



Pressure switch, 3p, 25bar

Part no.

Catalog No.

Alternate Catalog No.

EL-Nummer (Norway)

MCSN16

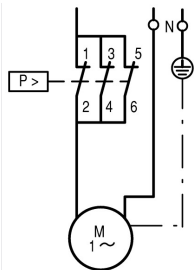
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MCSN16

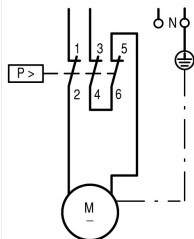
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Delivery program

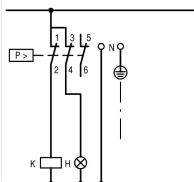
|                                                                                                                                        |     |                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------------------------------------------------------------------------------------------------------------------------------------|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Note on use                                                                                                                            |     | This product complies with Low-Voltage Directive 2014/35/EC and EMC Directive 2014/30/EC and meets the requirements in EN 60947-5-1. This product does not meet the rail industry's standard requirements. Accordingly, the user must review it separately for the specific application at hand.                                                                                                    |
| Product range                                                                                                                          |     | Pressure switches with main contacts                                                                                                                                                                                                                                                                                                                                                                |
| Degree of Protection                                                                                                                   |     | IP65                                                                                                                                                                                                                                                                                                                                                                                                |
| Number of poles                                                                                                                        |     | 3 pole                                                                                                                                                                                                                                                                                                                                                                                              |
| Cut-in pressure and cut-out pressure: separate stepless adjustment.<br>All the intersection points within the diagram area can be set. |     |                                                                                                                                                                                                                                                                                                                                                                                                     |
|                                                                                                                                        |     |                                                                                                                                                                                                                                                                                                                                                                                                     |
|                                                                                                                                        |     | Min. switching differential: 2.4 bar<br>Example:<br>Cut-out pressure 14.5 bar<br>Cut-in pressure 7.5 bar<br>Variable switching differential                                                                                                                                                                                                                                                         |
| Max. operating pressure                                                                                                                | bar | 16                                                                                                                                                                                                                                                                                                                                                                                                  |
| Notes                                                                                                                                  |     |                                                                                                                                                                                                                                                                                                                                                                                                     |
| Features                                                                                                                               |     |                                                                                                                                                                                                                                                                                                                                                                                                     |
| :                                                                                                                                      |     |                                                                                                                                                                                                                                                                                                                                                                                                     |
|                                                                                                                                        |     | <ul style="list-style-type: none"><li>With terminal cover as standard</li><li>1 insulated protective conductor terminal </li><li>1 insulated N terminal</li><li>2 cable entry knockouts for M20, without cable gland</li><li>IP65 in conjunction with V-M20 cable gland</li><li>Pressure pipe flange R 1/2"</li><li>please enquire: Pressure pipe flange R 1/4"</li><li>Neoprene membrane</li></ul> |
| R 1/4" corresponds to G 1/4                                                                                                            |     |                                                                                                                                                                                                                                                                                                                                                                                                     |
| R 1/2" corresponds to G 1/2 as per ISO 228-1                                                                                           |     |                                                                                                                                                                                                                                                                                                                                                                                                     |
| For use as a motor load switch as per IEC/EN 60947-4-1 for:                                                                            |     |                                                                                                                                                                                                                                                                                                                                                                                                     |
| Three-phase current                                                                                                                    |     |                                                                                                                                                                                                                                                                                                                                                                                                     |
|                                                                                                                                        |     |                                                                                                                                                                                                                                                                                                                                                                                                     |
| Single-phase current                                                                                                                   |     |                                                                                                                                                                                                                                                                                                                                                                                                     |



Direct current DC-3



For use as control switch:



Cut-in and cut-out pressures are factory-preset as specified with type suffix → 203948

## Technical data

### General

|                                               |                             |                   |                                                                                |
|-----------------------------------------------|-----------------------------|-------------------|--------------------------------------------------------------------------------|
| Standards                                     |                             |                   | IEC/EN 60947-4-1                                                               |
| Test pressure                                 |                             | bar               | 32                                                                             |
| Rupturing pressure                            |                             | bar               | 90                                                                             |
| Operating frequency                           | Operations/h                |                   | ≤ 1500                                                                         |
| Climatic proofing                             |                             |                   | Damp heat, constant, to IEC 60068-2-78<br>Damp heat, cyclic, to IEC 60068-2-30 |
| Ambient temperature                           |                             |                   | -25 - 70                                                                       |
| Degree of Protection                          |                             |                   | IP65                                                                           |
| Mounting position                             |                             |                   | As required                                                                    |
| Mechanical shock resistance to IEC 60068-2-27 | Half-sinusoidal shock 20 ms | g                 | > 10                                                                           |
| Vibration resistance acc. to IEC/EN 60068-2-6 | Amplitude 1 mm              | Hz                | 36                                                                             |
| lifespan                                      | Operations                  | x 10 <sup>6</sup> | 0.5                                                                            |
| Terminal capacities                           |                             | mm <sup>2</sup>   |                                                                                |
| Solid                                         |                             | mm <sup>2</sup>   | 1 x (0.75 - 2.5)<br>2 x (0.75 - 1.5)                                           |
| Flexible with ferrules to DIN 46228           |                             | mm <sup>2</sup>   | 1 x (0.5 - 1.5)<br>2 x (0.5 - 1.5)                                             |
| Terminations                                  |                             |                   | Flat terminal with clamping washer                                             |
| Terminal screw                                |                             |                   | M4                                                                             |
| Tightening torque of terminal screw           |                             | Nm                | 1.2                                                                            |

### Contacts/switching capacity

|                                       |                  |      |          |
|---------------------------------------|------------------|------|----------|
| Rated impulse withstand voltage       | U <sub>imp</sub> | V AC | 4000     |
| Rated insulation voltage              | U <sub>i</sub>   | V    | 400      |
| Overvoltage category/pollution degree |                  |      | III/3    |
| Max. short-circuit protective device  |                  |      |          |
| Fuseless                              |                  | Type | PKZM0-20 |

|                             |                              |    |      |
|-----------------------------|------------------------------|----|------|
| Fuse                        | gG/gL                        | A  | 20   |
| Type of coordination        |                              |    | 1    |
| Rated short-circuit current | I <sub>q</sub> (= Current r) | kA | 1    |
| AC-3                        |                              |    |      |
| Rated operational current   |                              |    |      |
| 230 V                       |                              | A  | 15   |
| 400 V                       |                              | A  | 11.5 |
| Rated power P               |                              |    |      |
| 230 V                       |                              | kW | 4    |
| 400 V                       |                              | kW | 5.5  |
| DC - 3                      |                              |    |      |
| Rated operational current   |                              |    |      |
| 24 V                        |                              | A  | 16   |
| 110 V                       |                              | A  | 12.5 |
| 250 V                       |                              | A  | 2    |
| Rated frequency             | f                            | Hz | 50   |

## Design verification as per IEC/EN 61439

|                                        |  |    |     |
|----------------------------------------|--|----|-----|
| Technical data for design verification |  |    |     |
| Operating ambient temperature min.     |  | °C | -25 |
| Operating ambient temperature max.     |  | °C | 70  |

## Technical data ETIM 7.0

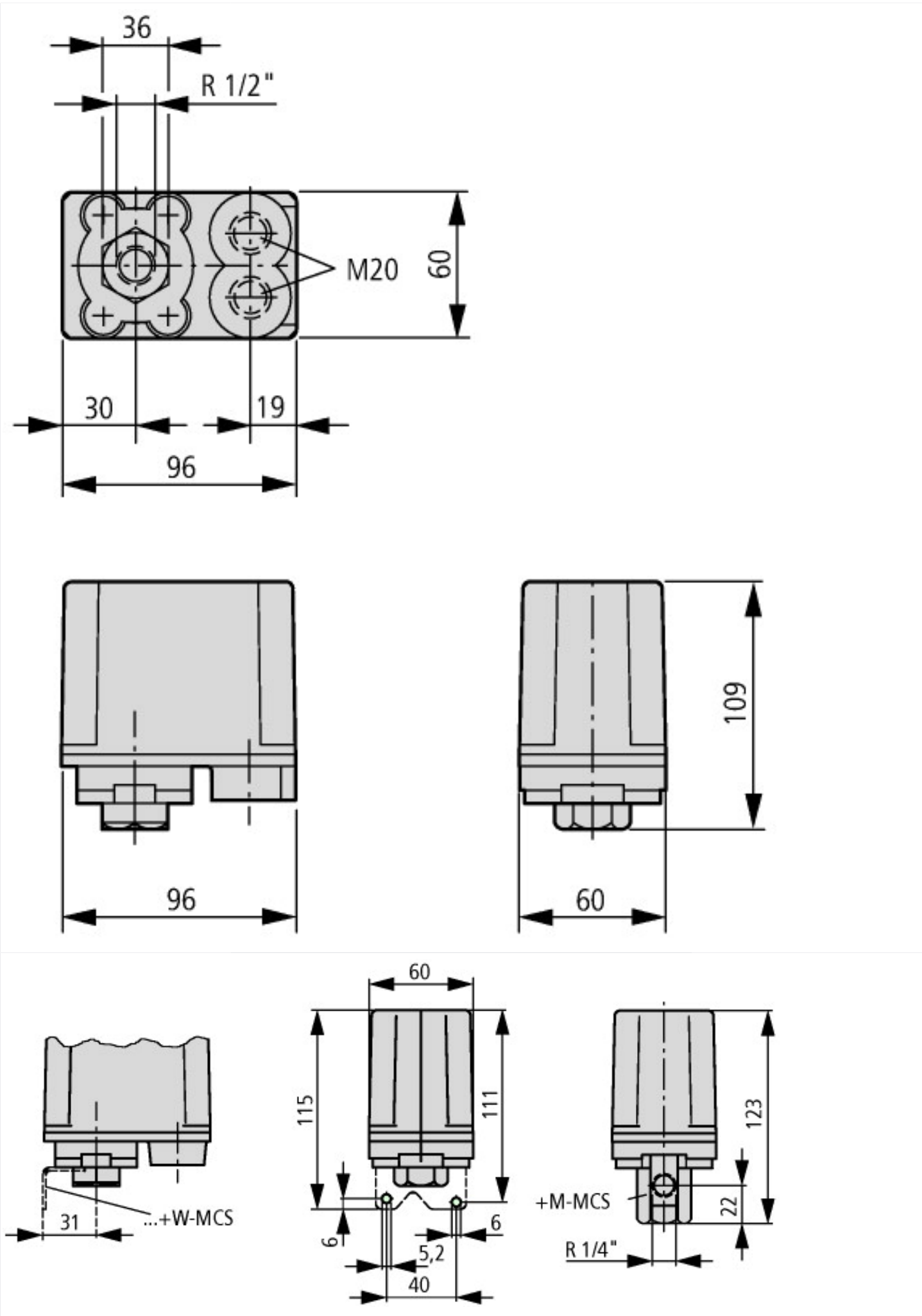
|                                                                                                                                                                                                                             |  |     |                                     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----|-------------------------------------|
| Low-voltage industrial components (EG000017) / Pressure switch (EC000243)                                                                                                                                                   |  |     |                                     |
| Electric engineering, automation, process control engineering / Low-voltage switch technology / Monitoring equipment (low-voltage switch technology) / Pressure monitoring equipment (ecI@ss10.0.1-27-37-18-14 [AKF108014]) |  |     |                                     |
| Suitable as guard                                                                                                                                                                                                           |  |     | Yes                                 |
| Suitable as 2-point controller                                                                                                                                                                                              |  |     | Yes                                 |
| Suitable as limiter                                                                                                                                                                                                         |  |     | No                                  |
| Max. operation pressure                                                                                                                                                                                                     |  | hPa | 16000                               |
| Engaging pressure                                                                                                                                                                                                           |  | bar | 0 - 13.1                            |
| Initial setting                                                                                                                                                                                                             |  | hPa | 0 - 0                               |
| Switch off pressure                                                                                                                                                                                                         |  | bar | 0 - 16                              |
| End setting                                                                                                                                                                                                                 |  | hPa | 0 - 0                               |
| Pressure-switching differential                                                                                                                                                                                             |  | bar | 0                                   |
| Max. test pressure                                                                                                                                                                                                          |  | bar | 32                                  |
| Bursting pressure                                                                                                                                                                                                           |  | bar | 90                                  |
| Medium temperature                                                                                                                                                                                                          |  | °C  | 25 - 80                             |
| Connection                                                                                                                                                                                                                  |  |     | Inner thread gas cylindrical (BSPP) |
| Thread size                                                                                                                                                                                                                 |  |     | 1/2 inch                            |
| Rated voltage U <sub>e</sub> at AC 50 Hz                                                                                                                                                                                    |  | V   | 0 - 400                             |
| Rated voltage U <sub>e</sub> at AC 60 Hz                                                                                                                                                                                    |  | V   | 0 - 400                             |
| Rated voltage U <sub>e</sub> at DC                                                                                                                                                                                          |  | V   | 0 - 250                             |
| Initial value measuring range pressure                                                                                                                                                                                      |  | Pa  | 0                                   |
| End value measuring range pressure                                                                                                                                                                                          |  | Pa  | 0                                   |
| Rated operation power at AC-3, 400 V                                                                                                                                                                                        |  | kW  | 5.5                                 |
| Switching capacity at AC-3, 240 V                                                                                                                                                                                           |  | kA  | 0                                   |
| Rated operation current I <sub>e</sub> at AC-1, 400 V                                                                                                                                                                       |  | A   | 0                                   |
| Rated operation current I <sub>e</sub> at AC-3, 400 V                                                                                                                                                                       |  | A   | 11.5                                |
| Number of auxiliary contacts as normally open contact                                                                                                                                                                       |  |     | 0                                   |
| Number of auxiliary contacts as normally closed contact                                                                                                                                                                     |  |     | 0                                   |
| Number of auxiliary contacts as change-over contact                                                                                                                                                                         |  |     | 0                                   |
| Type of electric connection                                                                                                                                                                                                 |  |     | Screw connection                    |
| Number of normally closed contacts as main contact                                                                                                                                                                          |  |     | 3                                   |
| Number of main contacts as normally open contact                                                                                                                                                                            |  |     | 0                                   |

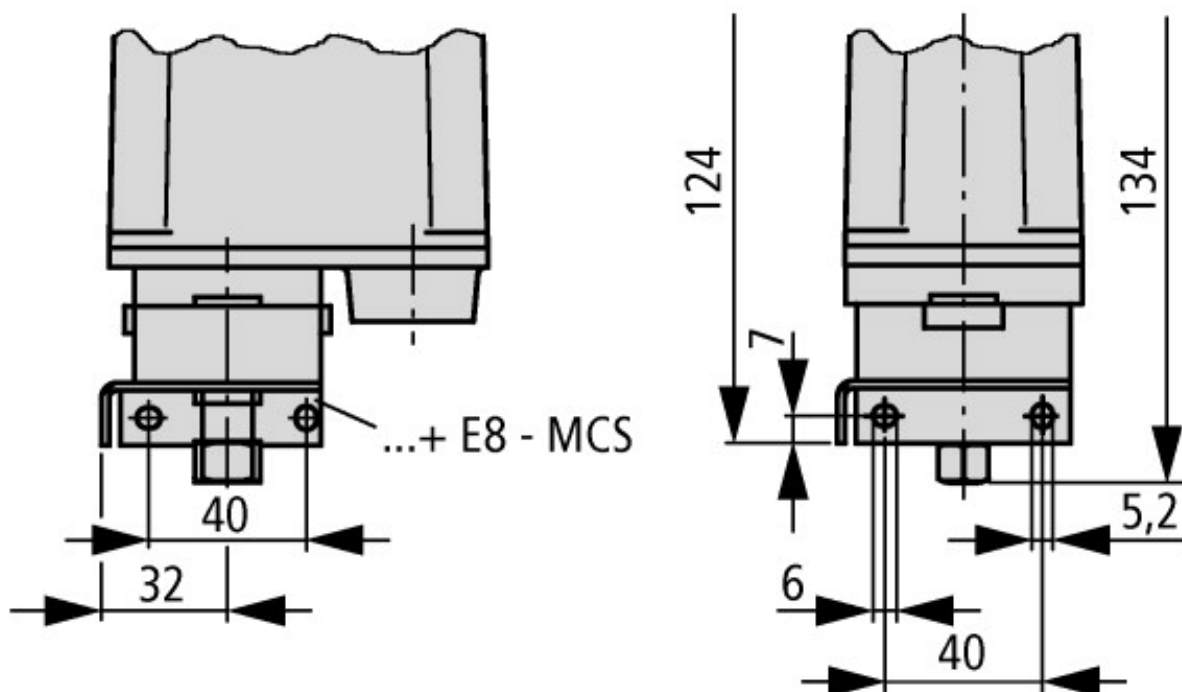
|                             |  |    |       |
|-----------------------------|--|----|-------|
| Adjustable current range    |  | A  | 0 - 0 |
| With hand operation         |  |    | No    |
| With manual on/off switch   |  |    | No    |
| Electronic version          |  |    | No    |
| With display                |  |    | No    |
| Explosion-proof             |  |    | No    |
| Degree of protection (IP)   |  |    | IP65  |
| Degree of protection (NEMA) |  |    | Other |
| Height                      |  | mm | 110   |
| Width                       |  | mm | 60    |
| Diameter                    |  | mm | 0     |
| Depth                       |  | mm | 96    |

## Approvals

|                             |  |  |                   |
|-----------------------------|--|--|-------------------|
| Product Standards           |  |  | CSA-CC22.2 No. 14 |
| CSA File No.                |  |  | 12528             |
| CSA Class No.               |  |  | 3211-06           |
| North America Certification |  |  | CSA certified     |

Dimensions





### Additional product information (links)

IL05212001Z (AWA1320-0132) Pressure switch

IL05212001Z (AWA1320-0132) Pressure switch

[https://es-assets.eaton.com/DOCUMENTATION/AWA\\_INSTRUCTIONS/IL05212001Z2020\\_10.pdf](https://es-assets.eaton.com/DOCUMENTATION/AWA_INSTRUCTIONS/IL05212001Z2020_10.pdf)