



TR 235 ST-AS

- AS-Interface M12 connector
- Metal enclosure
- Wide range of alternative actuators
- Good resistance to oil and petroleum spirit
- 30 mm x 63,5 mm x 30 mm
- Actuator heads can be repositioned by 4 x 90°
- Mounting details to EN 50047
- AS-Interface LED and status display
- Integrated AS-Interface
- Suitable for AS-i Power24

Data

Ordering data

Note (Delivery capacity)	Not available!
EAN (European Article Number)	4030661404202
eCl@ss number, Version 9.0	27-27-06-01
eCl@ss number, Version 11.0	27-27-06-01
ETIM number, version 6.0	EC000030
ETIM number, version 7.0	EC000030

Approval - Standards

Certificates	TÜV cULus ASi-SaW EAC
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General data

Standards	IEC 61508 EN 60947-5-1 EN 62026-2 EN ISO 13849-1
Housing construction form	Norm construction design
Actuator type to DIN EN 50047	c
Enclosure material	Zink
Enclosure coating material	painted
Gross weight	195 g

General data - Features

Safety functions	Yes
Integral System Diagnostics, status	Yes
Number of auxiliary contacts	0
Number of safety contacts	2

Safety appraisal

Standards	IEC 61508
Performance level, up to	c
Control category to EN13849	1
PFH-value	1.14×10^{-6} /h
Note (PFH-value)	up to max. 100,000 switching cycles/year
Safety Integrity Level (SIL), suitable for applications in	1
Mission Time	20 Year(s)

Safety appraisal - Fault exclusion

Please note:	Einsetzbar wenn ein Fehlerausschluss für eine gefahrbringende Beschädigung der 1-kanaligen Mechanik zulässig ist und ein ausreichender Manipulationsschutz gewährleistet ist.
Performance Level, up to	d
Control category to EN13849	3
PFH-value	1.01×10^{-7} /h
Note (PFH-value)	up to max. 100,000 switching cycles/year
Safety Integrity Level (SIL), suitable for applications in	2
Mission time	20 Year(s)

Mechanical data

Actuating element	Roller plunger
Mechanical life, minimum	1,000,000 Operations
Actuating force, minimum	9 N
Positive break force, minimum	19 N
Actuating speed, maximum	1 m/s

Mechanical data - Connection technique

Terminal Connector	Connector plug M12, 5-pole, can be rotated
Material of the connector (electrical)	Metal film

Mechanical data - Dimensions

Length of sensor	30 mm
Width of sensor	30 mm
Height of sensor	106 mm

Ambient conditions

Degree of protection	IP67 to EN 60529
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Ambient temperature, minimum	-25 °C
Ambient temperature, maximum	+60 °C
Storage and transport temperature, minimum	-25 °C
Storage and transport temperature, maximum	+85 °C
Relative humidity, minimum	30 %
Relative humidity, maximum	95 %
Note (Relative humidity)	non-condensing non-icing
Resistance to vibrations to EN 60068-2-6	10 ... 150 Hz, amplitude 0.35 / 5 g
Resistance to shock	30 g / 11 ms

Ambient conditions - Insulation value

Rated insulation voltage U_i	32 VDC
Rated impulse withstand voltage U_{imp}	0.8 kV

Electrical data

Operating Current	50 mA
Switching element	Opener (NC)
Switching principle	Creep circuit element
Switching frequency	5,000 /h

Electrical data - AS Interface

AS-i Operating voltage, minimum	18 VDC
AS-i Operating voltage AS-i maximum	31.6 VDC
Note (AS-i Operating voltage)	Protection against polarity reversal

Electrical data - AS-Interface specification

AS-i Version	V 3.0
AS-i Profile	S-0.B.F.F
AS-i Input, Channel 1	Data bits DI 0 / DI 1 = dynamic code transmission
AS-i Input, Channel 2	Data bits DI 2 / DI 3 = dynamic code transmission
AS-i Outputs, DO 0 ... DO 3	No Function
AS-i Parameter bits, P0	Channel 2 switched
AS-i Parameter bits, P1 ... P3	No function
AS-i Input module address	0
Note (AS-i Input module address)	Preset to address 0, can be changed through AS-interface bus master or hand-held programming device

Status indication

Note (LED switching conditions display)	(1) LED yellow: Channel 1 / AS-i SaW Bit 0.1 (2) LED green-red (AS-i Duo LED):Supply voltage / Communication error / Slave address = 0 (3) LED yellow: Channel 2 / AS-i SaW Bit 2.3
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Pin assignment

PIN 1	AS-Interface +
PIN 2	n.c.
PIN 3	AS-Interface -
PIN 4	n.c.
PIN 5	Functional earth connection

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The details and data referred to have been carefully checked. Images may diverge from original. Further technical data can be found in the manual. Technical amendments and errors possible.

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