (20, 30, 50 W) · 110 V lamps (max. 150 W) · 40 V standardized LED signal heads (1 – 9 W)
Dimming	· Transformer · Dim by wire
Display elements	LCD touch panel 480 x 800
Signal head cabling	Generally 1.5 mm2
Acknowledgement devices of signal	Known range of diverse suppliers
Pedestrian signal-request devices	Known range of diverse suppliers
I/o interfaces	5-48V DC
Cabinet	3 standard sizes · 600 mm x 420 x 1300 · 900 mm x 420 x 1300 · 1200 mm x 420 x 1300
Communications	RS232, RS485, RS 422, CAN, Ethernet, USB

TECHNICAL DATA	
Certifications	• CE marking (includes EMC and low-voltage directive) • EN 12675: 2000 Traffic signal controller, functional safety requirements • EN 50293: 2012 Road traffic signal systems, electromagnetic compatibility • EN 50556: 2011 Road traffic signal systems • EN 60950-1:2006 Information technology systems, safety • TR2500A Topas
Ambient temperature limits	-40C to +70C
Power consumption of control unit	Typical < 15W
Technical features (lamp load)	• Fully electronic design, central unit with 32-bit ARM processor • 512 MB Flash, 256 MB RAM, can be expanded with SD cards • Linux O/S
Control centers	• MyCity • Omnia/Spot • Arctic • Optimus • SCATS, • SCOOT, • NTCIP • SWARCO Cloud
Signal monitoring per lamp-switch output	• Two-channel setup based on fail-safe components. • Monitoring of unsafe signaling states • Alarm message in case of contradictory signaling states and defective light sources. • Selective disabling of the partial node in which the unsafe signaling state has occurred. • All colors monitoring
Operator control / data supply	• LCD display for fast access to operating states, alarms and system events. • Full range of diagnostic capabilities available via the web interface or central control mode.
Timer	• NTP server • DCF • GPS • RTC
Flashing pulse	Freely programable duty cycle
Signal patterns for vehicles/pedestrians	Any signal pattern possible
Types of control	• Central control mode for road traffic • Local mode, fixed time • Local control, traffic actuated • Manual mode • Vehicle actuated • Group control • Phase/stage coordination • Master/slave • Adaptive local green wave/corridor • Automatic annual switching routine

TECHNICAL DATA	
Data logging	Polling of detector inputs at intervals of 10 ms, with configurable plausibility check.
Software	· LINUX operating system with RTAI real-time expansion · ITC Firmware (real-time process, system process, traffic actuation, control center process)
PC tools	ITC-PC, NGEN(Scats), CCOL, Teddy, Linsig(Scoot), LISA+
Traffic-actuated control	· Central control mode for road traffic, actuated by central · Local mode, fixed time. · Local control, traffic actuated. · Manual mode, operator/police panel. · Vehicle actuated. · Group control, by ITC-PC software · Phase/stage coordination, by ITC-PC software · Master/slave, ITC-PC/SMART controller · Adaptive local control, Smart intersection and/or Smart corridor