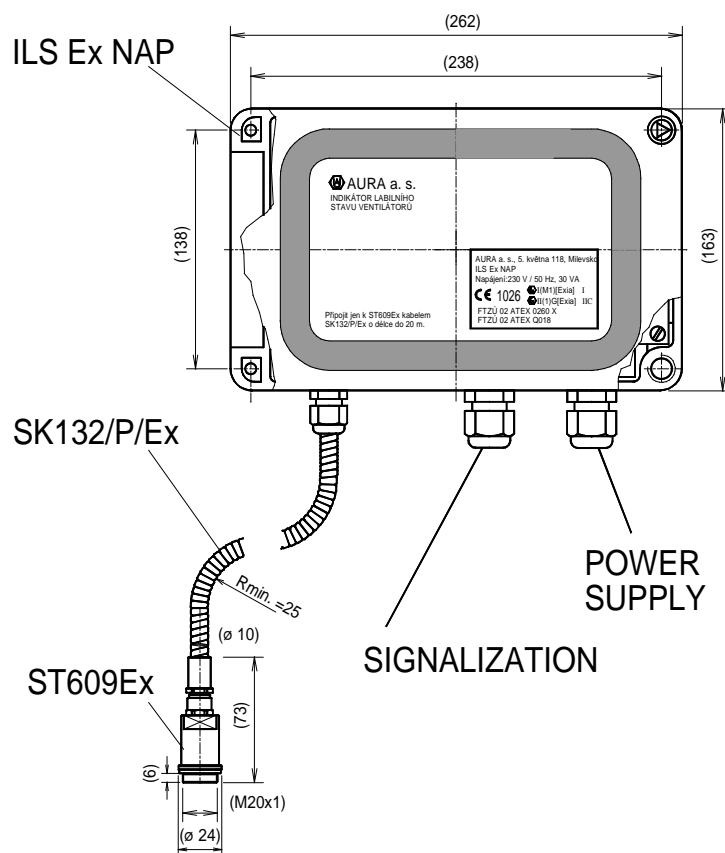


- ◆ indicates the origin of axial ventilators labile status
- ◆ indicates the ventilator's running
- ◆ permits to prevent accidents arising from the high dynamic stress of the ventilator
- ◆ permits to optimize the ventilator's running



Purpose

The indicator of ventilator's labile status ILS Ex is determined for the location and indication of axial ventilators labile status. This device consists of a measuring sensor of dynamic pressure and block of evaluation technics. The device is approbated for the environment with the explosive risk of hydrogen and methane. Is possible to place the sensor in the environment with the explosive risk of methane and hydrogen also in zone 0. The electronics has to be placed in the environment without the explosive risk.



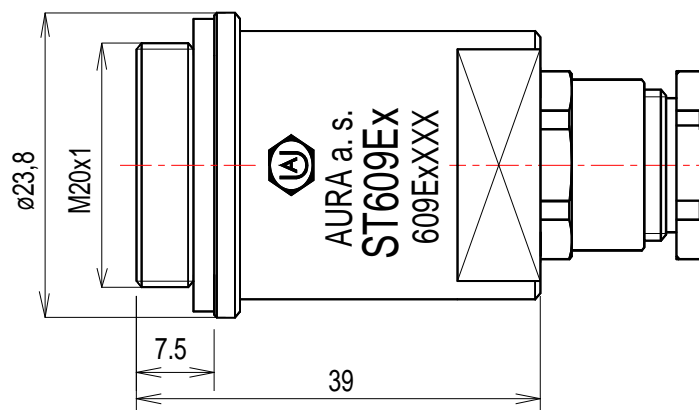
Description

The indicator of ventilator's labile status ILS Ex consists of the sensor of dynamic pressure ST609 Ex connected with the block of electronics ILS Ex NAP by the low-noise coaxial cable protected by the flexible metal tubing. The sensor transduces the dynamic pressure arising in the ventilator to a fee electric signal processed in the block of electronics.

The electronic module ILS Ex NAP modifies the signal and detects, if the flow in ventilator is in stabile state or not by means of the signal digital processing. States of ventilator are indicated by means of two control lamps. The green one "PROVOZ" indicates ventilator's running, when periodical pressure changes, caused by the passage of fan blades next door to the sensor of dynamic pressure, appear in the signal from the sensor.

The red control lamp "LABIL" then indicated the origin of irregular pressure fluctuation corresponding with an unstable flow in the ventilator. The same signals are for the remote signalization brought out on the output relay with switching contacts.

The sensor ST609Ex is a resistant piezoelectric microphone made from the stainless steel. This sensor is characterized by the high sensitivity, large dynamic range, high temperature resistance, high time stability and extensive mechanical and chemical resistance. The signal from the sensor is brought out by a low-noise teflon coaxial cable SK132/P/Ex. This cable provides a failureless transmission of the electric charge from the sensor to electronics. Flexible metal tubing protects the interior cable against the damage and seals the whole system.



Parameters		
Parameter	Unit	Note
Power supply	230 V, 50 Hz	according to ČSN IEC 38 : 1993 standard
Power input	30 VA	
Overvoltage category	III.	according to ČSN 330420 : 1998 standard
Device category	I.	according to ČSN 33 0600 : 1995 standard
Protection F1 fuse F2 fuse	1 A, tube, 5 x 20 mm T160 mA, tube, 5 x 20 mm	expansibility 30 A
Rated range of the dynamic pressure	100 Pa	
Frequency range	2 to 250 Hz	-3 dB
Max. static overpressure	100 kPa	
Output	2 x switching contact relay	
Rating of output contacts	max. 250 V, mas. 100 VA, max. 1 A	
Distance of the sensor	till 20 m	longer lengths consult with the producer, please
Certification authority	FTZÚ State Testing Institute 210, Ostrava - Radvanice	Authorized person No. 210
Number of protocol	FTZÚ 02 ATEX 0260X	
Category of spark-safe circuit	ia	according to ČSN EN 60079-11
Group (subgroup) of el. device	I IIC	according to ČSN EN 60079-0