ACTROS

Traffic Light Controller

ACTROS sets new future-proof standards of flexibility whether it is used to control individual nodes or as a part of a comprehensive traffic management system.

A variety of central interfaces assures easy integration into all important traffic management environments.

For this purpose, OCIT, the open standard for central interfaces, is fully supported. ACTROS also supports manufacturer-specific interfaces. Alongside a variety of control processes, ACTROS is characterized by integration with the standard traffic engineering platform LISA.

PERFECTED HARDWARE STRUCTURE

ACTROS offers a modular architecture for flexible and individual adaptations, suitable for almost all modern traffic control systems. The system is based on fast and compact hardware, divided into three areas: system modules, functional modules, and optional components. The special hardware architecture allows a compact, space-saving construction, especially for large systems, with up to 64 signal groups and 288 lamp outputs.

ERGONOMICS AND SAFETY

ACTROS sets new standards in terms of ergonomics and operating safety. It can be easily controlled on-site by means of the user-friendly integrated control unit. The ACTROS safety concept has resulted in a design with defined fail-safe technology. All lamp outputs are subject to current and voltage monitoring. All signal states are monitored, identified and controlled as per DIN EN 50556, EN 12675 and the guidelines for traffic signal systems RiLSA.

SYSTEM VARIANT SWARCO X-LINE

Based on the SWARCO X-LINE technology the ACTROS controller offers a decentralized control unit design; linking intelligent, distributed system components via flexible, easy-to-install bus lines to form an overall system. SWARCO X-LINE – the intelligent platform for environmentally friendly intersections – uses modern LED technology and thus allows power consumptions of the signals of 1W. With this system variant ACTROS is prepared for future lamps. Thanks to the compatible hardware architecture, ACTROS installations can easily be extended through simplified addition of extra SWARCO X-LINE components.

ACTROS – TRAFFIC LIGHT CONTROLLER TECHNICAL DETAILS:

HOUSING	
Standard cabinet with / without public utility part	Size 1, 2, 2 as per DIN 43629 Part 1, IP54 / as per TAB 2007, IP54
Public utility part	as per TAB 2007, IP54

CONTROL ELECTRONICS	
Max. number of signal groups	64
Max. number of lamp outputs	288
Number of lamp outputs per control board	24 freely configurable, fully monitored outputs
Max. number of I/Os	288
Number of I/Os per I/O card	16 inputs + 8 outputs, 32 inputs + 32 outputs
Traffic-related control	Fixed time program, clock control, signal group, and phase-oriented, trafficde-pendent; control, coordinated activation point control LISA+, or freely program-mable; in Java control elements such as VS-Plus , PDMe/TL, MOTIONe, Trelan/Trends, BALANCE; TS 2000, FESA
Central operation / interface	OCIT, V1.1 and V2.0, as well as Profile 2 and Profile 3, SB12, SB15, SB16, VnetS, SSI, DVI 35, CANTO, ACTROS.connect, prepared for OCIT v. 3.0
Operation	Control unit, integratable manual control unit, web server
System clock	0.5 s, 1 s
Signal sequence	Freely programmable, standard as per guidelines for traffic signal systems (RiLSA)
Public transport	R09 messages according to the VÖV 04.05.1 standard
Signal safeguarding	Designed with fail-safe technology; current and voltage monitoring of all lamp out-puts as per EN 50556 and guidelines for traffic signal systems per EN 12675 and RiLSA

POWER ELECTRONICS	
Max. power consumption without lamp wattage	Typ. 50 VA, max. 300 W
Mains voltage	230 V (-15 ... +10%), 115 V (-15... +10%)
Power frequency	50 Hz (-5 ... +5%); 60 V (-5... +5%)
Permissible lamp voltages	10 V / 40 V (OCIT-LED conformant) / 42 V (ASTRIN-Standard) / 230 V
Lamp wattage per signal output	12 to 460 W at 230 V and 10 V, 3 to 40 W in the case of 40 V LED signal transmitters
Max. lamp wattage per signal output	460 W or 2 A
Max. lamp wattage per control unit	3,000 W or 13 A

SYSTEM VARIANT SWARCO X-LINE – FEATURES OF DECENTRALIZED TECHNOLOGY	
Max. number of independent bus lines	24
Max. length of one bus line	1 km
LED-Types	FUTURLED6 X-LINE
Power consumption of signals (depending of size and diffuser)	1 – 4 W
Functional safety of the LED inserts	DIN VDE 0832-100 / EN 50556 | EN 61508, Class SIL-3
Phantom light class	Class 5 according to EN 12368

CERTIFICATION	
TÜV Rheinland	DIN VDE V 0832-110:2019, DIN EN 50556:2019, DIN EN 50293:2013, DIN V VDE V 0832-500:2008, DIN EN 12675:2017, RiLSA 2015, EN 61508:2010; (not applicable for SWARCO X-LINE)

SWARCO is a growing international group providing the complete range of products, systems, services and solutions for road safety and intelligent traffic management. www.swarco.com

The Better Way. Every Day.